FORT LOUDOUN IN TENNESSEE: 1756-1760
History, Archaeology, Replication, Exhibits, and Interpretation

Carl Kuttruff

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FOREWORD AND ACKNOWLEDGMENTS

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A research laboratory was established on the third floor of Stadium House on the Vanderbilt University campus for storage, processing and analysis of the artifactual materials. Irene Toruella worked at this office throughout the field phase, handling much of the paperwork, numbering many of the artifacts as they came in, particularly the faunal materials, and transcribing the Clements Library microfilm of the Lyttelton papers relating to Fort Loudoun. She was assisted in many of these tasks by Patricia M. Wynn.

After the close of the fieldwork, the laboratory crew consisted of Beverly E. Bastian, Gerald Ledbetter, Penny Seabury, Jane Shoun, and Carlyle McCulloch Urello. Beverly Bastian took care of most of the original cataloging of the artifacts, the analysis of the Chinese and English ceramics, and the preliminary analyses of the buttons and buckles. Penny Seabury, Jane Shoun and Gerald Ledbetter sorted most of the materials into their respective categories, and Gerald Ledbetter carried out all of the electrolysis and cleaning of the metal artifacts. Steve Rogers of the Tennessee Historical Commission was instrumental in setting up the electrolysis unit and advising about other methods of cleaning and stabilizing the metal artifacts. William O. Autry did the preliminary sort of the Cherokee and prehistoric ceramics, and Victoria L. Williams did the original sorting and counting of the lithic materials that were recovered. Emanuel Breitberg analyzed the faunal remains, and Tracey Brown, University of Tennessee, analyzed the human skeletal remains. Carlyle McCulloch Urello made all of the artifact illustrations. Dennis Rule spent a considerable amount of time copying the original field drawings into large detailed working sheets of the excavations.

The original draft of several of the chapters was typed by Sue Cardwell of the Division of Archaeology. Only because of the enthusiasm and good graces of the Bennett Graham of the Archaeology Section of TVA was the bulk of the text entered onto Dictaphone word processing discs that were compatible with the ones in the Department of Conservation. That work was done most carefully by Susan E. Hughes, Supervisor, Word Processing Section, Division of Land and forest Resources, and her staff at TVA. Diane Bouska of the Division of Archaeology set up many of the tables, and made numerous corrections to the text and entered additional text. Likewise Teresa Godsey continued to update and correct portions of the manuscript, as did Mary Beth Trubit, who also provided instruction and assistance to this writer in learning to use the Dictaphone word processor. Once again in the early 1990s, Bennett Graham provided the support of TVA in scanning most of the typed manuscript to an updated word processing program. This work was diligently and carefully done by Sherri Braly of the TVA office in Mussel Shoals.

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Carl Kuttruff

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CHAPTER 1

INTRODUCTION

Fort Loudoun (40MR1) is located in East Tennessee, on the south side of the Little Tennessee River about four miles east of Vonore, Tennessee. The fort is directly across the river from the Tellico Blockhouse (40MR50) and the confluence of Nine Mile Creek and the Little Tennessee River. Figure 1 shows the location of the fort in relation to selected prehistoric sites, Cherokee towns, and historic sites, as well as present-day towns. The fort is situated in part on and near the end of a low ridge of limestone and clay that ends at the riverbank in a steep limestone outcrop. The lower part of the fort is situated on the second terrace above the river that extends over a large area to the south and southwest of the fort. The portion of the fort that was named Fort Glen, a hornwork on the river side of the fort, was partially constructed on the second terrace, and partially on a small strip of first terrace that is along the river on the east side of the fort (see Figures 2, 3, and 4).

The Cherokee Village of Tuskegee (40MR4 and 40MR24) was situated to the south of Fort Loudoun, primarily on the second terrace, and spread out over most of the bottom between the fort and the next ridge system to the south or upstream (see Chapter 7 and Figure 108). The Icehouse Bottom site (40MR23) is located at the southern end of the first terrace, and 40MR64, a prehistoric and Cherokee component is located about midway between the Icehouse Bottom site and Fort Loudoun on the first terrace (Figures 1 and 108). The prehistoric Patrick Site (40MR40) is located at the northern end of Thirty Acre Island just east of and across the river from Fort Loudoun (Figure 1).

Methodology

Prior to the 1975-1976 excavations the site was staked off in a 20 meter grid by a TVA survey crew. A true north-south base line was established 180 meters west of the west curtain of the Southwest Bastion of the fort and an east-west base line was established 160 meters south of the south curtain of the Southeast Bastion of the fort. All grid designations were made from a North 000 East 000 point at the southwest corner of this 20 meter grid system (Figure 5). All squares that were excavated were designated by the southwest corner coordinates (for example, N150/E210) and coordinates for the features and other finds were measured to the nearest centimeter (for example, N150.52/E210.25) at the center point of the feature, with the exception of the several long linear features, such as palisade trenches. The basic unit of excavation within the fort and in areas that were hand-excavated on the exterior of the fort was a two-meter square, and in some few instances some smaller subdivision of the two-meter square. Excavation levels within squares were excavated in arbitrary 10 or 20 centimeter levels unless there was some natural or cultural stratigraphy that could be followed. Several permanent transit stations were established within the fort. Prior to excavation, the elevation of all four corners of a given square were determined to the nearest centimeter above mean sea level. Square level forms were filled out by the excavators for each level excavated, and plans of the base of each level were drawn unless there was absolutely no need to do so. Stadia elevations were taken from the four corners of the base of each level excavated. Excavation levels were designated by letters starting from the top down. For the long linear features, they were excavated in two-meter sections corresponding to the established grid, and the recovered materials were bagged by feature and square designation. The overall plan of the excavations are shown in Figure 6. Detailed maps of the excavations are presented as Figures 6A and 6B.

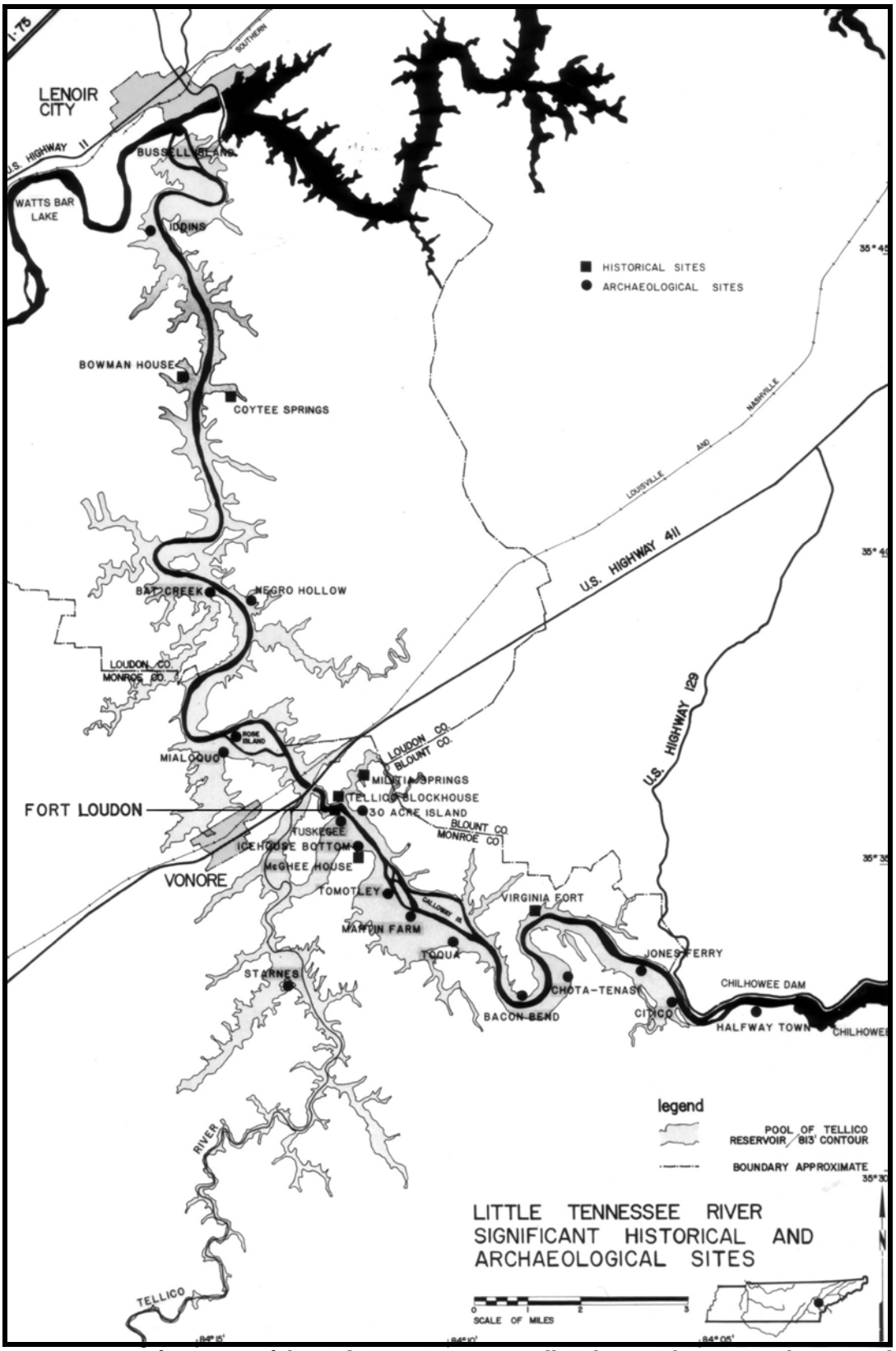

Figure 1. Map of a portion of the Little Tennessee River valley showing the major prehistoric and historic archaeological sites. Adapted from Tennessee Valley Authority and United States Department of the Interior (1978) *Alternatives for Completing the Tellico Project.*

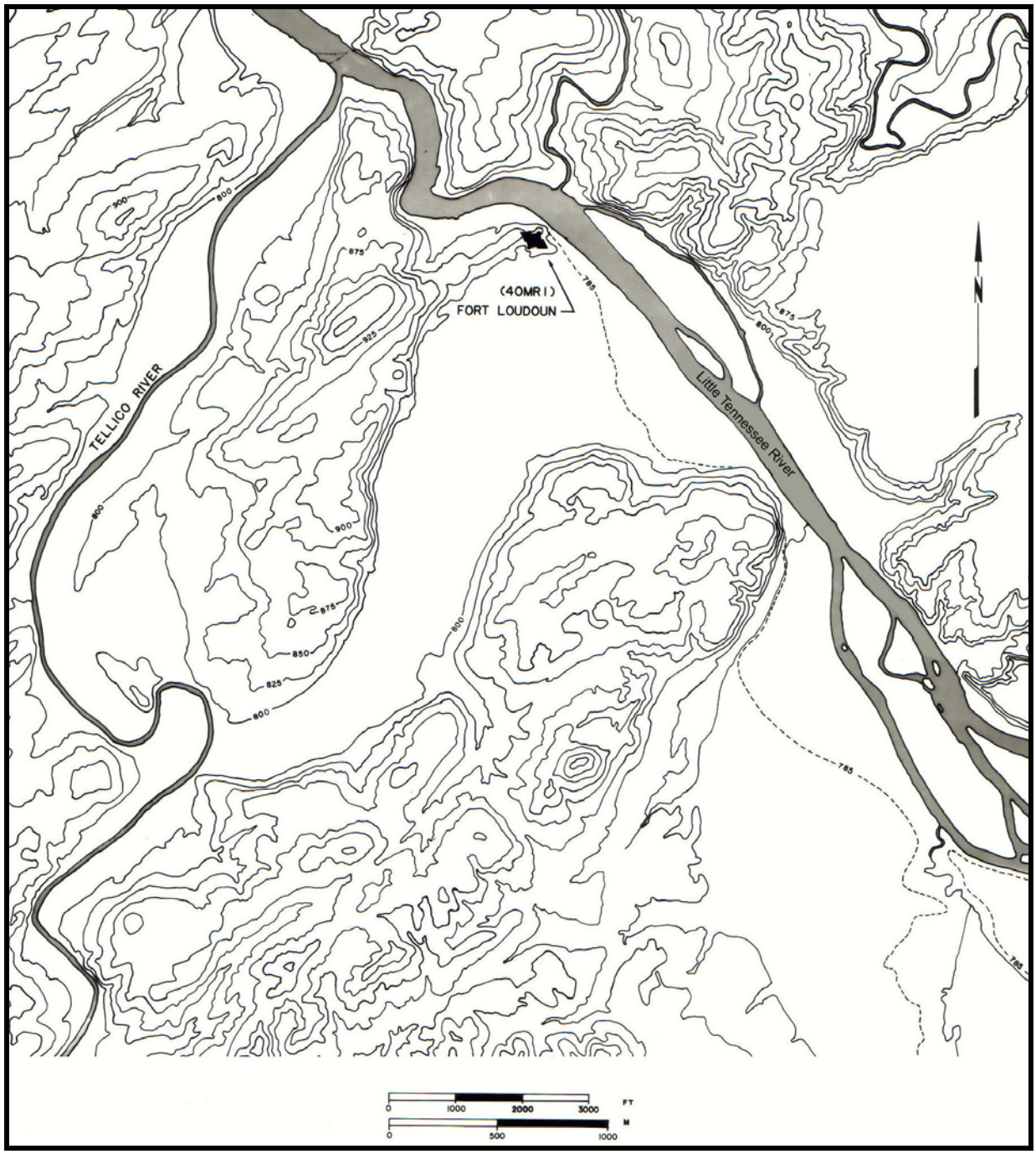

Figure 2. Topographic map of a portion of the Little Tennessee River covering the same area as the DeBrahm map shown in Figure 3. Adapted from TVA Vonore, Tennessee 3.75 minute quadrangle.

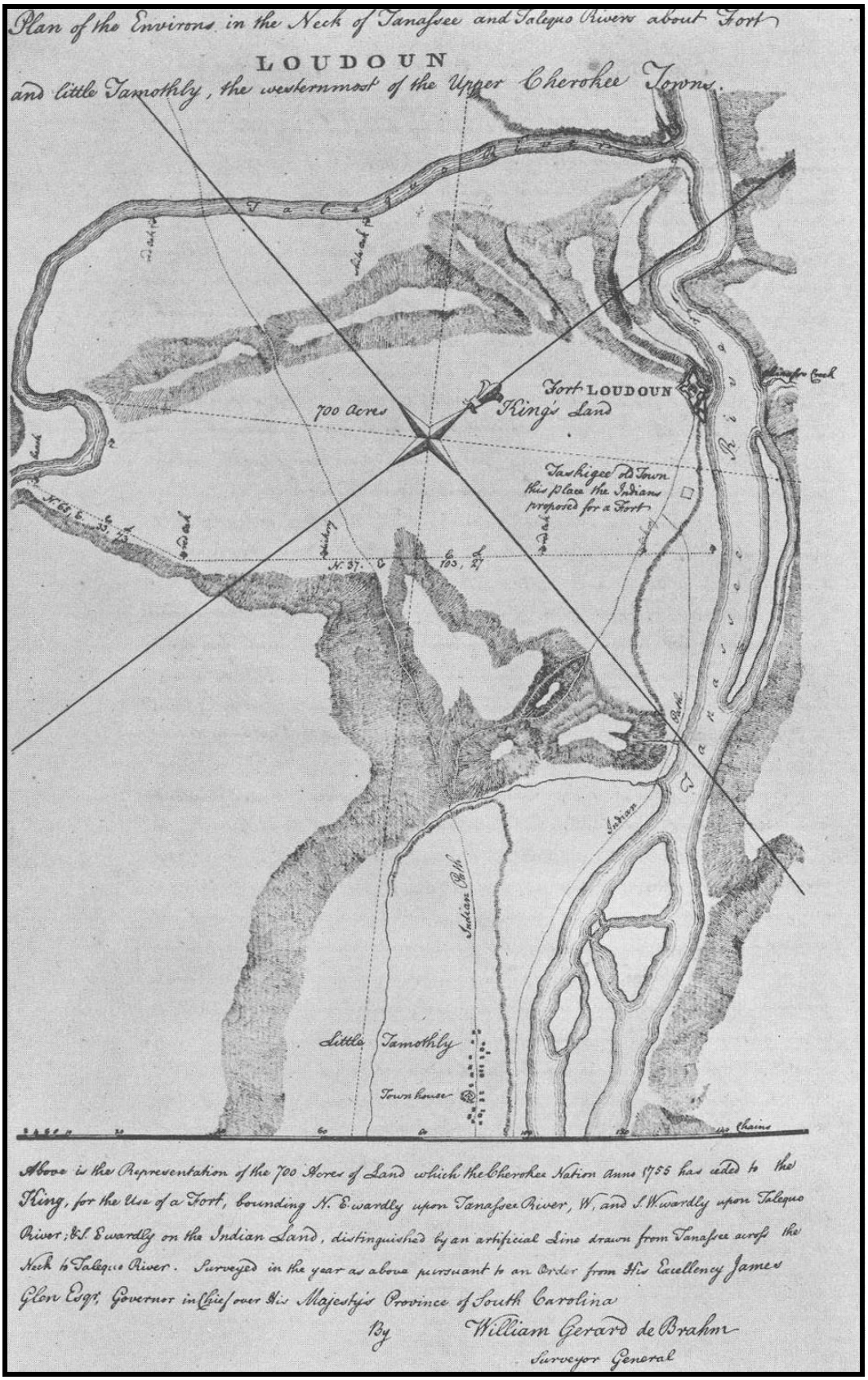

Figure 3. DeBrahm "Plan of the Environs in the Neck of Tennessee and Talequo Rivers about Fort Loudoun, and Little Tamothly, the westernmost of the Upper Cherokee Towns." Kings MSS. 210 F. 23. Published courtesy of the British Museum.

Figure 4. Oblique aerial view of Fort Loudoun taken early fall, 1975. View is to the northwest, looking downstream. The reconstructed palisade line can be seen, as well as the powder magazine in the Northwest Bastion. The 1975 excavations in the ditch and parapet of the Southeast Bastion, as well as the excavations inside the Southeast Bastion are also visible. Photograph courtesy Tennessee Valley Authority (GR-75178).

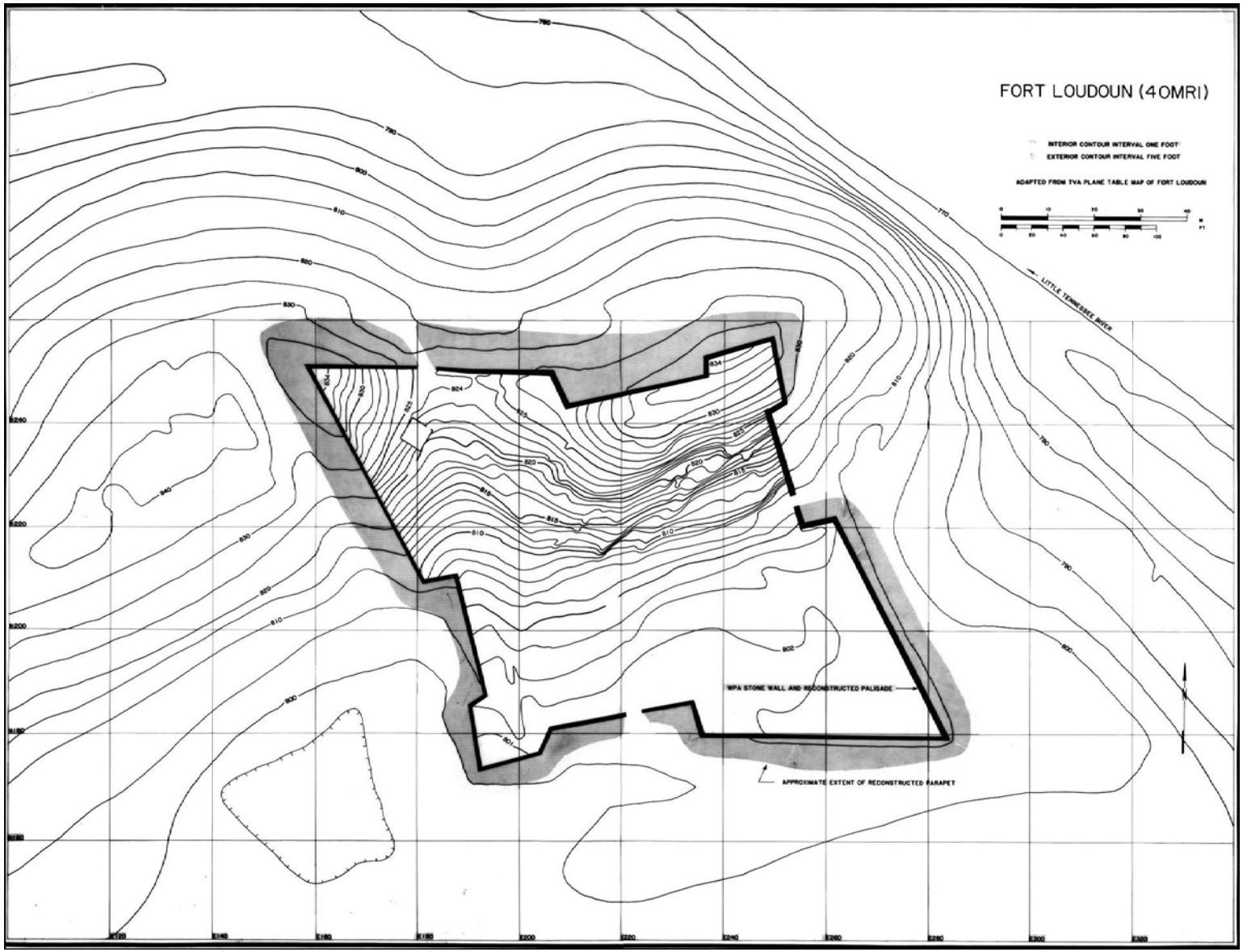

Figure 5. Contour map of Fort Loudoun adapted from Tennessee Valley Authority contour map made prior to the excavations. Also shown is the 20 meter grid system used for the excavations.

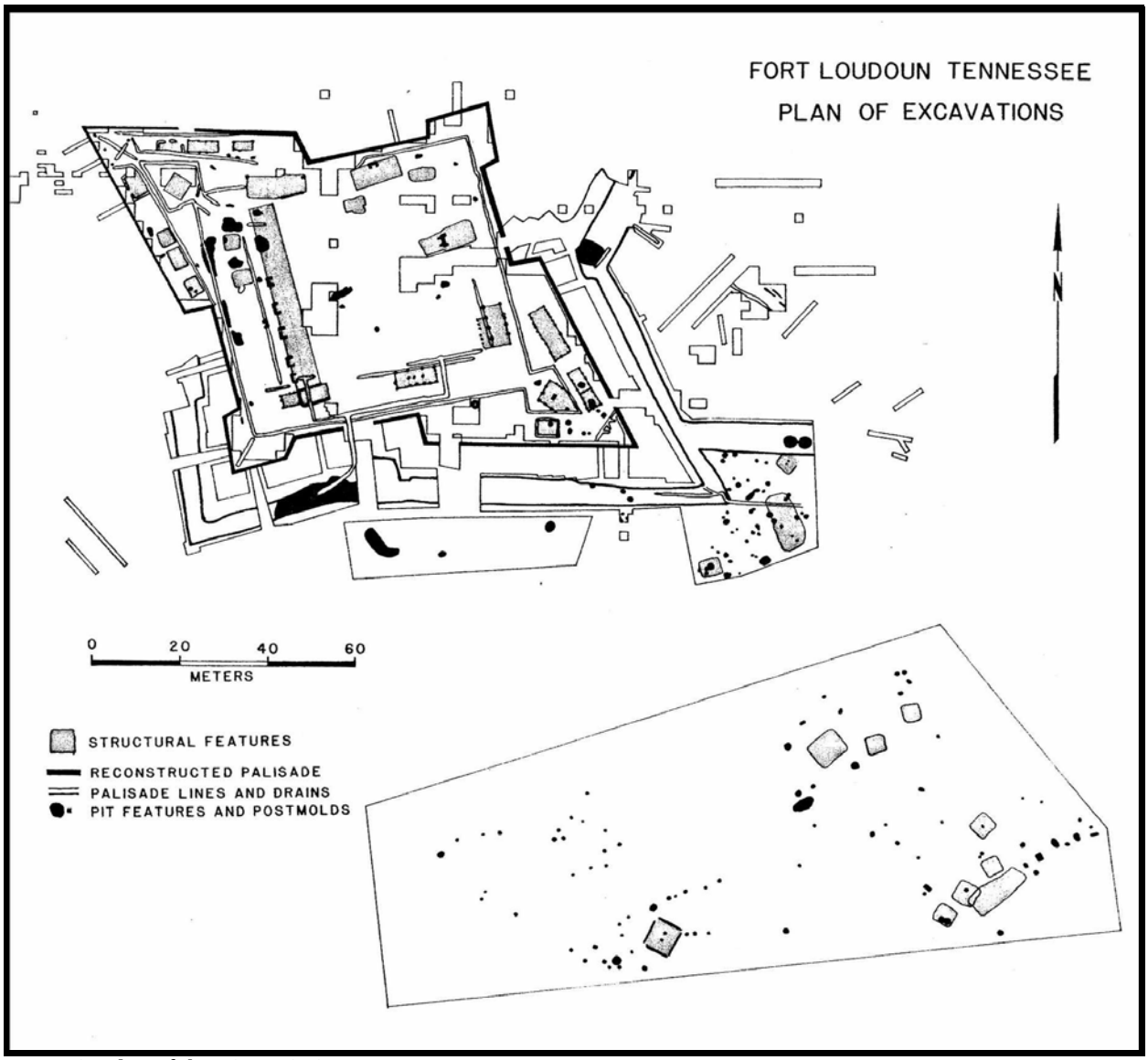

Figure 6. Plan of the 1975-1976 excavations.

All artifacts recovered from a given level were bagged together and designated by the square and level. This designation (e.g., N150/E210 A) was then used as the catalogue number that was placed on the materials recovered, in addition to the site number (40MR1) and a general Tennessee Division of Archaeology accession number (76.6). This system provided a numbering system for the artifacts that allowed for simple determination of the location from which the particular artifact came without having to refer to a general catalogue. Because of the quantities of materials that were involved, this was felt to be a necessary expedient and one that was very useful during the analysis of the materials.

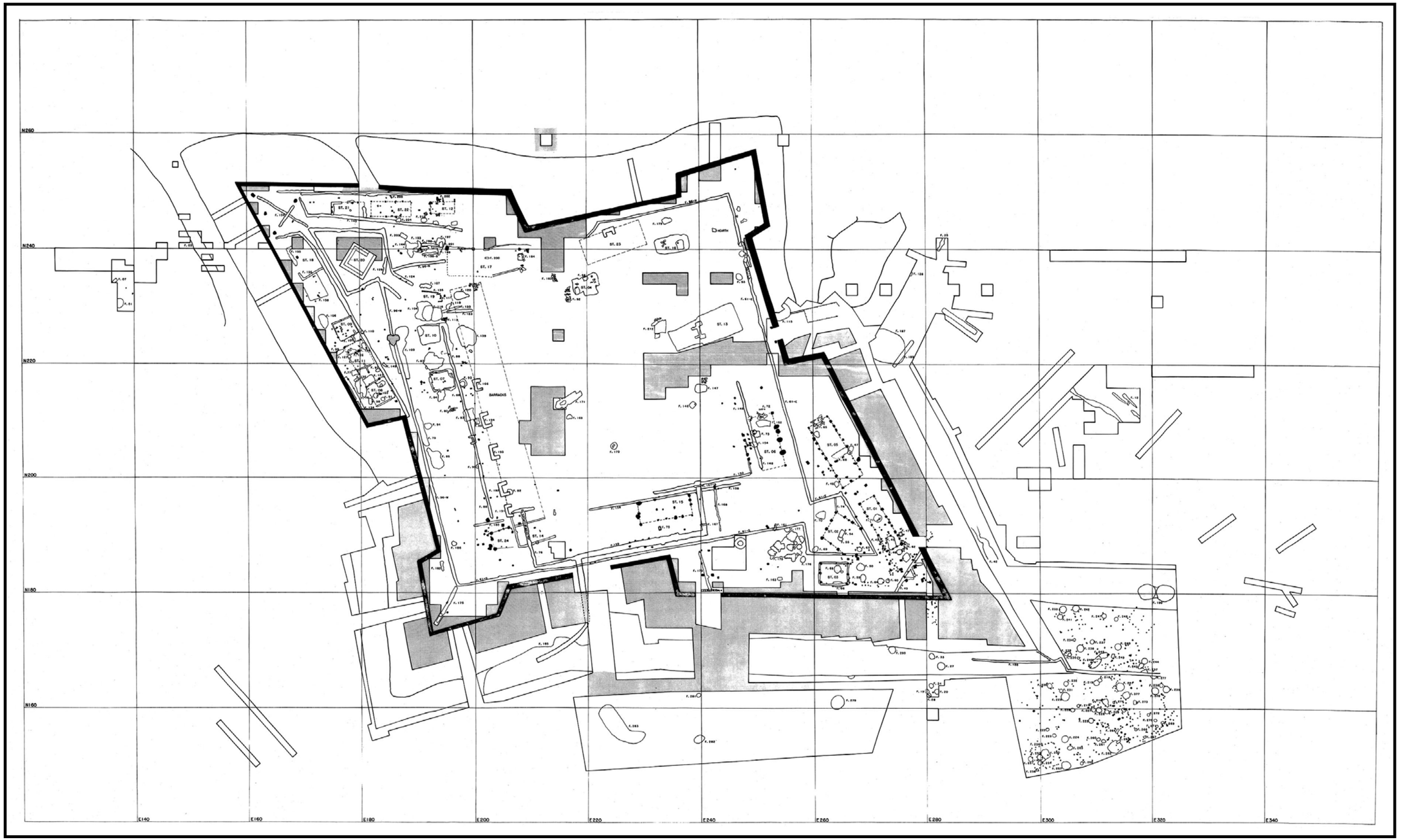

Figure 6A. Plan of 1975-1976 excavations of Fort Loudoun.

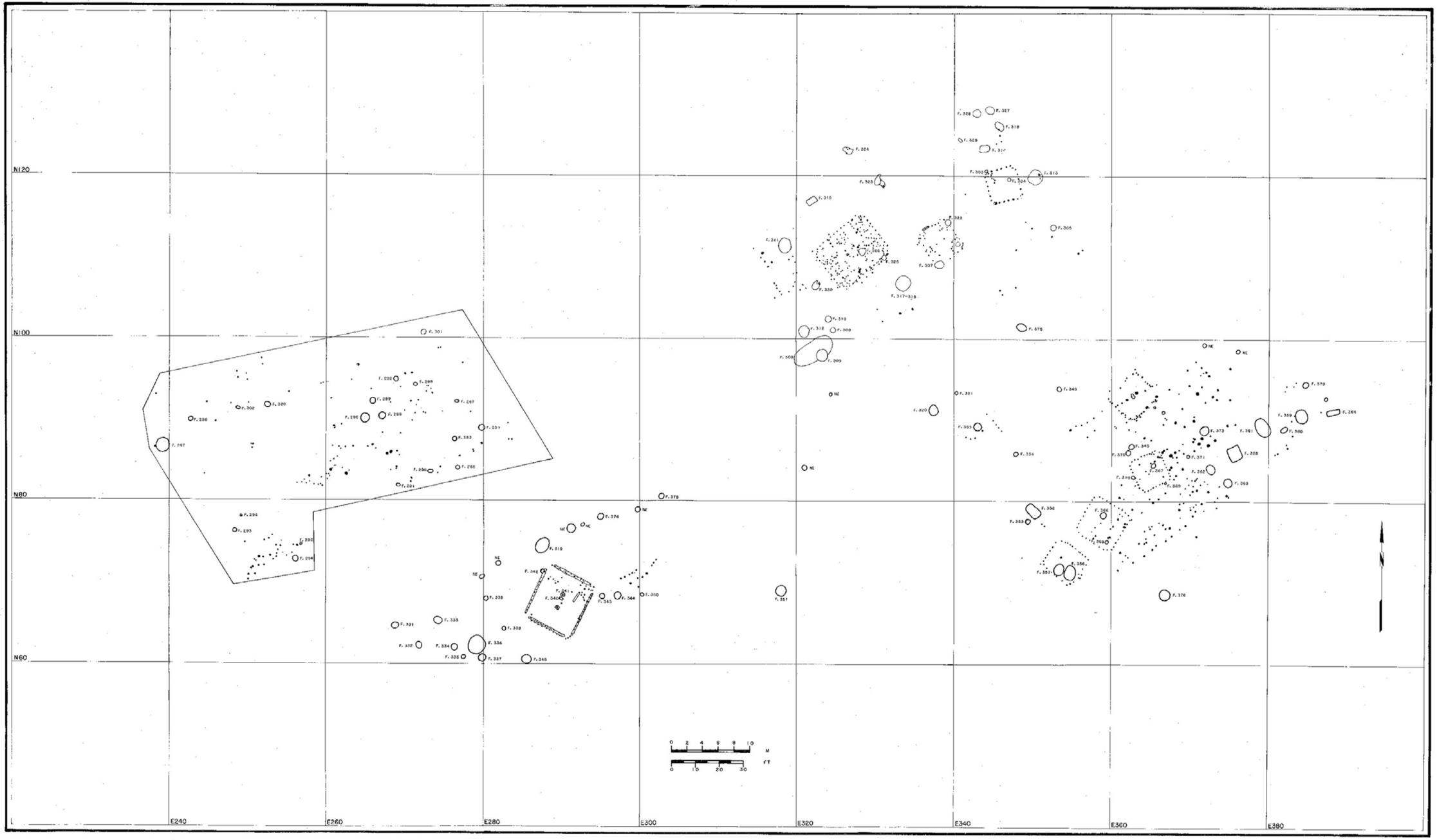

Figure 6B: Plan of 1975-1976 excavations south of Fort Loudoun.

Artifact Analysis

At the outset several things must be considered in relation to the analysis of the artifacts. The previous archaeological work done at the fort is outlined in Chapter 3 or referenced so as to present as completely as possible the previous disturbances and the background with which to assess the information gained from the last excavations. The artifacts that have been included, in addition to the ones recovered in the 1975-1976 excavation in this study, consist of all that were available from the WPA excavations (McClung Museum Collection), the Kunkel and Brown excavations (Fort Loudoun Association Collection), and others in the Fort Loudoun Museum considered to have been from the fort and from the period of occupation. There was no real effort made to correlate the totals of the previous excavations from the several catalogues. Only those items which were currently available were studied and included in the tabulations and descriptions. In a few cases, though, the totals of various artifacts that were presented by Kunkel (1960 and 1961) for specific features and the like were included in the totals listed with those features in Chapter 6.

For the various distributions of materials that are presented in the several sections of this report dealing with artifacts, several assumptions were made. First, it was assumed that the earlier WPA work in the fort (see Chapter 3 and Figure 27), which disturbed perhaps 1250 square meters, or about 11 percent of the fort interior, had relatively little effect on the overall distribution of the artifacts, with the possible exception of the area of the powder magazine (Structure 20), which was heavily disturbed, and the Barracks area, which was also heavily disturbed along the row of chimneys. It was assumed that the excavated earth from those excavations, shown piled along the edges of the trenches (see Figures 25 and 26) was put back into the trenches in roughly the same area from which they derived, and thus the lateral displacement of materials was minimized. The work done along the outer wall in preparation for the construction of the stone wall did, however, displace the materials from the immediate wall area to the reconstructed parapet. In the two areas where materials from the parapet were systematically recorded in 1975 in the hand-dug trenches on the east and south walls of the Southeast Bastion, these materials are believed to have derived from along the line of the outer wall.

One area where the distribution was probably significantly modified by the WPA work was along the southern half of the Barracks where the WPA excavations did open up a large area (see Figures 95 and 97), and where there is an apparent discontinuity in the artifact distribution of some classes of artifacts. Emphasizing this to some degree, there is some disparity between the quantities of certain artifacts that were recovered by the WPA excavations, and those that were recorded by the 1975-1976 project. Of particular note, and those which may be attributed to the barracks area, by way of explanation, are nails. Of the 8,702 nails in all of the collections, only 1,922 were from the WPA collection. It is assumed that the majority of these probably came from the barracks, and if it can be assumed that this building was being built as a permanent structure, one might expect more nails to have been utilized in that sort of structure than in the temporary buildings.

The materials from the Kunkel and Brown excavations were well documented and much easier to correlate with the current material. Kunkel's excavation plan (Figure 33) was superimposed over the 1975-1976 grid system and the center points of his various squares, features, and other collection units were then determined. Materials from those units were then assigned to the 1975-1976 two-meter square within which the center point fell. Depending on the given unit, this may have shifted the location of the materials about one meter, or maybe two at the most, but was the most practical and expedient method of correlating the two collections, while not altering the distribution an unnecessary amount.

In the tabular presentation of the artifacts by unit in later chapters, all materials that could be assigned to a given square, feature, or structure are so listed according to the 1975-1976 grid system. All of the other materials derived from the fort and described in the various sections, and which for various reasons could not be assigned to a specific provenience, have been grouped into a "No Provenience" category. This category includes the WPA materials, those in the Fort Loudoun Museum collection, and some from the Kunkel and Tennessee Division of Archaeology excavation with unknown or lost proveniences.

For the purposes of assigning artifacts to structures for the discussions in the text, all squares that were within the limits of a building, as well as those squares which adjoined the structure, have been utilized for those comparisons. In the case of the well bounded structures, such as those that were in pits or basins; this is less of a problem, but in several of the other structures which were only recognized after large areas were opened, and defined only by the post mold pattern, such as Structures 1, 2, 3, 6, 15, etc., this assignment

of artifacts on the basis of interior space only is somewhat more difficult. This is also compounded somewhat with several of these buildings where the buildings and the grid system were not aligned. It was therefore decided to use the adjoining squares and particularly those touching the structures for the analysis, on the assumption that the materials may have been scattered to some degree by post occupation forces, such as plowing and the WPA work.

Contemporary Maps and Accounts of Fort Loudoun

There is a great deal of documentation available relating to the construction and occupation of the fort and related events associated with its occupation. The sources of primary documentation that have been useful, and in some cases critical to this study, are summarized in the References Cited section of this report. The purpose of this section, however, is to describe several of the more important documents that relate directly to the interpretation and description of the archaeological features recovered by this project. For the interpretation of the various archaeological features that are discussed in detail in later sections of this report, and for description of the fort at various times during its occupation, several documents are particularly important.

Three contemporary plans of Fort Loudoun are currently known and available and two accounts that describe, respectively, the initial laying out of the fort and the appearance of the fort several months after construction began. In addition to these specific documents, which are discussed in more detail below, there are numerous references to certain features, buildings, and the like scattered throughout the available documentation. These other references are sometimes specific, but more generally somewhat vague, yet intriguing, and often frustrating. But, even as they are, they do as a whole impart a great deal of very useful information. These references and descriptions have been used extensively throughout the remainder of this report, where they refer to specific features, events, or in some cases individual artifacts or categories of artifacts, subsistence, and such. Also discussed below are several other documents that are mentioned in the currently available materials that have not yet been located and which may or may not now exist. Other individuals have searched for some of these documents without success, and reasonable searches for this material by this author have likewise been unsuccessful, although, extensive research in several important archives has not been carried out.

The three contemporary plans of the fort presently known and available have all been attributed to William Gerard DeBrahm (see DeVorsey 1971:3-59 and Cumming 1958:54-55 for biographies of DeBrahm). These three plans of the fort are in addition to the "Plan of the Environs in the Neck of Tanassee and Talequo Rivers about Fort Loudoun and little Tamothly, the westernmost of the Upper Cherokee Towns" mentioned earlier in this chapter (Figure 3). Two of the maps are quite similar, and only reflect a few minor differences, which might be expected from producing a copy of a given map by hand. Both of these maps are contained, along with the above-mentioned "Plan of the Environs," in parts of two copies of DeBrahm's *Report of the General Survey in the Southern District of North America*. Completed in 1772, these two copies are located in the British Museum in London and the Harvard Library in Cambridge, Massachusetts. The British Library copy of this General Survey has been published by DeVorsey (1971), and accounts relative to South Carolina were previously published in *Documents Connected With the History of South Carolina* (Weston 1856). Morrison (1924) reprinted the DeBrahm account in 1924 as it was presented in Weston's volume. Williams published the Harvard account in *Early Travels in the Tennessee Country* (Williams 1928:187-194). These accounts are quoted extensively below and in other parts of this report, since in addition to providing certain details, they also present DeBrahm's side of the controversy between him and Raymond Demere.

Figure 7 is reproduced from the manuscript copy that is in the King's Manuscript Collection of the British Library in London. The Harvard copy is not reproduced here but has been previously published by Williams (1928:187). The originals of these maps were produced after the occupation of Fort Loudoun and were included in the manuscripts discussed above (Cummings 1958:247 and 249; De Vorsey 1971:44-47).

The other available map (Figure 8) is a plan in the Henry E. Huntington Library and Art Gallery in San Marino, California, and contained in a large collection of papers of Lord Loudoun. This map has been dated to 1757 (Black 1961:2-3 and Cumming 1958:227) and was probably done either just before DeBrahm left Fort Loudoun on December 24, 1756, or shortly after he returned to Charleston. It is possible that this map was prepared to be sent to Raymond Demere with DeBrahm's final December, 1756, instructions for the

completion of the fort, even though Demere does not mention a map being included in those instructions. Nor does Demere mention a map in the letter with which he enclosed DeBrahm's instructions when he sent them to Governor Lyttelton on December 23, 1756 (R. Demere to Lyttelton December 23, 1756, SCIA:284). This map was probably submitted to Governor Lyttelton and perhaps to the South Carolina Council by DeBrahm in defense of his actions when he appeared before that Council after his return to Charlestown. This map is probably also the one referred to in a letter of February 19, 1757, from Lyttelton to Lord Loudoun, where he states:

> ...I will very soon send your Lordship a Plan of it [Fort Loudoun] and I hope it will appear to have some merit, but I must ask your Lordship's forgiveness for having ventured to give your name to it. (Lyttelton to Loudoun, February 19, 1757, SCIA).

However, in a letter dated April 11, 1757, Raymond Demere does allude to what may have been a drawing submitted to him by DeBrahm with the final instructions:

> In respect to the Barracks, your Excellency left that to me; they were not inserted in Mr. Debrham's Plan and he said he would have nothing to do with them (R. Demere to Lyttelton, April 11, 1757. SCIA:366).

This seems to verified by a letter of Demere on May 18th, where he states:

> As Lieut. Gray goes to Charles Town I refer him to inform your Excellency with all other Particulars relating to the Fort &c. I send enclosed Mr. DeBrahm's false plan of Fort Loudoun; perhaps your Excellency may have Occasion for it (R. Demere to Lyttelton, May 18, 1757, SCIA:377).

If, in fact, the map that Lyttelton referred to earlier and the one that Demere sent to Lyttelton with Lieut. Grey were different plans, then they are most probably very similar, possibly just being two copies of the same map. Neither of these two versions of the plan of Fort Loudoun depicts the fort as it was at any given point in time. They appear to be, in part, projections of what was to have been constructed, or a compilation of other features that were, in fact, constructed at various times during the occupation. Neither, of course, is nearly complete with respect to the structures that were actually constructed and their locations, for example. In a number of respects, however, they are accurate depictions of many of the main features of the fort as they were constructed (see Figures 6, 6A, and 6B). The ditch and parapet, the outer line of fortification, the inner palisade, the powder magazine (shown only on the later version), the blacksmith shop, the corn house and storehouse (shown only on the earlier version), and at least two of the gates do correspond very well with the archaeological evidence. The excavated ditch on the eastern side of the fort, as it was defined, seems to conform to the later version of the plan. Likewise, the work that was done in the Fort Glen area seems to conform more closely to the earlier version of the map. These examples are very general at this point, but the details of these remains as they were defined archaeologically and how they correspond to the maps as well as the available written descriptions are discussed in those chapters of this report that specifically deal with those features.

There are several other possible maps and plans mentioned in the correspondence that have never been located. Of particular interest is a plan of Fort Loudoun that Governor Lyttelton forwarded to the Lords Commissioners of Trade and Plantations in London, enclosed with a letter of July 12, 1757, where Lyttelton stated:

> Fort Loudoun, which is the name given to the new Fort in the Upper Cherokee Nation is finished and of which I inclose to your Lordships a plan (Lyttelton to Board of Trade, July 12, 1757, BPRO)

Searches for this plan initiated in 1931 by Mr. Hugh Van Deventer of the Fort Loudoun Association and again by Colonel Claude Black, also of the Fort Loudoun Association, in 1960, failed to locate this map. Searches at those times included the maps of the Colonial Office, War and Navy Departments, the Treasury, Board of Trade Office, the British Public Record Office and the British Museum (Black 1961:4-8). This map is quite possibly either the map referred to above by Demere on May 18 and forwarded to Lyttelton by Lieutenant Gray, or a copy of the same, and would probably be quite similar to the Huntington version.

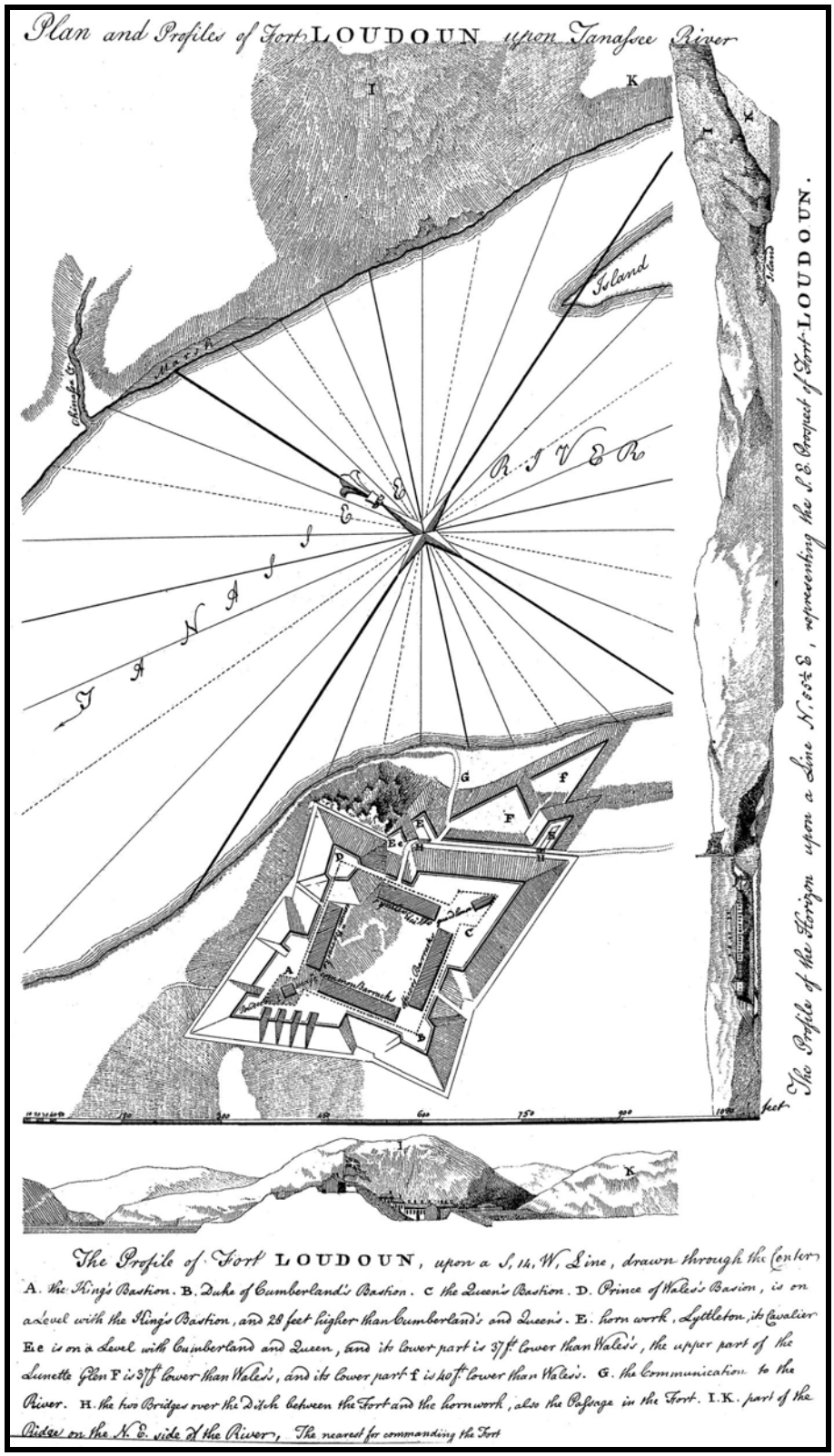

Figure 7. "Plan and Profiles of Fort Loudoun upon Tanassee River." British Library copy of DeBrahm's plan of Fort Loudoun contained in his *Report of the General Survey of the Southern District of North America* (1772). Kings MSS. 210 F. 27. Published by permission of the British Library.

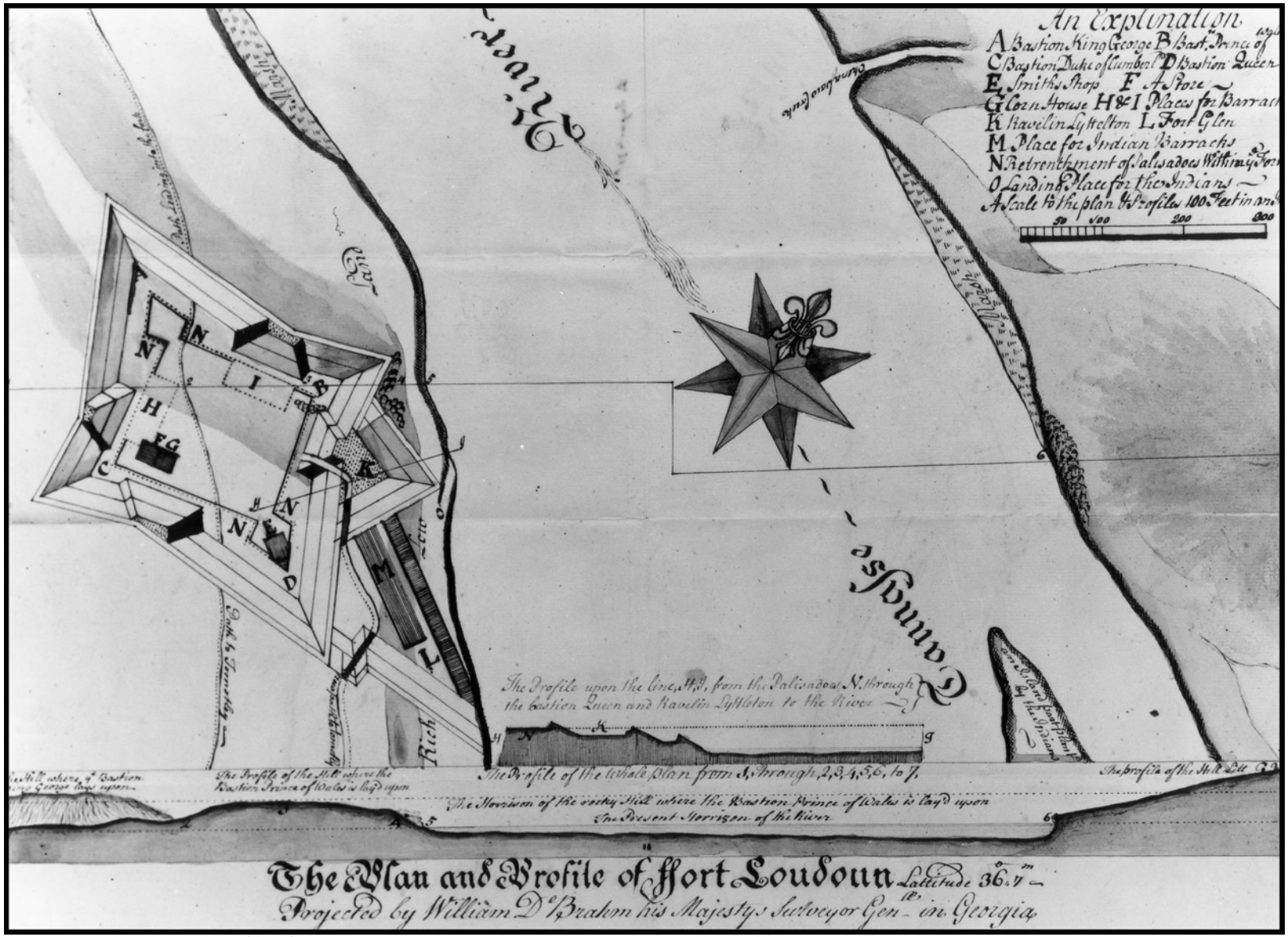

Figure 8. "The Plan and Profile of Fort Loudoun Lattitude 36 degrees 7" Projected by William DeBrahm and his Majestys Surveyor General in Georgia" (1757). Published by permission of the Henry E. Huntington Library and Art Gallery.

There were apparently two additional fort plans sent by Raymond Demere to Lyttelton. On March 1, 1757, Demere wrote to Lyttelton:

> I inclose to you two Plans done by Lieutenant Gray. A fort built agreeable to either one of them would have answered every intended Purpose and have saved a most considerable Expence to the Province. I would recommend the square Fort, though there is a most beautiful Situation for either of the Plans in about a Quarter of a Mile of this Fort (R. Demere to Lyttelton, March 1, 1757, SCIA:346-347).

These have never been located, and while they would probably not have been depictions of Fort Loudoun as it was finally constructed and would have possibly been quite different since they were alternate recommendations for what was then being constructed, they would be quite useful for interpreting the style of fortifications at this time. One might also reasonably assume that they may have contained a lot of detail about interior structures and the like, since they were being sent to Lyttelton in a context that appeared to have been designed to justify Demere's criticism of DeBrahm and to present DeBrahm's work at Fort Loudoun in a rather poor light. The place referred to as a quarter of a mile away corresponds to the original spot chosen for the fort by Pearson and the Indians and indicated on DeBrahm's Plan of the Environs (see Figure 3).

One other tantalizing plan is mentioned in the correspondence. This is a reference to a plan sent to Lyttelton by Paul Demere, and consists of a plan of the guardhouse, which had only been recently completed at the time of the letter, which in part stated: "I send your Excellency a Draught of the Guard House" (Paul Demere to Lyttelton, November 24, 1757, SCIA:418). If located, this map would be extremely useful for the interpretation and reconstruction of this building. One final plan, contained in the Lyttelton Papers of the Clements Library, which is not reproduced here, is a plan of a proposal for a log tower to be constructed in the fort in early 1759.

> I have Inclosed Your Excellcy a plan of a Tower drwon by the Carpenter which will be of Great Service to this Fort, if Attacked, as it will contain all the men, Over look every part of the Fort, besides the Conviency of Stores & a Magazine that nothing could hurt (P. Demere to Lyttelton, February 27 1759, Clements Library).

In addition to these map sources, there are two summary accounts that need to be presented here, which provide the method of laying out the fort, and the appearance and detailed account of the fort as it was, incomplete at the end of December 1756. DeBrahm's account, contained in his *General Survey in the Southern District*, written later, provides his method of laying out the fort, that was consistent with the treatises on military fortification of that period such as *A Treatise Containing the Elementary Part of Fortification, Regular, and Irregular* (Muller 1756), and the later *A Treatise Containing the Practical Part of Fortification* (Muller 1764).

> They then consented He should choose the Northwestern mount, being a narrow Ridge on which he laid only a Poligon with two Bastions, not finding sufficient Plane on its Top for the whole Fort. He therefore layed another Poligon with two Bastions below at the South side of the Mountain's Feet, which he joined to the Westward with a Poligon to that on the top, and secured it with Traverses against enfilading, and on the East upon the River with another Poligon, on which he formed a hornwork, Cavalier & Lunettes before the Courtain, thereby to have a full command of the River, and make the most of the Territory, which descended towards the River in several Steps. A Rhombus with two obtuse and two accute angular Bastions was the Figure which the Fort could receive from the Bearings of the River and Mountain, who with a rocky Precipice 41 feet high from the Waters Superfices terminates upon the Rivers edge, each Poligon extended 300 feet in Length, with a Breast-Work of 21 feet thick. In the Ditches he directed a Hedge to be planted of young Locust trees, which in less than twelve Months time filled the Ditch from the centre Scarpe to the Scarpe, so that there was no possibility to come to its feet with Intent to cut or burn it down. The Locust Trees are full of Thorns, which are three and some four Inches long, and out of each thorn projects four other thorns more, perpendicularly forming a Cross, in the manner of a cheval de frees, so that the medling with this Hedge is in every respect impracticable, and renders the Fort impregnable, at least against Indians, who always engage naked; each Bastion mounts three Cannons, each cannon is of 16 ounces caliber, or bore (DeVorsey 1971:102).

With the exception of a few minor word changes, the Harvard version of this account is essentially the same (Williams 1928:191-192).

A more specific account of the state of the fortification in late December of 1756 was ordered by Raymond Demere. This account, because it does give a detailed picture of the progress that had been made on the fort to that time, is quoted here in full:

Survey of Fort Loudoun by Order of Captain Rayd. Demere

A Return of the State of the Fortification of Fort Loudoun by the subscribing officers, a Survey haveing been made by them by Order of Capt. Rayd. Demere, the 24th Day of December, 1756.

The curtain journing Bastion Queen and Bastion D of Cumberland not finnished, Hight without a Banket 4 Feet. The Ditch and Counterscarp not finnished. Thickness of the Wall at the Bass 20 Feet. Distance of the Palisadoe from the Curtain, 4 1/2 Feet.

Bastion D of Cumberland: neither Brest Work, Ditch or Counterscarp finnished, and very little done to them. The Flank 12 Feet long. This Flank is not in Line of Defence with the Face of Bastion Queen.

The Curtain joining Bastion D of Cumberland and Bastion King George: the Breastwork finnished; Height next B. D. of C, 4 Feet, and Hight of Curtain where it joins the Flank of B. K. George, 3 Feet, without a Banket. Ditch and Counterscarp unfinnished.

Flank of Bastion King George: the Breastwork finnished, Length 23 Feet; Hight, 4 Feet.

Face of Bastion King George: at the first Travers, Breast Work 3 Feet high without a Banket. Length of the first Travers, 19 Feet; Thickness, 12 Feet; Height, 3 1/2 Feet without a Banket. Height of the Face joining the 2d Traverse, 4 Feet without a Banket. Length of 2d Travers, 18 Feet; Height [joining] the Face, 4 Feet; Height of the inside Point of the Travers, 3 Feet. Two more Traverses of the same Deminsions. Neither Ditch, Counterscarp nor Breast Work of the west Face of King George's Bastion finnished and a vast Quantity Earth to be dugg and carried away now lying in Heaps. A Ditch ten Feet deep in some Places and ten Feet wide already dugg the Length of this Face of the Bastion.

Second Travers in the north Face of Bastion King George 4 Feet high and 12 Feet long unfinnished; the Face not finnished, 4 Feet high. First Travers, very little done to it. Flank 24 Feet, only 2 [Fathoms?] high; no Part of Breast, Ditch or Counterscarp finnished.

Curtain joining Bastion P of Wales, and Bastion King George, unfinnished. No Ditch or Counterscarp.

North Face of Bastion Prence of Wales: finnished Breast Work, Ditch and Counterscarp, except a Banket. No Part of the east Face of Bastion Prince of Wales finnished.

Bastin Lyttelton finnished. No way into; Fort Glen: unfinnished, lying in Heaps and abandoned, a Ditch on Top of the Bank 10 Feet deep in some Places, about 98 Feet long. We know not the Intent of it.

The Place of Arms unfinnished. Space left between two Hedges 5 Feet, 5 1/2 Feet deep.

East Face of Bastion Queen: Breast Work, Counterscarp and Ditch finnished, Banket finnished. The Breast Work not sloped. South Place [Face] of Bastion Queen: not sloped, Ditch and Counterscarp not finnished.

No Barracks built; the Officers Hutts built by themselves, not a Defence against the Weather.

No sufficient Store Houses for Provisions, no Bagg [Bogg] Houses or Common Stores, no Guard House, no Guns mounted nor Platforms made, the Powder [Magazine] almost finished, the Forge almost finnished.

The Pallisadoes bad in quallity, not deep enough in the Ground. Those of 12 Feet high being only 2 Feet in the Ground, and those eight Feet only 13 Inches, and in many not seven Inches deep in the Earth; many of them fallen down, most of them that are standing loose and easily pulled down.

No Communication with the River without going over Fort Glen or [Ravelin] Lyttelton (Survey, December 24, 1756, SCIA:285-286).

On the previous day Demere sent DeBrahm a letter that is also useful in determining the state of the fortifications at that time, primarily in that it details what had not yet been built:

> Can you call this a Fort, no Guns or Platforms, no Barracks, no guard, no necessary Houses or Drains so requisite for the Health of Garrison, no Houses for the Officers, but meserable Hovles built at their own Expences, although denyed by you a little Dirt to clay the Walls, no store Houses capable of containing any Quantity of Provisions, and in short Nothing as yet to be seen deserving the Name of a Fort. The Out works which you say are so near finnished are no Ways defencible. The Brest Works in some Places not being three Foot high, and Nothing but the Pallisadoes can hinder a Man from galloping in to the Fort a Horse back, and after the vast Labour and Expence bestowed on the Place called by you Glen's Fort, it is at last to be abandoned and left unfinnished. I and the rest of the Officers think our duty to our King and country in general, as well as the Publick of South Carolina, calls upon us to make this Representation, and further to aquaint you that the Moment you leave the Fort the Works shall cease untill such Time as the Governor send a proper Person to inspect the present State of them which we are determined to request of him.
>
> We are Sir, you humble Servants,
>
> RAYD.DEMERE JAMES ADAMSON
> JOHN STUART RICHD. COYTMORE
> JOHN POSTELL MAURICE ANDRESON
> ROBT. WALL
>
> (Demere and Officers to DeBrahm, December 23, 1756, SCIA:285).

Another document that is mentioned in the contemporary correspondence, which would be very useful for the description of the early stages of the construction at Fort Loudoun, but which has not been located, is an orderly book of Raymond Demere that presumably covered the period from the beginning of the construction through early January 1757.

> Your Excellency will do me the Favour to red the orderly Book, which I now send, when you are at Leasure, and hope it will appear that the Duty was not done like Pandors, as Mr. DeBrahm has said; beside your Excellency will see how careful I was in my Orders in any Thing which related to Mr. DeBrahm's Directions, for to promote the Good of the Service; in short Nothing could have pleased him (R. Demere to Lyttelton, January 12, 1757, SCIA:313).

Other documents that are known to have once existed from the extant documentation include at least two other journals that were being kept at the fort. Unfortunately these journals have not been located, for they would provide information on the construction of the fort, and possibly the garrison-Cherokee relations. The first is a journal that was being kept by John Postell, who was commanding one of the Provincial companies. In a letter in January, 1757, Demere described this journal:

> [Postell] . . . said that Mr. Walter Izard and some other of his Friends had desired him to keep an exact Journal of every minute Trifle that was transacted here, and that he had got a good Deal in his Journal (R. Demere to Lyttelton, January 2, 1757, SCIA:304).

The other journal that would have been of importance was the linguister's journal that was sent to Lyttelton in June of 1759 (P. Demere to Lyttelton, June 27, 1759, Clements Library).

A final source of possible information on the history of the fort and the events that occured there during its occupation were letters that were being written by the officers and possibly the men to their families or other individuals. That this was being done is clearly indicated from a cautionary note to the officers by Demere, apparently at the governor's orders:

> I have intimated to the Officers your Excellency's Desire to be cautious in writeing Home to their Friends, as private Letters of that Nature may produce very ill Effects, by alarming the Province. They have all promised me to write no News relating to the Indians and to be ruled intirely by your Excellency's wise Directions (R. Demere to Lyttelton, October 26, 1756, SCIA:230).

In addition to the reference that has been quoted, Raymond Demere mentioned that he had left some of Lyttelton's correspondence with Paul Demere to guide him in his command of the fort at the time of the change of command in August, 1757 (R. Demere to Lyttelton, August 26, 1757, SCIA:404). Presumably these

letters were lost with the surrender of the fort, unless they had been forwarded to the Governor prior to that time. The final mention of letters is in the *South Carolina Gazette* in August, 1760, where it is mentioned that private letters from Fort Loudoun were received at Fort Prince George. The newspaper did not mention the contents or any other information (SCG, No. 1359, August 13-16, 1760). This parcel of letters was probably the last sent from Fort Loudoun before its surrender, and would have provided certainly a vivid and accurate account of the conditions that were prevailing at the fort during that time.

With the exception of a minimal number of letters by some of the officers that are currently available in the collections of letters, few of these letters are available. Because of the near impossibility of locating any letters that may have been written to non-governmental people, no real effort has been made to locate any of this material. If such a corpus of letters were available, it would certainly be an interesting adjunct to the presently available information, particularly in that it would provide a rather different perspective of the situation as it existed at Fort Loudoun.

CHAPTER 2

THE HISTORY OF FORT LOUDOUN

A wealth of information exists describing the events that led to the construction of Fort Loudoun and its subsequent occupation. Accounts of these events are found in a considerable volume of eighteenth century documentary materials, as well as in a number of secondary works that have been written since the early part of the twentieth century. This chapter is an attempt to present the history of Fort Loudoun from the time of its inception in the 1740s through the early part of the twentieth century. The information is divided into two sections. The first part discusses the events that resulted in the construction of the fort, the history of its short occupation, and to a lesser extent, the role of Fort Loudoun in the theater of the French and Indian War. It closes with the surrender and abandonment of the fort by the British. The second part of the chapter simply chronicles the various recorded descriptions and mentions of Fort Loudoun from the time of its surrender through the 1930s. The archaeological work that began at the fort in the late 1930s is the subject of the following chapter.

While the intent of this chapter is to present an overall summary of the history and occupation of Fort Loudoun and the history of the site after its abandonment, what is presented is to a large degree oriented toward information that has some bearing on the archaeological record and its interpretation. To that end, certain sections are necessarily detailed, particularly those dealing with construction and other projects which resulted in archaeologically definable features. Other details that are in the documentary record regarding specific features and artifacts are presented in the appropriate sections throughout this report.

History of Construction and Occupation

Carl Kuttruff and Stuart 0. Stumpf

From the early years of the eighteenth century, the good will of the Cherokee nation had been vital to the prosperity and even to the survival of South Carolina. For their part, the Cherokee had become dependent upon English colonists for a variety of essential trade goods. Exchanging deerskins for cloth, tools, weapons, and ornaments, the Cherokee and the Carolina traders were enmeshed in a complex network of relationships (see Crane 1928; Reid 1970 and 1976; and Willis 1955 for discussions of Anglo-Cherokee trade). By the 1740s, exports of deerskins, obtained primarily from the Cherokee, were annually exceeding £30,000 sterling in value, making them South Carolina's second-ranking export (James Glen to Board of Trade, May 3, 1746, SC-BPRO XXII:204). To secure this trade, the South Carolina provincial government was solicitous of the Cherokee, but it was unable to devise a practicable scheme of trade regulation to prevent abuses by the traders. The recognition of their virtual helplessness in the face of frequent cheating and maltreatment by the traders made the Cherokee resentful, led to complaints to authorities in Charleston, and endangered the close ties between the two peoples (Willis 1955:56, 59-70; Corkran 1962:6, 14, 36-37; McDowell 1970:xv-xvii).

These misunderstandings and instances of violence increased as the rivalry on the southern colonial frontier intensified among the colonial powers. Particularly pressing in the minds of the British and provincials in South Carolina was the possibility of French subversion among the Cherokee. Such activity not only would negate the virtual monopoly of the Cherokee trade enjoyed by Charleston and its traders, but it would also make the Carolina frontier much less secure (McDowell 1970:xii-xiii; Corkran 1962:20-21; Hamer 1925a:303-304). The French danger was an often repeated theme in the letters of Governor James Glen to the Board of Trade during the late 1740s (see in particular his letters of September 29, 1746; April 28, 1747; February 3, 1748; April 14, 1748; and July 26, 1748; SC-BPRO XXII:201-204, 277; XXIII:71-82, 108-111, 172-173). The strategic location of the Cherokee made it clear to the colonial government that "whoever is master of the Cherrockee Nation is master of the Key of Carolina" (Glen to Dinwiddie, January 1755, SC-BPRO:XXVI:222). With the economic setbacks suffered during King George's War (1739-48), the failure to drive the Spanish from Florida, and the renewal of French activity among the upper Creeks at Fort Toulouse in present-day Alabama, the Carolinians felt compelled to pay particular attention to the situation on the Cherokee frontier (Stumpf 1976:161-188; Caldwell 1941:37-54; Sirmans 1966:210-216,

265-277; Hamer 1925a:303-334; Thomas 1959:248-254; Leach 1973:211-216, 317; Glen to Board of Trade, May 3, 1749, SC-BPRO XXII:149-152).

1740s

For Governor James Glen, who was appointed in 1738 but did not arrive in South Carolina until five years later, and who served as South Carolina's royally appointed executive from 1743 to 1756, the situation warranted his immediate attention. A suspicious, quarrelsome, but shrewdly ambitious individual, Glen prided himself on his understanding of Indian diplomacy (see Sirmans 1966 for a discussion of his career in South Carolina).

The governor held an imperialistic vision, which included taking an active part in making good the British claims to the trans-Appalachian region by a vigorous and expansive role for South Carolina. The trade relationship and alliance of that colony with the Cherokee were Glen's means to extend the British Empire into the interior of the continent. In order to further his primary objective, James Glen pursued an activist role in Indian affairs. He sought to mediate tribal conflicts, worked to attach the Indian nations' loyalties firmly to the British, and proposed extending British influence immediately into the Overhill regions by building a military outpost among the principal Cherokee towns in the valley of the Little Tennessee River (Sirmans 1966:266-269; Leach 1973:224, 316-318). When meeting with Cherokee headmen in the late summer of 1746, Glen heard their complaints of raids by French allied Indians. This gave him the opening that he had been seeking. He proposed "Building a Fort for their Security to be Garrisoned by Us, into Wch their Women & Children might retire at the approach of an Enemy..." (Glen to Board of Trade, September 29, 1746, SC-BPRO XXII:200).

As the Indian leaders were not at first receptive, and as he had no authorization for such a project from his superiors, the governor did not press the matter further at that particular conference. He subsequently urged upon the British Board of Trade, to whom he reported, that:

> ...if we had a Fort in these Overhill Towns, as they call them, it would effectively bar the door against the French, & be such a Bridle in the Mouths of the Indians themselves, that would for ever keep them ours (Glen To Board of Trade, September 29, 1746, SC-BPRO XXII:200).

Although such proposals for forts among the Cherokee had been suggested since the early years of the century, Glen's overtures, coming at a time of intense Anglo-French rivalry, attracted attention in Great Britain (Alden 1944:32-34; Board of Trade to Newcastle, July 22 and August 13, 1747, SC-BPRO XXII:305, 308; Minutes of Board of Trade, August 6, 11, and 12, 1747, SC-BPRO XXII:246-247). Despite their initial reservations, the Cherokee headmen soon were also receptive to the proposal (Glen to the Board of Trade, April 28, 1747, SC-BPRO XXII:277-278).

Through the middle decades of the eighteenth century, the Cherokee nation underwent a period of crisis in which its very survival was threatened. The raids and more subtle forms of pressures by the French-allied and other traditional Indian enemies had a definite impact, so that the Cherokee were receptive to any scheme that promised greater security for themselves. The Cherokee began to recognize the political and economic ramifications of their almost total dependence upon South Carolina for trade and military assistance. Therefore, they were grasping for alternatives, or for means that would, at the very least, extract the greatest advantage from this situation. Finally, the nation was experiencing a crisis of leadership that would only be resolved by the ascendancy of the headmen from the town of Chota during the next decade (Reid 1970:25-27; Corkran 1962:14-21). Whatever factors were most decisive, the governor reported in the spring of 1747 that the Cherokee had requested a garrisoned fort to be built in the Overhills.

During the following months the initiative was lost. Despite favorable responses to Glen's proposal from the Board of Trade, the Secretary of State for the Southern Department (the Cabinet post which oversaw colonial affairs at that time), and the King's Privy Council, no immediate action was taken other than to authorize the governor to negotiate further on this matter with the Indians (Minutes, Board of Trade, August 6, 11, and 12, 1747, SC-BPRO XXII:246-247; Newcastle to Board of Trade, July 30, 1747, SC-BPRO XXII:307; Order in Council, August 16, 1748, SC-BPRO XXIII:25). Although the South Carolina Assembly was favorably inclined toward the project, it would appropriate no more than £300 sterling. In the opinion of Glen at least an additional £400 would be required to build a "substantial" fort (Glen to Board of Trade, April 28, 1747, SC-BPRO XXII:277-279). Undeterred, Glen continued his campaign for the construction of the fort among both the English and the Cherokee even after the termination of the war with France in 1748

(Glen to Board of Trade, February 3, April 14, July 26 and October 10, 1748; July 19, 1749, and July 27, 1752, SC-BPRO XXIII:71-82, 108-111, 172-173, 208-210, 380, XXV:70-74; Board of Trade to Bedford, December 10, 1750, SC-BPRO XXIV:33).

1750s

Through the early years of the 1750s several factors were again at work increasing the pressure for an Overhill fort. The continued problems caused by French activities in the trans-Appalachian region led South Carolina's and other colonies' officials to report alarmingly to their superiors. With both colonial powers moving to exercise their claims to the Ohio and Mississippi valleys, Glen foresaw a crucial role for the proposed fort in the coming conflict:

> I take the Liberty to repeat that a Fort garrisoned by Kings Troops near the Overhills Towns of the Cherokee which is Five Hundred miles from Charles Town would in time render all that Country his Majesty's property as much as any part of this Province is (Glen to Board of Trade, July 27, 1752, SC-BPRO XXV:70-71).

He held up the example of Fort Toulouse or the "Halabama Fort," which gave the French great leverage among the Creek Indians, as well as a base from which to subvert the Cherokee (Figure 9. Additional forts of the period are also shown on that map. Figure 10 shows the relation of Fort Loudoun to other forts as well as the various Indian Nations). Finally, recognizing the difficulties raised by the often unscrupulous activities and false reports of the traders, Glen urged the importance of such an outpost for the conduct of Indian diplomacy (Hamer 1925a:304; Corkran 1962:18-19, 50-65; Glen to Board of Trade, July 27, 1752, SC-BPRO XXV:70-71; Glen to Bedford, March 30, 1754, SC-BPRO XXVI:8-11). In 1754, Glen proposed an even more expansive plan in which the Cherokee would acknowledge British sovereignty and cede some of their lands in return for immediate protection (Glen to Robinson, August 15, 1754, SC-BPRO XXVI:84-102).

The campaign of the governor was joined by others. In Britain, Charles Pinckney, a member of the South Carolina Council and Colonial Agent for the colony, again presented the case to the Board of Trade for the construction of the fort as being "one of the most effective methods of frustrating the french designs." Pinckney's representations were well received and probably were responsible for the order to Lieutenant-Governor Dinwiddie of Virginia to advance some funds to Glen out of the £10,000 that had been advanced to him for defense (Hamer 1925a:304-308; Pinckney to Powell, September 11, 1753, SC-BPRO XXV:344-346; The Representation of Charles Pinckney, June 1, 1754, SC-BPRO XXVI:40-43; Further Representation of Charles Pinckney, June 20, 1754, SC-BPRO XXVI:60-71; Board of Trade to Robinson, June 20, 1754, SC-BPRO XXVI:52-55; Robinson to Glen, July 5, 1754, SC-BPRO XXVI:72-73).

Glen also received unexpected support for his programs from an inveterate critic of his administration, the Charleston merchant and councilor, Edmond Atkin. In a report highly critical of current Indian policy, Atkin warned that unless prompt action was taken, such traditional allies as the Cherokee would be alienated. He analyzed the basis of French influence among their Indian allies as being derived from their frontier outposts, which provided the warriors with essential services such as maintenance of their weapons, as well as providing a place for the distribution of presents for services rendered. Atkin again emphasized the role of the outposts in regulating the activities of the traders. He held that the French were not attempting to intimidate the Indians since these forts could be overwhelmed rather easily. Atkin strongly urged a similar system for the British. His 1755 Report and Plan were central in obtaining Atkin's appointment as the Indian Agent for the Southern District. It also confirmed the suspicions already present in the minds of the imperial administration, such as the Earl of Halifax, President of the Board of Trade, about French intentions in the trans-Appalachian west, as well as the view that the imperial government must take a more direct hand in these matters (Jacobs 1967. See particularly xxx-xxxiv).

From the Cherokee perspective, the early 1750s continued the period of crisis. Their longstanding war with the Creek nation had brought devastation to their lower towns. The continued friction with the Carolina traders had led some to violence which resulted in a temporary embargo of trade imposed by the South Carolina authorities. In addition, the French tribes, chiefly the Shawnee, were pressing upon the Cherokee so that the leadership had to develop a policy that would gain a peace with their former enemies while simultaneously avoiding further difficulties with the British (Reid 1970:25-27; Corkran 1962:38-52). In this situation the headmen from Chota:

> ... assumed national leadership by concluding a long-desired peace with the French Indians, by formulating a new British alliance brilliantly designed to end the Carolinian monopoly with a rival Virginia trade... ...and by shielding the murderers of traders behind protracted diplomatic maneuvers... They also persuaded the British to build a fort in the Overhills to protect Cherokee women and children, before any more warriors were recruited... (Reid 1970:26).

While the British leadership was never able to achieve its objectives in their entirety, the construction of the Overhill fort was viewed as imperative. Frequently promised and much delayed, it became a symbol of the South Carolinian ability to maintain its prestige on the colonial frontier. Thus, both sides believed that they were manipulating the other to further their own security (Reid 1970:26-27; Glen to Board of Trade, July 27, 1752, SC-BPRO XXV:70-74; Further Representation of Charles Pinckney, June 27, 1754, SC-BPRO XXVI:62-68).

Even as his goal of establishing the Overhill fort was moving toward attainment, Governor Glen was confronted by additional difficulties. The lower Cherokee, having been devastated by the Creek raids, threatened to abandon permanently the eastern towns, creating a vacuum into which the French allies might enter. If the South Carolinians allowed their allies to suffer poor treatment, their status among the Cherokee would surely diminish. Glen responded by negotiating a peace between the two tribes and in 1753 built Fort Prince George near the town of Keowee (see Appendix 1). Garrisoned by a small detachment, it provided only a small measure of security but it "showed the flag" as South Carolina's westernmost outpost. Fort Prince George, nevertheless, failed to satisfy the demands of the Overhill Cherokee, and it was hardly the outpost that Glen had in mind for extending the claims of empire. The frequent delays in fulfilling his stated promises were already exasperating the Cherokee leadership (McDowell 1970:xii-xiii; Corkran 1962:42-49; Glen to Board of Trade, July 30, 1753 and August 26, 1754, SC-BPRO XXV:339, 347-349; XXVI:106-109).

The prestige of Glen was declining not only among the Cherokee. Having entangled himself in numerous controversies in South Carolina, the governor had lost the confidence of the Commons House of Assembly, the most influential Charleston merchants, and in the mother country, the Board of Trade. With his effectiveness diminished, the suspicious Glen must have recognized that his days as governor were numbered (Sirmans 1966:278-294; Stumpf 1976:181-183). On January 23, 1755, the Board of Trade signed a draft resolution proposing William Henry Lyttelton to replace Glen as governor (Minutes of the Board of Trade, June 23, 1755, SC-BPRO XXVI:132).

As if these troubles were not enough, the Chota headmen, led by Canacauchte (Old Hop) and Attakullakulla (Little Carpenter; see Kelly 1978 for a biography), were actively seeking a regular trade with the Virginians to circumvent the South Carolina monopoly. The Virginians were, for their part, hoping to recruit Cherokee warriors in their campaign to win the upper Ohio Valley (Cockran 1962:50-74; Reid 1970:26). Lieutenant-Governor Dinwiddie of Virginia sought Glen's assistance in this regard. Although the South Carolina governor cooperated to a degree by sending a force of regulars drawn from South Carolina's Independent Companies to join George Washington at the forks of the Ohio, Glen remained suspicious (Robinson to Glen, July 5, 1754, SC-BPRO XXVI:72; Leach 1973:317-318, 331, 337). He complained of the Virginians having "busied themselves" in the Cherokee affairs, "where they had no knowledge." His petulance was aroused by the fears of the displacement of South Carolina by Virginia in the Cherokee trade (Glen to Robinson, August 15, 1754, SC-BPRO XXVI:88-93).

However, Glen's views had some basis with regard to the damage done by uncoordinated Indian policies among the English colonies. He did win a point when Sir Thomas Robinson, Secretary of State for the Southern Department, informed him that Dinwiddie had been ordered to advance a substantial sum to Glen for the construction of the Overhill fort. Glen requested £7000 for fort construction, but when the Virginia governor would send only £1000, Glen believed this to be insufficient. Most of Dinwiddie's money was to be used in financing General Braddock's ill-fated expedition (Robinson to Glen, July 5, 1754, SC-BPRO XXVI:73; Glen to Board of Trade, May 29, 1755, SC-BPRO XXVI:197-198; Glen to Dinwiddie, January 1755, SC-BPRO XXVI:218-226; Leach 1973:353, 359).

In June 1755, as Braddock was preparing his campaign and attempting to recruit Indian auxiliaries, Glen pursued his own set of policies. Acting contrary to his own admonitions regarding uncoordinated Indian policies, he met with a number of Cherokee leaders at Saluda in the South Carolina back country. Glen was willing to risk the disapproval of his superiors and condemnation of Dinwiddie because he considered this conference essential. If successful, he hoped to quiet Cherokee complaints about the long delay in building the trans-Appalachian fort, to counteract the possibility of French influence which was apparently growing

in the town of Tellico, and to gain the cession by the Cherokee of their lands to the Crown (Leach 1973:359; Corkran 1962:58-61; Glen to Board of Trade, April 14, 1756, SC-BPRO XXVII:47-57, 67-70; Glen to Robinson, August 15, 1754, SC-BPRO XVI:88-98). The difficulties of James Glen continued. Glen had at various times estimated the costs of construction of an Overhill fort at £500, £700 and still later at £3000, but by 1755 his estimate for the extensive structure which he now envisioned as necessary was in excess of £6000 (Glen to Board of Trade, April 28, 1747, SC-BPRO XXII:278; Glen to Robinson, June 20, 1754, SC-BPRO XXVI:53; Glen to Dinwiddie, June 1755, SC-BPRO XXVI:222-227).

1756

In a report to the Board of Trade, received by them in April of 1756, Glen explained his monetary circumstances, and his ideas of what the Fort should be:

> ... but I have no more money than £1000 that I received from Mr. Dinwiddie for that purpose, and the Assembly have noted the Loan of another to his Majesty, perhaps I may prevail with them to advance a Third, but this will be far from finishing such a Fort as will be of any service, 'tis true a few Pallisadoes or Puncheons put in the ground, and sometimes in a very irregular manner, with the addition of the name of some great man, is called a Fort in some parts of the World, but I hope I shall neither amuse myself nor abuse others with such trifles. ...'tis true I could like a Centinel upon his Post call out every now and then ALL IS WELL, but 'tis impossible you could have an exact notion to these affairs without a minute detail, which therefore I hope you will pardon (Glen to Board of Trade, April 14, 1756, BPRO-CO Vol. 18, K133).

Furthermore, Glen had apparently misled the Board of Trade, creating the impression that the funds appropriated by the South Carolina Assembly for the construction of Fort Prince George were to be used for the proposed fort. Governor Glen was likewise unable to obtain an appropriation from the Assembly without difficulty. When a controversy with that body brought no funds, Glen was only able to raise by subscription from private citizens a £2000 loan. Finally, with so many delays in the construction, the Board of Trade grew suspicious of his use of funds (Glen to Board of Trade, October 25, 1753, August 26, 1754, and May 29, 1755, SC-BPRO XXV:347-349; XXVI:106-109, 184-198; Robinson to Lyttelton, August 29, 1755, SC-BPRO XXVI:245-246; Board of Trade to Lyttelton, November 19, 1756, SC-BPRO XXVII:166; SCG, May 6, 1756).

Although he still considered the funds available to be inadequate, Glen was brought to act by diverse sources. Apparently stunned by criticism of his handling of Indian affairs and by the minimization of the significance of the Saluda conference, he sought to justify his motives by acting at last. In addition, Glen knew that he was soon to be replaced as governor. Because of this he may have been stimulated to move toward completion of his long-delayed project. Following Braddock's defeat, the Virginians badly needed Indian allies, but they were unable to recruit significant numbers of warriors until the promised fort to protect the Cherokee women and children was begun. Finally, the rumors of pro-French sentiments among the Cherokee persuaded the South Carolina Council that Glen must act (Glen to Board of Trade, April 14, 1756, SC-BPRO XXVII:40-64; Corkran 1962:66-84; February 16, 19, and 20, 1756, SCCJ XXV:147, 152).

During the early part of 1756, the Cherokee were becoming more and more impatient with Glen and his apparent inability to begin the construction of the provincial fort in the Overhills. In addition to urging that the fort be begun shortly, they were also using rumors of construction of Fort Massac or Fort de L'Ascension on the Ohio River near the mouth of the Tennessee River (near present-day Metropolis, Illinois) as incentive for the governor to hurry the construction.

> [Little Carpenter] ...hopes the Governor according to his promise to him when last in Town, will send up Men sufficient to build a Fort over the Hills, and likewise to go with all the Overhills and others of the Nation in order to cutt of a Fort which the French is building at the Mouth of a River not far from their Nation (Little Carpenter to Glen, February 12, 1756, SCIA:93-94).

The construction of Fort Massac did not, in fact, begin until the spring of 1757 (Bailey 1966:2; Fortier 1969; Babson 1968:28-31; Rackerby 1971). Fort Toulouse in Alabama, located near present-day Montgomery, had been constructed in 1717 and garrisoned and maintained through 1764 by the French (Figures 9 and 10; Heldman 1973; Thomas 1929, 1959, 1960a, 1960b; Waselkov 1984; Waselkov, Wood and Herbert 1982;). The presence of Fort Toulouse was continually used by the Indians as a threat to the Fort Loudoun garrison, and was a major concern to that garrison. This was an exaggerated threat, but one which was used considerably by the Indians, generally for their advantage.

About the same time that Little Carpenter was urging Glen to begin construction, James Beamer, a trader in the Overhills, wrote to Glen expressing his fear that the Cherokee were uneasy because the construction of the fort had not yet begun (Beamer to Glen, February 11, 1756, SCIA:95). In his reply to Little Carpenter's request, Glen assured him that construction would begin sometime near the end of April, but he indicated that he first wanted to send a surveyor to locate a place for the fort and to examine the situation in the Overhills. He further outlined the needs for the fort to Little Carpenter, and to a large extent the perceived purposes for the fort. This provides some insight into the final choice of the location where it was ultimately constructed.

> There are many Things that he [the surveyor] must have an Eye to, he must consider that the Intention of our building a Fort there was to guard your Nation against your Enemies the French and their Indians, and as it is most natural to think if they come in a Body they will come up the Tennessee River therefore it must be upon that River and near the Place where Enemies are most frequently discovered... ...Design of it is to receive your Women and Children upon such Emergencies that they may be in a Place of Security while the Warriours give Chase to the Enemy. It must not therefore be at a great Distance from these Towns which it is to protect. Therefore it was one of the Points we had in View by this Fort to sieze such Indians as shall be troublesome to you or dangerous to your and our Peace for which Reason also it must not be far from some of your Towns.
>
> There are in like Manner some Things he must have in View in the Situation of that Fort that may be conducive to the Health of the Soldiers who are to garrison it. It must be built in a good Air and near good Water not very near any Eminence and not far from good Corn Land or from a convenient Range for their Cattle and that their Creatures may not be hurtful to your Crops the Range for them should be lower down [stream] than the Fort.
>
> I send him also to take a View of the Quantity of Corn you may have that we may know what we can certainly trust to for the Supply of our Men for some Months for I hope they will be there Time enough to plant sufficiently for themselves (Glen to Little Carpenter, February 17, 1756, SCIA:99-100).

Finally in late February, Glen began preparation for the expedition that was to construct the fort in the Overhills. John Pearson, a surveyor, had been sent to the Overhills earlier that month (Brown 1971), and William Gerard DeBrahm, who was at that time employed in rebuilding the defenses of Charleston, was selected as the project engineer (see De Vorsey 1971:3-59 for a biography of DeBrahm). In keeping with his grand vision, Glen informed the South Carolina Council that he intended "a large and lasting Fort" and not one hurriedly thrown up as he stated had been the case with Fort Prince George (April 8, 1756, SCCJ XXV:193-195; SCG, May 6, 1756).

Two companies of provincial militia of 60 men each were ordered raised, and were to meet Glen, DeBrahm, and Raymond Demere, with his company of British Regulars from Charleston, at Ninety-Six. James Glen left Charleston on May 19, 1756, and got as far as Ninety-Six in the back country when he was informed by letter of the arrival of his successor, William Henry Lyttelton, and was recalled to Charleston. The new governor ordered the provincial companies disbanded and Raymond Demere's company of Regulars going to Fort Prince George to wait for further developments. The provincials were disbanded on June 9, 1756 (R. Demere to Lyttelton, June 9, 1756, SCIA:119; Kelly 1978:76; Lyttelton to Board of Trade, June 19, 1756, SC-BPRO XXVII:105-114; SCG, June 5, 1756).

Shortly after his arrival in Charleston, Lyttelton wrote to Old Hop informing him of the change of governors, and requested emissaries to come to Charleston to meet with him. He also reassured Old Hop that he intended to proceed with the construction of the fort.

> You have long desired that a Fort Should be built in the Overhills... I have the King's Commands to build one. My Warriours are now marching thither for that Purpose. You may be under Apprehensions perhaps that as I am just arrived in the Province, I may make some Delay; but you may be assured that I shall immediately consult with my beloved Men what is proper to be done in order to dispatch this Work, and will not fail to begin it soon this Summer (Lyttelton to Old Hop, June 3, 1756, SCIA:115-116).

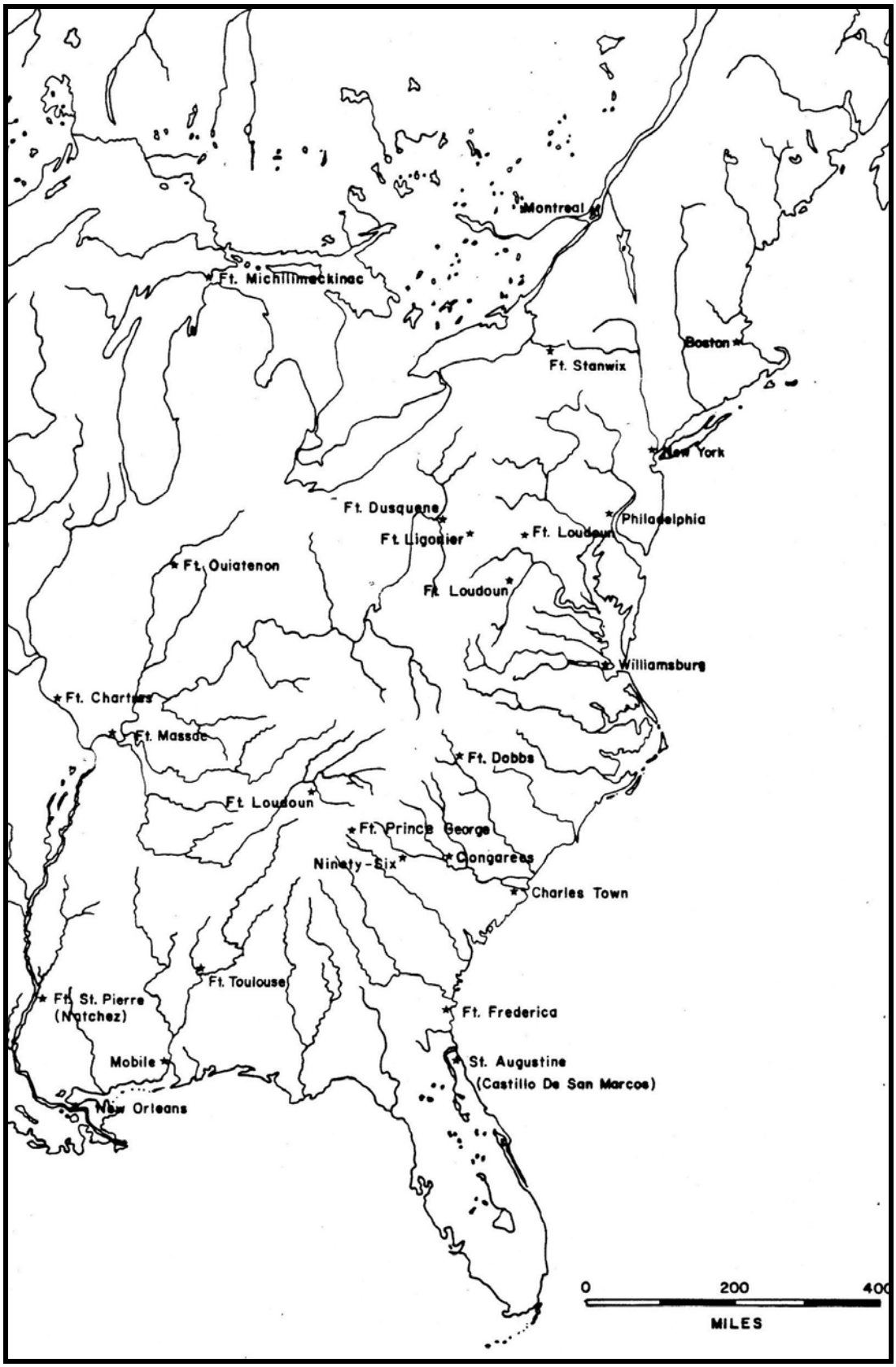

Figure 9. Map of the Eastern United States showing the locations of selected eighteenth century forts and towns referred to in the report.

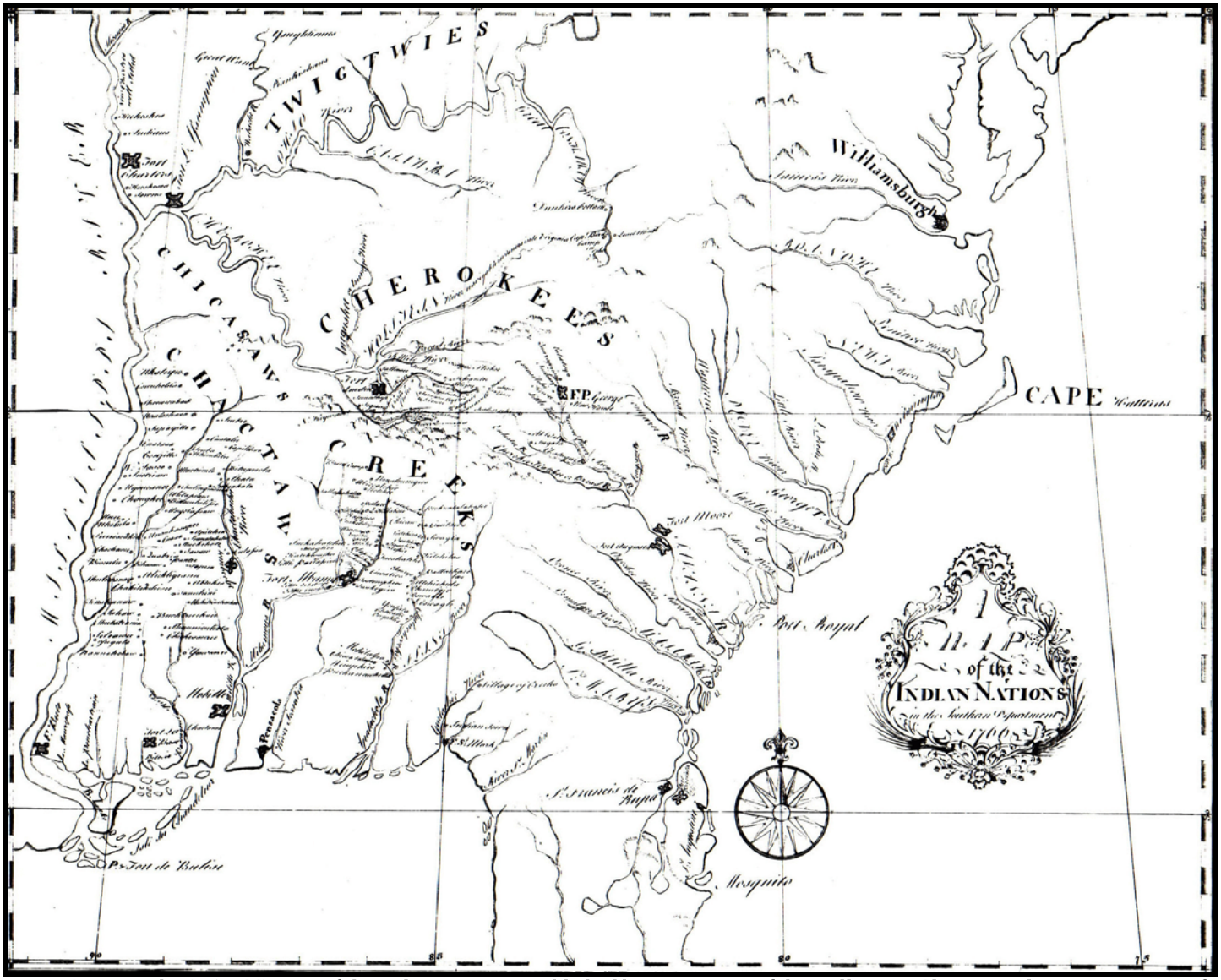

Figure 10. DeBrahm's (1766) Map of the Indian Nations. Published by permission of the William L. Clements Library, University of Michigan.

At this time Captain Raymond Demere made something of a plea to the governor to be relieved of this particular command, stating that:

> When I sett out from Charles Town I was very sickly and infirm and continue so still, my staying there long will be of great Prejudice to me, besides your Excellency must be acquainted that I have the Command of the Troops at Frederica in Georgia, where I am much wanted, and where my Affairs lays in a ruinous Condition; therefore beg your Excellency will take the same into Consideration (R. Demere to Lyttelton, June 9, 1756, SCIA:119).

On June 11th Lieutenant Outerbridge of Demere's company left Ninety-Six with a detachment bound for Fort Prince George (R. Demere to Lyttelton, June 15, 1756, SCIA:121). On the 15th Demere started out with the remainder of the company and arrived there on the evening of the 19th. The following day he delivered a speech to the headmen of the Lower Cherokee, giving further reassurances that the fort would be built:

> ... I hoped they were all convinced, from the Number of Great Guns, Waggons, Men, Cattle and Provisions, &c., that they saw that in a little Time Matters would be settled to their Liking with regard to the Fort that was promised to be built for them in their Upper Towns, so long ago. And that they might see that I had brought all necessary Tools &c. with me in order for the building the Fort, and that I expected shortly to hear from their Brother the Governour... (R. Demere to the Chiefs of the five Lower Cherokee Towns, June 20, 1756, SCIA:123).

The Cherokee replied to Demere saying that "...they are glad to find Capt. Demere has promised nothing but what they are convinced will be performed." They also requested that they be supplied with a pair of colors and a drum so that "...when any body comes, by seeing the Colours and hearing the Drum, they may be known to be Sons of King George" (Answer of Cherokee Chiefs to Demere's Speech, June 20, 1756, SCIA:124).

In the meanwhile DeBrahm had returned to Charleston so that he could meet with the governor and the South Carolina Council to discuss the plans for the fort. Apparently by this time DeBrahm had submitted at least one proposed plan for the fort which included a high tower. The Council disagreed with this concept and directed DeBrahm to construct "Low works that are more agreeable to the practice of the Modern Engineers" (July 29, 1756, SCCJ 25:325). The Governor further ordered DeBrahm that:

> ... upon his arrival at Tennessee to take a Survey of the Place where it is proposed the Fort shall be built & to fix upon and make out such a Plan as he shall judge most proper, which being done to send two Copies of the same immediately to him in order to be transmitted to the Lords of Trade and to the Boards of Ordnance.
>
> His Excy further ordered Mr. DeBrahm to transmit to him from time to time during the execution of the said Work and Exact amount of the progress thereof and all other remarkable Occurences which shall happen (July 19, 1756, SCCJ 25:325).

While waiting at Fort Prince George for further orders from the Governor, and prior to sending an advance party to the Overhills, Raymond Demere received word on the 6th of July, and further confirmation on the 9th, that men from Virginia were in the process of constructing a fort near the town of Chota in the Overhill country (R. Demere to Lyttelton, July 10, 1756, SCIA:132; see Figure 11). Under the direction of Major Andrew Lewis and Captain Overton, this expedition had set out from Virginia about the same time that Governor Glen began his march to Ninety Six. The fort was completed and the Virginians had left the Overhills by the time the South Carolina expedition arrived in that area, although one of the original intentions was for the two expeditions to join forces in the Overhills (Kelley 1961a:7; see Polhemus 1976; Brown N.D.b; Dinwiddie to Loudoun, August 28, 1756, Huntington Library LO 1610; Lewis to Dinwiddie, July 23, 1756, Huntington Library LO 1330, for further documentation relating to the Virginia Fort). After receiving the news of the Virginia Fort construction, Demere received more urging from Little Carpenter and Old Hop:

> We desire you may make what Dispatch you can in sending your Men, on their Journey, up to build the Fort that has been so long promised and neglected. The Virginia People promised us a Fort the other Day and are now here a building it (Old Hop and Little Carpenter to Demere, July 7, 1756, SCIA:134).

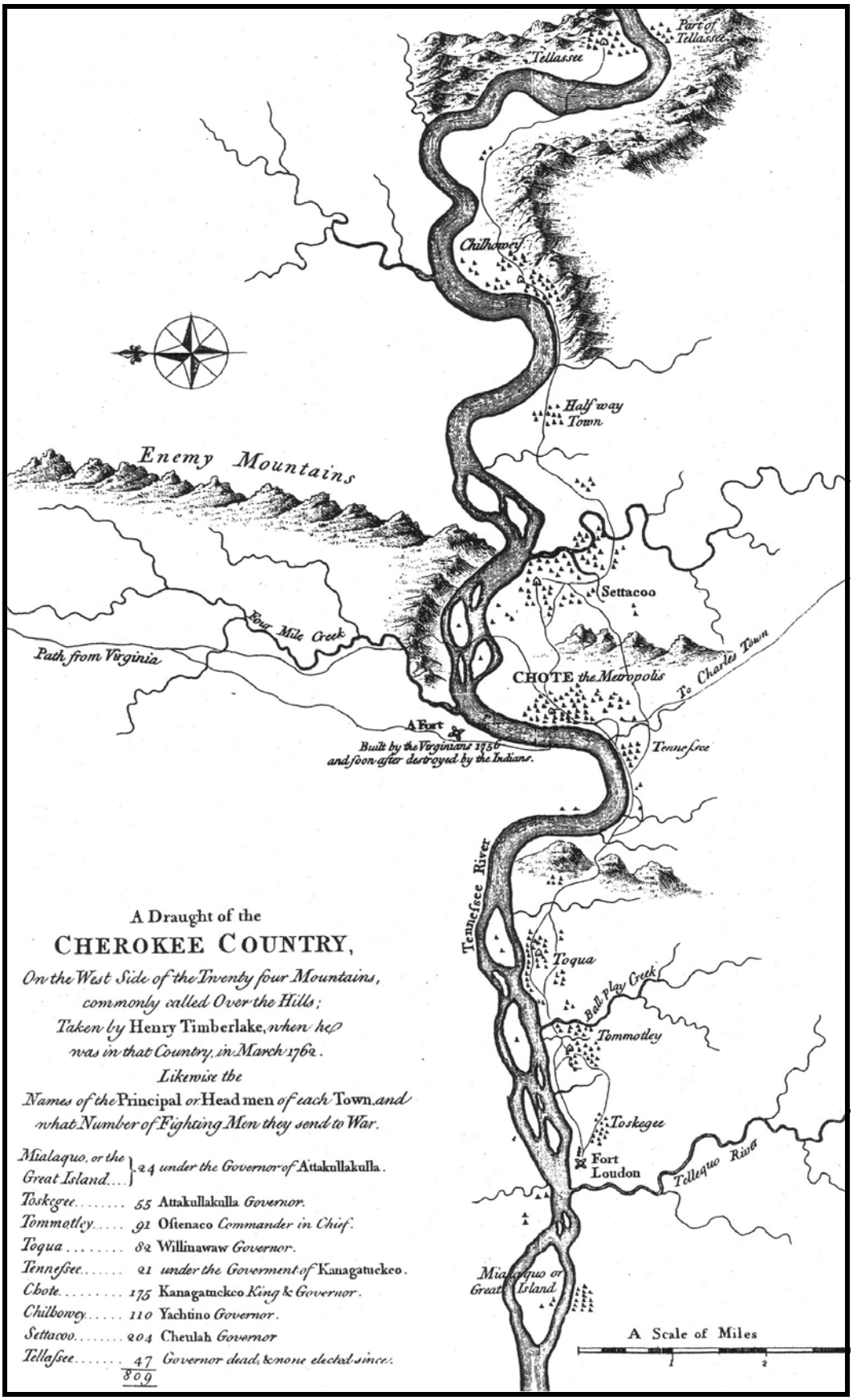

Figure 11. Henry Timberlake's (1762) Map of Cherokee Country

On the 24th of July, a party of 20 men, including Sergeant William Gibbs, a corporal and 18 privates, all volunteers, were given orders to begin the march to the Overhills, as an advance party for the expedition. Each man carried four days of provisions, and a horse loaded with flour was also brought along. Such provisions were to last them until they reached trader Cornelius Doughtey's place at Hiwassee. On the 26th, six horse loads of provisions and utensils were to follow, carrying enough to last the advance party until the 24th of August (R. Demere to Lyttelton, July 21, 1756 and July 25, 1756, SCIA 147-148).

On August 6, 1756, William Gibbs reported that they had arrived safely at the town of Tomotley (see Figures 1 and 3; Baden 1983; Guthe and Bistline 1978), having spent two days at Hiwassee. He also stated that the Virginia Fort had been completed and that the Virginians were planning to leave the Overhills on the 10th of August. Included with Gibbs's letter to Demere was another message from Old Hop chiding Demere about not having yet built the fort:

> Old Hop is mighty uneasy you do not come up to build the Fort according to Promise. He says the Virginia Men has their Fort done and ours not begun yet and he bets us that we shall never build one we are so long about it (Gibbs to Demere, August 6, 1756, SCIA:163).

Demere ordered the advance party to remain at Tomotley until the rest of the contingent could come up. While the advance party was at Tomotley, it was quartered in Little Carpenter's house. (R. Demere to Lyttelton, August 11, 1756, SCIA:161).

> As the Party for Chottee were so few, I took upon myself to order them to remain at Tomatly, the nearest Town to the Place where our Fort is to be built, and at the same Time to prevent any Danger from the Enemy, and agreeable to the Requests of the Headmen of the Upper Towns. Secondly as the Fort may not be...on the same Spot that was pitched upon at first, that the Houses they should build would be of no Service to them nor to those that are to follow. Thirdly, supposing the Fort should be built on the same Spot, as they are no Judges, they might build in the Way of the Works, then their Hutts must come down of course, their Labour would be lost, and there would be no Place for themselves nor others that follow them. As the Party is to be quartered in a Town and under the immediate Protection and Care of the Principall Indians over the Hills as they have assured me faithfully thereof. I thought it would be needless for them to attempt to build themselves any Houses, but to wait till the whole Body comes together and then all Hands to be employed about covering themselves in a proper Place. Further I did it to prevent their going in the Woods...for their Lumber &c. where they might probably be met by the Savannah Indians and others, our Enemies, as already mentioned (R. Demere to Lyttelton, August 1, 1756, SCIA:156-157).

On the evening of the 24th of August, William DeBrahm, Captain Stuart, Lieutenant Goldsmith, and Colonel Chevillette arrived at Fort Prince George. The two reorganized companies of provincial militia, of 60 men each, arrived two days later (see Appendix 2 for the muster rolls of these companies).

> [The following morning] ...I had the whole [three companies] formed into a Circle, and gave them a Talk, as the Indians says, but your Excellency may easily immagine to what Purpose it was, and had some few Articles of War read to them. Then they fell back to their proper Ground and had the 4 Swivels fired and three Huzzas &c. were given by the whole, and Orders were given at the Head of the Companys... The Officers dined with me, we drank the King and your Excellency's Health and Success to the Expedition and all seemed and appeared joyfull (R. Demere to Lyttelton, August 29, 1756, SCIA:169).

On the same day, after having been presented with a letter of demands from DeBrahm, Demere began to have some real doubts about working with DeBrahm, and even the possibility of meeting his demands. Orders were given by Demere that John Stuart and John Postell were to command the provincial companies. James Adamson and Robert Wall were lieutenants, and Maurice Anderson and Joseph Lloyd were ensigns (Orders of Demere, August 25, 1756, SCIA:172).

After the arrival of the provincial companies at Fort Prince George, preparations were finally begun in earnest for the march of the rest of the troops to the Overhills. On the 5th of September 30 horse loads of stores and provisions were sent to the Overhills, and on the 7th 20 more were sent (R. Demere to Lyttelton, September 5, 1756 and September 7, 1756, SCIA:195). After other delays at Fort Prince George, Demere and the company of British regulars and the two provincial companies set out for the Overhills with at least 60 pack horses on September 21, 1756. They followed the more southerly trade route through the mountains, then known as the Charles Town Trail, which passed through the Indian towns of Hiwassee, Great Tellico and Chota. This trail followed roughly the route between the present-day towns of Clayton, Georgia; Hiawassee,

Georgia; Unaka, North Carolina; and Tellico Plains, Tennessee; a distance of more than 100 miles (ca.160 km) from Fort Prince George (Figures 12 and 13; Kelley 1961a:9-10).

The contingent arrived at the Indian town of Hiwassee on the 26th of September, and on the 1st of October entered Tomotley. There they were greeted by Old Hop and about 200 Indians. The four swivel guns that were brought up with this body were fired and the colors were raised. After exchanges of friendship and good will Old Hop requested ammunition for the several Cherokee towns. Old Hop also asked that a small fort be built first at Tomotley, but Demere put off this request by indicating that he would have to clear that action through the Governor, and that he first needed to provide shelter for his own troops. Additionally, Demere was requested to send a corporal and six men to garrison the Virginia Fort which had been left unoccupied by Lewis (R. Demere to Lyttelton, October 13, 1756, SCIA:216-217). There is no indication in the documents that this was done.

On October 4th Raymond Demere, Old Hop, Little Carpenter and William DeBrahm went to decide on a location for the fort. DeBrahm did not approve of the location that had been selected previously by Pearson (Shown on Figure 3), but according to Demere, DeBrahm's complaint was "...more for Contradiction's Sake than any Thing else." By Demere's account, they went a mile farther from that site [actually probably closer to 400 yards] and DeBrahm decided on a location there. This location was probably at the junction of the Tellico River and the Little Tennessee River (see Figures 2 and 3). The Indians were opposed to this location, indicating that there was no good ground for planting crops, and concurred with Demere that it was a dangerous place for the Indians to come to, and that the fort would be of no use to the Indians there. DeBrahm apparently felt that it had a strategic position because of the junction of the two rivers, but the Indians pointed out that it was not possible to get that far upstream by water, except by canoe (R. Demere to Lyttelton, October 13, 1756, SCIA:217). After this discussion there was an event that set the tone, if it had not already been set, for the relationship between Demere and DeBrahm that lasted until the time that DeBrahm left the Cherokee country in December.

> Mr. DeBrahm hereupon took one of his Pistols from the Holster and offering it to me told me to shoot him through the Head; this he spoke with such Passion and Fury that the like was never seen. I told him he might blow up his Brains himself if he would (R. Demere to Lyttelton, October 13, 1756, SCIA:217).

After some continuing arguments, they all finally settled on "...the first Ground..." with which Demere was quite pleased, particularly with the adjoining 700 acres of land (shown on Figure 3). The garrison moved the same day from Tomatley to the "English Camp, one Mile and a half from the Town of Tomately" (R. Demere to Lyttelton, October 13, 1756, SCIA:218; DeBrahm, Work Orders for October 5, 1756, Clements Library). Presumably the English Camp was located on the level ground immediately south of the low ridge on which part of the fort was to be built.

The site finally chosen was on the south side of a narrow east-west ridge that came to a point on the bank of the Little Tennessee River (Figures 2, 3 and 4). This place was located about 400 yards (366 m) north of the location chosen by Pearson. The choice of location removed one of the complaints that DeBrahm had about Pearson's site, namely that it was commanded by three hills.

It is clear from the documents that DeBrahm feared a French attack from downstream, although he was assured by the Indians that was not something to worry about (see above comments of Old Hop and Little Carpenter). With the location chosen, however, the northern part of the fort as it was finally constructed did provide an excellent command of the river in a downstream direction (see Figure 4). Since the relations with the Cherokee were generally good at this time, little concern was apparently given to the fact that the interior of the northern part of the fort, situated on the ridge, was exposed and vulnerable to hostile fire from the field to the south of the fort.

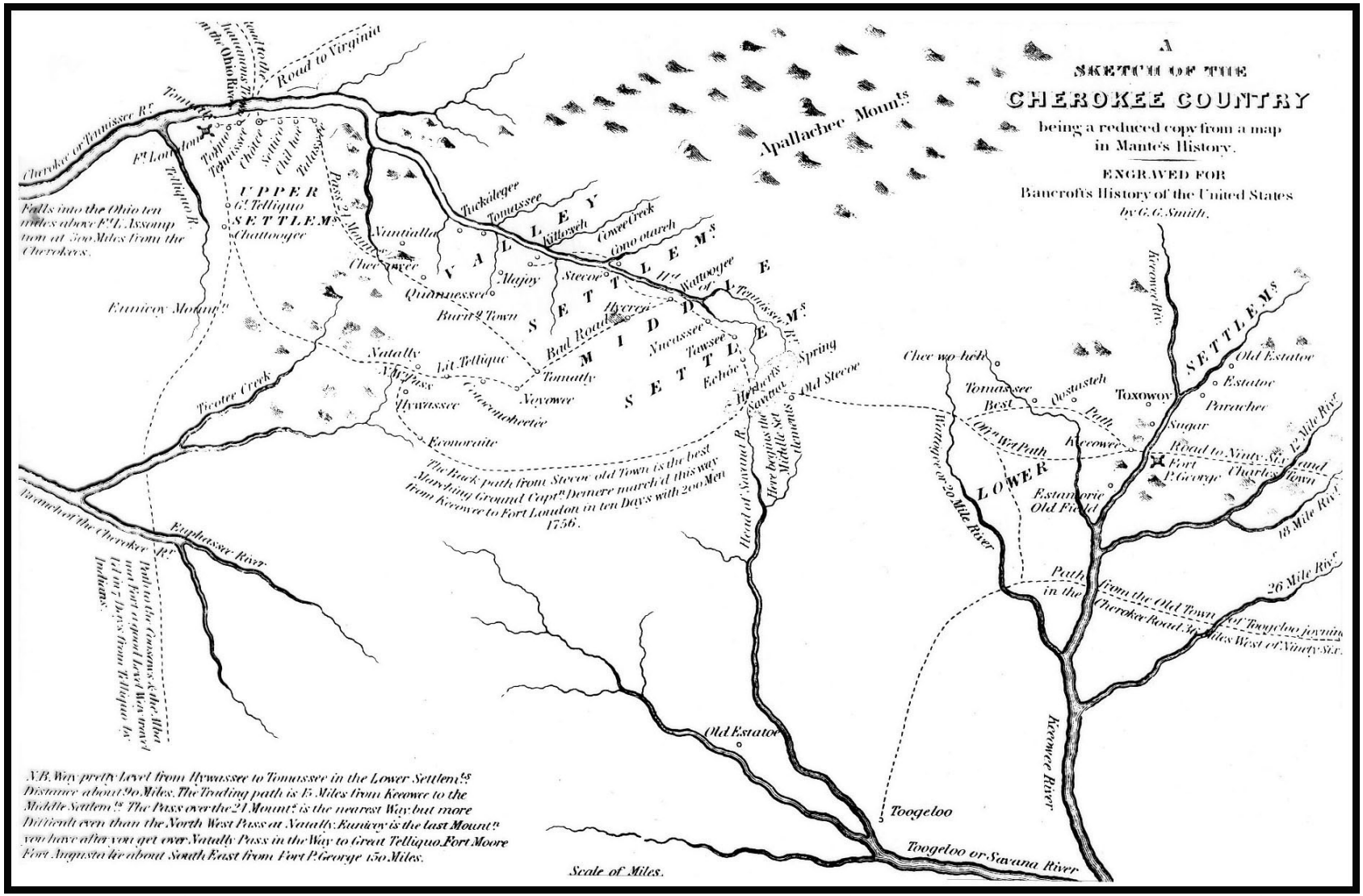

Figure 12. Sketch of the Cherokee Country showing the route taken by Raymond Demere and his forces to the Overhill country in 1756. Adapted from Brown 1938.

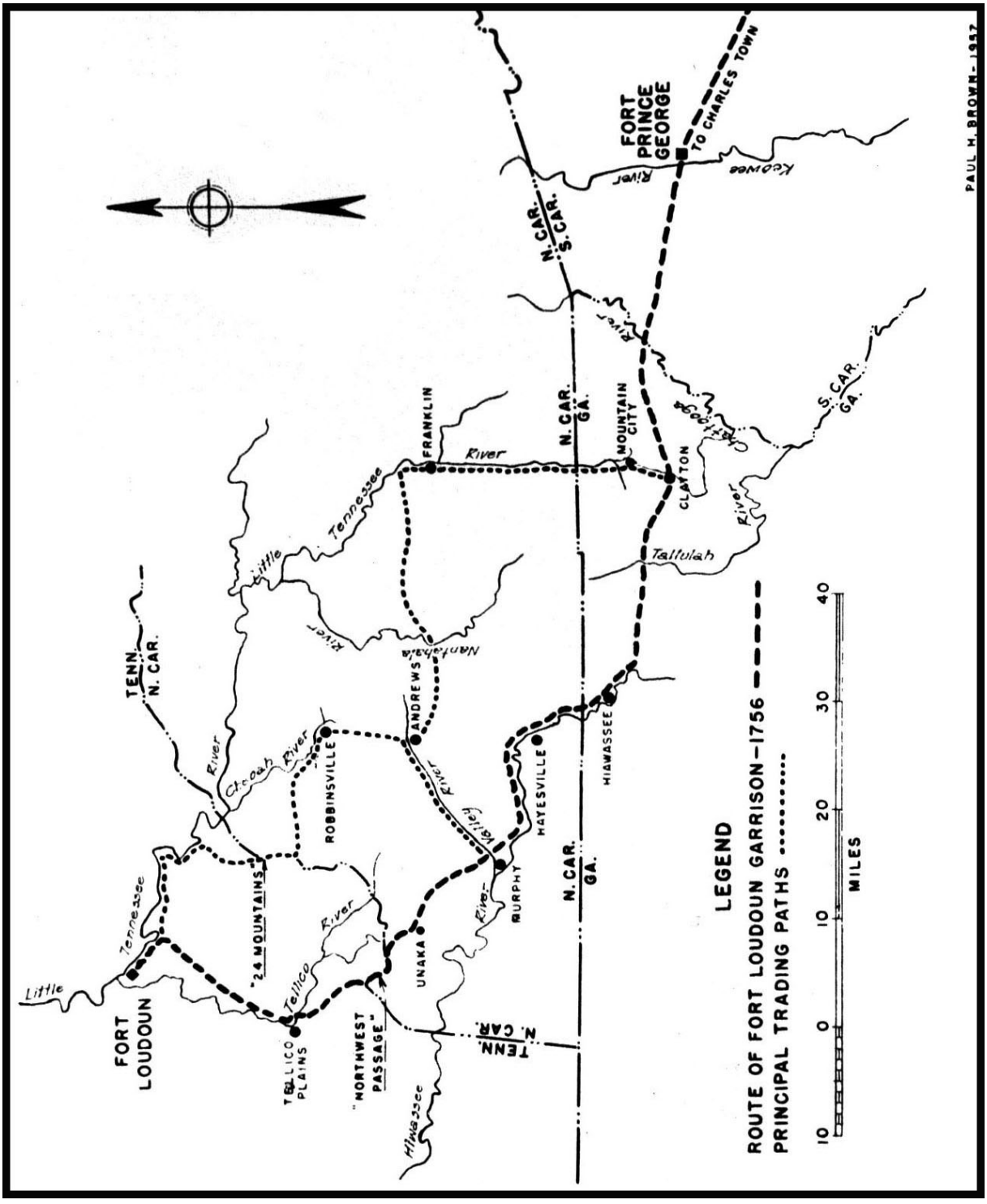

Figure 13. Present day map showing the trails between Fort Prince George and Fort Loudoun. Adapted from Kelley 1961a.

Writing several years later, DeBrahm presented his version of the account of the decision of where to locate the fort:

> When the Author arrived with the 300 Men at little Tomathly, on the west side of the Apalachian Mountains, he went recognizing [reconnoitering] the Place intended for a Fort; was accompanied by the Captains Raymond Demere, John Stuart, and John Postel; also by the Indian Emperor (old hope); the great Conjuror (Attakulla-kulla; or little Carpenter), and young Beamer, a Mustee, who served as Interpreter; when the Author saw the Place, he observed not only that a Ridge of Mountains at the N. E. side of the River, but also, that two Eminences, on to the N.W., and another to the S.E. commanded the Place, so that he could not agree to fix upon that Spot seemingly a favourite Place of the Indians, wherefore he had much ado to convince Them of the Impropriety to build a Fort between three commanding Eminences; His Arguments would have required less Force, had the other Officers (who seemingly inclined out of Complisance to the Indians to favour their Choice) joined the Author, who at last shewed the Indians that the Men's very Shoe Buckles were seen from either of these three Mountains, could therefore not serve for a Fort to protect their old Men, Women, and Children, what could not protect its own Garrison. They then consented He should choose the Northwestern Mount, being a narrow Ridge... (De Vorsey 1971:101-102).

Construction began on October 5, 1756, with laying out of the square for the camp, mining stones, preparing the tools for the work, and making fascines (DeBrahm, Work Orders for October 5, 1756, Clements Library; R. Demere to Lyttelton, October 13, 1756, SCIA:219). Poor relations between Demere and DeBrahm continued after the location was chosen and construction had begun. Writing on October 6th, Demere expressed some of his complaints to Governor Lyttelton and was specifically irritated because "Mr. Debrahm went away yesterday to Tomotley into a Warm room and we are exposed here to all weathers & quite open and no Intrenchments made ..." (Demere to Lyttelton, October 6, 1756, Clements Library). Thereafter most of the contact between Demere and DeBrahm was carried out through an exchange of letters and work orders. Continuing the argument about a week later, Demere wrote DeBrahm on the 14th of October after receiving a letter from DeBrahm that apparently did not survive:

> Now as this Letter from you was occassioned by that wrote to me by the Commissary which was published Last night in orders I must acquaint you that if it gives you no concern what becomes of the King's Stores and provisions for the Support of the people under my Charge, I as commanding officer here know my Duty too well to Let them perish and I must put you in mind of one thing which you Seem to have forgott, or to be ignorant off, viz. that no man here is under yr Command Except at the hours of work upon the fortification, and after they are paraded and Sent to work by my Direction, for I in quality of Commander reserve to my Self the Sole wright of Judging in what other Service it may be proper to Employ the people under my Command, with regard to the Govr's orders I Shall observe them punctually, So far as the Circumstances of things will permitt but Should I neglect them I know of no Authority you have to Call me to an account, and therefore I in my turn most begg of you to keep your advise till I ask for it, I must further add that if the people had time given them to provide Shelter against the night air and noxious Dews, they would go to work with more alacrety, and there would be fewer Sick, so that the Governours orders could be the more easely Complyed with (R. Demere to Lyttelton, October 14, 1756, Clements Library).

And, faithful to the custom of the time, he signed it, "Your most humble and Obedient Ray Demere."

Obviously well pleased with the location of the fort and at least the surrounding area, and the current friendliness of the Indians and their generosity, Demere had written the previous day that it was:

> ... a fine Spot pleasent and agreeable, there being seven hundred Acres of Land beautifully situated belonging to it which I was put in Possession of. It is a Pleasure to me to see the Indians coming to us both by Land and Water with Eatables &c. to sell to the People which they do in such Numbers that this Place already beings to have the Appearance of a Market (R. Demere to Lyttelton, October 13, 1756, SCIA:218).

From this time, the work on the fort progressed with some 120 provincial troops doing most of the labor involved, and with the regular troops mounting a guard of one officer and 20 men per day (R. Demere to Lyttelton, October 16, 1756, SCIA:225). In a letter written on the 26th of October Demere praised the qualities of John Stuart and his ability to deal with the Indians, a factor which was to be important in the closing days of the fort, and for the remainder of Stuart's life for that matter (see Alden 1944 for biographical information on Stuart):

> I am extreamly pleased that your Excellency approves of my having a friendly Communication with Capt. Steuart. I should be very much to blaim was I not to cultivate the same. I take him to be a very worthy Gentleman fit and capable for any Kind of Service. I only wish myself as capable as he is for the Management of Indian Negotiations. I shall therefore take the Liberty to recommend him to your Excellency (if in case any of these two Provincial Companies or their Officers should stay here,) as Commander of this Fort. Captain Stuart and Lieut. Wall are extreamly beloved by the Indians; they are Gentlemen capable of transacting any Affair relating to them or the military Service, and the Indians are very desirous they should stay here (R. Demere to Lyttelton, October 26, 1756, SCIA:232).

Most of the work that was done on the fort through October consisted of clearing the ground for the fort, and the construction of the ditch, parapet and the works in the area of Fort Glen between the fort and the river (see Figures 7 and 8, and Chapter 4). Toward the end of the month Old Hop met with Demere, Stuart, and Wall. He asked why they were not yet defended and urged them to get into a posture of defense. Old Hop, in expressing his concern about the slow rate at which the work was progressing, said that:

> ...if he had seen any Women amongst us he would have immagined that Dallying with them had employed us, but as he saw none he knows not what we have been doing. Now he says take Notice of what I say, make a wooden Fort immediately, and then go on with your Works (Talk of Old Hopp to Demere, Stuart and Wall, October 26, 1756, SCIA:236).

This urging by Old Hop was occasioned by the fact that there still remained considerable French influence over at least some of the Cherokee, particularly those from Great Tellico. How strong this French influence really was is uncertain, but persistent rumors to this effect were quite common at this time, and probably used somewhat to the Cherokee advantage in their relations with the English. Great Tellico did appear to have maintained some contact with Fort Toulouse, which was reported as "...only seven Days easy March through, a plain, level Country" (R. Demere to Lyttelton, October 29, 1756, SCIA:237). Reports of alliances between certain factions of the Cherokee and the French, and the possibility of a French and Savannah attack on Fort Loudoun continued to be brought in by Old Hop and others allied with the English (Hamer 1933:41-42; Talk of Old Hopp to Demere, Stuart and Wall, October 26, 1756, SCIA:234-237).

DeBrahm was in the fort on the 26th, the day that Old Hop was urging the completion of the works, and Demere indicated to DeBrahm the "emminent Danger" and stated that the workmen should be ordered immediately to begin erecting palisades as an expedient for protection against a possible attack. Two days later Demere reported that the palisade work was progressing rapidly, and that relations with DeBrahm had improved to the extent that DeBrahm had dined with him (R. Demere to Lyttelton, October 28, 1756, SCIA:233). That the rumors of attack were taken very seriously by the English is evident from the immediate effort to get the palisades erected, and also by an account of the situation as perceived by Demere and transmitted to Lyttelton on the 29th of October.

> I think myself under a Necessity to acquaint your Excellency that the present Prospect of Affairs are very gloomey. ...within these few Days I have a clearer and more distinct Idea of the Knavery and Deceit of these Indians than ever I had before, as the Talks &c. I send will inform you. I think it highly probable from the best Accounts, I can get that the Communication between this and Carolina will be cut of... [Little Carpenter]...was sure that the Savannahs intended to bring a large Body against us (R. Demere to Lyttelton, October 29, 1756, SCIA:237).

By the 7th of November one row of palisades had been erected, probably the innermost palisade line (see Chapter 4), and another was in the process of being constructed. Even with one palisade line in place and another being erected, Demere reported that the defenses were still not adequate, and continued to complain about DeBrahm's location and design for the fort.

> We are now pallasadoed round, but it is not sufficient for we are too much exposed. The Fort is commanded at present from the Top of a Hill and I believe will be the same when the Works are finished but Mr. DeBrahm depends very much on a Bastian that takes in Part of the same Hill. Mr. DeBrahm is now about setting up another Row of Pallasadoes with Traverses of the Inside of the Fort twelve Feet Distance from the first and a great Deal higher. We are now Nothing but Pallasadoes. It's to be wished that Mr. DeBrahm had built the Fort on the same Spot that Mr. Pearson had pitched upon, it being a fine levell and even Spot of Ground which would have answered much better than to be a blowing Rocks out of this Hill which he is obliged to have done to make Trenches for the Pallasadoes. It would have answered much better the intended Purpose for quick Dispatch, and would have saved a great Deal of Money to the Province.

> He has no Reason now to complain for he has above his Compliment of Men at Work. There is no Guard kept in the Day Time to please him which is a very hard Thing to do (R. Demere to Lyttelton, November 7, 1756, SCIA:241).

In his assessment of the situation, Demere concluded that the Indians were playing upon English fears with rumors of attacks and French alliances:

> The Friendship of this Nation is so very advantageous to the French that they will spare no Cost whatever to carry their Point, and I think that [it is] equally as advantageous to us. Indians are a Comodity that are to be bought and sold, and the French will bid very high for them. And on this particular Occasion if we don't bid as high we shall [absolutely] lose them, for Indians are but Indians and are but very little to be depended on; the highest Bidder carries them off (R. Demere to Lyttelton, November 18, 1756, SCIA:249).

By the middle of November, with relations between Demere and DeBrahm were again deteriorating, Demere reported on the state of the fort, and at the same time again criticized DeBrahm and his actions.

> The second Row of Pallasades is now finished with Traverses &c., and the working Men are imployed about the Breast Work. I have a great many of my Men imployed at it, notwithstanding they do all their Duties. I should be very proud if I could posibly give your Excellency an Idea of the Place this Fort is situate in, but I have not Elloquence sufficiently to do it. I wish sincerely that I could inform your Excellency that it was on the same Spot that Mr. Pearson had pitched upon; it would have given a perticular Joy and Satisfaction to every Gentlemen here. The Work would have been finished much sooner, and the Province would have saved a very considerable Expence. We should there have had no Occasion to blow up Rocks nor to build Ravleems, Fort-glens, and Counter Guards by the Waterside as if the River was navigable for Men of War. A good strong square Fort with four Basteens would have answered our intended Purpose and Nature seemed to have designed that Spot of Ground for such a Fort. I refer to Capt. Stewart and all the rest of the Officers' Observations except Capt. Postell who (with Submission to him) is no Judge in any Affairs of this Nature. I ought to have observed before that when Mr. Debrahm took us to the Place where your Fort is to be built, although there will be twice the Work here as there would be at the other Place (meaning this), and sayed in the Presence of several that the Fort was to be a double Horn Work with a fortifyed Communication which was to contain seven or eleven Acres of Ground, Part of the Work was to have been by the Waterside and the other on the Top of a stoney Hill with a Communication between as aforesaid, the Indians being very much against Mr. Debrahm's building a Fort at the Forks, and at last Old Hop and Little Carpenter saying positively that they would not have a Fort built there; then came up to this Place where he is building a Fort that will take three or four hundred Men to garrison it if [regularly] attacked, so that your Excellency may judge what Number of Men would have been required to garrison and properly defend the intended Fort at the Forks.
>
> I doubt that Mr. Debrahm has wrote a little too much and that he is not able to make his Assertions good; notwithstanding this Gentleman is constantly bawling out that he is acting for the King and for the Good of the Publick, the Publick, the Publick. The Gentlemen are daily threatned that he has wrote to Charlestown and that he will write again, and that he is obliged to do it for the Good of the King's Service and for the good of the Publick, the Publick, the Publick &c. God knows what Mr. Debrahm can write when every Gentleman does whatever they can for the Good of the Service to forward the Expedition and to please him to the best of my Knowledge. Mr. Debrahm ought to conduct himself a little better than he does, or he may very probably bring a Storm over his Head; he has sayd so often that he would go away and leave us that we begin to think by his odd Behaviour that he intends it. To this Intent (it is thought) he insults and abuses People thinking that a Return of the like Usage would be a sufficient Excuse for him to go away.
>
> When we first hear the News that the French and Indians were likely to be amongst us, Mr. Debrahm left us and took lodging at an Indian House in Tomotley about two Miles from this Fort where he still continues; he also immediately sent off all his Things to Keowes, and it's the Opinion of every one that he intended to march off himself in case any Thing had happened. It is sayed that Mr. Debrahm is visited in his warm Room at Tamotley by red painted faced Companions which Colour he does not dislike, but am sorry that any Thing of this Nature should prevent his constant Attendance at the Fort. But what do I say of a Man of so much Sanctity and Religion as he pretends to have, Oh, it is all a Farce and Nothing but Hipocricy (R. Demere to Lyttelton, November 18, 1756, SCIA:250-251).

Apparently at this time Demere and DeBrahm were again not speaking, and the latter was threatening to leave the Cherokee country. At a slightly later date, DeBrahm even stated that he was planning to have Christmas dinner in Charleston (R. Demere to Lyttelton, November 28, 1756, SCIA:261).

The first casualty of the garrison occurred on November 10, 1756, during the celebration of the King's birthday:

> The tenth Inst. being His Majesty's Birth Day the same was observed here. It moving so very wet and rainey that I could not order my Men under Arms at the usual Time, I had the Swivels loaded and His Majesty and your Excellency's Healths were drank when Corporal James Hill fired the Swivels the third of which bursted and took off all his Face of which he deceased the next Day (R. Demere to Lyttelton, November 18, 1756, SCIA:251).

By late November, it was realized that the supply for the garrison was to be very tenuous, particularly because of the dependence on Charleston for supplies, and the difficulty in getting them across the mountains to the fort. While waiting for Colonel Chevilette to return from South Carolina with provisions, and because they were down to one day's worth of corn and no meat, Demere stated that if necessary he would have the horses killed to provide meat. He assured the troops that "...Horses are very good Meat [and] I shall not fail to partake with you herein, and it will not be the first Time I have eat Hors Beef." (Orders of Captain Demere, November 25, 1756, SCIA:258). In a slightly later assessment of the provisioning situation Demere stressed the importance of having food supplies on hand and estimated that they should never be without a six or nine months' supply (R. Demere to Lyttelton, December 8, 1756, SCIA:264).

On the 26th of November, Elliot, who had been contracted by Demere to deliver the 12 cannon that had been left at Keowee, delivered them to the fort, transporting them on the backs of pack animals as described by DeBrahm:

> These small Cannons were brought with the greatest Difficulty, and great Expences over the Apalachian Mountains; the Indian Trader (one Ellis) undertooke to bring them from Fort Prince George opposite Keowee, on the east side of the Apalachian Mountains; Ellis contrived to poise on each Horse a Cannon crossways over the Pack Saddle, and lashed them round the Horses Body with Belts; but as these Horses had to cross a Country full of high Mountains, and these covered with Forrests, it would happen, that sometimes one End of a Cannon did catch a tree, twist upon the Saddle and drew the Horse down, some of which had by these Accidents their Backs broken under the Weight, and lost their Lives; the longest Journey these Horses could make was six miles in a day (De Vorsey 1971:102).

Demere made a diplomatic request to the governor for a name for the fort: "...I beg your Excellency to send a Name for the Fort when built, was this left to me I should be at no Loss for a Name" (R. Demere to Lyttelton, October 13, 1756, SCIA:219) [This was certainly intended as flattery to Lyttelton, but in view of later events it also would have made extremely good sarcasm]. Lyttelton sent the name of Fort Loudoun in honor of John Campbell, the 4th Earl of Loudoun, who was then Commander-in-Chief of the British forces in North America (see portrait inside front cover this report, and Pargellis 1933 for a summary of Loudoun's tenure as Commander-in-Chief). The letter from Lyttelton with the fort's name was received on December 2nd, and the name was first recorded on December 5th in a record of a talk by Judge's Friend to Demere, and in a letter of December 8, 1756 (SCIA:261, 262).

When Demere acknowledged the receipt of the name, he stated that "The Name of the Fort is more agreeable to Everybody than the Name Mr. Debrahm had given before," which was "Semantorium" (R. Demere to Lyttelton, December 8, 1756, SCIA:264; DeBrahm, Directions for Fortifications, October 12, 1756, Clements Library). Demere also acknowledged the name in a letter to Lord Loudoun and stated his misgivings about the fort:

> This Fort by order of Governor Lyttelton is called after your Lordship by the Name of Loudoun. I wish I could acquaint your Lordship that the situation and manner of construction of it are to my Satisfaction but the Inginier had full power to act in both according to his own Fancy; it is Calculated to be Defended by no less number than 400 Men in Case of a Regular attack (R. Demere to Loudoun, December 23, 1756, Huntington Library L0-2392).

Two other fortifications of this period were also named after the Earl of Loudoun. One located near the present-day town of Fort Loudoun, Pennsylvania, was constructed in 1756 and garrisoned until November 1765 (Hunter 1960:463-473; Kent 1978; Kent and Douts N.D.; Denton 1980; Warfel 1980b). The third contemporary fort that was so named was constructed by George Washington and was located near Winchester, Virginia (Hunter 1960:463; E. Brown N.D.a:80-81.

In early December, reports of a Cherokee alliance with the French followed the return of Mankiller of Tellico from Fort Toulouse. Hearing of outbreaks by other Indian groups such as the Creeks, Demere called a Council of War to determine the best ways to put the garrison into a posture of defense in case of an attack. It was decided that all of the guns were to be mounted as swivels and that shelters for the men were to be constructed within the fort as soon as possible (Intelligence from Judge's Friend, December 10, 1756, SCIA:265; Council of War, December 10, 1756, SCIA:266-267). On the afternoon of the same day, Kenoteta, the brother of Mankiller of Tellico, came to the fort. After a long talk with Demere, which lasted into the evening, he assured Demere that although he had also been to Fort Toulouse, the sentiment of the Cherokee was with the English. He also agreed to meet with the governor in the spring (R. Demere to Lyttelton, December 11, 1756, SCIA:267-268). At a meeting with Little Carpenter, Old Hop, Judge's Friend, and other headmen on the 16th, it was decided that near the end of the month Little Carpenter, Woolenawa, and other warriors and headmen would leave for Charleston to see the governor. Demere agreed that they would be accompanied by John Stuart and Ambrose Davis, the Linguister (Talk of Woolenawa and Little Carpenter to Demere, December 17, 1756, SCIA:270).

Around the 17th of December DeBrahm met with Demere and stated that he expected to be finished with the provincials shortly and that he planned to discharge them at that time. Demere stated that he could not let the provincials go before the fort was completed. DeBrahm indicated that he would be leaving for Charleston near the end of the month (R. Demere to Lyttelton, December 17, 1756, SCIA:272-273). The actions of DeBrahm with regard to the release of the provincials, caused considerable discord among the troops. This situation culminated in a court-martial of Henry Hammon on the 16th, and a Council of War that same day. Hammon, of Captain Postel's company was charged with "...speaking tending to promote Mutiny and Disertion." Despite the circumstances, the following decision was made:

> It is the Opinion of the Court Martiall that the Greatness of the Crime which is proved against the Prisoner is much allevated by his being ignorant of Martial Law, and by having such Notions instilled into him and the rest of them by the frequent Insinuations of Mr. Debrahm, yet in the present Conjuncture when such a Spirit of Mutiny and Desertion universally appears amongst the Provincial Troops, Examples are obsolutely necessary (Court Martial of Henry Hammon, December 16, 1756, SCIA:273-274).

The prisoner was sentenced to 200 lashes with a cat-o-nine-tails.

A Council of War was held to discuss the unfinished condition of the fort and the means by which to prevent any further mutiny or desertion among the troops. It was agreed that the three companies should be called to arms the following morning and the Articles of War read to them; in addition, Stuart was to read his commission and instructions. The men were to be admonished "...not to give Ear to any seditious Insinuations tending to promote Mutiney and Desertion by Mr. Debrahm or any other Person whatever," and Postel was to be privately admonished by Demere for his actions (Council of War, December 16, 1756, SCIA:274-275).

On the 23rd Demere wrote that he had ordered the officers to inspect the works and make a written report of the state of the fortifications (quoted in full in Chapter 1). On the evening of the 23rd Demere received the "final Direction for Accomplishment of the Fortification Works" (this document has apparently not survived). He called the officers together and they jointly wrote DeBrahm a letter (quoted in part in Chapter 1) criticizing him for leaving while the fort was unfinished. This was delivered to DeBrahm at Tomotley the next morning by Ensign Coytmore and later by Captain Postel, but DeBrahm refused to read the letter on both occasions (R. Demere to Lyttelton, December 27, 1756, SCIA:284; Demere and Other Officers to DeBrahm, December 23, 1756, SCIA:284-285).

On the 25th Demere wrote DeBrahm stating that if he did not plan to stay to complete the fortifications, he should keep the final directions to himself, and that all work on the fort would cease until Demere received further orders from the governor (R. Demere to DeBrahm, December 25, 1756, SCIA:286-287). Later that day Demere received a "Supplement to Final Directions" (this document has also apparently not survived) from DeBrahm (R. Demere to Lyttelton, December 27, 1756, SCIA:288). DeBrahm left for Charleston that day. On the following day at a Council of War Demere presented this document to the officers as "Mr. DeBrahm is clandestinely gone away and left this Fort unfinnished." The opinion of the Council of War was that they should immediately fortify themselves as best as possible in case of an attack. It was also decided that all of the troops be moved immediately into the fort, with each company building its own huts. The council further directed:

> That the Guns be mounted on Blocks at such Places as shall be judged most necessary for our Defence, that Drains and Bog Houses be made for the Conveniency and Health of the People, that a Communication be cut with the River. That Pallasadoes be cut and plained round the Breast Work of such Lengths and such Manner the Commanding Officer shall think proper to direct, and that they be substantial, that the [People] who are imployed in making Charcoal and in cuting and sawing Scantling for the Barraks be continued in that Work. That the Corn Mills be taken down out of the Forge, and placed some where else, and Guard Beds be made there, as there is no other Guard House (Council of War Held by Captain Rayd. Demere, December 26, 1756, SCIA:287).

Demere then wrote to Lyttelton that besides taking the necessary measures for defense they would stop work on the fortifications until the governor sent someone to inspect the works, and he received orders to proceed (R. Demere to Lyttelton, December 27, 1756, SCIA:287-290).

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Demere continued his diatribe against DeBrahm, while at the same time he presented himself in a rather noble light:

> ...as long as I can craul about and shall have a Drop of warm Blood in my Veins, I shall fight. I flatter myself to have as much Courage as any Man that ever wore a Head... ...by the Pains I have taken that I scarce know when it is Day or Night... During the whole Time Mr. DeBrahm was here, he was against any public Service, being against any Men going for Corn, against any bringing it from the water Side into the Fort, against any Trows being made to salt our Beef in, and against Charcoal being burnt, and at last having Occasion to call the Troops under Arms to suppress Mutiny which at that Time seemed to prevaile amongst the Provincials, he did ever oppose my doing that (R. Demere to Lyttelton, January 2, 1757, SCIA:301-302).

In the same letter, Demere reported that all of the men were then in the fort, the new huts were constructed, all of the guns were mounted on stocks, and charcoal was being produced for the forge. Troughs for salting beef and a storehouse for meat and other supplies had been built. He further indicated that the palisades would be cut to conform to the "Final Directions" of DeBrahm, but he was again critical of DeBrahm's work:

> [I]...am going to employ the People about cutting Pallissadoes agreeable to our great Ingenier's final Directions... ...but shall take Care they be put deeper in the Ground and more substansial then the first which are all tumbling down. The Indians calls it the Fort to put Horses, Cows and Hogs in, but I differ in Opinion with them for it would not be sufficient (R. Demere to Lyttelton, January 2, 1757, SCIA:301-302).

Because of the presumed threat of an impending French and Indian attack against the garrison, preparations were being made for defense of the fort and an effort was made to solidify the British-Cherokee alliance. The main target of those diplomatic gestures was the town of Great Tellico, since its warriors had associations with the French and some had recently traveled to Fort Toulouse. There was somewhat less concern about the Indians in the immediate vicinity of the fort. On the 5th of January, Mankiller of Tellico came to the fort and Demere assured him of English friendship and requested a similar attitude from the people of Great Tellico toward the English. They were joined later that day by about 30 men from Tellico, as well as others from the neighboring villages to hear Mankiller's talk and Demere's reply. Mankiller and six of his party stayed at the fort that night to continue discussions, leaving the next morning (R. Demere to Lyttelton, January 6, 1756, SCIA:307-310).

Subsequently, Demere sent Lieutenant Wall to Great Tellico to again reassure the people of that town of the English intentions and to deliver presents (R. Demere to Wall, January 10, 1757, SCIA:311; Wall to Tellico Indians, January 11, 1757, SCIA:317-319; Report of Wall to Demere, January 13, 1757, SCIA:321-324). For the next week Demere and his officers continued to tell the Cherokee of the English intentions and friendship, and on the 15th Demere reported his satisfaction with what he had been able to accomplish:

> I almost may venture to say that the Nation will be pretty safe of any Enemy coming here, except some sculking ones, as they will do at all Times. The French will not attempt to come except they had the Cherrockees on their Side, after all I might mistake, great Numbers of the Cherrockees will go for certain to the Assistance of Virginia in the Spring of the Year. This Nation are now fully convinced

> of all their Errors. They see we are come to stay with them, and be their Friends, and of late more than ever since they saw so many Houses being built within the Fort, and that the Work goes on in another Manner and not searching the Ground here and there and every where like wild Turkies in Mr. DeBrahm's Time without finishing any thing, (as they say) that the Iron we brought is imployed in other Uses, then to make Hand Cuffs for them (R. Demere to Lyttelton, January 15, 1757, SCIA:314-315).

These efforts culminated in a talk by Demere to the headmen and warriors of the seven Cherokee Towns (probably Great Tellico/Chatuga, Chota, Toqua, Settico, Tennessee, Chilwowe, and Tomotley. See Willis 1955:179; Smith 1979:56-57, Map 3) on the 25th, and a presentation of a long belt of wampum to Old Hop (R. Demere to Lyttelton, January 31, 1757, SCIA:325-326; Talk of Demere to Old Hop and the Upper Cherokee Headmen, January 25, 1757, SCIA:331-333).

In a letter written on the 31st of January, 1757, Demere outlined the condition of the fortifications and the work that had been planned for that installation. Additionally, he explained the reasons for not continuing to follow DeBrahm's plan.

> I appointed Lieut. Howarth to inspect the Works and act as Adjutant, but before he begun we agreed on what was the most material, expedient Matters which were to be taken to secure ourselves in case of any Attack, and the same was resolved upon to forsake all Mr. DeBrahm's Outworks, being of no Kind of Service or Signification rather more prejudicial to us than otherwise, and to proceed immediately about cutting large and substantial Pallisadoes fifteen Feet long and to put them round the whole Fort close to the Breast Work above which [they] are to project eight Feet. By this Means we shall be more safer from small Arms, for as it now is we are open, exposed and commanded on all Sides. We propose to make all the Intervails which were left to go into the Traverses in the Side of the Hill into a Breast Work to lay our Pallisadoes against. We shall cutt Loope Holes through the Pallisadoes at proper Distances from our Fireing, and the Garrison will be much safer then at present. The Guns will be mounted on Carriages on pretty high Platforms at each Bastion. The two Rows of Pallisadoes and Traverses that are within the Fort must be taken down for they will be of no Service to us, nor were they ever of any. They only crowded the People. I have got two Pair of Truks made to bring the Pallisadoes in which are drawn by Horses; it will take a long Time before our Pallisadoe Work is finished.
>
> We do not meddle with any of Mr. DeBrahm's Works; we leave them to be seen by some Body of Judgement that your Excellency will be pleased to send up to be informed of the exact State thereof. As to Lyttelton's Ravleen and Glen's Fort, they are situate in such a Place that we know not what to do with them; neither did Mr. DeBrahm before he went away, for he left them unfinished after having put the Province to a most considerable Expence. After our Pallisadoes are up, the Fort will be defencible (I believe) till such Time as the Pallisadoes begins to decay which will be in three or four Years.
>
> As your Excellency observes that the Fort cannot be called a regular one without Barracks and Conveniencies of the like Kind being built; I had the Honour in one of my last by Thomas Leaper to inform your Excellency that I had all my People lodged in the Fort, therefore hope your Excellency will excuse me if the Carpenters should not go immediately about Barracks &c., they being now imployed about something more pressing (viz.) Platforms and Carriages for the Guns, and the Sawyers are sett to sawing of three-inch Plank for the same, but they shall return to sawing Stuff for the Barracks so soon as they have a sufficient Quantity for the Carriages &c. The Mason is now preparing Stone to build the Chimneys which may be built beforehand. The Hedgemaker had begun some Part of the Hedge before Mr. DeBrahm went away and since has provided most Part of the Ditch with rich Soil and had likewise got the young Plants in Readiness that he might not lose the Season of the Year. He is now setting the Hedge and has, for the better Dispatch, imployed two Men to assist him (R. Demere to Lyttelton, January 31, 1757, SCIA:326-327).

In addition to the construction of the fort and the general diplomacy that Demere was carrying on with the Indians during the latter part of January, he was also working to persuade the various villages to go to war against the French (R. Demere to Old Hopp and Upper Cherokee Headmen, January 25, 1757, SCIA:332-333; February 15, 1757, SCIA:338-339). This action resulted in the first war party of some 47 warriors setting out on March 30th of that year (R. Demere to Lyttelton, April 2, 1757, SCIA:359-360). Poor relations between the local traders and the Indians were another source of problems that Demere tried to ameliorate (R. Demere to Lyttelton, February 5, 1757, SCIA:334). Work continued on the fortification into February in an effort to put it into a reasonable posture of defense. A report submitted by John Chevillette following his inspection

of the fort in early February was critical of the work, and was somewhat foreboding about the adequacy of the fortification.

> I cannot omit acquainting your Excellency of the Surprize I was in when I came in sight of Mr. DeBrahm's Fort. I have seen many Fortifications, but never such infamous Work as he has begun. The Pallisadoes that are proposed to be added to it will require two Months Work. When done it may support a small Attack, but we must never expect an honourable Capitulation. It is situated in such disadvantagious Place that no Man but a Villain would have erected a Fort up, when at 400 Yards Distance there is a beautiful Piece of Ground for that Purpose and where a good rampart Fort might be built in 2 Months Time (Chevillette to Lyttelton, February 9, 1757, SCIA:338).

By the first of March, Demere was able to report that palisades had been erected to the extent that two sides and one bastion were completed except for the split timber linings. Additionally, a storehouse had been completed for the commissary (John Chevillette), the carriages and irons for the guns were completed, and the carpenters were working on the platforms in the bastions for the guns. He further indicated that they planned to build two log houses, each two stories high that would serve for storage as well as to command the entire fort (R. Demere to Lyttelton, March 1, 1757, SCIA:345). The palisade work was apparently completed about the third week of March (Chevillette to Lyttelton, March 14, 1757, SCIA:347) and Chevillette again confirmed this a few weeks later, stating that the fort had been closed in (Chevillette to Lyttelton, April 5, 1757, SCIA:363). In late March, Demere reported that all of the palisades were in place and that they were installing the gates to the fort. At this time he also ordered a sergeant and 12 men to begin clearing the ground for the corn planting. The intentions were to plant 30 to 40 acres. It was subsequently reported in May that the garrison had "...a flourishing Plantation and will raise more Corn than they will want," but failed to state the actual acreage planted (R. Demere to Lyttelton, March 26, 1757, SCIA:347-350; April 11, 1757, SCIA:366; May 18, 1757, SCIA:375).

During this period of time, construction on the fort was directed primarily at making it defensible in case of an attack. For all practical purposes Demere had abandoned the plans of DeBrahm. However, on April 2, 1757, Demere received orders from Lyttelton to complete the works according to DeBrahm's plan. In his reply to the governor, Demere presented his reasons for abandoning the original direction of DeBrahm:

> I wish I had known your Determination in having the Fort finished according to Mr. Debrham's Plan. I would have employed the Regulars in finishing the Counterscarp and in rising the Breast Works in the Parts he left unfinished. The miserable Situation in which he left this Fort, I cannot give your Excellency an Idea of. There was no Part of it defensible, not even those which he calls finished, and we lay exposed and commanded in all Parts from the Top of a Hill on the Side of which the Fort is erected. I therefore thought it an indispensible Duty incumbent on me to put ourselves in some Posture of Defence till I should have your Excellency's Orders to proceed with Mr. Debrham's Dirt-works. It was thought that the most expedient Method to fortify ourselves was to erect large Palisadoes 45 [15] Foot long close to the inner Side of the Breast Works and their Points to incline towards the Counterscarp, agreeing exactly to what Mr. Debrham directs in the supplement to his finall Directions, with this Alteration only that the Pallisadoes are larger and longer than he intended. On Mr. Howarth's Arrival here this Work was approved of, and set about immediately with all the Provincials. I should have set the Regulars to work on other Parts of the Fortification, but Mr. Debrham's Works were judged insignificant and of no individual Service. Therefore I thought it consistent with the Publick Weal and my Duty to defer doing any Thing to them till your Excellency should be informed therof on account of the Charge and Expence it would enhance. Permit me to assure your Excellency that my Zeal and Affection for his Majesty's Service shall always be the same and that I shall always be alert in obeying your Excellency's Orders to the Utmost of my Power.
>
> On the Receipt of your Letter I sett all Hands about finishing Mr. Debrahm's Works and shall take care to see the Whole finished agreeable to Mr. Debrham's Design to the Utmost of my Skill and best of my Knowledge. Having just before the Receipt of your Excellency's Letter, finished setting up the Pallisadoes aforesaid, and also had good strong Gates put to the Fort which gives it quite a different Appearance to what it had (our Men can't get out of the Fort at Nights, nor the Indians can't jump into it as they did before). Your Excellency may depend that every Thing shall be executed as near as possible to Mr. Debrham's finall Directions, and I hope all will be finished about the 10th May next if the Weather will permit (R. Demere to Lyttelton, April 11, 1757, SCIA:365-366).

The first hostile engagement that the garrison entered into was against some Savannah Indians who had come into Great Tellico. Lieutenant Adamson and Ensign Coytmore, along with two sergeants, one corporal, 15 regulars, and 15 provincials, were ordered to Great Tellico on June 8th to assist the Cherokee in

attacking those Savannahs. The result of the engagement was the death of three Savannahs and the wounding of a fourth (R. Demere to Lyttelton, June 10, 1757, SCIA:381-383; Demere to Adamson, June 7, 1757, SCIA:383; Adamson to Lyttelton, June 13, 1757, SCIA:386-387). One interesting aspect of this operation was the manner in which the English troops prepared for this action: "...they Stripped naked Blacked and painted their skins, ala Sauvage..." (Stuart to Lyttelton, June 12, 1757, Clements Library). A similar tactic was suggested by Henry Bouquet to Forbes for the expedition against Ft. Duquesne in 1758:

> One other thing, that is to make Indians of part of our provincial soldiers. They are very willing, the expense is nothing, and I believe the advantage would be very real. It would only be necessary for them to remove their coats and breeches, which will delight them; give them moccasins and blankets; cut off their hair and daub them with paint and intermingle them with the real Indians. It would be difficult for the enemy to distinguish them and I believe that the impression which this number would produce would be useful to us (Bouquet to Forbes, June 20, 1758, Bouquet Papers 11:124).

After months of construction, Demere finally reported to Lyttelton near the end of June that the fort was completed according to DeBrahm's last supplement and to the governor's later orders. In the same letter he stated that work had begun again on the chimneys for the barracks building, since the previously constructed chimneys had to be dismantled.

> Walter Batemen had ingaged himself by an Agreement to erect and Compleat three Double Chimney's and a Single one for the Barracks, & Just as he had finished the Second, it fell down and for fear the first Should do the Same & kill Some of our men, I had it pulled Down and had I not done it, it would have fallen of it Self, he made them too heavy and Clumsy with Stones... As the Stones and morter are Ready & at hand I have imployed Some good Mason's which are amongst the Provincials, to Build Seven Single Chimney's, they are to be all in a Row on the back part of the Barracks... (R. Demere to Lyttelton, June 26, 1757, Clements Library).

This barracks building was subsequently reported completed by the second week of July (Howorth to Lyttelton, July 9, 1757, Clements Library). At the end of July Demere again confirmed that "Our Fort is entirely compleated and in a Posture of Defence" (R. Demere to Lyttelton, July 30, 1757, SCIA:396), after months of construction.

After a journey of about five weeks, Raymond Demere's brother Paul Demere (see Brown 1965 and Stone 1969 for biographies), arrived at Fort Loudoun on the 6th of August with a contingent of about 40 to 50 new troops (R. Demere to Lyttelton, August 10, 1757, SCIA:399; P. Demere to Lyttelton, February 20, 1758, Clements Library). According to Paul Demere, he arrived on the 4th of August (P. Demere to Lyttelton, August 18, 1757, SCIA:401). The two provincial companies were disbanded on the 8th of August and left Fort Loudoun on the 10th under the command of Lieutenant Adamson (R. Demere to Lyttelton, August 10, 1757, SCIA:401). On the 14th of August Raymond Demere had the garrison under arms, and officially delivered his command to his brother (R. Demere to Lyttelton, August 25, 1757, SCIA:404). Raymond Demere, John Stuart, Captain Postel, and Ensign Lloyd left the fort for South Carolina on the 19th, leaving Paul Demere with Ensign Coytmore and Lieutenant Anderson as the command for the forces stationed at Fort Loudoun (P. Demere to Lyttelton, August 18, 1757, SCIA:402; R. Demere to Lyttelton, August 26, 1757, SCIA:405).

In his letter of the 18th of August, Paul Demere reported to Lyttelton that in addition to his officers, he had a blacksmith, a gunner, a storekeeper who kept an accurate account of the provisions and "serves them" every other day, two men with horses who looked after the cattle, and two butchers (P. Demere to Lyttelton, August 18, 1757, SCIA:402-403). Further considering the condition of the Fort, he indicated that there was no guard house and that the blacksmith shop was still being used for that purpose. He was also employing several men finishing some of the details of the barracks and other things that needed completion about the fort (P. Demere to Lyttelton, August 18, 1757, SCIA:403; August 26, 1757, SCIA:406).

Much as his brother had done earlier in the year, Paul Demere continued efforts to consolidate the Cherokee-English alliance. He presented a long talk to the Indians at Fort Loudoun on the 25th of August, assuring the Indians of his friendship. He continued efforts to supply them with trade materials, and emphasized that they were better off with the English than they would be with the French.

> I now speak to you beloved men and warriours who ought to consider for the Good of your own Nation, and the Welfare of your brothers that are among you I tell you this because our whole desire is to live with you as Brothers in Peace and Quiteness and to hold with you, the sharp Hatchet against our Enemies. The Chain of Friendship which has so long linked us together I hope will never be

> broke. We the English, on our Part, will always endeavour to strengthen to it, as I doubt not but the Cherokee will, we are all the Children of one Father the Great King George. Let us assist one another as much as we can, all our Studies are for your Good and our own. Pray remember my talk and when you find the Contrary to what I tell you, then tell your Brothers the English they Lyers (P. Demere, Talk given to the Indians at Fort Loudoun, August 25, 1757, Clements Library).

Five days later Old Hop, Little Carpenter, and several other headmen assembled, at which time Old Hop presented Demere with a belt of wampum and declared that he possessed:

> ...the Greatest Friendship, and Sincerity to King George, and all his Children, and adding that he desired to live forever in Peace and Unity with all the English, and declared his Aversion to the French, as his Brothers were at War now with them, he said that the Cherokees had long ago Promised the English some Land in their Nation to build upon that they had now setled a Fort and they Were glad to see their Brothers Among them... (Talk by the Indians, August 30, 1757, Clements Library).

At the request of Little Carpenter and Great Warrior of Chota, Demere had a flagstaff made and erected at Chota so that the British colors could be raised at that town during the Green Corn Dance. Diplomatic efforts continued into September with Demere's attendance at the Green Corn Dance, by invitation of Old Hop, Little Carpenter, Great Warrior, and other headmen of the Cherokee. The day after the dance and ceremonies, Demere sent Ensign Coytmore, Lieutenant Anderson, and the linguister to hear the talk of a contingent of Catawbas who had come into Chota for the dance, and on the 20th Demere received the Catawbas at the fort. On the 23rd of the same month, Little Carpenter, and Great Warrior visited the fort, and on the following day a group of 48 warriors set out against the French and their allies. A lively discourse was continued between Demere and the Cherokee for the remainder of the month of September and into early part of October (P. Demere to Lyttelton, October 11, 1757, Clements Library).

On the 11th of October, Demere reported that the chimneys for the barracks were completed, that the men had been moved into the barracks, and that many of the temporary quarters had been taken down. The guardhouse was under construction at this time, and a corn house had been completed. The Cherokee were incessant in their continued demands, with their efforts taxing Demere's patience:

> It is impossible for me to describe how tormented I am Every Day with the Indians. Some brings their Guns to be mended & it must be done because the Carpenter told them it should be So, and you promised him; Some bring Hatchets to be mended other Padlocks to have keys made to them; others want Salt, others sometimes Meat, & great many other things, which is granted, but Thanck God they are very quiet in all the Towns (P. Demere to Lyttelton, October 11, 1757, Clements Library).

Later in November (by the 24th) the guardhouse had been completed and a guard room addition was planned. Another corn storage house had also been completed. The guardhouse was being used for reception purposes instead of the previously used blacksmith shop, and was referred to as their "State Room" (P. Demere to Lyttelton, November 24, 1757, SCIA:417-418; December 30, 1757, SCIA:428; January 5, 1758, SCIA:433).

1758

Negotiations and attempts to keep peace in the Overhill area continued from December into January. The Indians were supplied with hatchets, powder, bullets, knives, paint, guns, and boots by Demere. Small war parties went out from the Overhills to attack the French and their Indian allies with varying successes, particularly toward the Ohio regions. On their successful return, those parties were rewarded by Demere for their efforts with presents at Fort Loudoun. The relations between the Cherokee and the English at Fort Loudoun were probably at their best at this time. Demere noted this in his correspondence when he stated that "...we at present live in Great Harmony and Friendship with all the Nation" (P. Demere to Lyttelton, February 20, 1758, Clements Library; Hamer 1933:44).

Difficulties between the English and the Cherokee, which eventually brought on the Cherokee War of 1759 and 1760, started in the spring of 1758. This was the beginning of the misunderstandings that finally forced the conflict which resulted in the surrender of Fort Loudoun two years later. Although the initial events had little to do with Fort Loudoun, and grew out of unfortunate circumstances in Virginia, they were of long-term consequence (Hamer 1933:45). In May of 1758, a band of Cherokee under the leadership of Montoy of Settico stole about 20 horses belonging to white settlers while traveling through Bedford and Halifax Counties in Virginia. Seeking to recover their property, the settlers attacked the Settico party and an

armed conflict arose in which both sides suffered casualties. The Indians were pursued by the local militia of about 40 people; attempts to negotiate the problem were unsuccessful. In the continuing conflict the Cherokee lost a total of 19 warriors. Lt. Governor Dinwiddie of Virginia offered conciliation to the Indians and promised them safe passage to the Overhills. In retaliation, however, the Cherokee raided the Yadkin River settlements, returning to Settico with 19 scalps. By the end of the summer of 1758 some 30 to 40 Cherokee had been killed in the continuing outbreaks of violence. In the Overhill area, Little Carpenter, and Old Hop tried to quiet the Cherokee. Lyttelton offered presents to the families of the slain men in compensation for their loss (Brown 1938:83-88; Hamer 1933:45; Williams 1937:203; Mackintosh to Lyttelton, June 5, 1758, SCIA:462; Dispositons Concerning the Indian Disturbances in Virginia, SCIA:463-470; P. Demere to Lyttelton June 24, 1758, and September 30, 1758, Clements Library).

Improvements continued to be made at the fort. The excavation of a well within the interior of the fort was begun in March 1758 and Demere noted that the fortification and, in particular, the palisades were beginning to need some repair (P. Demere to Lyttelton, May 20, 1758, Clements Library). Also during the month of March, the first of two Presbyterian missionaries who came into the Overhills arrived at the fort. The brief visit of Reverend John Martin (see Williams 1931 and 1937:207-209 for biographies of Martin and Richardson and a discussion of the missionary work in the Overhills) was not described by Paul Demere, who only mentioned Martin as having been there in passing in two letters, one written in October of that year, and the other nearly a year after Martin's visit (P. Demere to Lyttelton, October 15, 1758, Clements Library; May 2, 1759, SCIA:485). The only account that tells of his visit was recorded later by Henry Timberlake who described the successes of Martin in the Overhill area as:

> Mr. Martin, who, having preached scripture till both his audience [the Indians] and he were heartily tired, was told at last, that they knew very well, that, if they were good, they should go up; if bad, down; that he could tell no more; that he had long plagued them with what they no ways understood, and that they desired him to depart the country (Williams 1948:87).

In June of 1758, Demere reported that the well had been completed and that the 700 acres of land that had been granted to the English by the Cherokee (shown on Figure 3) had been fenced. The cornfield had been planted again with Indian corn and there were prospects for a good crop (P. Demere to Lyttelton, June 24, 1758, Clements Library).

Realizing the effective use of Indians against the French and their allied Indians, a call for aid was again made to the Indians for the Forbes expedition against Fort Duquesne. Demere was instrumental in recruiting Cherokee for this expedition (Stone 1969:23).

> Friends and Brothers, His Exellency, the Earl of Loudoun, the King's Great Warriour and Commander-in-Chief of all his Forces in North America, having resolved to prosecute the War against the Subjects of the French King with the greatest Vigour and to that End, having ordered a large Body of Troops to march to the Ohio is very desirous to have the Aid and Assistance of you, the brave and faithfull Cherrockees, who have always declared like good Friends and Brothers that our Enemies should be your Enemies, more especially as he has heard with the greatest Satisfaction the many valiant Acts performed by your Nation and particularly how well you fought last Summer upon the Borders of Virginia and Pensylvania and defended the poor Out Settlers there against the Incursions of the French and their Indians and therefore His Lordship has sent the Honourable William Byrd Esquire, one of the King's Council in Virginia, and a brave Warriour well known to you to have a Conference with you at Keowee and to conduct as many of you as shall be willing to go upon this great Enterprize to Winchester in Virginia. Before you go out to War Colonel Byrd will take effectual Care that you shall have Provisions upon your March (Lyttelton to Old Hop and the Cherokee Head Men and Warriours, not dated, SCIA:479).

Consequently, the Cherokee joined the Forbes campaign in the fall of 1758 against Fort Duquesne. After innumerable delays in that campaign, Little Carpenter and nine others left the expedition in disgust and headed home to the Overhills. They were pursued and disarmed by the order of General Forbes, and sent toward Winchester, Virginia, under escort. This humiliation of Little Carpenter and the other Indians turned the Cherokee against the English, insofar as being of any assistance in future military campaigns, even though a conference between Governor Fauquier of Virginia and the Indians did ameliorate the immediate differences (Hamer 1933:45-46, 1925c:25; Williams 1937:203-206; Brown 1938:89).

On Friday, December 15, 1758, the second Presbyterian missionary to the Overhill Cherokee, William Richardson, arrived at the fort for a two-month stay in the Overhills. The diary that he kept during this time

is interesting in that it provides a great deal of information on the area. In particular, the missionary reported on such matters as the Cherokee religion and the mood of the Cherokee. He noted at that time the seeds of the coming conflict between the Cherokee and the English. It is also important with reference to this volume that he provided several particulars about the fort and some of the events that took place there during the time in which he was in the Overhills. The following related excerpts are taken from Williams' (1937) publication of portions of that diary.

> Friday 17 [15]. Came to Fort Loudoun wc is situated in the angle on the side south of the River abt 2 small Miles from Temotlee; was kindly received by Captn. Demeree... The Distance from Fort Loudoun to Fort Prince George by way of the 24 Mountains is abt 163 Miles...
>
> Sat. 16. At the Fort saw and Indian warrior w'o enquired particularly abt Mr. Martin as others did which shewed ye great regard they had for him.
>
> Sab. 17. Preched to the soldiers w'o behave well.
>
> Dec. 19. At the Fort; very hard Frost; the River is frozen over & all the Mountains covered with Snow wc renders the Mountains almost impassible when it begins to thaw.
>
> Dec. 24. Preached to the soldiers; an express arrived informing us that the French intended to attack the Fort.
>
> Dec. 25. Preached to the soldiers from Luke 2d, 10, 11. [And the angel said unto them Fear not: for, behold, I bring you good tidings of great joy, which shall be to all people. For unto you is born this day in the city of David a Savior which is Christ the Lord (King James Version)].
>
> It made me a little uneasy to see the Indians drunk to Day & they who will not talk English w'n sober now will.
>
> Dec. 31 Sab. Preached to the soldiers; another express arrived informing us that the French & their Indians intended to attack the Fort soon.

1759

> Mon. Jan. 1, 1759. Baptized a child for one of the soldiers...
>
> Sab. 7. Preached to the soldiers with some degree of solemnity &c. I am sorry I cannot talk to the Indians.
>
> Thurs. 18. Went to the Fort to baptize a child...
>
> Sab. 21. Preached to the soldiers in the Fort, from Rom. 2, 4. [Or despisest thou the riches of his goodness and forebearance and longsuffering; not knowing that the goodness of God leadeth thee to repentance? (King James Version)].
>
> Sab. 28. Preached to the soldiers as the Indians w'd not allow me to talk to them...
>
> Monday 29. Went to the Fort at the Captn't desire to talk at the grave of a soldier w'o died suddenly by a fall...
>
> Tuesd. 30. Uncertain what to do, not allowed to preach...
> Thurs. Feb. 1. Am now out of all Patience; can stay no longer; the Societies at a vast expense for little or no purpose...
>
> Feb. 5. Was obliged to have myself locked up in my house (at Chote) for Fear of the Drunken Indians; this was a Day of Rum Drinking, and they are very troublesome then. It is a pity there is not a stop put to the carrying of so much Rum among ym who w'n sober in general behave well.
>
> Feb 6. Having no further appearance of usefulness among them & every Thing Concurring... ...I left the upper Towns & came to Great Tellico... (Williams 1931:131-137; 1937:210-223).

Richardson left the Cherokee country on February 6, 1759 (P. Demere to Lyttelton, February 26, 1759, Clements Library). The Fort Loudoun garrison was reinforced in January of that year by Ensign Ben, 25 privates, two sergeants, and two corporals. This bolstered the garrison to about 130 men. Demere had

previously reported that there were 125 people total at the fort approximately a year earlier (P. Demere to Lyttelton, January 26, 1759; February 20, 1758, Clements Library).

When Little Carpenter returned to the Overhill country after his participation in the Virginia campaigns, he and about 90 of his warriors went to Charleston to see the governor and to present him with an enemy scalp. Although he was not warmly received by Lyttelton, Little Carpenter reaffirmed his loyalty to the English. After being presented with gifts, he returned again to the Overhill area (Hamer 1925c:25). His objective, as promised to Lyttelton, was to promote the continued alliance and good behavior of the Overhill Cherokee (Alden 1944:80-81). During Little Carpenter's absence from the Overhills, sentiments had risen against the English. There were efforts on the part of some of the Indians to become more friendly toward the French and their Indian allies. Most significantly, in March, Mortar, an Upper Creek leader who was friendly to the French, and 23 of his warriors, arrived in the Overhill towns and was received by Old Hop and Standing Turkey. They subsequently took up residence at Chota, despite protests by Demere. Mortar incited some of the Cherokee into action against the English and he led a group of Cherokee from the Overhills to Fort Toulouse. Also during his stay in the Overhill towns Mortar had a meeting with Montoy, the head of Settico Town, who left with 25 men for the Yadkin and Catabaw River areas of Virginia in April. This group killed some 20 settlers in that region and returned to the Overhill towns in early May. It was at about this time that Little Carpenter was returning from Charleston. He tried to get his Indians to comply with Demere's demand of one Settico tribesman for each white that had been killed in the Yadkin and Cataba area, but his efforts were unsuccessful. He was able to acquire some of the scalps and surrendered them to Demere who ordered them buried (Alden 1944:80-81; Brown 1938:89-90; Williams 1937:229; SCG, August 4, 1759, No. 1297).

In addition to the discontent in the Overhill area, there was also a growing anti-English feeling in the Lower Cherokee towns. An unfortunate circumstance further aggravated the situation in that eastern area. Lieutenant Coytmore was transferred in April from Fort Loudoun to take command of Fort Prince George at Keowee from Lachlan Mclntosh. McIntosh was generally respected by the Indians, but actions by Coytmore and Ensign Bell shortly after their arrival at Fort Prince George intensified the Indians' dissatisfaction with the English (Brown 1938:90; Hamer 1925c:26). The best account of the event that took place was presented by James Adair:

> There was another incident at Fort Prince George which set fire to the fuel and kindled it into a raging flame: three light-headed, disorderly young officers of that garrison forcibly violated some of their [Indian's] wives, and in the most shameful manner, at their own houses, while the husbands were away making the winter hunt in the woods-and which infamous conduct they madly repeated but a few months before the commencement of the war: in other respects through a haughty, overbearing spirit they took pleasure in insulting and abusing the natives when they paid a friendly visit to the garrison. No wonder that such behaviour caused their revengeful nature to burst forth into action (Williams 1937:230).

Governor Lyttelton, fearing that the discontent of the Indians would break out into open warfare declared an embargo on guns and ammunition to the Cherokee on August 14th. This made the Cherokee even more apprehensive about the English intentions. The implications of this action were far reaching. Creek representatives from Fort Toulouse at this time were presenting the French side. They indicated that the supplies that had been cut off by the English could be supplied to the Indians by the French. The Overhill Cherokee, who had been relatively peaceful since the raid by the warriors from Settico in May of that year, grew much more apprehensive, possibly because of their proximity to the French, and certainly because their supplies from the English had to come from South Carolina. The towns of Great Tellico and Settico were openly hostile toward the English. In early September three scalps were taken in the Overhill area to exchange with the French for ammunition (Hamer 1925c:26-27; Stone 1969:25-28; P. Demere to Lyttelton, September 13, 1759, Clements Library). One of the men killed was a packhorseman near Great Tellico who was escorting flour to Fort Loudoun, another was a trader in Chilhowee, and the third was a soldier from Fort Loudoun who was killed on September 7th, the last day of the Green Corn Dance. Demere and Maurice Anderson both described this incident:

> The Town of Settiquo taking part with Telliquo, sent four Men to waylay this Fort, where they kill'd & scalp'd a Man within a hundred Yards of our Corn Field; & last Night, some Fellows belonging to the same Town, killed & scalp'd one William Veal, that traded in Chittowee. Four Days ago I sent a Party of Men to drive in the Cattle, & soon after they went I perceiv'd a great number of Indians going the same way, & was afraid that they were gone to way-lay & cut them off, but the Party returning with

> the Cattle soon after my fears were dissipated; but am credibly inform'd that was their Errand... (P. Demere to Lyttelton, September 13, 1759, Clements Library).
>
> ...the Settiquo People broke out in a very odd manner, sent four to waylay the Fort, & kill'd Samuel Simmons within two hundred Yards of the Corn-Field (who had just gone out to gather a few Grapes) (Anderson to Coytmore, September 12, 1759, Clements Library).

On the 9th of September, Demere had the cattle brought into the fort after a party of Indians made an attempt to drive them off. The cattle were then killed and salted as a precaution against their loss. Because of some disrepair of the fort at this time and the need for a more secure posture of defense, Demere took action to repair the facility. Additionally, Demere reported that the roads into the Overhill area were blockaded by the Indians and were dangerous for travel. His letters also indicated that preparations were being made in the event of a siege by the Indians (Anderson to Coytmore, September 12, 1759; P. Demere to Lyttelton, September 13, 1759; October 1, 1759, Clements Library).

During this time, John Stuart, who was then in command of Fort Lyttelton at Port Royal, was ordered to reinforce Demere at Fort Loudoun with 70 provincial troops (Alden 1944:81 and SCG August 18, 1759, No. 1300). Stuart, with his command reduced to about 52 men due to desertions, arrived at Fort Prince George on September 24, 1759. They were to be escorted to Fort Loudoun by Oconostota and Usteneka and 18 warriors and three traders. However, these Indians, plus a delegation from the Middle Cherokee towns, after being refused ammunition by Coytmore and Stuart, left for Charleston to demand the supplies from Lyttelton. Assuming that the Indians would not break into open warfare while such a large delegation was in Charleston, Stuart ordered the flour and cattle sent to Fort Loudoun on October 27th. The subsequent arrival of these troops raised the garrison to about 200 men. In addition to the food supplies, this force brought with them some 1000 pounds of powder and 3000 bullets (P. Demere to Lyttelton, November 3, 1759, Clements Library; Alden 1944:82-83; Stone 1969:58).

Once word reached Charleston about the murders in the Overhill country, the blockade of the paths between Fort Prince George and Fort Loudoun, and the outbreaks in the Lower Cherokee towns, Lyttelton began preparations to raise a force to compel the Indians to keep the peace. The South Carolina Assembly, called into session by Lyttelton on October 4th, did not declare war against the Cherokee, but did agree to pay for 1500 men for Lyttelton's expedition against the Cherokee (SCG, October 17, 1759, No. 1311). This expedition consisted of the regular troops and provincials that were stationed in Charleston, and more than 1000 militia called into service (SCG, November 1, 1759, No. 1313). Additionally, Lyttelton wrote Governor Fauquier of Virginia asking Virginia to help maintain the garrison at Fort Loudoun, since the easiest route to Loudoun was from Virginia. He also wrote to Governor Dobbs of North Carolina asking for assistance, and the Catawba and Chickasaw Indians were requested to send support. Lyttelton then wrote to Edmund Atkin, the Commissioner of the Southern Indians, who at the time was in the Creek Indian area, soliciting him to incite the Creeks and Chickasaws to raid the Cherokee (Alden 1944:83; Hamer 1925c:27-28).

Just prior to the time that Lyttelton's expedition was to leave Charleston, Oconostota and other Indians arrived in Charleston to talk with the governor. The Cherokee were reluctantly allowed to speak to the governor, but the usual courtesies by the governor toward the Indians were not adhered to. Oconostota, as one of the spokesmen, confirmed the outrages that had been committed by their people, sued for efforts to promote a peace and settlement, and complained about the conduct of the officers at Fort Prince George. After the Indians were dismissed, Lyttelton told the South Carolina Council that he did not believe that these Indians were authorized to sue for peace, and that their main concern was to obtain the ammunition that had been refused at both Fort Loudoun and Fort Prince George. He further suggested that the expedition be carried out and that the Indians in Charleston be surrendered to be put to death for the murder of the whites in the backcountry (Hamer 1925c:28-29; Brown 1938:91-93). The following day he informed the Indians that the expedition would proceed telling the Indians:

> You, Oconostota, and all with you, shall return safely to your country, and it is not my intention to harm a hair of your heads; but having put many of my warriors under arms who well know the mischief the Cherokees have done to the people of this province, there is but one way I can insure your safety. You shall go with my warriors that will accompany me to your country, and they will protect you. I have nothing further to add, and the conference is finished (South Carolina Council Journal, quoted in Brown 1938:92-93).

The Lyttelton expedition left Charleston on October 26, 1759. This expedition marched to the Cherokee settlements reportedly to a refrain that was published in the *South Carolina Gazette*, and supposedly written by a volunteer on that force. In part it states:

> We'll teach the threach'rous Indian how
> With due Humility to bow,
> Their savage Hearts we will subdue,
> And make them to our King more true,
>
> We'll then compell these Beasts of Prey
> To rue the Time - their scalping Day;
> And Satisfaction we will have,
> Nor guilty Indian will we save.
>
> See Lyttelton! He leads the Van
> Then we will follow to a Man;
> Nor will we doubt those left at Home,
> Should Need call them, with us they'll roam.
>
> The Ladies too should be our Care,
> Some must be left to guard the Fair,
> To save them from impending Harms;
> But ready to stand on all Alarms.
>
> Our Governor doth now command,
> Then come, my Sons, with Sword in Hand;
> With him let's fight, with him lets fray,
> Over the Hills and far away.
> (SCG, November 3, 1759, No. 1315).

The Cherokee who were in Charleston were taken with the expedition. This action was done ostensibly for their protection against English settlers, but in reality they were being held as prisoners. At Amelia, South Carolina, about 40 additional Cherokee under the leadership of Round 0, who were headed to Charleston, met the expedition. They were also taken into custody and made to accompany the troops to Fort Prince George. The forces were then joined by six Catawbas and some 28 Chickasaw. The expedition reached Fort Prince George on the 9th of December. Although he had nearly 1700 men on hand at Fort Prince George, things were not going well for Lyttelton. The men had been suffering from chicken pox on the journey, and news reached Lyttelton that Colonel Hugh Waddel, who was heading the 500 militia from North Carolina, would not reach Keowee in time to assist Lyttelton. Compounding matters, Lyttelton's militia were only bound to serve until the 1st of January, 1760. A smallpox epidemic had spread to Keowee, and there was the persistent fear that it would break out among the troops (Alden 1944:85-86; Hamer 1925c:28-29; Williams 1937:231-233).

Lyttelton was growing disenchanted with the expedition and realized the need to resolve matters quickly. He received a message from Little Carpenter asking for a conference at Fort Prince George. The governor decided to deal with Little Carpenter, since Old Hop had authorized him to act on behalf of the Cherokee Nation (Alden 1944:86-87). A treaty was negotiated stipulating that the Cherokee would preserve the peace and that the Cherokee who were guilty of murder would be delivered to the governor to be put to death. Hostages would be kept at Fort Prince George until the murderers were brought in. The treaty further stated that the traders would be allowed to return to their respective villages, and that the Cherokee would capture or kill any French that came into the Cherokee area (SCG, January 8, 1760, No. 1325). After the treaty was signed, all of the Cherokee were released, with the exception of 24 who were detained as hostages as stipulated by the treaty and were kept at Fort Prince George. Little Carpenter subsequently secured the release of Oconostota, Judds Friend, Tistoe of Keowee, and Salone of Estatoe (Brown 1938:93).

> Awkward as Lyttelton's position was, he sternly demanded as one of the terms of a settlement that twenty-four Cherokees who had participated in forays resulting in the murder of twenty-four whites after November 24, 1758, should be surrendered to him for punishment. He released four more of the Cherokees held at the fort, and declared that he would hold the remaining twenty-four until the guilty warriors were given up. Attakullakulla informed the governor that he lacked sufficient authority to compel his nation to abandon all the culprits to their fate. He surrendered two murderers, and urged Lyttelton to release in exchange Ouconnostotah and a second chief, Tistoe of Keowee. He indicated

> that their help was needed to persuade the nation to give up the twenty-two men still at large. Lyttelton consented-unwisely, since Ouconnostotah's former friendship for the English had turned, because of his unjustified imprisonment, into a deadly hatred. In any case, it was not possible to seize the guilty Cherokees immediately, for they sought safety by flight as soon as they learned of their peril. In order to obtain a settlement Lyttelton was compelled still further to modify his demands. On December 26 the governor, Attakullakulla, Ouconnostotah, and certain other Cherokees signed a treaty which provided that the Cherokee murderers should be given up one by one as they were apprehended, and that one of the twenty-two hostages held in the fort should be freed in exchange for each offender delivered. The treaty also stipulated that the trade was to be reopened, and that the Cherokees were to expel all Frenchmen and Francophile Indians from their territory (Alden 1944:87).

After his release Oconostota began preparing to obtain the release of the remaining hostages. Two of the murderers were brought in shortly after the treaty had been agreed on by Lyttelton and Little Carpenter. Lyttelton's force was being diminished by desertions, and on the 28th of December smallpox broke out among the troops. Lyttelton quickly issued orders for the expedition to return to Charleston, taking with him the three Indians that had been surrendered to him as murderers.

1760

Lyttelton reached Charleston on January 8, 1760, and was given the welcome of a hero. Although his treaty was harsh regarding the murderers, he recommended to William Pitt (Secretary of State for the Southern Department) that the 25 Indians be pardoned and "sent back to their people as examples of English Mercy" (Hamer 1925c:30).

Scattered hostilities were the general rule after this time, and Fort Loudoun was virtually cut off from the east. In late January of 1760, Demere reported that his negotiations with Little Carpenter, in an effort to maintain peace in the Overhill area, were continuing. He also indicated that he had heard of the fall of Fort Prince George, as well as reports of murders in other areas. He presented a reasonably optimistic status report for the fort, indicating that some four months of meat supplies were available and 10 to 11 weeks of corn were in storage, and stating that the garrison was "...in high spirits and fully resolved to sell their Lives very dear if they are Attacked. They are constantly at work, to put the Fort in the best posture of Defence" (P. Demere to Lyttelton, January 26, 1760, Clements Library). But, he noted that communications with South Carolina were very poor:

> The Path from hence to Charles Town is the most difficult and dangerous, as all the Indians, are resolved to kill any Body, that go on the Path, and are watching it: I have offer'd great rewards to any Body that would undertake it but all in Vain, at last I have fixed upon a Negro fellow and promised him his freedom, if he wou'd undertake it. God grant that he may deliver you safe this Letter (P. Demere to Lyttelton, January 26, 1760, Clements Library).

The hostile situation had the appearance, however, of staying confined to the Middle settlements, with the Overhill area remaining relatively quiet (Stuart to Lyttelton, January 29, 1760, Clements Library). On the 19th of January, 1760, Saluy from the Lower Cherokee town of Estatoe and 25 armed warriors appeared at Fort Prince George, with numerous other Indians concealed a short distance away. He had hoped to gain entrance to the fort and then make an attack, but this effort was frustrated by Coytmore. In January, the Lower Cherokee began a general uprising and by the latter part of the month some 40 to 50 settlers had been killed. Fort Prince George was also invested during this time (Alden 1944:101-103).

On February 14, Oconostota and Little Carpenter returned to Fort Prince George from the Overhills to demand the release of the hostages. Coytmore refused. Oconostota returned to the fort on the morning of the 16th and asked for an interview with Coytmore. Coytmore, Ensign Bell, Ambrose Davis [Forester by another account (SCG, March 1, 1760, No. 1333)] as the interpreter, and a trader went out of the fort to meet Oconostota. On a prearranged signal from Oconostata, 25 to 30 concealed Indians opened fire, wounding three of the soldiers, Coytmore critically. Fire was returned by Davis, and after the party had gotten back into the fort, the Cherokee opened fire on the fort, continuing until the evening. The demeanor of the garrison was to kill the remaining hostages, but Alexander Miln, who assumed command from Coytmore, stalled them somewhat, by ordering the hostages to be put into irons and tied with ropes. The attempt to do this resulted in a tumult, with the garrison attacking the hostages and killing the entire group. The fort was then generally kept under fire from Indians in the hills around Fort Prince George. Some unsuccessful attempts were made by the garrison to fire on Keowee and force the Indians out of that town. Lieutenant Coytmore died on the 28th. The fort continued under siege, and Miln reported the impossibility of getting any communications to

Fort Loudoun (Miln to Lyttelton, February 24, 1760, SCIA:497-501; February 28, 1760, SCIA:502-503; SCG, March 1, 1760, No. 1333).

The killing of the hostages further embittered the Cherokee and the frontier assaults continued. On the 27th of February two attacks were made on Fort Dobbs, North Carolina (Babits, N.D.) and on March 3rd and 4th, Ninety-Six, South Carolina, was attacked by almost 200 Indians (Alden 1944:104). On March 20th Standing Turkey and Willenawah directed an attack against Fort Loudoun, which was sustained for four days (Hamer 1925c:32; Brown 1938:95). Governor Lyttelton again appealed for help. In addition to requesting aid from Governor Fauquier of Virginia and Governor Arthur Dobbs of North Carolina, Lyttelton wrote to Major General Jeffery Amherst, who had replaced Loudoun as Commander in Chief of the British forces in North America, requesting troops be sent to South Carolina. Amherst responded by sending Colonel Archibald Montgomery, of the 77th Regiment of Foot, with 1200 troops made up of 600 men from the Royal Scots (His Majesty's 1st Regiment of Foot) and 600 men of the Highlanders and the 77th Regiment. They set sail on March 29th, arriving in South Carolina the first week of April 1760 (SCG, April 7, 1760, No. 1338).

Additional preparations that Lyttelton made for the upcoming conflict included the dispatch of reinforcements to Fort Moore and Fort Augusta. On the 6th of February, Lyttelton reported on the crisis to the Commons House and asked for their help. The Commons House voted to raise a regiment of 1000 men and to offer rewards to whites, Indians, and Negroes for Cherokee scalps. Lyttelton made plans to send a contingent of 500 militia to relieve the siege at Fort Prince George. But on the 22nd of February, Lyttelton received word that he had been promoted to the governorship of Jamaica and was ordered to proceed to England for his instructions (SCG, March 8, 1760, No. 1334). William Bull was made lieutenant governor by the same order until a new governor could be appointed for South Carolina. Little was done for nearly a month, since Lyttelton did not leave until April 5th, and although Lyttelton loosened his control of the situation, Bull thought it improper to take over before Lyttelton left (Alden 1944:105-106; Hamer 1925c:32).

The plan for the campaign against the Cherokee called for an attack by Montgomery against the Middle Cherokee Settlements, while Virginia, with the aid of North Carolina, was to attack down the western side of the mountains into the Overhill Cherokee country, relieving and bringing supplies to Fort Loudoun. On April 23rd Montgomery's force left Moncks Corner, reaching the Congarees on May 1st or 2nd, and Ninety-six on May 24th. They marched toward the Lower Cherokee towns on the 28th, accompanied by 335 provincial rangers and about 80 Savannah River Chickasaws and Catawbas as scouts. On June 2nd a British unit attacked and burned Estatoe, killing some 60 to 80 Cherokee and capturing 40. Several other Lower Cherokee towns were also burned at this time.

> ...there were a few houses about a quarter of mile from the road [at Little Keowee]. To prevent any inconvenience from those houses, the light infantry company of the Royal was detached to surround the houses, and put the Indians to death with their bayonets. ...most of those that were without the houses, and all who were in them, were put to death with bayonets, except the women and children, according to the orders which had been given. We proceeded directly on our march to Estatoe, and found a few houses on the road just deserted; the beds were warm, and everything was left in the houses, which you may believe did not escape. We arrived early in the morning at Estatoe, which was abandoned about half an hour before; ten or a dozen of them, who had not time to escape, were killed: The town consisting of above 200 houses, well provided with ammunition, corn, and in short all the necessaries of life, was plundered and laid in ashes; many of the inhabitants who had endeavoured to conceal themselves, I have reason to believe perished in the flames, some of them I know for certain. In order to continue the blow, and shew those savages that it was possible to punish their insolence, we proceeded on our march, took all their towns in our way; and every house and town in the Lower Nation shared the same fate with Estatoe. I could not help pitying them a little: Their villages were agreeably situated; their houses very neatly built, and well provided, for they were in the greatest aboundance of everything: They must be pretty numerous. Estatoe and Sugar-Town consisted of at least 200 houses and every other village at least 100 houses. After killing all we could find, and burning every house in the Nation we marched to Keowee and arrived the second of June... (James Grant to Lyttelton, June 4, 1760, SCG, June 10, 1760, No. 1348).

Once Montgomery arrived at Fort Prince George he realized that he would be unable to reach the Overhill country and that it would be impossible to get provisions to Fort Loudoun. He decided that he would invite the Cherokee to make peace. Tistoe of Keowee was sent to the Overhills and Middle Settlements, and the Old Warrior of Estatoe was sent to the Lower settlements bringing the message that they could be destroyed by Montgomery's force, but that he would rather have a peaceful settlement. Montgomery also demanded that Fort Loudoun be supplied with corn by the Overhills (Alden 1944:111).

Montgomery's offer did not receive a favorable answer so he determined to attack the Middle settlements. On the 6th of June, a message from Fort Loudoun indicated that the garrison was holding out in relatively good spirits, but that rations had to be reduced to one quart of corn for every three men per day. Supplementing their food supply, trader Doherty had been able to deliver four head of cattle to the fort (Brown 1938:96). Leaving Fort Prince George on the 24th of June, Montgomery's force went some 50 miles without opposition. On the 27th, near the town of Kikwasi (near New Franklin, North Carolina) and within about six miles of the Middle Cherokee town of Etchoe, he encountered opposition by the Cherokee. The Indians were repulsed and on the following day the expedition reached Etchoe and destroyed the town. After remaining there for two days to rest the troops, Montgomery turned back to Fort Prince George. He was even more convinced that he could not get through to the Overhills. He was again attacked by Cherokee on the 2nd of July and arrived at Fort Prince George with a total loss of some 20 killed and 70 wounded (Alden 1944:112; SCG, July 12, 1760, No. 1353).

> Montgomery lost a hundred men at the pass, in killed and wounded. The ammunition of the Indians began to run low, and they retired slowly, but kept up a fire from the hills. Montgomery pushed on to Etchoe, which he burned. He remained there two days. Encumbered as he was with wounded, and with almost impassable mountains ahead, he decided to retreat to Fort Prince George, sixty miles away. Surplus baggage was destroyed in order that the Horses might be used to transport the wounded. The march was made difficult at every step by the triumphant savages.
>
> Montgomery advised Governor Bull that he felt that his orders from General Amherst had been fulfilled. He had invaded the Indian country, had defeated the Cherokees in battle, and had destroyed their lower towns. He felt that they would sue for peace, and as he had no orders to garrison the frontier, he proposed to re-embark his forces for New York. Of the condition of his forces, he said:
>
> "Their horses are worn out, not able to crawl, and fresh ones must be got and the others have time to recruit, before I can leave this place. The list of sick has increased, the wounded are distresed with the long march, and indeed the detachment is almost worn out with fatigue" (Brown 1938:98).

The Virginia force that was to coordinate with Montgomery's attack was authorized by the Virginia General Assembly to consist of 700 men to aid the some 300 troops already stationed on the southwestern frontier of Virginia. This force was raised by late June and marched southwestward as far as the upper Holston River. The combined forces were to be under the command of Colonel William Byrd, III (Hamer 1925c:33-34). Although Virginia responded to Bull's appeal on the 19th of May and the forces were assembled in southwestern Virginia by the latter part of June, by the time they were able to get started toward Fort Loudoun it was in effect too late. The timidity of Byrd and his slow pace of operations made it impossible for the Virginia forces to strike the Cherokee on a second front at the same time that Montgomery was attacking the Middle Settlements from the east (Alden 1944:115).

Although Bull's appeal was discussed in the North Carolina Assembly and that assembly passed a supply bill of £12,000 North Carolina currency, the bill was vetoed by Governor Dobbs. The North Carolinians consequently raised no troops to assist Virginia in this relief effort (Alden 1944:115).

> William Byrd, who accepted the command of the relieving expedition and then attempted to resign it, made all sorts of difficulties about beginning his work. En route to the army early in July he declared he had insufficient arms and supplies. He then thought he ought to build small posts twenty-five miles apart all the way to the Holston River, and a strong fort on Long Island in that stream. Such a fort would ensure a successful expedition against the Cherokees in the spring of 1761! Should he execute this plan? What should he do if the Cherokees asked him for peace? If the Fort Loudoun people were still holding out when he reached the Holston River and he believed the garrison could be brought off by a strong rescue party, should he attempt it? Fauquier peremptorily ordered him to leave peace negotiations to Bull, to build no more than one small fort at the Long Island and possibly another at Samuel Stalnaker's plantation some distance above the island: to proceed, supplies or no supplies; and to get in touch with Demere, rescue his force, support it, or cover its retreat as the situation demanded. Byrd received no news regarding Fort Loudoun until August 27, when four traders who had undergone the siege and had escaped from the post on August 1st reached his encampment. Byrd had then progressed no farther than Sayer's Mill on the Kanawha River. They informed him that the garrison had abandoned all hope at the time of their flight; Byrd thereupon sent our Major Andrew Lewis with 300 men to the Holston River to search for any persons who might have escaped from the fort and fled toward Virginia. On September 8 Attakullakulla appeared at Lewis's camp a little above Long Island; he told Lewis that Captain Stuart, his body-servant, an interpreter named William Shorey, Attakullakulla's wife and brother, and three or four other Cherokees were only five miles away. The little group had fled from the Overhill country, and had discovered Lewis's trail; and the chief had

> tracked Lewis to his camp. Attakullakulla then returned to his waiting companions, and brought them to Lewis. Stuart had an amazing experience (Alden 1944:115-116).

Following his withdrawal from the Middle settlements to Fort Prince George, Montgomery continued his march toward Charleston to depart for New York. Byrd requested that the force stay in South Carolina, at least until another force could be sent in relief. But, he was only able to convince Montgomery to send four companies of regulars under Major Frederick Hamilton back to the Congarees to support the frontier forts (Alden 1944:113; Willis 1955:239). Montgomery's retreat and the slow pace of Byrd's movement into the Overhill area made the loss of Fort Loudoun inevitable.

After March 1760, Fort Loudoun was continually under siege by the Cherokee, and frequently fired upon by snipers. This is well recorded in Paul Demere's dispatches of June of that year:

> There is not a Day but some Indians are Sculking about the Fort and others are constantly upon a Hill on the opposite side of the River to watch when any one goes for water, to fire at them (BPRO C.O. 5/474 in Brown 1965:Paul Demere 62).

Provisions continued to dwindle from the six month supply that was reported in late January. The investment of the fort by the Indians made it difficult to gather or hunt any food outside the fort; two packages of ribbons that were brought into the fort in late winter were traded for an additional two week food supply (Brown 1965:Paul Demere 59).

On June 2, 1760, the Indians pretended to end the siege to lure the soldiers out of Fort Loudoun in a ploy similar to the one that had been used earlier at Fort Prince George. Although Little Carpenter had warned Demere that it was a ruse, Maurice Anderson and a private went outside the fort and were shot and scalped some 50 yards from the fort. Fifty soldiers from the garrison went to their rescue, but were forced to return to the fort because of heavy fire from the Indians (Brown 1965:Paul Demere 59; Williams 1937:244-245). The last dispatches to arrive at Fort Loudoun from the English settlements to the east reached the fort on June 4th telling of the plans for the relief of the garrison by Byrd and the attack from the east by Montgomery (Hamer 1925c:35). On the 6th of June, Demere sent a dispatch by James Branham, a half-breed, to Montgomery who was then attacking the Middle Cherokee settlements. That dispatch described the current situation at Fort Loudoun as becoming rather tenuous:

> The Indians never cease Night and Day of lurking about the Fort, to hinder us from having any Intellegence. It is impossible now to get any thing from the Towns. The Indians that are watching having got orders to kill any Woman that come to the Fort: And as our Provisions are very scant, I shall be obliged tomorrow to reduce our men to one Quart of Corn for three Men per day (BPRO C.O. 5/474 in Brown 1965:Paul Demere 64).

The Fort Loudoun garrison waited for relief from both Byrd's and Montgomery's expeditions. They had learned of the destruction of the Middle settlements by Montgomery's force from information given to them by Little Carpenter. But near the end of June the Indians reported to the garrison that they had defeated Montgomery and forced his retreat and that "...they had killed and scalp'd so many that their hands were sore; and told other such tales, to which the Garrison gave no credit" (SCG, August 13, 1760, No. 1358). To verify these statements by the Indians a messenger was sent to Fort Prince George. He reached that installation about July 10th, and learned of Montgomery's departure for New York. The messenger did not return to Fort Loudoun, and the garrison there began to lose hope of being relieved (Hamer 1925c:35).

> The garrison daily expected the army to their relief, and were reduced to their very last shifts, not having above a 2 or 3 weeks provisions at most, and being obliged to kill what horses they could get: That altho' the Little Carpenter continued their friend, they had been unable to procure but very little corn lately, the Indians being very short of that article themselves (SCG, August 13, 1760, No. 1358).

Another messenger was sent toward Charleston from Fort Loudoun the last week of July. His report and letters from that garrison provided information on the condition of the garrison at that time:

> Letters from fort Loudoun of the 27th of July brought to this town [Charleston] this morning, by an express from fort Prince George...represent the then situation of that garrison as miserable beyond description; and they complain, that it almost seems, as if it was abandoned and forsaken by God and man. Their sufferings are therein described most feelingly; and they seem without any hopes of relief. For some time, they subsisted on horse-flesh; but that being discovered by the Indians, they now take

> care that none of the animals shall come in their way. The Over-Hills towns were quite destitute of corn, or it was secreted, and the last the garrison got was purchased at the rate of 16 pounds per bushel, and by almost stripping themselves (both men and women) to make one joint public stock. The fort was constantly surrounded in such a manner, that no body dared stir out of it, even for water or wood; and the paths were everywhere so well guarded, that it was impossible for anyone to escape the fort. The garrison had made several ineffectual attempts to bring about a peace with the Indians; but the headmen looked upon the garrison as starving, and told them they must by that means soon be at their mercy (SCG, August 16, 1760, No. 1359).

Not having heard from South Carolina in over two months, and in desperate straits with regard to food supplies, health and morale, several of the soldiers and traders made an attempt to escape about August 1st with Demere's approval (Brown 1938:104). Realizing that to hold out much longer would be impossible, Captain Demere called a Council of War on the 6th of August to discuss their options. The situation immediately prior to this Council of War was described in the *South Carolina Gazette* compiled from information received with the communication of the surrender document:

> ...the garrison found their provisions entirely exhausted - they had subsisted upon horse-flesh and such scant supplies of hogs and beans as the Indian women brought in by stealth, without any bread-kind since the 7th of July, by which means the men were excessively weakened, and must soon have become incapable of any duty - the enemy had blockaded them day and night - considerable parties of soldiers had deserted (on the 4th and 5th) and some had thrown themselves on the mercy of the Indians - the garrison in general had threatened to abandon their officers, and betake themselves to the woods... ...having had no intellegence from any British settlement since the 4th of June, when they heard from Fort Prince George - they had not heard of any attempt being untendered for there on the side of Virginia - and they had given over every prospect or hope of reasonable deliverence from any quarter (SCG, August 23, 1760, No. 1360).

The Council of War determined that:

> To concert the properest measures to be pursued in their present distress, when the officers gave their unanimous opinion, in writing, under their hands, 'That it was impracticable to maintain the fort any longer; and that such terms as could be procured from the Indians, consistent with honour, should be immediately accepted, and the fort abandoned' (SCG, August 23, 1760, No. 1360).

On the 6th of August John Stuart and James Adamson went to Chote to negotiate a peace with Oconostota and Standing Turkey. On the 8th of August, 1760, Paul Demere sent his last dispatch to Governor Bull explaining the situation and transmitting a copy of the Articles of Capitulation that were agreed upon and signed by Demere. He informed the governor:

> That they had agreed to the capitulation that was enclosed, with the Great-Warrior (Ocunnahstotah) and other headmen of the Cherokee nation; which, considering the great distress they were in, he hoped would not be disapproved of: That nothing but the inclination of those Indians (the Over-Hills Cherokees) had for a Peace could have saved them; for they would have been obliged to abandon the fort that day, happen what would, and few of them could even have reached Carolina: That the Garrison were to set out the next morning, flattering themselves that the Indians meant them no harm; and they would make all the dispatch their starved condition would admit of... (SCG, August 23, 1760, No. 1360).

The specific Articles of Capitulation are presented here in their entirety:

ARTICLE I

> That the garrison of Fort Loudoun march out with their arms and drums; each soldier having as much powder and ball as their officers shall think necessary for the march, and what baggage he may chuse to carry.
>
> ART. II. That the garrison be permitted to march for Virginia or Fort Prince George, as the commanding officer shall think proper, unmolested: And that a number of Indians be appointed to escort them, and to hunt for provisions on the march.
>
> ART. III. That such soldiers as are lame, or by sickness disabled from marching, be received into the Indian towns, and kindly used until they recover, then to be returned to fort Prince George.

ART IV. That the Indians do provide the garrison with as many horses as they can conveniently, for the march; agreeing with the officers or soldiers for payment.

ART. V. That the fort, great guns, powder, ball, and spare arms be delivered to the Indians without any fraud, on the day appointed for the march of the troops (SCG, August 23, 1760, No. 1360).

On the morning of August 9th the garrison left the fort with the party including some 180 men, 60 women and some children (Brown 1938:101). Ironically, the *South Carolina Gazette* reported in its August 9th to August 13th issue that an account arrived stating that the Virginians were in "full march for the relief of fort Loudoun" (SCG, August 13, 1760, No. 1358). The Fort Loudoun garrison was escorted by Oconostota and a large body of Cherokee, who gradually withdrew as the day wore on (Alden 1944:118). Camp was made that evening on Cane Creek near its confluence with the Tellico River [This is approximately six miles (9.6 km) northwest of present day Tellico Plains. No attempt was made by this project to locate this camp and the site of the massacre, although efforts have been made to locate the site since then by Joseph L. Benthall of the Tennessee Division of Archaeology. Cook (1921) provided an account of his attempt to locate this site about 1920]. The following morning the garrison was attacked by the Cherokee. The best account by an eyewitness was that of John Stevens which was published in the *South Carolina Gazette*:

Stevens said that the Fort Loudoun garrison marched out on the 9th of August, with their arms and 18 rounds of ammunition, full powder horns and some buckshot in their pouches; and proceeded that day as far as Cane Creek, about 16 miles, where they encamped. Although Oconostota (Cherokee Great Warrior) and Outacity (Judd's friend) promised to set out with them, neither they nor any other Indians did, but said they would come to them at Cane Creek. Oconostota did not come there according to this promise, but Outacity did, late in the evening, and after speaking with the officers went off again towards Tellico.

On the 10th, in the morning, after beating the reveille, they were preparing the march. Two guns were fired at Captain (Paul) Demere who was wounded by one of the shots, whereupon Lieutenant (James) Adamson, who stood beside him and observed the two Indians, returned their fire and wounded one. Upon this, the war whoop was immediately set up, and volleys of small arms with showers of arrows poured in upon them from every side, continually, for some time, by about 700 Indians, who, as they advanced completely surrounded the whole garrison and put them into the greatest confusion.

When seeing it impossible to defend themselves, they called out to one another not to fire, and surrendered themselves to the mercy of the enemy. Some endeavored to escape, but the Indians rushed on them with such impetuosity that their attempts were vain.

By this time, all the officers except Captain (John) Stuart (who was, during the assault, seized by an Indian and carried to the other side of the creek) were killed; with between 30 and 40 privates, and three women, and many others wounded amongst whom himself in the side by an arrow.

Every Indian, when the affair was over, stripped his prisoner or prisoners, and carried them to their respective towns, with their scalp or scalps, which they frequently beat into the prisoners' faces as they went along. When they brought them to their towns, they carried them to their junkeryards (playgrounds) there beat and abused them in a most inhumane manner, and obliged them likewise to dance. The dancing was repeated several nights, but not the beatings.

The Indians were very liberal of their provisions to the prisoners, gave them of the best, and told them they did not look upon them as slaves, for as soon as it was peace they should go to their respective homes. He [Stevens], his wife and three children were taken by the aforesaid Tuskeegi-Tahee, who carried them all to Citico and used them well.

About the 1st or 2nd instant (September), they had public rejoicing at Chota, whither all the prisoners were carried from every town, to be shown to the Mortar and his gang, and obliged to dance before him and join in the rejoicings. In the evening every Indian took his prisoners back to his town. He saw, at Chota, all the cannon, Coehorns, guns, powder, ball and other plunder taken at Fort Loudoun, brought thither to be likewise shown to the Mortar, to whom they paid the greatest respect.

He (Stevens) is persuaded, from the number of Indians that surrounded the garrison at Cane Creek, and some other transactions (besides Oconostota and Outacity's not accompanying them to the fort) that what befell the garrison was concerted from the beginning. He heard nothing of any difference between the Citico and Chota people about plunder nor of Captain Demere's having any dispute with them concerning powder, having brought away no bags of it with him (SCG, October 18, 1760, No. 1368).

Demere and all the officers with the exception of John Stuart, and between 20 and 30 of the other men, were killed in the conflict. The remainder of the garrison was captured and taken to the various Cherokee towns. Stuart was taken to Tomotley and then to Fort Loudoun, where he was ransomed by Little Carpenter (Alden 1944:118). In addition to the loss of the fort and the garrison, some 16 cannon, about 1000 pounds of powder, a proportionate amount of ball, and about 80 small arms were captured. Presumably all the equipment and supplies that were at the fort, and which were not carried with the garrison, were abandoned at the fort (SCG, August 23, 1760, No. 1360). As indicated by the Stevens account (quoted above) much of this material was subsequently removed to the Cherokee town of Chota (see the section on armaments in Chapter 8 for a discussion of the possible movements of the swivels, cohorns, and cannon).

Another account of the massacre and particularly a description of the death of Paul Demere was written in a letter of Bossu's of 1760, and published in 1771:

> We have just received advice that a party of warriors of the nation of Cherokees, commanded by their chief of war called Wolf, have taken the Fort Loudoun, belonging to Great Britain, and that the English governor of it, M. Damery, had been killed by the Indians, who put earth in his mouth, saying 'You dog, since you are so greedy of earth, be satisfied and gorged with it.' They have done the same to others (Dewitt 1917:255).

Still another account was published concerning Demere's death. This was written by Alexander Hewatt probably shortly after the event, and was later published in 1779.

> Captain Demere received two wounds in the first volley, was directly scalped and the Indians made him dance about for their diversion for some time, after which they chopped off one arm, then other, and so his legs (Hewatt 1779 quoted in Williams 1937:250).

There was at least one report given that might have provided a motive for the Cherokee's violation of the surrender terms. This was that 12 bags of gun powder were buried at the fort by the British in defiance of the Articles of Capitulation (Alden 1944:118; SCG, September 27, 1760, No. 1365; Cook 1921:121). John Stevens, however, indicated that he thought the attack was planned prior to the surrender, and not the result of a dispute about the powder (Stevens' account preceding and SCG, October 18, 1760, No. 1368). It is quite probable that it was planned, given that the number of the garrison killed roughly approximated the number of Indian hostages killed at Fort Prince George (actually it exceeded that number), and given the death and destruction that was caused by Montgomery's expedition into the Middle settlements just over a month before. The retribution of the Cherokee would have been in keeping with the Cherokee law of the time.

Once word of the surrender had reached South Carolina, hopes were raised for the arrival of the troops at Fort Prince George in about two weeks. Reports from Fort Prince George published in the *South Carolina Gazette* clearly indicated the mood of apprehension as it became clear that the garrison was late in arriving.

> Altho' the late Garrison of Fort Loudoun was expected to be at Fort Prince-George the 16th or 17th Instant, and we have every Day this Week look'd for Accounts of their Arrival with great Impatience; yet no Advices whatever, concerning them, have been received from thence since those inserted in our last which is a Circumstance that alarms many exceedingly: But we are in no Pain for the Safety of that Command, if the Indians are so desirous as they pretend of accomodating Matters with us, and especially if what we have been told, of the uncommon Regard they have for Capt. Stuart, and the amazing Influence he has in the nation to be true (SCG August 30, 1760, No. 1361).

The first message concerning the attack on the garrison to arrive in South Carolina was received at Fort Prince George about the end of August. The message written by Judds Friend and Saloue and was placed on a stick by the river at Fort Prince George and read in part:

> This is to acquaint you with the bad news. Captain Demere is killed, and twenty-three of his command. Captain Stuart and all the rest of the men are saved for to manage the Great Guns. ...they are determined to take Fort Prince George, since they have already taken a much more defensible fort (Brown 1938:105; SCG, September 27, 1760, No. 1365; September 6, 1760, No. 1362).

During the first week of September, reports continued to come into Fort Prince George describing the attack on the garrison, mostly through Indians in the Middle settlements. On the 6th a messenger arrived from the Overhill area, confirming the stories and indicating that Stuart was at Fort Loudoun with Little Carpenter. Continuing reports during the next two weeks further verified the event, in varying degrees of detail and

accuracy (SCG, September 27, 1760, No. 1365). The several soldiers and traders who had escaped from the fort about the 1st of August arrived in Colonel Byrd's Camp on the Holston on the 27th, after nearly a month of travel. They reported that other parties of the garrison would be following. Byrd ordered a detachment of 300 or more men with 10 days of provisions to scout within 80 miles of Fort Loudoun, but he made no other move toward the fort at that time. On the 8th of September, Little Carpenter, Stuart and three others met Lewis's advance party, and arrived at Byrd's camp on the 14th. Learning of the events that had taken place at Fort Loudoun, and the intentions of the Cherokee to attack Fort Prince George, Byrd sent one of the Indians who had come with Little Carpenter "to alarm the [Indian] nation with an account of the Virginia forces being near" (SCG, October 11, 1760, No. 1367). His letter threatened that:

> I am building forts all the way and propose soon to be in your Nation, when I will not leave an Indian alive, one town standing or one grain of corn in all your country, if I do not find all the white people well when I get there (Williams 1937:255).

On hearing of the capitulation of Fort Loudoun, Lieutenant Governor Bull was prompted into opening negotiations with the Cherokee. This was done on the grounds of a mutual exchange of prisoners. He sent Charles McLamore to the Cherokee with his proposal, and Bull made no attempt at that time to move against the Cherokee. But, after the first week of September, when word reached Charleston of the attack on the garrison, he issued orders for a regiment and 268 Rangers under the command of Major William Thompson to be assembled, and with the assistance of Major Hamilton's force that was remaining from Montgomery's expedition, to relieve Fort Prince George and to attack the Lower Cherokee towns (Alden 1944:120 and 123). Negotiations between Colonel Byrd and the Overhill Cherokee were generally unsuccessful, but did serve to slow down the Cherokee-English conflict.

After the attack on the Fort Loudoun garrison, the captives were dispersed among the several Cherokee towns. Some were sent to Fort Toulouse in Alabama, and a few were apparently taken as far as New Orleans by way of Fort Massac (Williams 1937:256). One of the first captives to be ransomed at Fort Prince George was John Stevens (his account previously quoted). About 10 of the captives were ransomed in early November at Byrd's camp in Virginia. Thereafter, the ransoming of the Fort Loudoun garrison continued over a period of about nine months, with most of them being delivered to Fort Prince George. The exact accounting of the garrison and their dependents is difficult. It was reported, however, that in addition to those killed, some of the garrison were able to escape at the time of the massacre, and that several others drowned in attempting an escape. Bull reported to the Board of Trade on May 16, 1761, that 113 of the captives had been redeemed at Fort Prince George (Bull to Board of Trade, May 16, 1761; E. Brown N.D.a:Massacre; Hamer 1925c:38; SCG, September 20, 1760).

The French at Fort Toulouse were informed by a messenger sent by Mortar of the surrender of the garrison at Fort Loudoun and the Cherokee's capture of the fort. Mortar suggested that Fort Loudoun be occupied by the French. This message was transmitted to the French Governor, Kerlerec, at New Orleans, who agreed to the plan and promptly dispatched a boat and crew with necessary supplies. This boat left New Orleans for Fort Loudoun by way of the Mississippi, Ohio, and Tennessee Rivers. The expedition was able to get as far as the Whirl and Suck of the Tennessee River, near what is now Chattanooga. There the expedition ran into difficulties and was unable to proceed any further.

> The waters rolled down with prodigious rapidity, dashed against opposite rocks, and from thence rushed off in impetuous violence on a quarter angle course. It appeared so shocking and insurmountable to the Monsieurs that after staying there a considerable length of time in the vain expectation of seeing some of their friends, necessity compelled them to return to New Orleans, to their inconsolable disappointment (Adair 1775 quoted in Brown 1938:106).

That difficulty of navigating the Tennessee River thus ended any serious effort by the French to occupy Fort Loudoun.

There was no attempt made by the Cherokee to take Fort Prince George after the surrender of Fort Loudoun. The Indians had suffered severely from the English attacks on the Lower and Middle settlements. Their plans to have Stuart accompany them to Fort Prince George to manage the Fort Loudoun cannon against that installation were foiled, not to mention the difficulty there would have been of transporting them back over the mountains. It was also clear to the Cherokee that despite the French assurances of help, the Cherokee were in an untenable position to wage a prolonged war at that time, and were in general, disposed toward negotiating a peace with the English. On the 26th of September at a gathering of some 2000 Cherokee at

Nequassee, Oconostota and Judd's Friend argued for peace, and for the English to be allowed passage through the settlements without harm. Early the following month, Samuel Terron was sent to Lieutenant Governor Bull by Oconostota with a message from the Cherokee requesting peace (Brown 1938:106-107).

Although Bull may have also been disposed toward making a peace with the Cherokee, his letter to General Jeffrey Amherst informing him of the surrender of Fort Loudoun, and Amherst's subsequent actions, altered those possibilities of arriving at a peace settlement at that time. Amherst's reaction to the news was, "I must own I am ashamed, for I believe it is the first instance of His Majesty's troops having yielded to the Indians" (Brown 1938:107). In October of 1760 Amherst had concluded the French and Indian War with the campaign that gave the English domination over Canada. He therefore had surplus troops at his disposal after that time and he quickly issued orders sending some 2000 troops under the command of Colonel James Grant (who had served under Montgomery in South Carolina earlier in 1760) to South Carolina to invade the Cherokee country.

1761

This force, consisting of a regiment of Highlanders and two companies of light infantry, landed in Charleston in January, 1761, and was joined by a provincial regiment that was provided by Governor Bull. Although reluctant to engage the Cherokee, and realizing the need of the Cherokee to secure a peace, Grant followed his orders and proceeded to Fort Prince George, arriving there on May 27, 1761 (Brown 1938:109; SCG, June 13, 1761, No. 1401). Grant was met at Fort Prince George by Little Carpenter, who requested peace. Grant refused to negotiate until he had completed his campaign and had punished the Cherokee for their capture of Fort Loudoun and the subsequent attack on the garrison.

The overall strategy for the campaign again called for a simultaneous attack into the Overhill area by the Virginia forces, who were still at the headwaters of the Holston. Grant's forces left Fort Prince George on June 7th, moving toward the Middle Cherokee towns. On the 10th, Grant encountered the Cherokee near Etchoe, the place where Montgomery had battled with them earlier in 1760. Grant's force engaged the Cherokee between about 7:30 and 11:00 in the morning of that day, with the Cherokee leaving the field by 2:00 in the afternoon. After the battle, Grant's force had moved into Etchoe by about 9:00 that evening. There was virtually no resistance after that time, and the remainder of the month of June was spent in the destruction of 14 or 15 of the Middle Cherokee towns and their associated fields and crops. Exhausted, the troops returned to Fort Prince George on the 9th of July (Brown 1938:109-112; Williams 1937:260-261; SCG July 18, 1761, No. 1407; King and Evans 1977).

Upon reaching Fort Prince George, Colonel Grant sent a message to the Cherokee requesting that the headmen of the nation come down to Fort Prince George to discuss peace terms. Little Carpenter, Judd's Friend, Raven of Chota, Old Caesar of Hiwassee, and about 15 others came to the fort. The treaty was concluded in September 1761, after some extended negotiations. These included Little Carpenter making a personal appearance in Charleston before the governor to request that certain offending clauses being demanded by Grant be deleted from the treaty terms. Bull agreed to the changes and the treaty with South Carolina was completed. After having settled with the Virginians in November 1761, the treaty was ratified in Charleston in December of that same year by the Cherokee headmen, including Oconostota (Brown 1938:112-117). This effectively concluded the English-Cherokee war.

Fort Loudoun After 1760

After the fall of the fort and the attack on the garrison the following day, Captain John Stuart, the only officer to have survived, was apparently the first Englishman to return to the fort. After being captured by Anatoy, Stuart was taken to Tomotley and then to Fort Loudoun, where he located Little Carpenter (Alden 1944:118; Minute, S.C. Council, October 22, 1760; SCG, October 4, 1760). He was ransomed by Little Carpenter and on August 30th or 31st was taken away from the fort, ostensibly on a hunting trip. They set out for Virginia, meeting the advance party of Colonel William Byrd's relief expedition on September 8th. From there Stuart returned to Charleston by way of Williamsburg (Alden 1944:121 and Kelley 1961b:33-34). His route is shown on a map of the Cherokee country drawn by Stuart in the early 1760s (Cumming 1958:231; Alden 1944:365).

William Byrd attempted to negotiate a treaty with the Cherokee during the time when Stuart was with his command (September 8th to November 5th), probably at Stuart's suggestion. Part of this treaty was the stipulation that the Cherokee "shall Deliver up Fort Loudoun as it now Stands with all the Cannon, Ball, Cohorns & Shells in their possession" (Alden 1944:120-121; SCG, October 18, 1760).

When a final treaty was concluded approximately a year later, and signed on September 23, 1761, after the punitive expedition by Grant into the Middle Cherokee towns, the Cherokee again agreed to surrender Fort Loudoun (Brown 1938:114; SCG, September 23, 1761). Orders came shortly thereafter from England for the fort to be destroyed (Hamer 1925c:38) but there is apparently no record of this ever having been carried out. It is possible that it may have been destroyed, though, either by the English or the Cherokee. It does seem reasonable considering the archaeological evidence (Chapters 4 and 5) and Lieutenant Henry Timberlake's observation made approximately six months after the signing of the above treaty. In early 1762, Timberlake, while traveling with a group of Cherokee through part of East Tennessee and the Little Tennessee River valley, inspected the remains of Fort Loudoun, but only mentioned them in passing:

> We crossed the river next morning with some Indians that had been visiting in that neighbourhood, and went to Tommotly, taking Fort Loudoun in the way, to examine the ruins (Williams 1927:57).

Although providing little detail on the fort, except that it was in ruins, Timberlake did make an accurate map of the Little Tennessee River valley (Figure 11; Williams 1927) that shows the location of Fort Loudoun and the closely associated Cherokee village of Tuskegee. Interestingly, however, he does not mention that village in his account, although he does record the next town of Tomotley. Additionally, this map shows the location of the other Cherokee villages in the valley and the location of the Virginia Fort (see Chapter 7 for a discussion of the accuracy of this map in relation to Tuskeege).

In November 1762, the Assembly of South Carolina, arguing for a more northern boundary to include those areas in which Fort Prince George and Fort Loudoun were situated, specified the reasons for the requested boundary:

> ...it is with real pleasure we can say that within these few years in obedience to His Majesty's command we have completed Fort Prince George at Kewokee in the Lower and Fort Loudoun at Tannissee in the Upper Cherokee Country. These considerations while they furnish us with a claim to the contribution of our numerous Back Settlers in aid of Taxes so also they in some degree point out the expediency of granting to this Province such a North Boundary as will include within it those parts of the Cherokee Country where the said Forts are erected (Report of the Assembly of South Carolina upon the Boundary Line between that Province and North Carolina, November 24, 1762, NCCR XI:151-152).

Fort Prince George (1753-1766) was still standing and garrisoned at this time, but it can be assumed that Fort Loudoun was not, based primarily on Timberlake's account from earlier in that year.

A further mention of the fort is made by Lord Egremont in a letter to Governor Dobbs of North Carolina, dated March 16, 1763, which states:

> And should the Indians retain any Jealousy or Suspicion that the Forts Situated in the heart of the Indian County, such as Alabama, Tombegbi & Fort Loudoun, may be made Use for Purposes not favorable to them, & express a Desire, that they Should be destroyed, I make no Doubt but their

> Representations on that Head will be most graciously be received by the King, & that His Majesty will readily comply with any reasonable Request... (NCCR VI:975; Kelley 1961b:307-308).

Fort Toulouse (1717-1763) was still being garrisoned at this time, and although the above statement gives the impression that Fort Loudoun may have been still standing, it was very likely that Lord Egremont, writing from London, simply had unreliable information regarding Fort Loudoun.

A map that has been attributed to William DeBrahm (Cumming 1958:Plate 61), and which is shown in Figure 10, is dated 1766. This map of the southeast shows the locations of Fort Prince George, Fort Loudoun and Fort Toulouse, as well as other important contemporary features. This map was certainly based on earlier information, and does not correctly indicate that Fort Loudoun was still standing at the time of the production of the map.

Aided by John Stuart, Henry Stuart, and Alexander Cameron, who were still loyal to the British and the Cherokee, the Cherokee attacked the Watauga settlements in what is now northeast Tennessee, as well as other frontier settlements in North Carolina and South Carolina in July of 1776. In response to these actions, moves were made by the several colonies to defeat the Cherokee (Allen and Lawson 1967; Hamer 1931; Kuttruff N.D.; Spoden and Spoden 1977; Williams 1944). Colonel William Christian was to lead the Virginia forces, composed mainly of troops from the Watauga settlements, against the Overhill Cherokee towns in the Little Tennessee River valley. On the 18th of October, 1776, those forces crossed the Little Tennessee River and passed through Toqua and camped that evening at Tomotley. On the 19th they went through the town of Tuskegee on their way downstream to the Great Island Town where a base camp was established (Christian to Henry, October 23, 1776, VAMHB XVIII:61). In his correspondence Christian does not mention Fort Loudoun, although it is quite possible that he would have passed through it or nearby on the way from Tomotley to the Great Island Town. He did, however, provide a map (Figure 14) of the route of his expedition that shows a number of the Cherokee villages in the valley, but which are unnamed on the map. While the map also does not specify Fort Loudoun, one of the locations marked could have been either Fort Loudoun or Tuskegee.

During the late 1790s and the early years of the nineteenth century, but particularly during the period 1794 to 1807 when the Tellico Blockhouse, located just across the river from the site of Fort Loudoun, was garrisoned (Polhemus 1979:3), there were several recorded mentions of Fort Loudoun. Most of these are brief and give little additional information about the site, except that all seem to agree that it was in ruins. There was a ferry operated near the Tellico Blockhouse that ran from the left bank of the Little Tennessee River, probably somewhere just to the north of Fort Loudoun, across the river to the Blockhouse. It is also apparent that the trail shown on the DeBrahm plan of the Fort Loudoun area (Figure 3) was back in use at this time. It had been disrupted during the period of occupation of Fort Loudoun, since the fort was constructed across the portion of the trail where it crossed the ridge that the fort was built on. The trail went over the bluff at its lowest and easiest place, just to the east of the powder magazine.

A memorandum written in 1796 from the Tellico Blockhouse mentions Fort Loudoun as a good place to obtain stones for construction and lime (Blount Papers, McCHC; Polhemus 1979:309). This perhaps explains the reason for there being fewer stone foundations remaining than might have been expected, although it is possible that they were referring to the limestone outcrop at the eastern end of the ridge on which part of the fort had been located.

Benjamin Hawkins was appointed Superintendent of the Southern Indian Tribes in January, 1796, by President Washington. In March, 1797, Hawkins, accompanied by General Andrew Pickens, and two professional surveyors, Joseph Whitner and John Clark Kilpatrick, visited what was then the western country. The purpose of this trip was to supervise the survey and marking of the line between the frontier settlements and the Cherokee as established by the treaty of Holston in 1791. For the history of Fort Loudoun his journal is important in that it describes the road over the mountains from Charleston to the Overhill Cherokee settlements.

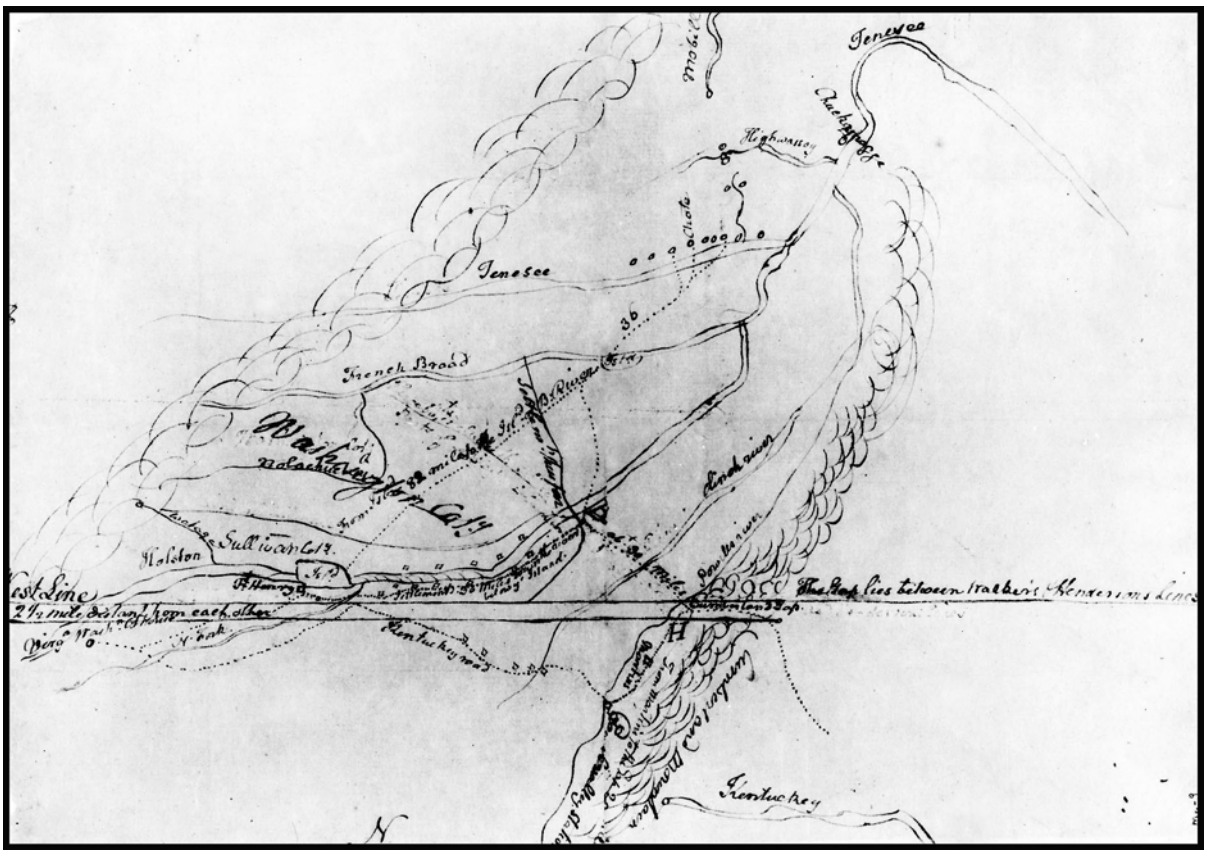

Figure 14. Colonel William Christian Map. This map was an enclosure in a letter of William Christian to Sampson Matthews, dated December 30, 1782. Letters Received, Governor's Office, Executive Department. Reproduced courtesy of Archives Branch, Virginia State Library.

It mentions the site of Fort Loudoun, and provides information that is useful for fixing the location of the attack on the Fort Loudoun garrison after they abandoned the fort in 1760 (Williams 1928:369). In relation to the fort, he recorded on March 31, 1797:

> ...in 49 [minutes] arrive in flat lands; 20 to an old town, part of Tuskeegee, where we saw an apple and some peach trees, with two hills covered with limestone; in 30 pass through Tuskeegee fields thro the remains of Fort Lowdon and arrive on the Tennessee opposite the blockhouse (Williams 1928:372; Kelley 1961b:308).

It seems apparent from this that the trail that had originally come through this area and crossed the ridge where the fort was built had been reestablished through the remains of the fort.

Between April 30 and May 3, 1797, Louis-Philippe of France spent several days in the Little Tennessee River valley, visiting at the Tellico Blockhouse and several of the contemporary Cherokee villages (Louis-Philippe 1977). In his journal he recorded some notes on Fort Loudoun, which he visited on May 1st and which are important, not only for the description, but for the fact that they do help to explain the presence of some later artifactual materials on the site.

> Fort Loudoun was built on the left bank of the Tennassee, and if they had not told me so, I should never have imagined that anyone would set a fort on a spot like that. It is vulnerable on all sides, and with the river behind it, supplies could be cut off easily. That is what happened, by the way, in the Seven Years' War.
>
> In the morning we crossed the river with Mr Strother and went first to the site of Fort Loudoun, which is buried under brush now, with only a little rubble and a few irregularities of terrain to commemorate the fort's existence. Nearby, on the same level, an Indian has built his shack, or rather his house, as it looks much like all the houses of the poor around here. The main difference is that the latter are a bit squatter and a bit smaller and instead of selecting good thick trunks for construction, they took thin

> ones and small, because they were less trouble to cut down and transport. They stuff the chinks with a mastic made of earth and sand, as our peasants do [Their roofs too are like our peasants,' with stones laid on strips of bark, as in Switzerland and on all wooden houses]. The door is extremely narrow, but high enough to enter without stooping.
>
> The fire was at one end of the room in a fireplace like our own, and the beds, made of slats laid the long way and covered with blankets, stood against the long wall. This Indian's house is in a very pretty setting; stretching out before him he has a vast green carpet that ends in wooded hills, and on the horizon mountains that distance has tinted blue. To his left he looks out at the river, flowing so serenely that it seems a lake, the island nearby, and the sloping riverbank (Louis-Philippe 1977:81-84).

From the description, this structure was apparently located in the lower part of the area that the fort was built on, and probably on the edge of the upper terrace to the southeast of the Southeast Bastion of the fort. Although this structure was not discovered during the excavations, it was probably located to the south of the area excavated off the southeast corner of the ditch, where surface materials and artifacts from machine cuts showed a concentration of late eighteenth century materials.

Somewhat later, two Moravian missionaries, Abraham Steiner and Frederick C. DeSchweinitiz, operating out of the Salem Branch of the Society for the Propagation of the Gospel, visited the location of Fort Loudoun and recorded the following in 1799:

> ...after breakfast with Mr. Hooker, we went with David Byers to the other side of the river, and Lieutenant Johnson went with us. A good ferry is maintained here at the cost of the United States, and neither white nor red pay anything for crossing. Immediately on the other side of the Tennessee, the trail led us over considerable heights, on which the English Fort Loudoun had stood, of which one still sees the ruins. The Indians destroyed it at the beginning of the 60's, after they had besieged it for three months from a high hill near the present barracks... (Williams 1928:446-447, 470; Kelley 1961b:308).

After the fall of Fort Loudoun, the site on which it was located remained in the hands of the Cherokee, at least until 1819 when 640 acres divided by the Tellico River was deeded to Cabbin Smith. This was required by the treaty for the Hiwassee Purchase signed by Secretary of War John C. Calhoun and a group of Cherokee leaders on February 27, 1819. This treaty stipulated that:

> To Cabbin Smith six hundred and forty acres to be laid off in equal parts, on both sides of his ferry on Tellico (River), commonly called Blair's ferry...which tracts of land were given many years since, by the Cherokee nation to them (Kelley 1961b:308-313).

In 1819, Cabin Smith transferred his land to Gideon Morgan (Kelley 1961b:313; Monroe County Register's Office, Deed Book B:318-319). The land was then sold by Gideon Morgan to John Lowry (Monroe County Register's Office, Deed Book A:1). The description of the land was as follows:

> Beginning at a Sycamore on the North bank of Tennessee River fourteen poles below the mouth of Nine Mile Creek thence North two hundred and seventy eight poles (crossing the creek at thirty poles and also at forty poles) cornering on a post Oak bush and three small hickories thence West three hundred and twenty two poles to a Mulberry on the bank of the river (crossing the public road at One Hundred and eighteen poles) the same course continued twenty one poles to a stake in the River, thence South three hundred and forty three poles to a Stake between a marked post Oak and Black Oak thence East three hundred and forty three poles to a Stake on the South side of Fort Loudoun (crossing the Tellico River at fifty nine poles) thence North through said Fort thirty six poles to a marked hickory on the bank of the Tennessee River thence crossing the same to the beginning Containing six Hundred and forty three acres more or less lying and being on both sides of Tennessee River including the Ferry commonly called Blairs ferry (Monroe County Deed Book A:1).

The site of Fort Loudoun and the village of Tuskegee were mentioned in the report of the work by Cyrus Thomas of the Smithsonian Institution in the Little Tennessee River valley in the late nineteenth century, but he does not note, and apparently did not do any excavations at either of the two sites (Powell 1894:388).

P. M. Radford published an article entitled, "Old Fort Loudoun" (Radford 1897), which is mostly a verbatim transcription of the account of Fort Loudoun that was given in Hewatt's (1779) *Account of the Rise and Progress of the Colonies of South Carolina and Georgia*. Hewatt's account was based mainly on reports in the *South Carolina Gazette*. In his article, however, Radford did add a note that described the fort in the late nineteenth century:

> The wilderness has disappeared; so have the Indians, the civilization has made some advances in the neighborhood of the old Fort, all traces of which have disappeared, except the well doug by the garrison to get a supply of water (Radford 1897:40-41).

An anonymous map in the McClung Collection of the Knox County Public Library in Knoxville shows what could apparently be seen of the fort in April 1900 (Figure 15). The well is shown, and presumably the dark line indicates the outline of the remains of the earthwork on the crest and slope of the ridge. The dotted line approximates the outlines of the fort, or indicates that the trace of the earthworks in the lower section of the fort were less clearly defined than those on the upper area.

John Preston Author reported a somewhat later account in his *History of Western North Carolina* that adds a description of the fort and the well:

> In June, 1913, Col. J. Fain Anderson, a noted historian of Washington College, Tennessee, visited Fort Loudoun, and found the outline of the ditches and breastworks still visible. The old well was still walled up, but the wall has fallen in. He says...that a Mr. Steele who lives at McGhee's Station - the nearest railroad station to the old fort - has a piece of one of them (the cannon) which his father plowed up over forty years ago (Author 1914:69-70).

An account by William A. Henderson published in 1917 gives the following account of the condition of the fort:

> A heavy ditch was doug across the ridge, extending out into the plain and thence to the river, including about two and a half acres of ground. These works are plainly discernable at the present day, although that place has been under cultivation... It remains there today with its well, except within a few feet of its surface still in fair preservation (Henderson 1917).

This tends to confirm the 1900 map, and provides some further information on the well as it existed at that time. It is important, also, because it does indicate that the lower part of the fort was under cultivation then, and had been for some time.

A monument was placed at the site of Fort Loudoun by the Society of Colonial Dames, and dedicated on November 9, 1917, in a ceremony held at the fort site. The address was delivered by John H. DeWitt, then president of the Tennessee Historical Society. In his address he presented a rather romanticized account of the events that took place at the fort in the eighteenth century. Of some interest is the fact that in his address he incorrectly stated that the fort was constructed by Andrew Lewis, and that it was made of squared logs with blockhouses (DeWitt 1917:252). He was apparently following the 1823 account of Ramsey (1926:51-52), which also attributes the construction of the fort to Andrew Lewis (see Williams 1991 for a discussion of the accuracy of Ramsey's Annals).

A somewhat later description of the fort as it existed in the early part of this century (sometime between 1917 and 1925) is given by Philip Hamer in an article entitled, "Fort Loudoun on the Little Tennessee," which remains one of the more accurate and thoroughly documented historical studies of the fort.

> The general outline of the fort may still be seen, rather clearly near the point of the wooded ridge overlooking the river, only faintly in the field at the foot of the ridge. An appropriate marker has been erected (Hamer 1925c:15, Footnote 41).

A letter written in 1930 provides a limited description of the site at that time:

> Of the fort itself so far as I could tell during a hurried visit there about two weeks ago not a vestige remains beyond the gouged out place that appears to have been a trench of some sort. The place has been grown up in trees and forest growth there being several oak trees there that appear to date back to time of the fort (Horace VanDeventer to M.C. James, August 2, 1930. Letter on file with the Fort Loudoun Association).

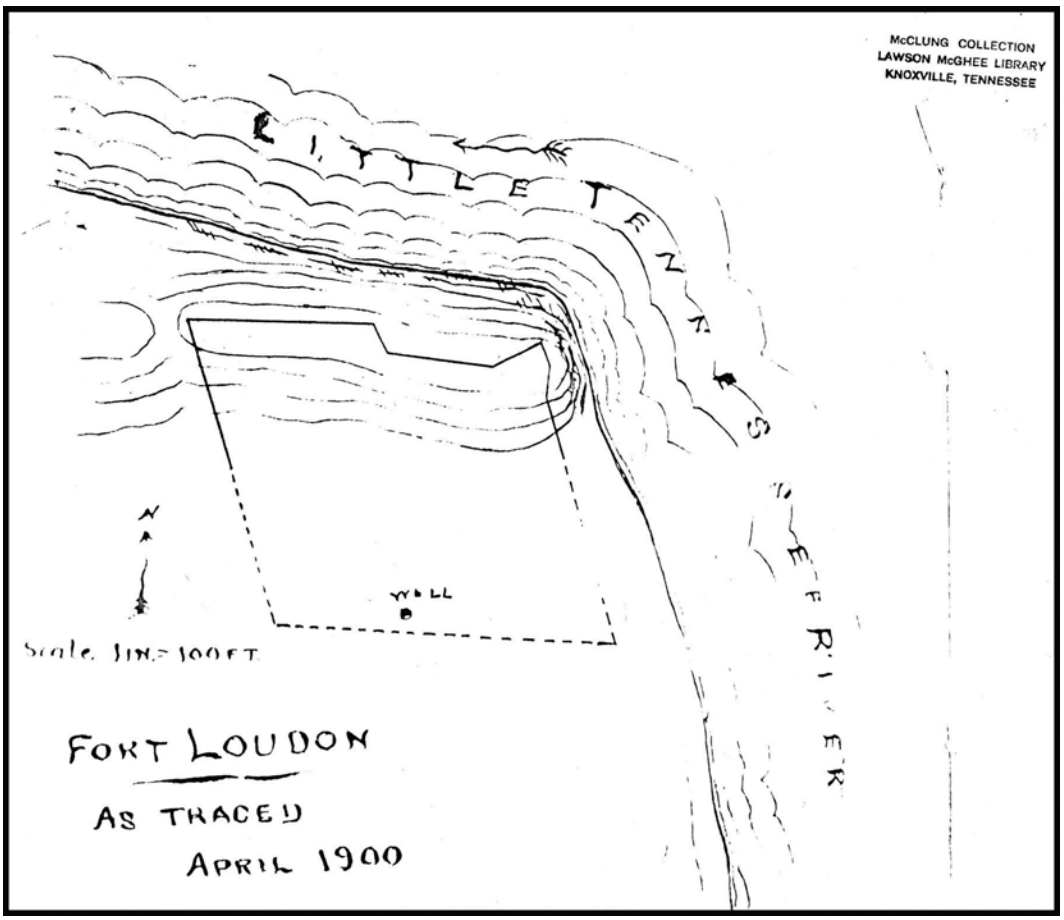

Figure 15. Anonymous map of Fort Loudoun, dated April 1900. Horace VanDeventer Papers - Fort Loudoun, McClung Historical Collection. Reproduced by permission of the McClung Historical Collection, Knox County Public Library System.

The various land transfers that took place since the 1820s are detailed by Kelley (1961b:313-314) and need not be repeated here since they provide little information on the condition or description of the fort. Kelly also provides a complete summary of the acquisition of the site by the Society of Colonial Dames, the formation of the Fort Loudoun Association, and other events of that nature that took place through the early 1960s. The following chapter continues with the description of the archaeological work at Fort Loudoun that began in the 1930s.

CHAPTER 3

PREVIOUS EXCAVATIONS

This chapter outlines the previous archaeological work conducted at the site of Fort Loudoun since 1936, when the initial excavations were begun. Other activities at the fort, such as reconstruction, that have affected the original deposits of the fort are also described. An exposition of the archaeology that had been carried out prior to the 1975 excavations is necessary for an understanding of the nature of the archaeological record that was present in the deposits that were excavated in 1975 and 1976. In some cases the only description of the original appearance of certain features is preserved in the records and photographs of those previous excavations.

The Works Progress Administration (WPA) excavations are reported in as much detail as is available. There was no full report written about those excavations, and the existing documents and information relating to that project are sparse and scattered. For the other excavations, this chapter only provides a summary account of the work that was done, pointing out primarily the areas that were worked and some of the significant findings. Those later excavations are reported in detail in both published and unpublished reports that are relatively easier to obtain. Furthermore, the various archaeological features and structures that were recorded in the later excavations can either be correlated with the current work or were reexcavated by the last excavation project. The same is also true for some of the WPA findings, and those are reported on in detail in the appropriate sections in later chapters of this volume.

WPA Archaeology 1936-1937

In late September of 1935, after several months of negotiations by the Fort Loudoun Association and others, the Restoration of Fort Loudoun Project, WPA 65-44-1545, was approved by the Works Progress Administration. As of June 21, 1936, the Federal Government had allocated $28,000, the State of Tennessee through the Highway Department $6,000, and Monroe County contributed $1,500. Relief labor from Monroe County constituted the work force (Cooper 1936a). The scope of the project outlined in a memorandum included three major aspects:

> (1) The construction of a road, approximately two and one half (2 1/2) miles in length, together with drains, repair of bridge and necessary landscaping. (2) The fencing of rights-of-way along roadway in keeping with landscaping and National Park Service practice. (3) The Restoration of Fort Loudoun. This phase includes (a) the clearing of the site (5.6 acres) which is covered with dense growth of timber; (b) archaeology; (c) Historical research; (d) Designing and construction of Barracks, Breastworks, and such sanitary and accompanying facilities as are necessary for a care-taker, and for the reception and comfort of tourists; (e) Landscaping (Cooper 1936b).

The project did not actually begin until February 1936, and activities from the 24th of February until the 1st of June consisted of "grading and draining of the roadway, the repair of a small steel bridge at the mouth of the Tellico River, and minor landscaping along said road." On June 1, 1936, Hobart S. Cooper was appointed as Engineer-Archaeologist by the State WPA Administrator, with the approval of the Fort Loudoun Association. On the 15th of June, 15 laborers and one foreman were transferred from the road work and were assigned to clearing the fort site (Cooper 1936b).

In the same memorandum as the one quoted above, Cooper listed several consultants for the project who had agreed to supply information and help. These were Mary U. Rothrock, P. N. Hamer, and Samuel Cole Williams for history; William S. Webb and T. M. N. Lewis for archaeology; and Albin K. Kupler, Matthew J. Gunner, and Schenk Griffin for Army engineering. The historians listed above probably provided most of the historical documentation that was available to Cooper during the project. Judging from various letters of Cooper and other materials, (on file as the Hobart S. Cooper Papers in the McClung Historical Collection of the Knox County Public Library), it is clear that the project had copies of the South Carolina Indian Affairs documents (now published as McDowell 1970), copies of the British Library, Harvard Library, and Huntington Library plans of Fort Loudoun, and a copy of DeBrahm's account of the fort from the Harvard Library (probably that published by Williams in 1928). The only major amount of documentation apparently not available was the collection of letters in the Lyttelton Collection of the Clements Library. Cooper noted that:

> In addition to information at hand relating to the general location of Fort Loudoun more specific information as to the area which was included in the fort was secured from DeBrahm's plan of Fort Loudoun, and in the reports of Captain Raymond Demere...
>
> With such data as a guide it was clear that the area comprising the fort included three distinct levels, namely: (a) the crest and slope of the narrow ridge at its eastern extremity; (b) the upper (2nd) bottom land meeting the southern slope of the main ridge; (c) the lower (1st) bottom land lying eastwardly from the upper (2nd) bottom land and between the upper (2nd) bottom land and the River. The main fort being on the ridge and the upper (2nd) bottom land; Ravelin Lyttelton on the upper (2nd) bottom land a portion of it on the lower (1st) bottom land; Fort Glen lying entirely on the lower (1st) bottom land, toward the river (Cooper N.D.a).

It is evident from Cooper's "Archaeology Plans for Use in Excavations" (not reproduced in this report) that it was possible to correlate the original fort plans to some extent with certain remaining features on the ground. It also appears that the eighteenth century fort plans (Figures 7 and 8) were utilized in organizing the actual excavations, as can be seen in WPA photographs, plans of the excavations, and the WPA excavations as determined by later excavations and other information (see Figures 25, 27 and 28). The reconstructed plan of the WPA excavations (see Figure 27) is based on the location of WPA trenches defined by the 1975-1976 excavations, WPA photographs, and from notes and letters of Hobart Cooper.

Using a somewhat different grid system from that proposed for the excavations, a topographic map with five-foot contour intervals was made. This map also shows the tree lines, and based on those, it was apparently done after the site had been cleared. Figure 16 shows a portion of this map, which was dated December 7, 1936.

In addition to the topographic map and the situation of the fort as given above, Cooper provided a detailed description of the fort site as it was in 1936 at the beginning of the WPA work:

> ...approximately two-thirds of the area of the fort remained covered with a dense growth of trees and underbrush. This growth covered the entire portion of the fort which rested upon a narrow ridge ... and extended out upon the level plain to the south. In addition, that portion of the fort lying east of the main area and upon the first bottom land of the river and the terraces ... exhibited a similar physical condition of trees and underbrush.
>
> That portion of the fort lying south of the ridge and beyond the limits of the trees and brush had for many decades been included in a cultivated area extending from the tree line southwardly to an extent of approximately three-fourths of a mile. Evidences of the fort in this area were entirely obliterated due to subsoiling in cultivation and leveling over many decades.
>
> ... cutting the ridge at right angles is a ditch, covered with trees but definitely cutting the otherwise regular, or natural, ridge and its slope, north and south. This ditch runs from the N. side of the ridge to the terminus of the slope on the southern side. It is about twenty five feet in width (Cooper N.D.b).

Further elaborating on the condition of the fort site Cooper stated:

> ... since the destruction of the fort in 1761 a natural growth of trees and underbrush covered the narrow ridge, the lower bottom land and the upper bottom land. Trees, which from the ring markings, [that date] to approximately five years after the destruction of the [fort are] included in the natural growth.
>
> The upper bottom land, due to its fertility and topography ... has been under cultivation for more than a century.
>
> In view of the above conditions it was difficult to determine any outlines of the fort. However, about four hundred feet westward from the river's edge there was a depression in the narrow ridge. This depression cut across the crest of the ridge; it was about twenty feet in width, and extended from slightly north of the crest of the ridge, southward a distance of about 180 feet. This depression, likewise, was greatly obscured by large trees and undergrowth (Cooper N.D.a).

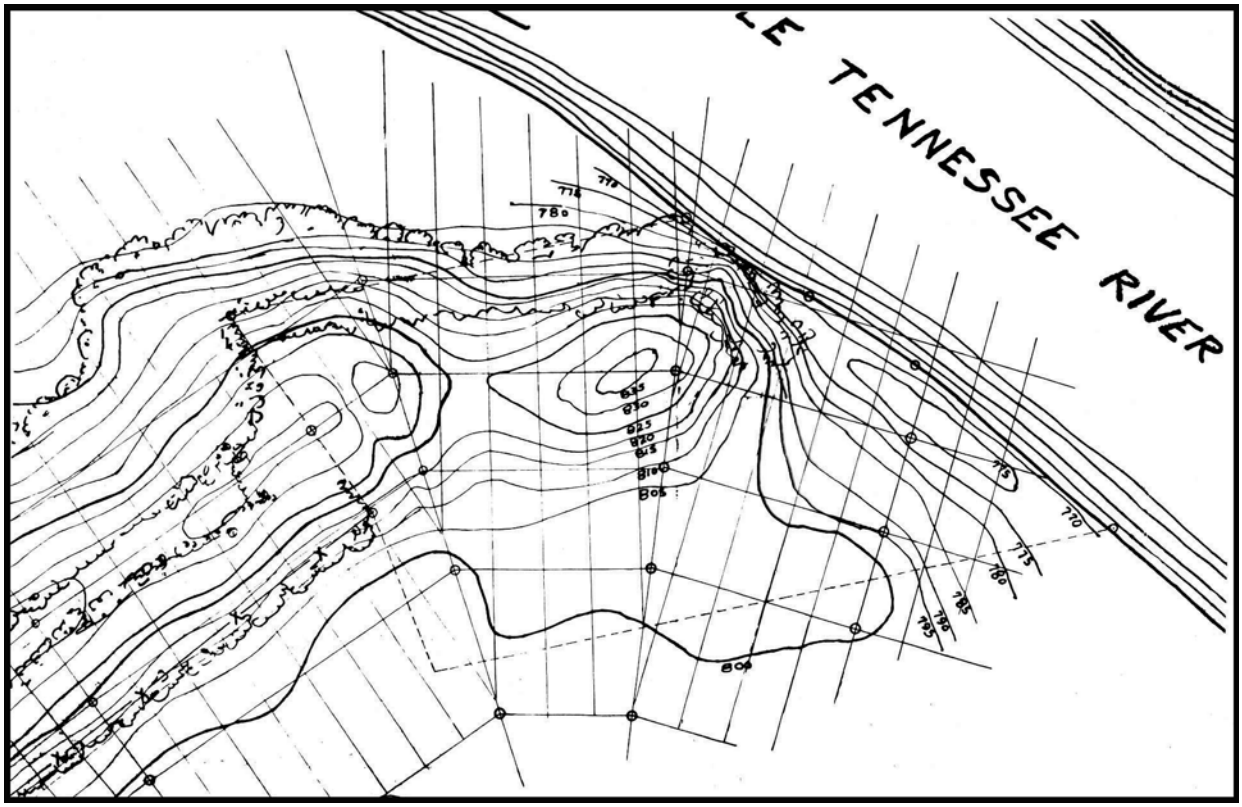

Figure 16. Five-foot contour map of Fort Loudoun produced by the WPA project after clearing of the site, dated December 7, 1936. Reproduced courtesy of the McClung Historical Collection, Knox County Public Library System.

Figures 17 through 22, photographs taken during and after the WPA clearing operations, illustrate some of the undergrowth and the presence of some rather large trees on the site. Although Cooper stated that the outlines of the fort were difficult to define on the ground, some remains of the parapet were, in fact, visible. The parapet along the north side of the fort can be seen in Figure 23, a photograph taken after clearing of the top of the ridge. The ditch along a portion of the west side of the fort was clearly discernible as indicated by Cooper (Figure 21). Photographic evidence from the late 1930s, and archaeological evidence from the 1975 and 1976 excavations clearly demonstrate that the ditch on the south and east sides of the fort was filled to grade and not visible. Profiling of the reconstructed parapet in 1975 and 1976 did expose the remains of original parapet remnants on the south and east sides of the fort as they existed in 1936. Figure 40B, a profile of the parapet on the east face of the Southeast Bastion, clearly illustrates this parapet remnant in that location. A complete discussion of the parapet and ditch is found in Chapter 4.

The overall goals of the archaeological portion of the WPA project were to determine the following:

(1) Design of the fort as it was actually constructed.
(2) Location and sizes of buildings and appurtenances.
(3) Materials used in construction of buildings (Cooper N.D.a).

The specific problems and procedures for the upper and lower fort areas were outlined by Cooper in his report on the archaeological investigations:

A - FIRST AREA (THE RIDGE AND SOUTHERN SLOPE)

1- Carefully remove all trees and underbrush, felling all trees by hand and, preferably, remove all primary roots of trees in this process. This procedure requiring the tree to be "grubbed" while standing [see Figures 17 and 19]. Where not practicable cut standing trees and carefully remove stump later. Use explosives for removing stumps only where same cannot be removed without great inconvenience, or where disturbance of soils will be small or of secondary concern.

2- Carefully rake and remove all leaves and debris as well as all logs, stumps, and tree limbs from the area of the fort.

3- Chart and record all evidence of (a) fort construction, such as: soil stratification; post moles; charred materials; foundations; trenches, etc. (b) equipage; domestic utensils; ordnance, or other evidence of occupancy.

4- After completion of "B" below, apply as far as possible this method to "A."

B - SECOND AREA (SOUTHERN AREA OF FORT)

1- Cut and remove all extraneous weeds and grasses.

2- Beginning on the southern line of the property survey run test trenches northward and at right angles to said line, and at intervals of 40 feet thereon, to points approaching closely the southern line of first area the base of the ridge. Said trenches to be wide enough for convenient working and deep enough for determination of stratifications-- natural or artificial, probably 3 to 5 feet deep.

3- From the westernmost trench and at intervals of 40 feet thereon run similar trenches eastward toward the river.

4- Other test trenches may be run from each base and at intervals of the ten or twenty feet from the primary trenches.

5- Chart and record all evidences of (a) fort construction, viz: soil stratification; post moles; charred materials; foundations; trenches; etc. also, (b) equipage; domestic utensils; ordnance, or other evidence of occupancy.

6- If evidence of occupancy level appears below present surface then remove all such superimposed soils or materials, if extraneous, and not a part of a structure or other monument connected therewith. Remove extraneous earth horizontally and at depths not exceeding 6 inches (Cooper N.D.b).

Clearing of the site began on June 15, 1936, and continued for several months. Excavation of the well located in the southeastern part of the fort was also started during this time, and Cooper reported that it was completely excavated to the bottom by July 8th (Cooper to Mary U. Rothrock, July 8, 1936, McCHC). Details of this work are described in a section of Chapter 6 concerning the well. On September 4, 1936, Cooper reported that the site clearing was complete and that considerable work had been done on the archaeological aspects of the project (Cooper to Verne Chatelaine, September 4, 1936, McCHC).

Figure 17. View north from the Rivergate showing WPA removal of tree just north of the Rivergate. The upper terrace of Ravelin Lyttelton shows clearly on the right of the photograph. Photograph courtesy of the Fort Loudoun Association.

Figure 18. View north of pit after removal of tree in Figure 17. This pit was defined as Feature 115 in the 1975-1976 excavations. Photograph Courtesy of the Fort Loudoun Association.

Figure 19. Tree removal near the crest of the ridge. Exact location is undetermined. Photograph courtesy of the Fort Loudoun Association.

Figure 20. View to the southwest showing a tree removal along the south curtain of the fort. The pit that is being excavated was defined in the 1975-1976 excavations as Feature 165. Photograph courtesy of the Fort Loudoun Association.

Figure 21. View north along the west curtain of the Northwest Bastion after clearing showing the depression of the west ditch. Photograph courtesy of the Fort Loudoun Association.

Figure 22. View north showing the clearing operations in the Ravelin Lyttelton area. The two terraces of the ravelins and the bedrock outcrop on the back edge of the upper terrace are clearly visible. Photograph courtesy of the Fort Loudoun Association.

Figure 23. Panoramic view of the fort site after clearing in 1936. View is to the southeast. The depression of the west ditch is in the foreground. A low ridge on the crest of the hill seen at left is the remains of the parapet along the north side of the fort. The well is located under the small clump of trees in the center of the photograph. Photograph courtesy of the Fort Loudoun Association.

Figures 23 and 24 show the appearance of the fort after it had been cleared, but prior to the beginning of the excavations. The excavations were begun, with the exception of those in the well, after the clearing and removal of the trees had been completed. Cooper, in a brief report on the archaeology at Fort Loudoun, described some of the specific methodology that was used in the excavation and recording of the features and artifacts. To be noted is the similarity of trenching to other archaeological projects at historic sites about this time, such as Williamsburg, Virginia (see Noel Hume 1969:73, Figure 5). Also reported by Cooper were some of the overall findings of the project:

> Beginning at a point three hundred fifty (350) feet, more or less, southwardly from the crest of the ridge and on the eastern line of the aforementioned depression in the ridge, a stake was set. From this stake a line was run due east to the river. Along this line at intervals of twenty feet stakes were set. From these stakes lines were run due north to the crest of the ridge. Due north from the first stake set a line was run and stakes set at intervals of twenty feet. From the stakes thus set, and beginning from the south line and progressing north from each stake test trenches varying from three to five feet in depth were run toward the ridge, a distance of two hundred feet. When trenches from the south were complete additional trenches were run from the west line, eastward on intervals of twenty feet.
>
> From all trenches memoranda were kept on soil structure and general condition of soils. Special attention was given to soils with high percentage of charcoal and small, broken limestone. Specimens were placed on side of ditch adjacent to point where found.
>
> When trench work was complete and chart was made of specimens of charcoal and broken limestone a key to the outline of the fort and its palisades was noted. Thus by connecting one trench with another at points where charred earth (or charred earth and broken limestone) was found, the main fort with 4 bastions was outlined. Lying to the south and east of this main outline the width and depth of a ditch around those sides of the fort was observed. With the south and east ditches determined, the "depression" through the ridge heretofore mentioned became the remains of the original ditch on the west side of the fort. On the north, the rearranged natural slope just behind the crest of the ridge became the ditch on the north side of the fort.
>
> Aside from the outline of the fort and its palisade line, a line of chimneys was noted between the bastions of the western half of the fort outline. Also near the western flank of the S.E. bastion a well was located. The excavation of these and other monuments, as well as their record and the record of all findings are recorded under the following heading. Likewise, photographs were made of all excavations. In addition to the main part of the fort, that portion of Ravelin Lyttelton lying in front of the curtain between Bastions Prince of Wales and Queen was revealed. That portion lying due east of Bastion Queen was not completed. Fort Glen was not trenched (Cooper N.D.a).

Figure 25 shows the excavations in progress, but probably near the end of that work. Figure 26 shows a portion of the fort area after the excavations were completed, with piles of sand and limestone in place, in preparation for masonry work. From the reconstructed plan of the WPA excavations shown in Figure 27, it is conservatively estimated that an area of approximately 1,250 square meters, or about 11 percent of the area of the fort and the surrounding ditch were excavated. The outline of the ditch and parapet, and the location of the main (outer) palisade line were clearly established. As previously mentioned, the well was excavated, several chimney bases were cleared and mapped (Figures 29, 95, and 97), the base of the powder magazine in the Northwest Bastion was excavated (Figures 91, 92, and 93), and most of the inner palisade line was also located and excavated.

Figure 24. View north of the fort site after clearing in 1936. Photograph courtesy of the Fort Loudoun Association.

Figure 25. View southeast across the fort site during excavations. Circa late May 1937. The excavation of the outer palisade line is clearly visible in the foreground, and continuing south along the west wall, extending east along the south wall, and then northward on the east wall of the fort. The test trenches perpendicular to the west, south and east walls of the fort and the south ditch are also evident. The chimney bases for the Barracks are located near the center of the photograph, and the well is adjacent to the two small trees. Photograph from the National Archives Record Group 69.

Figure 26. View southeast across the fort site after excavations and prior to reconstruction of the chimney bases and the construction of the outer stone wall. Circa late May or June 1937. Photograph courtesy of the Fort Loudoun Association.

The results of those excavations, particularly in terms of locating the outer and inner palisade lines, were quite accurate as revealed by the 1975-1976 excavations. In a letter to J. A. Huff, Cooper noted: "Through the necessary archaeological excavation the lines and extent of the fort have now been determined" (Cooper to J. A. Huff, December 21, 1936, McCHC). Dr. William S. Webb of the University of Kentucky visited the site on February 13, 1937, and made the following report:

> It was a pleasure to note how thoroughly the site is being investigated for evidence on the location and construction of the old fort. From the information gained, it is certain that a very exact reproduction of this most interesting site can be accomplished. Having seen such excellent results accomplished ... I am moved to congratulate the WPA and its administration on results accomplished and to express the hope that the work may continue to completion without interruption (Webb to J. W. Gentry, WPA Administrator, February 16, 1937, McCHC).

In June of the same year Cooper reported the following:

> Our archaeological investigations have revealed twelve well preserved stone fireplaces; the powder magazine; the old well; and numerous other features (Cooper to Burgin E. Dossett, June 7, 1937, McCHC).
>
> The major portion of the archaeology work on the main part of the fort is near completion and reconstruction can now begin (Cooper to S. C. Williams, June 5, 1937, McCHC).

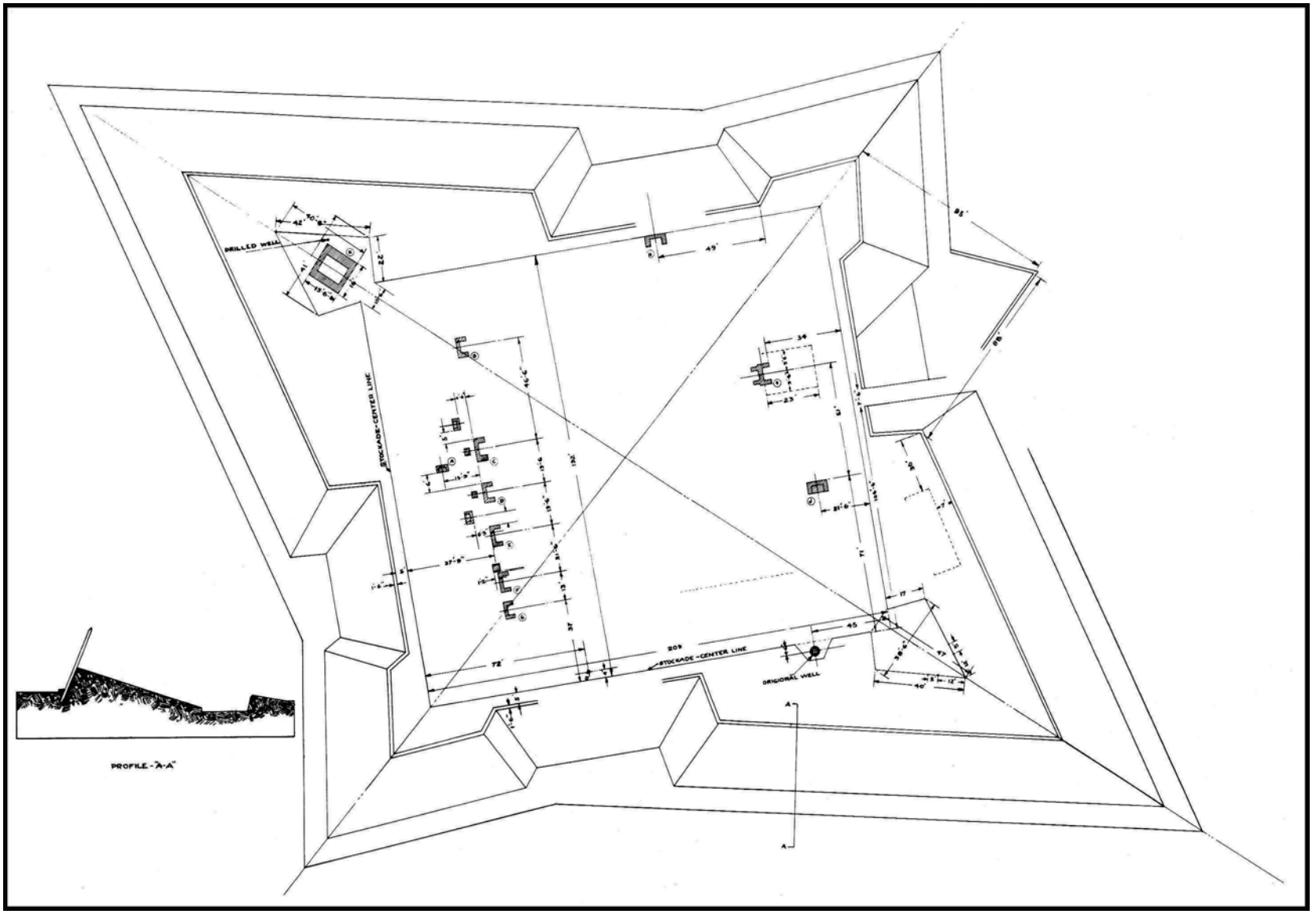

Figure 27. Plan of the WPA excavations as reconstructed from the 1975-1976 excavations, Hobart Cooper's notes, letters, and plan of the WPA archaeology (Figure 28), and photographs of the WPA excavations.

Figures 28 and 29 show the findings of the WPA Project that were mapped. The major features that were located and shown on Figure 28 include the outline of the ditch, the line of the main (outer) palisade line and the line of the inner palisade. The profile that is shown of the outer palisade line is based at least in part on the excavations, and partially conjectural. Within the fort, the location of the powder magazine is shown in the Northwest Bastion. Six chimney bases associated with the barracks are along a north-south line in the western part of the fort, and immediately to the west of the barracks are three additional smaller chimney bases, and three small rectangular stone foundations. Centered on the north curtain the of the outer palisade is a chimney base for the structure (Structure 23) that later became known as the Commander's (Demere) House. The well is located in the Southeast Bastion. North of the well is a stone chimney base associated with a structure (Structure 6) that was parallel to the east wall of the inner palisade and faced the parade ground to the west. The stone foundation for the double chimney of the combined guard house and Officer of the Day quarters (Structure 13) is located inside the eastern gateway or Rivergate in the east curtain. Interestingly, the partial outline of what was defined as Structure 5 by the 1975-1976 excavations, a post in ground structure, is shown along the east curtain of the Southeast Bastion, but the associated stone chimney base is not shown, and presumably was not defined then. Outside the Rivergate an angled section of palisade was defined, which was part of Ravelin Lyttelton. A similar outline for the guard room is also shown, but there are no notes indicating what basis was used for these structural definitions. Figure 29 shows the stonework details of the six chimneys that were associated with the barracks building, as well as two other rock features that were adjacent to two of the chimney bases. Additionally, the stonework for the powder magazine is also shown. The various features that are noted on these two drawings are discussed in detail in later sections of this report where they are considered with the other features that were recorded by the 1975-1976 excavations.

Appendix 3 lists the feature, field numbers, and brief descriptions of the features excavated in 1975-1976 that were determined to have been of WPA origin, for example exploratory trenches that were excavated by the WPA project. Some 2,400 artifacts were recovered by the WPA excavations and are stored at the McClung Museum at the University of Tennessee in Knoxville. Apparently no effort was made by the WPA project to tabulate or describe these materials. The prehistoric and Cherokee ceramics that were found by the WPA excavations, numbering around l,725 sherds, were analyzed at one point after the excavations by T. M. N. Lewis and Madeline Kneberg (Report on file McClung Museum). Illustrations and type sherds were sent to James B. Griffin at the Ceramic Repository for the Eastern United States at the University of Michigan (Kneberg to J. B. Griffin, March 27, 1939, McClung Museum). No effort was made to recover those type sherds for this study, however the materials that were stored at the McClung Museum were borrowed and analyzed for this report. The descriptions of these artifacts are included with those from the later excavations in Chapter 8 of this report and are tabulated in the various tables under "No Provenience." While they do not have any more specific provenience other than that they are from the fort, they do comprise an important body of material.

Hobart Cooper was relieved of his duties sometime prior to June 9, 1937, presumably after the archaeology was completed (Huff to Cooper, June 9, 1937, McCHC). A dedication ceremony was held on June 12, 1937, to lay the cornerstone of the wall that was to be erected to mark the outer palisade line (Cooper to Claude Black, February 9, 1956, FLA). This construction consisted of a four- to five-foot high stone wall which was set directly over the original palisade line and went completely around the outer perimeter of the original fort except for an opening in the north face of the Northwest Bastion and another opening in the south curtain. Figure 26 shows the fort area prior to the construction of this wall, with piles of sand and limestone rocks in the area of the barracks and along the south and east sides of the Southeast Bastion. Figure 30, a photograph taken from the apex of the Southeast Bastion, shows the trench excavated for the foundation of this wall and the beginning of the stone work. Figure 31 shows the south wall after its completion. Also at this time, several of the chimney bases (see for example Figure 98) as well as the powder magazine were consolidated and partially restored. There was also some restoration of the parapet that can be seen in Figures 32, 38, 39, and 40 to bring it up to the level of the top of the stone wall, and obviously some cleanup and landscaping within the interior of the fort.

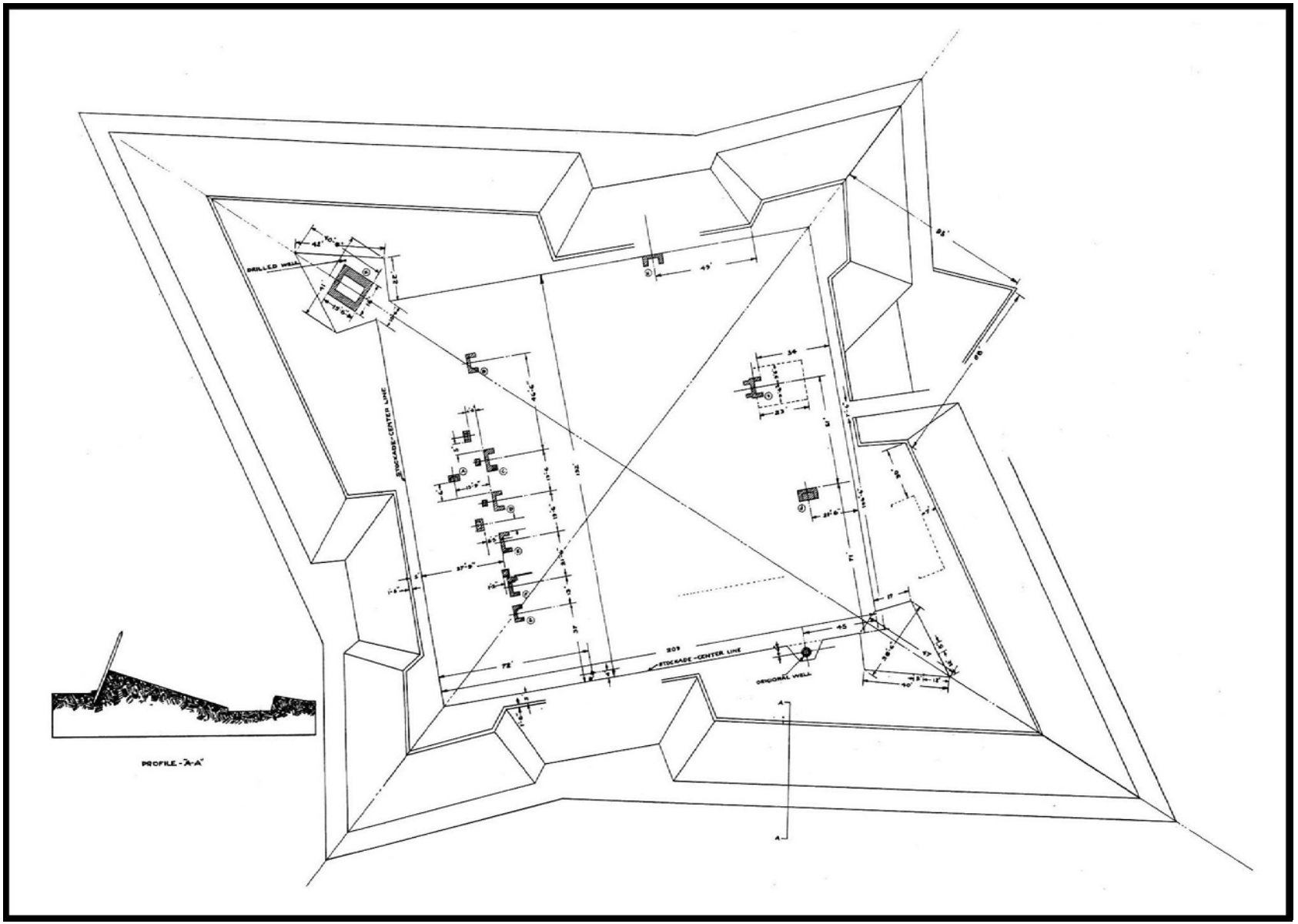

Figure 28. Archaeological Plan of the WPA work at Fort Loudoun by Hobart Cooper. Dated June 4, 1937. Reproduced courtesy of the Fort Loudoun Association.

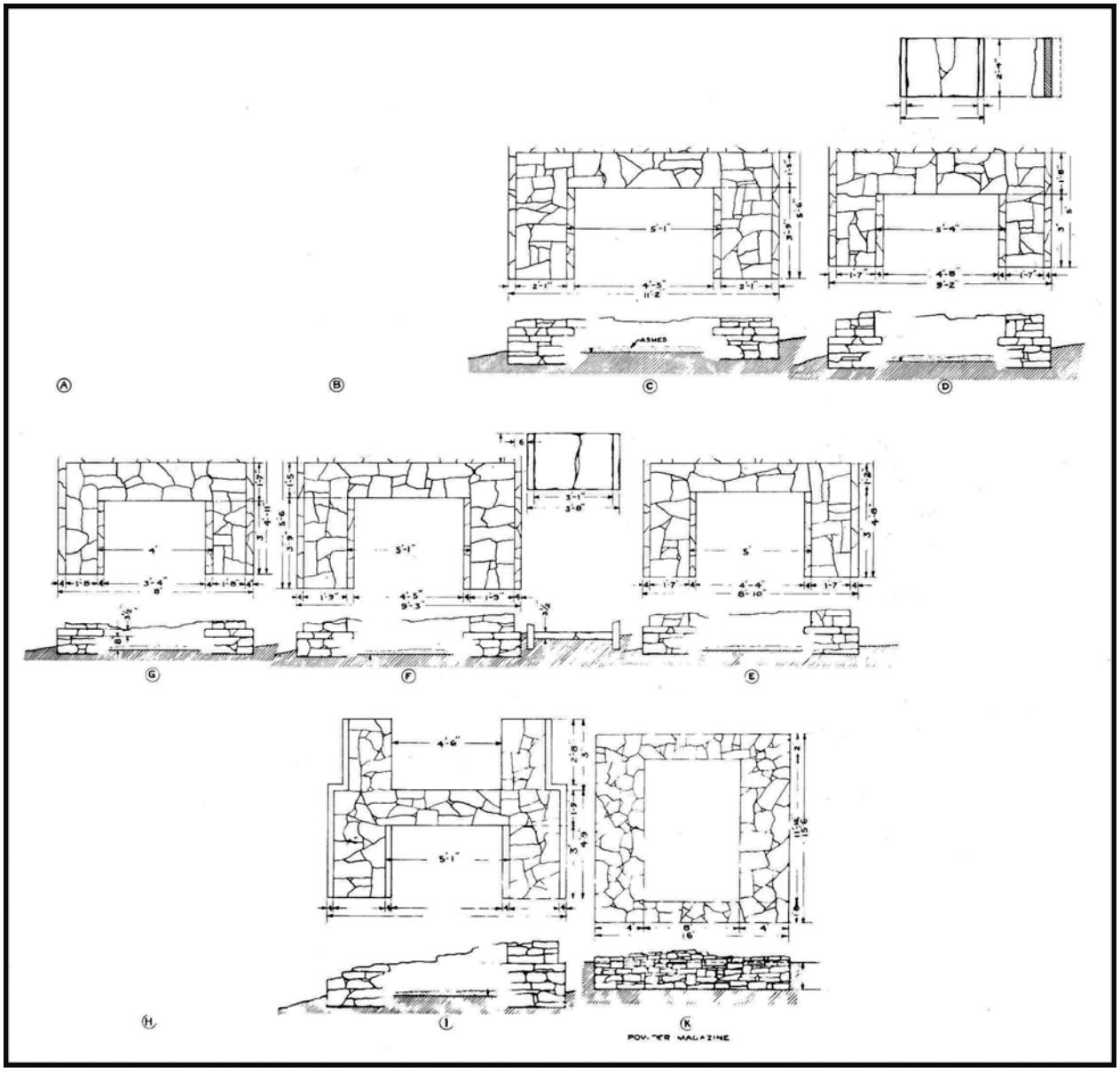

Figure 29. Details of the stone chimney bases and powder magazine foundation as drawn by Hobart Cooper. Reproduced courtesy of the Fort Loudoun Association.

Figure 30. View north from the apex of the Southeast Bastion along the east wall of that bastion showing the trench and foundation stones for the wall that was constructed along the outside palisade line. Photograph courtesy of the Fort Loudoun Association.

Figure 31. View southeast across the fort after WPA construction of the stone wall. Photograph courtesy of the Fort Loudoun Association.

After the close of the WPA Project, the site grew up in underbrush and small trees (Figure 32). In 1954 the Fort Loudoun Association again undertook the clearing of the site preparatory to opening the site for visitors. Hobart Cooper met with the Fort Loudoun Association on November 12, 1954, and presented them with the archaeological drawings and photographs of the WPA excavations.

Figure 32. View to the northwest across the fort in the 1950s showing the regrowth of the trees since the WPA clearing, and the re-clearing of the area by the Fort Loudoun Association. Photograph courtesy the Fort Loudoun Association.

Elsworth Brown Excavations 1955-1957

Beginning in March of 1955 Elsworth Brown, then Research Director for the Fort Loudoun Association, carried out a series of small test excavations at the fort to answer certain specific questions related to newly planned reconstructions by the Fort Loudoun Association (Figure 33). During this series of excavations he was variously assisted by A. C. Grist, Jr., and J. Bennett Graham (Chief Archaeologist for the Tennessee Valley Authority during the 1975-1976 excavations and until retirement in 2006).

The first test consisted of a one- by three-foot unit located 48 feet from the, apex of the Northeast Bastion on the diagonal between the apex of that bastion and the apex of the Southwest Bastion (Figure 33A). The purpose was to test the area in hopes of determining the location of the flagstaff that was supposedly located in this bastion. This, supposition was probably based on Figure 7, one of the DeBrahm plans, which shows a flag pole and a large flag in the profile view of the fort. The excavation was carried to a depth of three to five inches and recovered a portion of a metal buckle, a clay pipestem fragment, and defined two shallow bowl-shaped depressions that were probably post molds.

The second excavation consisted of a trench in the apex of the Northwest Bastion parallel to the masonry walls on the north and west sides of the bastion (Figure 33B). The trench was 21 inches wide and excavated to a depth of three feet. Beginning at the apex, this trench extended five feet along the north wall

and 10 feet along the west wall of the bastion. No evidence was found for the WPA excavation of the palisade line; presumably it was located underneath the stone wall. The excavation revealed the "parade level" (which was, in fact, the old humus that existed at the beginning of the 1756 construction of the fort) that had been covered by the early construction and later activities it the fort. Additionally, one post mold was located in the apex of the bastion, which was probably part of the gun platform in that bastion (Brown 1955b). This post mold was not relocated by the 1975-1976 Tennessee Division of Archaeology excavations.

In August of the same year, the initial excavation on the diagonal in the Northeast Bastion was expanded to three feet in width and extended from the apex of the bastion to a point 63 feet, 7 inches from the apex (Figure 33A). An original "parade level" was determined, consisting of an irregular layer of charcoal, ashes, and red clay (Brown 1955c).

The next test conducted by Brown consisted of clearing around the stone chimney base that was situated along the north curtain of the fort (Figure 33C), and reputed by some to have been associated with Paul Demere's house (Structure 23 detailed in Chapter 5). This chimney base was originally located in 1936-1937 by Cooper and designated "H" on his archaeological plan (Figure 28). The floor of this chimney base was cleared, but no additional information was recorded (Brown 1955d).

The last project completed in 1955 was the testing of the structure that would have been associated with the same chimney base discussed immediately above. A trench 1.5 feet in width was excavated (with street cleaning brooms) parallel to the front of the chimney base, and was taken to a maximum depth of two inches. Approximately 15 feet from the eastern corner of the chimney, Brown located a group of flat stones that could have served as the footing for a corner of the structure. At a corresponding distance on the other side of the chimney base there was a rock outcrop which could have served as a support for that corner. The distance between the two corners was 37 feet, and possibly represented the length of the structure. Brown also observed, quite correctly, that the bedrock in this area appeared to have been leveled off or cut down to some extent, to level the area for a structure (Brown 1955e).

In a somewhat later excavation, in 1957, Brown re-excavated the postholes of the Rivergate in the east curtain of the fort that had been excavated previously by Cooper in 1936 or 1937 (Figure 33D). This was done preparatory to the reconstruction of the Rivergate so that the posts could be placed in the original postholes. Additionally, he tested the area of the Guardhouse (Structure 13 detailed in Chapter 5) that was located just inside the Rivergate (Figure 33D). This had been partially excavated by WPA crews that located the double chimney base and somehow determined the dimensions of the east or Guard Room as shown in Figure 28. Brown's work refined the drawings of the chimney base done by Cooper, and also determined the dimensions of the Officer's of the Day Quarters (see Figures 80, 81 and 82; Brown 1958; Kunkel 1960:10-12).

On July 25, 1956, work begin on the installation of palisades in the Northwest Bastion. While adding to the appeal that the site might have for visitors, this reconstruction served to further damage any archaeological remains that may have existed along the main palisade line, or at least made any definition of the original palisade line more difficult for the later excavations. Figures 34 and 35 show the beginning of the reconstruction and the method in which the palisades were erected.

In the spring of 1957, the Rivergate was reconstructed and connected with palisades to those already erected in the Northeast Bastion. At this time a portion of the Northwest Bastion was also enclosed with palisades. Completion of the palisade work completely around the fort was accomplished in the 1960s. The complete reconstruction of the palisade line can be seen in Figures 4 and 6.

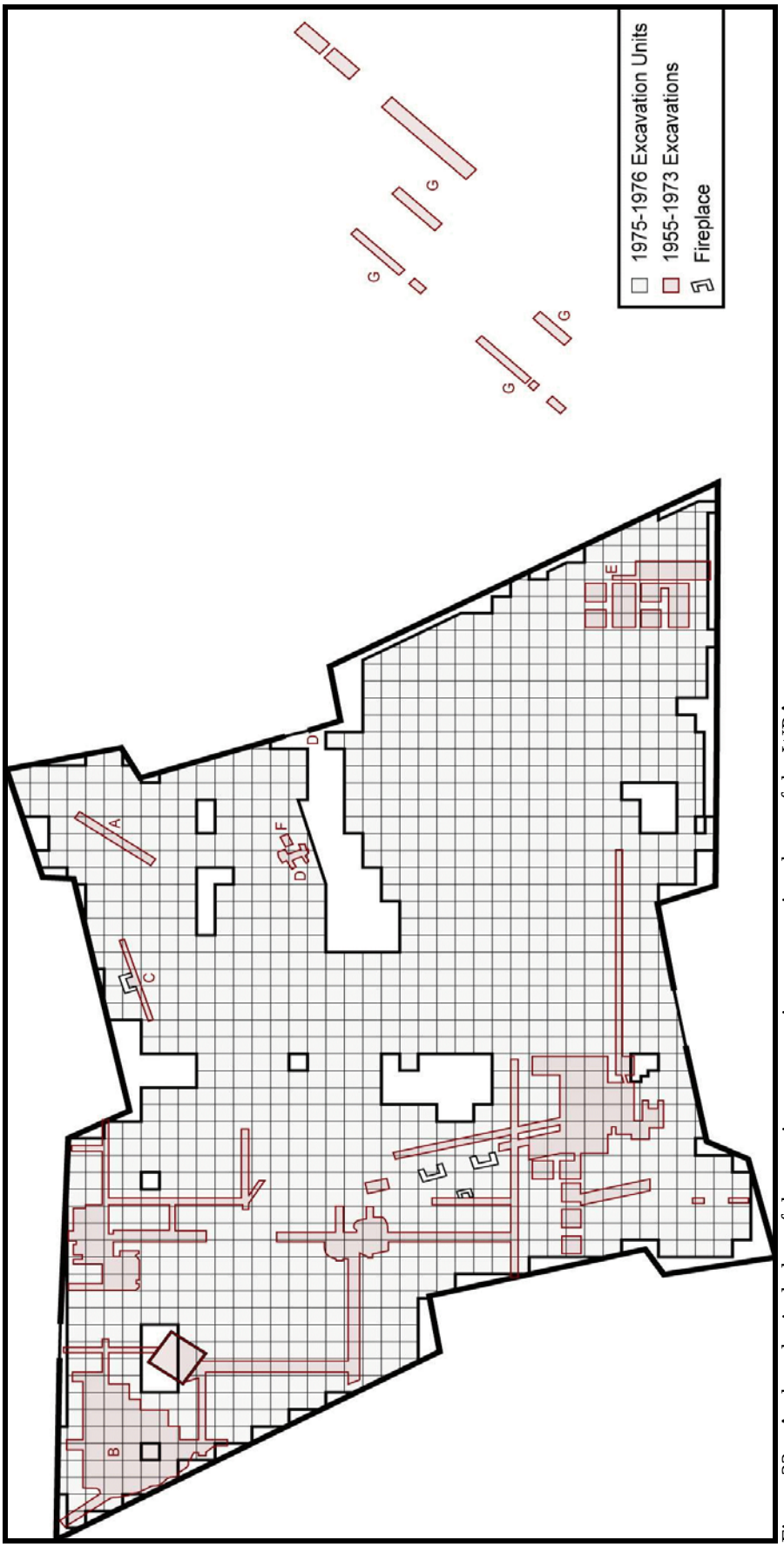

Figure 33. Archaeological plan of the previous excavations, excepting those of the WPA.

Figure 34. View east toward the apex of the Northeast Bastion showing the form for pouring a concrete cap on the stone wall, and the trench that was excavated to receive the palisade logs. Photograph courtesy of the Fort Loudoun Association.

Figure 35. View northwest toward the west flank of the Northeast Bastion showing the placement of the palisade logs. Photograph courtesy of the Fort Loudoun Association.

1958-1959 Excavations

On July 1, 1958, Peter H. Kunkel, an archaeology student at the University of Tennessee, was hired by the Fort Loudoun Association and continued in that position as an archaeologist for the Association for a period of 15 months (Kelley 1961b:319-320). Beginning in 1958, Kunkel carried out a series of excavations inside and outside the fort (Figure 33). These included areas in the Southeast Bastion, the Barracks area in the western part of the fort, the Southwest Bastion, the Northwest Bastion, and the Fort Glen area on the riverside of the fort. Figure 33 shows the location of these excavations. Work in the Southeast Bastion was aimed at locating and defining the Blacksmith Shop (Structure 2 of the 1975-1976 project, detailed in Chapter 5). No firm structural evidence was found, except one post mold. Several features were located and partially excavated, and some iron artifacts and concentrations of rocks were noted which may have been indicative of the Blacksmith Shop (Kunkel 1960:15-17; Myers and Polhemus N.D.). Another place tested was the Barracks area, around the previously excavated chimney bases in the western part of the fort. Excavations in this area revealed a number of structural features, including one post mold and several sill molds (Structure 14 detailed in Chapter 5), stone lined and unlined drains, midden deposits, structural debris and some evidence of WPA trenches (Kunkel 1960:17-21). In the Northwest Bastion excavations revealed several structural features, including one temporary structure from 1756 which was not then recognized as a structure, but defined as Structure 7 of the 1975-1976 project (see Chapter 5), several pits and features, the "parade level" (the pre-1756 surface humus), and post molds and stone slabs which were recognized as structural remains (Structure 12 this report; see also Chapter 5).

Two small tests in the Southwest Bastion dug during the winter of 1958 revealed what was called the "parade level" (again, the pre-1756 surface humus) and what was thought to have been evidence for the burned structure of a gun platform (Kunkel 1960:22). Several trenches were placed in the area of Fort Glen on the riverside of the fort. Two tests were dug in the swale between the bank of the river and the slope of the first terrace, but no evidence of any historic occupation or activities was noted. The third test, located on the first terrace near the upstream property line, revealed what was interpreted as structural evidence in the form of a palisade line or timbered outwork (Kunkel 1960:21-22).

Myers and Polhemus Excavations 1966-1967

In 1966 and 1967 Richard Myers and James E. Polhemus carried out some excavations in the Southeast Bastion area to supplement the work that had been done by Kunkel, and to determine the location and structural details of the Blacksmith Shop (Figure 33E). Several features were located and recorded including post molds, a hearth, and two other features from the period of the fort's occupation. The important discovery of the excavation was that, although it did not locate the Blacksmith Shop, it showed that there were undisturbed features remaining in the area of the Southeast Bastion. Magnetic readings on a regular grid were made over the area of the Guardhouse near the Rivergate. A small test pit was dug immediately east of the chimney foundation of this structure to attempt to determine the reason for high magnetic readings at that location (Figure 33F). The report stated that a well-preserved bullet mold and evidence of two floor levels below the then present surface were located (Myers and Polhemus N.D.). Testing the same area during the 1975-1976 excavations failed to substantiate the evidence for the additional floors.

Other Excavations 1973-1975

In September of 1973, this writer and John Broster excavated two test trenches across the first and second terraces in the area of Fort Glen on the river side of the fort for the Tennessee Division of Archaeology (Figure 33G). The purpose of the trenches was to determine whether there were any fort related structural features located in this area. Both trenches revealed what was (defined only after the 1975-1976 seasons) the edge of the terrace that had been constructed in the Fort Glen works. In the eastern end of the southernmost trench, several burned logs were located on the old humus. They were probably remains from the clearing operations in 1756 that were covered with fill dirt in the original construction of this terrace. These were recorded by the 1975-1976 excavations as Feature 12.

In July, 1974, Richard R. Polhemus tested four core hole locations south of the fort. The location nearest the river, southeast of the Southeast Bastion, produced evidence of prehistoric and historic occupations in that area. Cultural materials in the form of flint chips in the plow zone were noted in the second test back from the river (Letter, Polhemus to Corydon W. Bell, Jr., January 14, 1975. On file at Tennessee Valley Authority and Tennessee Division of Archaeology).

This author conducted similar tests at several drill stations along the proposed location of a dike south and west of the fort in January 1975. These cores, as well as the ones tested by Polhemus were made to determine the feasibility of surrounding the fort with a dike. All tests were sterile, with the exception of the station nearest the river, where the recovery of several unmodified flint chips in the plow zone verified the presence of prehistoric materials in this area southeast of the fort (Letter, Kuttruff to Tom Waller, January 27, 1975. On file.).

CHAPTER 4

THE DEFENSIVE WORKS

The purpose of this chapter is to describe those features that were associated with the defensive aspects of Fort Loudoun. Included are those described in the historical documentation, and those excavated during the 1975-1976 seasons, and previous excavations, particularly the 1936 WPA work. It is necessary to point out here that only through a thorough examination of the archaeological information and the historical documentation was it possible to accurately interpret many of the defensive features. The two sources of data were complementary; certain aspects of both sources of information were not clear without an understanding of the other. There were some parts of the defensive system that were not recorded archaeologically, but were known to have been present. Likewise there were several archaeological features resulting from defensive works that were not mentioned in the historical documentation. Throughout this chapter the historical documentation for the various features, where that information is applicable to the discussion of the archaeological remains, is presented in the text, or referenced when presented in another chapter.

The various sections of this chapter are a descriptive presentation of the different parts of the defensive works that were either noted in the historical documentation or defined archaeologically. For organizational purposes the defensive features are presented beginning on the outside of the fort with the ditch and other outworks and progressing inward through the portions of the defensive works that were on the interior of the fort. A glossary of fortification terms of this period is presented in Appendix 4. The artifacts that were associated with the various features of the defensive works are summarized in Table 1. For the overall plan of the various features that are described in this chapter, the reader is referred to Figure 6A.

Ditch and Parapet

The ditch and the adjoining earthwork or parapet on the inside of the ditch were originally designed to be the primary defensive works of Fort Loudoun, supplemented by a palisade line located within the enclosure (discussed later as the Inner Palisade) formed by the breastwork. The earthworks, as the major defensive feature of this fort, were projected early in the planning of its construction. The first mention of this type of fortification for Fort Loudoun was in the minutes of the South Carolina Council, where DeBrahm was instructed to build "...Low Works that are more agreable to the practice of Modern Engineers" (July 29, 1756, SCCJ 25:325). This type of fortification was somewhat unique to frontier fortifications at that time, although it was a common practice at several of the coastal fortifications such as Charleston (De Vorsey 1971:98ff; Ivers 1970:40-42; South 1974; Stokeley 1985), Savannah (DeVorsey 1971:155ff), Fort Frederica (Manucy 1962), and others. Although many of the frontier forts of this period were constructed with dry ditches and earthworks, for example, Fort Prince George (Appendix 1; Ivers 1970:70-72; Captain Rayd. Demere's Representation of the State of Fort Prince George, July 12, 1756, SCIA:135), and Fort Dobbs (Babits 1976), most of these appeared to have been designed so that the major defensive feature was the stockade line or palisade, with the ditch and earthwork as a secondary defensive feature.

There are a couple of reasons that can be proposed for the use of this type of fortification at Fort Loudoun. One was perhaps of a political nature, in that Governors Glen and Lyttelton both wanted to construct a large and impressive works for their own prestige, and for the added advantage of impressing the Cherokee. The size of this fort alone, as it was planned and constructed enclosed an area more than five times that of Fort Prince George, and was larger than several other fortifications that had been erected in more settled areas (see Appendix 5 for a comparison with a number of other contemporary forts). For example it was larger than Fort Stawix (Hanson and Hsu 1975) although somewhat smaller than Fort Michilimackinac (Stone 1974). The second reason for the works as proposed and constructed, and more closely related to defensive measures, was that there existed a fear (albeit mistaken as noted in Chapter 2) that the French would be able to bring gunboats up the river to within range of the fort. The utilization of the top of the ridge for part of the fortification may also add weight to this interpretation. As can be seen in Figure 4, this placement of the fort gave it the added advantage of having a command of a large downstream portion of the river from the Northwest Bastion. Earthworks, as was common knowledge at the time, were a much more effective defense against artillery than wooden stockades would have been.

Although Raymond Demere was being very critical of the work that DeBrahm was having done on the earthworks and in the Fort Glen area, a hornwork on the eastern (river) side of the fort (described later),

it is believed that he was in fact stating the reasons for the construction of the earthworks and the hornwork: "We should there [referring to the other proposed location for the fort] have had no Occasion to blow up Rocks nor to build Raveems, Fort-glens, and Counter Guards by the Waterside as if the River was navigable for Men of War (R. Demere to Lyttelton, November 18, 1756, SCIA:250). The great effort and expenditure of bringing the 16 cannon over the mountains (see section on armaments in Chapter 8) also emphasizes the fact that overall planning seemed to be oriented toward the protection of fort and its garrison from gunboats or a large-scale French attack. As it developed however, and as is explained in the several following sections, a stockade line immediately behind the breastworks eventually became the primary defensive line, with the ditch and earthwork, becoming, in effect, secondary to the palisade.

There is a reasonable amount of information in the contemporary documents that describes the earthworks, and which is useful for the interpretation of the archaeological features associated with the ditch and the earthwork. The first description in the documentation is a work order of DeBrahm where he outlines the method of construction of the parapet and gives the specifications of the ditch:

> The works are carryd on with Facines & earth & after every foot raisd ground, a layer of Busches agreable to the foundations already laid. & are to be raisd up one foot & a halfe higher, than the gun ports of the Pallisadoe Retrenchment. Non-Earth (ground) must be taken in Digging within 20 feet from the first fascin fixrd all ready. The Digges are not to be Dipper, than 4 feet and a half (DeBrahm, Directions of fortifications for October 12, 1756. Clements Library).

While there is no specific description of the plan of the ditch and parapet, it is apparent from the excavated ditch (Figures 6 and 6-A) that it was being constructed according to the contemporary plans for Fort Loudoun (Figures 7 and 8). The initial excavation of this feature and the construction of the breastwork, as detailed archaeologically, most nearly followed the British Library version (Figure 7), but was later altered somewhat on the northern end of the east ditch section. These modifications are discussed below on the section on Ravelin Lyttelton. Following the general procedures of the time, dirt that was removed from the ditch was used for the construction of the parapet or breastwork, and alternated with layers of branches and facines, or large bundles of branches and sticks six to eight inches in diameter and up to 16 feet long (Muller 1756:219). The method of erecting the parapet described above by DeBrahm closely followed the standard procedures of that time, methods which persisted for quite some time in fortification (Scott 1864:283-299).

The most complete account of the earthworks and ditch available for Fort Loudoun describes the works in late December of 1756, at which time they were incomplete. This description is in the "Survey of Fort Loudoun" (SCIA:285-286) done on the 24th of December and quoted in full in Chapter 1 of this report. At that time it was resolved by the Council of War to abandon any further construction on the earthworks and to put the fort into a defensive posture by erecting a stockade line along the inside of the unfinished breastworks (Council of War held by Captain Demere, December 26, 1757, SCIA:287; R. Demere to Lyttelton, January 31, 1757, SCIA:326; see section below on Outer Palisade Line). Abandoned and incomplete, the works began to deteriorate by the end of January, 1757 (R. Demere to Lyttelton, January 31, 1757, SCIA:328).

In April of 1757, Demere received a letter from the governor instructing him to complete the works according to DeBrahm's final instructions (R. Demere to Lyttelton, April 11,1757, SCIA:365-366). By late June Demere reported that Corporal Bacon of the Regulars had repaired the glacis (probably meaning parapet) that had been damaged by heavy rains and that the works had been completed according to DeBrahm's "Last Supplement" (R. Demere to Lyttelton, June 26, 1757, Clements Library). During this period of time, a hedge of locust bushes was planted along the outside margin of the ditch. Demere first mentions this on January 31, 1757:

> The Hedgemaker had begun some Part of the Hedge before Mr. DeBrahm went away and since has provided most Part of the Ditch with rich Soil and had likewise got the young Plants in Readiness that he might not loose the Season of the Year. He is now setting the Hedge and has, for the better Dispatch, imployed two Men to assist him (R. Demere to Lyttelton, January 31, 1757, SCIA:327).

Writing several years after the occupation and abandonment of the fort, DeBrahm described this operation and gave the purposes for the hedge:

> In the Ditches he directed a Hedge to be planted of young Locust Trees, which in less than twelve Months time filled the Ditch from the centre Scarpe to the Scarpe, so that there was no possibility to come to its feet with Intent to cut or burn it down. The Locust Trees are full of Thorns, which are three

> and some four Inches long, and out of each Thorn projects four other Thorns more, perpendicularly forming a Cross, in the manner of a cheval de frees, so that the medling with this Hedge is in every respect impracticable, and renders the Fort impregnable, at least against Indians, who always engage naked (De Vorsey 1971:102).

This hedge must have continued to have grown and been maintained throughout most of the occupation of the fort, for about a year after the completion of the earthworks, Paul Demere requested a pair of shears for cutting the hedge: "The man that takes care of the Glacis, begs that your Excellency will order a pair of Chears to Cut the Hedges" (P. Demere to Lyttelton, May 20, 1758, Clements Library). Maintenance of the earthworks was done during at least most of the occupation, and was required periodically because of erosion. As late as 1759 they were still having difficulties with this problem: "[Corporal Bacon] ...is very often obliged to hire people to assist him to Cut Puncheons for the Ditches and to Carry Earth on the Glacis, as it is often washed down by the Rain" (P. Demere to Lyttelton, April 12, 1759, Clements Library). It is only in this documentation where the use of puncheons, or outleaning pointed stakes, in the ditch is indicated. If in fact they were utilized in the ditch as an added measure of protection, this would have also followed the general procedures of fortification for the time, and would have followed the example of defense employed at other contemporary fortifications, for example, Fort Frederica with which Raymond Demere was also associated (see Manucy 1962:37, Figure 20). There is no other documentation that indicates their use at Fort Loudoun, and although carefully looked for, no archaeological evidence was found, to indicate that puncheons were emplaced in the base of the ditch.

During the 1975-1976 excavations all parts of the ditch and parapet were tested except for the parapet section between the Rivergate and the apex of the Northeast Bastion. Figure 6-A shows the extent of excavation in the various sections of the ditch and parapet. At the onset of the excavations, the only portion of the ditch visible was that section that had been cut into the top and side of the ridge, outside the west face of the Northwest Bastion. This cut extended from the top of the ridge to about the south flank of the Northwest Bastion, and shows clearly on the contour map of the site made prior to the excavations and a photo from 1936 (Figures 5 and 21). It was known at the beginning of the 1975-1976 excavations that there had been some restoration of the parapet after the WPA work and later. The parapet had been raised to the top of the WPA constructed stone wall or to a height of approximately four or four and a half feet. However, it was uncertain in 1975 whether the cut on the west side of the fort was original, since the photographs and records of the WPA work were not available at that time. Subsequent testing, descriptions of this feature in the early part of this century (Chapter 2), and the records of the WPA work at the site (Chapter 3 and Figure 21) confirmed that this was in fact part of the original construction, with little, if any, modification.

Archaeological work on the ditch and parapet began with hand-excavated trenches dug in three locations. One tested the northwest section of the ditch and parapet, another ran directly south from the south face of the Southeast Bastion, and the third was excavated eastward from the east face of the Southeast Bastion. All were extended continuously, or intermittently, from the WPA stone wall to the outside edge or counterscarp of the ditch. The hand excavations in the east and south parapet and ditch can be seen in Figure 4. These initial excavations were undertaken to determine the configuration and originality of the ditch and parapet along the Northwest Bastion, to determine the location of the ditch in the other areas, the stratigraphy of the parapet, and the nature of the ditch and its fill. Several other hand-excavated tests were made to the west of the southernmost trench to confirm the location and direction of the ditch along the south side of the Southeast Bastion.

After these excavations had been completed and the location and configuration of the ditch and parapet sufficiently defined, a series of one meter wide backhoe trenches were made around the lower parts of the fort on the east, south, and west sides. The backhoe cuts show clearly in Figure 36. These cuts began at the stone wall, and in the area of the parapet, were excavated to the original subsoil. When the innermost edge of the ditch was defined, the machine excavation then followed the base of the ditch to the counterscarp or outer edge, then raised to the level of the base of the plow zone or old humus along the outside edge of the ditch. This was done so that insofar as possible the original configuration of the ditch was left intact. In addition to the profiles that were drawn for the hand-dug trenches, one or both walls of the backhoe trenches were faced by hand and a profile was also drawn. Selected ones are shown in the figures following in relation to the discussions of various parts of the ditch and parapet. The final work done on the ditch during the 1975 season consisted of clearing the southeast and southwest corners of the ditch, and other sections of the ditch, to examine a large expanse of this feature. The southeast corner of the ditch was excavated along the east ditch a distance of 20 meters north from the corner and 19 meters to the west of the corner. Another section excavated along the east ditch was 11 meters in length. The excavation of the southwest corner began 17

meters east of the corner and continued past the corner along the west ditch for 38 meters, or to about the middle of the west curtain, a point where the slope of the hill made the use of the backhoe impossible.

This latter series of large excavations in the ditch extended from just outside the ditch to a point in the parapet where either the original excavation for the ditch was defined or the original slope of the parapet was encountered. During these more extensive clearings of the ditch, and the continuation of this clearing in 1976, it was possible, because of the previously defined knowledge of the stratigraphy and definition of the ditch, to use the backhoe to remove the fill to within a few centimeters of the desired surface, necessitating only a minimum of shoveling to clear the ditch and surface of the parapet to its original configuration. The shovel work was done by three or four individuals working the width of the ditch immediately behind the backhoe bucket, so that the backdirt was continually removed by the backhoe.

During the 1976 season, the south ditch was completely cleared except for a 10 meter section near the west end of the Southeast Bastion, and a four meter section at the south gate. The remainder of the east ditch was completely cleared. Additionally, an extension of the ditch to the southeast and a similar extension to the northeast, conforming to the ditch extensions shown in Figure 7, were similarly cleared. Two additional profiles were cut on the west parapet of the Northwest Bastion. Another one was cut in the parapet along the north curtain, and another into the parapet on the north face of the Northeast Bastion. The extent of the excavations in the ditch and parapet are shown in Figure 6A. The following sections describe the various parts of the ditch and parapet as defined by the excavations.

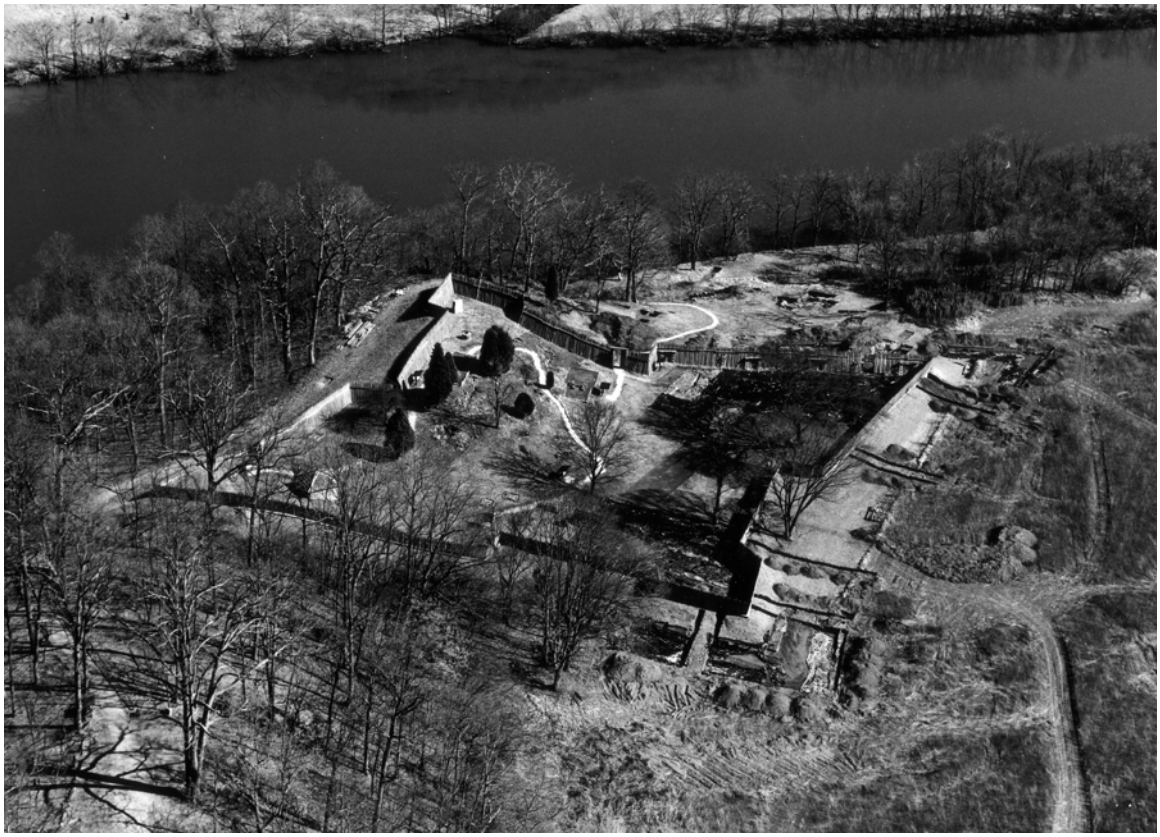

Figure 36. Oblique aerial view of Fort Loudoun taken after the close of the 1975 season. View is to the east showing the extent of the excavations, the backhoe trenches across the ditch and parapet, and the clearing of the southeast and southwest corners of the ditch. Photograph courtesy of Tennessee Valley Authority (GR-76102).

The works on the north side of the fort were constructed by making a cut into the side of the ridge near the top with the removed earth then used to build the adjacent parapet. This resulted in the formation of a parapet with a fairly level area at its base before the ground dropped off the steep north side of the ridge. This level area then became the equivalent of the ditch on the other sides of the fort, lacking only the outside edge of the ditch, or the counterscarp. The typical stratigraphy for this north wall is shown in Figure 37A, which is the profile of a cut northward from the north face of the Northeast Bastion. During the 1756 construction, the original contour of the ridge top was cut into beginning where the base of the parapet was to be and the backdirt from this excavation was redeposited directly over the original humus of the ridge top to form the parapet. Zone 2 in Figure 37A represents the remains of the original construction of the parapet, prior to its reconstruction during the WPA work. Zone 1 above Zone 2 was the result of landscaping to raise the grade of the parapet to the level of the top of the stone wall. The remains of the original parapet of the north wall can be seen in Figure 23 after the WPA clearing of the site. Figure 38 shows a view of the north wall of the fort and parapet as it was reconstructed in the 1960s and prior to the latest excavations, which is probably quite similar to the way it would have looked during the occupation of the fort.

As noted already, the ditch and parapet on the west face of the Northwest Bastion was tested by one hand-dug trench and three additional backhoe cuts, confirming that it was the original cut. In the survey of the works in December of 1756 it was described as "A Ditch ten Feet deep in some Places and ten Feet wide already dugg the Length of this Face of the Bastion" (Survey of Fort Loudoun, December 24, 1756, SCIA :286). Figure 37B is a composite profile extending from the interior of the fort to the upper edge of the counterscarp on the west side of the ditch. It is clear that the original pre-fort surface in this area was a gradual slope from the crest of the ridge west of the ditch to a point somewhere inside the west wall of this bastion.

A projection of that surface line, based on the slope of the top of the ridge and the slope of the undisturbed subsoil and overlaying pre-fort humus detailed in the stratigraphy of the parapet, is also shown on the same figure. The parapet in this area was constructed by excavating the ditch, contouring part of the slope to the desired configuration, and then adding fill dirt to the part of the parapet that was closest to the interior of the fort. The original subsoil and overlying humus are Zones 4 and 3, respectively, in Figure 37B, while the fill dirt from the fort construction is represented by Zone 2. Zone 1 above that is of more recent origin. As the profile shows, the base of the parapet would have been 6.5 meters (21.3 ft.) in width and the base of the ditch would have had a width of 5.0 meters (16.4 ft.). At this point the ditch had a maximum depth of about 1.7 meters (5.6 ft.), indicating something of an exaggeration of the depth of this feature in the 1756 description quoted above.

The earth removed from the excavation of the ditch in this area was certainly utilized for raising the parapet, but it was probably also used during the early stages of the construction to create four traverses perpendicular to the west parapet of this bastion and two perpendicular to the north face of the same bastion (see Figure 7 and "Survey of Fort Loudoun," December 24, 1756, SCIA:285-286, quoted in Chapter 1). These traverses were never completed, and were removed in early 1757, with some of the earth from them used to fill in gaps along the adjacent parapets. It is also quite clear from the excavations inside the Northwest Bastion that excess dirt from the traverses, consisting of an orange to red clay, was spread over large areas of that bastion, particularly in those areas adjacent to the north and west faces. Some of the structures later built in those areas had been cut down through this fill, in particular Structures 8 and 9.

The ditch that extended around the parts of the fort on level ground, namely the ditch along the southern part of the west side, the south side, and the east side of the fort were all constructed similarly and can generally be described as a unit. There was a total of 320 meters (1050 ft.) of ditch around these three sides of the fort (measured along the outside edge or counterscarp). As it was finally finished the parts of the original ditch on the level ground had a depth that ranged between 60 cm and 100 cm (1.9 ft. and 3.2 ft.). The base of the ditch for the most part varied in width from 5.0 m to 7.5 m (16.4 ft. to 24.6 ft.) from the base of the counterscarp to the base of the breastwork in the bottom of the ditch. The major variations in these widths were along the south and west curtains where the base of the ditch was widened to accommodate the inset in the walls formed by the flanks of the bastions and the corresponding curtains. In these areas it had a maximum width of 10.25 m (33.62 ft.).

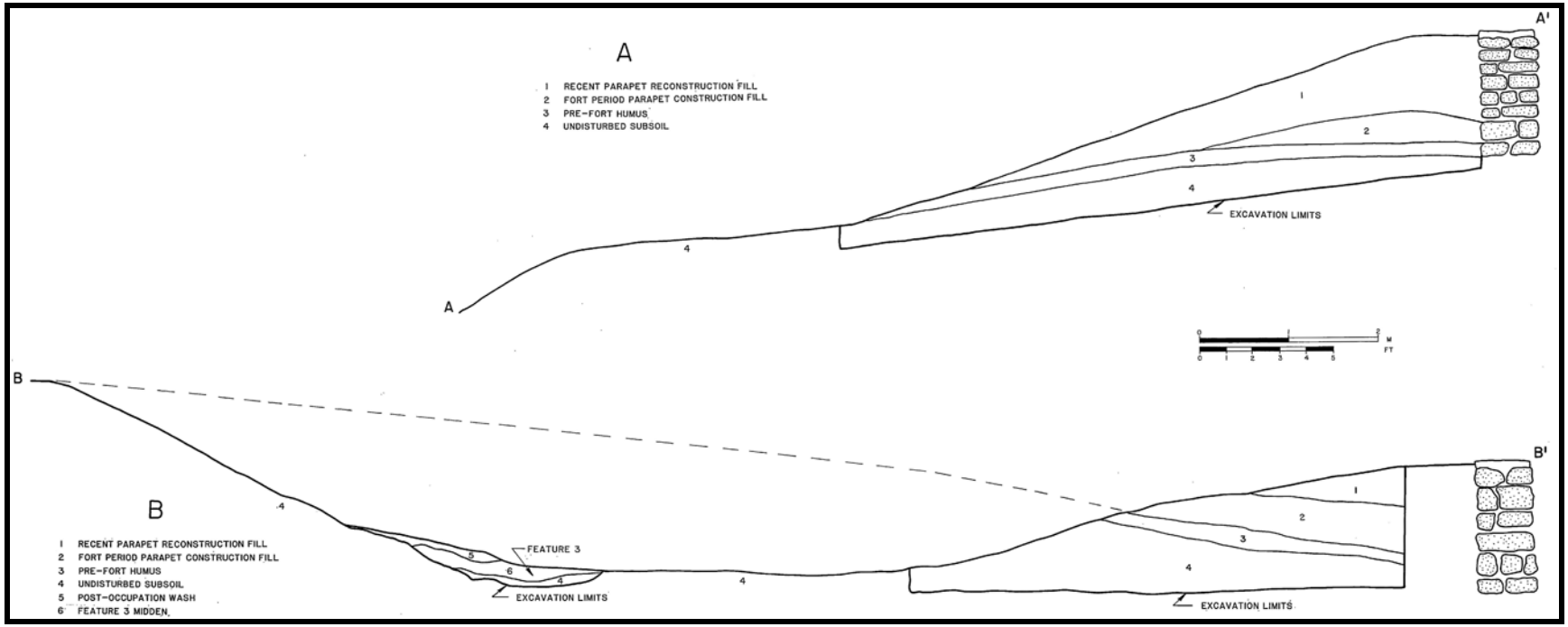

Figure 37. **A**. Profile of the parapet on the north face of the Northwest Bastion. **B**. Profile of the parapet and ditch on the west side of the Northwest Bastion.

The base of the ditch was generally flat, as the several illustrated profiles and a photograph of the southeast corner of the ditch show (Figures 39, 40, and 41). They also show that the counterscarp was inclined slightly outward. There are two possibilities for the final shape of the parapet. Two idealized sections are shown in Figure 42. Section A represents a parapet that is evenly sloped from the top of the breastwork to the base of the ditch. This seems to have been the form that was most clearly represented in several profiles, in particular along the west face of the Northwest Bastion (Figure 37B) and the east face of the Southeast Bastion (Figures 40B and 43). This type of profile does in fact correspond to those that are shown on the contemporary plans of Fort Loudoun (Figures 7 and 8). Section B in Figure 42 shows a slightly different type of parapet construction that may have been used in two areas. It varies from the former by having a steep scarp on the inside of the ditch, and one which would have required the use of fascines or other methods for holding the scarp in place. Two of the profiles (Figures 39A and 39B) suggest that this was the configuration of the ditch along the west face of the Southwest Bastion and the south face of the Southeast Bastion, since these profiles show a steeply cut face or scarp on the inside of the ditch.

Figure 38. View east along north wall and parapet of the reconstructed fort in 1975.

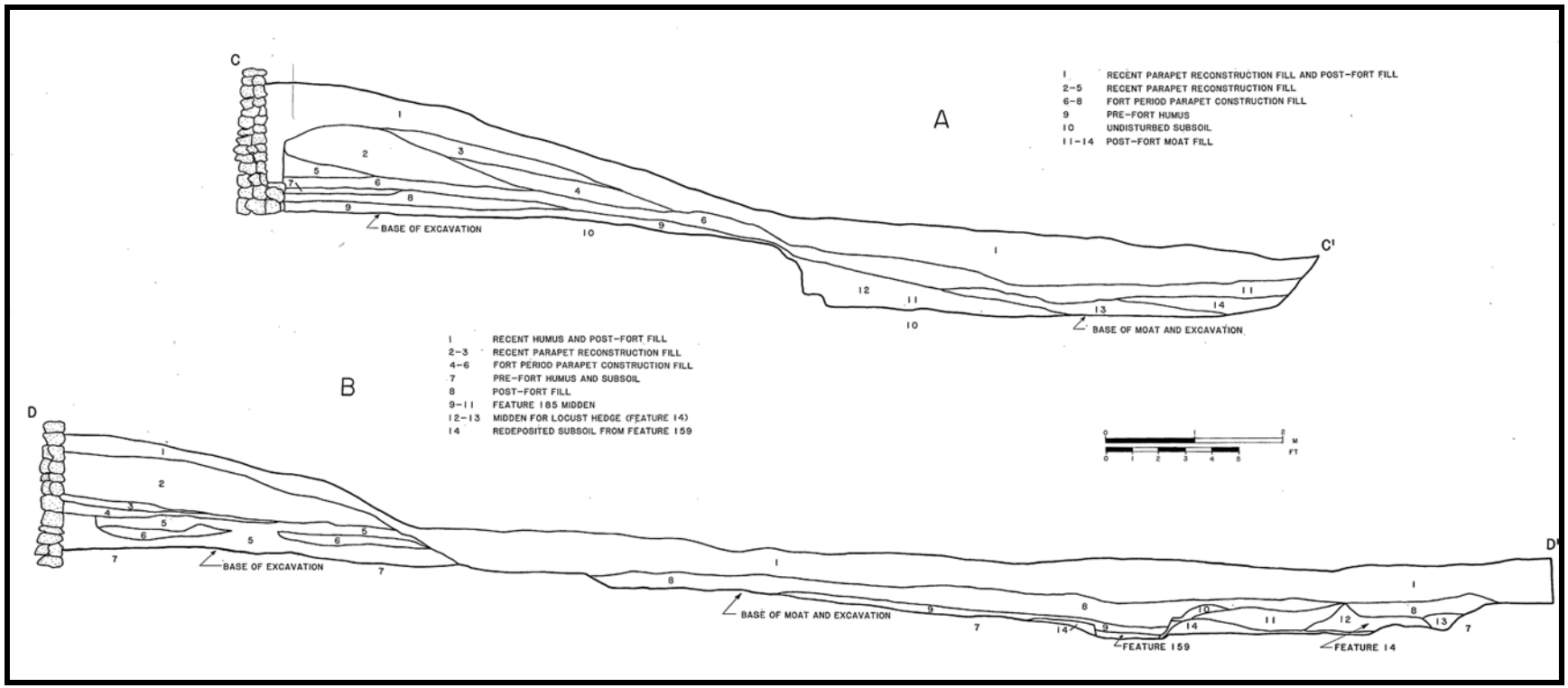

Figure 39. **A**. Profile of the parapet and ditch on the west face of the Southwest Bastion. **B**. Profile of the parapet and ditch on the south curtain to the west of the south gate.

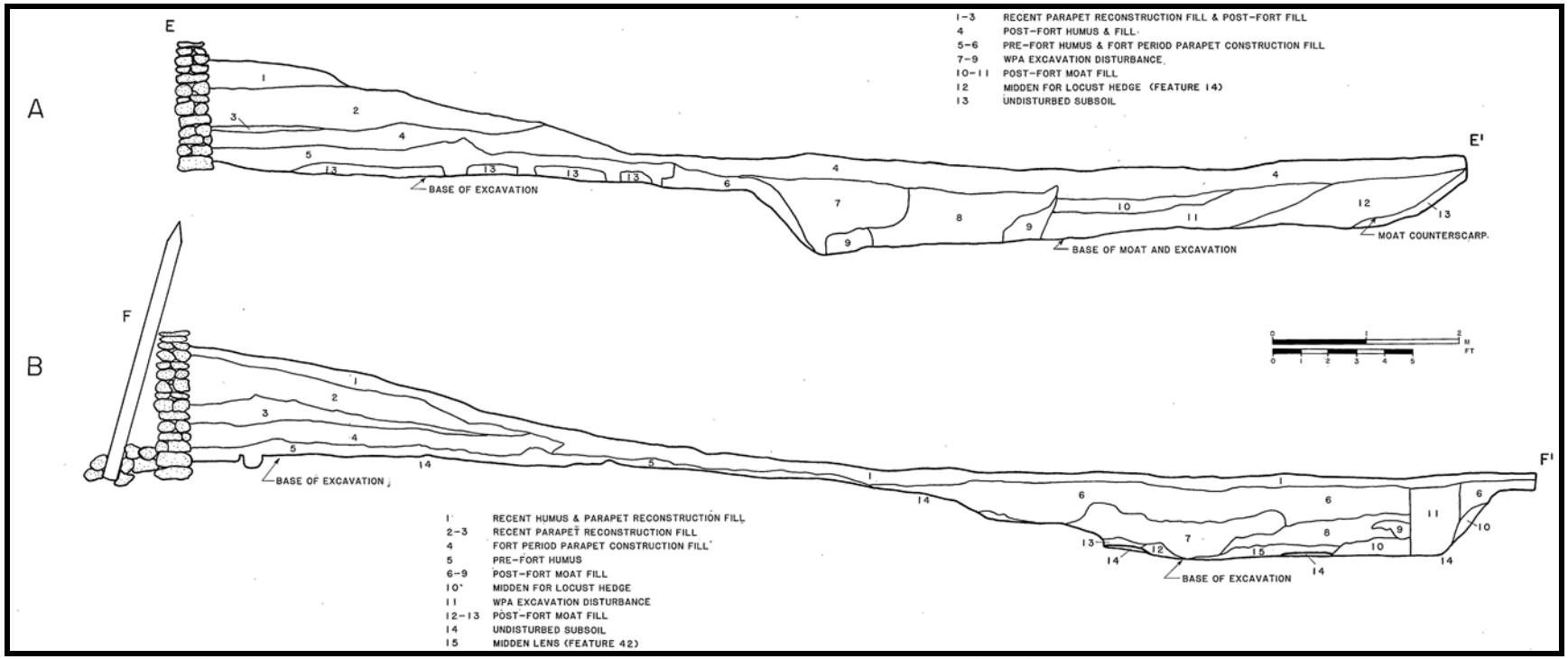

Figure 40. **A**. Profile of the parapet and ditch on the south face of the Southeast Bastion. **B**. Profile of the parapet and ditch on the east face of the Southeast Bastion.

Figure 41. Southeast corner of the ditch after clearing in 1975. View is to the east. Feature 188 is in the center of the ditch.

There were several historic features located in the ditch, in addition to some prehistoric features that had been cut by the original excavation of the ditch during the period of fort construction. The prehistoric features are shown on Figure 6A. The historic features that were defined by the 1975-1976 excavations consisted of several midden deposits, a drain, and a short section of palisade trench. The two major midden deposits, Features 185 and 187, were located in the base of the ditch outside the South Gate and the Rivergate, respectively (Figures 6A, 45, and 47).

Feature 185 was in the base of the south ditch at the end of the drain from the interior of the fort (Feature 159) and just west of the South Gate area. It consisted of a large area of historic midden that, in part, rested over the lower end of the drain in the base of the ditch. It had a maximum defined extent of 6.0 m by 20.0 m, and a maximum thickness of 30 cm that tapered off to about 5 cm toward the edges. The midden consisted of a dark brown to black organic soil with numerous charcoal particles scattered throughout. Noted within this midden deposit were some relatively sterile lenses that appeared to have been clean soil thrown over the refuse at certain intervals. This feature is thought to have been deposited as the result of two factors. One is the obvious deposition of refuse in the ditch in an area that was convenient to the south gate. This generally follows a pattern that has been noted at several other contemporary fortifications. The second cause of refuse accumulation in this area may have been the main drain that flowed out of the south gate and into the ditch, depositing silt and refuse after heavy rains. Perhaps the build-up of refuse in the ditch over the lower end of the drain was one of the contributing factors causing the build-up of sediments and the elevated level of the channel within the drain (see discussion of Feature 159 in Chapter 6). A summary of the artifacts from Feature 185 are presented in Table 1.

Feature 187 was the companion feature to Feature 185 located in the base of the ditch outside the Rivergate entrance to the fort (Figures 45 and 47). It consisted of an oval-shaped area of midden 6.0 m by 5.6 m, with a maximum defined thickness of 40 cm. It was located on a layer of sterile fill about 40 cm above the original base of the ditch. The underlying sterile fill was material that had been placed in this section of the ditch to form the lower terrace of Ravelin Lyttelton. The midden consisted of a dark brown loam with quantities of historic period refuse (Table 1) and was probably the result of materials being moved from within

the fort and deposited in the ditch. This feature had been partially disturbed on the east side by a WPA exploratory trench. Just to the southeast was a short section of a fort period palisade trench, Feature 189.

In addition to the two primary deposits of midden in the ditch near the two main entrances, there were scattered materials in several sections of the ditch, although no heavy concentrations. The only place where any substantial amount of material was defined was in the base of the hand-dug trench that extended across the east ditch from the east face of the Southeast Bastion. This deposit was defined as **Feature 42** in the area of that excavation, but was not followed out to its full extent. It consisted of a lens of limestone debris and midden materials, including historic artifacts, located along the center of the base of the ditch. It was defined for a length of 7.2 m, and varied in width from 60 cm to 150 cm. It had a maximum thickness of 25 cm, tapering out toward the edges. The horizontal location of this feature is shown on Figure 47 and it is seen in section in the profile in Figure 40B. This deposit is thought to have been an accumulation of materials, perhaps from the fort interior, that had been thrown into the base of the ditch. Their location in the east ditch south of Feature 187 and away from any exit from the fort may indicate that this portion of the ditch was utilized to some extent as a route from the Rivergate to the area southeast of the fort. This material was apparently deposited early in the occupation or soon after the completion of the ditch since it was resting directly on the subsoil base of the ditch. Unlike Feature 3 in the northwest ditch, which is described below in connection with the hedge, this material of Feature 42 does not seem to have been placed in the ditch for planting the locust hedge.

One other feature associated with the main section of the ditch was a narrow drain. **Feature 188** was a shallow trench that served to drain the southeastern part of the ditch. It was located centrally in the eastern end of the south ditch, and then ran in an easterly direction from the southeast corner of the ditch toward the edge of the second terrace (Figures 6-A and 41). The main part of this drain in the ditch ran for a distance of 16.0 m (52.48 ft.), connecting with a short feeder section, then making a right angle turn to the south, and then another right angle turn to the east and exiting the ditch at the apex of the ditch. The drain then continued eastward for another 22.0 m (72.16 ft.) toward the edge of the terrace, cutting through two prehistoric features and several post molds. The width of the drain varied from 14 cm to 40 cm, and the depth of the trench in the base of the fort ditch averaged 10 cm to 15 cm. Once it left the ditch, the defined depth (from the top of the subsoil) varied between 35 cm and 40 cm, except toward the eastern end, where it got progressively shallower as the terrace sloped downward near the edge. It should be pointed out here that after the ditch was re-excavated by the 1975-1976 project, this portion of the ditch was the only part that held water after heavy rains. The section of the drain that was located outside the ditch was not excavated until late July of 1976, and there was no opportunity after that time to determine the effectiveness of this system in draining the ditch. In terms of the function of this feature, it was probably simply excavated as an expedient to remove standing water from the ditch, the need of which was realized after the construction of the ditch.

Feature 189 was located near the eastern edge of the east ditch outside the Rivergate area (Figures 6-A and 47). It was a parallel walled trench that had a length of 6.0 m (19.68 ft.), a width that varied from 50 cm to 60 cm and a maximum defined depth of 10 cm to 20 cm. The fill consisted of a dark loam with prehistoric materials included, which was probably derived from the soil placed along the outside edge of the ditch for the locust hedge. This feature is thought to have been a section of palisade trench in which posts were erected as part of the outer defenses, and more specifically as a baffle which would have aided in the protection of the Rivergate entrance.

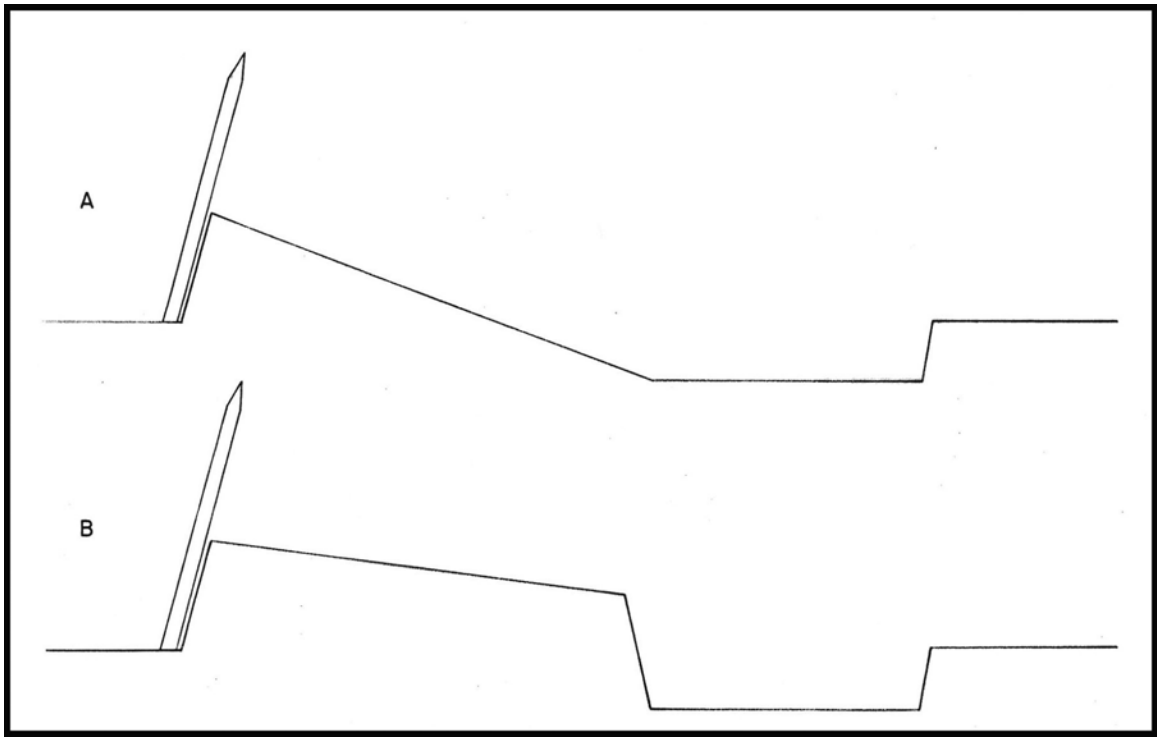

Figure 42. Idealized profiles of the ditch and parapet.

Figure 43. View north of an excavated portion of the east ditch showing the base of the ditch and the original slope of the parapet. Photograph taken near the close of the 1975 excavations.

Southeast Ditch Extension

Extending eastward from the southern part of the east ditch there was a ditch that formed part of the hornwork of Fort Glen (Figures 6 and 47). It began at a point 14.10 m (46.24 ft.) from the southeast corner of the ditch and ran from the east edge of the east ditch to the upper edge of the second terrace, a distance of 26.0 m (85.28 ft.). The width of this section of ditch varied from 6.0 m to 5.4 m (19.68 to 17.71 ft.), and the defined depth was 65 cm, or a depth of 90 cm from the ground surface. The southern edge of this ditch extension was on the same line as the inside of the parapet and the outer palisade line of the south face of the Southeast Bastion. This is precisely as it is shown on the British Library plan of Fort Loudoun (Figure 7), which also shows the ditch extending to the edge of the second terrace. A similar ditch and earthwork is shown on the Huntington Library plan (Figure 8), but it does not match the actual construction nearly as closely as the other plan.

Figure 44 shows this section of ditch during excavation. Clearly shown along both sides of the base are two approximately one meter wide strips of black earth that were the basal deposits of the (primarily prehistoric) midden placed in this feature for the hedge. The only other feature defined in the base of this section of the ditch, other than the midden deposits for the hedge, was Feature 190. This feature consisted of a pair of connected Cherokee pits (Figures 6 and 47). These were affiliated with either the contemporary Cherokee occupations outside the fort, or those that continued after the surrender of the fort. Its association with the Cherokee occupation is discussed in Chapter 7.

Figure 44. View to the southeast showing the excavation of the southeast ditch extension. The dark bands in the base are the remnants of the midden placed in the ditch for the locust hedge.

Northeast Ditch Extension

The eastern ditch, at a point just southeast of the Rivergate, or at about N218.5, made a 53 degree turn to the northeast and continued to the edge of the bluff and the adjacent limestone outcrop. From the stratigraphy defined during the excavation of this area, it was apparent that this section of the ditch had been excavated prior to the construction of the two ravelins that were outside the Rivergate. The configuration of this section of the east ditch is clearly similar to that shown on the British Library plan (Figure 7). Unlike the rest of the east ditch, this section, probably because of the steep slope of the ridge toward the river in this area, did not have a counterscarp along the outside edge. It was simply a level, terraced area, with the same width as the remainder of the ditch along the east side. As can be seen in the two profiles across this section of the ditch, Figures 46A and 46B, the rear or west wall consisted of a cut into the slope varying in height from about 1.0 m to 1.5 m. The earth that was removed from this cut was then spread over the old humus or pre-fort surface along the outer edge of the terrace. This served to extend the level surface of the ditch or terrace further to the east. Figure 45 shows this part of the ditch after excavation, illustrating the original cut of the west wall and the level surface of this section.

Figure 45. View toward the northeast showing the excavation of the northeast ditch extension. Feature 181, the midden deposit in the ditch outside the Rivergate, is under plastic at center.

The profiles show the cut made for the northern part of the east ditch and the filling that took place off the edge of the cut and above the old humus. In Figure 46 the subsoil and the pre-fort humus are indicated as Zones 8 and 7 respectively. The cut into the slope and the final configuration of the base of the ditch or terrace are also noted. Zones 5 and 6 in Figure 46A consist of the materials that were removed from the cut, and deposited off the edge of the terrace and above the old humus. The zones above these are related to the construction of the ravelins. After the excavation of this section of the ditch it stood open for some undetermined, but probably very short period of time. This is inferred from the lack of any erosional features in the steep west wall of this cut, and the lack of any sediment accumulation on the base of this area, which would have been expected had it remained open for any length of time. It was also reasonably free of any artifactual material. The subsequent filling of this section of the east ditch and other later activities in this area are discussed in the section on Ravelin Lyttelton.

Feature 128 was the only feature defined in association with this section of the ditch. It consisted of a fired area on the base and back wall of the cut, and was the result of a small fire that had apparently been repeatedly used for some time. This probably constituted the location of a fire built for warmth during the construction of the ditch or the other work in the Ravelin Lyttelton or Fort Glen areas. This work was done during the winter of 1756-1757, possibly necessitating such a feature. Any artifacts suggesting other activities, such as cooking, were completely absent.

Locust Hedge

The documentation quoted in an earlier section on the ditch clearly indicates that a hedge had been planted in the ditch. Evidence for this feature was found along most parts of the outside edge of the ditch on the west, south, and east sides of the fort and along both sides of the southeast ditch extension. This evidence consisted of a deposit of "rich Soil" that had been placed in the ditch after completion of the excavation of the ditch. This soil was primarily prehistoric midden that had probably been excavated from the Woodland and Mississippian midden deposits on which the southeastern part of the fort was constructed (see Chapter 1 and Part 3). During the excavations of the ditch, this midden was quite distinct from the other materials that had filled the ditch after the abandonment of the fort. The approximate defined extent of this midden (generally numbered Feature 14) that had been deliberately placed in the base of the ditch adjacent to the counterscarp is shown in Figure 6. It is also shown in section on Figures 37B, 39B, 40A and 40B. Figure 44, showing the excavation of the southeast ditch extension, illustrates this zone of black midden along both edges of that section of ditch. It was not defined in the northeast ditch extension, perhaps because that section of the ditch had been filled shortly after its excavation, and probably before the hedge was planted.

With one exception, the soil for the hedge consisted of prehistoric midden. In the base of the ditch along the west face of the Northwest Bastion, adjacent to the counterscarp, this zone of material was composed of historic midden. This zone was defined in the hand excavations of the west ditch at the beginning of the 1975 excavations, and prior to the definition of this feature in other sections of the ditch. It was designated **Feature 3,** and as it was defined, consisted of a lens of historic midden at the base of the counterscarp. It varied in width from 1.25 m to 1.50 m and was defined for a length of 11.5 m. Thickness varied between 7 cm and 28 cm. This feature is shown in section at N240 on Figure 37B. It consisted of a dark brown, loosely compacted loam with quantities of historic artifacts and faunal remains, which are summarized in Table 1. This feature was originally thought to have been comparable to Features 185 and 187, which were refuse deposits outside the main entrances to the fort. Feature 3 has an obvious difference in that it was not located near any exit and was apparently very carefully placed along the outside edge of the ditch. Once other sections of the ditch were excavated, it became clear that this feature was analogous to the prehistoric midden deposits that were located along other sections of the ditch. It is assumed, therefore, that this deposit consisted of midden or refuse that had been collected from within the fort and deliberately placed in the ditch for the locust trees. This differential deposition is probably the result of the fact that this location was the furthest from the prehistoric midden areas, and that it was simply less effort to bring this material from within the fort.

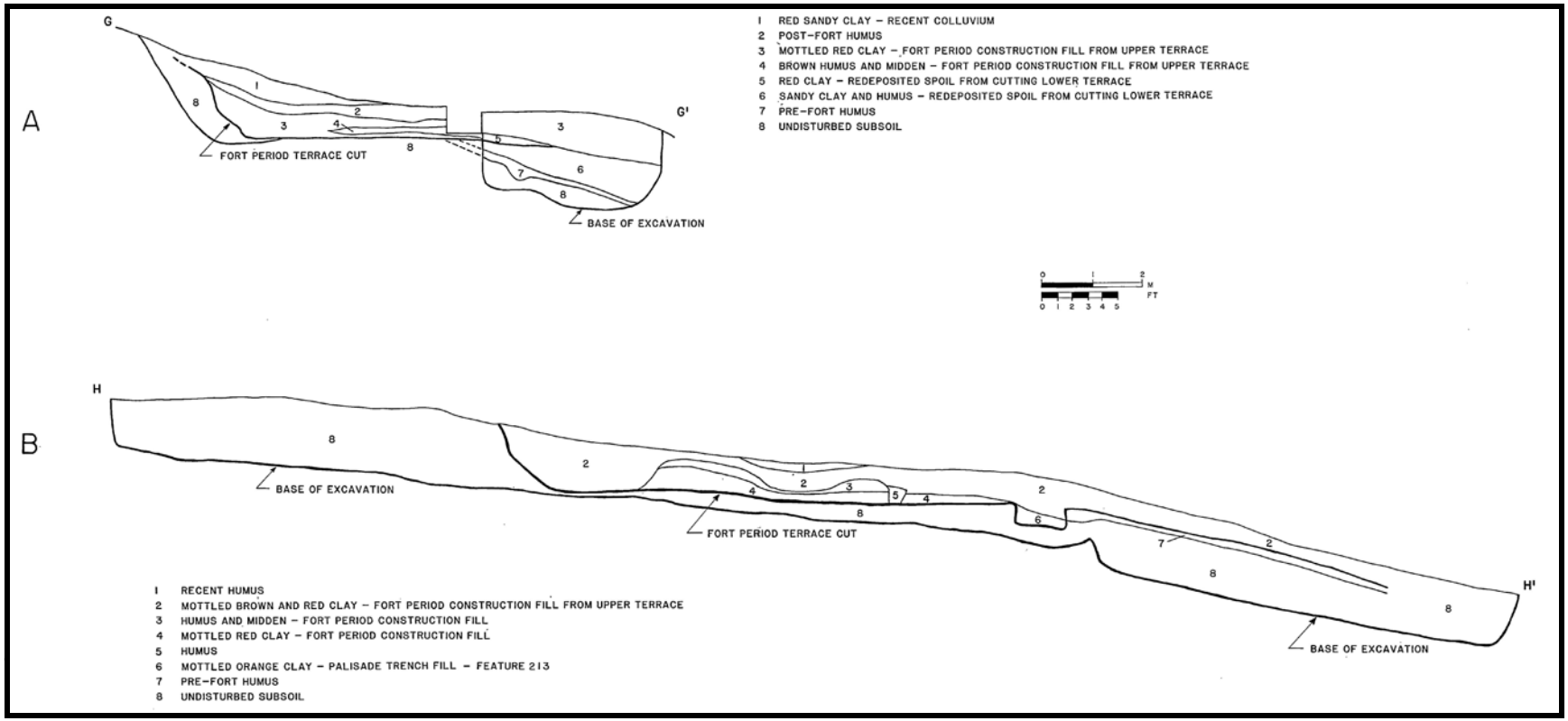

Figure 46. **A**. Northernmost profile through the lower ravelin. **B**. The southernmost profile through the lower ravelin and part of the slope from that ravelin to the east.

Ravelins Lyttelton

Outside the Rivergate, two ravelins or detached works with two embankments were constructed as part of the outer defenses, and specifically to provide added protection to the Rivergate entrance of the fort. Presumably these were built under the assumption of a heavily armed attack from the river by gunboats or well-equipped forces. As noted above and as defined archaeologically, these ravelins were not constructed until sometime (probably shortly) after the northeast extension of the ditch was completed. Both of the contemporary fort plans show ravelins, but the British Library version (Figure 7) shows them as they were, in effect, completed. The other version (Figure 8) only shows one large triangular ravelin, but there is no archaeological evidence confirming that any effort was ever made to construct this defense in that manner. There are no good descriptions of these terraces in the extant letters, although they are mentioned in the survey of the fort in December of 1756 (quoted in Chapter 1). Most of the other references about this construction, written by Raymond Demere, are generally rather sarcastic references to the outworks of DeBrahm, questioning the need for such works, but providing little information on their construction.

As these features were eventually constructed, they consisted of two small terraces, one above the other, located to the east and north of the Rivergate. The outline of the flat surfaces of these two formations is shown on the detailed plan of the excavations of the area to the east of the fort (Figure 47). It was thought prior to any excavation of these features, that they were the product of later landscaping and reconstruction activities at the fort, since the photographs of the WPA excavations were not available at the beginning of the work. But once the excavations were carried out in those areas, and the W PA photographs became available, it was quite evident that that was not the case and that, in fact, they were part of the original fort construction. They show clearly on several of the WPA photographs taken in the area to the east of the Rivergate and on a photograph taken in the late 1950s, prior to the restoration work of the Fort Loudoun Association (Figures 22 and 32). The way they looked during the early part of the 1975 excavations can be seen in Figure 4 immediately east of the path going from the Rivergate toward the river.

During the 1975 season, a series of hand-excavated squares was dug into the lower terrace (Figure 48). These showed several layers of fill overlying an undisturbed subsoil that was lacking an old humus zone. The extent of these hand-excavated squares was not sufficient to define the nature of the deposits and the type of construction that had produced the stratigraphy that was recorded. Because of the more pressing need for the completion of the interior of the fort, this question was not pursued further or answered until the 1976 season, when several backhoe cuts were made across the extent of the terraces, and the lower terrace mostly removed to expose the northeast extension of the ditch.

The sequence of events that took place in this area, as it was defined by the archaeological investigations, was that the northeast ditch extension was completely excavated and the ravelins were then constructed. Sometime shortly after the completion of the ditch section, the upper terrace was cut out of the slope of the hillside and the backdirt from that excavation was used to fill the ditch extension and create a lower terrace above the base of the ditch and to the east of the upper one.

Test excavations in the upper terrace showed that the terrace, below the sod, was a red clay subsoil with gravel and limestone inclusions, with no deposition above that subsoil. This subsoil was the original, in-place material of the slope, indicating that the only work done to create this terrace was to make the cut into the side of the slope. The back of the terrace was formed in part by several vertical faces of limestone that were apparently exposed by the excavation of this area. There was no buildup of deposits on the terrace in the areas tested, and no further work was done to this terrace to make it into a defensible feature. The lack of any more work in this area by the garrison is consistent with the documentation indicating that work on the ravelins and Fort Glen was discontinued early in 1757 (R. Demere to Lyttelton, May 18, 1757, SCIA:375).

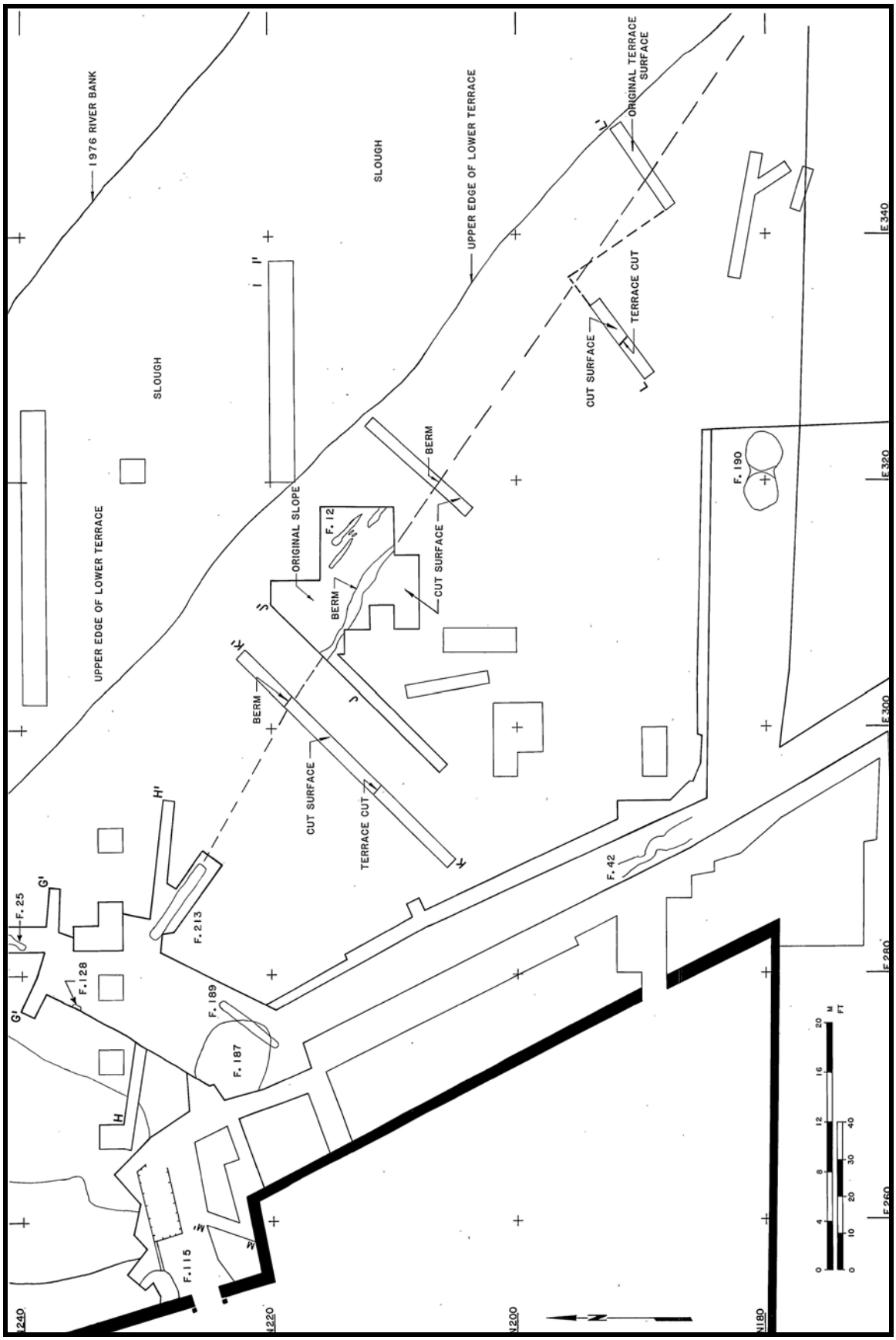

Figure 47. Detail of the excavations in the Ravelin Lyttelton and Fort Glen area on the east side of the fort.

The earth that had been removed from the upper terrace was moved to the east, into the northeast ditch extension, to form another terrace at an elevation 1.5 m below that of the upper terrace. As Figures 46A and 46B show, this fill was placed in the ditch and over the edge of the slope to extend the eastern edge of the terrace farther to the east. The profiles through this lower section of the ditch show several zones above the level of the cut base of the ditch, which are the result of this filling. Both profiles show several lenses of fill in the lower terrace (Zones 2, 3, and 4) that were derived from the excavation of the upper terrace. The excavations in the area of the lower terrace failed to produce any other features, such as palisade lines, that may have been the result of other defensive constructions in this location. The fill within these terraces was completely devoid of any historic materials, indicating their formation early within the construction of the fort.

In the upper level of the lower ravelin, in essence on the upper surface of the original fill, a shallow midden deposit was defined in Squares N238/E282 and N240/E282. This feature, **Feature 25,** consisted of a lens of historic midden and associated refuse that was defined in level A and situated on the top of the filled area constituting the lower terrace of Ravelin Lyttelton. This midden deposit was exposed for a length of 2.6 m, and had a width that varied between 30 cm and 60 cm. The depth of the deposit ranged from a maximum of 14 cm to a minimum of 7 cm. It was not in any type of prepared basin, but appeared to have been simply deposited on the surface of the terrace. The artifactual contents of the feature are presented in Table 1.

Fort Glen

The area named Fort Glen was located on the river side of the fort, between the east ditch and the river. It is shown and named on the two contemporary plans (Figures 7 and 8), and consists of a hornwork extending from the east ditch and Ravelins Lyttelton toward the riverbank. There is very little documentary description that is given for this feature of the fortification, and most that does exist provides little information on its construction.

> I forgot in my Last to observe to your Excellency that Fort Glen, Ravelin Lyttelton, and the Place of Arms, so called, are quite separate and at a distance from the Fort and without any Communication into them from the Fort, and are constantly full of Water which premises every body to imagine what Mr. DeBrham intended to do with these two Places, but at last he saw plainly that he could do Nothing with Them and forsook them (R. Demere to Lyttelton, May 18, 1757, SCIA:375).

And, a note about these earthworks from January of that year stated: "... Capt. Stuart's Company ... could go on with the Works, that are to be done now that the great *Quelque Chose* is abandoned" (R. Demere to Lyttelton, January 12, 1757, SCIA:313).

The area of Fort Glen consisted of a lower first terrace that was about 3.8 m (12.5 ft.) below the upper second terrace formation into which the east ditch was excavated and on which the lower part of the fort was constructed. These two terrace formations show quite clearly on Figures 4 and 5. The first terrace, beginning just to the south of the ravelins, was approximately the same level as, or a continuation of, the first terrace formation which widened out and continued nearly 1400 m upstream, to the next high ridge (Figure 2). The first terrace, in the area east of the fort dropped off into a slough, which was separated from the river channel by a natural levee formation. Figure 5 shows a portion of these formations, and Figure 47 indicates the edges of the first and second terrace formations.

The WPA project did not attempt any work in the area of Fort Glen (Cooper to Col. Claude A. Black, February 9, 1955, MCCHC). The first excavations in the area of Fort Glen were carried out during 1960 in an effort to define the nature of the construction and deposits. During that time, three trenches were excavated. One was on the lower terrace, and the other two were in the slough and on the slope of the lower terrace (Figure 35; Kunkel 1960:21-22, Plate 4c). The results of those excavations were summarized by Kunkel:

> [The excavations in the slough and slope] ...revealed a series of alluvial sand deposits, but no artifacts and no evidence of structures. A third test pit, also dug near the fort's upstream property line sampled the first terrace. Here, we encountered a very thick, complicated stratigraphic situation which yielded important structural evidence and a considerable number of artifacts. The structure here uncovered is a palisaded or timbered outwork of Fort Loudoun (Kunkel 1960:21-22).

In September of 1973, two trenches were excavated in the Fort Glen area by this writer and John Broster for the Tennessee Division of Archaeology. These trenches tested both the edge of the upper terrace and the upper surface of the lower terrace (Figure 33). The trenches on the upper terrace failed to reveal any construction there. The trenches into the surface of the lower terrace revealed up to 1.5 m of alluvial and/or colluvial deposits overlying a disconformity consisting of a flat surface on the top of the deposits below, which were undisturbed consolidated alluvial fill. An old humus zone, overlain with redeposited soil, was defined near the outer edge of the terrace. Portions of two burned logs, redefined in the 1975 excavations designated **Feature 12,** were discovered on the top of the old humus in the westernmost trench. It seemed clear that there was some sort of cutting and filling activity that had taken place in the lower terrace area, but whether this had been done as part of the construction of Fort Glen or as some sort of natural action could not be discerned at that time. The lack of any historic artifacts from the area also did not help to clarify the situation.

One of the early objectives of the 1975-1976 excavations was to clarify the situation in the Fort Glen area. Another objective was to test the deposits within the slough and the natural levee area, to define the nature of those deposits, and to determine whether the slough area was a depository for refuse being removed from the fort. The other more pragmatic reasons for testing the slough early in the excavations was to determine whether it could be utilized as a settling pond for the water screens, which could then be built on the edge of the first terrace. To accomplish this, two hand-excavated profile trenches were excavated from the crest of the natural levee westward across the slough, with the southernmost one extending up the slope and to the edge of the first terrace (Figure 49). These trenches were excavated to a depth varying from 40 cm to 70 cm. Once it was clear, particularly in the levee deposits and the slough, that the soils were of recent origin, work along the whole length of these trenches was abandoned. Efforts were then concentrated on a two-meter square in the base of the slough in each of the profile trenches and an additional two-meter square, N230/E320 in the base of the slough centrally located between the two trenches. These squares were taken to a depth of two meters below the surface before the excavations were terminated. In both cases, they showed that the deposits consisted of alternating bands of fluvial sands and other alluvial materials, which were probably the result of annual flooding prior to the twentieth century construction of the several dams upstream. It is believed that the slough and natural levee were formed after the abandonment of the fort. The only artifacts recovered in these areas were lithic debris, in the form of small flakes, which were in all probability redeposited from upstream portions of the valley. Figure 48 provides a detail of the stratigraphy that was defined in the north wall of Square N218/E336. Similar sequences were also defined in Squares N230/E320 and N238/E312. For a detailed study of the depositional history of portions of the Little Tennessee River valley, see Foley and Chapman (1977).

On the upper surface of the first terrace, the two 1973 trenches were cleaned out as a starting point for a large hand-dug excavation that was intended to follow out the sloping old humus zone and the cut surface that had been defined by the 1973 work. The extent of this hand excavation is shown in Figures 6 and 47. This area was taken down to the base of the cut and the upper surface of the old humus for the extent of the area that was hand-excavated. Figure 49 shows where the cleared floor changed from the old humus to the level cut, which consisted of a consolidated sandy alluvium. Although it was apparent that what was being excavated was a stratigraphic situation created by cutting and filling, it was still not completely clear as to what was actually being defined.

During the early part of the 1976 season several backhoe trenches were cut from the hand-dug excavations to the edge of the upper terrace and in other parts of the lower terrace. One long cut north of the hand excavation clarified the situation. From this profile (Figure 49B) it was clear that what was being dealt with was a large fort-period cut into the original slope of the second terrace. The original slope at this point probably continued downward to the river or the flood plain, uninterrupted by a lower terrace. Other backhoe cuts confirmed that this cutting and filling had taken place as far south as N188, where the cut appeared in the southernmost profile made (Figure 50). These backhoe cuts showed that a large level area at the same elevation as the first terrace, was being created from the slope of the second terrace. This was done by cutting a flat terrace into the slope of the second terrace and extending this surface to the east with the materials being removed from the cut.

There are two documentary sources that provide some information on the Fort Glen construction. The first is a work order of DeBrahm indicating that the level area that was to be created was to have had houses constructed on it. "... thy are to be employed in glens Fort to Levell that Spot & layd out were the houses are to be build" (Directions for Fortifications for October 8, 1756, Clements Library). The use of this area for Indian houses is shown on the Huntington version of the plan of Fort Loudoun (Figure 8). A summary of the work that had been done in the Fort Glen area is recorded in the survey of the fort in December of the same year.

> Bastin Lyttelton finnished. No way into; Fort Glen: unfinnished, lying in Heaps and abandoned, a Ditch on top of the Bank 10 Feet deep in some Places, about 98 Feet long. We know not the Intent of it (Survey of Fort Loudoun by Order of Captain Rayd. Demere, December 24, 1756, SCIA :2 86).

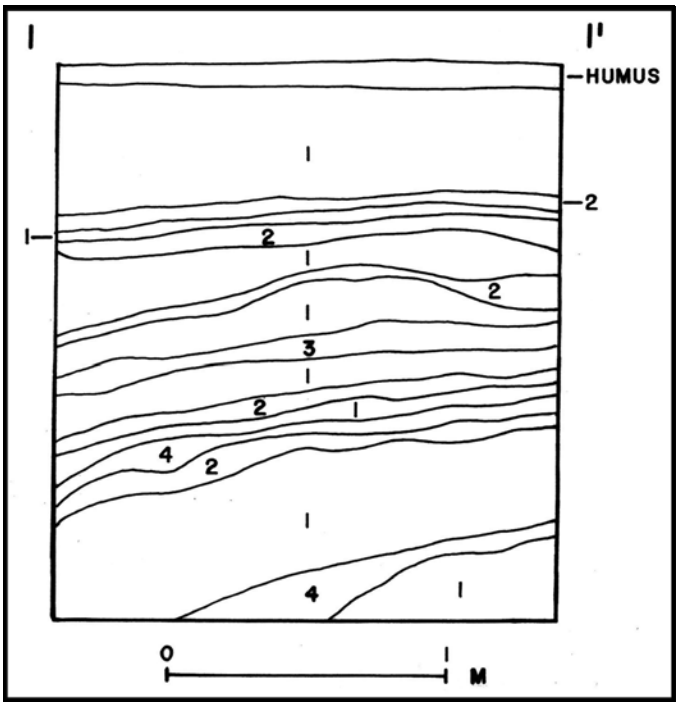

Figure 48. Profile of north wall of Square N218/E336 showing the alluvial deposits in the slough between the natural levee and the first terrace. Key to figure: 1. Dark brown alluvial clay; 2. Light sandy alluvium; 3. Light grey and red clay; 4. Dark clay.

On Figure 49A, the level cut that was made and the old humus (Zone 14), on the pre-fort surface, are clearly shown. The zones above the old humus are the result of filling above that humus zone with earth that was removed from the cut slope. Zones 8, 10, 11, 12 and 13 lying above the old humus are redeposited earth that was removed from the cut slope above the level cut. The zones of fill above Zones 8 and 10, namely Zones 1 and 3, are the result of post-fort alluvial deposition, as well as those zones of fill above the level cut (Zones 2-6). Figure 49B shows the western extent of the cut into the face of the upper terrace formation, the width of the cut at that point, and the remaining pre-fort surface humus (Zone 6) near the eastern end of the profile. Zone 5 on the same profile is the redeposited material from this cut. Figure 50 presents a profile of this terrace at the southernmost point at which it was defined by the 1975-1976 excavations. This profile also shows quite clearly the fort period cut into the bank and the level surface that was being created. Toward the eastern end of this profile a burned area was noted on the surface of the post-fort humus. This feature was only defined in the profile, and no effort was made to follow its extent horizontally. Presumably it was simply the location of a fire or hearth, similar to Feature 128 that was defined in the northeast ditch extension.

One other feature of the Fort Glen area that can be discerned from Figures 49A, 49B, and 51 is a berm or low parapet that was being either left or built along the eastern edge of the level terrace area. In Figure 49A, the berm was simply left in place and not excavated. The profile in Figure 49B shows that a low berm was being created from the earth being removed from the western part of the cut. This berm is shown as Zone 5 on that profile. This feature was not defined, and was probably not constructed in the southern part of the Fort Glen area since it was absent in the southernmost profile (Figure 50).

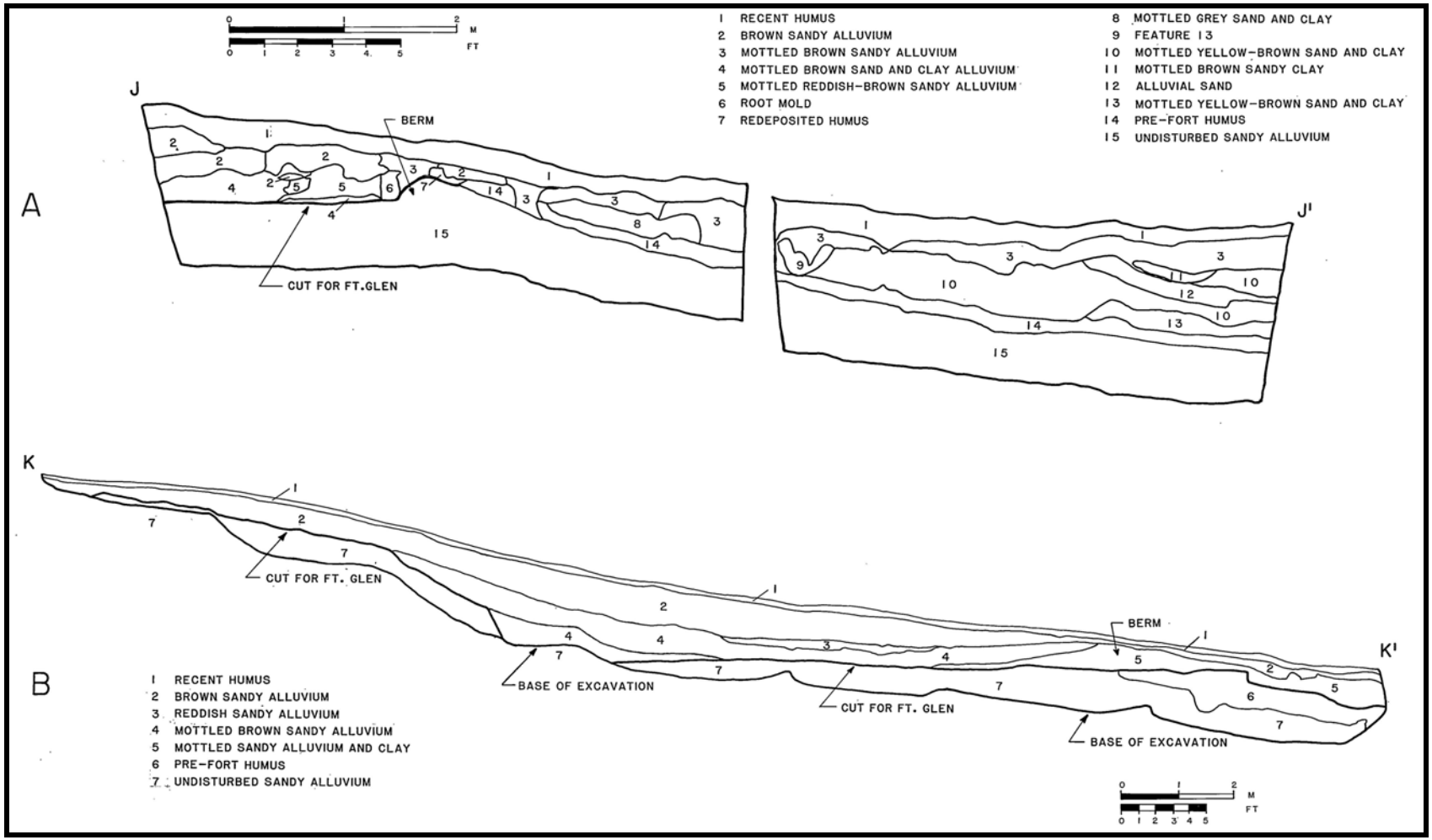

Figure 49. **A**. Profile of the Fort Glen construction in the 1975 hand excavation. **B**. Profile of the Fort Glen construction north of the hand-excavated area, showing the cut and the extent of the level area.

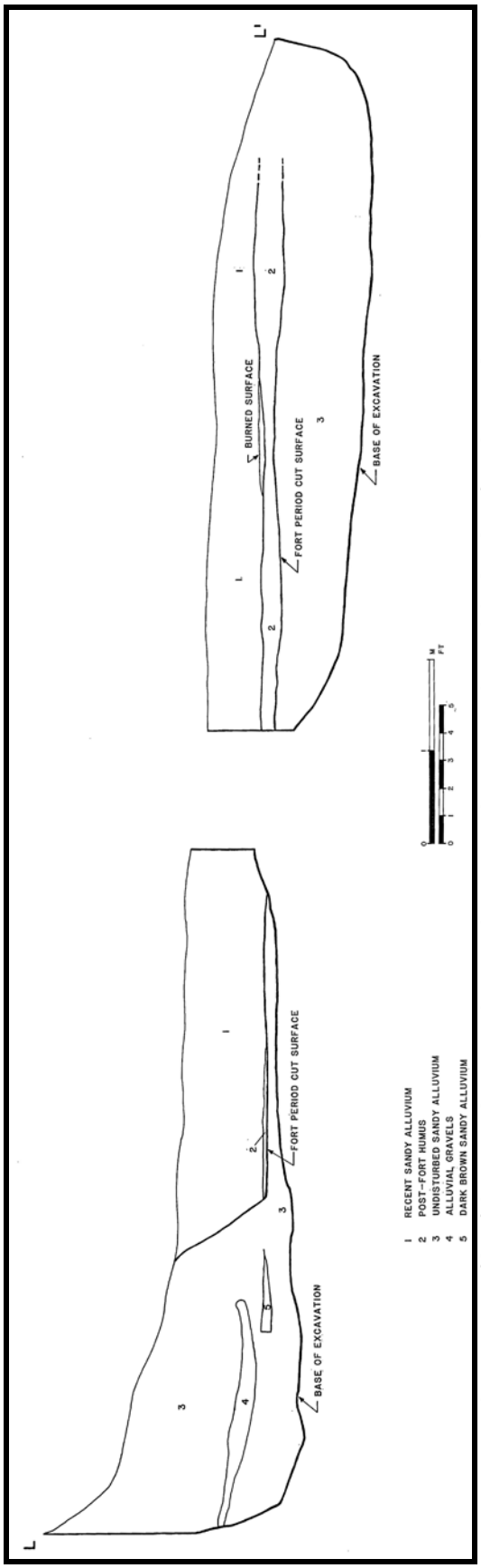

Figure 50. Southernmost profile of the Fort Glen area, showing the cut into the terrace edge and the level surface that was being created.

Figure 51. View to the northwest of the hand excavations in the Fort Glen area. The original surface of the old humus slopes downward to the right. The level fort period cut is to the left. The low berm left along the east edge of the cut is clearly visible and in line with the ravelins which are in the center background.

A palisade trench, **Feature 213,** was defined in the southernmost profile trench that was excavated through the lower ravelin. This palisade trench ran in a southeasterly direction and was subsequently followed for its entire length (Figure 47). It began at N229.60/E282.80 and ran 7.20 m (23.6 ft.) to N225.60/E288.80. It had a width of 80 cm and a defined depth that varied from 50 cm to 150 cm. It appeared to have been excavated, and then soon filled with the same materials that were removed during the original excavation. It is doubtful that posts were ever set in place in this trench, or if they were, they were certainly removed soon afterward. The filling of this trench is probably the result of the abandonment of the Fort Glen works and the need to close up this tench to provide easy communication between the Rivergate and the river. As an examination of Figure 47 shows, the line of this palisade trench, if projected to the southeast, is in line with the eastern edge of the terrace cut, and the low berm that was defined along the edge of that cut. It is clear that this trench represents part of a defensive line that would have been the eastern edge of the hornwork, which, if completed, would have probably consisted of a combination of palisades and earthworks. Presumably, if the palisades had been put into this trench, they would have served to connect the hornwork to the east edge of the lower ravelin, which was at an elevation 2.65 m (8.69 ft.) above the surface that was being constructed for Fort Glen. A comparison of Figure 47 with the British Library plan (Figure 7) readily shows that the east edge of the cut, the parapet and the palisade trench, and the projection of this line conform very well to the outer edge of the hornwork as it was planned. As mentioned previously, the southern edge of the southeast ditch extension also compares well with the same plan and would have constituted the southern line of this hornwork. The same plan shows that the part of the hornwork comprising the southeast ditch extension was higher in elevation than the remainder of the Fort Glen works, another feature which was confirmed by the excavations.

The only fort-period feature that was defined in the Fort Glen area other than those already mentioned were two burned logs, **Feature 12**, that were lying on the surface of the old humus zone, and which were covered with earth from the cutting of the terrace. These logs had originally been defined in the 1973 excavations, and then re-excavated in 1975. It is assumed that these burned logs were the result of clearing of trees and brush from the river bank area prior to the beginnings of the fort-period excavations in the Fort

Glen area. Several other features of obviously much more recent origin were recorded in the upper levels of the Fort Glen area and are listed in Appendix 3.

After the termination of construction in the Fort Glen area in January of 1757, it appears that that area was in fact abandoned for all practical purposes. Although this area was not entirely excavated, nowhere in the areas that were excavated was there any evidence for other activities that may have been related to the occupation of the fort. Notably absent was any debris to indicate that this area was ever used for refuse disposal. The depositional history of the area after abandonment shows a filling of the cut and a smoothing of the area by colluvial and alluvial deposits above the surface of the cut. There was nothing to indicate that any effort was made by the garrison to fill any of the area, except the palisade trench that was mentioned above, and it is probably reasonable to assume, from the way in which the area was referred to in the correspondence from the fort, that nothing further was done to the Fort Glen area after stopping construction.

Outer Palisade Line

The outer palisade line, as it has been designated in this report, and which finally became the major defensive feature of the fort along with the parapet and ditch, was not constructed until early 1757. On December 26, 1757, the day after DeBrahm left for Charlestown, the several officers at the fort, at a Council of War, decided that the work on the earthworks would stop and that a palisade line would be constructed along the inside line of the breastwork.

> It is the Opinion of the Council of War ... That Pallasadoes be cut and plained round the Breast Work of such Lengths and such Manner the Commanding Officer shall think proper to direct, and that they be substantial ... (Council of War held by Captain Demere, December 26, 1756, SCIA:287).

By January 12, the earthworks were being prepared for putting the palisades in place (R. Demere to Lyttelton, January 12, 1757, SCIA:313), and on February 14 they began erecting the palisades (R. Demere to Lyttelton, February 15, 1757, SCIA :339). About two weeks later, Demere reported that "There is now two Sides of the Fort and two Bastions put up" (R. Demere to Lyttelton, March 1, 1757, SCIA:345). John Chevillette wrote on March 14 that they expected the fort to be enclosed in about three days (Chevillette to Lyttelton, March 14, 1757, SCIA:347), and Demere later wrote to Lyttelton that by the latter part of March all of the palisades were up and that they were then working on the gates (R. Demere to Lyttelton, March 26, 1757, SCIA:347).

Two accounts give accurate descriptions of the palisades themselves, important for interpreting the archaeology, and also for the reconstruction. They were first described as:

> ... large and substantial Pallisadoes fifteen Feet long and to put them round the whole Fort close to the Breast Work above which [they] are to project eight Feet. We propose to make all the Intervails which were left to go into the Traverses in the Side of the Hill into a Breast Work to lay our Pallisadoes against. We shall cut Loope Holes through the Pallisadoes at proper distances from our Fireing (R. Demere to Lyttelton, January 31, 1757, SCIA:326).

About a month later, after the construction of the palisade had actually begun, they were again described in another letter by Demere: "As they are very long and large, it is troublesome putting them up. They are to be lined on the inside with split Peices of Timber and will when finished be firm and strong ... ... we have no Outworks but our Palisadoes with Loopholes" (R. Demere to Lyttelton, March 1, 1757, SCIA:345). In April of the same year, and after receiving instructions from Lyttelton to complete the works according to DeBrahm's plan, he again justified their putting up the outer palisade line and gave a description of the palisades that had been put in place:

> I therefore thought it an indispensible Duty incumbent on me to put ourselves in some Posture of Defence till I should have your Excellency's Orders to proceed with Mr. DeBrham's Dirt-works. It was thought that the most expedient Method to fortify ourselves was to erect large Palisadoes 45 Foot long [probably should have been 15 feet] close to the inner Side of the Breast Works and their Points to incline towards the Counterscarp, agreeing exactly to what Mr. DeBrham directs in the Supplement to his finall Directions, with this Alteration only that the Pallisadoes are larger and longer than he intended (R. Demere to Lyttelton, April 11, 1757, SCIA:365).

Although Demere predicted that the palisades "... as they have been cut down at a proper Time before the Sap was up, they will stand six Years" (R. Demere to Lyttelton, March 26, 1757, SCIA:347), Paul Demere, writing just over two years later indicated some deterioration of those logs. "Three Days ago I went with the Carpenter all the Fort, to See in what Condition the Puncheons were, it is all well, but as the Bark has fall'd in some places, the lining is loose in great many parts and wants repairing ..." (P. Demere to Lyttelton, May 20, 1758, Clements Library). In September of the same year he again reported that: "... the linings being rotten, I employ'd the Carpenter to repair it as much as possible; and as I have but a few Spike Nails I shall be obliged to make use of Wooden Pins" (P. Demere to Lyttelton, September 13, 1759, Clements Library).

Apparently the palisades were in worse condition than they first suspected since on the first of the following month he wrote to Lyttelton: "One of the Puncheons fell down this Day being quite rotten at the Bottom: and having order'd the Carpenter to examine them all a fresh, he told me he hoped they wou'd last four Months Longer" (P. Demere to Lyttelton, October 1, 1759, Clements Library). In anticipation of their needing a great deal of repair to the palisades, and the possibility of Indian hostilities at this time, John Stuart wrote in the middle of November 1759 that they had begun accumulating a stockpile of wood for that purpose, with the intention of repairing the palisades and replacing any deficient ones (Stuart to Lyttelton, November 15, 1759, Clements Library).

The earthwork or parapet had been constructed according to the standard for earthen fortifications at the time, with the inside of the parapet having a height of approximately four feet (see Muller 1756). That this height was being used at Fort Loudoun is clearly indicated in the survey of the fort done in late December of 1756 (quoted in Chapter 1), where four feet is given for the height of several of the sections of earthwork that were considered to have been completed. There was no indication of the slope of the inside of the parapet, but common procedure for that period would have produced a slope that would have been about 1:3 (Manucy 1955:6). The slope of the inside of the parapet shown on the several Debrahm plans is approximately 1:1.6 (Manucy 1956; Figures 7 and 8). Therefore, these 15 foot long palisades would have been set against the inside of the parapet, so that they would have probably projected toward the ditch at an angle of about 15 degrees with the upper ends pointed. Since they were to have projected above the top of the breastworks eight feet, and allowing for a four foot high parapet, this would have left approximately three feet that could have been put into a trench to secure them in place.

With the exception of an area along the north curtain and another along the south curtain, most of this outer palisade trench was excavated by the WPA project. The only notes describing the results of that part of the WPA excavation consist of a profile through the parapet and ditch by Cooper and a letter by Cooper in 1955. The profile on Cooper's Archaeological Map of Fort Loudoun (Figure 28) shows the slope of the inside of the parapet as 20 degrees. It is not known whether this slope is based on the angle of the charred posts that Cooper located or whether it is simply conjectural. Part of this profile is certainly either schematic or conjectural, particularly since the profile shows the full four foot height of the parapet. This profile is for the south face of the Southeast Bastion, and it is certain that the four foot height of the parapet was simply not in existence in that area at that time. In a letter written in 1955 describing the excavations, Cooper stated that: "The charred remains of the palisades laid against the earthworks indicated that the palisades were, on the average, about 8 inches [in diameter]. They probably varied from 7 to 9 inches ..." (Hobart Cooper to Col. Claude Black, February 9, 1955, FLA).

But Cooper did not, unfortunately, elaborate any further on those findings. As was indicated by the historical documentation, the spaces between the palisade logs were filled with split timbers that were either nailed or pinned to the palisade logs. Loop holes mentioned in several documents were probably just above the level of the earthen parapet, providing fire over the feature, and at a convenient height for firing. The documents are not specific about their locations, but most would have probably been along the flanks of the bastions, so as to provide flanking or enfilading fire along the intervening curtain and the opposite bastion flank and face. There also would have been some loopholes along the curtain and the faces of the bastions at advantageous positions.

Because of the construction of the stone wall to mark the outer palisade line as it was defined by the WPA project, and the later reconstruction of the palisades (see Chapter 3, Figures 30, 31, 32, and 34), there is less evidence from the 1975-1976 excavations pertaining to this line than any of the others described in the following sections. This was in part due to the initial assumption on the part of this writer that much, if not all of the evidence, would have been destroyed by the WPA excavation of the palisade trench and the construction of the stone wall and reconstructed palisade line. This turned out to be not entirely correct, as

shown by the evidence that will be presented below. Additionally, the decision not to try to locate any large section of this palisade line was based on several factors other than those listed above. In consideration of the area that had to be excavated within the fort in a given amount of time, and the time and labor that it would have taken to remove large sections of the palisades and stone walls, this aspect of the project was given a fairly low priority. An initial hand-cut through the ditch, parapet, stone wall and stockade on the east face of the Southeast Bastion early in the 1975 season seemed to verify the lack of remaining evidence for this wall line.

The expedient that was taken however, was to excavate up to the line of construction rubble in most squares, and in some cases through the rubble to the palisades, removing the rubble fill of what was termed the WPA builder's trench (shown clearly in Figure 30) to the subsoil. The hand-excavated and backhoe-excavated trenches into the parapet were made to determine the configuration and stratigraphy of the parapet and ditch, while at the same time looking for any evidence of the outer palisade line on the outside of the reconstructed stone wall. The result of these two excavation strategies was in effect a great deal of essentially negative evidence indicating where the palisade line was not, which, in essentially verified its location under the line of the stone wall.

The original palisade line was subsequently located in several places as a result of the excavations along the interior of the reconstructed wall, and in backhoe removals of other sections of the palisades, stone wall, and parapet. These latter cuts were primarily done for the pragmatic reason of making openings through which dirt could be wheel-barrowed from the interior of the fort, but which could also be used to examine other areas for remains of the palisade line. Traces of the palisade line were located in two areas of the Northwest Bastion after removal of the palisade logs, but not the stone wall. A backhoe cut through the north face of the Northeast Bastion failed to reveal any trace of the line there, and machine clearing of the south curtain of the fort, in an area where the south gate was expected, failed to define the outer palisade. The WPA project had not excavated this area, but the stone wall had been constructed across the entire area at one time. The clearing there did reveal, however, the drain system (Feature 159) as it went from the interior of the fort to the ditch.

A 4.3 m wide cut through the western part of the south face of the Southeast Bastion, and subsequent careful clearing of the floor of this cut did define a two meter long section of the original palisade line which is shown in Figure 52. The trench was defined in Squares N180/E240 and N180/E242, and had a width of 40 cm. Since the posts could be defined in this trench, it was not excavated to the base. The trench faded to the east leaving only some of the post molds showing; it was shallow, and represented only the basal 3 cm to 5 cm of what had been the palisade line. The defined posts varied from 15 cm to 25 cm in diameter (comparable to the size indicated by Cooper), and the distance between centers varied from 25 cm to 40 cm. **Feature 173,** which has been interpreted as a traverse trench between the outer line and inner palisade line intersected the outer palisade line at N180.7/E241.5. The excavation of the two appeared to have been contemporary, since the order of excavation could not be defined. The general lack of post molds in Feature 173 probably indicates that the posts from that trench had been removed, if any were ever placed in the trench. Since this trench is parallel to, and the same length as the west flank of the Southeast Bastion, it is probable that it was an early, but incorrectly located palisade trench for this flank. It was definitely not the flank as finally constructed, since the post molds of the outer palisade line continue past it to the west.

In a backhoe cut along the outside edge of the stone wall marking the north flank of the Southeast Bastion near the Rivergate (Figure 47), another short section of the original outer palisade was defined. This section began at the juncture of the north flank and the east face of this bastion, and extended 5.2 meters west along the north flank, in part confirming the accuracy and location of the north flank of this bastion. The evidence consisted of a 10 cm wide section of the original palisade trench fill that had not been removed by the WPA excavation for the building of the stone wall and the vertical northern edge of the palisade trench (Figures 53 and 55). The original fill of the trench consisted of a dark brown loam, mottled with yellow clay and containing carbonized wood throughout, indicating the possibility of the palisades having been burned.

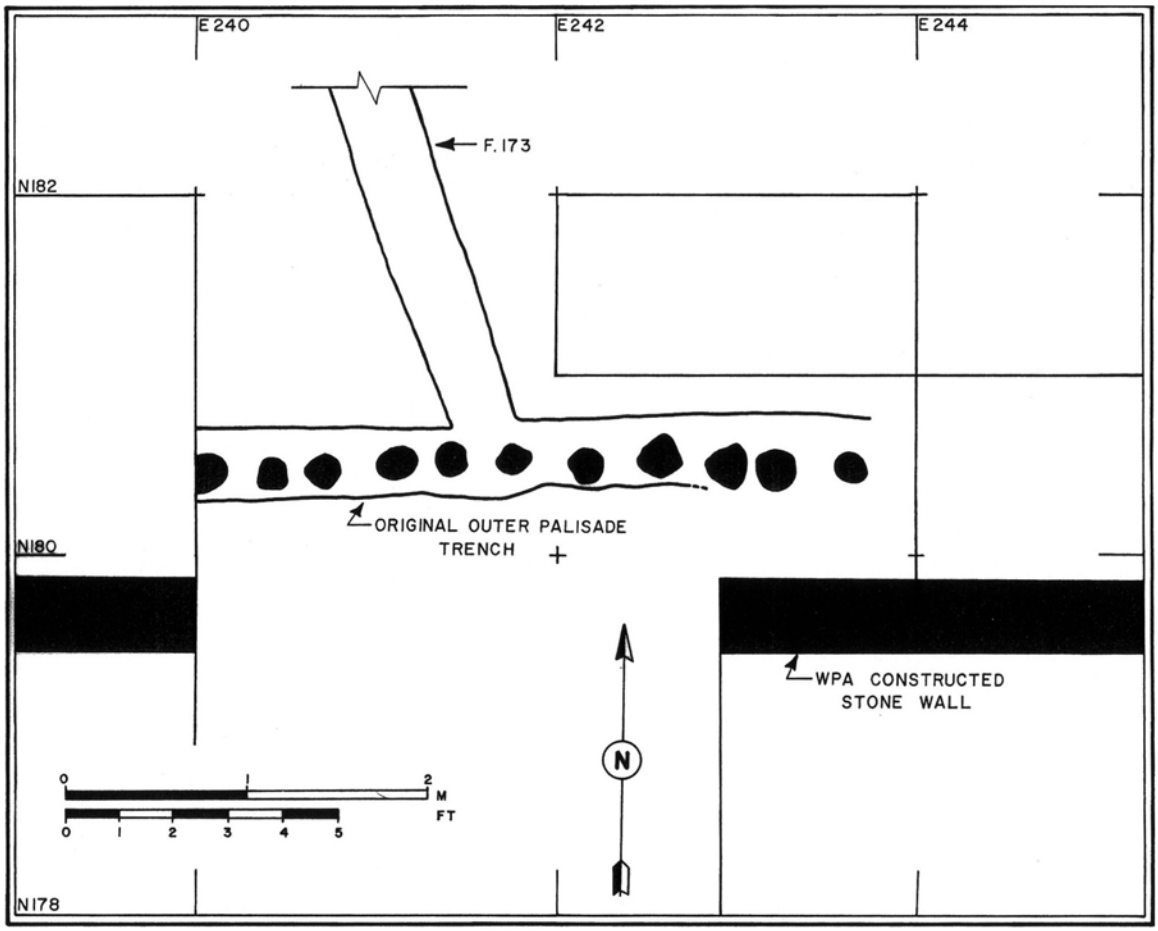

Figure 52. Detail of outer palisade line along the south face of the Southeast Bastion as defined in Squares N180/E240 and N180/E242.

Along the north face of the Northwest Bastion a long segment of the outer palisade was defined and partially excavated (Figures 6, 54, and 57). The outermost segment of this double trench began at N249.5/E169.7 and was defined to N249.75/E200.0, where it continued under an unexcavated area of the WPA builder's trench. It varied in width from 20 cm to 50 cm, and at the profile cut at E171 (Figure 54A) it had a depth of 35 cm. Fill in the trench consisted of a red clay that was mottled with a brown loam and yellow clay.

The innermost of the two trenches which was intrusive to the former, began at N250.0/E165.35 and was defined to N250.0/E174.0, where it went underneath the rock rubble adjacent to the reconstructed palisade line. This section of the trench varied in width from 30 cm to 40 cm. At the west end, where it was excavated to the base, it had a depth of 15 cm. The fill consisted of a mottled red clay. Figure 54A shows a profile section through both of these trenches at the E171 line.

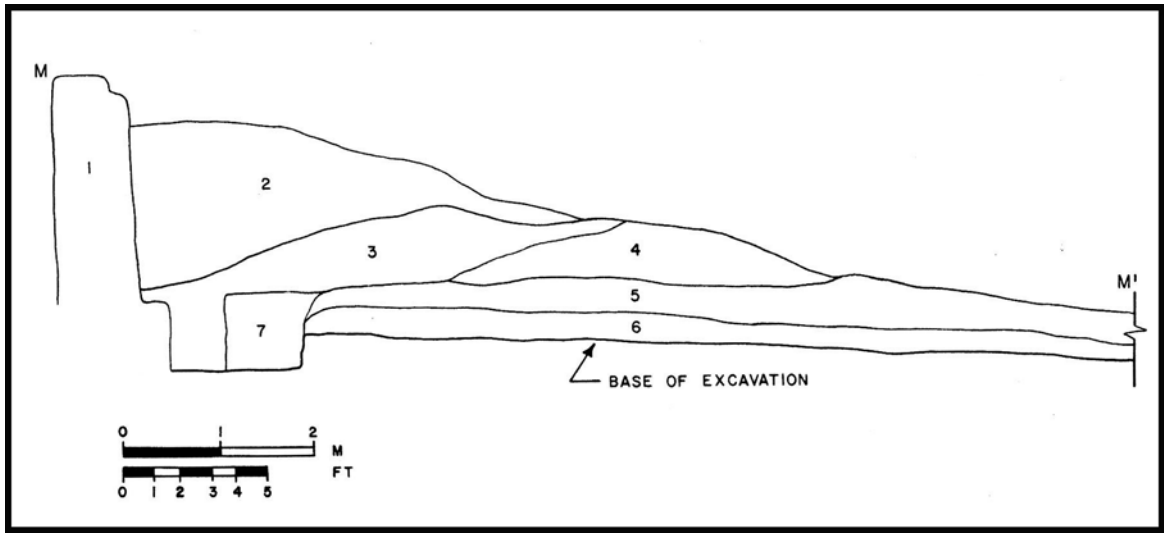

Figure 53. Profile section (M-M[1]) through north flank of Southeast Bastion. Stratigraphic zones numbered on figure: **1**. Stone wall. **2**. Loosely compacted sandy loam (recent fill against stone wall). **3**. Brown sandy loam mottled with yellow clay (WPA backdirt). **4**. Dark sandy loam mottled with orange clay (WPA backdirt). **5**. Compacted medium brown loam (Pre-fort humus and remnant of fort-period parapet construction). **6**. Subsoil **7**. Dark brown loam mottled with charcoal (remnant of outer palisade line trench fill). See Figures 47 and 55 for the location of this profile.

Another section of the outer palisade trench was located along the west face of the Northwest Bastion (Figure 54B). It was defined during the excavations as Feature 134 and consisted of a 6.35 meter section of the outer palisade trench located just inside the W PA stone wall. It was noted after a section of the reconstructed palisades was removed and the stone rubble cleared from the builder's trench. The situation here was much the same as with the north face of this bastion, where the original outer palisade line was located underneath the reconstructed palisades and the stone wall was constructed just to the outside of the original palisade line as it was defined by the WPA project. This section of the outer palisade trench was defined from N212.0/E180.75 to N217.50/E177.50. With the exception of a 10 cm to 15 cm lens of the original fill along the inside wall of the original trench and a 2 cm to 4 cm lens in the base of the trench, this section of the outer palisade trench had been excavated by the W PA project. Two small areas of charcoal in the base of the trench in the original fill, near the north end of this feature, may have been remnants of two of the original palisade logs. The cross section of this trench is shown in Figure 54B. Original fill remaining in this trench (Figure 54B, Zone 1) consisted of a dark loam with a high charcoal content, which would have been expected if the palisade had been burned, as several lines of evidence seem to indicate. The trench had a maximum defined depth of 75 cm, and a width that varied between 45 cm and 50 cm.

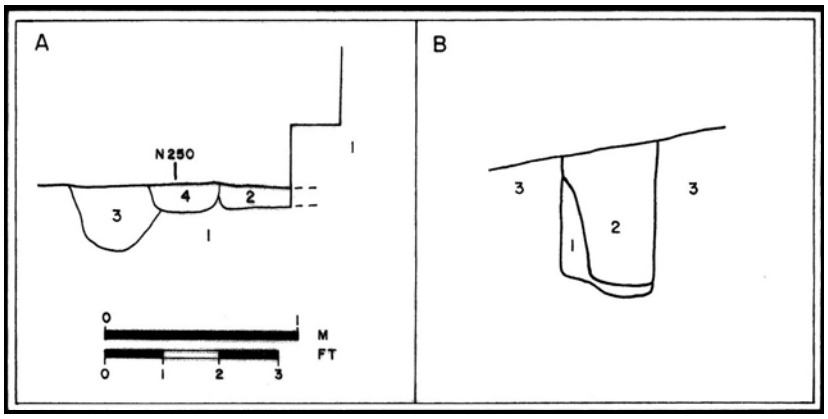

Figure 54. **A**. Profile of outer palisade line trenches on the north face of the Northwest Bastion at the E171 line. Key to A: **1**. Reconstructed wall and unexcavated. **2**. Pre-1756 humus. **3**. Red clay mottled with brown loam and yellow clay (first palisade construction). **4**. Brown loam mottled with red clay (second construction of palisade the line). **B**. Profile of the outer palisade trench on the west face of the Northwest Bastion at the N212 line. Key to B: **1**. Brown loam mottled heavily with charcoal (original fill of the palisade trench). **2**. Dark loam mixed with yellow-orange clay (WPA excavation and refilling). **3**. Subsoil.

Gates

The archaeological and historical information on the location and the construction of the gates in the outside walls of the fort is meager. In the correspondence of Raymond Demere there are three references to the gates. The first mention was in March 1757, in a letter to Lyttelton written at about the time that the outer palisade line was being placed against the breastworks, and indicating that once that work was done the gates would be put into place:

> As soon as we are pallisadoed round, two strong Gates shall be made, one in the Front of the Fort and the other opposite to the River with a Communication to the Water and on the back Part of the Fort on the Top of the Hill there will be a Sally Port (R. Demere to Lyttelton, March 1, 1757, SCIA:345).

In another letter he stated that the gates were being erected "...we are about putting up the Fort Gates which are made very strong..." (R. Demere to Lyttelton, March 26, 1757, SICA:347-348). And a letter written in April of the same year confirms that they were in place: "[We] ... also had good strong Gates put to the Fort which gives it quite a different Appearance to what it had (our Men can't get out of the Fort at Nights, nor the Indians can' t jump into it as they did before)" (R. Demere to Lyttelton, April 11, 1757, SCIA:366).

The two contemporary plans for the fort (Figures 7 and 8) provide some information on the location of the gates. The British Museum copy shows the location of three gates, those mentioned in the first letter quoted above. One, at the southern end of the east curtain, is the one mentioned in the letter above as being "opposite to the River" and is called the Rivergate in this report. The one referred to above as being in the "Front of the Fort" is shown on that plan located near the center of the south curtain. The sally port is shown near the center of the north curtain. The Huntington Plan only shows one gateway, the one on the river side of the fort.

It is apparent from the documentation that at least two gates were constructed and put into place, namely the gate in the south curtain and the gate in the east curtain, or the Rivergate. While Demere did indicate that they were going to build a sally port in the north part of the fort in the same letter that he mentioned the other two gates, there is no confirmation in the later correspondence that it was ever constructed. Demere's letters of March 26 and April 11 do confirm, though, that at least two gates were put into place.

Aside from the mention of the sally port by Demere in one letter, and its appearance on one of the plans, there is no additional documentation for that feature. Hobart Cooper did not excavate the portion of the north curtain in 1936 where the sally port would have been according to the British Museum plan (see Figures 7, 27 and 28). Although he did state that he found a sally port (Cooper to Col. Claude A. Black, February 9, l955, FLA), it seems clear that he was referring to the Rivergate, which he did excavate. There was no evidence for the sally port found inside the north curtain where most of that area was excavated in 1976.

Rivergate

The existence of the gate on the east side of the fort, the Rivergate, is firmly established by the archaeological work at the fort. It was originally excavated by the WPA project (Figure 27; Kunkel 1960:10) and then verified by Elsworth Brown in 1957. Prior to its reconstruction Brown re-established its location and re-excavated the two main posts holes for the gate posts (Brown 1958:10-11). These were again examined by the 1975-1976 project after the palisade and gate reconstruction were removed. The dimensions recorded at that time were diameters of 48 cm and 52 cm for the gate post holes, and a width of 2.2 m (7.21 ft.) for the gate opening. The Rivergate and the area outside the Rivergate are shown in Figure 55. This area was machine cleared and revealed the following information: (1) a cut had been made at the base of the slope to create a level entranceway into the fort from the east most area; (2) along the north side of this level area was a shallow trench which probably held a retaining wall to prevent the deposits on the slope from washing or caving into the Rivergate entrance; (3) from the cut through the parapet on the north flank of the Southeast Bastion, and on the south side of the Rivergate entranceway (Figure 54), it was clear that the parapet was simply brought down to the level of the entranceway; and (4) there was no retaining wall noted along the south side of that area that would have been a revetment for the parapet.

There was a slight rise from the level area of the entranceway to the upper terrace of Ravelin Lyttelton and the ground in front of the Rivergate sloped downward at the east end to the base of the ditch. There was no evidence recovered or noted that would have suggested a bridge or other type of walkway across the ditch at that point. It is assumed, therefore, that communication to the river was gained simply by walking through the base of the ditch at that point and down the slope through the remains of the Fort Glen area.

South Gate

There is no direct archaeological evidence to verify the location of the south gate. The WPA project did not excavate this area according to Cooper (Figures 26 and 27; Cooper to Col. Claude A. Black, February 9, 1955, FLA). The 1975-1976 excavations also failed to locate any direct evidence for the gateway, although several factors in addition to the documentation submitted above, do suggest, however, its location. The area where the gate was thought to have been located originally was machine scraped and hand-shoveled during the latter part of the 1976 season of work at Fort Loudoun. Figure 6 shows the area that was examined along the south curtain. Feature 159, the drain, was defined where it went through the line of the wall and parapet, as it exited the interior of the fort and continued into the ditch. Since this was a continuous channel, it is believed that this drain would have gone through the main gate, a location similar to where the drain exited at Fort Prince George (see Appendix 1). It is reasonable to assume that this drain went through the gateway, since there would have been a passage through the palisade and the breastwork at that point. The other factor supporting a gateway along the south curtain is the presence of Feature 185, a midden or trash deposit in the ditch just to the west of the drain. This repeats the situation at the Rivergate, where there was a similarly located midden deposit (Feature 187) in the ditch outside the gate. Although, as mentioned in the above descriptions of the ditch, there were some small amounts of midden and trash in various other sections of the ditch. Feature 185 and Feature 187, however, were the only two locations where any appreciable amount of refuse had accumulated. This does seem to imply a continual use of, and ready access to, these two points of trash disposal, which suggests the presence of a passageway through the palisade and breastwork at those points.

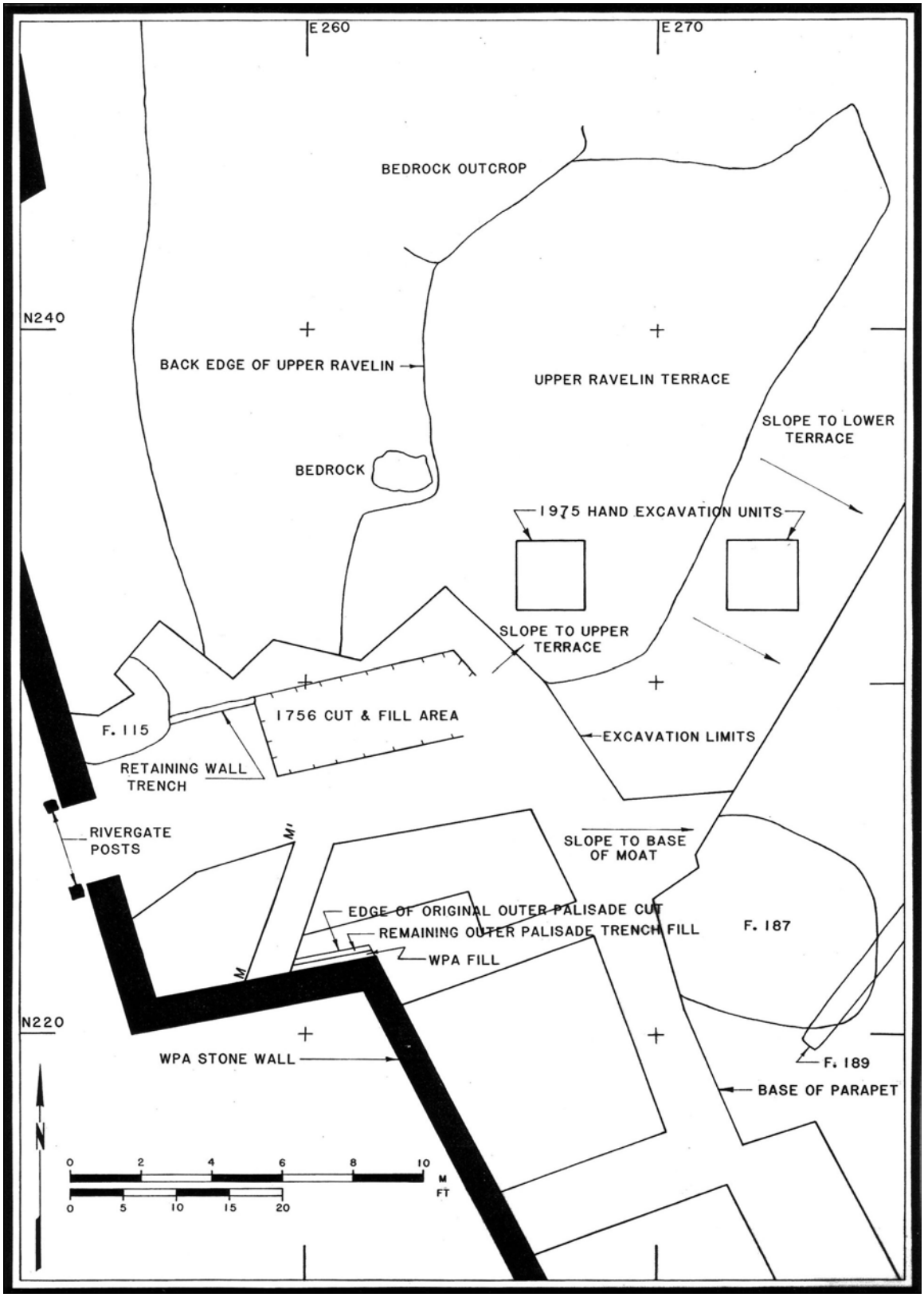

Figure 55. Detail of the excavations in the Rivergate area and adjacent ditch.

Gun Platforms

The historical documentation is clear that there were four gun platforms constructed at Fort Loudoun. One platform was to have been located in each of the bastions of the outer palisade line, and to have held three cannon on each. One additional platform was also mentioned that would have flanked the Northeast Bastion, but the documents do not confirm whether this structure was ever built.

The first mention of the gun platforms is in a letter by Raymond Demere to Governor Lyttelton of January 31, 1757, in which Demere explained the actions that had been taken by the garrison to put themselves in a posture of defense and the further steps they planned to take. Initially, he simply stated that "The Guns will be mounted on Carriages on pretty high Platforms at each Bastion" (R. Demere to Lyttelton, January 31, 1757, SICA:326). But later in the same letter he provided some specifics about the platforms, although little that helped the archaeological interpretation of the remains:

> ... the Carpenters...being now imployed about something more pressing (viz.) Platforms and Carriages for the Guns, and the Sawyers are sett to sawing of three-inch Plank for the same ... As some Necessaries will be wanting to keep the Guns in order, and the Platforms and Carriages from spliting, when the hot Weather comes on, I send inclosed a small Memorandum for Things wanting to prevent the same. I shall get some Tar made here (R. Demere to Lyttelton, January 31, 1757, SCIA:327-328).

The final reference to the four main platforms was written on March 1, in the same letter in which Demere reported that the palisades were up and enclosing two bastions and two walls. With reference to the platforms, guns, and carriages, Demere noted, "Three Guns will be mounted in each Bastion. The Carriages and Irons for the Guns are already made. The Carpenters are now about the Platforms (the Tar is made)" (R. Demere to Lyttelton, March 1, 1757, SCIA:345).

The archaeological evidence supporting the gun platforms is described in the following sections. The evidence for platforms in the Southeast and Northwest Bastions was good, while that for the Southwest and Northeast Bastions was relatively less substantial. The evidence that was found, however, does seem to correlate reasonably well with the chronology of events that are recorded in the historical documentation.

The gun platform in the Southeast Bastion consisted of a series of large post molds and sill molds or shallow trenches that, upon excavation, were grouped together as Feature 49. The specific evidence for the existence of this feature consisted of a diagonal trench eight meters from the apex of the Southeast Bastion of the outer works that intersected the east and south faces of the bastion approximately 8.5 meters from the apex (Figure 56). Stemming from this diagonal sill were four other short sections of sill molds, with lengths of approximately 1.75 meters, which in effect formed two Vs, with the open part of the V oriented toward the apex of the bastion. The last element comprising the evidence for the platform was three more or less equally spaced post molds (PM 6, PM 7, and PM 116) that formed an equilateral triangle regularly oriented with the faces of the bastion and the diagonal trench.

The post impressions that were defined in Post Molds 6 and 7 were 20 cm and 15 cm in diameter respectively. The several sill molds varied in width from 30 cm to 50 cm, and the defined depths varied from 2 cm to 16 cm. The segments of these sill molds that are keyed to Figure 56 are detailed here:

A. Width: 35-50 cm. Defined depth: 16 cm. Fill: Dark brown loam with some ash, charcoal and yellow clay mottling.

B. Width: 45 cm. Defined depth: 10-11 cm. Fill: Top 4-5 cm consisted of yellow clay mottled with dark loam. Bottom 5 cm was yellow clay mottled with dark loam.

C. Width: 23-30 cm. Defined depth: 7 cm. Fill: Yellow clay mottled with brown loam.

D. Width: 25-30 cm. Defined depth: 2-3 cm. Fill: Yellow clay mottled with brown loam.

E. Width: 35 cm. Defined depth: 8 cm. Fill: Yellow clay mottled with dark loam.

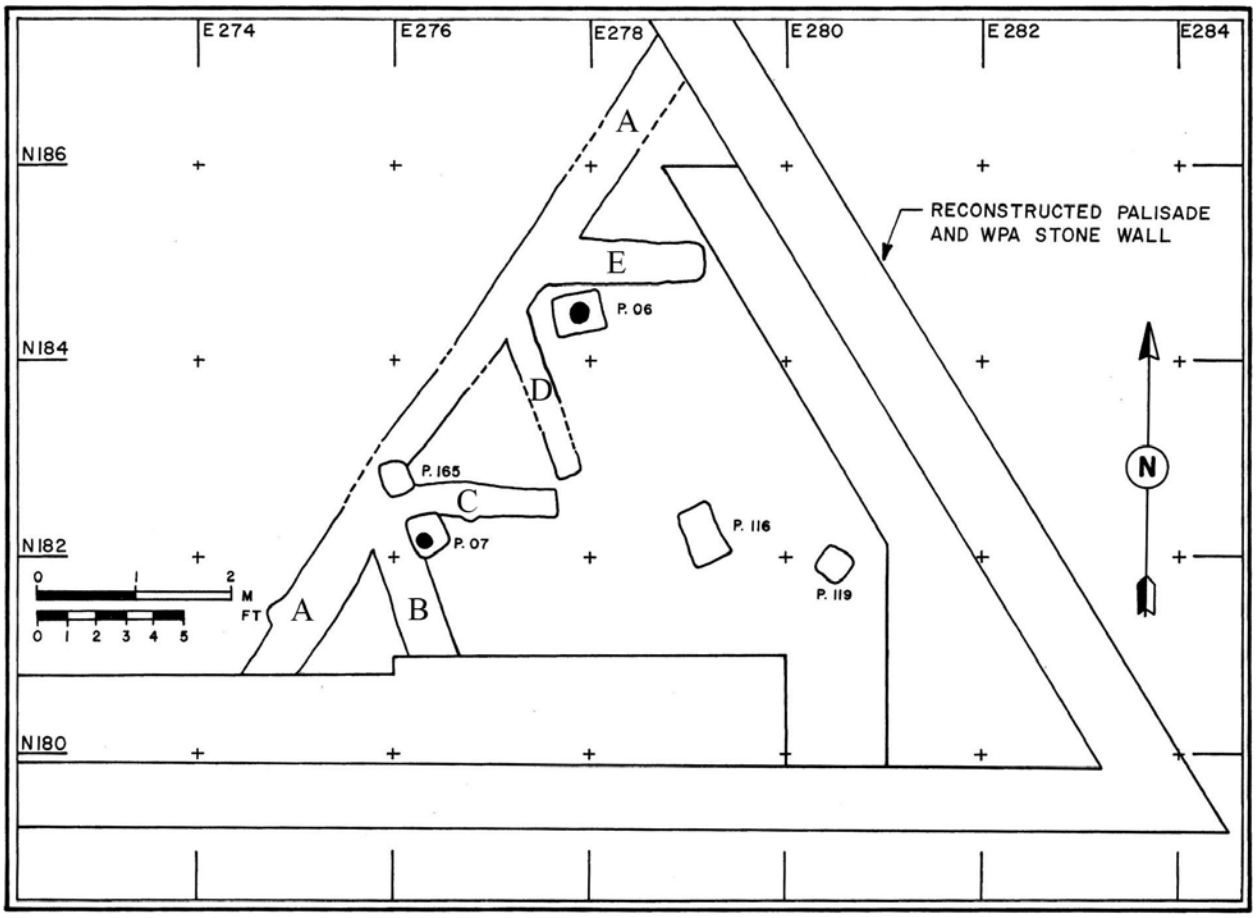

Figure 56. Remains of the gun platform (Feature 49) in the Southeast Bastion.

The purpose for the trench of sill A, was probably to support a rear wall or framework for the platform. The purpose of the smaller sills (B-E) is unknown unless they were some type of auxiliary supporting timbers for the rear wall or back of the platform. The three posts between the rear wall and the apex of the bastion were in all likelihood the main supports for the platform. This configuration of posts is somewhat similar to that defined in the bastions at Fort Prince George (see Appendix 1). At that fort there was a configuration of a central post and four arranged symmetrically around the center post. The post pattern in the Southeast Bastion of Fort Loudoun was similar, but smaller, than that defined for the Northwest Bastion, and possibly the Southwest Bastion of this fort (Figures 57 and 58).

In the Northwest Bastion the remains of the gun platform consist of one trench and four post molds. The rear wall of this platform is defined as Feature 136 (Figure 57) and Post Molds 388 and 389, which form a line running diagonally across the bastion about ten meters from the apex of the outer works. Post Mold 389 was located 1.35 m southwest of the end of the trench, and Post Mold 389 was located 55 cm from the east end of the wall trench. Rectangular posts that were defined in these postholes were 15 cm by 20 cm in Post Mold 389, and 20 cm by 25 cm in Post Mold 388. The wall trench had a length of 4.55 m beginning at N243.80/E165.80 and ending at N247.50/E168.45. The trench varied in width from 30 cm to 40 cm and had an average depth of 35 cm. The fill was composed of a red-orange clay that was mottled with a darker brown clay. From the defined stratigraphy, it was clear that this southwest-northeast trench was intrusive to, and later than, the southeast-northwest diagonal traverse in this bastion.

Post Mold 428, with a circular post 20 cm in diameter was located near the apex of the outer works and equidistant from Post Molds 388 and 389, forming an isosceles triangle. Post Mold 272, located midway between Post Mold 389 and Post Mold 429, was probably a central support along the west side of the platform. A comparable post on the east side of the platform between Post Mold 428 and Post Mold 388 was not defined.

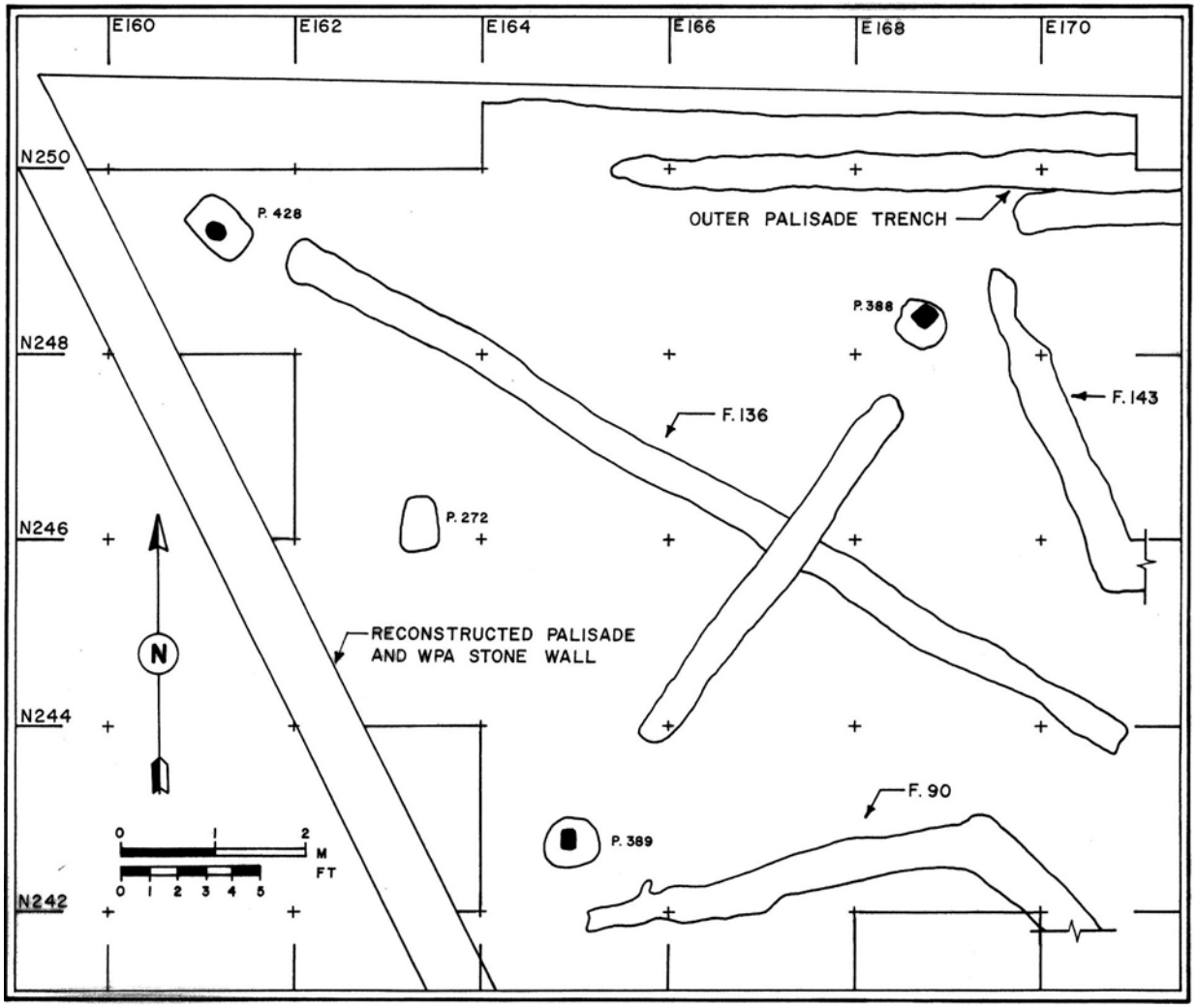

Figure 57. Plan of the Northwest Bastion showing the remains of the gun platform, Feature 136, portions of Features 90 and 143, and the outer palisade line along the north face of this bastion.

This platform is generally comparable to the one in the opposite (Southeast) bastion, but lacks several details and is somewhat larger. It is possible that palisade posts in the southeast-northwest diagonal trench of Feature 136 may have supported the center of this platform, but the evidence seems to indicate that the posts were removed and the trench filled. The perpendicular trench that formed the rear wall of the platform was cut through the former sometime after it was filled. According to the documentation, the inner palisade line and its associated traverses were removed after the end of January, 1757 (R. Demere to Lyttelton, January 31, 1757, SCIA:326). The construction of this platform, as close as can be determined from the documents, began by the first of March, 1757. Therefore, the removal of the traverse and the construction of the gun platform may have happened around the same time.

The evidence for a gun platform in the Southwest Bastion is not so clear as that for the northwest and southeast ones. In the Southwest Bastion there is a diagonal trench or traverse (Feature 175) comparable to the one in the Northwest Bastion (Figure 58), but this is also believed to have been taken down and filled prior to the construction of the gun platform. Actually the only evidence there is for the gun platform in this bastion consists of three post molds (PM 546, PM 547 and PM 548) that may have served as supports for the platform. Post Mold 546 is probably the one most likely to have been a support, and would have been comparable to the posts in the Northwest and Southwest Bastions that were closest to the apex of those respective bastions. The stratigraphy in the Southwest Bastion seems to suggest that the inner palisade line and diagonal traverse were removed and the area of that bastion was then raised with 20 cm to 30 cm of fill. This was probably done to improve drainage from the area. Post Mold 546 originated from the upper part of that fill and was

intrusive to Feature 175. The other two post molds were somewhat ambiguous since they lacked the symmetry of arrangement that was characteristic of those in the Northwest and Southeast Bastions.

Evidence for a platform was minimal in the Northeast Bastion. With the possible exception of Post Mold 541 in Square N254/E246, no evidence was recovered for either a traverse or a gun platform in the Northeast Bastion. One other additional platform was mentioned in the documentation for this bastion in June of 1757: "... an additional Platform is to be made to Flank Bastion Prince of Wales [Northeast Bastion] where the three small Swivells is to be mounted on Carriages to Defend the Same" (R. Demere to Lyttelton, June 26, 1757, Clements Library). There is no confirmation in the documents that this platform was ever built. Additionally, there was no archaeological evidence to suggest the previous existence of this platform. Perhaps Demere's letter indicates only that the gun platform in the Northeast Bastion had not yet been constructed at that time and he was simply stating the need to complete that facility and not suggesting a fifth platform.

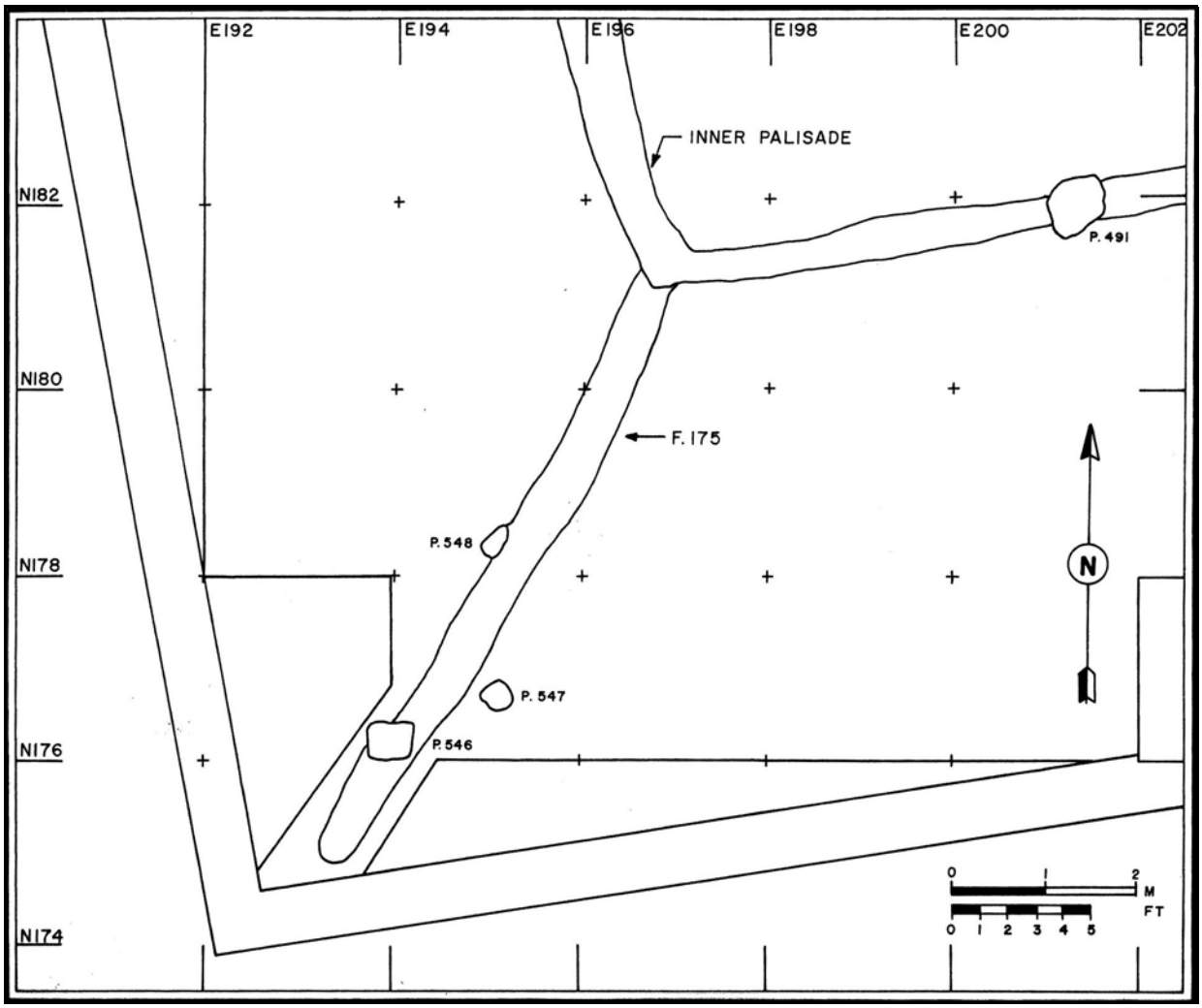

Figure 58. Plan of the Southwest Bastion showing the southwest corner of the inner palisade, the traverse trench (Feature 175), and the post molds that are possibly related to the gun platform.

Inner Palisade Line

The inner palisade line was a system of palisades set in trenches that were erected in late October and early November of 1756 as part of the early defensive system. This palisade line was located between the outer earthworks and the innermost line of palisades (Figure 6) and was originally intended to be a secondary line of defense behind the breastwork. The location and configuration of this line of palisades are shown on both contemporary plans of the fort (Figures 7 and 8). Shortly after the beginning of construction of Fort Loudoun, DeBrahm ordered that 550 palisades be cut for the defenses (Direction for the Day for Fortifications, October 12, 1756, Clements Library), but these apparently were not put into place at that time. On the 26th of the same month, noting the lack of a palisade line, and the incompleteness of the earthworks, Old Hopp urged Demere to "... make a wooden Fort immediately ..." (Old Hopp to Capt. Demere, October 26, 1756, SCIA:236). Possibly because of that urging by Old Hopp and his fear of a French attack, Demere wrote to Lyttelton two days later stating that the palisade work had begun:

> I immediately waited on Mr. DeBrahm, who was then in Camp, and told him the emminent Danger that seemed to threaten us from the best Accounts we could get from Old Hopp, and that I thought it highly necessary that all the Men should immediately sett about pallassading the Fort which was the only Expedient we could fall on for an immediate Defence. Mr. DeBrahm replyed that my Sentiments met with his Approbation and that Work should be sett about immediately, and that he hoped in six Days to have the Fort palasaded quite round. The People are now all employed with the greatest Hurry about the same, and the Work goes on very fast (R. Demere to Lyttelton, October 28, 1756, SCIA:233).

Approximately two weeks later, the inner palisade line had been completed and a second line, the innermost palisade line (described below), had been started within the first.

> We are now pallasadoed round, but it is not sufficient for we are too much exposed. Mr. DeBrahm is now about setting up another Row of Pallasadoes with the Traverses of the Inside of the Fort twelve Feet Distance from the first and a great Deal higher. We are now Nothing but Pallasadoes (R. Demere to Lyttelton, November 7, 1756, SCIA:241).

The first row of palisades had been completed in great haste and with little care, for the day after Demere wrote the above letter, DeBrahm's work order detailed the inspection and necessity of resetting of the palisades:

> While no proper care has been taken in Setting the pallisades (pochens) according to commone Knowledge; yea against Directions (many times given Everyday) pallisadoes had been made less their 7 feet 7 Inches in rocky ground & less 9 feet in clay ground; it is therefore necessary that they (pallisadoes) are Examined all round, those that are not 13 inches in Rocky ground are to be taken out, also those that are not 22 feet [inches] in clay ground, & Such put in there soon, that are longe enough to be 13 inches in the Rocky ground and at least 2 feet in clay ground & all except the gunports 6 feet 6 Inches above the ground.
>
> a Sergant with twelve men is to be ordered to have Stones carryd in & outside the pallisadoes, to be ramed in the ground on the pallisadoes in order to make them Self solid.
>
> The pallisades within [the] Forts Esplanade are to be set from the entrance from the Smith 5 feet of one Hight, then 2 feet (3 feet lower ones) after the 2 feet Row low ones, a row of 10 feet Longe ones, then 2 feet Low ones, & then longe ones 10 feet till finished NB the low ones on the Right hand by the entrance from the Smith are only to be 12 feet lower than the longe ones.
>
> all the Rest hands are to be employd to make & carry pallisadoes till a number of 600 are provided for the Explanade of the Fort (Directions for Fortifications, November 8, 1756, Clements Library).

The second row of palisades was completed by November 18th (R. Demere to Lyttelton, November 18, 1756, SCIA:250). Although DeBrahm had given instructions in early November for correcting the deficiencies in the palisades, this was not completed by the time of the survey of the fort in late December.

> The Pallisadoes bad in Quallity, not deep enough in the Ground. Those of 12 Feet high being only 2 Feet in the Ground, and those eight Feet only 13 Inches, and in many not seven Inches deep in the Earth; many of them fallen down, most of them that are standing loose and easily pulled down (Survey of Fort Loudoun, December 24, 1756, SCIA:286).

During the first week of January, 1757, Demere resolved to have the palisade lines completed and restored according to DeBrahm's final instructions, which he had left with the garrison prior to leaving for Charleston:

> [I] ... am going to employ the People about cutting Pallissadoes agreeable to our great Ingenier's final Directions ... but shall take Care they be put deeper in the Ground and more substantial then the first which are all tumbling down (R. Demere to Lyttelton January 2, 1757, SCIA:302).

By the end of January, with the outer palisade line well under construction, Demere wrote that the two palisade lines within the fort needed to be removed: "The two Rows of Pallisadoes and Traverses that are within the Fort must be taken down for they will be of no Service to us, nor were they ever of any. They only crowded the People" (R. Demere to Lyttelton, January 31, 1757, SCIA:326). Presumably they were removed shortly after that time, and possibly used at least in part to construct the outer palisade line.

In general, this inner palisade line enclosed a nearly square area with dimensions of 64 m (209.9 ft.) east-west, and 58 m (190.2 ft.) north-south or an area of about 3712 sq. m (39,923 sq. ft.). The northeast and southwest corners of this stockade line were approximately right angles, and there were regular bastions in the southeast and northwest corners. Had this fort been constructed on a flat area, the line defined by the inner palisade line, although somewhat larger and lacking two bastions, would have been comparable in form and size to the outer palisade lines of many of the other frontier fortifications of that time, such as Fort Prince George (Appendix 1), and Fort Loudoun, Pennsylvania. As it was defined by the 1975-1976 excavations, this palisade trench varied in width from 30 cm to 65 cm and had a defined depth that varied from 25 cm to 75 cm.

For the most part the inner palisade trench had been previously excavated by the WPA project (Figures 27 and 28), thereby obscuring or destroying most of the original fill and stratigraphy within the trench. However, in certain portions of this trench the WPA excavations had not completely removed the fill to the base, or entirely to one or both walls of the trench, leaving in place some of the original fill. Prior to the beginning of the excavation of the inner palisade trench, the WPA project had cut a series of exploratory trenches perpendicular to the trench (Figure 27) to locate it prior to its excavation. In spite of the previous work, it was possible to define this feature for most of its entire length with a reasonable degree of accuracy. Although it appears from the map of the WPA archaeology (Figure 27) that this trench had been excavated all the way around the fort, this was not the case, particularly in regard to the north wall of this line. The only places where the line had actually been destroyed to the point where it could not be redefined was in the area of the well and in the area of Feature 162, a large WPA tree removal excavation along the south curtain.

The east curtain of Feature 61E, the east wall of the inner palisade trench, extended uninterrupted from N249.65/E245.20 in the Northeast Bastion to N195.70/E259.35 in the Southeast Bastion, a distance of 55.50 m (182.04 ft.). It appeared to have continued uninterrupted behind the Rivergate. Whether this is the product of the original excavation of the palisade trench, or the result of the WPA excavators digging through several nontrenched sections, and not noting them, could not be determined. The situation at the south gate area is similar, since the trench there was also continuous. The same is also true for the west curtain of this palisade line. Some breaks must have been necessary to allow for easy access to the gates, the breastworks, and several structures that are thought to have existed between the inner palisade line and the earthworks during the period of time the inner palisade was standing. The east curtain is the only section of this palisade line where Demere's statement that they had "... to be a blowing Rocks out of this Hill which he is obliged to have done to make Trenches for the Pallasadoes" (R. Demere to Lyttelton, November 7, 1756, SCIA-241) may have actually applied. He may have been referring to the part of the east curtain of this palisade line that is on the slope of the hill. There was no evidence noted that any rocks were blasted in that area, but in Square N238/E248 the palisade trench made a short jog to avoid a bedrock outcrop that was in line with the trench.

The south curtain of the inner palisade line (Feature 61S) extended from N192.10/E258.00 in the Southeast Bastion a distance of 62.00 m (203.36 ft.) to N181.25/E197.25 in the Southwest Bastion, forming an angle of 94 degrees where it joined the southern end of the west curtain. This trench had been heavily disturbed in three areas. One was the area of Feature 162 (Figure 20) where it crossed the drain system near the south gate. Another was in the area of Feature 165, another WPA tree removal excavation. The third was in the vicinity of the well. At the south gate, the stratigraphic relationship of the palisade and the drain system (see Feature 159 in Chapter 6) could not be determined, but the historical documents indicate that the palisades would have been removed prior to the excavation of the drain in 1757.

The Southeast Bastion of the inner palisade was a regular one that surrounded, and in part was formed by two walls of Structure 2, the blacksmith shop (detailed in the discussion of Structure 2 in Chapter 5). A view of this bastion from the apex is shown in Figure 59 and plan of this area is shown in Figure 62. The north flank of this bastion had a length of 6.0 m (19.68 ft.), and the east face had a length of 13.00 m (42.64 ft.). The length of the west flank and the south face were 5.50 m (18.04 ft.) and 12.30 m (40.34 ft.), respectively. The gorge of the bastion, or the distance from the south end of the east curtain to the east end of the south curtain, was 3.30 m (10.82 ft.).

The west curtain of the inner palisade (Feature 96W) extended from its junction with the west end of the south curtain and ran north for a distance of 55.50 m (182.04 ft.) to N234.50/E183.75, where it joined the south flank of the northwest bastion of the inner palisade. This portion of the trench had been completely excavated by the WPA project, as well as having been cut by several perpendicular exploratory trenches of that project (Figures 27 and 28). Two fort period features were in association with this section of the inner palisade.

Feature 79, a long, narrow pit that was probably a slit trench latrine, was located near the midpoint of this palisade line along the west curtain of the outer defenses. Because the inner palisade trench had been previously excavated, the exact stratigraphic relationship of Feature 79 and the palisade trench could not be determined. It is believed, however, that Feature 79 was intrusive to the trench, particularly since the palisade line was excavated quite early in the construction of the fort and, in fact, before there was any occupation of the fort by the garrison. Feature 79 was probably excavated at some time after the palisade line had been removed and filled in. Feature 109 was a shallow refuse deposit that was located stratigraphically above the fill of the inner palisade trench, covering it for a length of about six meters (see Features 79 and 109 in Chapter 6). This feature is believed to have been a refuse deposit that was in a shallow depression along the line of the inner palisade line, or in a shallow, intentionally excavated pit. The refuse deposits within Feature 109 definitely did not extend into the defined trench of the inner palisade, indicating that the trench had been filled prior to the deposition of the materials in the overlying feature.

The Northwest Bastion of the inner palisade was also a regular one, comparable to the one in the Southeast Bastion, and surrounded the powder magazine (Structure 20). The south flank was 6.50 m (21.35 ft.) in length and the adjoining face had a length of 13.00 m (42.64 ft.). The corresponding flank and face of the opposite side of the bastion were 9.20 m (30.17 ft.) and 13.0 m (42.64 ft.) respectively (see Figure 6A). A great deal of excavation was done by the WPA project (Figures 91 and 92), as well as by later projects in the area of the powder magazine. Even though these palisade trenches had been disturbed previously they were still basically intact, excepting the fill, so that the approximate definition of the original trenches was possible.

The gorge of the bastion was 2.25 m (7.38 ft.) in width and had been extended to a length of 4.5 to 5.0 m (14.76 to 16.40 ft.) by two parallel sections of palisades that extended southeast from the ends of the north and west curtains. **Feature 122** (Figure 6) was the trench for the palisade wall that would have been on the south side of the gorge of the northwest bastion of the inner palisade line. It extended from N233.75/E184.30 where it joined the west curtain to N231.35tE187.20, or a distance of 3.70 m (12.13 ft.). Its width varied between 35 cm and 55 cm and the defined depth ranged from 25 cm to 42 cm. This trench had not been excavated previously, so that the fill, which consisted of a sterile, gravelly brown loam mottled with reddish-orange clay, was intact and undisturbed.

Feature 124 was the trench that would have held the palisades for the wall along the north side of the gorge of this bastion. It joined the inner palisade line at N236.10/E237.80 and ran southeasterly, parallel to Feature 122, for a distance of 4.30 m (14.10 ft.) to N233.60/E189.40. Its width varied between 35 cm and 45 cm and, the defined depth ranged from 42 cm to 57 cm. The fill, which was also undisturbed, consisted of a yellow-orange clay that was mottled with a grey loam. Post Molds 408 and 409 were defined in the base of the trench, and were probably impressions made by two of the palisade posts that had been originally set in this trench.

Figure 59. View of northwest of the Southeast Bastion area during excavations, showing Structures 1, 2 and 3; most of Feature 49, the gun platform remains, and the southeast bastion of the inner palisade line.

In addition to the extension of the gorge, there was also a short section of palisade trench within the bastion, connected to the east flank, which served as a baffle across part of the gorge in front of the powder magazine. **Feature 129** connected to the east flank of the bastion at N238.25/E184.75 and extended across part of the gorge to N235.50/E184.25, or a distance of 3.00 m (9.84 ft.). The width varied from 35 cm to 55 cm and it had a defined depth varying from 19 cm to 37 cm. This trench was partially disturbed by a WPA exploratory trench (Feature 140) on the northern end where it connected with the palisade line of the bastion. The undisturbed fill in the remainder of the trench consisted of a tan and brown clay mixture. Since no post molds were defined in the fill of these trench features, with the exception of the impressions in the base of Feature 124, it is assumed that the posts that were in them were removed at the same time as the rest of the inner palisade.

The north curtain of the inner palisade was not continuous across the northern part of the fort, but consisted of two segments. The western portion began at N236.25/E185.75, where it connected with the east flank of the bastion of the inner palisade east of the powder magazine. It extended eastward for a distance of 9.60 m (31.48 ft.), where it terminated at the western wall of Structure 17. That structure would have effectively served as part of the curtain for another 13.5 m (44.28 ft.). The north curtain was discontinuous from the eastern end of Structure 17, or E208, to N243.00/E221.25, an area that was composed primarily of a bedrock outcrop. There was no evidence that any effort was made to extend the palisade line across the area, quite possibly because of the bedrock.

The trench for the north curtain of this palisade line was redefined again at N245.20/E221.20 as a very shallow cut, perhaps as a remainder of the original shallow trenches that were described by Demere as needing to be redone, but which probably were not corrected. It ran northeast for 2.0 m (6.56 ft.), where it turned to the right to an easterly direction and continued in a line parallel to the north curtain of the outer works and palisade, terminating in the Northeast Bastion at N249.75/E245.20. There, it formed an approximate 90 degree angle with the northern end of the east curtain of the inner palisade. Profiles of this trench show it to have had vertical to insloping walls and a flat to slightly concave bottom. The defined depth of the trench varied from 20 cm to 35 cm, and the width from 40 cm to 45 cm. The fill consisted of a waxy red clay with some gravel and brown loam mottling, much the same as the subsoil matrix except for the mottling. It was distinguished primarily by a definite edge and the fill being slightly less compact and more mottled than the subsoil. The evidence is clear that this section was not re-excavated by the WPA project, and the fill within

this trench seems to indicate that this trench may have been filled very soon after the original excavation in 1756. This segment of the north curtain trench was cut by at least three WPA exploratory trenches, but because of the similarity of the fill to the subsoil it was probably not recognized at that time.

Between the inner palisade line and the outer palisade line and the earthworks, three additional traverses were defined that had been made of palisades. These were in addition to the several earthen traverses in the Northwest Bastion that are discussed in conjunction with the parapet in a preceding section. Two of these were comparable features in the Northwest and Southwest Bastions; the third was in the Southeast Bastion and parallel to the west face of that bastion.

Feature 136 was located in the Northwest Bastion and consisted of a cross-shaped pair of trenches (Figure 57). The traverse trench discussed here is the long trench running diagonally from near the apex of the Northwest Bastion of the inner palisade toward the apex of the Northwest Bastion of the outer works. The cross-trench that is associated with this feature has been interpreted as the rear wall of the gun platform constructed in this bastion as discussed previously. The traverse trench began 35 cm northwest of the apex of the inner palisade bastion at N243.85/E170.85 and ran for a distance of 10.35 m (33.94 ft.) to N249.00/E161.90. The width of the trench varied from 25 cm to 40 cm, and the defined depth averaged 58 cm. The fill within this trench consisted of a red-orange clay, mottled with a dark brown clay. Some ash and humus lensing was noted. As discussed in the section on the gun platform of the Northwest Bastion, the cross trench associated with the construction of the gun platform was intrusive to this traverse trench. This indicated that the traverse had been removed either prior to or at about the same time as the beginning of construction of the gun platform, a sequence that is consistent with the documentation.

Feature 175 was located in the Southwest Bastion and was similar to the traverse in the Northwest Bastion in that it constituted a diagonal traverse from the southwest corner of the inner palisade line running toward the apex of the Southwest Bastion of the outer works. This palisade trench began at N181.10/E196.75 at the corner of the inner palisade line and ran in a southwesterly direction to N174.85/E193.30, or a distance of 7.05 m (23.12 ft.). The width varied between 45 cm and 50 cm and the defined depth averaged 49 cm. The fill within the trench consisted of a grey to brown loam that had been mottled with yellow to orange clay. This trench was not defined until excavation level B had been removed from most of the area of the bastion. The stratigraphy in this area indicated that this palisade trench was originally excavated through the original humus and into the subsoil of the pre-fort surface. The palisades were probably removed from the trench at the same time as those from the other traverses and the inner palisade line, and certainly prior to the construction of the gun platform. After the removal of the palisades, the entire area of the Southwest Bastion had been filled and leveled with earth and midden, raising its surface at least 30 cm above the original surface, probably to prevent water from collecting in the southern part of this area. Post Mold 546, located near the southern end of Feature 175, postdates the trench and was in all probability one of the main supports for the gun platform.

A possible third traverse defined between the inner palisade line and the outer works was **Feature 173,** located in the Southeast Bastion, parallel to and 4.0 m (13.12 ft.) from the west face of that bastion (Figures 6 and 52). However, see the discussion of this feature in the section on the outer palisade line for an alternative explanation. It began at the outer palisade line where it intersected the trench for that line at N180.65/E241.60. It ran in a northwesterly direction for 6.80 m (23.30 ft.) to N187.15/E239.65, where it ended at Post Mold 530. The width of the trench varied between 35 cm and 45 cm, and the defined depth ranged between 12 cm and 35 cm. The fill within the trench consisted of a dark brown loam with a lighter clay mottling. Post Mold 532 was defined along the edge of this trench, but the exact stratigraphy was not determined since it was not defined until the trench had been excavated. From the apparent lack of stratigraphy at the point where this trench joined the outer palisade line, it is assumed that they were both excavated and filled at the same time. The lack of post molds in the traverse trench, in distinction to the adjoining outer palisade line where post molds were defined, seems to indicate that the posts within the traverse trench were removed at some point, probably along with the other traverses.

Northwest Bastion Traverses

In the Northwest Bastion two additional palisade trenches were located and excavated. Neither had been previously recognized or excavated. Feature 90 was along the west side of the bastion, and Feature 143 was along the north side (Figure 6). These two trenches were located symmetrically within the bastion, running generally parallel to the west and north faces of the outer works. They are not shown on the contemporary maps of the fort, and they are not specifically mentioned in the documentation. It may be that they were some of the traverses that were referred to in a letter written in June 1757: "... there has been Some few palisades Removed Since my Last to take Some out Traverses in of each Side of King George's Bastion [Northwest Bastion]to make it intirely exact to his [DeBrahm's] direction ..." (R. Demere to Lyttelton, June 26, 1757, Clements Library).

Feature 90 began at N210.60/E188.40 adjacent to the corner formed by the south flank of the Northwest Bastion and the west curtain of the outer works. It extended to N242.75/E169.25, where it made a sharp angle to the west toward the west face of the bastion, terminating at N241.90/E165.15, and having a total length of 43.50 m (142.68 ft.). It varied in width from 45 cm to 70 cm, and for the most part the defined depth varied from 90 cm to 120 cm, except the westward extension, which was shallow and ranged from 55 cm where it joined the main line, to 5 cm at its western terminus. The walls of the trench were vertical to slightly insloping and the bottom of the trench was flat to concave. Fill within this feature consisted of an orange-red clay, mottled variously with small pieces of limestone, brown sandy clay, and some yellow clay. Several distinct zones of fill were noted in the profiles of this trench, indicating that the filling of the feature took place in several different episodes. The lower levels of fill are possibly fill from when the palisades were originally set, and the upper levels are probably fill thrown in or replaced after the palisades were removed. Most of the fill was relatively free of any historic artifactual materials.

This feature formed the east wall of Structure 18 and perhaps others along this western side of the bastion, such as Structures 8 and 11. The northeast corner of Structure 9 was definitely intrusive to the fill of Feature 90, indicating that this trench had probably been excavated and filled early in the occupation, and prior to the construction of Structure 9.

Feature 143, on the north side of the Northwest Bastion was the companion trench for Feature 90 located on the west side of the bastion. It ran nearly parallel to the north face of that bastion at a distance that varied from 6.5 m (21.32 ft.) at the eastern end to 4.0 m (13.12 ft.) at the western end. This trench began at N243.25/E198.15 and ran in a westerly direction from that point 27.40 m (89.87 ft.) to N245/E170.75, where it made a turn to the north and continued toward the north face of the bastion. This short section ran for 3.4 m (11.15 ft.), ending at N248.90/E169.45. The main section of this trench varied in width from 30 cm to 60 cm and had a defined depth of 52 cm to 59 cm. As the case with Feature 90, the angled portion of this trench was deeper where it joined the main section (30 cm) and sloped upward toward the end, where it had a defined depth of 16 cm.

This feature formed the south wall of Structure 21, in a manner similar to the way Feature 90 formed the east wall of Structure 18. Although the evidence is not so clear as with Feature 90, it can probably be assumed that the palisades placed in this trench were removed and the trench refilled. Several WPA exploratory trenches cut across this feature, but it was apparently not recognized, and remained intact prior to the latest excavations.

Innermost Palisade Line

This system of palisades was the innermost of the two palisade lines that were erected early in the occupation of the fort within the outer works, and which formed main part of the early defensive works. This line, along with the inner palisade line, was erected prior to the completion of the outer earthworks and the construction of the outer palisade line. Although Demere described these palisades as being located 12 feet within the line of the inner palisade (R. Demere to Lyttelton, November 7, 1756, SCIA:241), as defined archaeologically they were actually located somewhat farther in. The east wall of the innermost palisade was 6.50 m (21.32 ft.) from the inner palisade, and the south and west walls were 8.50 m (27.88 ft.) from the inner palisade. Their height is not given except that they were a "great Deal higher" than the Inner Palisade line.

Since the palisades for that line were specified to have been seven to eight feet, they would have been somewhat longer than that. These palisades were probably taken down at the same time as the Inner Palisade posts.

This palisade line as it was defined archaeologically consisted of four palisade trenches forming the east (Feature 148), south (Feature 158), west (Feature 88), and part of the northern (Features 123 and 133) sides of a more or less rectangular area. The remainder of the north line was bounded by the steep slope of the ridge (Figure 6). The overall area encompassed by these lines was 47.50 m (155.80 ft.) east-west by 38.50 m (126.28 ft.) north-south, or an area of approximately 1828 sq. m (19,674 sq. ft.).

Feature 148, the east line, began at a point at the base of the slope at N216.55/E244.65 and ran in a southerly direction for 15.40 m (50.51 ft.), terminating at N201.70/E248.75. It varied in width from 40 cm to 55 cm, and had a depth that ranged from 94 cm at the northern end to 55 cm at the opposite end. In section it had a slightly curved bottom and relatively straight side walls that sloped outward toward the top. The fill of this feature consisted of a dark brown loam and a yellow clay. Generally, the yellow clay tended to be along the sides of the trench and the loam in the center of the fill. The yellow clay is believed to have been the original fill put into the trench to hold the palisades in place, and the dark loam the fill that was put in the remaining trench after the posts were removed. The southern three meters of this trench were covered with a layer of orange clay that had been spread over the southeastern portion of the parade ground area. Stratigraphically, the palisade trench was below the clay fill; the southern three meters of the palisade line could not be defined until that layer of clay was removed. There were no post molds defined in the fill of the trench, but this is consistent with the palisades having been previously removed. This refilled section of the palisade trench had been intruded into by a series of post molds that defined the west wall of Structure 6 (Figures 6 and 71), definitely establishing the chronological relationship between that structure and the palisade line. It is clear from the evidence that the structure was constructed sometime after the palisades had been removed, and the trench filled in.

Feature 158, which was the south wall of this palisade line, began at N199.15/E247.10 and ran westward for 27.05 m (88.72 ft.), terminating at N194.40/E220.25. The width of the trench was 30 cm to 50 cm, with a depth that varied from 38 cm to 60 cm. The trench had a flat to slightly concave bottom and straight or slightly outsloping sidewalls. The fill consisted variously of a dark brown loam with large quantities of prehistoric materials in the area where this trench was cut through the deposits of the prehistoric midden that were present in this part of the fort, and of a dark loam that was mottled with a red and yellow clay. In the western portion of the trench where it was dug into the subsoil rather than midden, a profile section similar to that for Feature 148 was noted. Here again, the lighter clay subsoil that was put into the trench to hold the palisades in place was concentrated along the edges of the trench, while the center of the trench fill was of a darker loam. This suggests a similar post removal and filling as that noted for Feature 148. Again, no post molds were defined in either the fill or the base of this trench.

Feature 158 had been cut by the northern part of the drain (Feature 159), and post molds from the wall of Structure 15 were intrusive to the trench fill (Figures 36 and 85). This more or less duplicates the sequence of events that took place along Feature 148, or the eastern wall of this palisade line. A couple of WPA exploratory trenches crossed this feature, with very little disturbance. Also, like the southern end of Feature 148, the eastern end of Feature 158 had been capped with the same layer of reddish clay that had been spread over the southeastern corner of the parade ground and adjacent areas. The trench was not defined until this clay layer was removed, clearly demonstrating the stratigraphic relationship of the two, and the fact that Feature 158 had been filled prior to the deposition of that clay layer.

Feature 88 was the western wall of this palisade trench system. It began at N193.00/E203.00 and ran in a northerly direction for 34.30 m (112.50 ft.) to N226.50/E194.60. The width of this trench varied from 25 cm to 50 cm, and the defined depth ranged from 12 cm at its northern end to 45 cm at the southern end, but generally varied between 35 cm to 50 cm. The base of the trench was flat and the side walls were straight, slanting outward slightly at the top. The fill varied along the length of the trench ranging from a dark brown loam mottled with orange clay, to a red-orange clay fill with some gravel and dark loam mottling.

This trench was stratigraphically below several other fort period features. Feature 83 in Square N240/E198 was a shallow depression that had been filled with fort period trash after the palisade was removed from the trench and the trench filled in. A stone chimney base, located west of the Barracks (Figure 6) had been built directly over the filled palisade trench. The layer of brown loam and rubble that was used to cap

the fill of Structure 10 (see Figure 77) also covered Feature 88 on the eastern side of the structure. This capping of both the structure and the palisade trench seems to suggest that Structure 10, and probably also Structure 7, and the inner palisade line may have been removed and covered at about the same time.

Disturbances noted along this trench included several narrow WPA trenches, which caused minimal damage. The Kunkel investigations defined two short sections of this palisade trench and designated them Features 67 and 68 (Kunkel N.D.:27), but did not excavate the trench fill.

Just to the east of the northern end of Feature 88, two short trenches were defined that ran in an east-west direction. These trenches are believed to have been the northern limits of the innermost palisade enclosure, and represented only a short segment of a palisade line forming the northwest corner of the enclosure. **Feature 123** was a section of wall trench with a length of 4.5 m (14.76 ft.), extending from N229.10/E195.40 to N229.30/199.80. It had a width of 45 cm and a defined depth that varied from 9 cm to 21 cm. The side walls were straight, sloping inward toward the base, which was slightly concave. The fill consisted of a red clay deposit, mixed with some charcoal, faunal materials, and Cherokee sherds, and several other historic artifacts (Table 1). This trench was cut by Feature 133, which was probably a trench resulting from a rebuilding of this section of the palisade line.

Feature 133 was another short section of trench that had a length of 3.5 m (11.48 ft.), extending from N229.05/E194.45 to N230.00/E197.80. The defined depth ranged from 41 cm at the western end to 56 cm at the eastern end. The width varied between 25 cm to 50 cm. The sidewalls were straight and the bottom was slightly concave. The fill in the western half of the trench consisted of a dark loam with charcoal and a high concentration of faunal materials and other historic artifacts. The eastern half of the trench also had a dark loam fill with cobbles throughout, but was nearly devoid of any artifactual materials. This end of the trench had been capped with a layer of orange clay sometime after the removal of the palisades and the filling of the trench. Feature 133 was intrusive to Feature 123 and probably represents a rebuilding or realignment of this section of palisade line. Its depth is much more consistent with the depth of the other trenches that comprise this system of defenses. It is also possible, that Feature 123 was simply not completely excavated and that Feature 133 was excavated instead to hold this short section of palisade.

There were two trench features defined and excavated that are thought to have been traverse trenches associated with the innermost palisade line. It is quite possible that these are also some of the traverses that Raymond Demere referred to in the correspondence that is quoted in the beginning section on the interior palisades. **Feature 160** was a shallow palisade trench running east-west and located near the southern end of Feature 88 (Figure 6). It had an overall length of 5.45 m (17.87 ft.), beginning at N191.70/E199.70, and extending eastward to N192.65/E205.10. The width varied from 25 cm to 35 cm and the defined depth ranged from 11 cm to 13 cm. The side walls were vertical and the bottom was flat. No post molds were defined in the base of the trench or the trench fill, which consisted of a dark brown loam mottled with red clay and some charcoal. Artifacts in the fill (Table 1) included faunal remains, historic artifacts, and some prehistoric materials, with most of them recovered from the easternmost one meter of the trench.

Feature 168 was another palisade trench that has been interpreted as a traverse associated with the innermost palisade line. It ran south from Feature 158, the south curtain of the Innermost Palisade, from E243.50, where it joined Feature 158 at N190.80/E243.50, or a distance of 7.4 m (24.27 ft.). It terminated approximately 1.0 m north of the south curtain of the inner palisade line (Feature 61S). The width of this trench varied from a maximum of 37 cm to a minimum of 20 cm. The depth ranged from 8 cm to 24 cm. The trench was irregular and segmented at the southern end. The side walls were vertical and the bottom of the trench was flat. Fill consisted of a brown sandy loam, with daub and charcoal intermixed. The fill also contained some faunal materials, as well as historic and prehistoric artifacts. Post Molds 513 and 516 were defined near the northern end of this feature where it joined Feature 158, and Post Mold 514 was recorded along the west side of this trench at N223.30. Several shallow depressions about 2 cm in depth and varying in diameter from 10 cm to 20 cm in the base of the trench were probably post impressions from the palisades.

Table 1. Defensive Works Artifact Summary

PROV.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	9	30	31	32	33	34	35	36	TOT.
Ditch																																					
Ditch	43	180	1	24		2	1	14		1		27	1	1	4								1			3					2		315	542	100	4515	5777
F. 3	1	1153	4	9			3	12				2					1			2		1	1			3	1					212			5	1410
F. 14																																		126	2	122	250
F. 42		55		2				1				18			2																		27	296	23	182	606
F. 128		`																																			0
F. 185	2	26		2				18				2	2		1					1			1						4				1257	4	2	13	1335
F. 187		11		5			1	13				5								4				1			1						376	8	3	3	431
F. 188																																	18	11	1	33	63
F. 189																																		76		104	180
TOTAL	**46**	**1425**	**5**	**42**		**2**	**5**	**58**		**1**		**54**	**3**	**1**	**7**		**1**			**7**		**1**	**3**	**1**		**6**	**2**		**4**		**2**		**2205**	**1063**	**131**	**4977**	**10052**
PARAPETS																																					
E.	5	274	3	4		1		112	1	3	1	247		1	8					2		3	3	1	2	1	2	1	2		1		1053	2297	92	5295	9415
S.	2	11	2	2		1		6				3	2		10								1				1		1				70	907	93	2141	3253
W.																																				1	1
TOTAL	**7**	**285**	**5**	**6**		**2**		**118**	**1**	**3**		**250**	**2**	**1**	**18**					**2**		**3**	**4**	**1**	**2**	**1**	**3**	**1**	**3**		**1**		**1123**	**3204**	**185**	**7437**	**12669**
BASTIONS																																					
F. 129								1																													1
F. 136																																					0
F. 173																																	14				14
F. 175																																	53	4	1	3	61
TOTAL	**4**	**69**	**20**	**5**			**2**	**66**		**1**		**44**			**1**		**1**			**1**		**5**							**4**				**488**	**91**	**17**	**108**	**927**
N.W. BASTIAN TRAVERSES																																					
F. 90		2						3															1					1					21				28
F. 142		8						9																						1			8				26
TOTAL		**10**						**12**															**1**					**1**		**1**			**29**				**54**
INNERMOST PALISADE																																					
F. 88		49		3				2		1																			1			972		1	3	1032

Table 1. Defensive Works Artifact Summary

PROV.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	9	30	31	32	33	34	35	36	TOT.
PM. 321																																					0
F. 123		46	6	2				3		1		1	1		1								2										139			1	203
F. 133		9	1					2																					3				589			3	607
RAVELINS																																					
Squares	2	5		1																													8	29		81	126
F. 25								1						2																			31				34
TOTAL	**2**	**5**		**1**				**1**						**2**																			**39**	**29**		**81**	**160**
FT. GLEN																																					
Squares	3	7				1	1	1				1			2											1								5	291	18	1124	1455
F. 12																																		4		5	9
F. 213																																					0
TOTAL	**3**	**7**				**1**	**1**	**1**				**1**			**2**											**1**								**5**	**295**	**18**	**1129**	**1464**
OUTER PALISADE																																					
F. 134		3																															3				6
F. 49								10				137														1							370	143	8	241	910
PM. 6												1																					9	8		14	32
PM. 7																																	8	1	1	3	13
PM. 116																																		6	1	16	23
PM. 546																																					0
F. 136																																					0
PM. 272																																		4	1	5	10
PM. 388																																					0
PM. 389																																					0
PM. 428																																					0
TOTAL		**3**						**10**				**138**														**1**							**390**	**162**	**11**	**279**	**994**
INNER PALISADE																																					
F. 61																																	148				148

Table 1. Defensive Works Artifact Summary

PROV.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	9	30	31	32	33	34	35	36	TOT.
F. 61E	3	15	1	3				20				30			1		1					3								3				73	14	61	228
F. 61S		4		1				7				6										2												14		34	68
F. 96N	1	41	19	1			1	22		1		8								1										1			225		1	4	326
F. 96W		9					1	16																									32		1	6	65
F. 122																																					0
F. 124																																	16				16
PM. 408																																					0
PM. 409																																					0
F. 148		5		10	1			23				2			1											1			4				76	140	16	191	470
F. 158	2	7		5				32				39	2		2							1				1			2				128	916	76	922	2135
F. 160																																	1				1
F. 168				3				1																			1			1			50	42	7	73	178
PM. 513						1																												1			2
PM. 514																																					0
PM. 516																																					0
TOTAL	**6**	**81**	**20**	**23**	**1**	**1**	**2**	**121**		**1**		**85**	**2**		**4**		**1**			**1**		**6**				**2**	**1**		**6**	**5**			**676**	**1186**	**115**	**1291**	**3637**

Notes: Column headings are as follows: 1=English and Chinese Ceramics; 2=Overhill Cherokee Ceramics; 3=Qualla Ceramics; 4=Glass; 5=Kitchen and Eating Utensils; 6=Clasp Knives; 7=Nails; 8=Strap Hinges; 9=Building and Furniture Hardware; 10=Braces and Strapping; 11=Raw Materials and Manufacturing Debris; 12=Gunflints; 13 = Gunparts; 14 = Musket Balls and Shot; 15 = Accoutrements; 16 = Ordnance; 17 = Tools; 18 = Measuring Instruments; 19 = Buckles; 20 = Buttons; 21 = Sewing and Tailoring Items; 22 = ; 23 = ; 24 = Personal Adornment; 25 = Grooming Items; 26 = White Clay Pipes; 27 = Stone Pipes; 28 = Equestrian Items; 29 = Animal Bones; 30 = Prehistoric Ceramics; 31 = Lithic Artifacts; Lithic Waste; TOT = Totals

CHAPTER 5

STRUCTURAL REMAINS

The 24 complete, partial, and probable structures, as well as the main barracks building, that were located and defined at Fort Loudoun are discussed in this chapter. The archaeological structural remains represented buildings that were built during different phases of the occupation and ones that were constructed for differing functions. The available documentary evidence relating to those structures, both in particular and in general, has been used throughout this section in an attempt to place the several buildings within a temporal and functional context. Using the historical documentation in conjunction with the archaeological information, allows for a somewhat more specific interpretation and chronological ordering of many of the structures, than one which would have been possible from the archaeological data alone. Conversely, the archaeological information provides many additional details of the structural remains that are not in the historical documentation.

This chapter consists of two parts. The first part presents a description of the archaeological remains that were recovered by the 1975-1976 excavations. It also contains information on some of the structures that was derived from earlier excavations and not recoverable by the 1975-1976 excavations. Also presented in this section are the descriptions of various features that were recorded and excavated which are thought to have been directly associated with those structures. The artifact contents of those features are summarized in Table 5 and in Chapter 6 (Table 105), where those features, as well as the other features excavated at the fort, are discussed in detail by feature type. The second part of this chapter summarizes the archaeological and historical documentation, and makes an effort to place the various structures within a temporal and functional context within the occupation of the fort. Additionally, the several different types of building construction that are represented by the available information are discussed, including possible reconstructions based on the archaeological information, comparable archaeological data from other sites, and information from architectural sources illustrating structures of the same period.

Table 2 presents a summary of the information on the post molds that were considered to be part of, or related to, various structures. Table 3 summarizes the dimensional information on the Barracks chimney bases. Table 4 presents a summary of the dimensional aspects of the various buildings. Table 5 summarizes the artifacts that were in association with the structures, and in most cases, the areas that were immediately adjacent to the structures. Appendix 7 provides a list of the squares from which the artifact counts were compiled .

Structure Descriptions

The following section presents the descriptions of the archaeological remains of the structures and barracks that were defined in whole or in part at Fort Loudoun. The several Cherokee structures that were situated outside the fort in the village of Tuskegee are the subject of a portion of Chapter 7. The structures are discussed by numerical order, as they were numbered in the field. Morphological descriptions are provided for the remains, as well as the dimensional data and associated features. Summary sections of this chapter attempt to synthesize the architectural and functional types that are represented.

Structure 1

Structure 1 was located in the Southeast Bastion, parallel to the east wall of that bastion, and between that wall and the east face of the inner palisade bastion (Figures 60 and 6A). It was situated 3.4 m south of Structure 5, and was defined archaeologically as a series of more or less regularly spaced post molds that outlined the outside walls of this building. The overall length of the building was 9.50 m (32.8 ft.) and the width was 3.0 m (9.8 ft.). Wall posts, in the three instances where they were defined, were round poles with diameters ranging from 15 cm to 20 cm (5.9 in. to 7.8 in.) that had been set in rectangular post holes. It is possible to interpret this structure as a four-bay structure, with the bays delineated by the following pairs of post molds: 168 and 18, 29 and 16, and 26 and 223. Whether or not the building was designed to have regular bays, it is clear from a examination of the post mold pattern in Figure 60 that there was an effort to set the posts of the east and west walls in a reasonably symmetrical pattern consistent with this type of building construction. Post Molds 220 and 63 may be support posts for an interior partition.

The irregular spacing of some of the posts along the east and west walls was probably done to facilitate framing for doors and windows. **Feature 43,** located along the west wall between Post Molds 168 and 32, was a timber mold with a width of 25 cm that was probably the remains of a sill for a door on that side of the structure. A narrow spacing between Post Molds 23 and 24 may also indicate that a similar doorway was located in the same wall in the northern portion of the building. Widths of these openings were 110 cm and 80 cm respectively. On the floor of the structure, near the center of the building, was a fired clay area and a line of burned limestone rocks in place within the burned area. This was defined as **Feature 71,** and constituted the remains of an open hearth located on the floor within the structure. The area of fired clay was roughly oval with maximum dimensions of 100 cm by 80 cm It was located along the central axis of the structure, slightly north of the middle of the building.

Instead of being considered as one large building, an alternate interpretation of the remains is that it may have consisted of two smaller structures (Garry Stone, personal communication, November 26, 1979). The northern structure would have been defined by Post Molds 31, 26, 223, and 2 with overall dimensions of 4.25 m (13.94 ft.) north-south by 3.0 m (9.84 ft.) east-west. The southern building would have been defined at the corners by Post Molds 11, 29, 16, and 4 and would have had dimensions of 4.39 m (14.43 ft.) north-south and 3.0 m (9.80 ft.) east-west. Each building would have been accessed by the doorways mentioned above. The dotted lines on Figure 60 indicate the alternate outlines for the possibility of two structures.

Feature 45, located at the southern end of this structure and consisting of a large rectangular pit, that probably was a root cellar in the floor of this structure. It had a maximum length of 220 cm, and a width of 130 cm (7.22 ft. and 4.26 ft.). The maximum defined depth was 76 cm. The side walls were relatively straight, slanting inward slightly near the base. The bottom of the pit was flat. The artifact contents of this feature are presented in Tables 5 and 105. The internal stratigraphy of Feature 45 is shown in Figure 61. The several layers of fill within the feature are detailed as the following:

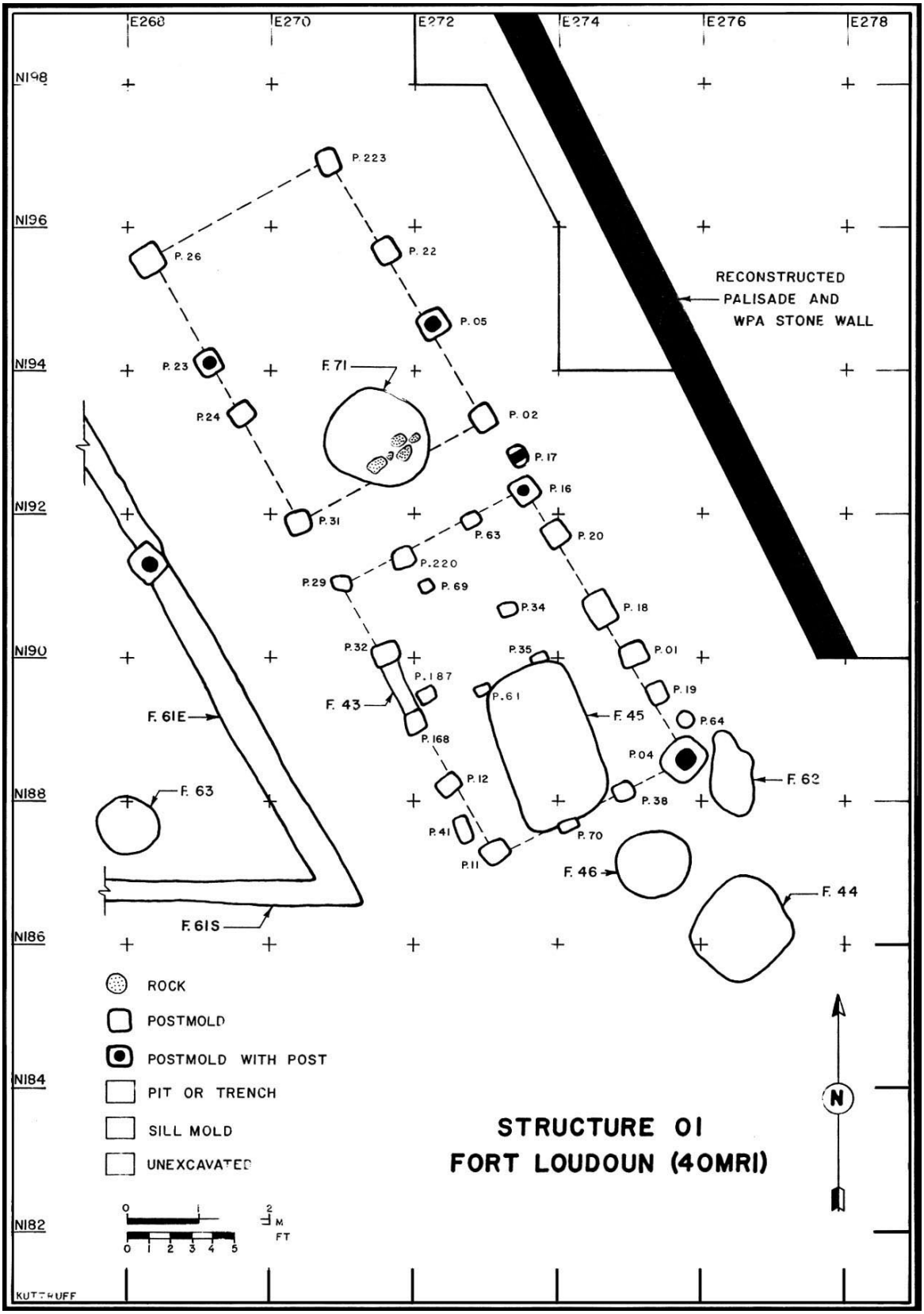

Figure 60. Plan of Structure 1. The dashed lines indicate an alternative interpretation of two structures instead of one.

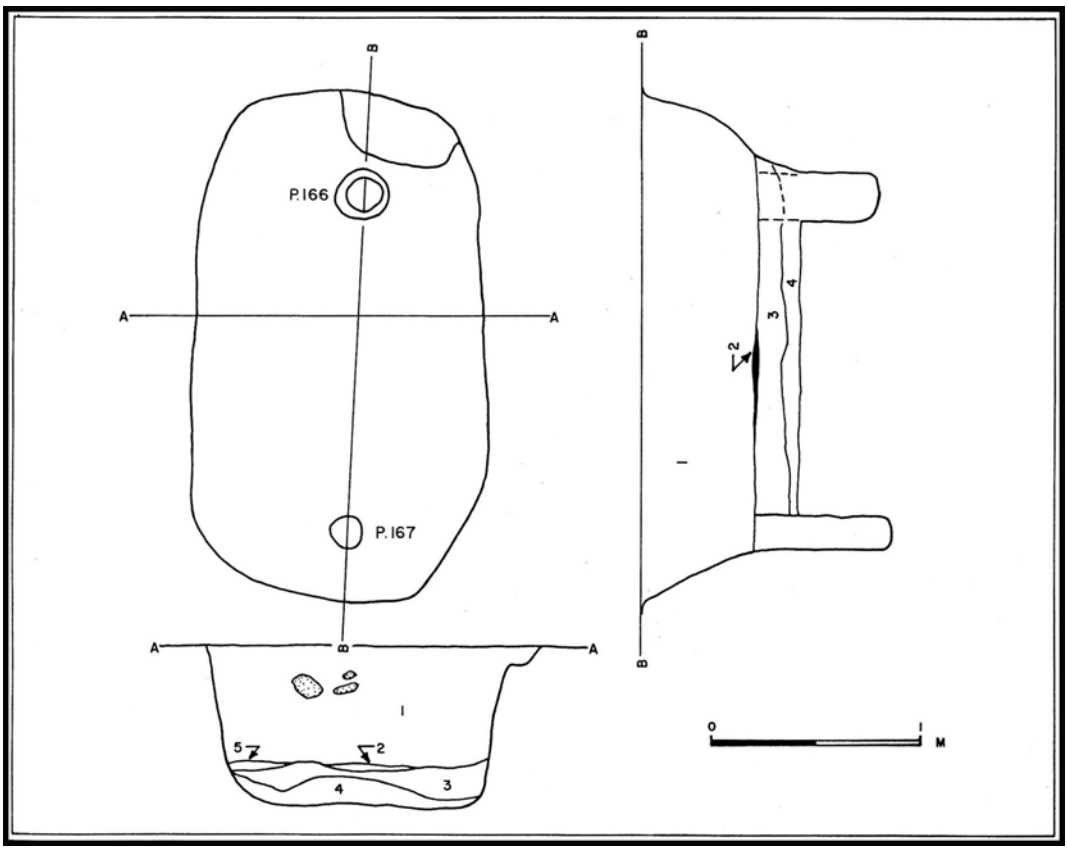

Figure 61. Plan and profiles of Feature 45 in Structure 1. The stratigraphic zones are detailed in the text.

Zone 1. Brown loam mottled with charcoal and containing a heavy concentration of limestone and slag.

Zone 2. Ash lens with some red clay mottling. The area immediately under the ash was fired, indicating an *in situ* fire concentrated near the center of the feature.

Zone 3. Black loam with yellow clay mottling and some charcoal. The lens varied in thickness from 4 cm to 15 cm. Post Mold 167 was defined at the top of Zone 3.

Zone 4. Brown clay with yellow and black mottling. Post Mold 166 was defined at the base of Zone 4, but pockets of sand above the post mold indicated that it probably originated at the top of Zone 3 like Post Mold 167.

Zone 5. This was a small pocket of sterile yellow clay mottled with brown loam along the west sidewall of the feature.

Post Molds 38 and 70 were located on the south side of this pit, and Post Molds 35 and 61 were in a corresponding location on the northern edge of this feature (Figure 60). They were all shallow, with defined depths of less than 22 cm. The posts on the southern edge of the feature were most probably part of the south wall of the building. It is possible, though, that these four posts were related to some type of structure that would have covered this feature at floor level. This may have consisted of a couple of timbers that spanned the length of the feature, which may have been covered with boards to provide a floored area across the top of the pit.

The location of this feature within Structure 1 and the stratigraphy of the pit are interpreted as follows. This feature was excavated as a root cellar within the floor of Structure 1, and covered with a framework of boards to provide flooring across that area of the structure. After some period of time, possibly during the occupation of Structure 1 or after it was taken down, Zone 4 accumulated in the base of the feature. After the accumulation of this zone of fill, the remaining feature appeared to have been converted and utilized as a sweat house or hot house. This is surmised by the presence of a post mold at either end of the pit and the presence of a hearth (Zone 2) near the center of the feature on the top of Zone 3. It bears a striking resemblance to Features 352 and 358 that are associated with the Cherokee occupations to the south of the fort, and several at other Cherokee sites in the valley that have been interpreted as sweat houses or hot houses (see Figures 115 and 116 in Chapter 7; Polhemus 1973:139-141, Figure 7; Russ and Chapman 1983:Figure 25; Baden 1983:Figure 4.21). Subsequent to this utilization, the pit was filled primarily with limestone and slag, the latter in particular indicating that it may have been a convenient hole in which to dispose of refuse from the blacksmith shop, which was just to the west. The possibility therefore, is that some of the garrison were adapting the Cherokee sweat house during the (early?) occupation of the fort.

Immediately to the south of this structure were three historic pit features, Features 44, 46, and 62, which may have been associated with the occupation of this building. The description of these features is presented in Chapter 6, and the artifact contents are summarized in Tables 5, 14, 16, 22, and 105.

The placement of this building and its width was such that there was adequate passage between the building and the outer palisade line, and also between the structure and the blacksmith shop. The 3.0 m width of this structure was somewhat less than that of the other similar post structures that were defined at the fort, which varied from 3.70 m (12.13 ft.) to 4.20 m (13.77 ft.). Structure 3, located on the south side of this bastion, however, had a width of 4.20 m, which was the larger of the range mentioned above.

Structure 1 is believed to have been one of the structures that was erected early in the construction of the fort as a temporary barracks or quarters for the enlisted men (see discussion below). Although Demere was probably referring to several other smaller buildings, it is possible that Structure 1 is one of the buildings that he referred to as one of "... the out of the Way Hutts..." that were torn down before mid-October 1757 (P. Demere to Lyttelton, October 11, 1757, Clements Library). The archaeological evidence also seems to indicate that it was removed sometime prior to the end of occupation, and possibly as early as the date referred to above. This interpretation is based primarily on the distribution of slag in this part of the Southeast Bastion. This is fully discussed in the section on slag in Chapter 8, but in summary, large quantities of slag, refuse from the blacksmith shop, were distributed over the area of Structure 1. Additionally, Feature 45 was filled in part with some 1976 pieces of slag. Had the structure been standing, the distribution of the slag would not have covered the floor area of this building or filled its root cellar/hot house. The southern end of Structure 5, located north of Structure 1, and which structure is believed to have stood throughout the occupation, appeared to have defined the northern limits of the slag distribution, a situation that would not have been expected had that also been an open area. Additionally, several of the post molds of Structure 1 contained slag, which may also indicate its removal at some time prior to the end of the occupation.

Structure 2

Structure 2 was a five-sided building that was located within and formed part of the southeast bastion of the inner palisade line (Figures 6A, 62, and 63). The documentary evidence discussed in Chapter 1 and the last part of this chapter clearly indicates that this structure was the blacksmith shop for the fort. The archaeological evidence for this structure consisted of ten large rectangular postholes which defined three sides of the structure, and two sill molds 30 cm (12 in.) wide which defined the remaining two sides. Remnants of burned posts were present in eight of the rectangular postholes, indicating that this structure had been burned, probably after the surrender of the fort. These posts were either squared, partially squared, or round with diameters of about 15 cm (6 in.). After the posts were set in the postholes, the holes were then filled with red clay that had to have been brought over from the area of the slope. In several cases, stones had been rammed into the holes adjacent to the posts to provide additional support. The extra effort that appears to have been made in setting these posts seems to indicate the construction of a building intended to be a much more permanent one than was the case with several of the other post-type structures.

On the basis of the archaeological evidence, the structure was determined to have had an overall length of 10.20 m (33.45 ft.) and a width of 5.30 m (17.38 ft.). The rectangular part of the building that was formed by the post mold pattern was 5.30 m (17.38 ft.) by 5.20 m (17.05 ft.) or approximately square

consisting of a three-bay structure with bays of approximately 1.70 m (5.56 ft.). The posts can be assumed to have formed the vertical framework for this structure, which was then probably covered with horizontal siding. The sill molds indicate that the remaining two walls of this building were probably constructed of squared logs that had been laid horizontally, and probably notched together at the apex. These two walls of horizontal timbers formed the apex of the inner palisade bastion in which this building was located. The inner palisade line trench stops where it intersects the structure. The vertical logs of the palisade line would have abutted the two corners of this structure where the construction changed from frame to horizontal log construction.

There was no stonework found within this structure to indicate the presence of a stone forge as the documents suggest (DeBrahm, Directions for the Fortifications, October 8, 1756, Clements Library). A rectangular pit near the center of this structure, **Feature 54,** is, however, interpreted as the location of the forge. This feature has a length of 130 cm and a width of 65 cm to 76 cm. The side walls were vertical, the base was flat, and it had a maximum defined depth of 29 cm. On the floor of the pit were the stains and remnants of a wooden plank (possibly cedar), which had a width of 20 cm and a thickness that varied upwards to 4 cm (Figure 64). The fill of the pit consisted of a dark loam with abundant wood charcoal, daub, and particles of yellow clay. The south end of this feature was intrusive to Feature 55, a prehistoric pit dating to the Woodland Period. This rectangular feature is interpreted as a clean-out pit that was located immediately below the forge. It is similar in configuration to one defined at Fort Ligonier that functioned as an ash receptacle and clean-out underneath a small forge (Grimm 1970:25, Figure 19-7; Stotz 1974:85, Figure 55).

Feature 63 was an historic pit that was located within Structure 2 near the apex of that building. It was oval with dimensions of 85 cm by 67 cm, and was bowl or basin-shaped in section, with a maximum defined depth of 21 cm. The fill consisted of a dark loam with some yellow clay mottling.

One additional historic feature was defined in association with Structure 2. **Feature 74** consisted of a vertical-walled, flat-bottomed trench that extended from the north corner post, Post Mold 215, to the north flank of the bastion of the inner palisade. It varied between 35 cm and 37 cm in width and had a defined depth of 26 cm. The length of the feature was 1.72 m. The fill consisted of a black loam that was mottled with yellow and red clay. Large quantities of charcoal were throughout the fill, but were concentrated on the western side of the trench. The function of this trench is uncertain, except that it probably supported a vertical post or board wall that ran from Structure 2 to the inner palisade. The charcoal concentration indicates that the uprights were along the west side of the trench with earth fill packed in along the east side of the trench to hold them in place. It may have been some sort of addition to Structure 2, or a traverse or baffle associated with the inner palisade. The charcoal concentration does seem to suggest that the uprights of this feature probably burned at the same time as Structure 2.

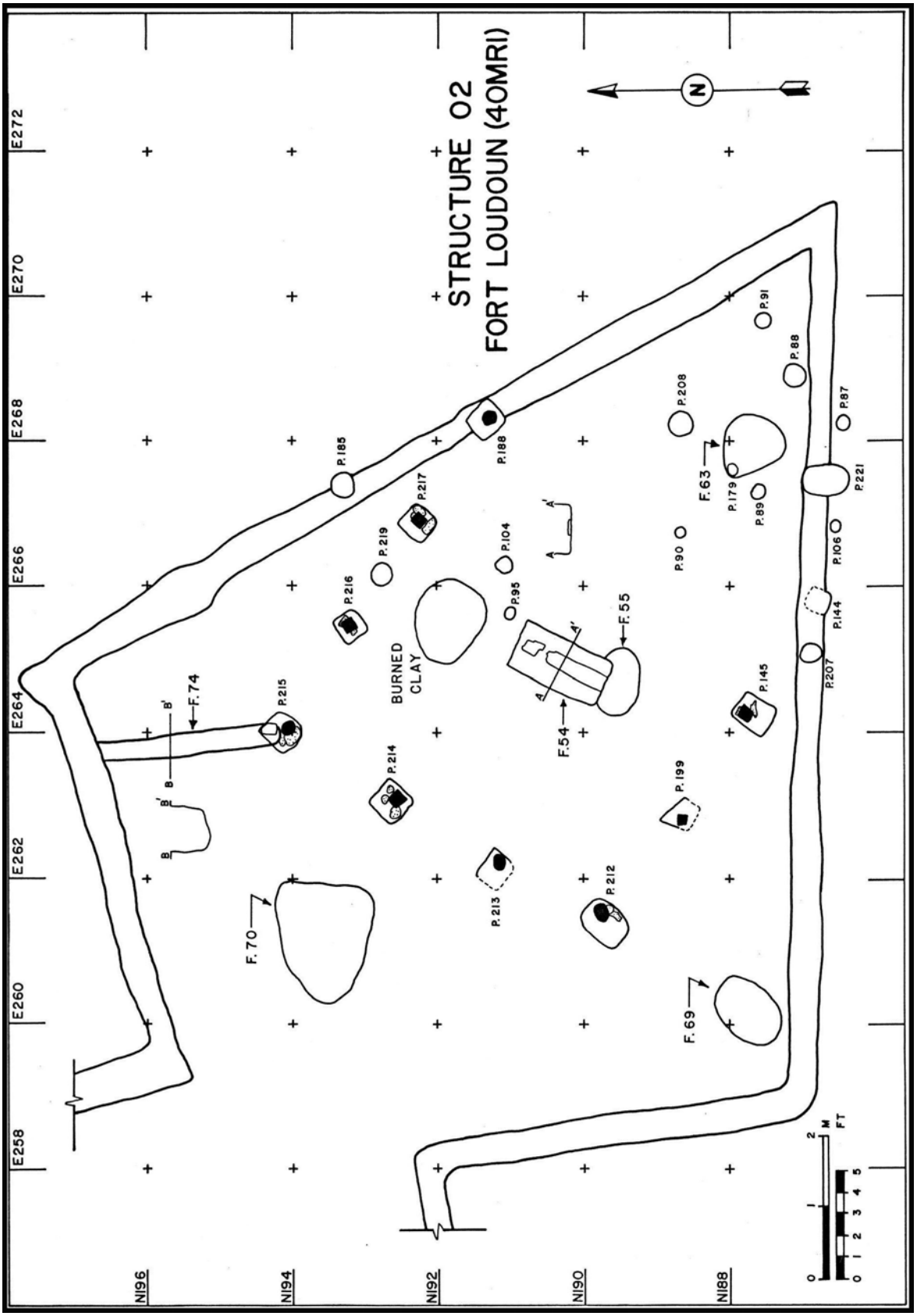

Figure 62. Plan of Structure 2 and the southeast bastion of the inner palisade line.

Figure 63. View to the southeast of the Southeast Bastion showing the southeast bastion of the inner palisade line and Structure 2 located within that bastion.

Figure 64. View to the southwest of Features 54 and 55. Feature 55 is the rectangular pit that served as a clean-out for the forge in Structure 2. Feature 54 is a bowl-shaped Woodland period pit that was cut by Feature 55.

Structure 3

Structure 3 (Figures 6A, 65, and 66) was located between the parapet of the south wall of the Southeast Bastion and the south face of the southwest bastion of the inner palisade. This structure was defined by a continuous wall trench around an area 5.30 m (17.38 ft.) east-west and 4.20 m (13.77 ft.) north-south. The wall trench varied in width from 20 cm to 30 cm, and had vertical side walls and a flat bottom. Large posts had been set in this trench in the four corners and at the centerpoints of the east and west walls. Several smaller posts were recorded in the bases of the wall trenches, particularly the southern part of the east wall. Two small square posts, Post Molds 134 and 136, were along the outside of the east wall trench, and Post Mold 138 was adjacent to the center of the south wall trench. Their function is unknown, but they may have supplied some additional support to those walls. On the interior of the structure there were four round post molds. These are believed to have been associated with the prior prehistoric occupations and to have had no structural significance within this building.

The south wall of this structure cut through Feature 66, a Mississippian period pit feature. Within the interior of this structure was Feature 58, an oval concave based pit that had been filled with historic refuse. This area had been previously disturbed by a narrow WPA trench that extended diagonally across the remains of this building, intersecting the north and south walls of the structure and Features 58 and 66. This trench (unexcavated) is shown on Figure 65 and shows clearly in Figure 66. An eastward extension of this WPA trench followed the south wall to the southeast corner and extended beyond that corner for a distance of about 50 cm (Figure 66). One of the test squares of Kunkel's 1959 excavations cut into the east edge of the east wall trench. But, with the exception of the eastern edge of Feature 66, those disturbances did not affect the accurate definition of the shape of the structure or that feature.

The style of architecture that is represented by the remains of this structure appears to be quite similar to that which is more commonly associated with the French during this part of the eighteenth century. The larger vertical timbers that were at the four corners of the structure and at the center points of the short walls, as well as the wall trenches, are similar in many respects to several French structures that have been excavated in the Mississippi River valley. There are two construction types to which this structure can be compared. One is the *de piece sur piece* type of construction that is characterized by a framework of widely spaced vertical posts with channels or grooves in the sides. In this type of construction the spaces between the posts are filled with hewn planks or logs that were shaped on the ends to fit into the grooves of the uprights (Peterson 1965:37; I. Brown N.D.b:18). Often these horizontal members were then pegged or pinned together. The other possible construction type is that known as *pieux en terre*, which consists of walls that were built by setting closely spaced, unhewn round posts into a wall trench. These walls were then plastered with mud. This construction is a cruder version of the heavier and better constructed *poteaux en terre* (I. Brown N.D.b:26-27; Kniffen and Glassie 1966; Richardson 1973).

Ian Brown has identified two structures at Fort St. Pierre, located north of Vicksburg, Mississippi, as having been *piece sur piece* and/or a combination of *piece sur piece* and *poteaux en terre* (I. Brown N.D.b:17-32, Figures 16 and 18). Brown has also reinterpreted several structures at the Bayou Goula site in Louisiana as having been *piece sur piece* construction (I. Brown N.D.a:6-11; Quimby 1957:107-110, Figure 34). Similar construction methods have been noted for the French period structures at Fort Michilimackinac (Maxwell and Binford 1961; Stone 1974:332-340), at St. Genevieve, Missouri (Franzwa 1967:98-153), and other places that were occupied by the French.

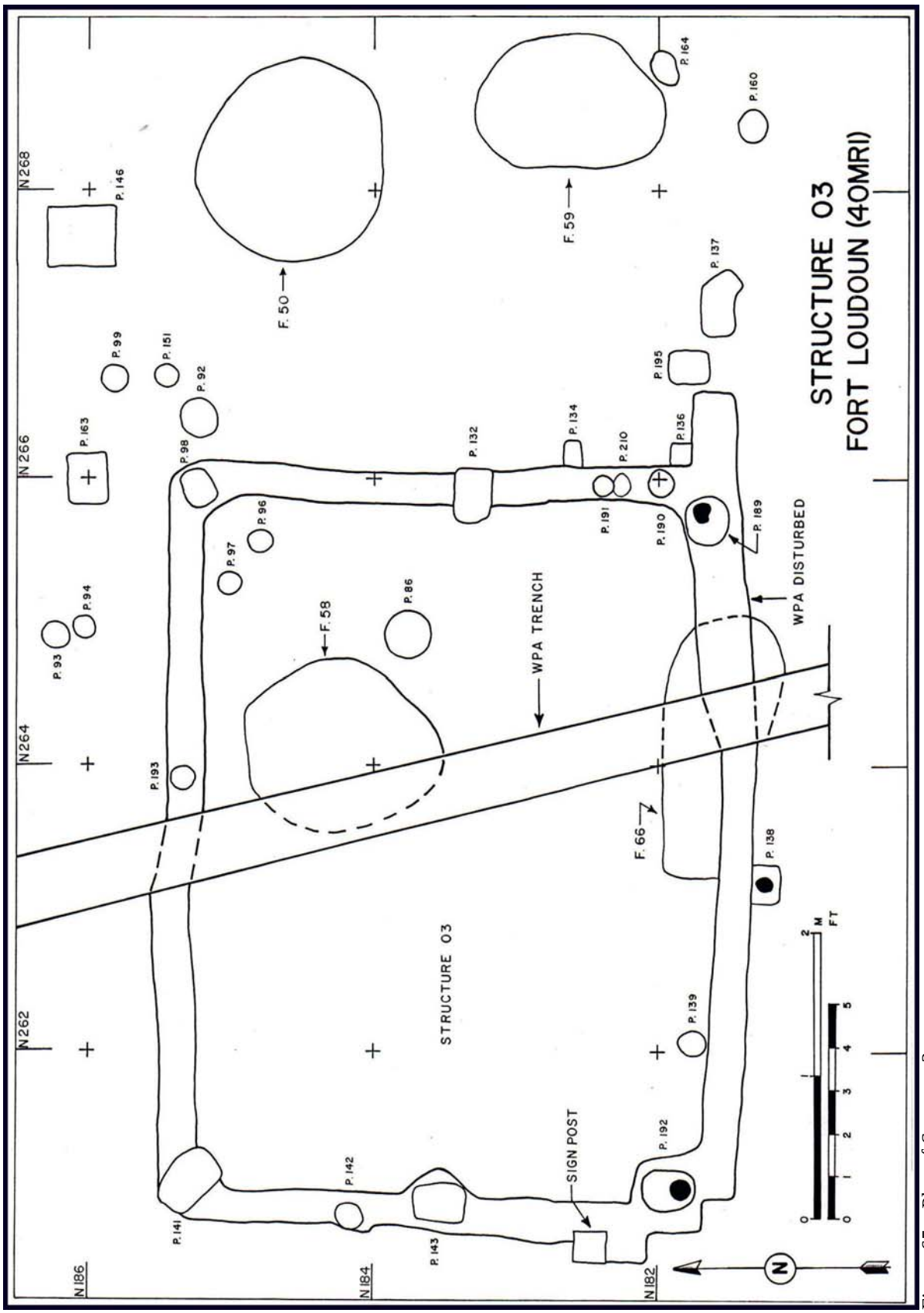

Figure 65. Plan of Structure 3.

Figure 66. View south of Structure 3 and Feature 58 after excavation. The narrow band running diagonally across the structure and through Feature 58 is a WPA exploratory trench. The excavated square adjacent to the east wall is a 1959 test unit.

The archaeological evidence for Structure 3 suggests that the most probable type of construction used was that of the *pieux en terre*, since it had larger posts at the corners and at the centers of at least two of the walls. Small post molds located in the base of the wall trenches, particularly the east wall trench, seem to indicate this type of construction. However, in the bases of the north and south wall trenches there was what appeared to have been a sill mold that may be indicative of a *piece sur piece* construction, at least for those two walls, even though the depth of these wall trenches is somewhat deeper than might be expected for that type of construction. Structure 3 had a smaller width than that which has been generally associated with the archaeologically excavated French structures, but this may be explained as a functional difference resulting from the need to allow passage space between this structure and the two defensive walls between which it was situated.

Structure 4

This was a small building located centrally in the northern part of the fort on the edge of the ridge, just to the southwest of Structure 23 (Figure 6A). It was built on an area at the top of the slope that had been filled to level out several crevices in the exposed bedrock. This fill, which was archaeologically tested on the north side of this structure, and referred to as **Feature 56,** was composed of small pieces of limestone rubble, earth, sand and a very few historic artifacts. This fill probably resulted from the clearing and leveling of the top of the ridge in the vicinity of Structure 23 during the early part of the occupation. The materials cut down and removed from that area were then utilized to extend the width of the top of the ridge to the south.

Structure 4 was defined on the basis of a simple hearth and a prepared level, sandy floor (Figure 67). The extent of this prepared floor that could be defined is shown on the plan of the structure. The edges of this building, except for possibly the west and north sides, were not clearly definable. But if it is assumed that the hearth was centrally located on the west wall, the structure would have had dimensions of

approximately 4.30 m (14.10 ft.) north-south and 4.90 m (16.07 ft.) east-west, or dimensions comparable in size to several of the other buildings that were defined at the fort (see Table 4). No post molds or sill molds were defined to provide evidence for the type of building construction that may have been used.

The hearth located near the west wall consisted only of a rectangular area of prepared fired clay 115 cm by 80 cm (3.83 ft. by 2.66 ft.) with several upright stones remaining along the north side. Several other stones within the structure to the north of the hearth may be displaced hearth stones. The artifacts associated with this structure were distributed over the defined floor area, but were concentrated in the hearth area, decreasing in numbers away from that feature.

Two meters to the southwest of the center of the hearth associated with Structure 4, there was another slightly more elaborate hearth, **Feature 52,** which opened to the west (Figure 67). The back wall of this hearth or chimney base was roughly parallel to the back edge of the one from Structure 4. This fireplace had a north-south length of 1.50 m (5.00 ft.) and a maximum depth east-west of 1.20 m (4.00 ft.). It was bounded on the north and east sides by unshaped limestone rocks, and the hearth area was paved with flat limestone slabs (Figure 67). In places around the edges, daub or fired clay was still in place where it had been used to hold the stones together. The earth between the floor stones of the hearth was reddened by repeated heating. Ash and charcoal in the squares to the south and west of this hearth probably represent sweepings from the hearth that were deposited on the floor within the associated building. Although efforts were made to do so, the associated structure could not be defined. The back of the hearth probably represents the line of the east wall of this undefined structure, or perhaps this structure shared a common wall with Structure 4.

Structure 5

Structure 5 was a rectangular building located along the east side of the Southeast Bastion (Figures 6A and 68). This structure was located 3.40 meters north of Structure 1 and parallel to the east curtain of the Southeast Bastion and the east curtain of the inner palisade. The structure was outlined by a series of rectangular and irregularly shaped postholes in which posts had been set to form the vertical framing members of the walls. At the north end of this structure there was a stone chimney base, Feature 65.

This building had an overall length of 12.20 m (40.01 ft.), and a width that varied slightly, but was on the average about 4.20 m (13.64 ft.). Defined post impressions within the postholes indicated the original posts were approximately 18 cm in diameter (7.2 in.) and were both round poles and squared timbers. Post spacing varied from 85 cm (2.78 ft.) to 140 cm (4.59 ft.). There was a partition wall (defined by Post Molds 51, 52, 174 and 198) located 7.6 m (24.92 ft.) from the north wall and 4.59 m (15.05 ft.) from the south wall, which divided the structure into two rooms. No sill molds were defined between any of the wall post molds which would have suggested the doorways, but the spacing between any of the wall posts would have been adequate for that purpose. Several post molds, particularly Post Molds 172 and 246, parallel to the west wall of this structure at about 1.9 m distance may have held support posts for a small shed or roofed area attached to the building. Assuming that this interpretation of Structure 5 is correct, rather than the alternative discussed below, then it is possible that this shed may have been situated so as to shelter the entranceway to this building.

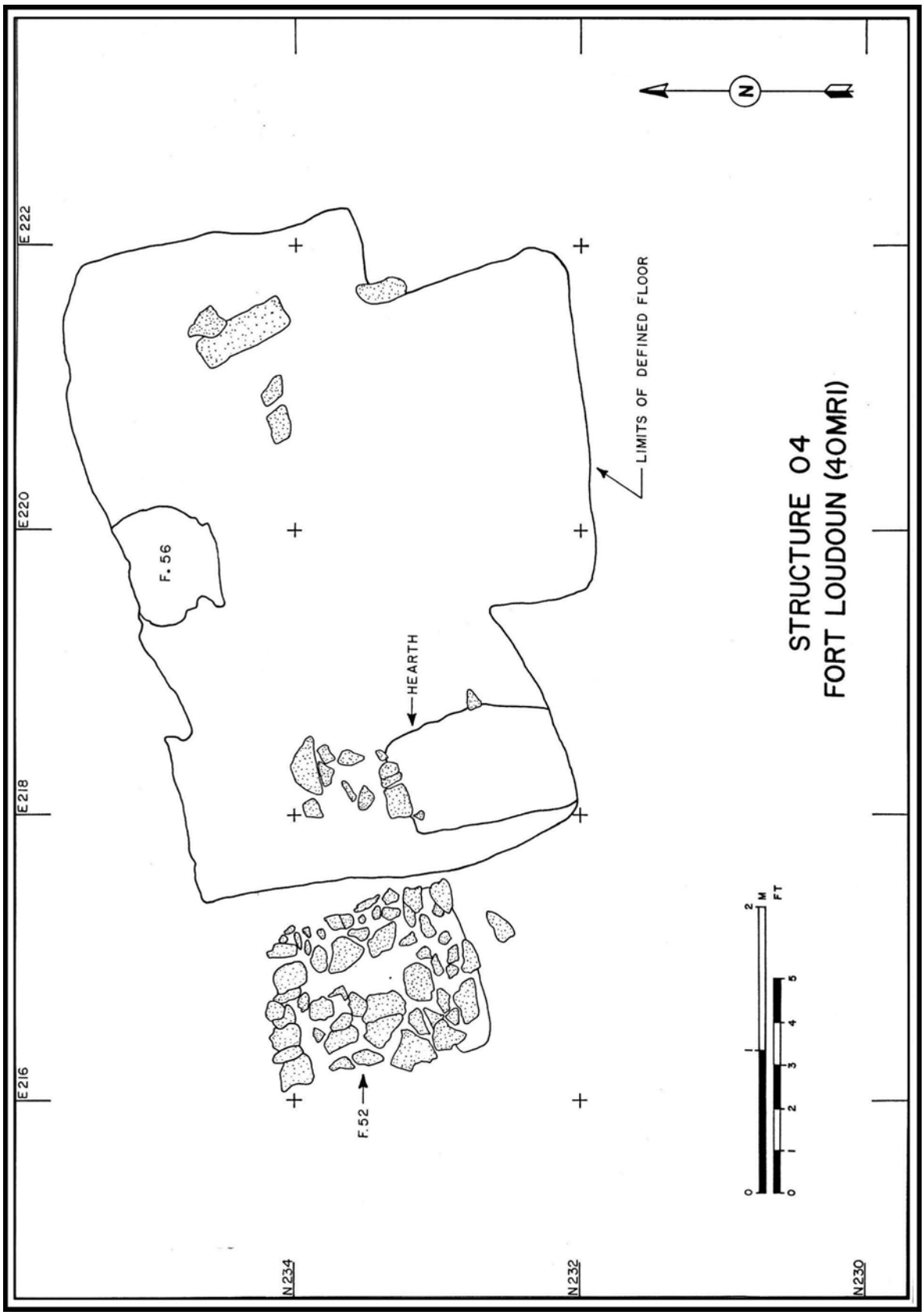

Figure 67. Plan of Structure 4 and Feature 52.

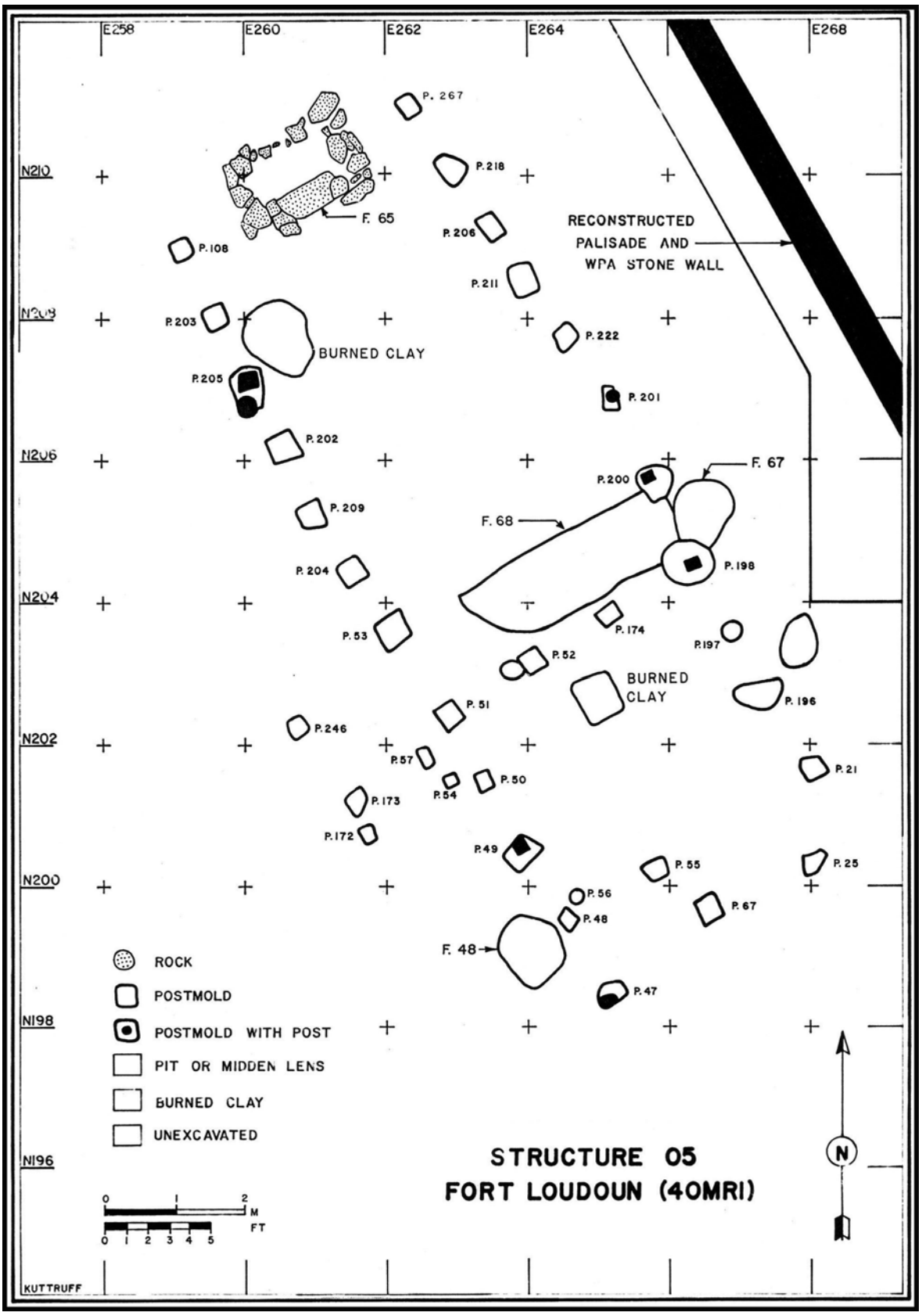

Figure 68. Plan of Structure 5.

Feature 65, the chimney base located at the north end of this building, was constructed of flat unshaped limestone slabs that had been set in a matrix of clay. Except for the hearthstones along the front of the fireplace, the hearth consisted of clay that had been puddled into the area between the four stone sides of this feature. A detail of the associated stones and those that are thought to have resulted from a chimney fall are shown in Figure 69, and a north-south profile of the hearth is shown in Figure 70. The outside dimensions of the chimney base were 1.21 m (4.0 ft.) by 1.82 m (6.0 ft.). The fireplace or hearth area was 120 cm (3.9 ft.) wide and 90 cm (2.9 ft.) deep. The level of the hearth was approximately the same as the floor of this structure.

Figure 69. Feature 65 detail of the associated stones and those that are thought to have resulted from a chimney fall.

Feature 68 was also associated with this structure. It consisted of a layer of yellow clay mottled with a dark loam, containing numerous historic artifacts. It was located at the south end of the north room, and seemed to have been a refuse accumulation 3.2 m by 1.1 m, varying in thickness up to 5 cm on the floor of the structure. This midden lens was incompletely defined to the southwest, since several of those squares were excavated to subsoil before this feature was recognized. It may, therefore, have originally extended somewhat farther in that direction than was defined. This feature is interpreted as refuse which had accumulated in the area against the north side of the partition wall within this building.

Two areas of fired clay were defined on the floor of this structure, and these are shown on Figure 68. Their exact relationship to the use of this building is uncertain; they may have simply been hearth areas prior to the construction of Structure 5. The east wall of this structure was intrusive to Feature 67. Specifically, Post Mold 198 had been dug through that feature, which was a hearth or fire basin, that apparently was in use prior to the construction of this building. Feature 48 located outside Structure 5, near the southwest corner, was a prehistoric pit that was associated with the Mississippian period occupations of this site.

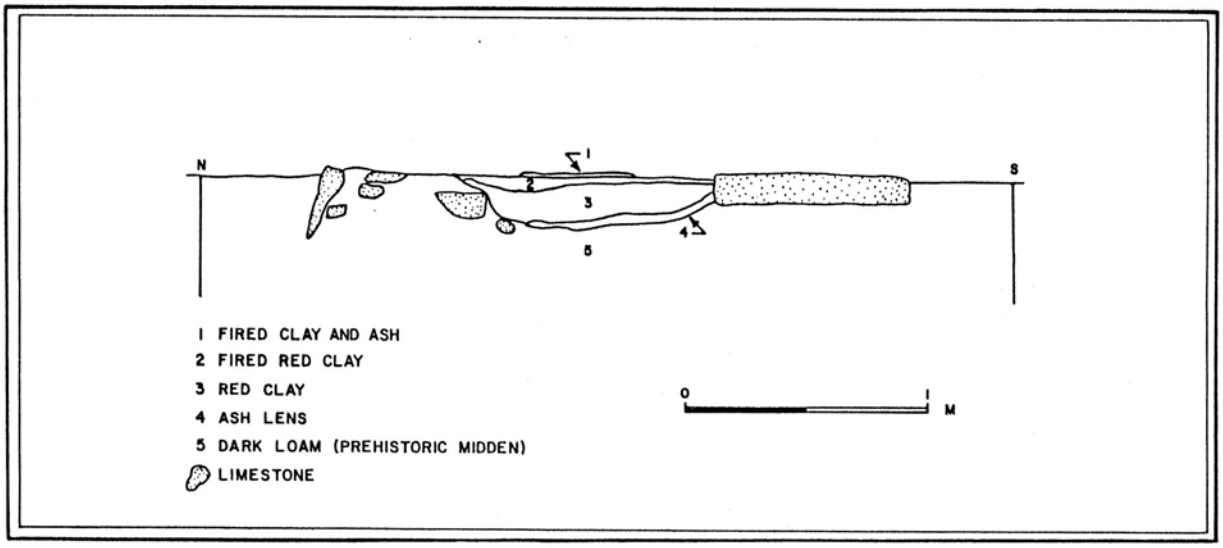

Figure 70. Feature 65 north-south profile of the hearth.

An alternate explanation of the evidence for this structure was that instead of one building, it was actually two (Garry Stone, personal communication, November 26, 1979). The southern structure would have been defined by Post Molds 47, 51, 198, and 25, and the northern building by Post Molds 53, 108, 267 and 200. These buildings would have been 6.50 m (21.32 ft.) by 4.20 m (13.64 ft.) for the northern building, and 4.80 m (15.74 ft.) by 4.10 m (13.44 ft.) for the southern structure. The spacing between Post Molds 51 and 53 on the wast wall and Post Molds 198 and 200 on the east wall (1.4 m and 1.35 m respectively), is somewhat greater than the spacing between the remainder of the posts along either wall. Another factor that suggests the possibility of two structures is that the posts of the north structure appear to be much more evenly spaced than those of the southern structure. There also was less difference in the basal elevation of the posts in the northern part (less than 29 cm), while the basal elevation of the posts in the southern structure varies up to 47 cm. If this structural interpretation is correct, then Feature 68 would have been a refuse deposit that accumulated between the two structures rather than on the interior. The fired clay area in the north central part of the south building could have been a hearth area for that structure.

Structure 5 is interpreted to have been one of the temporary barracks that were constructed by the companies in December of 1756. But evidence suggests that it probably stood throughout the occupation of the fort. This building does not seem to be as substantially built as some of the others that are known to have been constructed later, such as Structures 6 and 15, and it is of a slightly different construction type. The chimney base does seem to have been built somewhat more elaborately and carefully than those hearths defined for some of the other barracks or houses that are thought to have been temporary. As noted in the discussion of Structure 1, which is believed to have been taken down prior to the end of the occupation, the southern end of Structure 5 seems to define the northern limit of the slag distribution also suggesting that it stood throughout the occupation. Artifact counts of habitation debris (disregarding the slag counts) also are somewhat higher than they are for Structure 1, possibly indicating a longer use of Structure 5 (see Table 5).

Structure 6

Structure 6 was oriented approximately north-south and was located along the east end of the parade ground (Figures 6A and 71). The evidence for this structure consists of a rectangular arrangement of post molds, and the remains of a chimney base at the northern end of the building. This building appeared to have been constructed as a four-bay structure with overall dimensions of 9.40 m (30.83 ft.) north-south and 4.30 m (14.10 ft.) east-west. The southern three bays were 2.25 m (7.38 ft.) wide and the northernmost one was 2.50 m (8.20 ft.) wide. The structure has a similar configuration to Structure 15, but was slightly longer (25 cm) and wider (60 cm). It also lacked the central support posts of Structure 15, and had an associated chimney, unlike Structure 15.

The post sizes for the actual posts that were defined varied between 25 cm and 40 cm (10 in. to 16 in.). Several contained the charred remains of the posts, indicating that this structure also had probably burned after its abandonment as has been assumed for Structure 2. The shapes of the posts indicate that the vertical framing was made of both round poles and squared timbers. From the size of the excavations around some of the posts and post molds, it seems, particularly on the east wall, that at some time the original posts may have been removed and replaced. The same is true for several of the postholes along the northern part of the west wall. Several, in fact, had the impressions of two posts. The spacing of Post Mold 282 and Posts 463 and 464 in Post Mold 450 may indicate that there were less substantial intermediate studs for either door or window framing on the east wall. Post Mold 445, having been cut by the excavation of Feature 148, was not related to this structure.

A series of post molds and shallow sill molds to the west of the building are probably supports for a low porch or other floored and/or roofed area on the parade ground side of this structure. No door was defined on the west, or any other, wall of the building, but it was in all probability located between Post Molds 452 and 453. At the northern end of this building were the remains of a chimney base, **Feature 72,** that had been somewhat disturbed prior to the latest excavations. The stones as they were defined in 1975 are shown in Figure 71. This fireplace was apparently discovered by the WPA project, since it is shown on the plan of those excavations as Fireplace J (Figure 28). The area covered by the remaining chimney stones was 1.85 m north-south and 1.95 m east-west.

The west wall of this structure was intrusive to Feature 148, the east wall of the innermost palisade line. This is similar to the situation with Structure 15, which was intrusive to Feature 158 or the south wall of the innermost palisade line. Post Molds 453 and 454 were intrusive to **Feature 73,** a shallow depression that had been filled with historic cultural debris. This feature postdated the filling of Feature 148 and predated the construction of Structure 6.

Several features were in association with this structure. **Feature 152** was an area of trash in a shallow depression within this structure, located just to the south of the hearth. It had a maximum width of 1.0 m and a maximum length of 2.50 m. The defined depth of this depression varied between 5 cm and 25 cm. The fill of the feature consisted of a clay layer in the base that was overlying a prehistoric Woodland Period midden. Above the red clay layer was a dark brown loam deposit containing numerous historic artifacts, animal bone, charcoal, and ash. This feature is interpreted as an initial attempt to fill a shallow depression with clay to level this area of the structure floor and subsequent natural accumulation of refuse in the unfilled part of the depression resulting from the occupation and use of Structure 6. **Feature 73** was an historic midden lens containing burned limestone, Cherokee ceramics, charcoal and numerous other historic artifacts. It is interpreted as a lens of midden that had accumulated in a shallow depression after the removal of the palisades and the filling of Feature 148, but prior to the construction of Structure 6, since this feature had been cut by the excavation of Post Molds 453 and 454. It had overall dimensions of 1.80 m by 1.40 m, with a maximum defined depth of 10 cm. **Feature 154**, a clay lens, was a portion of a much larger area of clay spread over this part of the parade ground area after the filling of the inner palisade trench. Since it was cut by Post Mold 154, it was deposited prior to the building of Structure 6 (see discussion of Features 148 and 150 in Chapter 4 and Feature 154 in Chapter 6).

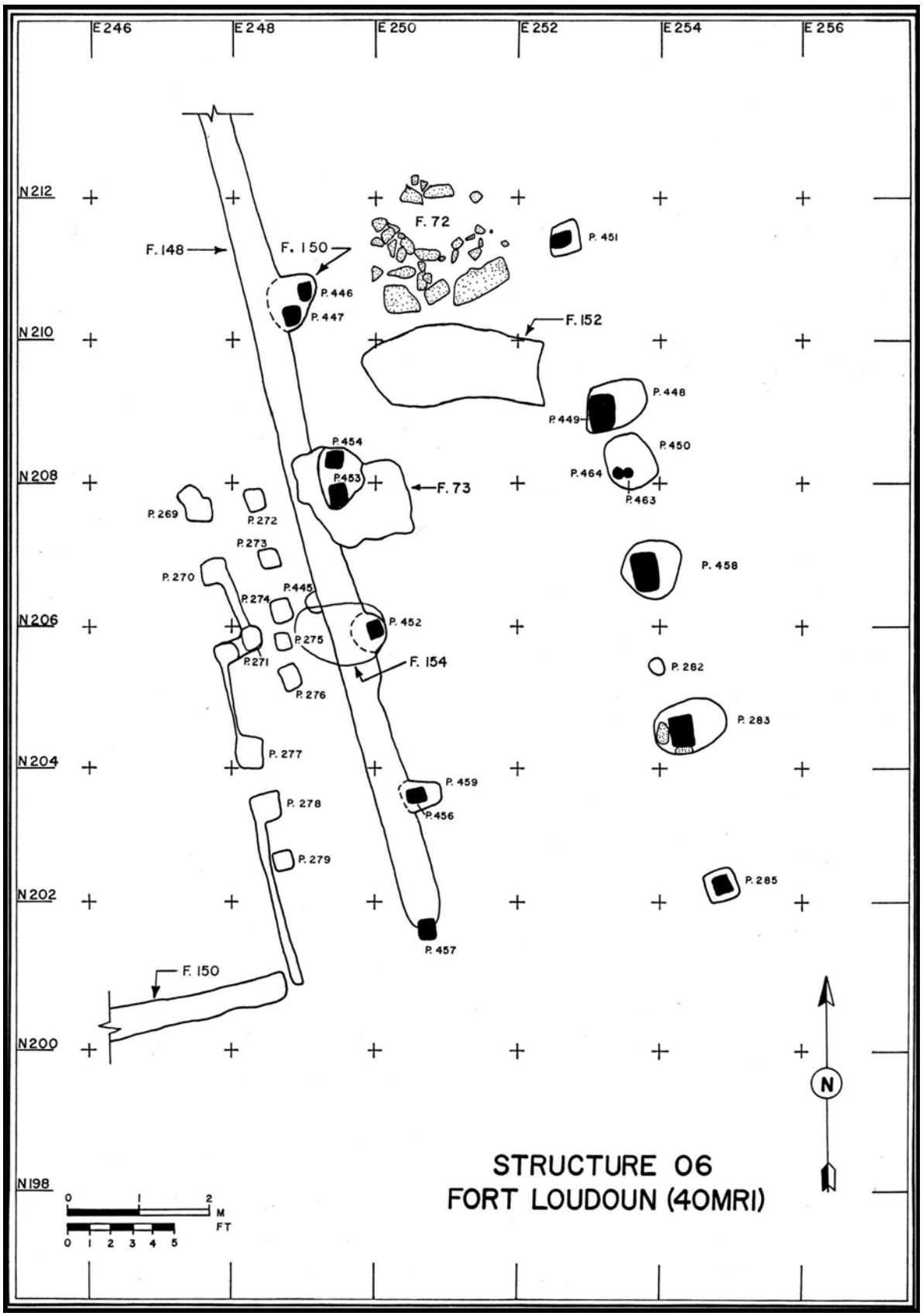

Figure 71. Plan of Structure 6.

Structure 7

Structure 7 was one of a pair of small semi-subterranean buildings located in the Northwest Bastion in a line parallel to and just west of the west wall of the innermost palisade line (Figures 6A and 72). It had been previously excavated in 1958-1959 and reported as Feature 43 (Kunkel N.D.:28-32, Figures 5 and 6). The evidence for this building consisted of a rectangular pit that had been excavated into the slope of the ridge, shallow wall trenches in the base of that pit, and a hearth in one corner (Figure 72). The north wall of this structure had a maximum defined depth of 40 cm and the south wall had a defined depth of 20 cm, providing a relatively flat floor cut into the hill slope. The maximum dimensions of the pit were 3.10 m (10.10 ft.) north-south and 4.00 m (13.12 ft.) east-west.

Along the north wall was a shallow wall trench, and a similar shallow wall trench was along the base of the eastern part of the south wall. Round post molds varying in diameter between 15 cm and 18 cm (6.1 in. to 7.2 in.) were in three of the corners. Another was located centrally along the west wall, and one was located just south of the center of the structure. These posts are interpreted as uprights used to support the roof of the building. The wall trenches are thought to have been used to hold upright boards or small saplings in place for the walls. Presumably after the walls were erected the space between the wall and the excavated pit was then filled with earth.

On the east wall of Structure 7 was a hearth. This feature has been previously defined by Kunkel and had been assigned Feature 72 by him (Kunkel N.D.:27, Figures 5 and 6). This feature consisted of a flat slab of limestone in place on the floor adjacent to the wall and several other small burned pieces of limestone. An area of ash and charcoal extended out of and around the hearth. Additionally, parts of the floor and the adjacent earth wall were fired from repeated heating, with the earth wall of the structure used as the back of the hearth. The type of chimney that may have been associated is unknown; if there in fact was one, it was probably constructed of boards and mud or sticks and mud. More likely, though, there was just an opening in the upper part of the wall or in the roof to permit smoke to escape. The floor of this structure was the subsoil clay that was exposed after the excavation of the pit. Charcoal flecks and ash were noted across the floor, with one notable charcoal concentration in the northwest corner. The entrance to the structure was in the south wall, where an entranceway had been leveled outward from the structure for about two meters. This leveled area, designated **Feature 84,** and had been filled with an accumulation of dark loam, charcoal, small pieces of limestone, faunal materials, and some historic artifacts. A 15 cm diameter post mold was located in the base of this feature near the entranceway to the building.

The description and profile of the fill of Structure 7 presented in the earlier report (Kunkel N.D.:28-32, Figures 5 and 6) clearly show that the fill was stratified with two major zones. The profile shown in Figure 72 is adapted from that report. This stratigraphy is quite comparable to that which was defined by the 1975-1976 excavations in Structure 10, a very similar structure. The upper zone of fill was described as a “light loam fill” and the lower zone “was a grayish-black level, with much ash, sharply distinct from the material above. Both levels contained very heavy deposits of animal bones and Cherokee potsherds, as well as other artifacts” (Kunkel N.D.:29).

Kunkel also reported that one human burial was excavated from the fill of Structure 7 and was located “mostly in Level A, but partially in Level B.” Madeline Kneberg examined the skull fragments of this individual and concluded “that the occurrence of both Caucasoid and Mongoloid characteristics suggest that the person was a half-breed. The individual was a male, about thirty, and slightly built” (Kunkel N.D.:29, 33). There was no information in the field notes or records of the earlier excavation to indicate the position of the skeleton or other information about the burial.

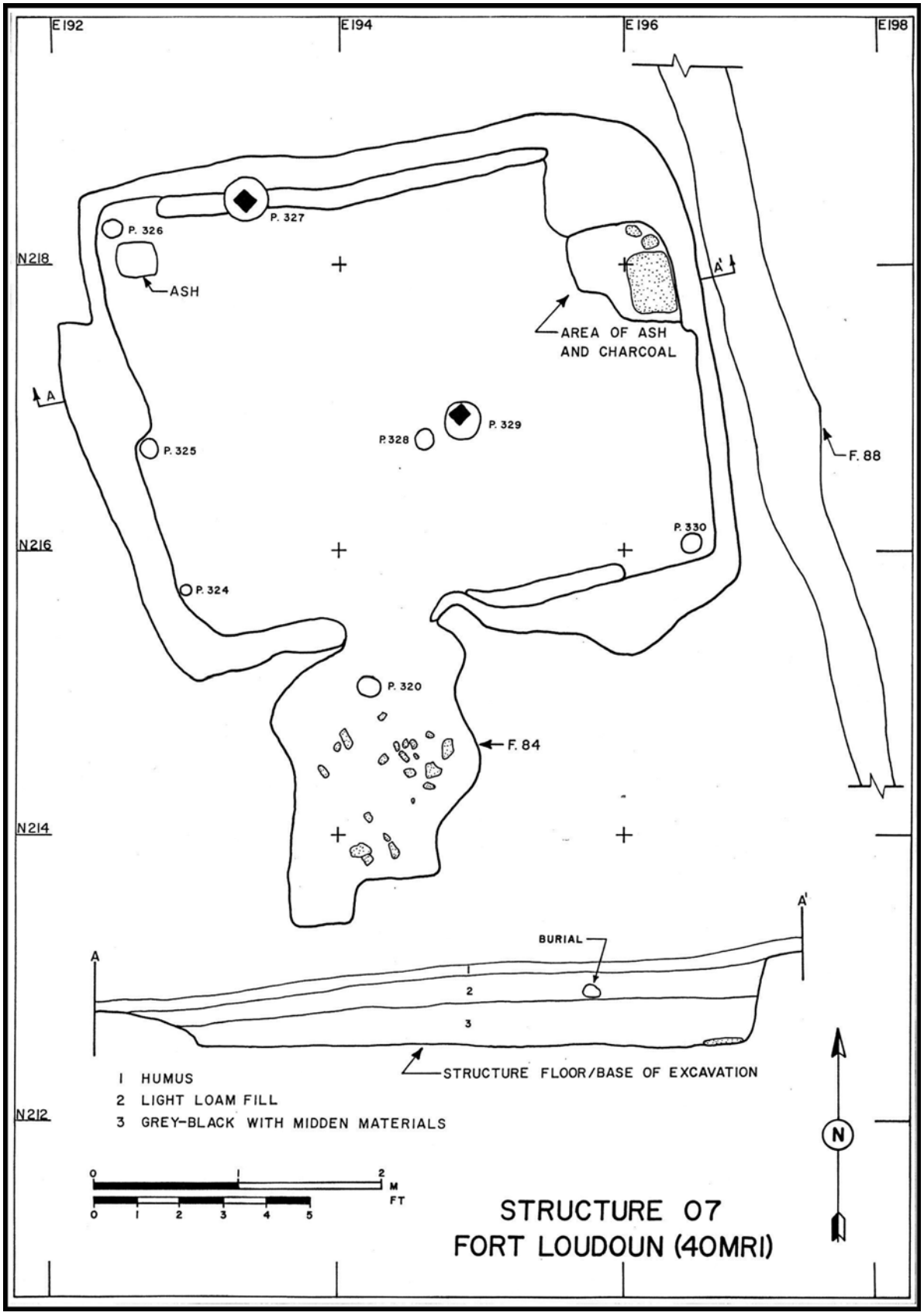

Figure 72. Plan of Structure 7.

No intrusive pit was noted by Kunkel, but the placement of the burial on the top of the lower level does seem to suggest that the individual was interred at the time the structure was finally filled and leveled. Who this individual may have been is ambiguous. Two deaths and possibly more are recorded in the historical documentation. The first was on November 11, 1756, but this is probably too early, since it was early January, 1757, before it was reported that the huts had been constructed and the men moved into the fort. The next death recorded was on January 29, 1759, but that was well after mid-October of 1757 when the barracks had been completed and the temporary quarters removed, presumably including Structure 7.

Post Molds 327 and 329 date from the 1960s. They were posts for a sign that had been erected to mark the location of this feature, which at that time was interpreted as a large roasting pit.

Structure 8

Structure 8 was a small building located along the west curtain of the Northwest Bastion, north of the south flank of that bastion (Figures 6A and 73). The evidence for this structure consisted of a terrace that had been cut out of the slope to provide a level floor, several post molds along the walls, and wall trenches on the north and south walls (Figures 73 and 74). As was the case with Structures 9, 11, and 18, located along the same curtain, the east wall was either immediately adjacent to, or formed by, Feature 90, the palisade trench paralleling the west curtain of this bastion. The overall dimensions of Structure 8 were 4.20 m (13.77 ft.) north-south and 3.70 m (12.13 ft.) east-west.

The north wall of this structure was defined by a vertical cut in the slope of the hill approximately 40 cm in depth, Post Mold 290, Post Mold 387, and a connecting wall trench. The edge of the cut, and presumably the northeast corner, was 65 cm east of Post Mold 387. The east wall was defined by the terrace cut at the northeast corner and the east edge of the defined floor, Post Mold 309, and Post Mold 407 at the southeast corner. Post Molds 340, 308, and 407, as well as a segment of wall trench between Post Molds 340 and 308 defined the south wall. The west wall was defined by Post Mold 290 at the northwest corner and Post Molds 341 and 340. The edge of the floor was clearly defined between Post Mold 290 and Post Mold 341. Post Molds 291 and 391 were located in the floor of the structure along the north wall. Post Mold 386 was centrally located and may have been some type of roof support. The two wall trenches that were defined were shallow, varying in depth from 10 cm to 15 cm. The northern trench varied in width from 7 cm to 20 cm and the southern one was 20 cm in width for most of its length.

Within the floor of Structure 8, three historic period features were defined and excavated. Features 86 and 103 were trash pits. Feature 91 was a refuse pit that was later reused as a hearth. **Feature 86** was a rectangular pit located in the northeast corner of this structure. It had a maximum length of 150 cm and a width of 37 cm. The maximum defined depth was 60 cm from the floor of the structure. The walls were vertical and the floor of the pit was relatively flat. This feature had been cut into the clay subsoil floor of the structure, exposing two large sections of limestone bedrock. The fill consisted of two zones. The upper one, was a brown loam with numerous pieces of limestone and historic period artifacts, with a thickness of 40 cm. The lower zone consisted of a dark red clay fill with historic artifacts. Rock was notably absent in the lower zone except for the large pieces of bedrock that were exposed in the base of the pit.

Feature 91, centrally located along the south wall, was a rectangular pit with rounded corners. Maximum horizontal dimensions were 70 cm by 65 cm, with a maximum, defined depth of 47 cm. The side walls were vertical and the bottom was flat. Three major stratigraphic zones were defined. The lower 32 cm of the pit (Zone C) was filled with a brown loam containing historic artifacts. The upper 15 cm (Zone A) consisted of a shallow basin that had been used as a hearth. The floor of this zone was heavily fired (Zone B), with burned limestone cobbles, charcoal, and daub present in reasonable quantities. The remaining depression was subsequently filled with orange clay.

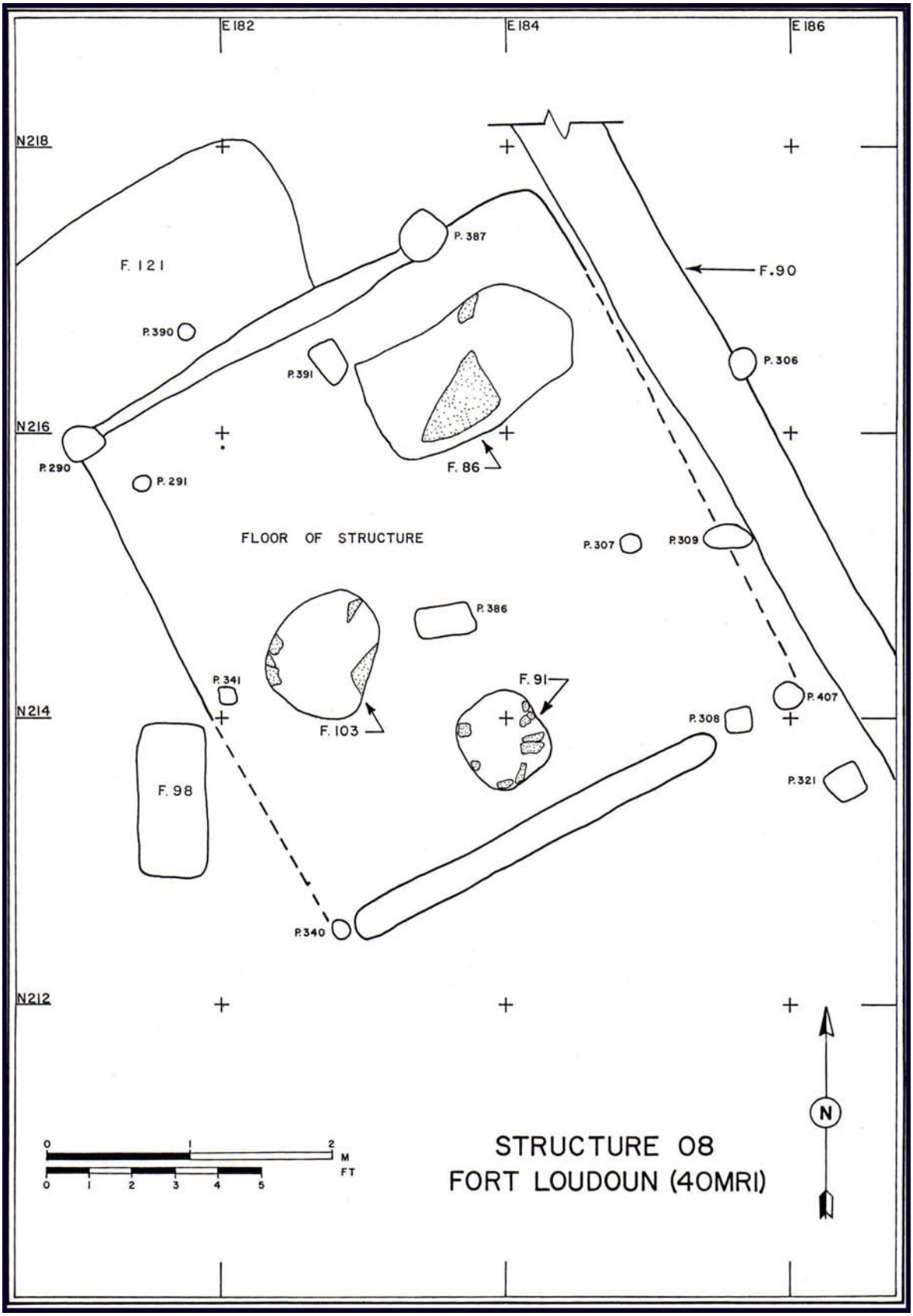

Figure 73. Plan of Structure 8.

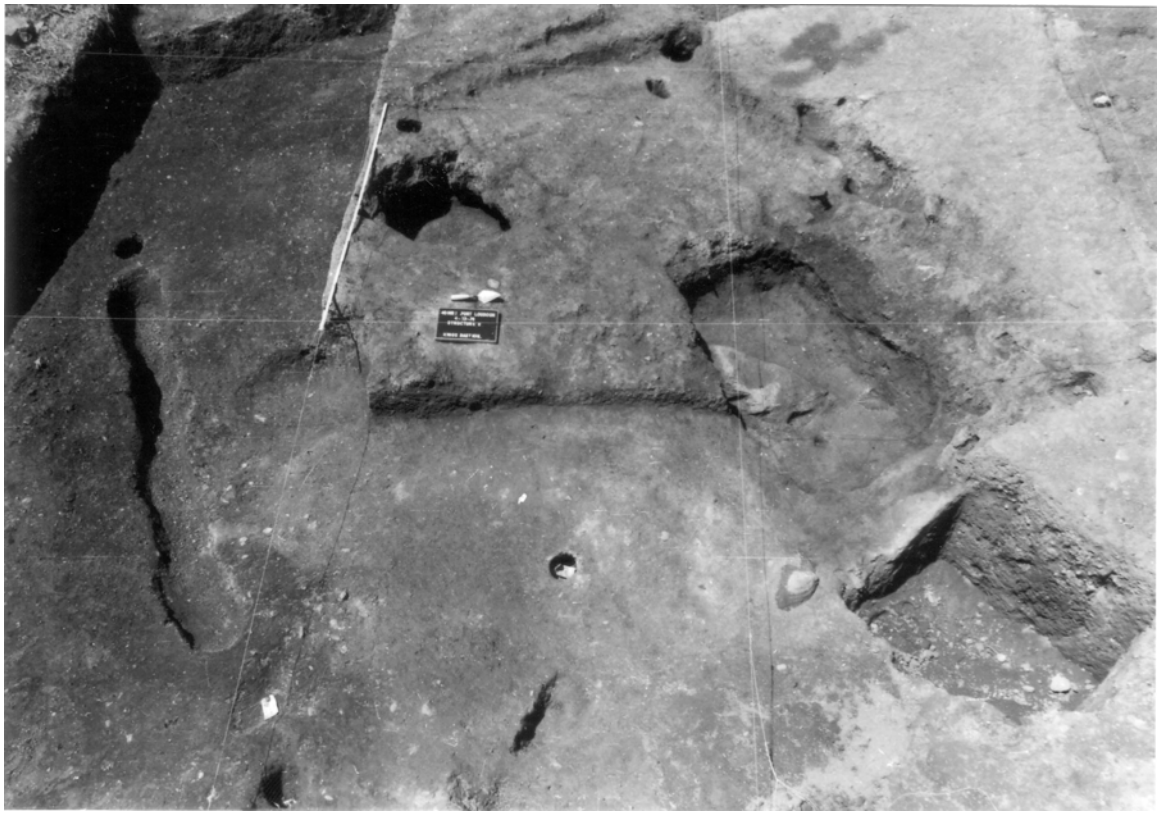

Figure 74. Structure 8. View is to the west.

This feature was probably initially a refuse pit, which, after a period of filling, was then utilized as a fire basin or hearth within Structure 8. The cap of red clay that filled the remainder of the pit resulted from the filling and leveling of this area after the structure was taken down.

Feature 103 was an oval pit that was located along the west wall of the structure. It had maximum dimensions of 70 cm by 90 cm, horizontally, and a defined depth of 50 cm. The side walls were vertical and the base was flat. Fill within this feature consisted of a dark loam with no evident stratigraphy, except that the upper part of the fill contained a large number of limestone rocks, and a cluster of sherds comprising the major portion of a flat-bottomed Cherokee ceramic vessel. Like in Feature 86, two bedrock outcroppings were exposed in the base of this feature.

After this structure fell into disuse, or was deliberately taken down, it was filled and leveled with a red clay subsoil and loam mixture. This fill in all probability came from either the traverses that were originally located along this wall of the Northwest Bastion (Figure 7) or the earth that was removed from the ditch along the west side of this bastion.

Structure 9

Structure 9 was a small building that was located along the west wall of the Northwest Bastion, north of Structure 11 and adjacent to Feature 90 (Figure 75). Like Structure 8, this structure had been built on a terrace cut into the slope of the ridge. To provide this level area the north cut had been excavated to a maximum depth of 65 cm The evidence, in addition to the terrace cut, consisted of a series of post molds and shallow wall trenches defining the four sides of the building, and a hearth area along the west wall. The overall dimensions of the structure were 3.60 m (11.8 ft.) north-south and 3.40 m (11.15 ft.) east-west.

The north wall was defined by Post Molds 376, 377, and 378, and a continuous wall trench that had a defined depth of 20 cm and a width that varied between 18 cm and 20 cm. The east wall was defined by Post Mold 378 in the northeast corner, Post Mold 379 in the southeast corner, and a connecting wall trench

with a width of 10 cm to 14 cm and a depth comparable to the north wall trench. The south wall consisted of Post Molds 379, 382, 381, and a segment of wall trench extending from the southeast corner approximately 1.75 m west along this wall. Post Molds 351, 375, 376 and a segment of wall trench comparable to those of the east and south walls made up the evidence for the west wall. Post Molds 368, 380, and 385 were shallow post molds recorded in the floor of this structure, but their relationship, if any, to the structure is undetermined. An extension of the south wall trench into the interior of the structure is also unexplained; however, another interpretation for part of this structure is presented in the discussion of Structure 11 below.

A hearth area was defined along the west wall in the interior of this structure. It consisted of a lens of fired clay, charcoal and ash on the floor of the structure, with a number of pieces of limestone defining the periphery of a 50 cm by 80 cm area. Some artifactual materials, particularly animal bones were in association with this hearth. Additionally there was also a light scatter of charcoal and ash over the hard packed, red clay subsoil floor, which probably resulted from cleaning out the hearth on different occasions.

After discontinuing the use of this structure, it was taken down and the area was recontoured. There were two major zones of fill that covered the remains of this building. The lower zone, directly overlying the floor and the hearth area, consisted of a medium brown loam with charcoal throughout, which varied in thickness from 8 cm to 15 cm. Overlying that zone was a 2 cm to 10 cm layer of loam that was heavily mixed with charcoal and lay directly below the latest humus zone. Both of these zones contained moderate amounts of historic artifactual materials. Many of the artifacts contained in the lower zone directly above the floor probably resulted from deposition during the occupation of the building. The materials in the upper zone of fill probably resulted from the use of this depression as a depository for some amount of refuse, in addition to the deliberate fill added to recontour the area of this structure, as well as that of others along this side of the Northwest Bastion.

Possibly associated with this structure was **Feature 110,** a shallow circular bowl-shaped hearth located directly to the east of the southeast corner of Structure 9. It had a maximum diameter of 50 cm and a maximum defined depth of 15 cm. The fill of the feature consisted of charcoal and burned limestone rocks and several artifacts of fort period derivation. This feature may have just been a small outside hearth that was associated with this structure. It was stratigraphically above the fill of Feature 90, the palisade trench paralleling the east wall of Structure 9, and was certainly utilized after the removal of the palisades and the filling of that trench. If this hearth was in fact associated with Structure 9, it may indicate that the palisade was taken down before Structure 9 was constructed, or at least sometime while Structure 9 was standing. It certainly would indicate that the structure was in use some time after the removal of the palisades. The well defined east wall of Structure 9 also indicates that this structure was constructed independently of Feature 90 or the palisade line.

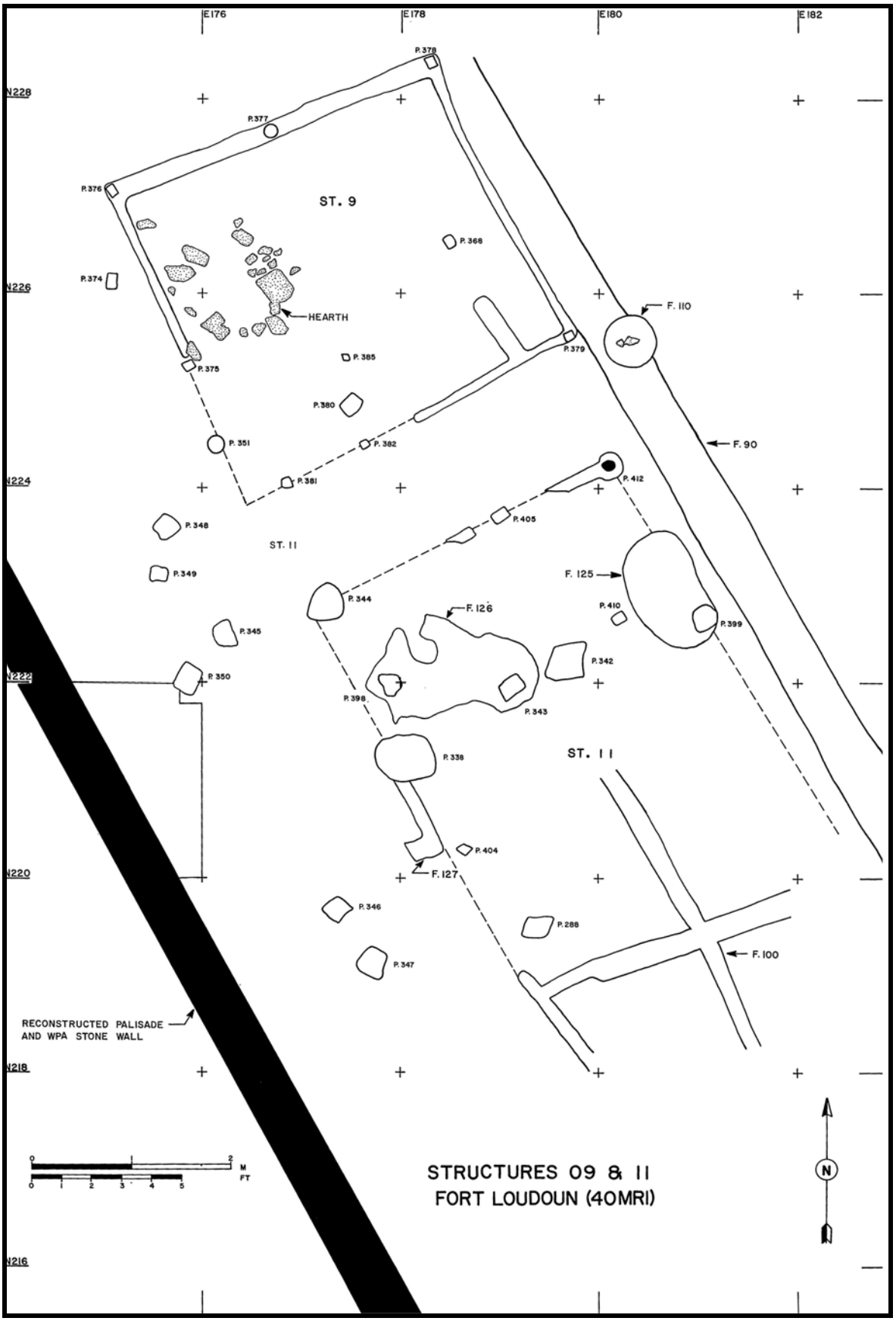

Figure 75. Plan of Structures 9 and 11.

Figure 76. Structure 9. View is to the northwest.

Structure 10

Structure 10 was located in the same line as Structure 7 (Figure 6A, 77, and 78), along the west side of Feature 88, the west wall of the inner palisade line, and 5 m north of Structure 7. The evidence for this structure, which is quite similar to that for Structure 7, consisted of a rectangular pit that had been excavated into the slope to provide a flat recessed floor. It had been excavated to a maximum depth of 77 cm below the humus zone in the northeast corner. The depth of the other walls was somewhat less, with the maximum depth along the south wall being 30 cm. The dimensions of the floor were 3.40 m (11.15 ft.) north-south and 3.75 m (12.30 ft.) east-west, closely approximating the dimensions of Structure 7, as well as several others such as Structures 8 and 9. On the east side of the structure there was a bench-like area that had been cut down to a defined depth that varied from 10 cm to 15 cm, and extended outward from the east wall 1.6 m. The northern end of Feature 88 was centrally located in this bench-like area. The presence of this bench is not readily explained. Presumably Structures 7 and 10 were being constructed at about the same time as the innermost palisade system from what can be gleaned from the historical documentation. The bench possibly represented the size to which this structure was originally being dug, but perhaps the need to extend Feature 88 into that area necessitated that the size of this structure be diminished somewhat, or shifted more to the west.

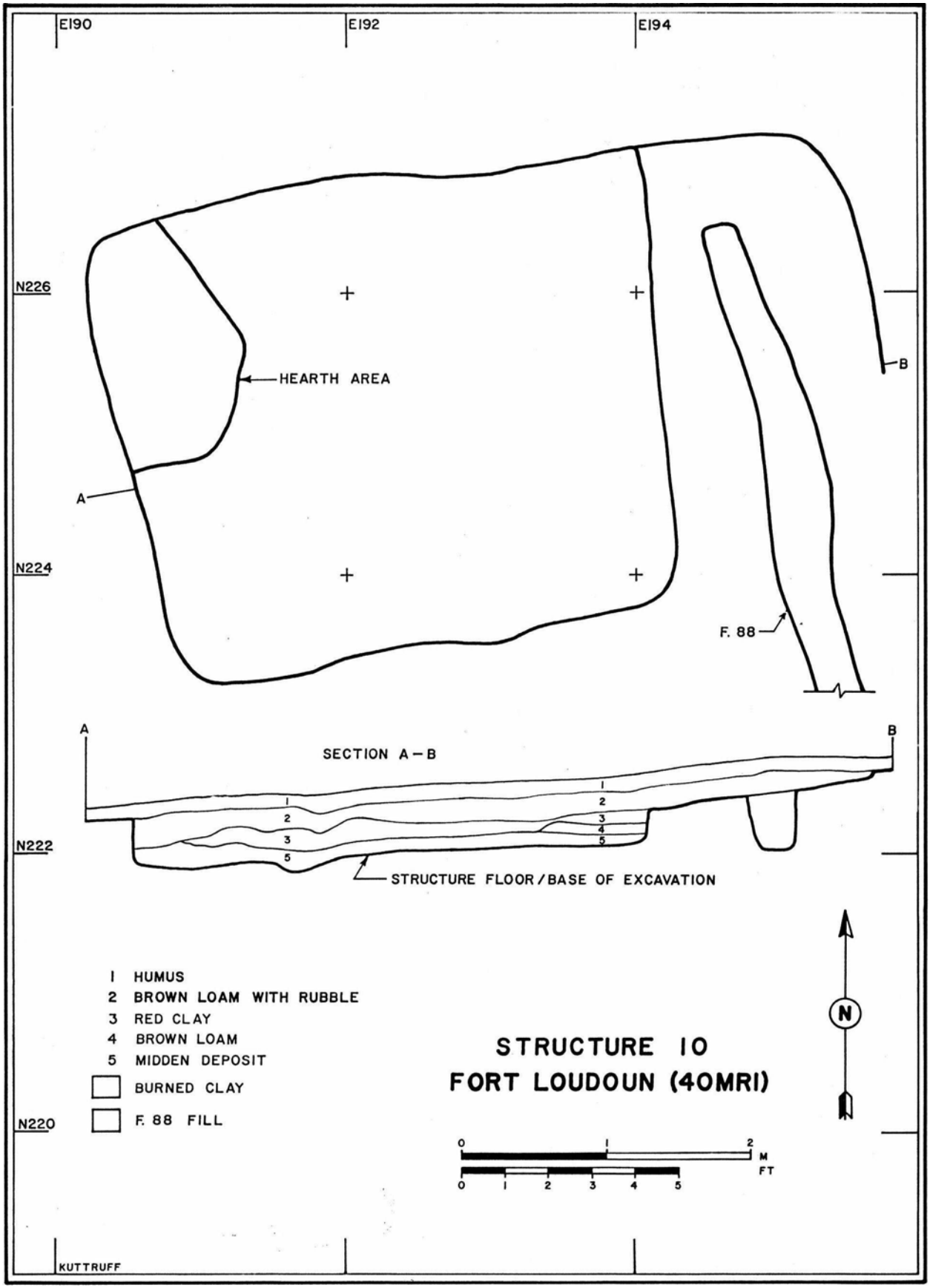

Figure 77. Plan of Structure 10.

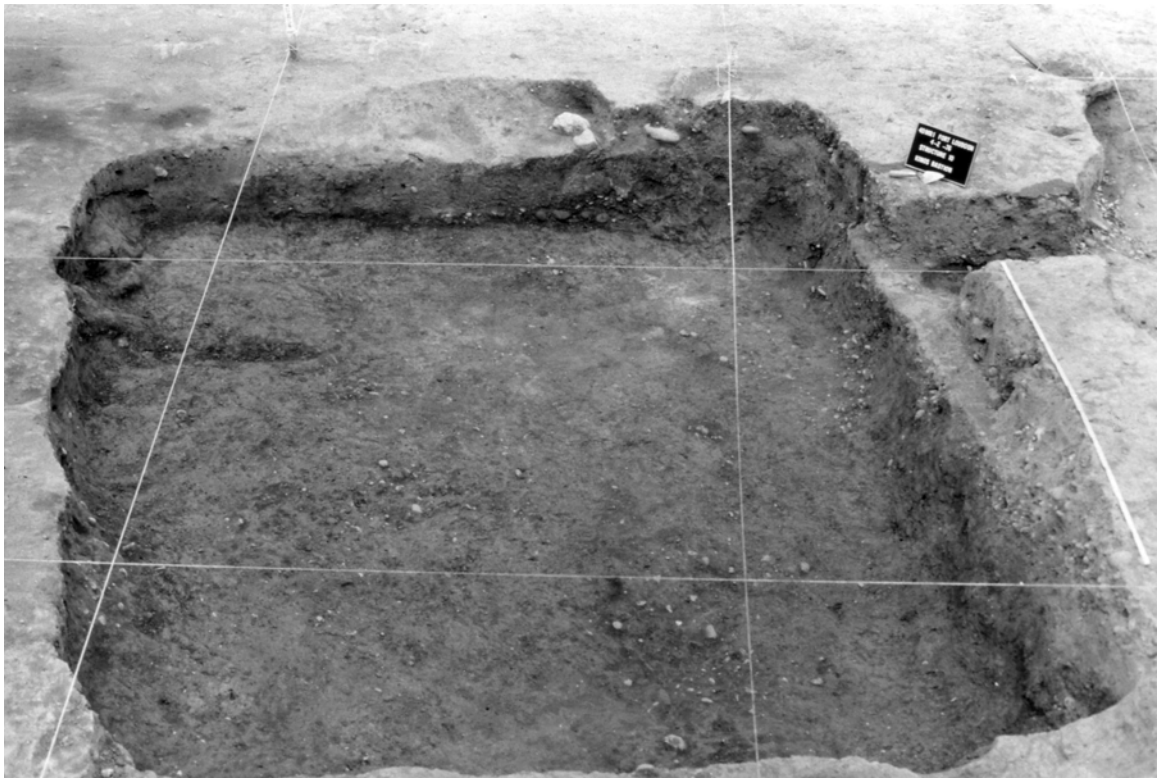

Figure 78. Structure 10. View is to the west. The hearth area is in the northwest (upper right) corner of the structure.

The floor and walls of the northwest corner had been heavily fired, indicating that the hearth had been located there (Figures 77 and 78). Quantities of charcoal and ash were in place on the floor of the hearth area and the surrounding floor of the structure. No other structural features such as sill molds or post molds were defined like they were in the other structures similar to this one. The floor of this structure, which consisted of the subsoil clay, was covered with a dense midden deposit composed of a dark loam and high counts of artifactual materials, particularly bone. This zone varied in thickness from 7 cm to 20 cm and extended over the entire floor. In all likelihood some of this midden had accumulated on the floor of the structure during its occupation, but the structure basin may have been used for refuse disposal after its abandonment and prior to final filling. This situation virtually duplicates that recorded for Structure 7 to the south. The remainder of the fill consisted of three distinct zones of materials. The two middle zones consisting of brown loam and red clay were placed in the structure depression and capped the lower zone of midden (Figure 77). The uppermost zone of fill underlying the more recent topsoil humus was a brown loam with reasonably large quantities of limestone rubble throughout. Artifacts, although present, were less numerous in the upper three zones of fill than in the basal midden zone that was on the floor of the structure. The upper zone of this fill extended over the bench area to the east and over the fill of Feature 88. It is believed that this structure was probably taken down and filled at about the same time as Structure 7, and probably others, but clearly at some time after the removal of the palisades from Feature 88 and the filling of that trench, since the upper zone of fill (Zone 2) was overlying the fill of Feature 88.

Located just to the north of this structure was Feature 104, which has been interpreted as the hole that resulted from the removal of a large tree or other excavation prior to the construction of Structure 10. This feature (discussed in Chapter 6) is analogous to one that was located immediately north of Structure 7, which has been similarly interpreted.

Structure 11

Structure 11 was the poorly defined remains of a building located along the west side of the Northwest Bastion (Figure 75). It was parallel to Feature 90 on the east, the outer palisade on the west, and roughly centered between Structure 8 on the south and Structure 9 on the north. The evidence for this structure consisted of a series of post molds and shallow wall trenches or sill mold sections located in the old (1756) humus and below a red clay fill. The clay fill probably resulted from the leveling of the earthen traverses after the removal of this building and others along this side of the Northwest Bastion. With the exception of not having a terrace cut, this structure was in general constructed similarly to Structures 8 and 9 and possibly others.

The north wall of this building was defined by Post Mold 412 at the northeast corner and Post Mold 344 at the northwest corner, with several small wall trench sections in between, giving that wall an overall length of 3.50 m (11.48 ft.). The line of the east wall is defined minimally by Post Mold 399, Post Mold 412 and possibly Feature 90. No southeast corner post was defined. The west wall began at Post Mold 344 at the northwest corner and was defined to the south by Post Mold 338 and two wall trench sections. One of these trenches was defined as **Feature 127,** and the other was a portion of **Feature 100**. Assuming that the structure did run from Post Mold 344 to the southern end of the western sill mold of Feature 100, it would have had a minimum length of 5.5 m (18.04 ft.). One post mold in Posthole 412 had a diameter of 8 cm (3.2 in.). Otherwise, no other actual posts impressions were recorded. The southern end of this building was not defined and its absence was probably due to either erosion or later leveling operations during the period of occupation that may have obliterated any evidence of it.

In the southern part of this structure there was a cross-shaped system of trenches or sill molds designated **Feature 100**, part of which had the remains of burned timbers still in place. The function of this feature is uncertain, except that it may have been the remains of some sills to hold the flooring of this portion of the structure at a fairly level plane.

Besides Feature 100, which is thought to have been associated with the building, there were two other features within or adjacent to the structure that were defined, but which are interpreted as having predated the structure. **Feature 125** was an oval bowl-shaped depression that had been filled with orange clay. The lower level of this basin was filled with a dark brown loam mixed with charcoal. The clay cap covered the basin and was probably filled when this area was capped with the red clay. It is possible that the feature had functioned as a shallow fire basin prior to the construction of Structure 11. The dimensions of this feature were 110 cm by 70 cm in plan and had a maximum defined depth of 36 cm.

Feature 126, was an irregularly shaped basin that was clay- and humus-filled. This feature did not seem to have had any structural significance, and appeared to have only been a depression which had been filled as part of a leveling operation in this area. It could have possibly been a stump removal hole prior to the construction of Structure 11. The maximum horizontal dimensions of the feature were 170 cm east-west and 95 cm north-south; it had a maximum defined depth of 5 cm. Post Mold 399 was intrusive to this feature, supporting the assumption of the superposition of Structure 11.

If it is assumed that there was a reasonable symmetry in the construction of the several buildings along this wall of the Northwest Bastion, and that there was an equal space between the south wall of Structure 11 and the north wall of Structure 8, and between the north wall of Structure 11 and the south wall of Structure 9, o approximately 1.20 m, then the maximum length of this building may have been 6.40 m (20.99 ft.). Unfortunately, there was no way to verify this, since there were no post molds or sill molds defined that would constitute the remains of a south wall that close to Structure 8. Although it still does not account for portions of Feature 100, the east-west sill mold of that feature may have been the south wall of Structure 11. An alternate explanation for the evidence recovered in this area, but one which does not account for Feature 100 and Feature 127, is that the defined post molds and sills in the northern half of this structure were the remains of an elevated extension of Structure 9. Post Molds 344, 405, 412 and the intervening sill molds could have been wall posts and a sill along the ground to hold a raised floor. The row of Post Molds 338, 343, 342, 410, and 399 could then be interpreted as the south wall of Structure 9, and would have probably been for piers to raise a floor sill to the level of the earthen floor of Structure 9, or a height of approximately 90 cm to 100 cm.

Structure 12

Structure 12 was located between the north curtain of the Northeast Bastion and Feature 143, an east-west traverse in that bastion, and about three meters east of Structure 22 (Figures 6A and 79). It was defined by a series of shallow, round and square post molds and a hearth on the north wall, Feature 202. The northeast corner was defined by Post Mold 567, the northwest by Post Mold 596 and the southwest corner by Post Molds 599 and 606. The southeast corner was not defined. Along the south wall there was an area of flat limestone slabs, Feature 206, laid on the subsoil that may have been a step or entranceway to this building.

The posts along the south wall may have been eliminated by a 1959 test trench (T.Tr. K-7) that paralleled this wall (Kunkel N.D.:43-45). That excavation also opened a large area, exposing most of the floor of this structure (Figure 33; Kunkel N.D.:43-45, Figure 10). The 1959 excavations exposed and recorded Feature 206, as well as the hearth, Feature 202, on the north side of the structure. If the posts noted above do in fact constitute the corners of this structure, then the overall dimensions would have been 4.60 m (15.08 ft.) by 2.70 m (8.85 ft.). Additional posts along the outside walls and some groups of posts probably represent some rebuilding of the structure, or the resetting of several of the posts.

Feature 202 was the hearth located along the north wall of the structure. It had a width of 120 cm and a depth of 70 cm. It consisted of a shallow basin that was dug into the red clay subsoil and lined on three sides with limestone. The base of the feature was covered with a layer of ash, which was then covered with a layer of sandy soil that was fired from repeated utilization of the area as a hearth. In size and construction, as well as its association with a temporary building, this hearth is comparable to the hearths that were affiliated with several other temporary structures at the fort. **Feature 206** was an area approximately 50 cm by 80 cm that was paved with flat limestone slabs. In relation to Structure 12, Feature 206 is believed to have been the entranceway, or a step just outside a possible doorway along the south wall of this building.

West of the southwest corner of this structure was another area that had been covered with flat limestone slabs (Figure 79). These slabs had been previously defined by the 1959 excavation as Feature 65 (Kunkel N.D.:43), but their relationship, if any, to this structure is unexplained.

Two shallow pit features were located to the south of Structure 12, which may have resulted from the occupation of this building, serving as receptacles for trash. **Feature 209** was an irregularly shaped pit with a concave base and maximum horizontal dimensions of 100 cm by 57 cm; the maximum defined depth was 18 cm. The fill of this feature consisted of a homogeneous red and brown mottled clay with a sparse scattering of artifacts throughout. **Feature 210** was an oval pit with a concave base, filled with a loosely consolidated brown loam. The maximum horizontal dimensions were 100 cm by 90 cm and the maximum defined depth was 20 cm. It is assumed that these two pit features are contemporary with the occupation of Structure 12, based primarily on their proximity to the building. Their nearness to Feature 143, and the fact that they were not intrusive to that trench fill, may indicate that they were open at a time when the palisade line represented by Feature 143 was still standing, or at a time very early in the occupation of the fort.

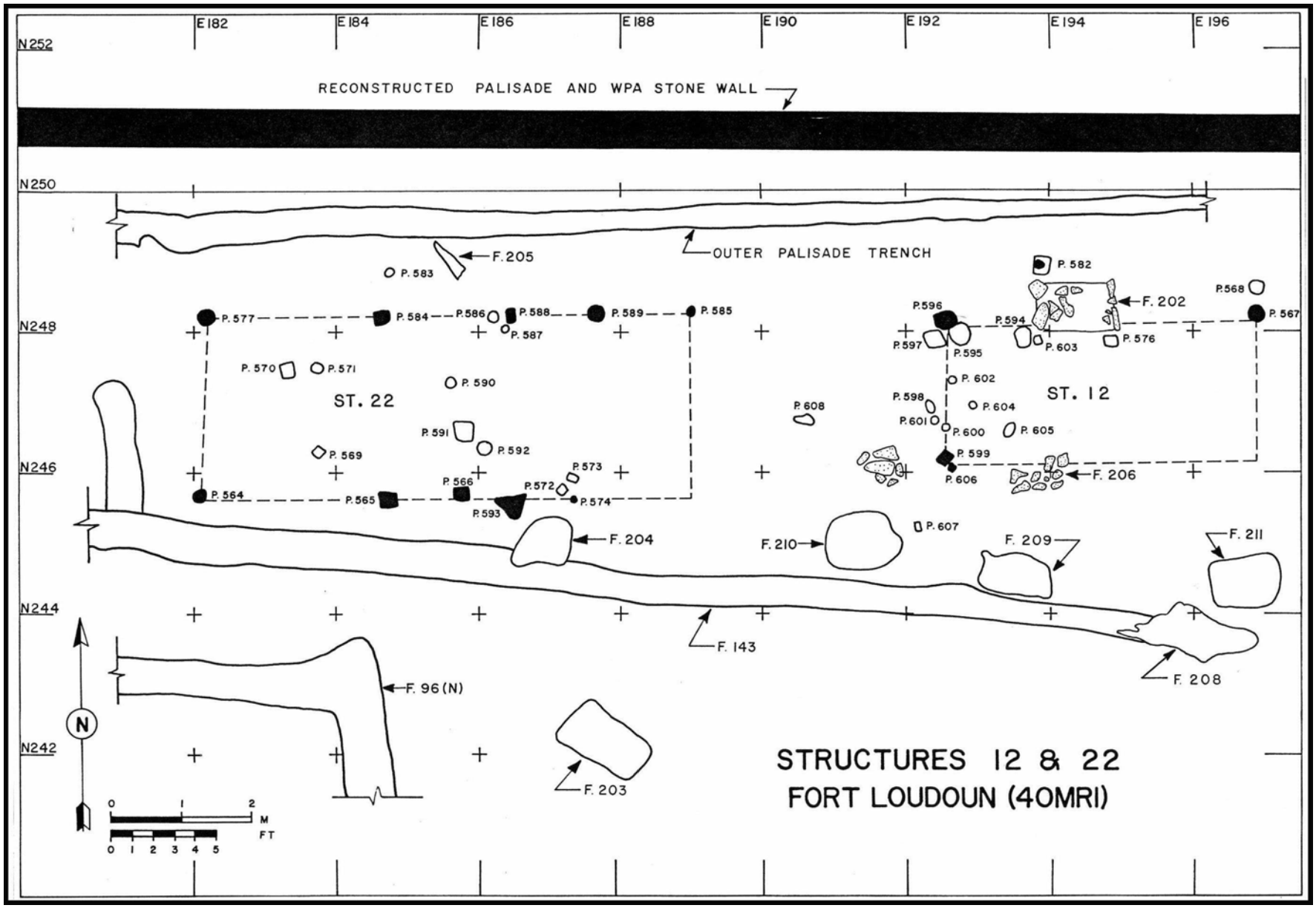

Figure 79. Plan of Structures 12 and 22.

Structure 13

Structure 13 as defined archaeologically was located in the interior of the fort just inside and to the north of the rivergate (Figures 6A, 80, 81, and 82). As discussed in a later part of this chapter, there is ample historical documentation indicating that this structure was a double-roomed building that functioned as the Officer of the Day's quarters and as the guardhouse for the fort. The actual archaeological evidence for this structure is minimal, consisting only of a level terrace cut into the base of the slope of the ridge and a double chimney base (partially reconstructed) just to the west of the center of the building. The terrace was constructed by cutting into the slope and using the resulting materials to fill the lower edge of the area, thereby providing a level surface for this structure. Figures 80 and 82 show the outline of the flat terrace and the upper level of the cut as it existed at the time of the 1975-1976 excavations. Figure 81 shows the western part of this terrace area after clearing of the fort site by the WPA project in 1936.

Using the edges of the level area as approximate dimensions for this building, the west room, presumably the guard room, would have been approximately 4 m (13.12 ft.) north-south and 5 m (16.40 ft.) east-west. The east room, the Officer of the Day's quarters, would have been 7.5 m (24.60 ft.) east-west and 5 m (16.40 ft.) north-south. The eastern edge of the terrace had been badly disturbed by at least two tree removals that probably dated to the WPA clearance operations. These are shown on Figure 80. The area of the building was again cleared by the latest excavations, but no post molds or sill molds were noted. The lack of any sill molds can be attributed to disturbances of the previous excavations.

This building was first cleared and excavated by the WPA project. Hobart Cooper established the dimensions of the east room of the guardhouse as 23 ft. by 19 ft. and provided a drawing of the remains of the chimney base as they were at that time (Figures 28 and 29). The dimensions provided by that plan show the east hearth to have been 5.08 ft. by 3.00 ft. (1.54 by 0.91 m) and the west hearth as 4.50 ft. by 3.00 ft. (1.37 by 0.91 m). Figure 81 shows the western part of this terrace as it was after the WPA clearing operations. This part of the terrace is outlined by the four individuals and corresponding stakes. The remains of the chimney base appear as several stones between the two right-hand stakes. This bounded area constitutes what would have been the west room of the building. Subsequent to the WPA excavations, the chimney base was partially reconstructed (Figure 82).

In 1955, Ellsworth Brown carried out some excavations in the area of this building and reported the east room to have had dimensions of 18.50 ft. by 17.58 ft., presumably on the basis of the size of the terrace area (Brown 1958:18-20; Kunkel 1960:12). In 1966, Richard Myers and James Polhemus made a grid of metal detector readings across the area of the guardhouse and excavated a test pit east of the chimney base. They reported two possible lower floors or humus layers in the profiles before the test pit encountered bedrock outcropping (James Polhemus, 1966 Field Notes on file McClung Museum). One bullet mold was recovered at that time. A test trench cut across the area east of the chimney base by the 1975-1976 excavations revealed a fill of red clay above an old humus zone, a situation that is consistent with the cutting and filling that was done to initially construct the terrace, but no additional floors.

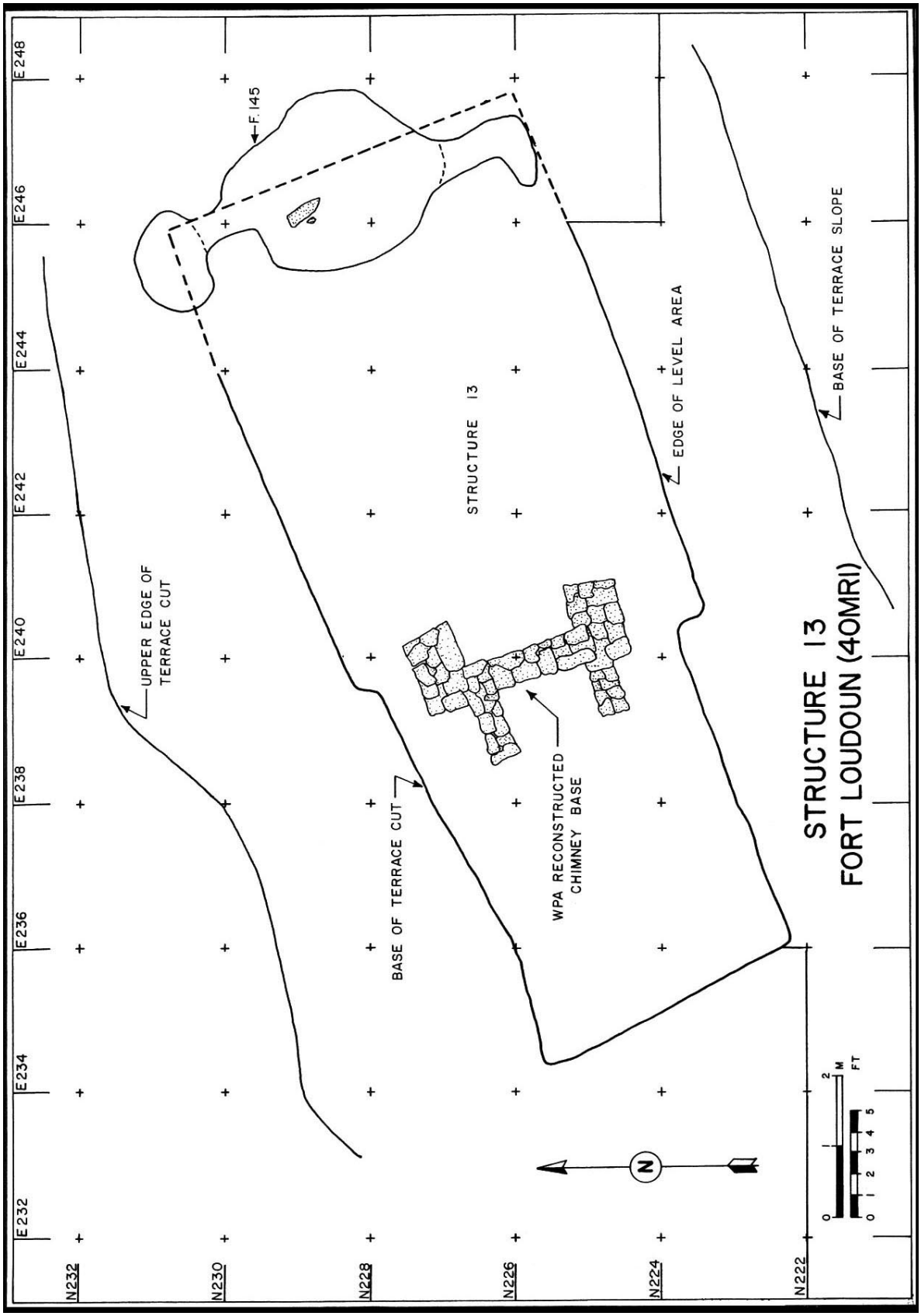

Figure 80. Plan of Structure 13.

Figure 81. Photograph of Structure 13 terrace after clearing by the WPA project. The four men outline the west room of the structure; the remains of the chimney base are between the two stakes on the right. The view is slightly to the northeast. The stone monument on top of the ridge is the 1917 Society of Colonial Dames marker. To the right of that marker on the crest of the ridge can be seen the remains of the original parapet prior to the WPA excavation.

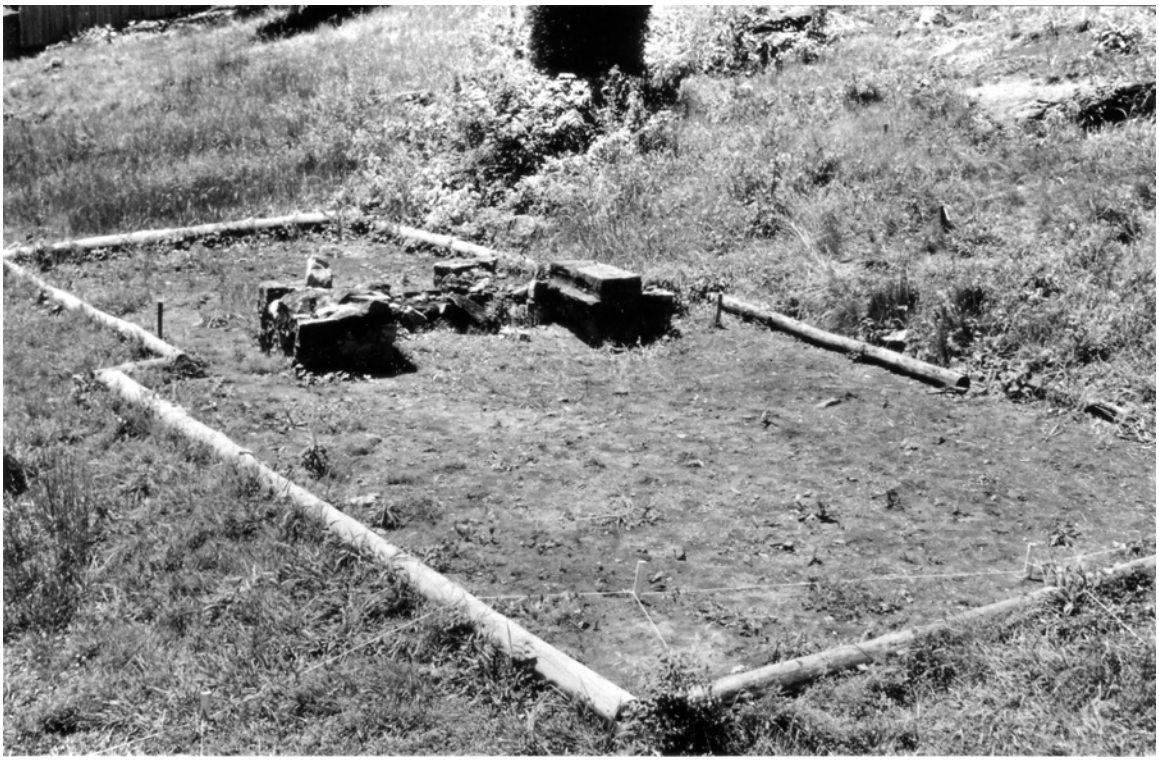

Figure 82. View to the west of Structure 13 prior to the 1975-1976 excavations.

Structure 14

Structure 14 was located adjacent to the south end of the main barracks building (Figures 6A and 83) and was defined by the presence of three sill molds, comprising the north, west, and south walls. The east wall was not defined. The definition of these walls as shown in Figure 83 is based in part on the 1975-1976 excavations, and in part on the report of the 1959 excavations in this area (Kunkel N.D.:15-19, Figure 2; 1960:17-19). These sills varied in width from 20 cm to 30 cm, and as defined by the earlier excavation had a depth of 20 cm. Assuming that the length of the south sill was the full length of this structure, then the building would have had a maximum east-west dimension of 6.80 m (22.30 ft.) and a 3.80 m (12.46 ft.) north-south dimension.

Feature 76, a stone-lined drain which is discussed more fully in Chapter 6, cut across Structure 14 in a north-south direction. Kunkel indicated that the drain was intrusive to the south sill of this structure, but not through the north sill. He reported that the north sill was intrusive to the drain (Kunkel 1960:19; N.D.:Figure 2). Because of the prior excavations, this information could not be verified by the latest excavations. However, it is believed that this drain probably cut through both the north and south sills. This sequence is based on two sources of information. First, the stone lining of the ditch, which was left in place by Kunkel, did not appear to have been disturbed where the north sill crossed the trench. There is no obvious gap in the vertical stones, as might have been expected had the sill been intrusive to the drain. Secondly, if in fact Structure 14 is the remains of the store or corn house (see Figure 8), it is quite clear from the historical documentation (discussed more fully later in this chapter) that this building was one of the earliest constructed at the fort, and that the drain was not constructed until somewhat later on during the occupation of the fort.

Structure 15

This structure was located on the south side of the Parade Ground along the south side of the fort, and to the east of the south gate to the fort (Figures 6A and 84). The archaeological evidence for this structure consisted of a rectangular arrangement of 15 post molds. It appeared to have been a three-bay structure with overall dimensions of 9.15 m (30.01 ft.) by 3.70 m (12.13 ft.), with bays varying between 2.79 (9.18 ft.) and 2.98 m (9.80 ft.). The row of central posts may have been for supporting a plate along the center of the building, which would carry a lot of weight in an upper one-half or full story. The post molds that were defined in the postholes varied in diameter between 15 cm and 25 cm (6 in. to 10 in.), and represented round poles rather than squared timbers. Post Mold 510 may not have been associated with the west wall, since it does not seem to fit the otherwise regular pattern of the post molds for the remainder of this structure. The two post impressions that were present in Posthole 473 probably represent the replacement of a post. One post in the north wall of this building was not defined, but the expected location of that post was where a WPA exploratory trench (Figure 27), had probably destroyed the remaining evidence for that post mold. Post Mold 461 on the east wall may have held an intermediary stud to accommodate a door in that wall. If this was a doorway then it was probably in addition to an expected, but undefined, entrance that would have opened onto the Parade Ground. Unlike many of the other structures, there was no archaeological evidence to suggest that this building had a hearth or fireplace. This is consistent, though, with the interpretation of this structure as a storehouse.

The post molds that defined the north wall of this building were clearly intrusive to the south curtain of the innermost palisade line (Feature 158). This situation is analogous to that of Structure 6 on the eastern edge of the Parade Ground, where the west wall of that structure was intrusive to the east curtain of the innermost palisade line. It is quite possible that Structures 6 and 15 were constructed at about the same time, but both certainly after the removal of the innermost palisade line.

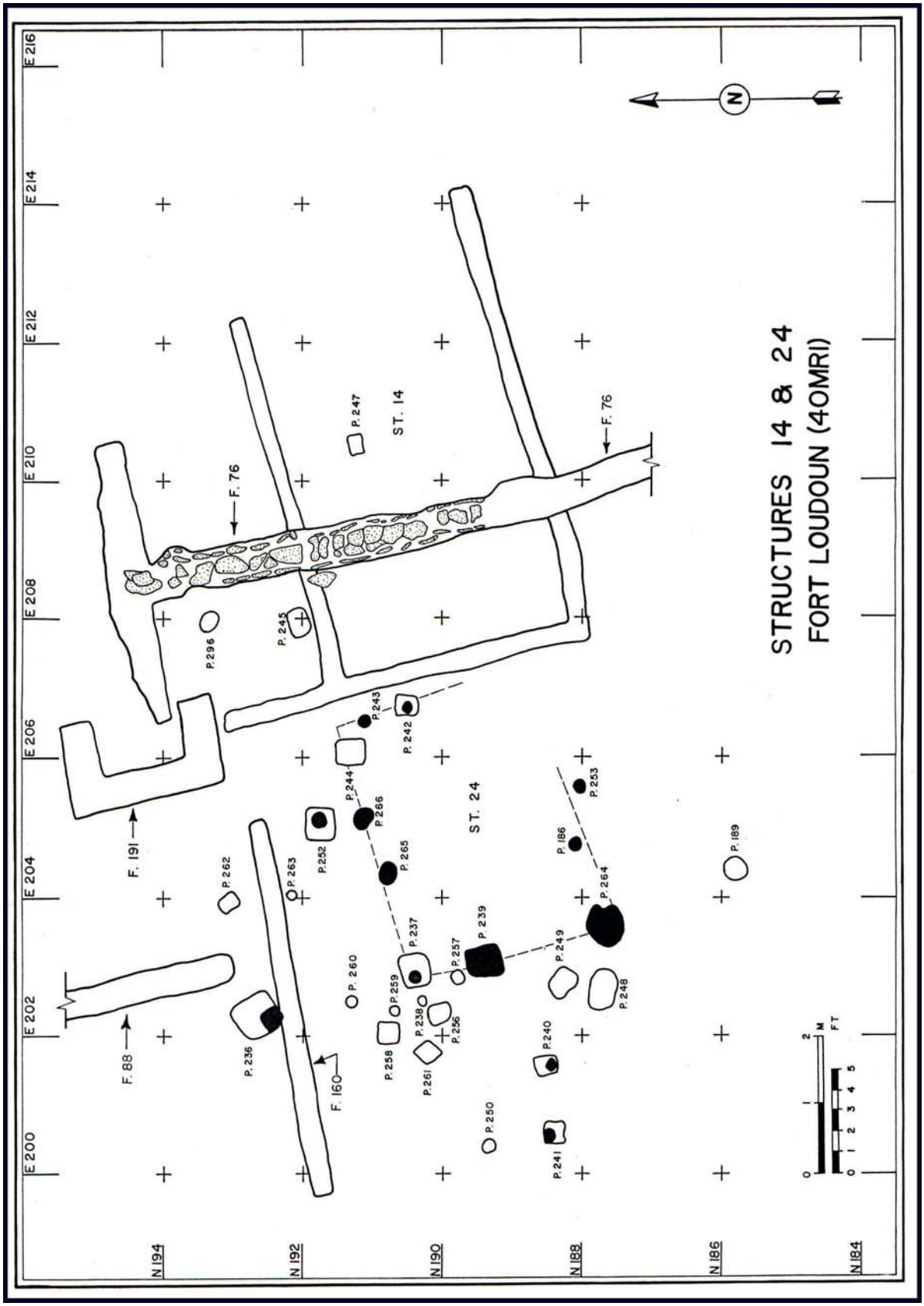

Figure 83. Plan of Structures 14 and 24.

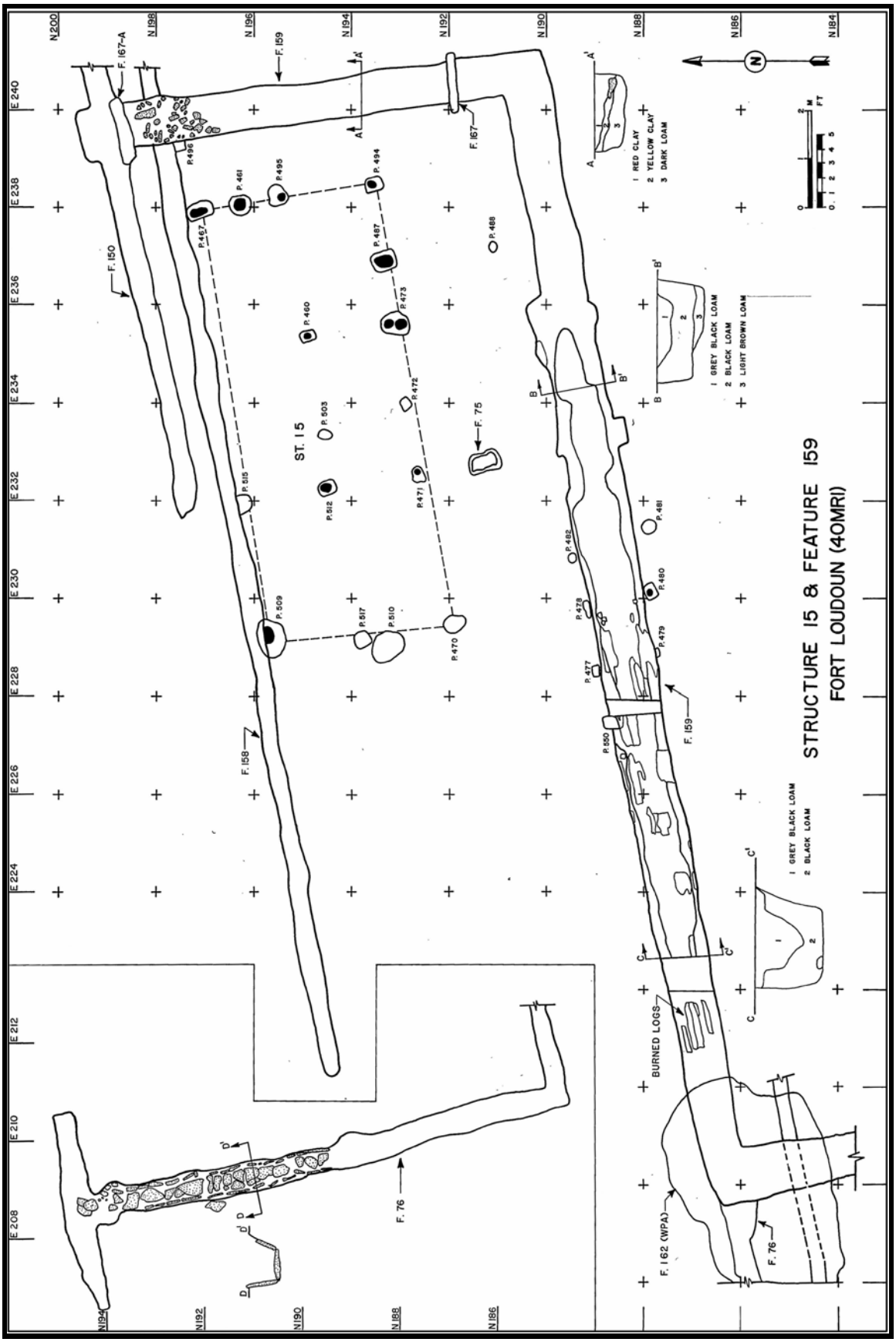

Figure 84. Plan of Structure 15, and Features 76 and 159.

Structure 16

Structure 16 was located near the top of the slope of the fort and near the eastern end of the north curtain (Figures 6A, 85, and 86). The major archaeological evidence for this building consisted of a terraced area that had been cut into the slope of the ridge to provide a level area on which to construct the building. The defined dimensions of this area were 3.00 m (9.80 ft.) north-south by 6.00 m (19.70 ft.) east-west (Figures 85 and 86). This terrace cut had a maximum vertical height of 50 cm along the north wall. The fill of the structure consisted of a dark loam that contained large quantities of faunal remains and other artifacts of the fort period occupation, as well as some limestone debris.

Near the eastern end of the structure was a large rectangular area of fired clay, 1.6 m by 1.2 m, and some burned limestone rocks. It is assumed that this was either an area on the floor used as an open hearth or the remains of a chimney base. However, considering the evidence and the similarities to the hearths in several of the other temporary structures, it was probably just an area of the floor that was used repeatedly for an internal fireplace. There was no other structural evidence such as post molds or sill molds that could be used to further refine the definition of this structure.

Structure 17

This structure was located on the upper edge of the slope of the ridge in the northern part of the Northwest Bastion, on a line with the inner palisade (Feature 96N) and east of Structure 20, the powder magazine (Figures 6A and 87). This structure was defined archaeologically by a shallow terrace that had been cut into the slope to provide a relatively level area on which to construct the building, several post molds, a sill mold on the north side of the structure, and a hearth on the east wall. The fill of the structure consisted of a dark brown loam mottled with red clay and large quantities of charcoal, as well as reasonably large quantities of historic period refuse. Overall dimensions were approximately 13.50 m (44.28 ft.) by 4.80 m (15.74 ft.).

The north wall of the building, which was represented by a vertical cut into the subsoil, began at N240.40/E195.50 and extended eastward along an irregular line to N240.50/E210.30. The cut varied in depth from about 13 cm to a maximum of 39 cm. A trace of a possible sill mold or shallow trench varying in width from 10 cm to 25 cm was recorded along the north wall between E202.00 and E206.40. The east wall was defined by a hearth, Feature 184, and Post Molds 557 and 558. The south wall was defined in part by another sill mold or trench between E203.50 and E208.20. This mold varied in width from 20 cm to 30 cm and from 6 cm to 23 cm in depth. It was not defined farther west than E203.50, but the approximate line is noted on Figure 87 and based primarily on the concentration of artifactual materials that was present in those squares. The definition of the location of the north and south walls was also verified to some degree by concentrations of nails along those lines. The definition of the west wall was likewise somewhat vague, but is given here on the basis of the location of the northwest corner of the terrace cut which extends to the south for approximately 50 cm, Post Mold 545 at that corner, and the termination of Feature 96N, the inner palisade line at E197.50, which is on an approximate north-south line from the center of Post Mold 545. The southwest corner was actually undefined, but is approximated on Figure 87. If this assumption is correct about the location of the west wall, then it is apparent that this structure was contemporary with the inner palisade line (see Chapter 4), which did not continue east of Structure 17, possibly because of the bedrock outcrop located in that area.

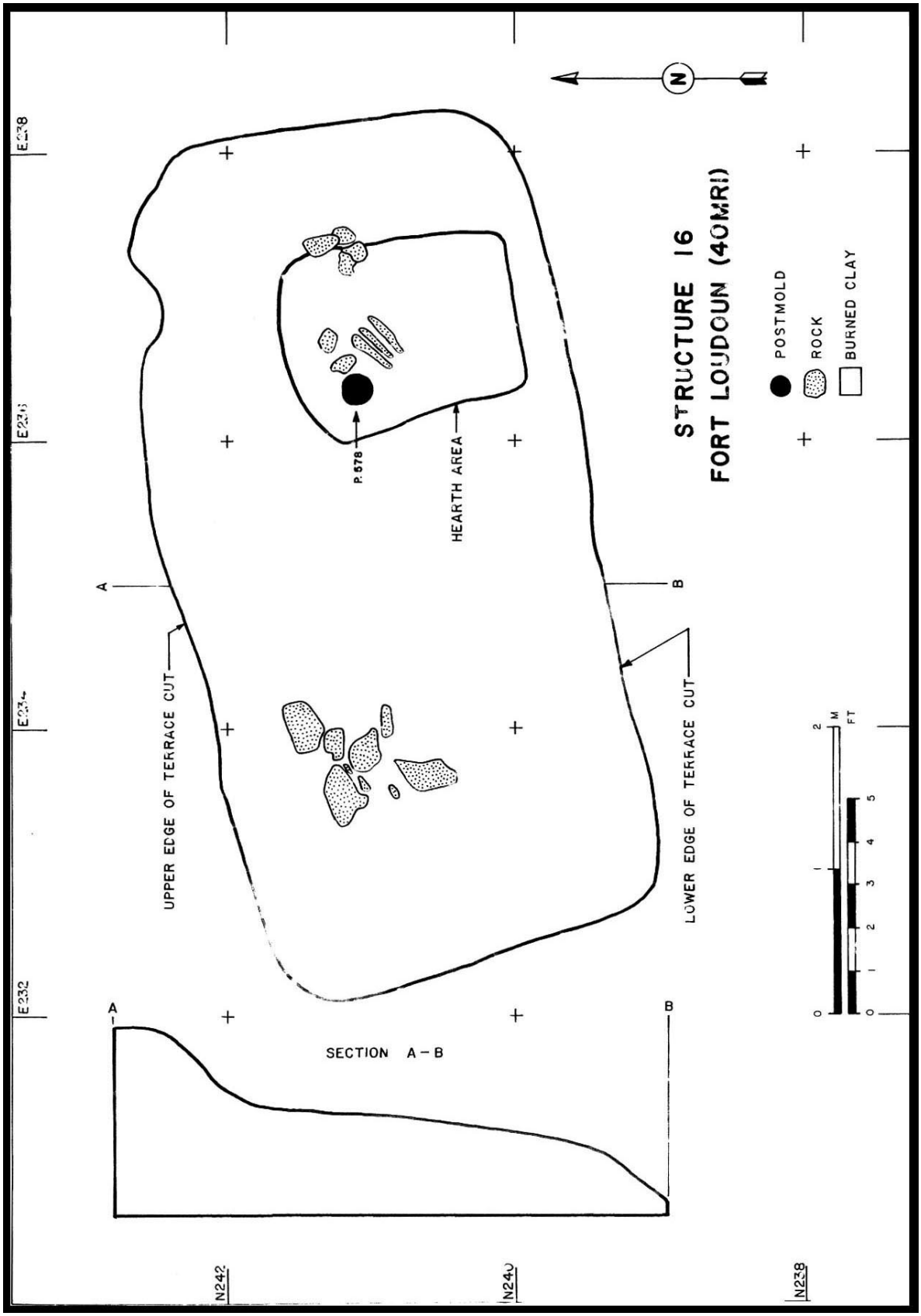

Figure 85. Plan and profile of Structure 16.

Figure 86. Structure 16 after excavation. View is to the northeast and shows the cut that was made to form a level area for the structure. TVA photograph.

Feature 184, the hearth that was located on the east end of this structure, consisted only of a baked clay floor with some charcoal and ash bounded by vertical limestone rocks on the north and east sides. Horizontal dimensions were 155 cm by 95 cm. A yellow-orange clay was packed against the rear of the hearth. This type of hearth is quite similar to several that were found in association with other structures.

Feature 200 was a shallow sill-like depression near the center of Structure 17. It had a defined length of 75 cm and a width of 25 cm. with a maximum defined depth of 15 cm. It had been filled with a rocky orange clay and a few historic period artifacts. Its relationship to the structure was not determined.

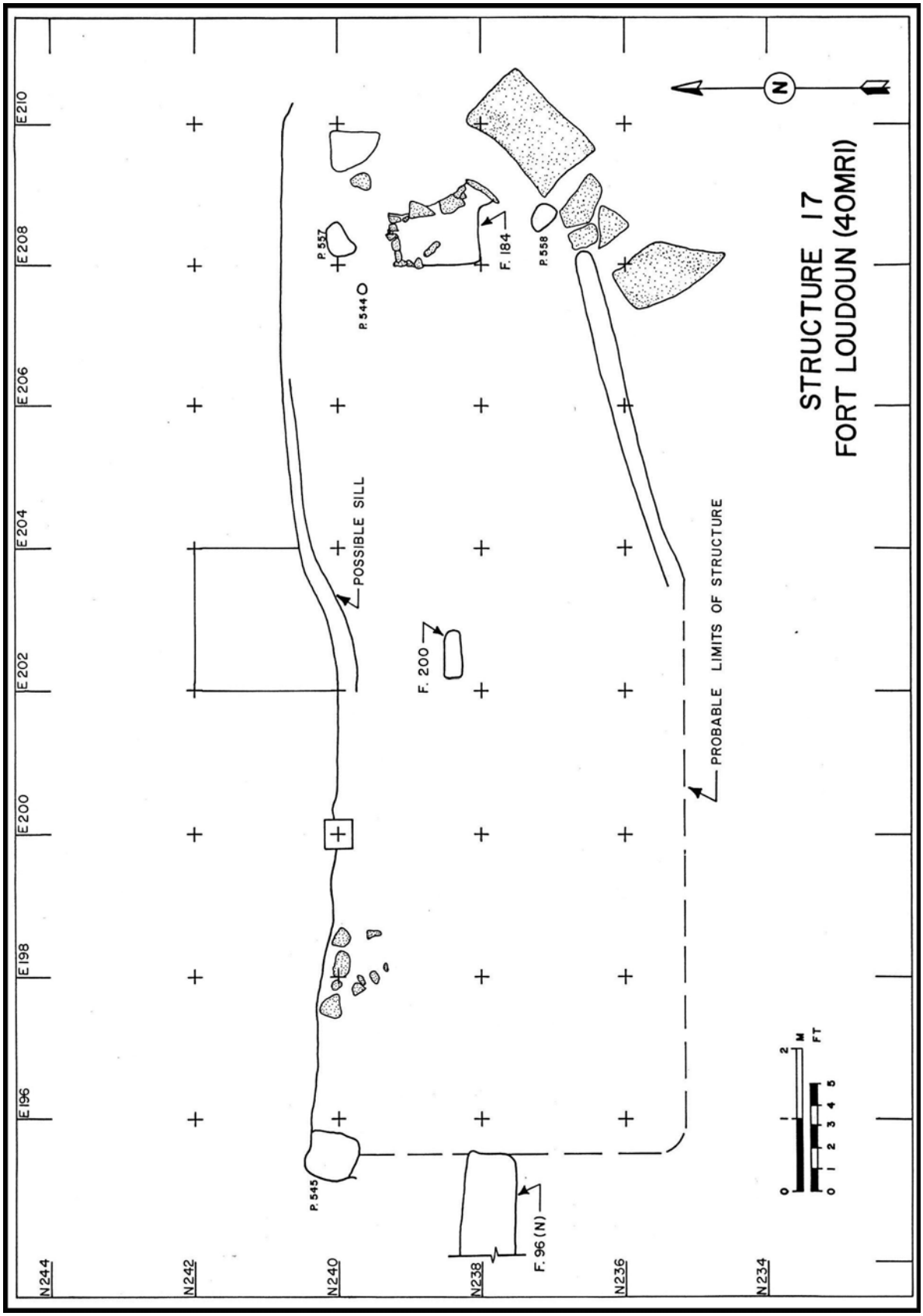

Figure 87. Plan of Structure 17.

Structure 18

Structure 18 was the northernmost of the series of buildings that were located between Feature 90 and the west curtain of the Northwest Bastion (Figures 6A and 88). The evidence for this building consists of two L-shaped wall trenches forming the south, west, and north walls. The east wall was formed by Feature 90. The wall trench sections, **Features 155 and 156,** were vertical walled with flat bottoms; widths varied between 25 cm and 60 cm, and the defined depths varied from a minimum of 14 cm at the southwest corner, to 45 cm near the opening on the west side. Of note, though, is the fact that the base of the wall trenches remained at a relatively constant elevation, about 251.52 MAMSL. This would probably indicate that there was an effort made to maintain a relatively level plate line for the roof, assuming that the vertical wall posts were of consistent length. No post molds were defined in either the fill or the base of the trenches. The fill consisted of a reddish clay mottled with orange, tan, and brown soil. Except for the mottling, the trench fill was much like the surrounding subsoil, giving the impression that the trenches were excavated and refilled very soon afterward. It is also quite possible that they were never even used to support vertical wall members. Overall dimensions of the structure were 6.20 m (20.33 ft.) north-south by 4.30 m (14.10 ft.) east-west. Whether this building and Structure 21, another comparable structure in the same bastion, were in fact roofed structures, or just some type of enclosures, is not known. Whatever its form was, it was apparently rather temporary, if in fact it was ever completed. In all likelihood, Structures 18 and 21 were probably part of the traverse system in this bastian, rather than habitation structures.

Post Mold 367 was recorded within the interior of the structure. Its horizontal dimensions were 48 cm by 33 cm and it had a defined depth of 14 cm. Although it was located within the structure, it is not really considered to have been functionally related to the building. In the western wall of this structure there was an opening of 1.30 m formed by a gap in the wall trenches. This structure had been partially disturbed by two previous excavations. Square N240/El68, which covered part of the north wall of this structure, was not excavated because one of the permanent transit stations established within the fort for the excavations was located there.

Structure 19

Structure 19 consisted of the partial remains of a building that was located north of Structure 10, in approximately the same line as that structure, and Structure 7 in the northwest part of the fort (Figures 6A and 89). It was defined only by a wall trench or sill (Feature 135) along the north side of the structure and a small hearth, Feature 117, on the eastern end. The trench or sill mold of the north wall varied from 10 to 15 cm in width and had a defined depth that varied between 7 cm and 11 cm. The overall length of the trench was 2.85 m. A rectangular post mold, Post Mold 411, was at the western end of the trench. Post Mold 414 was located just east of the hearth and could have possibly been part of the east wall. If this was the case, then the hearth would have then been located in the northeast corner of the building.

Feature 117, the associated hearth, was lined on three sides with flat limestone slabs that had been set vertically around the perimeter of the hearth area (Figure 89). Overall horizontal dimensions were 1.50 m by 1.05 m. The floor of the hearth had been covered with a layer of clay, which had become reddened and baked from repeated firing. At a slightly lower level within the hearth there was another fired clay surface, indicating that the lower hearth had been used for sometime and then capped and reused.

Structure 19 had apparently been built over Feature 104, which was interpreted as a filled in depression predating Structure 19 and possibly resulted from a tree removal during the early period of the fort construction. Zone A, or the upper zone of that feature, did contain some historic period refuse that may have been deposited in the depression or derived from the occupation of Structure 19.

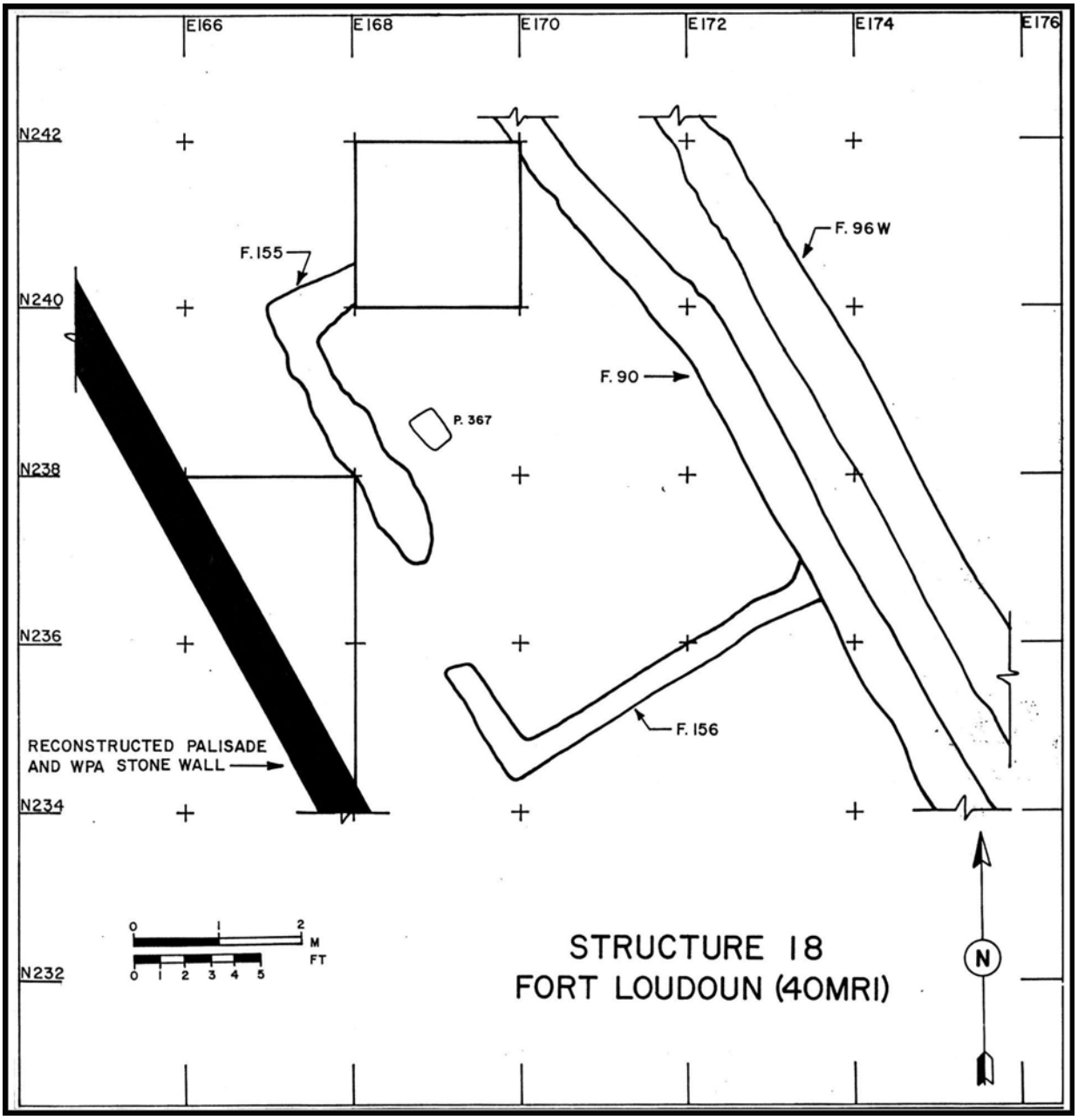

Figure 88. Plan of Structure 18.

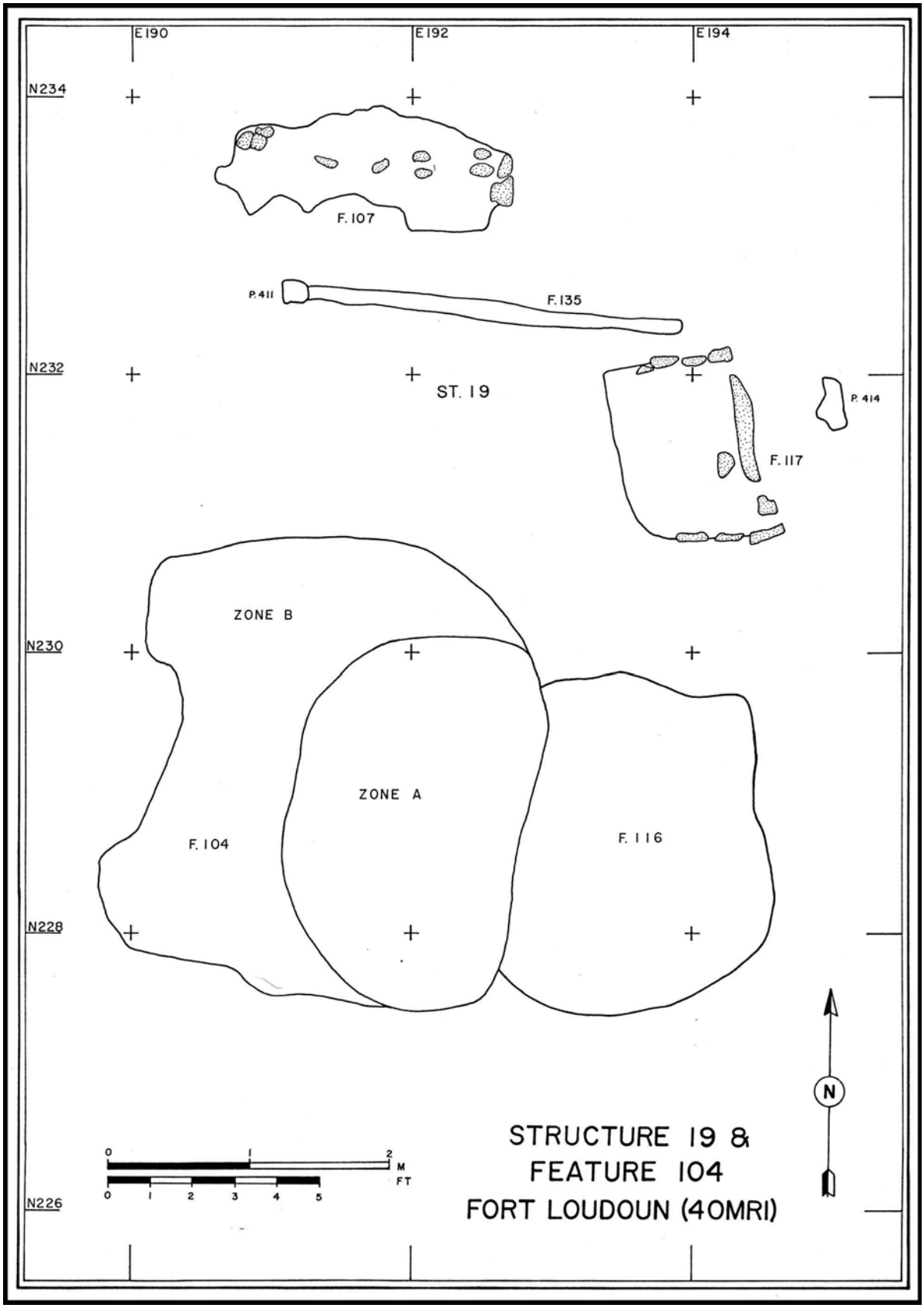

Figure 89. Plan of Structure 19 and Feature 104.

Figure 90. Feature 117, the hearth associated with Structure 19. View is to the east.

From the available evidence, the dimensions of Structure 19 would have been at least 3.5 m (11.48 ft.) east-west or, at the most, 4 m (13.12 ft.) if Post Mold 411 was associated with the east wall. The north-south dimensions, which are undefined, would be expected to have been about the same, or slightly less, defining a square or rectangular structure. The construction of this building is similar in many respects to several of the other buildings that are thought to have been temporary quarters during the early part of the occupation, such as Structures 4, 7, 8, 9, 10, and several others.

Structure 20

Structure 20 was located in the Northwest Bastion, centered in the northwest bastion of the inner palisade line (Figures 6A, 91, 92 and 93). It is quite clear from the extant historical documentation that this was the powder magazine (see Figures 7 and 8). Because of the heavy disturbance of this structure by the WPA excavations, which cleared this building, and the subsequent reconstruction over several years by the Fort Loudoun Association, it was decided not to attempt any re-excavation of the interior of this building. Figures 91 and 92 are photographs of the powder magazine after excavation by the WPA project that show the foundations which consist of several courses of roughly cut tabular limestone that were remaining after the completion of that work. Figure 93 is Hobart Cooper's plan of the remains of the stonework as it was recorded in 1936. The exterior dimensions of the foundations were 4.87 m (16.00 ft.) by 4.72 m (15.50 ft.), and the foundation walls varied up to 60 cm thick. These wall foundations were probably at least a couple of feet higher, considering the amount of limestone blocks that had been removed from over the structure and shown piled next to the northwest wall of the structure in the photographs.

Figure 91. View to the northeast of Structure 20 (Powder Magazine) showing the foundation remains as exposed by the WPA project. The large stack of stones outside the northwest wall are presumably stones removed from the interior of the structure. The windlass in the background is above a well drilled by the WPA project. The upright pole in the trench to the right of the well marks the junction of the north face and the east flank of the inner palisade bastion. Photo courtesy of the Fort Loudoun Association.

Figure 92. View west of Structure 20. The upright post on the left of the photograph marks the angle between the west face and the south flank of the inner palisade bastion. Photo courtesy the Fort Loudoun Association.

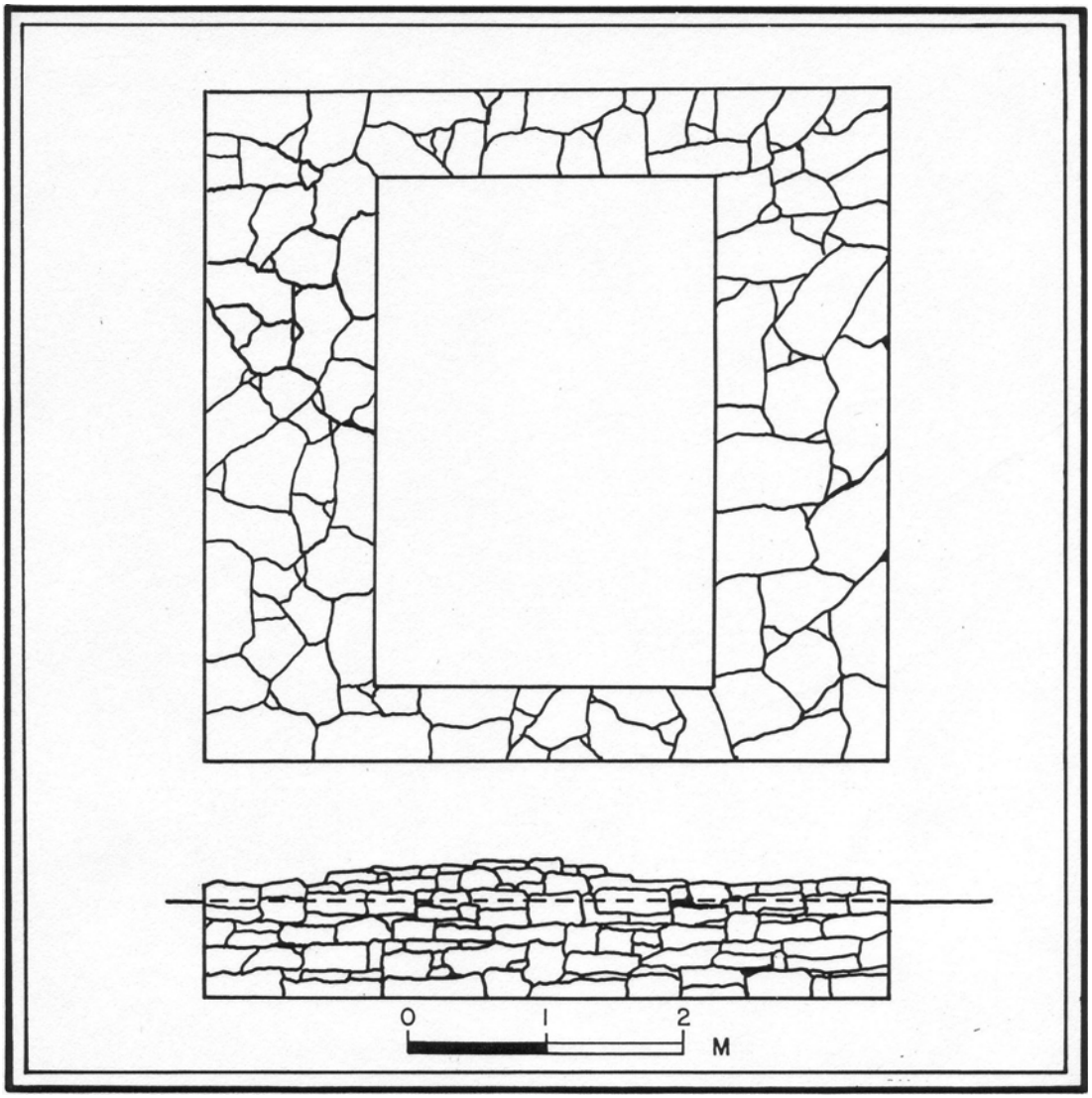

Figure 93. Plan of the remains of Structure 20 (Powder Magazine). Adapted from Hobart Cooper's Archaeological Data Detail Sheet, June 21, 1937.

Structure 21

Structure 21, a companion structure to Structure 18, was located on the north side of the Northwest Bastion (Figures 6A and 94). It was constructed similarly to Structure18 in that it consisted of two separate wall trenches in part and had Feature 143, the companion traverse to Feature 90, for the south wall. It had an entranceway on the north wall of the structure. Overall dimensions were 6.00 m (19.68 ft.) by approximately 2.5 m (8.20 ft.), although the east wall of the building was some 70 cm longer than the west. The west wall and part of the north wall were formed by an L-shaped trench that varied in width from 30 cm to 50 cm; the defined depth varied from 15 cm to 35 cm. Within the base of this trench were two rectangular post molds, Post Molds 416 and 417. The east wall and the eastern part of the north wall were incompletely defined by two segments of wall trench and Post Molds 436 and 437. These segments of wall trench varied in width from 25 cm to 50 cm, and the segment on the north wall had a maximum depth of 10 cm. The east wall trench was defined, but not excavated. The fill within these trenches was composed of a mottled red to orange clay that was similar to that of Structure 18. The door or entranceway in the north wall had a width of 80 cm.

There were no associated features defined for this building. The northeast corner had been obliterated by erosion or other excavation, and a WPA exploratory trench cut through Feature 143 and into the southwest corner of the building.

Structure 22

Structure 22 was another building in the Northwest Bastion located between Structure 12 and Structure 21 and between Feature 143 and the outer palisade line (Figures 6A and 79). It was defined by a series of round and square post molds and was bounded by Post Mold 577 on the northwest corner, Post Mold 585 on the northeast, and Post Mold 564 on the southwest corner. The southeast corner was not defined. The building had an overall length of 6.90 m (22.63 ft.) and a width of 2.70 m (8.85 ft.). The shaded posts on Figure 79 are those which are thought to have been associated with the north and south walls. Spacing of the posts varies between 1.25 m and 2.50 m, but on the whole the posts seem to be paired on either side. Several clusters of post molds along the north and south walls probably resulted from either rebuilding or resetting of several of the posts. Numerous shallow post molds were within the walls of this building, but their significance to this structure is unexplained. None seem regular enough to indicate a partition like the one suggested for Structure 5. The somewhat closer spacing between Post Molds 565 and 566 on the south wall are suggestive of a possible doorway.

This area had been previously disturbed to some degree, and in part previously excavated during the 1959-1960 excavations (Kunkel N.D.:43-45). One of the test trenches from that excavation (T.TR.K-7) went along the south wall of this building, possibly eliminating some of the post molds, including the southeast corner post.

Feature 204 was located just south of the southeast corner of this structure. It consisted of an irregular basin-shaped pit that had horizontal dimensions of 100 cm by 70 cm, and a maximum depth of 20 cm. The fill was a red clay that was mottled with dark loam and lighter colored clays, and contained a moderate amount of historic artifacts. This feature cut into Feature 143, establishing that it postdated the filling of that trench. It is assumed to have been associated with the occupation of Structure 22, primarily on the basis of its close proximity to that building.

Structure 23

This chimney base and surrounding area is discussed here to present the information available suggesting that it may have been a structure. The evidence for this building, which is centrally located just south of the north curtain of the fort, consists primarily of a chimney base and possible corner stones or piers at the four corners of the building. The chimney base was located on the north wall of this structure, with the back of the chimney in line with the north curtain of the inner palisade line (Figure 6A). The chimney base was originally excavated by the WPA project and is shown as Fireplace H on the archaeological plan of those excavations (Figure 28). The chimney had outside dimensions of 2.10 m by 1.35 m and a hearth area, opening south, of 105 cm by 65 cm. Some restoration work was done on this feature after the close of the WPA excavations.

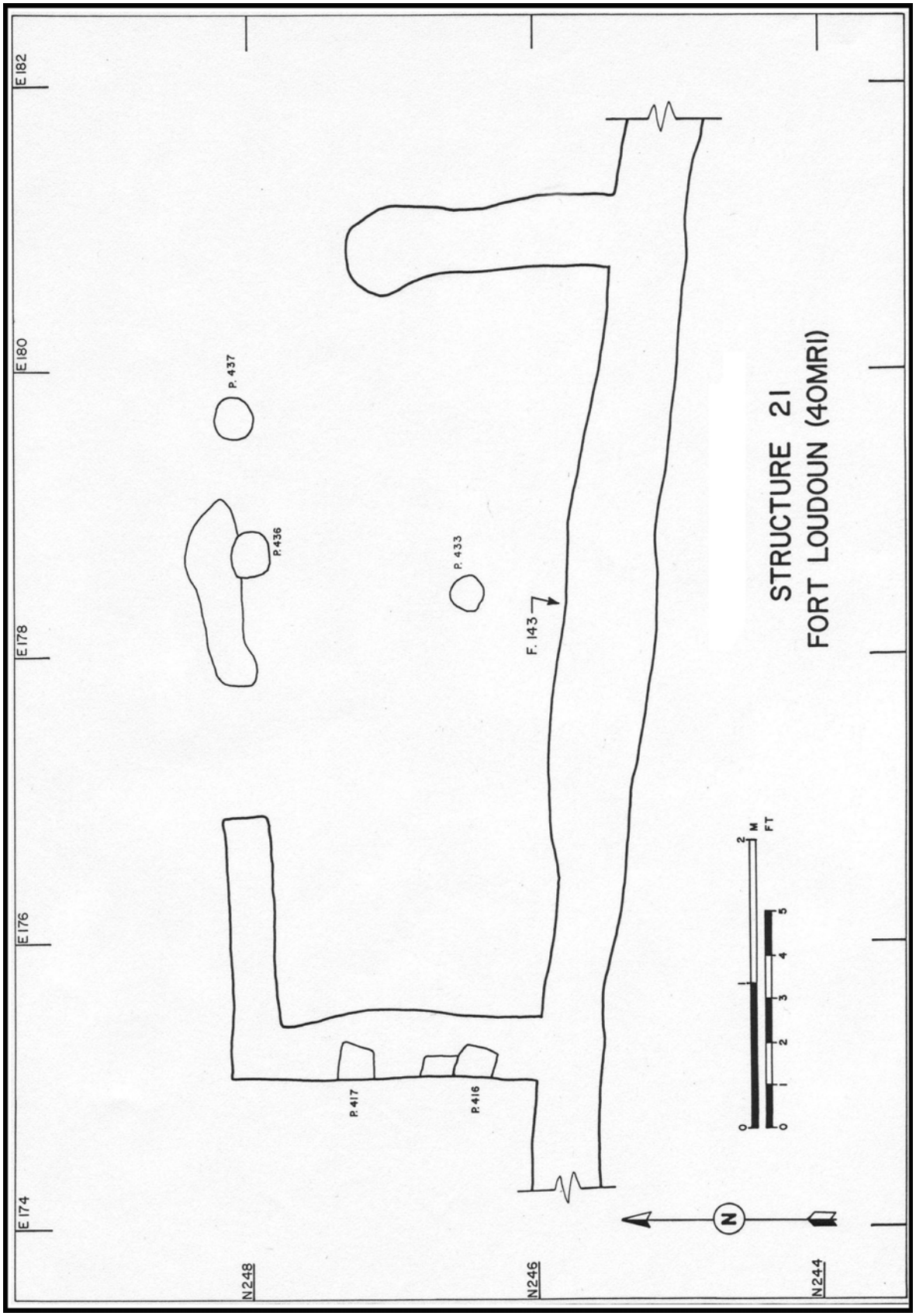

Figure 94. Plan of Structure 21.

In 1955, Ellsworth Brown of the Fort Loudoun Association undertook some investigations in the vicinity of the fireplace and the surrounding area. He cleared the hearth area of the fireplace verifying that the original stones for this facility were resting on bedrock (Brown 1955d). A shallow trench 18 inches wide, cleared to a depth of up to two inches, was run east and west from the front of the chimney base. Fifteen feet from the eastern edge of the chimney footing was a collection of flat stones which may have been used as a footing for the northeast corner. At a corresponding distance to the west of the chimney base was a rock outcrop which could have served the same function for the northwest corner of the building (Brown 1955e). Assuming that these were the corners of the structure, then the east-west length of this structure would have been 11.28 m (37 ft.). Brown later estimated the north-south dimension of the structure at 15 feet (4.57 m) on the basis of what he recognized as chisel marks on the bedrock (Brown 1958:36; Kunkel 1960:12). This entire area was cleared to the underlying bedrock by the 1975-1976 excavations, but it was not possible at that time to verify any of the dimensions presented by Brown.

Structure 24

Structure 24 was located in the southwestern part of the fort, at the southern end of the barracks area and adjacent to the west side of Structure 14 (Figures 6A and 83). The structure was defined by a series of round and square post molds spaced to encompass and area 3.20 m (10.49 ft.) north-south by 4.00 m (13.12 ft.) east-west. Corner posts were Post Molds 244, 237, and 264. The southeast corner was not defined. Post molds that are assumed to have been associated with this structure are shaded on Figure 83. The 1959-1960 excavations in this area may have destroyed the evidence for some of the posts of the east and south walls. The west wall of Structure 14 may also have been a common wall with this structure. Although it is not entirely certain, some of the WPA excavations may have also affected the remains of this structure. In addition to the post molds that outlined the structure, there are numerous others in the immediate vicinity of this building that may have possibly been part of a larger structure than the one which is described here.

Other Possible Structures

In addition to the structures that have been described in the preceding pages, and the barracks which are described in the next section, there is some evidence to suggest that there may have been several other buildings in existence at Fort Loudoun. The basis for these buildings consists primarily of some isolated hearths and chimney bases. These are not formally described as structures, since there was no other archaeological evidence located or recorded that would have provided any details of their size or construction.

Features 52 and 183 are two hearths located just west of Structure 4 (Figures 6A and 67). Both are similar in construction (see Chapter 6) to the hearths or chimney bases for other temporary buildings that were built early in the occupation of Fort Loudoun, particularly those for Structures 4, 17 and 19. Assuming that these hearths were in fact attached to or were within temporary buildings, then it would be expected that the structures would have been constructed similarly to Structures 4 and 17. In the discussion of Structure 4, it was suggested that Structure 4, and the building that may have been associated with Feature 52 may have had a common wall. If Features 52 and 183 do represent the remains of two additional structures, then they would have been part of a cluster of four temporary structures centrally located on the top and upper slope of the ridge within the fort. They would have all been constructed early in the occupation, November or December, 1756, and then torn down within a few months. The location of this cluster is out of the way of any of the palisade work that was being carried out during the early phase of construction, and is consistent with the documentation indicating that temporary housing for the troops was only done quite some time after the beginning of the construction of the fortifications.

In the area of the fort west of the line of barracks there are three chimney bases that may have been attached to structures. These are shown on the plan of the WPA excavations (Figure 28). Two of these are in a line parallel to the line of chimney bases that are associated with the barracks, at a distance of about 2.0 m (6.5 ft.) from the back of the barracks. Both of these chimney bases open to the west. The southernmost one (Feature 195) which was partially reconstructed, was situated approximately equidistant between two of the barracks chimney bases, Features 193 and 194 (Figure 6A). The only record of the northern one is the WPA plan (Figure 28) where it is shown as being located five feet north of Fireplace C, or Feature 166. No evidence for this chimney base remained at the beginning of the 1975-1976 excavations. Its approximate location would have been directly over the northeast corner of Structure 7 and the innermost palisade line trench, Feature 88, immediately east of Structure 7. There is no indication whether or not there was any

evidence for this feature at the time of the Kunkel excavations, but that work would have removed any remaining evidence, since he completely excavated Structure 7. There was no additional archaeological evidence , such as post molds or sill molds recognized by the latest excavations that could be used to define the structures that may have been associated with these two chimneys. The southernmost one was situated directly over the innermost palisade line (see Figure 6A), and the other one would have also been similarly situated. The third chimney base in this general area was located in Squares N210-212/E196, about four meters south of Structure 7 and two meters west of Feature 88 (Figure 6A). It is shown on the WPA excavation plan as Fireplace A (Figure 28), and was assigned Feature 80 during the last excavations. This feature is discussed in Chapter 6, and a plan of it is shown in Figure 105C. No other structural evidence was found that could be associated with this chimney.

There is nothing in the available historical documentation that suggests structures in this area, or indicates what they may have been. If in fact there were structures associated with these three chimney bases, their proximity to the barracks might suggest some sort of ancillary buildings for that facility, such as kitchens or the like. The archaeological evidence suggests, in the case of the two chimney bases that were built over the filled innermost palisade trench, that they were built after the removal of those palisades, or possibly at a time when the barracks were being constructed.

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
Structure 1					
1	SQ	35 x 40	25	244.38	PM: Brn. loam mot. w. YC and char.
2	SQ	45 x 42	34	244.29	PM: Brn. loam mot. w. YC and char.
4	SQ	58 x 58	29	244.39	PM: Brn. loam mot. w. YC and char.
	R	25			P: Brn. loam w. char.
5	SQ	45 x 45	37	244.25	PM: Mot. Brn. loam
	R	20			P: Brn. loam
11	SQ	43 x 33	19	244.44	PM: Brn. loam
12	SQ	30 x 32	19	244.38	PM: Brn. loam
16	SQ	41 x 38	22	244.37	PM: Brn. loam mot. w. YC
	R	16			P: Brn. loam
17	SQ	30 x 29	26	244.33	PM: Brn. loam mot. w. YC
	SQ	20 x 15			P: Brn. loam
18	SQ	50 x 35	23	244.37	PM: Brn. loam
19	SQ	40 x 28	23	244.39	PM: Brn. mot. loam
20	SQ	36 x 35	27	244.32	PM: Brn. mot. loam
22	SQ	41 x 35	38	244.18	PM: Brn. mot. loam
23	SQ	42 x 39	37	244.20	PM: Brn. loam mot. w. YC
24	SQ	36 x 35	29	244.25	PM: Brn. loam mot. w. Brn.C, OC, LS, and RC
26	SQ	47 x 45	42	244.15	PM: Brn. mot. loam
29	SQ	20 x 30	ND	ND	ND
31	SQ	33 x 31	33	244.29	PM: Brn. mot. loam
32	SQ	36 x 35	16	244.47	PM: Tan loam mot. w. Brn. loam
34	SQ	23 x 16	7	244.49	PM: Brn. loam
35	SQ	30 x 25	11	244.44	PM: Brn. loam
38	SQ	31 x 30	22	244.42	PM: Brn. loam mot. w. YC
41	SQ	50 x 25	7	244.53	PM: Brn. loam
61	SQ	23 x 20	12	244.48	PM: Brn. loam mot. w. YC and char.
63	SQ	25 x 22	21	244.39	PM: Brn. loam
64	R	25	13	244.52	PM: Brn. loam
69	R	22	11	244.54	PM: Brn. loam
70	SQ	30 x 30	28	244.44	PM: Brn. loam mot. w. YC

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
166	R	16	35	243.46	PM: Brn. loam
167	R	11	73	243.45	PM: Brn. loam mot. w. YC
168	SQ	30 x 30	15	244.32	PM: Brn. loam
187	SQ	25 x 25	8	244.61	PM: Brn. loam
220	R	18	ND	ND	PM: Brn. loam
223	SQ	38 x 34	30	244.18	PM: Brn. loam mot. w. tan sand
Structure 2					
88	R	35	25	244.34	PM: Blk. loam
89	R	14	7	244.45	PM: Brn. loam w. char. and daub
90	R	12	7	244.43	PM: Brn. loam
91	OV	22 x 19	5	244.54	PM: Mot. Brn. loam w. char., daub, cobbles
95	R	17	7	244.38	PM: Brn. loam mot. w. clay
104	R	20	20	244.30	PM: Brn. loam mot. w. clay, char., daub
144	SQ	30 x 30	10	244.41	PM: Brn. loam mot. w. RC
145	SQ	52 x 48	19	244.33	PM: RC
	SQ	17 x 17			P: Brn. loam
179	R	18	20	244.48	PM: Blk. loam w. char.
188	SQ	49 x 40	18	244.34	PM: RC w. cobbles
	R	20			P: Brn. loam
199	SQ	40 x 30	25	244.21	PM: Brn. loam w. daub and char.
	SQ	15 x 15			P: Brn. loam w. edge of char.
208	R	38	15	244.51	PM: Brn. loam w. char
212	SQ	65 x 60	15	244.29	PM: RC w. cobbles and char.
	OV	25 x 20			P: ND
213	SQ	45 x 35+	ND	ND	PM: RC
					P: Brn. loam w. char. and daub
214	SQ	50 x 45	18	244.31	PM: RC w. cobbles
	SQ	20 x 18			P: Brn. loam, concentrated charcoal
215	SQ	53 x 46	31	244.16	PM: RC w. cobbles
	SQ	22 x 15			P: Brn. loam w. charcoal
216	SQ	50 x 45	35	244.31	PM: RC w. rocks
	SQ	20 x 17			P: Burned post, char., and daub
217	SQ	50 x 43	6	244.42	PM: RC w. char.
	SQ	22			P: Clay w. char. and daub
219	R	30	ND	ND	PM: Brn. loam
Structure 3					
86	R	36	13	ND	PM: Brn. loam mot. w. OC
	R	10			P: Blk. loam mot. w. OC
96	R	17	16	244.45	PM: Brn. loam mot. w. clay and char.
97	R	18	14	244.47	PM: Brn. loam mot. w. clay
98	SQ	30 x 25	7	244.40	PM: Brn. loam
132	SQ	35 x 24	29	244.39	PM: Brn. loam mot. w. OC
134	SQ	20 x 12	6	244.52	PM: Brn. loam mot. w. YC
136	SQ	15 x 15	7	244.55	PM: Brn. loam mot. w. clay and char.
138	SQ	25 x 20	17	244.44	PM: Brn. loam
	R	10			P: Mot. clay
139	R	20	17	244.47	PM: Brn. loam mot. w. OC

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
141	SQ	40 x 36	35	244.26	PM: Brn. loam mot. w. OC
142	OV	31 x 26	11	244.50	PM: Brn. loam mot. w. CC
143	SQ	20	12	244.49	PM: Brn. loam mot. w. OC
189	R	30	28	244.11	PM: Brn. loam mot. w. char.
190	R	17	17	244.24	PM: Brn. loam mot. w. clay
191	R	18	12	244.20	PM: Brn. loam
192	R	36	37	244.01	PM: Brn. loam
193	R	19	8	244.36	PM: Brn. loam
210	R	16	10	244.32	PM: Brn. loam
Structure 5					
21	SQ	35 x 31	33	244.07	PM: Brn. loam mot. w. YC
25	SQ	32 x 30	28	244.19	PM: Brn. loam mot. w. YC
47	OV	40 x 35	48	243.93	PM: Brn.]oam mot. w. OC
	OV	20 x 25			P: Brn. loam mot. w. CC and char.
48	SQ	30 x 30	49	244.82	PM: Brn. loam mot. w. OC and char.
49	SQ	50 x 35	45	243.93	PM: OC mot. w. Brn. loam
	SQ	20 x 20			P: Brn. loam mot. w. YC and char.
50	SQ	27 x 20	48	243.90	PM: Brn. loam mot. w. YC
51	SQ	40 x 30	50	244.09	PM: Brn. loam mot. w. YC
52	SQ	33 x 30	43	244.16	PM: Brn. loam mot. w. YC
53	SQ	41 x 41	48	243.95	PM: Brn. loam mot. w. YC
54	SQ	23 x l9	15	244.23	PM: Brn. loam mot. w. YC
55	SQ	30 x 22	44	244.12	PM: Brn. loam mot. w. YC
56	R	19	42	243.99	PM: Brn. loam mot. w. YC
57	SQ	32 x 20	22	244.17	PM: Brn. loam mot. w. YC
67	SQ	40 x 35	19	244.29	PM: Brn. loam mot. w. YC
108	SQ	30 x 30	39	243.94	PM: Brn. loam mot. w. YC
172	SQ	26 x 20	ND	ND	PM: Brn. loam
173	SQ	35 x 32	ND	ND	PM: Brn. loam
174	SQ	34 x 30	37	244.00	PM: Brn. loam mot. w. daub and char.
196	OV	66 x 40	38	244.09	PM: Brn. loam mot. w.
197	OV	32 x 27	45	243.93	PM: Brn. loam mot. w. clay, daub, char.
198	OV	75 x 65	48	243.97	PM: Brn. loam
	SQ	23 x 20			P: Brn. loam w. ehar.
200	OV	48 x 45	53	243.92	PM: Brn. loam mot. w. YC
	SQ	20 x 16			P: Brn. loam w. char. and ash
201	SQ	29 x 29	55	243.92	PM: Brn. loam mot. w. YC
	R	20			P: Brn. loam mot. w. YC and char.
202	SQ	44 x 35	32	243.95	PM: Brn. loam mot. w. YC
203	SQ	35 x 34	41	243.92	PM: Brn. loam mot. w. YC
204	SQ	47 x 38	38	243.98	PM: Brn. loam mot. w. YC
205	SQ	70 x 50	45	243.95	PM: Brn. loam mot. w. YC
	SQ	30 x 25			P: Brn. sandy loam
206	SQ	40 x 23	48	243.87	PM: Brn. loam mot. w. YC
209	SQ	42 x 35	42	243.92	PM: Brn. loam mot. w. YC
211	SQ	46 x 40	50	243.91	PM: Brn. loam mot. w. YC
218	OV	25 x 20	43	244.04	PM: Blk. loam mot. w. YC

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
222	SQ	33 x 30	55	243.93	PM: Blk. loam mot. w. YC
246	SQ	30 x 28	ND	ND	PM: Brn. loam
267	SQ	31 x 30	47	244.00	PM: Brn. loam mot. w. YC
Structure 6					
269	SQ	35 x 30	16	244.24	PM: Brn. loam mot. w. YC
270	SQ	38 x 36	23	244.20	PM: YC mot. w. Brn. loam
271	SQ	25 x 25	32	244.08	PM: YC mot. w. Brn. loam
272	SQ	32.31	34	244.09	PM: Brn. loam mot. w. YC and char.
273	SQ	28 x 24	19	244.26	PM: YC and Brn. loam w. rocks
274	SQ	38 x 30	49	243.95	PM: YC and Brn. loam
275	SQ	26 x 25	23	244.18	PM: YC mot. w. Brn. loam and rocks
276	SQ	32 x 28	36	244.02	PM: YC mot. w. Brn. loam
277	SQ	43 x 42	29	244.08	PM: YC mot. w Brn. loam, rocks, char.
278	SQ	50 x 48	27	244.18	PM: YC mot. w. Brn. loam, rocks
279	SQ	32 x 29	20	244.18	PM: Brn. loam mot. w. RC
282	R	25	36	244.02	PM: YC mot. w. Brn. loam and char.
283	OV	107 x 78	38	243.99	PM: Brn. loam mot. w. YC, LS rocks
	SQ	40 x 30			P: Char.
285	SQ	44 x 44	28	244.00	PM: Blk. loam mot. w. RC and YC, LS slabs
	SQ	20 x 20			P: Light Brn. sandy loam
445	OV	32	50	243.65	PM: Brn. loam w. char.
446	OV	80 x 60	59	244.00	PM: Brn. loam
	SQ	40 x 35	49	244.10	P: Char.
447	SQ	40 x 40	59	244.00	P: Char.
448	OV	90 x 75	42	244.05	PM: Brn. sandy loam mot. w. OC
449	SQ	40 x 35	42	244.05	P: Brn. sandy loam mot. w. OC and char.
450	OV	80 x 65	60	243.87	PM: Brn. sandy loam mot. w. OC and RC
463	R	25	60	243.87	P: Brn. sandy loam w. rocks and char.
464	R	30	60	243.87	P: Brn. sandy loam w. rocks and char.
451	SQ	5n x 45	40	244.22	PM: Brn. loam, grey silt mot. w. YC
	SQ	28 x 22			P: Grey silt
452	SQ	55 x 40	44	244.05	PM: Brn. loam mot. w. OC and char.
	SQ	30 x 22			P: Brn. loam and char.
453	OV	80 x 60	50	243.96	PM: Brn. loam w. char.
	SQ	26 x 20			P: Brn. loam w. char.
454	SQ	26 x 26	50	243.96	P: Brn. loam w. char.
459	SQ	55 x 45	45	243.99	PM: Brn. loam
456	SQ	25 x 25	45	243.99	P: Brn. loam and charcoal
457	SQ	18 x 18	25	244.12	PM: Brn. loam and charcoal
458	OV	80 x 80	39	243.98	PM: Brn. loam mot. w. YC
	SQ	50 x 35			P: Brn. loam and char.
Structure 7					
320	R	12	5	246.28	PM: Dark Brn. loam
324	R	13	31	245.96	PM: Brn. sandy loam w. char
325	R	20	8	246.19	PM: OC mot. w. char.
326	R	18	2	246.38	PM: ND

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
327	Modern				
328	R	15	10	246.24	PM: Brn. loam mot. w. clay and char.
329	Modern				
330	R	13	29	246.10	PM: Brn. loam w. char. and rocks
Structure 8					
290	SQ	22 x 17	35	246.44	PM: Brn. loam
291	OV	22 x 15	22	246.55	PM: Brn. loam
307	R	14	18	246.06	PM: Brn. loam mot. w. clay and char.
308	SQ	20 x 20	9	246.09	PM: RC w. gravel
309	OV	34 x 25	5	246.07	YM: RC mot. w. Brn. loam, daub, rocks
321	SQ	42 x 35	16	245.99	PM: CC w. gravel
340	OV	12 x 15	2	246.12	PM: Light Brn.]oam w. char.
341	SQ	14 x 14	30	246.40	PM: Brn. mot. loam
386	SQ	37 x 34	13	246.33	PM: OC and char.
387	SQ	35 x 35	28	246.68	PM: RC w. gravel
390	R	10	25	246.63	PM: Gravelly YC mot. w. Brn. loam, char.
391	SQ	30 x 20	26	246.51	PM: RC w. gravel
407	R	17	16	246.03	PM: RC mot. w. Brn. clay
Structure 9					
351	R	20	12	249.23	PM: Brn. loam mot. w. CC
368	SQ	13 x 10	ND	ND	PM: Brn. loam mot. w. OC
374	SQ	15 x 10	23	249.39	PM: Brn. loam
375	SQ	12 x 10	24	249.03	PM: Brn. loam
376	SQ	14 x 10	30	248.93	PM: Brn. loam
377	R	15	30	248.92	PM: Brn. loam
378	SQ	15 x 10	30	248.95	PM: Brn. loam
379	3Q	10 x 10	10	248.64	PM: Tan loam
380	SQ	20 x 15	45	248.54	PM: Brn. loam
381	SQ	10 x 10	10	248.88	PM: Brn. loam
382	SQ	10 x 10	12	248.82	PM: Brn. loam
385	SQ	11 x 11	12	249.04	PM: Tan loam
Structure 11					
288	SQ	18 x 17	10	247.70	PM: Light Brn. sandy clay
338	R	45	60	247.94	PM: Light Brn. sandy clay mot. w. RC
342	SQ	30 x 30	15	248.12	PM: RC w. gravel and char.
343	SQ	24 x 21	22	248.08	PM: OC mot. w. Brn. clay
344	OV	30 x 25	10	248.61	PM: Mot. orange and Brn. clay
398	SQ	26 x 20	10	248.44	FM: Brn. loam
399	SQ	28 x 28	35	247.92	PM: Brn. loam
404	SQ	9 x 9	8	247.92	PM: Brn. loam
405	SQ	23 x 12	5	248.48	PM: OC mot. w. Brn. loam
410	SQ	12 x 10	8	248.15	PM: OC mot. w. Brn. loam
412	SQ	24 x 20	30	248.30	PM: CC mot. w. Brn. loam
Structure 12					
567	OV	26 x 22	10	251.47	PM: Brn. loam
576	SQ	22 x 20	12	251.13	PM: Brn. loam mot. w. RC
594	SQ	32 x 23	24	250.82	PM: OC mot. w. Brn. loam

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
595	OV	32 x 30	18	250.93	PM: RC
596	SQ	30 x 27	10	250.97	PM: OC
597	SQ	27 x 23	16	250.91	PM: RC
598	OV	17 x 9	9	251.11	PM: Brn. sandy loam mot. w. YC and char.
599	SQ	20 x 15	ND	ND	PM: Brn. loam
600	R	10	7	251.09	PM: Brn. sandy loam
601	SQ	10 x 10	11	251.02	PM: Brn. sandy loam mot. w. RC
602	R	12	11	251.18	PM: RC w. gravel
603	SQ	15 x 13	10	251.09	PM: RC mot. w. Brn. loam
604	R	12	7	251.16	PM: RC and rock
605	OV	20 x 13	7	251.03	PM: RC
606	SQ	12 x 12	14	250.87	PM: RC mot. w Brn. loam and char.
Structure 14					
247	SQ	21 x 20	6	244.51	PM: Brn. sandy clay mot. w. RC
Structure 15					
460	SQ	30 x 25	18	243.96	PM: Blk. loam
	R	16			P: Mot. YC
461	OV	45 x 40	20	244.02	PM: Brn. loam
	SQ	21 x 20			P: OC mot. w. Brn. loam
467	SQ	55 x 31	20	244.01	PM: Brn. loam
	OV	32 x 17			P: OC
470	OV	41 x 36	16	244.06	PM: Mot. silty clay
471	SQ	32 x 24	21	243.98	PM: Blk. loam w. char.
	R	14			P: CC
472	SQ	25 x 20	8	244.08	PM: Brn. sandy clay
	R	13			P: Charcoal
473	SQ	46 x 24	13	243.94	PM: Brn. sandy clay w. char.
	OV	16 x 12			P: Yellow clay w. char.
487	SQ	43 x 32	19	244.00	PM: Brn. loam
	OV	28 x 23			P: Yellow clay
494	SQ	32 x 31	19	243.94	PM: Brn. loam w. char.
	OV	11 x 9			P: OC mot. w. Brn. loam
495	OV	38 x 26	27	243.94	PM: Brn. loam w. char.
	OV	15 x 10			P: Orange sandy clay
503	OV	27 x 19	13	244.08	PM: Brn. loam w. char.
509	OV	80 x 42+	70	243.39	PM: Brn. mot. clay
	R	31			P: Brn. loam
510	OV	75 x 55	78	243.64	PM: Mot. orange clay
512	SQ	35 x 30	21	243.99	PM: Brn. loam
	OV	25 x 20			P: Brn. loam mot. w. OC, char., daub
515	SQ	32 x 30	31	244.02	PM: Brn. loam
517	OV	37 x 35	18	244.06	PM: Brn. loam
Structure 16					
578	R	23	13		PM: RC mot. w. Brn. loam and rock
Structure 17					
544	R	22	8	251.24	PM: Brn. clay w. char.
545	SQ	70 x 60	32	250.45	PM: ND

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
557	SQ	40 x 30	15	251.35	PM: OC mot. w. Brn. loam and char.
558	SQ	30 x 30	5	251.19	PM: OC
Structure 18					
367	SQ	48 x 33	14	252.51	PM: RC mot. w. Brn. clay
Structure 19					
411	SQ	20 x 20	31	249.04	PM: OC mot. w. char.
414	SQ	35 x 20	ND	ND	PM: Brn. loam
Structure 21					
416	SQ	37 x 33	12	251.25	PM: OC
417	SQ	23 x 20	7	251.27	PM: OC mot. w. Brn. loam
433	OV	35 x 30	ND	ND	PM: ND
436	OV	25 x 35	7	251.20	PM: ND
437	OV	30 x 29	15	251.12	PM: RC mot. w. Brn. loam
Structure 22					
564	SQ	20 x 20	12	251.15	PM: Mot. Brn. loam
565	SQ	28 x 24	17	250.68	PM: RC mot. w. Brn. clay and sand
566	SQ	25 x 15	11	250.74	PM: RC mot. w. Brn. loam
569	SQ	14 x 14	18	250.73	PM: RC w. char.
570	SQ	21 x 21	23	250.74	PM: RC w. sand
571	R	18	28	250.68	PM: Brn. sandy loam mot. w. RC
572	SQ	15 x 14	10	250.78	PM: RC mot. w. Brn. loam
573	SQ	18 x 14	12	250.77	PM: Brn. loam mot. w. RC
574	R	9	9	250.79	PM: Mot. RC
577	R	30	18	250.85	PM: RC mot. w sand
584	SQ	20 x 20	10	250.78	PM: OC mot. w. loam
585	R	20	22	251.16	PM: RC w. gravel
586	R	16	34	251.21	PM: RC w. sand and gravel
587	R	12	15	251.02	PM: Brn. sandy loam
588	SQ	22 x 12	12	250.99	PM: Brn. loam w. char. and
589	R	29	20	251.06	PM: RC w. gravel and sand
590	R	15	23	250.66	PM: OC
591	SQ	24 x 24	12	250.76	PM: OC
592	R	18	25	250.62	PM: RC
593	T	43 x 35	4	250.83	PM: RC
Structure 24					
186	R	11	11	244.43	PM: Blk. loam w. char.
236	SQ	49 x 48	18	244.51	PM: RC mot. w. Brn. sandy loam
	SQ	20 x 20			P: Brn. sandy loam
237	SQ	44 x 40	31	244.41	PM: OC mot. w. Brn. loam
	R	20			P: Tan sandy loam mot. w. RC
238	SQ	13	18	244.40	PM: Brn. sandy loam mot. w. YC and char.
239	SQ	56 x 46	33	244.23	PM: CC mot. w. Brn. clay
240	SQ	30 x 30	39	244.13	PM: Mot. OC
	SQ	15 x 15			P: Yellow sandy clay
241	SQ	35 x 31	24	244.22	PM: Mot. light Brn. sandy loam
	SQ	17 x 21			P: Brn. loam

Table 2. Structure Post Mold Data.

No.	Shape (cm)	Size (cm)	Def. Depth (cm)	Base Elev. (MAMSL)	Fill
242	SQ	26 x 25	24	244.35	PM: Mot. RC
	R	17			P: Light Brn. sandy loam
243	R	15	ND	ND	P: Mot. RC
244	SQ	42 x 40	19	244.47	PM: Brn. and red mot. clay
	R	20			P: Light Brn. sandy loam
245	SQ	40 x 30	ND	ND	PM: Brn. loam
248	OV	60 x 40	ND	ND	PM: Mot. RC
249	SQ	45 x 36	9	244.37	PM: RC
250	OV	24 x 19	14	244.28	PM: RC
252	SQ	36 x 29	10	244.58	PM: RC mot. w. Brn. loam
	OV	18 x 16			P: Brn. loam
253	R	20	ND	ND	PM: Brn. loam
256	SQ	34 x 26	16	244.43	PM: RC w. char.
257	R	21	11	244.47	PM: Brn. sandy loam mot. w. OC and char.
258	SQ	28 x 27	18	244.44	PM: RC
259	R	13	6	244.59	PM: RC w. char.
260	R	15	ND	ND	PM: Mot. Brn. loam
261	SQ	29 x 26	29	244.28	PM: Mot. YC
262	SQ	30 x 22	9	244.65	PM: OC mot. w. Brn. clay
263	R	15	ND	ND	PM: Brn. loam
264	R	55	34	244.05	PM: Brn. loam mot. w. OC
265	OV	30 x 25	ND	ND	PM: Brn. loam mot. w. OC
266	OV	28 x 25	28	244.34	PM: Brn. sandy clay

Notes: Data for post molds not associated with structures are presented in Appendix 8. Abbreviations are as follows: Blk.=Black; OC=Orange clay; Brn.C=Brown clay; OV=Oval; Char.=Charcoal; P=Post; Def.=Defined; PM=Post mold; Ele.=Elevation; R=Round; I=Irregular; RC=Red clay; LS=Limestone; SQ=Square; MASMSL=Meters above mean sea level; T=Triangular; Mot.=Mottled; YC=Yellow clay; ND=No Data

Barracks

There is ample historical documentation in the letters of Raymond and Paul Demere to indicate that a large barracks building was constructed in the fort in addition to the various huts and structures that have been described in the sections above. From the early part of the construction and occupation of the fort, it was recognized that there was a need for the construction of permanent barracks for the garrison that would be continuing at the fort after the Provincial troops left. This need is indicated from the early part of the construction, and there are numerous references between then and the time that the barracks was actually started, specifying the lack of a barracks. See for example the "Survey of Fort Loudoun," December 24, 1756 (quoted in Chapter 1), and letters that have been previously quoted in that chapter (R. Demere to Lyttelton, January 31, 1757, SCIA:327, and R. Demere to Lyttelton, March 1, 1757, SClA:345), which either state the lack of a barracks or the need for constructing one.

It is apparent that wood cutting for the Barracks had begun as early as December of 1756, when it was ordered that: "...the (People) who are employed in making Charcoal and in cutting and sawing Scantling for the Barracks be continued in that work" (Council of War, December 26, 1756, SCIA:287). But the need to complete the fortification to a defensible state took priority over the construction of the barracks during the first several months of 1757. As Demere indicated, the need for a barracks was not as pressing as other matters, since by January, 2, 1757, the garrison had constructed its own huts and buildings and was apparently living within the fort in some sort of shelter by that time:

> All my People are removed into the Fort having built new Hutts (R. Demere to Lyttelton, January 2, 1757, SCIA:302).

> ... the Fort cannot be called a regular one without Barracks and Conveniences of the like Kind being built... ...I had all my People lodged in the Fort, therefore hope your Excellency will excuse me if the Carpenters should not go immediately about Barracks &c... ...but they shall return to sawing Stuff for the Barracks so soon as they have a sufficient Quantity for the Carriages, &c. The Mason is now preparing Stone to build the Chimneys which may be built beforehand (R. Demere to Lyttelton, January 31, 1757, SCIA:327).

> I am in great Hopes that every Thing will be finished in about 5 or 6 Weeks, except the Barracks which at any Time may be done as the Men are now pretty well lodged; the most pressing and material Work must be done first (R. Demere to Lyttelton, March 1, 1757, SCIA:345).

As noted in the above quotes, Demere had employed a mason (Walter Bateman) to prepare stone for the chimneys for the barracks building that was planned. But, by April 11th there had been little progress made toward that construction:

> In Respect to the Barracks, your Excellency left that to me; they were not inserted in Mr. DeBrahm's Plan and he said he would have Nothing to do with them. Those that I am about to erect will be very commodious and will add greatly to the Strength of the Fort (R. Demere to Lyttelton, April 11, 1757, SCIA:366).

However, sometime prior to late June of 1757 construction of the chimneys had been started, but as it developed, the work that was done had to be taken down and redone. The rebuilding was apparently begun during the latter part of June.

> Walter Bateman had ingaged himself by an Agreement to erect and Compleat three Double Chimney's and Single one for the Barracks, & Just as he had finished the Second, it fell down and for fear the first Should do the Same & kill Some of our men, I had it pulled Down and had I not done it, it would have fallen of it Self, he made them to heavy and Clumsy with Stones, the fellow knows nothing of that Business, he was pay'd the Sum of One Hundred pounds for Digging all the Stones which were Requisit to build all the Chimney's and for other work's he had done in the fort. As the Stones and morter are Ready & at hand I have imployed Some good Mason's, which are amongst the Provincials, to Build Seven Single Chimney's, they are to be all in a row on the back part of the Barracks which will look better and more Commodious and give more room within, and be Soone built for they have already built two ... (R. Demere to Lyttelton, June 26, 1757, Clements Library).

The above passage is important for the interpretation of the archaeological remains, in that it describes the chimneys as being on the back of the barracks, and in a row, numbering seven. It also implies

that between the construction of the initial chimneys, which either fell down or were taken down, there was a design change in the barracks structure. The original plan of the three double chimneys and one single one would require a different building plan than one with seven single chimneys in a row, which constituted the final plan. It is interesting, however, that assuming that there was one fireplace in each room, the change in plan retained the same number of rooms or units as was originally planned, but organized them, presumably in a different manner.

Once the construction of the barracks actually began, the work went rather quickly. The buildings themselves were not started until late June, 1757, but on the 9th of July Lieutenant Howorth reported that the barracks had been built (Howorth to Lyttelton, July 9, 1757, Clements Library). But, after his arrival at the fort in early August, Paul Demere indicated that there was still work being done on the barracks: "I am employing some Work Men to finish some Work about the Fort and at the Barrack. I shall endeavour to have it done as cheap as possible" (P. Demere to Lyttelton, August 18, 1757. SCIA:403). Finally, on October 11, 1757, Paul Demere noted that the barracks had been completed and that the men were then living in those quarters.

> I have finished to build the Chimneys of the Barracks and have sent the Men in them, they are very comfortable and I have pull'd down the out of the way Hutts... (R. Demere to Lyttelton, October 11, 1757, Clements Library).

But in a letter written the following summer, Demere indicated that when the men were actually moved into the Barracks three of the chimneys had not been constructed, but that deficiency had been taken care of.

> When I orderd last fall the Men to the Barracks, there was wanting three Chimnies, and as I was building a Guard House I agreed with a Man to build three Strong Chimneys, & a double one for the Officer's and Men Guard Houses... (R. Demere to Lyttelton, July 31, 1758. Clements Library).

The archaeological evidence is not nearly as good as would be desired for this major building, and what might have been expected for the permanent barracks. The primary evidence consists of the foundations of six chimneys in a north-south row in the western part of the Fort (Figures 6A and 28). Six of these were excavated and recorded by the WPA project, and their locations as recorded by Hobart Cooper are shown on Figure 28. Probably one of the main reasons for the lack of evidence for the barracks remaining for the 1975-1976 excavations is that this area was one that was rather extensively excavated by the W PA project, as shown in two contemporary photographs of those excavations, Figures 95 and 97. Cooper's plan indicates that they located the remains of six of the seven chimneys that were known to have been built, as detailed in the above sections, but he apparently failed to record the seventh, or did not locate any evidence for it. Cooper provided schematic details of five of those that were located (Figure 29). Figure 96 shows the plan of Feature 166, the fifth chimney base from the south, which was re-excavated by the latest project. This base had previously been excavated and recorded by the WPA project, but Cooper provided no details, nor was the base reconstructed. The remains of the northernmost chimney reported by Cooper (Fireplace D on Figure 28) was not relocated by the last excavations, and he did not provide any detailed drawing of that feature. This chimney was in the area of a modern access road into the fort and may have been obliterated by more recent activities. Since Cooper did not detail that feature, it is also quite possible that at the time of the 1936 excavations, there was very little remaining evidence for that chimney. The seventh chimney would have been located between the northernmost one (Cooper's Fireplace B) and Feature 166, however, no evidence for this feature was reported by any of the previous excavators, and no evidence was found during the excavations reported here.

The composite of the plan of the chimney bases is shown in Figure 6A, which includes the northernmost chimney as recorded by Cooper and the probable location of the seventh one. The spacing between the two northernmost recorded ones is consistent with the spacing of the other chimney bases. One located midway between the northernmost chimney base, and the next chimney base to the south would have been consistent with the overall plan and the historical records of that construction. Table 3 provides the locational and dimensional data on the recorded chimney bases.

Besides the recorded chimney bases, there is very little additional archaeological evidence for the barracks building. The only other feature that may be associated is the sill mold that connects the southern chimney base with the north wall of Structure 14, and the sill mold forming the north wall of Structure 14 (see Figure 83). These sill molds had been previously excavated by Kunkel (N.D.:16), so the exact

stratigraphic relationship of the two trenches and the drain (Feature 76) could not be ascertained by the latest excavations. Kunkel interpreted this section of the sill as the southern wall of the barracks and assumed that its length, 5.8 m (19.02 ft.) (measurements are from the 1975-1976 excavations), was the width of the barracks building and represented the southern wall of that structure. In the discussion of Structure 14, it has been reinterpreted as the north wall of Structure l 4. The north-south sill is certainly in part associated with the barracks, and it is quite possible that the north wall of Structure 14 was simply incorporated into the structure and became a common wall between the two buildings.

Figure 95. View north along the line of the barracks chimney bases during the WPA excavations. Photograph courtesy of the Fort Loudoun Association.

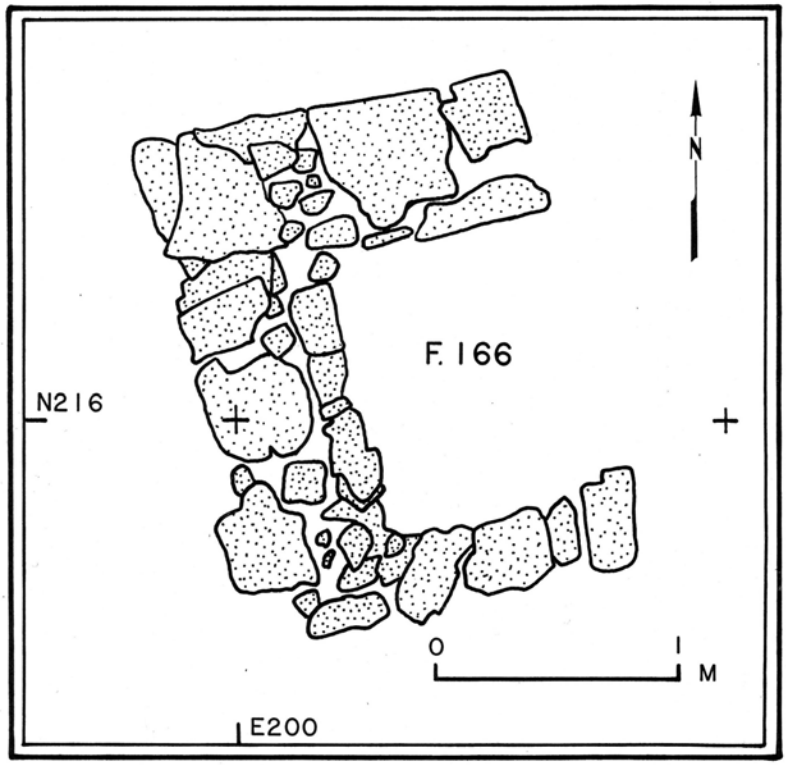

Figure 96. Plan of Feature 166, showing the remains of one of the chimney bases that was not reconstructed.

Figure 97. View south along the line of the barracks chimney bases during the WPA excavations. Photograph courtesy of the Fort Loudoun Association.

Figure 98. Feature 192, a reconstructed barracks chimney base. Feature 182, a pit, is partially under the left side of the chimney base.

Several things must be considered in the discussions of the barracks building. It probably contained seven rooms, assuming quite reasonably that there was one fireplace and chimney for each room. It is also assumed that these were all contiguous rooms or buildings that had common walls in between. This would have been the most expedient and conservative way of constructing the building, and it seems clear from the documentation that the references to the barracks seem to refer to it as a single structure. Another consideration in interpreting the form of this structure is that from the southern chimney base to the northernmost one there was a 4.26 m (14.0 ft.) rise in the ground surface, necessitating a stepped construction, with each succeeding structure or unit having a somewhat higher floor. This would have also precluded the barracks being one or a few large open rooms. It would have been a framed structure with the walls set on a series of piers or sills, and would have probably been covered with split or sawn clapboard siding as is indicated by the documentation. It would have probably had a general appearance similar to that of some early nineteenth century Hotel Cottages near Buffalo Creek, Virginia, which consisted of a series of stepped units with common walls (Historic American Buildings Survey 1976:88-89).

If it is assumed then that the north sill mold of Structure 14 does represent the south wall of the barracks, and that the northern wall of the northernmost room would have been approximately the same distance from the northern chimney base, and by using the measurements of Hobart Cooper (Figure 28), then the overall length can be estimated at 42.5 m (139.4 ft.). If the sill mold thought to be the south wall of the barracks is, in fact that wall, and its length represents the width of the barracks, it provides a minimum width of 5.8 m (19.02 ft.). This would give the barracks a minimum floor area of some 246.5 sq. m or 2652.3 sq. ft., assuming a single story structure.

An examination of Figures 6A and 28 shows that the chimneys that are considered to be associated with the barracks are not exactly evenly spaced. The two southernmost chimney bases (Features 191 and 192) are separated by 3.96 m (13.0 ft.), while the next three (Features 193, 194 and 166) are separated by 5.95 m (19.5 ft.). The distance between Feature 192 and Feature 193 is 6.5 m (21.5 ft.). However, the distances between Features 192, 193, 194 and 166 are respectively 6.6 m, 5.8 m and 6.5 m. If the distance from Feature 166 to the northernmost chimney base recorded by the WPA project (Figure 28) is assumed to be correct, then a chimney base between Feature 166 and the northernmost chimney base would provide a continued spacing of approximately 7 m between the three northernmost chimney bases. Overall, this would

provide an average spacing of about 6.58 m (21.6 ft.) between all of the chimney bases, excepting the southernmost one. That one remains something of an anomaly, in that its distance to the next chimney base is only 4.0 m (13.1 ft.), considerably different that the average of the others. It is possible that this just may have been a much smaller room.

Another complicating factor with this southernmost structure is the presence of a portion of Feature 76, the drain, extending approximately half-way into this structure. Unfortunately the disturbance in this area by at least two previous excavations was such that it was impossible to determine the stratigraphic relationship between the drain and the southern part of the barracks. The north wall of Structure 14 has been interpreted as having been cut by the drain system. This would imply that the structure had been removed prior to the excavation of the drain and its being lined with stone in that area. This also implies that the north wall of Structure 14 may have had no relationship to the barracks, as has been assumed above, unless the southern room of the barracks was removed at the same time as Structure 14, and prior to the building of the drain system.

Discounting the problem with the southernmost room or structure of the barracks, and using the distances between the other recorded chimneys as a basis, and assuming common walls halfway between the chimneys, then the room widths would have varied between about 5.8 m (19.0 ft.) and 7.0 m (23.0 ft.). Contemporary standards for barracks room sizes are available from several sources, and the square footage per man does vary a great deal. Vauban had recommended rooms 18 ft. by 22 ft. for 12 men or area of 33 sq. ft. (3.07 sq. m) per man (Brown 1964:75). Muller indicated that the room sizes at Woolrich for six men were 16 ft. by 16 ft. providing 42.6 sq. ft. (3.96 sq. m) per man, but recommended 18 ft. by 20 ft. for six men or an area of 60 sq. ft. (5.58 sq. m) per man (Muller 1755:223). Washington's plan for a barracks at Fort Loudoun at Winchester, Virginia, consisted of an 18 ft. by 88 ft. building for 40 men providing an average area of 39.6 sq. ft. (3.68 sq. m) per man (Brown 1964:75-76).

If the dimensions of 141.10 ft. (43.02 m) by 19.02 ft. (5.8 m) are in fact the correct, or at least approximate, dimensions for the barracks at Fort Loudoun, then the floor area of that structure would have been 2683.72 sq. ft. or 249.51 sq. m. Using the range of area of 33 sq. ft. to 60 sq. ft. given above, then this barracks at Loudoun would have had the capacity to hold between 45 and 81 men. If the smaller square foot range is assumed, then the capacity of 81 men is roughly equivalent to the number of enlisted troops that were stationed at Fort Loudoun after the departure of the provincial companies. Other structures at the fort which are believed to have served as quarters throughout the occupation, would have provided additional living quarters for the officers and other personnel and individuals that were living at the fort.

Table 3. Summary Data on Barracks Chimney Bases.

Fea. No.	WPA No.	Location	Dimensions m (ft) x m (ft)
191	G	N192-194/E204-206	2.43 (8.00) x 1.50 (4.92)[1]
			1.02 (3.33) x 0.91 (3.00)
192	F	N196-198/E204	2.82 (9.25) x 1.68 (5.50)[1]
			1.35 (4.42) x 1.14 (3.75)
193	E	N202-204/E202	2.69 (8.83) x 1.42 (4.67)[1]
			1.32 (4.33) x 0.91 (3.00)
194	D	N208-210/E200-202	2.80 (9.17) x 1.52 (5.00)[1]
			1.42 (4.67) x 0.91 (3.00)
166	C	N214-216/E200	2.10 (6.88) x 1.60 (5.24)[2]
			1.10 (3.60) x 1.00 (3.28)
No#	B	N228-230/E196	2.74 (9.00) x 1.52 (5.00)[3]
			1.52 (5.00) x 0.91 (3.00)

1. Dimensional data from Hobart Cooper drawing, Figure 28. The first dimension is the exterior size and the second dimension is the hearth area.
2. Dimensional data from 1975-1976 field maps. There are inconsistencies in the dimensions on the Cooper drawing of chimney base C, Figure 28.
3. Dimensional data from Hobart Cooper map, Figure 27.

Table 4. Summary Data on Structures and Barracks.

St. No.	Length		Width		Area	
	M	Ft.	M	Ft.	Sq. M	Sq. Ft.
St. 1	9.65	(31.65)	3.00	(9.84)	28.95	(311.43)
St. 1N	4.25	(13.94)	3.00	(9.84)	12.75	(137.16)
St. 1S	4.39	(14.40)	3.00	(9.84)	13.17	(141.69)
St. 2	10.20	(33.45)	5.30	(17.38)	54.06	(581.36)
St. 2 Sq. Pt.	5.30	(17.38)	5.20	(17.05)	27.56	(296.32)
St. 3	5.30	(17.38)	4.20	(13.77)	22.26	(239.32)
St. 4	4.90	(16.07)	4.30	(14.10)	21.07	(226.58)
St. 5	12.20	(40.01)	(A) 4.20	(13.77)	51.24	(550.94)
St. 5 N	6.50	(21.32)	(A) 4.20	(13.77)	27.30	(290.80)
St. 5 S	4.80	(15.74)	(A) 4.10	(13.44)	19.68	(211.54)
St. 6	9.40	(30.83)	4.30	(14.10)	40.42	(434.70)
St. 7	4.00	(13.12)	3.10	(10.16)	12.40	(133.30)
St. 8	4.20	(13.77)	3.70	(12.13)	15.54	(167.03)
St. 9	3.60	(11.80)	3.40	(11.15)	12.24	(131.57)
St. 10	3.75	(12.30)	3.40	(11.15)	12.75	(137.14)
St. 11 Min.	5.50	(18.04)	3.50	(11.48)	19.25	(207.10)
St. 11 Max.	6.40	(20.99)	3.50	(11.48)	22.40	(240.96)
St. 12	4.60	(15.08)	2.70	(8.85)	12.42	(133.45)
St. 13 E	(E) 7.50	(24.60)	(E) 5.00	(16.40)	37.50	(403.44)
St. 13 W	(E) 5.00	(16.40)	(E) 4.00	(13.12)	20.00	(215.16)
St. 14	6.80	(22.30)	3.80	(12.46)	25.84	(277.85)
St. 15	9.15	(30.01)	3.70	(12.13)	33.85	(364.02)
St. 15 Alt.	8.80	(28.86)	3.70	(12.13)	32.56	(350.07)
St. 16	6.00	(19.68)	3.00	(9.84)	18.00	(193.65)
St. 17	13.50	(44.28)	(A) 4.80	(15.74)	64.80	(696.96)
St.18	6.20	(20.33)	4.30	(14.10)	26.66	(286.65)
St. 19	4.00	(13.12)	(E) 1.90	(6.23)	7.60	(81.73)
St. 20	5.00	(16.40)	5.00	(16.40)	25.00	(104.96)
St. 21	6.00	(19.68)	(A) 2.50	(8.20)	15.00	(161.37)
St. 22	6.90	(22.63)	2.70	(8.85)	18.63	(200.27)
St. 23	(E) 11.28	(37.00)	(E) 4.57	(14.99)	51.54	(554.63)
St. 24	4.00	(13.12)	3.20	(10.49)	12.80	(137.62)
Barracks	42.50	(139.40)	5.80	(19.02)	246.50	(2651.39)

(A) = Average
(E) = Estimated

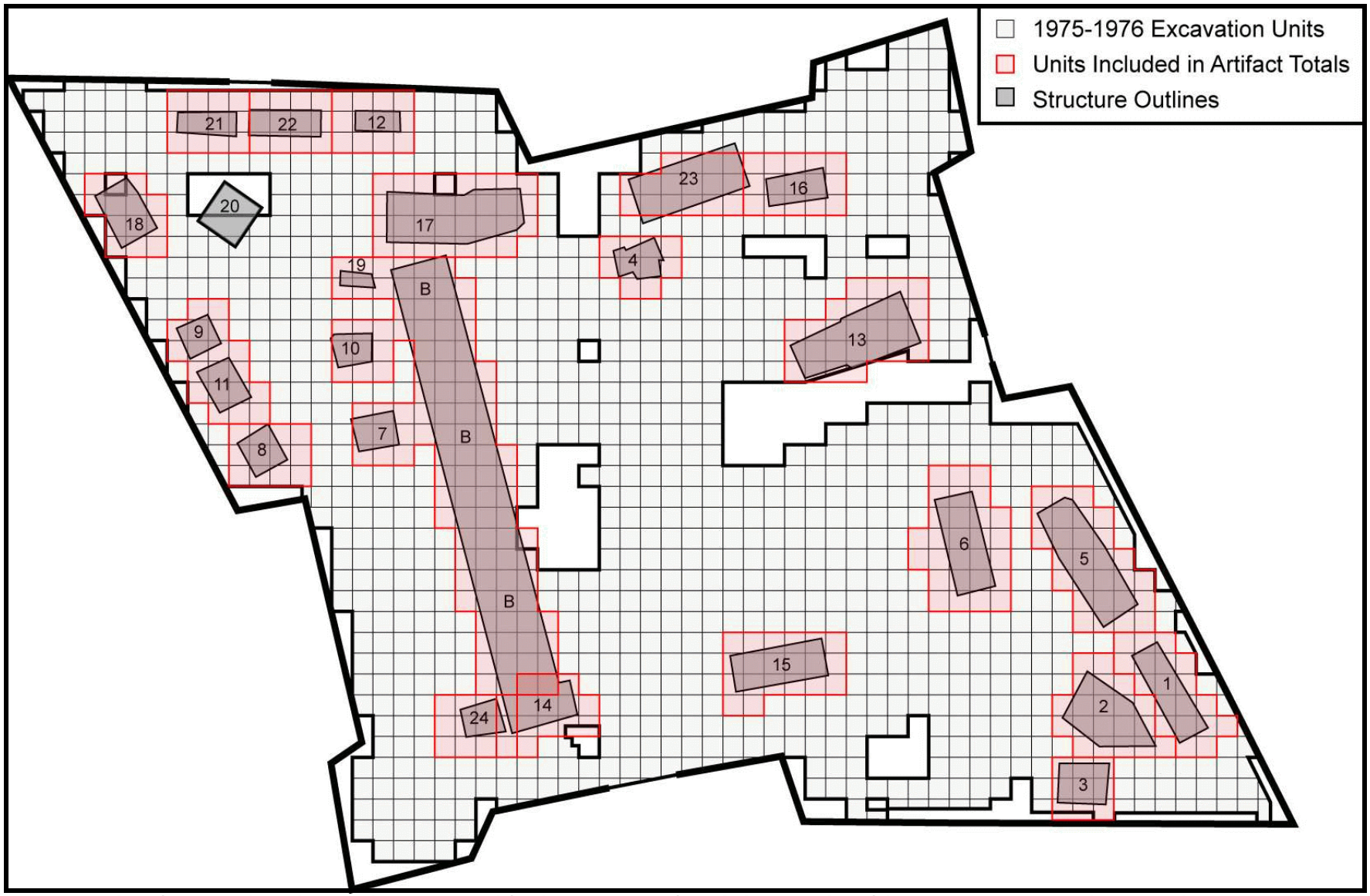

Figure 99. Plan of Fort Loudoun showing the squares used for the structure artifact tabulation. A list of these squares is presented in Appendix 7.

Table 5. Structure Artifact Summary.

Prov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	TOT
ST. 1[1]	**3**	**81**	**5**	**1**		**3**	**1**	**38**	**1**	**1**		**225**			**2**							**2**	**2**						**3**		**2**		**278**	**299**	**49**	**734**	**1,730**
F. 43																																					0
F. 44	2	79		6				29	1	1		689	1		3		1					1	3			97	1		3		1		1,312	106	6	192	2,534
F. 45	1	345	5	4				36		1	1	199	2	1	9							1	2			24			1		2		467	417	21	311	3,642
F. 46		52										11																					11	53	3	51	181
F. 62																																	2	12		10	24
F. 71								1																									1				2
Total	6	557	10	11		3	1	104	2	3	1	2,916	3	1	14		1					4	7			121	1		7		5		2,071	887	79	1,298	8,113
ST. 2	**3**	**62**	**2**	**3**			**3**	**45**		**4**	**1**	**68**	**1**	**1**						**1**							**1**		**10**	**2**	**1**		**92**	**271**	**67**	**536**	**1,174**
F. 54				21				9				1														2							6	33	4	16	92
F. 63		1						16	1	1	1	40										3	2										14	50	3	31	163
F. 74								2				2																					4	5	1	9	23
Total	3	63	2	24		3		72	1	5	2	111	1	1						1		3	2			2	1		10	2	1		116	359	75	592	1,452
ST. 3		**10**		**5**		**2**		**12**				**7**								**1**			**1**	**1**					**1**				**48**	**76**	**15**	**121**	**300**
F. 50	4	259	39	4	6	1		109	2	1	1	393	1	5	5		1			1		2	10		3	15	1		6	1	3		883	131	3	279	2,169
F. 58	1	74		3		1		31	4	1		49		1	1		1			1		1	8	1		5	1		3				40	4		44	779
F. 59		1						9				22														1	1						130	3	2	14	183
F. 60								3				29																					150	4		9	195
F. 64								1				25										2											61	10	4	36	139
Total	5	344	39	12	6	4		165	6		1	525	1	6	6		2			3		5	19	2	3	21	3		10	1	3		1,312	228	24	503	3,767
ST. 4	**1**	**82**		**19**			**1**	**114**				**3**			**3**				**1**	**2**		**2**	**5**			**1**			**3**		**1**		**595**			**5**	**838**
F. 52		6						3				1																	1				22		2	4	39
F. 56	1	9		3				15	1			1																	2				119	1	2		154
Total	2	97		22			1	132	1			5			3				1	2		2	5			1			6		1		736	1	4	9	1,031
ST. 5	**10**	**273**	**26**	**9**				**175**	**1**		**1**	**17**	**1**	**1**	**1**				**1**			**2**		**1**		**2**			**5**	**3**	**1**		**431**	**295**	**55**	**527**	**1,838**
F. 65		2						2																									13	88	3	32	140
F. 67		14						24																									32	4		9	83
F. 68								16	1																	2							192	67		34	312
Total	10	289	26	9				217	2		1	17	1	1	1				1			2		1		4			5	3	1		668	454	58	602	2,373
ST. 6	**72**	**111**	**5**	**39**			**2**	**183**		**1**	**2**	**14**	**3**	**1**	**3**		**1**			**2**		**1**	**4**	**1**		**11**			**11**				**225**	**286**	**90**	**645**	**1,713**
F. 72																																				6	6
F. 73	1	58	1					17																					2	1			4	11	1	11	107
F. 152		3		1		1		2							3														1				160	19	1	35	226
Total	73	172	6	40		1	2	202		1	2	14	3	1	6		1			2		1	4	1		11			14	1			389	316	92	697	2,052

Table 5. Structure Artifact Summary.

Prov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	TOT
ST. 7	**9**	**408**	1	**6**	**2**			**43**		**1**		**4**	**1**				**1**						**4**				**1**		**16**	**2**			**871**		**5**	**34**	**1,409**
F. 84		6						4																									37				47
Total	9	414	1	6	2			47		1		4	1				1						4				1		16	2			908		5	34	1,456
ST. 8	**4**	**110**	**50**	**5**			**2**	**63**	**1**			**10**	**2**		**1**			**1**		**1**			**5**			**1**							**393**		**2**	**36**	**687**
F. 86		22		1			1	12				1											2			1							28				68
F. 91		115						4												2						1				1			17			2	142
F. 103		255																								1							26		2	2	286
Total	4	502	50	6			3	79	1			11	2		1			1		3			7			4				1			464		4	40	1,183
ST. 9	**1**	**104**	**15**	**5**		**2**		**37**		**1**		**18**	**4**									**1**	**2**	**2**									**199**		**1**	**8**	**400**
F. 110		4						2																									2			1	9
Total	1	108	15	5		2		39		1		18	4									1	2	2									201		1	9	409
ST. 10	**1**	**497**	**2**	**14**		**3**	**5**	**301**	**2**	**3**		**151**	**4**		**8**		**1**				**3**	**7**	**16**	**3**	**2**	**13**			**21**	**1**	**2**	**1**	**6,589**	**2**	**1**	**18**	**7,689**
ST. 11		**87**	**14**	**3**		**2**		**42**				**1**	**3**		**1**							**1**	**1**				**2**				**1**		**79**	**1**	**1**	**7**	**246**
F. 100																																					0
F. 125																						1															1
F. 126																																					0
F. 127																																					0
Total		87	14	3		2		42				1	3		1							2	1				2				1		79	1	1	7	247
ST. 12	**3**	**142**	**23**	**2**			**1**	**58**	**2**	**1**		**1**	**1**		**1**											**1**			**1**				**13**		**2**	**10**	**262**
F. 202								3																									52				55
F. 206								2																													2
F. 209	3	21						3		2	1															18	3						48	1		2	102
F. 210								3																									1				4
Total	6	163	23	2			1	69	2	3	1	1	1		1											19	3		1				114	1	2	12	425
ST. 13		**25**	**11**	**2**		**1**		**40**					**1**				**1**							**2**					**3**	**1**	**2**		**170**		**1**	**8**	**268**
ST. 14	**18**	**20**	**1**	**5**				**73**		**3**		**5**											**2**	**1**	**1**		**1**		**1**			**1**	**414**	**19**	**11**	**48**	**624**
ST. 15	**1**	**8**		**7**				**12**				**7**	**1**																**2**				**20**	**68**	**37**	**440**	**603**
ST. 16	**30**	**395**	**36**	**28**	**1**	**2**	**3**	**188**		**3**		**11**	**3**		**7**				**1**			**7**	**10**	**6**	**6**	**13**			**27**	**3**			**4,596**	**1**	**2**	**21**	**5,400**

Table 5. Structure Artifact Summary.

Prov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	TOT
ST. 17	**27**	**164**	**154**	**45**	**1**	**3**	**6**	**694**	**4**	**7**		**33**	**10**		**11**	**1**		**1**		**4**		**9**	**13**	**5**	**1**	**81**	**2**		**37**	**7**	**14**		**2,131**	**6**	**2**	**69**	**5,024**
F. 184		164	1					10															2										31				45
F. 200	1	1						1																													3
Total	28	1,648	155	45	1	3	6	705	4	7		33	10		11	1		1		4		9	15	5	1	81	2		37	7	14		2,162	6	2	69	5,072
ST. 18		**2**						**6**																											**1**	**1**	**10**
F. 155																									1								1				2
F. 156																																					0
Total		2						6																	1								1		1	1	12
ST. 19	**1**	**133**	**2**					**43**		**1**		**1**	**1**					**1**					**1**				**1**		**4**				**259**	**4**	**4**	**21**	**477**
F. 117								1																													1
F. 115								3																													3
Total	1	133	2					47		1		1	1					1					1				1		4				259	4	4	21	481
ST. 20																																					**0**
ST. 21		**6**						**7**				**10**	**1**																				**6**		**1**	**10**	**41**
ST. 22	**3**	**124**		**1**			**1**	**54**			**1**	**4**	**1**	**1**			**1**					**2**											**65**	**9**	**1**	**12**	**280**
F. 204		44	12					2																		1							30			6	95
Total	3	168	12	1			1	56			1	4	1	1			1					2				1							95	9	1	18	375
ST. 23		**2**		**4**				**7**				**1**										**1**											**27**			**2**	**44**
ST. 24	**8**	**15**		**2**				**23**				**4**	**1**									**1**							**1**				**51**	**5**	**11**	**21**	**143**
BARR[2]	**11**	**205**	**20**	**39**				**142**	**2**	**2**	**2**	**9**	**4**								**2**	**3**	**10**	**1**	**1**				**4**	**2**	**1**	**1**	**623**	**14**	**14**	**95**	**1,207**

Notes: The numbers in bold face are the artifact totals from the squares that were used to derive structure artifact counts (Figure 99 and Appendix 7), or were otherwise associated with the structure. The feature tabulations that are shown are ones that were probably associated with the structure. The totals given are a combination of the totals from the structure and the features. BARR=Barracks

Discussion of Structural Types

This section briefly considers the various architectural construction types that have been defined for Fort Loudoun. The specific archaeological details for each of the structures has been presented in preceding sections. At least five construction types are possible from the available evidence, some of which is very good, and some of which is more speculative. Efforts are made to suggest how these buildings may have been constructed, based on the archaeological remains at Fort Loudoun, other similar archaeological remains, written descriptions from the eighteenth century and earlier for the vernacular architecture of the eastern United States, and various other recent studies of early American architecture. It is clear from the letters and other documents that were written from Fort Loudoun, that there were a number of structures which were constructed early in the occupation as an expedient for housing the men and officers, while the fortification works and other buildings were built. There were also a number of other structures that were constructed somewhat later, which were of much more substantial and elaborate construction and meant to be the permanent buildings for the fort. The former, or more temporary structures are variously described in the literature as being huts or hovels, and generally crude, built of available materials and inadequate for the proper housing of the officers and men. The documentation is also reasonably clear, as well as some of the archaeological evidence, that most if not all of these temporary structures were taken down and removed after they were no longer needed. As the following discussions will indicate, there seems to be a relatively close correlation between the the type of construction used and the permanence or impermanence of a given building, a not unexpected situation. For organizational purposes, this section considers the building types from the simplest or crudest to the more elaborate.

Terraced or Semisubterranean Structures

Many of the temporary structures at Fort Loudoun were constructed on leveled terraced areas cut by necessity into the slope of the ground within the fort. Structures 7 and 10 were definitely semisubterranean in form. Ones that were built on terraces included Structures 8, 9, 16 and 17. Not included here is Structure 13 which was also built on a terrace, but was a much more permanent type of building as discussed in a later section.

Descriptions of seventeenth century structures of this type from the Massachusetts Bay area and Philadelphia, and an illustration of a comparable late nineteenth or early twentieth century structure from England are presented by Kimball:

> They burrow themselves in the Earth for their first shelter under some Hill side, casting the Earth aloft upon Timber; they make a smoakey fire against the earth at its highest side ... At the founding of Philadelphia in 1682 similar shelters were formed by digging into the ground, near the verge of the river-front bank, about three feet in depth; thus making half their chamber underground, and the remaining half above ground was formed of sods of earth, or earth and brush combined. The roofs were formed of layers of limbs, or split pieces of trees overlaid with sod or bark, river rushes, etc. (Kimball 1966:5-6).

He also indicates that structures of this type were known to have existed in Philadelphia until at least 1760 (Kimball 1966:6). They continued to be in common usage, particularly for military encampments well into the nineteenth century. Several rows of semisubterranean huts were excavated by Calver and Bolton at a Revolutionary War British encampment on Manhattan Island (1950:19-22). Another one from the same period was excavated more recently at Fort Independence in South Carolina by Beverly Bastian (1982:60-62, Figures 17 and 18).

Henry L. Scott, in his *Military Dictionary* published in 1864 discussed the use of these types of huts in Europe and provides some construction details:

> Underground Huts are used in all quarters of the globe. The experience of the British troops encamped before Sebastopol [October 8-16, 1854] tells strongly in their favor, as habitations during an inclement season. The timely adoption of them was the salvation of the British army. They are, essentially, nothing else than holes in the ground, roofed over. The shape and size of the hole correspond to that of the roof it may be possible to procure for it; its depth no greater than requisite. If the roof have a pitch of 2 feet in the middle, the depth of the hole need not exceed 4 ½ feet. In the Crimea [1853-1856] the holes were rectangular, and roofed like huts. Where there is a steep hill side, an underground hut is easily contrived; because branches laid over its top have sufficient pitch to throw off the rain, without having any recourse to any uprights, &c. Of course the earth is removed from ... the doorway (Scott 1864:140-141).

Above Ground Huts

This category of structures is distinguished from the ones discussed above only by the fact that they lack any sort of semisubterranean pit or necessary terracing. These structures having been constructed on terraces, and the ones listed above, are alike in most other respects of construction that could be determined from the archaeological evidence. The ones included here are Structures 4, 19 and possibly 11; also included would be the structures that are assumed to have been represented by two hearths, Features 52 and 183. Common to all of these structures is the presence of a simple rock lined hearth at one end of the structure. Presumably these would have been the bases for stick and mud lined and plastered chimneys. Of this group, only Structure 19 provides any architectural evidence of the manner in which the structure was constructed, and that consists of a log or sill mold along part of the north wall, and a couple of post molds indicating some vertical framing members. If one considers that the semisubterranean structures and the ones on cut-out terraces are of similar construction, then there is somewhat more archaeological evidence available for determining the construction of these buildings. The evidence consists primarily of combinations of shallow wall trenches or sill molds and post molds. This is particularly evident in the case of Structures 7, 8, 9, 11, and to a lesser extent for Structure 17.

Shurtleff (1967:20-23) provides a good discussion of huts and other temporary vernacular structures for the Colonial period in the northeastern United States, which is useful for interpreting some of the buildings at Fort Loudoun. The use of these type of structures for habitation in this country by military units continued through at least the American Civil War. There are numerous examples of these types of structures in the photographic documentation of the Civil War illustrating the range of variation that these types of expedient structures had. This variation included: circular to rectangular conical huts of poles and brush covered with mud daubing (Davis 1985:103, 1986:218; a companion photograph is in the Still Picture Section of the National Archives as B 4816); horizontal pole and log huts that are mud plastered (Davis 1981:75,1982b:325); mud plastered vertical pole structures (Davis 1982a:214); and vertical pole and log walls covered with conical tents (Davis 1982a:209). Assuming that these represent some continuity from the eighteenth century, then all of the variations that are listed above, would have been possible at Fort Loudoun.

Although it is certainly not conclusive, the archaeological evidence for these types of structures at Fort Loudoun could be interpreted to represent most of the combinations that are noted above from later times. The shallow post molds probably supported vertical or in-leaning support poles. The shallow sill molds or wall trenches could either represent a horizontal pole construction, or vertical or inleaning pole or plank wall construction. Some degree of caution should be used in assuming some sort of horizontal pole or log construction, particularly since its use possibly did not come into vogue until perhaps the third quarter of the eighteenth century (see Shurtleff 1967 for a complete discussion of this). The use of planking placed in the ground like palisade posts for house walls has been noted for the New England Colonies (Kimball 1966:6). Although the documentation for the continuity of that type of construction through time has not been determined here, it remains a possibility. Simple pole and thatch buildings also could have been possible. It is expected that most of the temporary buildings at Fort Loudoun, the ones being discussed here, were probably covered with mud plaster or daub. There was virtually no evidence for this in the form of fire hardened daub associated with any of these buildings, but this would be consistent with the structures being torn down, rather than burned. The only suggestion of the use of mud plaster for these structures is in a letter of Raymond Demere where he states that there were “no Houses for the Officers, but meserable Hovles built at their own Expenses, although denyed by you [DeBrahm] a little Dirt to clay the Walls ...” (R. Demere and Officers to DeBrahm, December 23, 1756, SCIA:285). Since the use of canvas tents was common for military units of this period (see Bouquet Papers) it is possible that some of these may have been put in place over low walls at Fort Loudoun, but the use of tents is not mentioned in the documentation.

Wall Trench Structures

There were three structures that were of the wall trench type, Structures 3, 18 and 21. Structure 3 (Figure 65) is distinct from the other two, and as discussed in the section on that structure, it generally conforms to the characteristic French colonial vernacular architectural construction for this period. It can probably be interpreted as the *peiux en terre* construction based on the wall trenches, large posts at the four corners and at the centers of at least two walls and the small post molds along the base of some of the wall trenches. At the least it was probably some variation of either the *pieux en terre* or the *piece stir piece* construction, or some combination of the two.

Similar structures from archaeological contexts and ones still in existence are known primarily from the Mississippi River valley and the Great Lakes region. Archaeological sites from which comparable structures have been reported include: the Bayou Goula Site in Louisiana (Quimby 1957:107-110; I. Brown N.D.b:6-9); the site of Fort St. Pierre in Mississippi (I. Brown N.D.b:17-32, Figure 16; 1974:4); Fort Michilimackinac (Maxwell and Binford 1961; Stone 1974:332-340); Fort Ouiatenon in Indiana (Tordoff 1976:25, Figure 12); and the River L'Abbe Mission at Cahokia (Walthall and Benchley 1987:Figure 7). Perhaps the best known location for standing structures with this type of housing construction is St. Genivive, Missouri (Franzwa 1967:98-153). Studies of the variations and details of this type of housing construction are perhaps best presented in works by Peterson (1965), Richardson (1973), and Kniffen and Glassie (1966).

Two structures at Fort Loudoun with wall trenches are similar to each other in plans and construction, but differ substantially from Structure 3. Structures 18 and 21 were both located in the Northwest Bastion, symmetrically situated between the outer curtain of that bastion and the two traverse trenches, Features 90 and 143, which were parallel to the outer curtains. In the case of both structures, the traverse formed the back wall of the structure. The other three walls were defined by two L-shaped wall trenches extending outward from the traverse trenches (see Figures 88 and 94). Both had an opening in the wall that was parallel and closest to the outer palisade lines of the bastion. Only Structure 21 had a few post impressions in the base of the trench to indicate that vertical timbers had been placed in the trench. Efforts were made to locate illustrations or descriptions of similar constructions from contemporary archaeological sites, but no comparable structural remains were noted in the published information available on eighteenth century forts or sites. It remains a possibility that these two constructions were not strictly structures, but may have functioned as part of the traverse and defense system, although it is unknown what that function would have been.

Post in Ground Structures

There were eight structures defined at Fort Loudoun that were of the post in ground type. These are generally characterized by vertical wall supports that are set in individual postholes. The spacing between the posts is such to accommodate the length of split clapboards or other lengths of siding. The vertical wall members can either be round poles or hewn timbers. While the archaeological evidence is similar, the construction can be of two types, either individually set wall posts, or wall sections of hewn timbers, framed in sections before being set into the postholes (see Cotter 197 8:22-23). Given the nature of the remains at Fort Loudoun, it is assumed that all of the ones considered here had individually set posts. This is based primarily on the irregularity of the spacing of the posts of most of the structures.

At the time of the last excavations at Fort Loudoun (1975-1976) there were relatively few published examples of this type of building construction in the archaeological literature. Notable among those was a structure illustrated by Noel Hume (1969:Figure 20), and one structure at the Hallowes Site (Buchanan and Heite (1971:Figure 2), also in Virginia. In architectural studies, these types of buildings are most often discussed as farm or out buildings (see Harris 1978:58-59 and Historic American Buildings Survey 1976). The plan of the excavations at Fort Prince George in South Carolina (Appendix 1) was important for the recognition and interpretation of this type of structure at Fort Loudoun and provides the closest comparison that is available, for both the time period and military installations.

Since the time of the excavations, reports of these types of structures have become prevalent in the archaeological literature. They have now been reported from Georgia (Wheaton 1980) northward along, most of the eastern seaboard. Several are illustrated in *Martin's Hundred* (Noel Hume 1982:Figures 3-3, 7-3 and 10-4). An excellent summary of these type structures, based on archaeological and other information, and providing the variations in construction and techniques, has been compiled and published by Carson, Barka, Kelso, Stone and Upton (1981).

Functional Types of Structures

From the archaeological and the historical documentation it is clear that, as expected for an installation such as this, there were a number of structures built for different purposes. The following discussions present the archaeological and historical information that is available to suggest the functionally different structures at Fort Loudoun. A summary review of archaeological reports of excavations at other contemporary forts shows a similar range of buildings and structures, varying from fort to fort, somewhat, to suit the needs and purposes of the individual installations. At least seven functionally different types of structures are recognized for Fort Loudoun. These include barracks and quarters for the troops, both temporary and permanent, officer's quarters, the commissary's storehouse, a corn storage building, the blacksmith shop, a powder magazine, and a combination guard house and Officer of the Day's quarters. The specific archaeological information for all of the defined structures has been presented in preceding sections. The following discussions consider the various functions of single structures or groups of structures and the evidence that is available for making those conclusions.

Blacksmith Shop

There is a considerable amount of available information and evidence for the location and plan of the blacksmith shop, both archaeological and historical. It was probably one of the first structures that was built at the fort, started by about October 8, 1756, since it was mentioned in the early work orders of DeBrahm. There was also an apparent necessity for having the blacksmith shop set up early in the construction, so the smith could produce some of the tools necessary for the work that was being done at the fort: "the Carpenters are in part to continue ... to carray Stoness to raise the Smith fournis" (DeBrahm, Directions for the Fortifications, October 8, 1756, Clements Library); "two maijors and 6 offissories (to carry stones and Lome are to build a Smithshop" (Directions for the Day, October 11, 1756, Clements Library); and "the carpenters are to set up the Smiths Shop, while there is a great want for making several tools, or ols the work will be stopt" (Direction for the Day, October 12, 1756, Clements Library). The forge, and presumably blacksmith shop structure, were nearly completed by late December as reported in the "Survey of Fort Loudoun" (Quoted in Chapter 1). A couple of other references describe the smith shop as housing the corn mill, that the smith was working at the forge, the need for constructing beds for the guards in that structure, and the use of that building for a meeting room: "That the Corn Mills be taken down out of the Forge, and placed somewhere else, and Guard Beds be made there, as there is no other Guard House" (R. Demere, Council of War, December 26, 1756, SCIA:287). This facility was still being used as a guard house at the end of the following, summer: "There is no Guard House in the Fort; the Men at Present make use of the Smith's Shop" (P. Demere to Lyttelton, August 18, 1757, SCIA:403; see also R. Demere to Lyttelton, January 2, 1757, SCIA:302 and January 6, 1757, SCIA:309).

The blacksmith shop (Structure 2) is shown on the three existing contemporary plans of Fort Loudoun. Two of these plans are shown in Figures 7 and 8. All three plans show the blacksmith shop as a five-sided structure located in, and forming the apex of, the southeast bastion of the inner palisade line. The British Library plan (Figure 7) and the equivalent Harvard Library plan both have this structure labeled as the "guard house," but the Huntington Library plan (Figure 7) has it labeled as the "Smiths Shop." It is clear, though, from the historical documentation noted above, and from that presented in the discussion of the guard house which was built considerably later, that it is the blacksmith shop.

These plans show the size of this building variously as approximately 37.5 ft. by 15.0 ft., 46.0 ft. by 20.0 ft., and 47.5 ft. by 25.0 ft. (11.4 m by 4.6 m, 14.0 m by 6.1 m, and 14.5 m by 7.6 m). The archaeological evidence for the blacksmith shop shows it to have been a five-sided building with a length of 33.6 ft. (10.25 m) and a width of 17.55 ft. (5.35 m), which corresponds somewhat with the smaller dimensions scaled from the contemporary plans of the fort. The excavations definitely verified its location in the Southeast Bastion of the fort. While no stonework was found to indicate the presence of a stone forge, as the documents suggest, a rectangular pit in the center of this structure has been interpreted as an ash pit or cleanout underneath what would have been the forge. This has a similar configuration to one found at Fort Ligonier in Pennsylvania (Grimm 1970:25; Stotz 1974:Figure 75). Also corroborating the location of the blacksmith shop was the presence of large quantities of slag, a byproduct of welding or remelting iron, that are found almost exclusively throughout the blacksmith shop and the areas immediately surrounding that structure (see the section on slag in Chapter 6 for more discussion of this).

Table 6, adapted from a 1757 list of materials for a Gunsmith Shop to be set up at an unspecified fort in the Cherokee area, provides a potential list of the tools and other items which may have originally been associated with this Blacksmith Shop. The artifacts that were actually recovered are listed in Table 5 and other tables in Chapter 8 where the artifact descriptions are presented.

Table 6. List of Materials for a Gunlock Smith.

Artifact		Quantity
A Four-Foot Pair of Bellows		
Hand Hammers and Sledge Hammer		
Anvil		
Tongs		
Toe Iron		
Spare Toe Iron		1
Standing Vises		2
Hand Vises		2
W ire Vises		2
Forge Hammers		2
Small Pane Hammers		2
Forge Tongs		2 Pr.
Small Steady or Stake for Vise Bench		2
Rubbers		3
Rough Hand Files		3
Rough Hand Files 6d (Flat)		1 Doz.
	6d (Round Edge)	1 Doz.
	6d (Three Square)	1/2 Doz.
	6d (-2!Round)	1 Doz.
	6d (Round)	2 Doz.
	3d (Half Round and Round Edge Files)	2 Doz.
	3d (Hound and Three Square)	2 Doz.
	3d and Id (Round and Three Square)	4 Doz.
Smooth Hand Files		3
Smooth Hand Files	12d (Flat)	1 Doz.
	12d (Half Round)	1 Doz.
	12d (Round Edge)	1/2Doz.
	6d (Three Square)	2
	6d (Half Pound and Round Edge)	2 Doz.
	3d (Half Round, Three Square, and Flat)	3 Doz.
Hand Bastard Files		3
Hand Bastard Files	6d (Flat)	1 Doz.
	6d (1/2 Round)	1 Doz.
	6d (3 Square)	1 Doz.
	6d (Round Edge)	1 Doz.
	Slitting Files or Small Saws for Lock Nails	2
Hand Bastard Files 2d (Half Round, Round Edge, and 3 Square)		3 Doz.
File Hafts		3 Doz.
Pincers, Spring Hook, Breech Wrench		1 Each
Reamer or Boring Square Bits		4
Brace, Screw Plate, and Taps		1 Each
Cold Chisels and Punches 4 Each		
Pin and Binding wire		12 Lb. Each
Nose Band Brass		10 Doz.
Borax		4 Oz.
Solder for Brazing		4 Lb.
Glue		10 Lb.
Cooper Glue Pot		1
Corn Emory		20 Lb.
Drills and Drill Boxes		4 Each
Securing Paper Reams		1
Drill Bow and Bent File for Tumblers		1 Each
Grinding Stone and Trough		1
Small Saw		1
Strings for Drill Bows		2
Gimlets of Sorts		3

Table 6. List of Materials for a Gunlock Smith.

Artifact	Quantity
Iron and Steel	[1.112 ?]
Cocks and Hammers	50 Each
Cock Nails and Jaws	100 Each
Main Hammer and Sear Springs	200 Each
Tumblers, Bridles, and Sears	100 Each
Tumbler Nails and Small Nails for Locks	2000
Boring Awls for Pin Wire of Gun Stocks	2
Tips for Ramrods	2000

Adapted from: "A List of Utensills & Materials necessary with a Pair of Bellows (without a Forge Cart) for one Gunlock Smith (Assisted by a Lad under him) to be set up & fixed in a Shop at one of the Forts in the Cherokee Nation of Indians." Dated March 1757 (Henry E. Huntington Library and Art Gallery, HEH LO 3246 [A&B])

Powder Magazine

Common at nearly all military installations of this period and others was the presence of a powder magazine for gunpowder, shot, ball, and other ordnance. There is ample documentary evidence for the existence of a powder magazine at Fort Loudoun, and implications that it was important to have one early in the construction, since it is reported as being nearly finished by December 23, 1756 (Survey of Fort Loudoun, December 23, 1756, SCIA:285; Quoted in Chapter 1). The archaeological evidence consists only of a stone building foundation (Structure 20) located in the Northwest Bastion, corresponding to the location of a building shown on the British Library plan (Figure 7), which is labeled "powder magazine." On that figure, the building is shown located within the northwest bastion of the inner palisade line, rectangular in shape, and with approximate dimensions of 15 ft. by 18 ft. (4.6 m by 5.5 m), which are comparable to the 16 ft. by 15.5 ft. (4.9 m by 4.7 m) given by Hobart Cooper in 1936 (Figure 29), which is approximately that of the reconstructed powder magazine. Its location in one of the bastions of the fort is similar to the location of powder magazines at other fortifications of this period, such as Fort Ligonier (Grimm 1970:Plate 1), Fort Frederica (Reese 1969:21; Manucy 1962), Fort Stanwix (Hanson and Hsu 1975:Figure 10) and others.

Because of the extensive WPA excavation in the area of this structure, and the later reconstructions, it was not re-excavated by this project. Therefore, unlike the case with the blacksmith shop, there is no artifactual evidence to corroborate the assumption that this building was in fact the powder magazine. Even in the event that this building had been reexcavated, it is unlikely that much evidence in the form of artifacts would have been found, since it it clear from the historical documentation that most of the military supplies were removed from the fort by the Cherokee after its surrender. Table 144 in Chapter 8 provides a listing of all of the documentary mentions of the magazine and related supplies that were on hand at various times during the occupation.

Guard House and Officer of the Day's Quarters

The historical documentation for a guard house at Fort Loudoun, in addition to this being a normal complement for a fort of this nature, is a letter from Paul Demere in which he stated that: "The Guard House is finished with a double Chimney. I intend to build a Guard Room for the Officer of the Guard. I send your Excellency a Drought of the Guard House" (P. Demere to Lyttelton, November 24, 1757, SCIA:417-418). Although several individuals, including this writer, have made efforts to locate this plan, it unfortunately has not been found. The information given above is important, however, in that it does specify a double chimney. This allows for an accurate assignment of Structure 13 as the guard house and Officer of the Day's quarters, since that structure was the only one that had an associated double chimney. The archaeological evidence, really consisting only of the double chimney base and a level terrace in the slope for this structure, has been discussed previously. Its location near one of the gates to the fort is also in keeping with the organization of forts from this period.

Corn Storehouses

At least two of the structures that were constructed at Fort Loudoun were corn storehouses as indicated by the documentation: "I have built two Corn Houses, I hope to get 1200 [bushels] if I am not disturbed, and it will save the Flower. I have got already about 600 Bushels of Corn" (P. Demere to

Lyttelton, November 24, 1757, SCIA:418). The only clue that really exists as to which of the archaeologically defined structures may have been the corn storehouses is the Huntington plan of Fort Loudoun (Figure 8), which shows a two-room structure that is labeled as a "Store" and a "Corn House." They are shown as being in approximately the same location within the fort as Structures 14 and 24. If these archaeological structures do represent the store and corn house, then Structure 14 would have been the corn house and Structure 24 the storehouse. Similarly, it has been suggested that these two structures may have had a common wall as may be indicated by the plan of Fort Loudoun showing these buildings. From the documentation it is clear that the corn storehouse was constructed after the commissary store, but as an adjoining building: "one carpenter with 6 ax men are to be commanded to the company to build according to his Direction a corn house joining to the east end of his storehouse" (DeBrahm, Directions for the Fortifications, October 8, 1756, Clements Library).

This placement of the corn storehouse and the commissary store is consistent with the locations of those structures on Figure 8. Additionally, the presence of sill or log molds as the defining feature of Structure 14 would be consistent with a possible log crib-type structure for holding ear corn. The historical documentation, containing numerous accounts of the number of available bushels of corn, such as the one quoted above, are not specific though, as to whether they referred to bushels of ear corn or shelled corn. According to the quote of Demere presented above, there was apparently another corn storehouse constructed by late November of 1756, but this has not been definitely associated with any archaeological structural remains. It is possible that the original store had been changed in use to a corn storehouse also, since his letters of the following month (see below) indicate the lack of a storehouse, or at less than adequate one. Although it is somewhat doubtful, it is possible that Paul Demere was referring to these two buildings in early 1759 when he wrote that, "There is two large Logg houses in the fort which is of Little or no Service, & as they are not Bark'd are daily Rotting" (P. Demere to Lyttelton, February 27, 1759, Clements Library).

Commissary Stores

Part of the historical and archaeological evidence for the existence of a commissary store or stores at Fort Loudoun has been discussed above. The storehouse, assumed to be Structure 24 in the preceding discussion, was apparently considered to have been inadequate for the fort shortly after it was built. Raymond Demere stated in a letter of December, 1756, that there were "... no storehouses capable of containing any Quantity of Provisions ..." (R. Demere to Debrahm, December 23, 1756, SCIA:285), and the accompanying Survey of Fort Loudoun stated that there was "No Sufficient Storehouses for Provisions, no Bogg houses or Common Stores" (Survey of Fort Loudoun, December 23, 1756, SCIA:285). This situation had apparently been corrected by the end of February of 1757, because on March 1 Demere reported that:

> A Storehouse has been made for the Commissary which he never had before. I propose as soon as the great Hurry is over, to build two logg houses, two Stories-high in convenient Places which will serve for publick Stores and at the same Time, command round the whole Fort and cover the Defect of our bad Situation 11 (R. Demere to Lyttelton, March 1, 1757, SCIA:345).

Determining which archaeologically defined structure was the storehouse, presents something of a problem, however. The assumption has been made that those buildings that had associated hearths, chimneys or fireplaces would have been utilized for habitation and/or cooking. Of those structures that were considered to have been built as permanent and more substantial buildings, only Structures 3, 15, and 22 lack any evidence for a heating facility. They, therefore, can be considered to have been utilized for purposes other than habitation, and possibly were utilized for storage or commissary purposes. Structures 14 and 24, as discussed above, can be reasonably well correlated with the documentation, indicating that they were respectively a corn storage building and a storehouse. Both lack any evidence for a heating facility. It can be reasonably assumed that Structure 15, located along the south side of the parade ground area may have functioned as the main commissary store. Its construction, which was done after the inner palisade line was removed and that trench filled, or after the end of January, 1757, is consistent with Demere's statement of March 1 (Quoted above) indicating that he had constructed a storehouse by that time. Whether the two log structures that he proposed at the same time were ever built is uncertain, unless they are the log buildings that Paul Demere was referring to as rotting and needing to be taken down (see quote in section on the corn storehouse above).

Structure 15 was the only building defined that had centrally located post molds for holding central support members. This might suggest that this building was a two-story structure, or at least a story and a half. The presence of central support posts would suggest the possibility of a building that could hold a great

deal of weight on an upper level, be it a full or half story. Its location on the parade ground would have been a convenient place for the distribution of supplies, foodstuffs and the like to the garrison. The case for Structure 3 is much more ambiguous. The only real reason for considering it for a storage structure is the fact that it lacks a hearth or fireplace. The presence of a large historic trash pit, Feature 58 within this structure, which contained a large amount of blacksmith shop related debris, may suggest that this building was erected early as a temporary structure and taken down before the pit was excavated, or built later in the occupation after the trash pit had been closed. It is also interesting to speculate that this structure may have been the one described by Louis-Philippe as belonging to a Cherokee in 1797 (see Chapter 2). However it lacked any artifactual materials from that period, a fireplace, and was symmetrically aligned within the fortification, suggesting construction during the occupation of Fort Loudoun.

Structure 22 was the final building that might be considered as a storehouse of some type. Again, the reason for suggesting this is the lack of any heating facility associated with that building. The lack of a hearth in the case of this structure may have been the result of post-occupation disturbances, in particularly an access road that entered the fort just north of Structure 22 and went across most of that building. There are, of course, possibilities of other types of storage structures, or specialized buildings that are not indicated in the historical documentation. One such possibility is a structure that Demere mentioned for housing a trough to salt beef: "I have got Trows made to salt the Beef in, and a house built to put it in" (R. Demere to Lyttelton, January 2, 1757, SCIA:302).

CHAPTER 6

HISTORIC FEATURES

The purpose of this chapter is to present the descriptions of all of the features determined to have been related to the occupation of the fort. The exception to this is the discussion of the features that were integral parts of the various palisade lines and defensive works, which were discussed in Chapter 4. Descriptions of those in association with structures have been presented with the particular structure. An effort has been made to provide a consistent set of information on the location, shape, dimensions, fill and stratigraphy, and the artifact contents of the various features. Those discussions are indicated where applicable. Other comments in the nature of observations and interpretations of their use or function, as well as relationships to other features and structures, is also presented as part of this discussion. Appendix 3 provides a listing and assignment of all of the features that were given numbers during the course of the excavations. It also indicates which are fort-period, prehistoric, Cherokee, or of more recent derivation. The specific artifact content of the features is presented in tables for each feature and all are summarized in Table 105.

The features that are discussed in this chapter are loosely organized into several groups, which consist of both morphological and suggested functional types. The rationale for these groups and distinguishing features are noted at the beginning of the appropriate sections. The majority of the historic features consisted of pits of various sorts, some of which are discussed as pit features, and other pit features which have, or are assumed to have had a particular function, are discussed as functional types. Other types of features that are discussed include the drain systems, the well, terrace features, several different types of midden deposits, filled areas, clay lenses, ash lenses, fire basins, hearths, chimney bases, sill molds and possible palisade trenches.

Fort Interior Drain System

Within the lower part of the fort, between the area designated as the parade ground and the curtain between the Southeast and Southwest Bastions, an extensive system of drains and feeder channels were defined and excavated (Figures 6A, 83 and 84). On several occasions, Raymond Demere recorded the need for a drain to clear the lower part of the fort of water. In a letter of March 26, 1757, Demere indicated that the drain system had been constructed, which carried the water out of the fort (R. Demere to Lyttelton, March 26, 1757, SCIA:347-350).

This drainage system, as it was defined archaeologically, was assigned three feature numbers, specifically Features 150, 159, and 76. Each of these is discussed individually, since they are separate functional parts of the whole system. Running east-west along, the south side of the parade ground and just north of Structure 15 was a pair of feeder drains, Feature 150, that would have collected runoff from the southeastern part of the parade ground. These two channels connected with the northern end of Feature 159, which ran south eight meters. At that point, it turned west and paralleled the south curtain at a distance of about two meters. It continued westward 23 m, making a right angle to the south, exiting the fort through the south gate area and then angling to the west to empty into the south ditch in the area of Feature 185, a midden deposit within the base of the ditch. Feature 76, the third part of this drain system, was another feeder drain originating near the south end of the barracks and running south to a point approximately two meters from the south curtain, where it made a right angle turn to the east and connected with Feature 159, where the latter turned south to exit through the gate.

Feature 150. This section of the drain is parallel to the eastern part of the south side of the parade ground (Figures 6A and 84). It had an overall length of 17.60 m and varied in width from 30 cm to 50 cm. In section, it had vertical sides and a flat bottom. The deepest part of this drain centered on the north end of Feature 159 and was located 9.5 m from the west end and 8.1 m from the east end. This trench, as it was defined, had a depth varying from 5.0 cm on the east end and 10.0 cm on the west end, reaching a maximum depth of 32.0 cm at the juncture with Feature 159. Basal elevations of this section were 244.27 meters above mean sea level (MAMSL) at the east end and 244.26 MAMSL at the west end. The elevation was 243.96 MAMSL at the deepest point, representing a drop of 30 cm to 31 cm. This gives an approximate gradient

of 1:31.6 or a 10 cm drop for every linear 3.16 m for the west and a 1:26.1 or 10 cm drop for every linear 2.61 m for the eastern part.

The internal vertical stratigraphy of this feature consisted of three zones, which varied, depending on the section of the trench. The lower zone throughout the trench consisted of a medium brown, loosely compacted fill. The second or middle zone of fill, varying to a maximum thickness of 5 cm, was a dark brown loam, mottled with orange and yellow clay and bits of charcoal throughout. The third and uppermost stratum noted was only in the eastern 6 m of the trench and consisted of a red, orange, tightly compacted clay varying in thickness between 6 cm and 10 cm. The lower zones represented the accumulation of wash and debris in the channel, and the upper layer of red clay is probably an intentional filling of that part of the trench. Presumably, this trench slowly filled with debris and was then deliberately filled and abandoned as a drain. This section of trench was apparently excavated after Feature 159, since the northern end of Feature 159 appears to be on the north side of Feature 150 (see Figure 84).

Table 7. Artifacts Associated with Feature 150.

Artifact	Quantity
White Saltglaze sherds	1
Delftware sherds	3
Overhill Plain sherds	9
Blue-green round beverage bottle glass	1
Blue-green square beverage bottle glass	1
Rose head nails	2
T-head nails	20
Tacks	4
Indeterminate nails	11
Brass tack	1
Sheet iron scraps	2
Spall gunflint	1
Touchhole pick chain link	1
Group 1, Type 2 buckle	1
Tinkling cone	1
White clay pipe fragments	2
Stone pipe fragment	1
Animal bones	807
Prehistoric ceramics	109
Lithic artifacts	9
Lithic waste materials	275
Total	1262

Feature 159. This is the main section of the drain, beginning in square N198/E238 and following the course described above to its termination in the south ditch outside the south gate. This feature had a total length of 55.0 m, and varied in width from 75 cm to 125 cm. The side walls of the drain were either vertical or sloping slightly inward toward the base which was flat (see profiles on Figure 84). At the northern end the depth of the trench was 32 cm, and at the point that it exited through the south gate it had a defined depth of 1.05 m. The elevation at the northern end was 243.96 MAMSL or the same as the lowest part of Feature 150. It then had a gradual drop of 1.12 m to an elevation at the base of the ditch of 242.84 MAMSL. This gives this section an average gradient of 1:48.6 or 10 cm for every 4.86 m, a gradient somewhat less than that of Feature 150.

Within the fill of this feature, there was a total of five natural stratigraphic zones that were defined and recorded. These vary, depending on the horizontal location within the feature. In the base of the trench, beginning at its juncture with Feature 150 and continuing south for about 2 m, there was a concentration of limestone rocks, slag, and one large piece of charred wood piled nearly to top of trench (Figure 84). This is interpreted as an intentional deposition within the feature, probably placed there at some time when it may have been decided to fill in this part of the drain system.

In the base of the east-west section of the drain (from about E220 to E230) there were a number of pieces of charred logs that were oriented parallel to the length of the trench (Figure 84). Whether these served some function, or whether they were just materials deposited in the drain is unknown. It is quite certain, however, that the drain continued in use for some time after their deposition, at least in this portion of the trench. The lowest stratigraphic zone recorded was present only in the east-west section of the trench, and consisted of a grey to light brown loam up to 10 cm in thickness. This zone was only recorded between E233 and E236 at the base of the trench (see Figure 84, Zone 3 in Profile B-B[1]). It appears to have been a water laid deposit that had filled a depression in the base of the trench.

The next higher stratigraphic zone present was a layer of dark brown to black sandy loam. In the east-west segment of the trench, this zone was mottled with yellow and orange clay. It overlay the base of the trench in all parts of the feature except where the previous deposit was noted. This fill is interpreted as the gradual accumulation of water deposited materials in the drain due to its rather low gradient. This fill appeared to have nearly filled the drain, particularly in the east-west section (see Figure 84, Zone 2 in Profiles B-B[1]and C-C[1]), but less so in the north-south section east of Structure 15. From E235.5 westward to E220.0 where the stratigraphy had been disturbed by Feature 162, a WPA disturbance, there was a definite erosional channel in the top of this fill. It also had some rocks on the top surface. This channel was either the result of erosion keeping this channel open, or most probably an effort by the garrison to keep the drain functioning by periodically removing some of the accumulated deposits. Figure 84 also shows the part of the trench where this channel was defined and mapped.

The third zone of fill in the drain (Figure 84, Zone 1 in Profiles B-B[1] and C-C[1]) consisted of a dark brown loam that extended from Feature 167 at N192 in the north-south section of the trench, where it rested on the floor of the trench to E220 where the stratigraphy was disrupted by Feature 162. This was the last fill layer in this part of the ditch and appeared to have been a combination of natural and intentional deposition, since this zone did contain the greatest quantities of animal bones and other refuse as compared to the lower zone.

Feature 159 was cut through Feature 158, the south wall of the innermost palisade line, and the south wall of the inner palisade line along the south curtain near the gate. This stratigraphy is consistent with the documentation, in that the two inner palisade lines were probably removed in early February of 1757 (see Chapter 4), and that the drain was not constructed until sometime after that, but completed by late March of 1757.

Several evenly spaced post molds were recorded along both sides of the east-west section of Feature 159 between E227 and E232 (Figure 84). They were, more accurately, notches cut into the upper edges of the trench and are thought to have been used for holding timbers or boards in place which spanned the width of the trench. This was either for a walkway across the trench, or quite possibly for a privy structure that was over this section of the trench.

Table 8. Artifacts associated with Feature 159.

Artifact	Quantity
Chinese porcelain sherds	7
White Saltglaze sherds	6
Scratch blue sherds	1
Delftware sherds	2
Creamware sherds	1
Overhill Plain sherds	182
Overhill Check Stamped	12
Overhill Rectilinear Stamped	1
Qualla Plain	5
Qualla Checked Stamped	1
Qualla Rectilinear Stamped	6
Qualla Curvilinear Rectilinear	1
Dark green round beverage glass	14
Dark green square beverage glass	1
Storage glass	3
Blue green round glass	9

Table 8. Artifacts associated with Feature 159.

Artifact	Quantity
Clear round glass	2
Rose head nails	18
T-head nails	36
Tack	1
Horseshoe nail	1
Indeterminate nails	46
Heavy strap hinge	1
Brass sheet scraps	2
Lead strips	2
Lead spatter	1
Sheet iron scraps	16
Indeterminate iron piece	1
Slag	37
Musket balls	2
Group 1, Type 2 Buckles	3
Buckle back	1
Group 2 button back	1
Group 3, Type 4 button	1
Group 4, Type 1, Variety D	3
Group 4, Type 1 back	1
IIa l4 beads	2
IVa (white over ivory) beads	1
Mirror fragment	1
White clay pipe fragments	3
White clay pipe indeterminate decoration	1
Stone pipe fragments	2
Animal bones	2453
Prehistoric ceramics	539
Lithic artifacts	56
Lithic waste materials	1311
Total	4545

Feature 167. At N192 in the north-south section of Feature 159, a trench was defined in the base of the ditch that extended into the side walls of the trench approximately 15 cm. It had a width of 20 cm and was 10 cm deep in the base of Feature 159 (Figure 84). There is a similar feature, Feature 167A, at the point where Features 159 and 150 intersect. These are thought to have possibly been some form of sluice gates, into which boards could have been lowered and held in place by the notches in the side walls. Exactly how they would have functioned, or why, is uncertain. The fill within the trench between Features 167 and 167A had a somewhat different depositional history than the portion of the ditch below Feature 167. In particular, the ditch north of Feature 167 was intentionally filled and then capped with red clay (Figure 84, Profile A-A[1]), while this was not generally the case south of Feature 167. The pair of sluice gates then may have been retaining walls constructed so that the area between could be filled and leveled.

Table 9. Artifacts associated Feature 167.

Artifact	Quantity
Slag	1
Animal bone	1
Lithic artifacts	2
Lithic waste materials	29
Total	33

Feature 76. This feature was the western portion of this complex of drains. It began just east of the southernmost chimney base for the barracks and had a total length of 17.7 m. It continued south for 10.5 m to a point 1.5 m from the south curtain, made a right angle turn to the east and continued east 7.2 m where it emptied into Feature 159 where that feature turned south to exit the fort (Figures 83 and 84). The northernmost part of this feature consisted of an irregular pair of feeder drains that led into the northern end of Feature 76. The base of this trench sloped downward from each end to an elevation of 244.58 MAMSL, where it joined the north end of Feature 76. This part of the drain, as well as the north-south stone lined section and part of the unlined drain south of the stone lined portion were previously excavated by Kunkel and were variously numbered Features 15, 18, and 24 respectively (Kunkel N.D.:15-18, Figure 2; Kunkel 1960:18-20, Plate 4). The base of this drain system had an elevation of 244.58 MAMSL at the northern end, and an elevation of 244.06 MAMSL, where it emptied into Feature 159, a drop of 0.52 m in 17.7 meters, or a gradient of 1:34.70, or roughly intermediate to that of Features 150 and 159.

The northern 5.2 m of the north-south section of this drain was lined on the bottom and sides with flat tabular limestone slabs. The bottom was flat and the sides slanted outward toward the top (Figures 83 and 84). The remainder of the trench that was not lined had a relatively flat bottom and slightly outleaning sides. The portions of this feature that had not been previously excavated by Kunkel showed two stratigraphic layers. The bottom zone of 5 cm to 7 cm was a grey to black, water deposited loam that was generally devoid of artifacts. The upper part of the fill was a yellow to tan clay mottled brown fill, that was probably the result of natural filling and some refuse disposal. This layer contained some charcoal and the majority of the artifacts associated with this feature. Kunkel reported that in the section he excavated, the east-west feeder drain and the northern 13.25 m, was filled with a loose black midden containing animal bones, European artifacts, nails, and Cherokee sherds (Kunkel 1960:19).

Kunkel noted that the drain cut through the south sill of Structure 14, indicating that the drain was constructed at some time after the storehouse. He also reported that the drain was cut by the east-west sill that defined the barracks (Kunkel 1960:19). No stratigraphy remained after the Kunkel excavation that would have verified that interpretation when it was re-excavated in 1975. As indicated in the discussion of Structure 14 in Chapter 5, it is believed that the drain postdated the sills of that structure, since the stones lining the drain were intact and not disturbed by the sills.

Table 10. Artifacts associated with Feature 76.

Artifact	Quantity
Chinese porcelain sherds	22
Overhill Plain sherds	15
Qualla Checked Stamped	1
Dark green beverage bottle fragment	2
Storage bottle fragments	3
Spoon	1
Rose head nails	2
T-head nails	20
Square head nail	1
Indeterminate nails	13
Lead strip	1
Sheet iron scraps	14
Pair of dividers	1
White clay pipe fragments	2
Bit	1
Animal bones	116
Lithic artifacts	2
Lithic waste materials	15
Total	232

See also Kunkel (N.D.:17) for the list of artifacts that he reported to be in association with this feature. Many of those are included above.

This drainage system had been previously disturbed in several locations. Most of the disturbance was related to WPA work in the area. The two major disturbances are thought to have been tree removals by the WPA project. Feature 165 was a large irregular area near the eastern end of the east-west section of Feature 159 (see Figures 27 and 20). It had a maximum depth of 60 cm and the maximum horizontal dimensions were 2.1 m by 4.5 m. Only the northern part of this disturbance cut into Feature 159 and it did not affect much of that feature, except for the top few centimeters.

Feature 162 was another WPA disturbed area that cut into Feature 159 where it turned south to exit through the south gate, and Feature 76, where it joined Feature 159 (see Figures 27 and 84). The major damage caused by this disturbance was the obliteration of the top 40 cm of Feature 159 at this point and the complete disturbance of the stratigraphy in the upper parts of the feature. The lower part of the trench walls and the trench fill were intact.

Several other narrow WPA trenches cut across various aspects of the drain system, but did very little damage, since they were rarely excavated to a depth much deeper than the base of the plow zone or old humus in this area. The one creamware sherd associated with Feature 159 came from a section of the drain that had been cut by a WPA trench and was probably derived from the WPA fill and not the original trench fill. This is discussed under creamware in the ceramics section of Chapter 8.

Drain systems have been noted at other contemporary fortifications. At Fort Prince George there was a large drain extending from near the well in the center of the parade ground through the gate in the south curtain. It drained into the south ditch of the fortification (see Appendix 1). Henry Bouquet specified a ditch covered with planks to drain water from the interior of the fort at Saratoga (Bouquet to Loudoun, November 4, 1756, Bouquet Papers, Volume 1:16). Finally, at Fort Stanwix, there was a wood-lined drain running from inside the east casemate, apparently exiting the fort below the sally port (Hanson and Hsu 1975:39, Figure 33). Lacking any other evidence for latrines at Fort Loudoun, except Feature 79, it is assumed that this drain may have also functioned for that purpose.

Ditch Drain

Feature 188. This drain was located centrally in the eastern end of the south ditch and ran in an easterly direction from the southeast corner of the ditch toward the edge of the second terrace (Figures 6A and 41). This was a shallow ditch that served to drain the eastern part of the south ditch and to move water out of the ditch to the edge of the upper terrace. The width varied from 14 cm to 40 cm, and the depth of the trench in the base of the ditch averaged 10 cm to 15 cm. Once it left the ditch, the defined depth (defined from the base of the plow zone in that area) varied between 35 cm and 40 cm, except near the eastern end, where it got progressively shallow as the terrace sloped downward near the edge. The main part of this drain in the south ditch ran for a distance of 16 meters, connected with a short feeder section, made a right angle turn to the south, and then another right angle turn to the east, exiting at the apex of the ditch. The drain then continued for another 22 meters toward the edge of the terrace, cutting through two prehistoric features and several post molds.

After the ditch was excavated in 1975 and 1976, this portion of the ditch, for some reason, was the only part excavated that held water after heavy rains. The section of the drain outside the ditch was not excavated until late July of 1976, and there was no opportunity after it was excavated to determine the effectiveness of this system in draining the ditch, primarily due to lack of any heavy rainfall.

Table 11. Artifacts associated with Feature 188.

Artifact	Quantity
Animal bones	18
Prehistoric sherds	11
Lithic artifact	1
Lithic waste materials	33
Total	63

Most of the artifacts came from the portion of the drain outside the ditch and were derived from the prehistoric midden through which the drain was excavated, which had naturally filled back into the drain after its abandonment.

Well

The well that was located in the fort is documented by both historical and archaeological evidence. It was located in the southern part of the Southeast Bastion with a center point at N188.6/E247.0 (Figure 6A). The 1975-1976 project did not undertake the exploration of this feature because of its previous excavation by the WPA project. The details of the well as they are known from previously recorded sources are presented in the following sections. No other evidence for a well was found within the fort, so it is presumed that this was in fact the original well, and apparently the only one dug within the fort.

The first mention of the well in the historical documentation is in a letter written by Paul Demere to Lyttelton on May 20, 1758, about mid-way through the period of the occupation of the fort, where he indicated that the well was then under construction: "I am digging a well in the Fort, the Men is gone 40 feet deep, and I hope ten feet further he will come to water" (P. Demere to Lyttelton, May 20, 1758, Clements Library). A little over a month later he reported that: "... the Well is now finished, and very fine Water, it is lined from Topp to Botom with Boards" (P. Demere to Lyttelton, June 24, 1758, Clements Library). During the fall of the same year Demere wrote to Lyttelton requesting, a rope for the well that he had not received from an earlier request (P. Demere to Lyttelton, September 30, 1758, Clements Library).

Although it cannot be completely documented, it is believed that this well was either open, or the location was obvious and known throughout the time between the abandonment of the fort and the first recorded mention of the well during this century. Prior to the WPA excavations it had been either excavated or explored in one way or another. What was apparently a news release written during the WPA project described the well as follows: "... once included in the fort was the old well, still in fair condition. Years ago it was explored for ammunition, but only the remains of old kegs were found" (Kirkland N.D.).

A photograph of the well as it existed prior to the WPA excavations, but taken during the course of that project is on file at the National Archives. That photograph confirms its present-day location, and shows that at that time the well head was made of smooth, round river cobbles. The WPA project excavated the well during the early part of 1936, while the tree and undergrowth clearing was being carried out in other parts of the fort. In July of that year, Cooper reported on the results of their well excavations:

> ... we have excavated the old well to its bottom. From the present ground level the well is approximately thirty eight feet deep. It is walled up with rock. From the bottom of the well to the top of its present wall is approximately thirty-six and one-half feet (Cooper to Mary U. Rothrock, July 8, 1936, McClung Collection).

The variation in the construction between the board lining reported by Demere and the later stone lining is somewhat difficult to explain. Both are compatible with eighteenth century well construction methods. The barrels (kegs) that Kirkland reported as having been removed from the well may have been a barrel that had been placed at the bottom of the well as was a common practice at that time (Noel Hume 1969e:Figure 3) It is possible that sometime after the well was initially constructed, it may have been reworked and lined with stone. It is also possible that this was done sometime after the abandonment of the fort, if the well was either open or known, as is contended above, throughout the time since the abandonment. For part of the 200 years, there was some occupation in the vicinity, as has been noted in Chapter 2, at least during the 1790s and the early part of the nineteenth century, so the well could have been modified then.

The plan of the features found by the WPA project (Figure 28) shows the inner palisade line going around the outside of the well. The 1975-1976 excavations attempted to verify this course of the palisade line, but excavations into the squares near the well did not produce any evidence. This was due to the disturbance by the WPA excavations, which extended to nearly a meter in depth in a large area surrounding the well, resulting from the WPA re-excavation of the well and the subsequent rebuilding of the well head. Although the well is squarely on the location of the inner palisade line, the documentation available clearly indicates that the inner palisade line was removed early in 1757 (R. Demere to Lyttelton, January 31, 1757, SCIA:325-328), while the well was not started until May of the following year, as noted above.

Historic Pit Features

There was a total of 52 historic pit features defined and excavated within and outside the fort. Of those, the 15 features determined to have been of historic Cherokee origin are detailed in Chapter 7. The features that are discussed in this section are those that were deliberately excavated and that appeared to have been intended for and used primarily for refuse disposal. In the few cases where there appeared to have been a previous different use of the feature prior to filling with refuse, the details or the evidence for that use is presented.

The specific details that were noted for the various pit features, such as dimensions, stratigraphy, artifact content, association and the like, are detailed by feature in the sections below. The associated artifacts are summarized in Table 105. Examples of the various classes of pit features and certain details are shown in Figures 101 through 106. Generally the deeper pits had two or more distinct stratigraphic zones representing two or more periods of filling or other activities. The shallow pits did not seem to have this sort of layering and may have been more one time use features.

Feature 1 (Pit Feature)

Figures 6A and 100A

Location: N230.40/E137.25

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 190 cm by 157 cm. Defined depth: 54 cm.

Fill and Stratigraphy: The fill consisted of a loosely compacted brown humus with some charcoal scattered throughout. No internal stratigraphy was noted within the fill.

Observations: This feature is located on the ridge west of the Northwest Bastion and west of the northwest ditch in an area of light historic scatter. The time of the occupation during the fort period and the relation to the occupation within the fort were not determined. It is possible that the use of this area was during the period of fort construction.

Table 12. Artifacts associated with Feature 1.

Artifact	Quantity
Overhill Plain sherds	1
Staple	1
Nut	1
Prehistoric sherd	1
Total	4

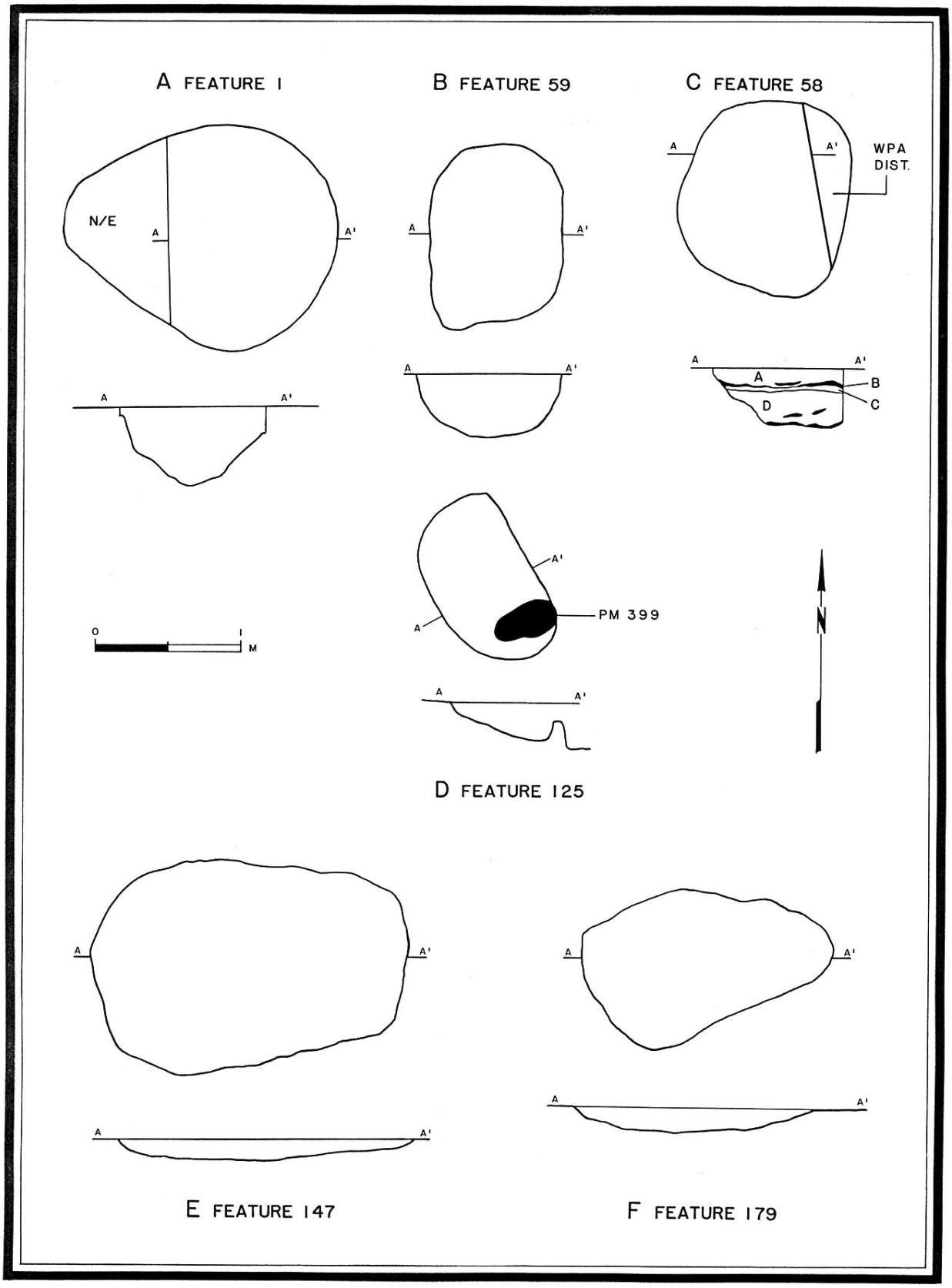

Figure 100. Plans and profiles of selected historic pit features. The descriptions of the stratigraphic zones in the features are detailed in the text with the discussion of the corresponding feature.

Feature 7 (Pit Feature)

Figures 6A and 101D

Location: N234.30/E136.65

Shape: Rectangular in plan, with vertical walls and a flat bottom.

Dimensions: Horizontal: 85 cm by 50 cm. Defined depth: 14 cm.

Fill and Stratigraphy: The fill consisted of a homogeneous dark brown loam with charcoal mixed throughout. No internal stratigraphy was noted.

Observations: This may have been a pit originally used as a hearth, on the basis of its charcoal content, and later filled with refuse. However, no burning of the bottom or walls of the feature was noted. This feature was located in the area west of the Northwest Bastion near Feature 1. The exact association with the occupation of the fort was not determined, although, like Feature 1, it may be assumed to have been used during the period of fort construction because of its location outside the fort.

Table 13. Artifacts associated with Feature 7.

Artifact	Quantity
Overhill Plain sherds	36
Group 6 buckle	1
Mirror fragment	1
Animal bones	48
Lithic waste materials	9
Total	95

Feature 44 (Pit Feature)

Figures 6A, 60, and 101A

Location: N186.20/E276.60

Shape: Oval in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 145 cm by 125 cm. Defined depth: 42 cm.

Fill and Stratigraphy: The fill within the pit was stratified and consisted of the following zones: Zone A was a sandy yellow clay layer; Zone B was a dark loam or midden with a lens of ash; and Zone C was a dark brown loam or midden.

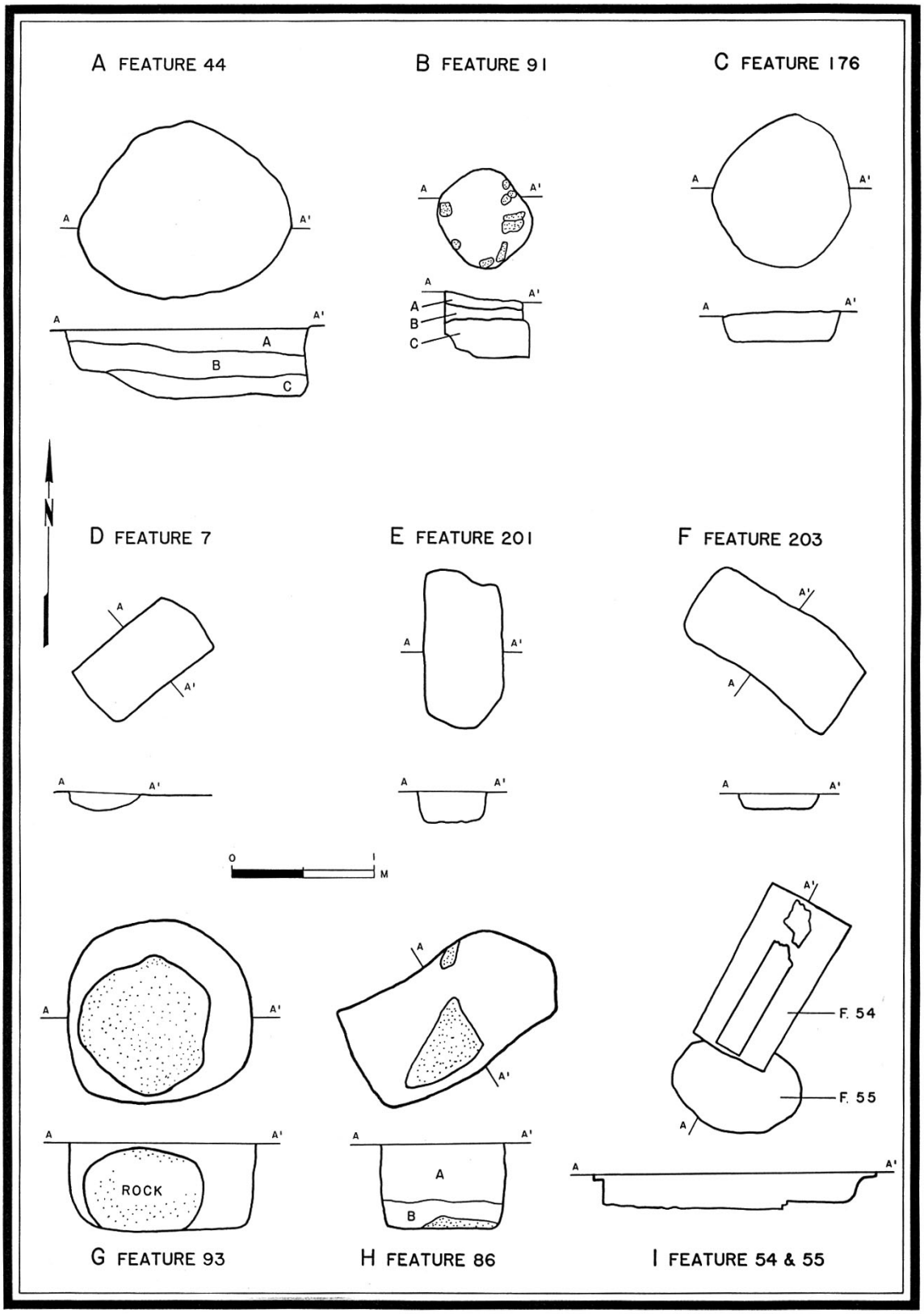

Figure 101. Plans and profiles of selected historic pit features. The descriptions of the stratigraphic zones in the in the features are detailed in the text with the discussion of the corresponding feature.

Observations: This feature was apparently originally excavated as a refuse disposal pit. After some filling, a fire was built in the pit in Zone B and later the pit was capped with a layer of clean fill. Charcoal and artifacts were distributed throughout the lower levels of the fill with no apparent concentrations. This feature was located to the south of Structure 1, and was probably associated with the occupation of that structure or the use of the Southeast Bastion. The upper level of this feature had been disturbed on the south side by a WPA exploratory trench.

Table 14. Artifacts associated with Feature 44.

Artifact	Quantity
Chinese porcelain sherds	1
White Saltglaze sherds	1
Overhill Plain sherds	78
Overhill Checked Stamped	1
Dark green round beverage bottle fragments	4
Dark green square beverage bottle fragments	1
Dark green octagonal beverage bottle fragment	1
Rose head nails	4
T-head nails	10
Horseshoe nail	1
Decorative nail	1
Indeterminate nails	14
Light strap hinge	1
Staple	1
Brass sheet scraps	2
Lead sheet scrap	1
Lead spatter	1
Sheet iron scraps	47
Indeterminate iron pieces	3
Slag	635
Spall gunflint	1
Musket ball	1
Shot	2
Touchhole pick	1
Group1, Type 2 buckle	1
Group 2 button back	1
Group 3, Type 2 wood button back	1
Group 3, Type F, Variety B button	1
Ia5 bead	1
Ic6 beads	4
IIa7 beads	80
IIa14 beads	4
IIa27 bead	1
IIa40 bead	1
IIa56 bead	1
Iva (white over oyster) beads	5
Mirror fragment	1
White clay pipe fragment	1
White clay pipe fragment (indeterminate decoration)	1
TD pile fragment	1
Animal bones	1312
Prehistoric sherds	106
Lithic artifacts	6
Lithic waste material	192
Total	2534

Feature 45 (Pit Feature-Root Cellar)

Figures 6A, 60, and 61

Location: N188.70/E273.55 (within Structure 1)

Shape: Rectangular with rounded corners, insloping walls and a flat bottom.

Dimensions: Horizontal: 2.20 m by 1.30 m. Defined depth: 76 cm.

Observations: This feature is described in Chapter 5 with Structure 1.

Table 15. Artifacts associated with Feature 45.

Artifact	Quantity
Chinese porcelain sherds	1
Overhill Plain sherds	237
Overhill Checked Stamped	100
Overhill Rectilinear Stamped	8
Qualla Rectilinear Stamped	1
Qualla Curvilinear Stamped	4
Dark green round beverage bottle fragment	1
Storage bottle fragments	2
Blue-green round fragment	1
Rose head nails	5
T-head nails	14
Tack	1
Horseshoe nail	1
Decorative nail	1
Indeterminate nail	1
Furniture tack	1
Iron brace with angled ends	1
Brass sheet scrap	1
Lead strip	1
Sheet iron scraps	2
Indeterminate iron pieces	11
Slag	1976
Spall gunflint	1
Blade gunflint	1
Musket trigger guard	1
Musket shot	9
Group 1, Type 3 buckle	1
Group 1, Type 3, Variety A button	1
Group 2, button back	1
Ial7 bead	1
IIa7 beads	2
IIal4 beads	2
IIB beads black with 6 white stripes	6
If bead clear faceted	1
IIB bead black with 5 white stripes	1
Iv-a beads white over ivory	5
IVa3 bead	1
WIc1 beads	3
Brass hawk bell fragment	1
Silver earring	1
Spur	1
Animal bones	467
Prehistoric sherds	417

Table 15. Artifacts associated with Feature 45.

Artifact	Quantity
Lithic artifacts	21
Lithic waste materials	311
Total	3627

Feature 46 (Pit Feature)

Figures 6A and 60

Location: N187.10/E275.20

Shape: Oval Bowl

Dimensions: Horizontal: 105 cm by 85 cm. Defined depth: 54 cm.

Fill and Stratigraphy: The fill consisted of a dark organic loam with daub, charcoal, artifacts and clay mottling scattered throughout. There was no apparent internal stratigraphy within the fill.

Observations: This feature was probably excavated as a refuse disposal pit and since it was located near the southeast corner of Structure 1, it may have been associated with the occupation of that structure. It was probably excavated and filled early in the occupation of the fort. After it had been filled, it was intruded by an historic period post mold (Post Mold 13).

Table 16. Artifacts associated with Feature 46.

Artifact	Quantity
Overhill Plain sherds	52
Slag	11
Animal bones	11
Prehistoric sherds	53
Lithic artifacts	3
Lithic waste materials	51
Total	181

Feature 50 (Pit Feature)

Figures 6A, 65, and 102A

Location: N184.60/E268.25

Shape: Circular bowl

Dimensions: Diameter: 135 cm. Defined Depth: 75 cm.

Fill and Stratigraphy: Four zones were defined in the fill: Zone A was a mottled brown-yellow clay 8 cm thick with pieces of charcoal in concentrated areas, burned clay, ash, and numerous artifacts. There were large concentrations of limestone rocks at the base of Zone A covering most of the pit, with the charcoal concentrated in the center of the Feature. Zone B was dark loam, mixed with limestone. Zone C was a grey-yellow clay mixed with areas of dark brown-black loam. Zone D was an ash and charcoal lens on the base of the pit. Large quantities of daub, animal bones, and historic artifacts were distributed throughout the fill.

Observations: This feature was probably excavated for refuse disposal. The lack of *in situ* firing of the bottom seems to indicate that the basal charcoal, ash, and artifact zone was simply a deposit in the feature.

The three layers of fill and refuse above the basal level represent several other episodes of deposition within the feature. The large quantities of metal and metal refuse in this feature may relate it to a disposal unit for the blacksmith shop (Structure 2), as well as other activities in the Southeast Bastion. The south part of this feature was partially excavated by Kunkel and was designated Feature 6 by him (Kunkel N.D.:10-11).

Table 17. Artifacts associated with Feature 50.

Artifact	Quantity
Chinese porcelain sherds	2
Delftware sherds	2
Overhill Plain sherds	256
Overhill Cordmarked	1
Overhill Net Impressed	1
Overhill Incised	1
Qualla Plain	33
Qualla Checked Stamped	6
Dark green round beverage bottle fragment	1
Dark green square beverage bottle fragment	1
Blue green round beverage bottle fragment	2
Brass kettle fragments	4
Fork	1
Spoon	1
Bone knife	1
Rose head nails	17
T-head nails	33
Tacks	5
Horseshoe nails	3
Indeterminate nails	54
Heavy strap hinge fragments	2
Iron shim	1
Iron brace angled ends	1
Flat iron scraps	5
Sheet iron scraps	88
Indeterminate iron pieces	25
Pieces of slag	49
Spall gunflint	1
Breech plug tang	1
Musket trigger	1
Musket lock plate	1
Musket main spring	1
Musket ball	1
Musket shot	4
Ramrod end	1
Wedge	1
Group 1, Type 2 buckle	1
Buckle back	1
Group 1, Type 1, Variety A	1
Group 1, Type 3, Variety A	2
Group 2 back	3
Group 3, Type 3	1
Group 3, Type F, Variety C	1
Group 4, Type 1, Variety C	1
Needles	3
Tinkling cones	3
Silver earring	1
Finger ring	1
Bone comb fragment	1
Cut silver	1

Table 17. Artifacts associated with Feature 50.

Artifact	Quantity
IIb black with 6 white stripes bead	2
IVa white over ivory bead	1
Wic black	1
Purple wampum	2
White wampum	2
Mirror fragment	1
White clay pipe fragments Amorial	2
Stone pipe fragment	1
Animal bones	883
Prehistoric sherds	131
Lithic artifacts	3
Lithic waste materials	279
Total	1937

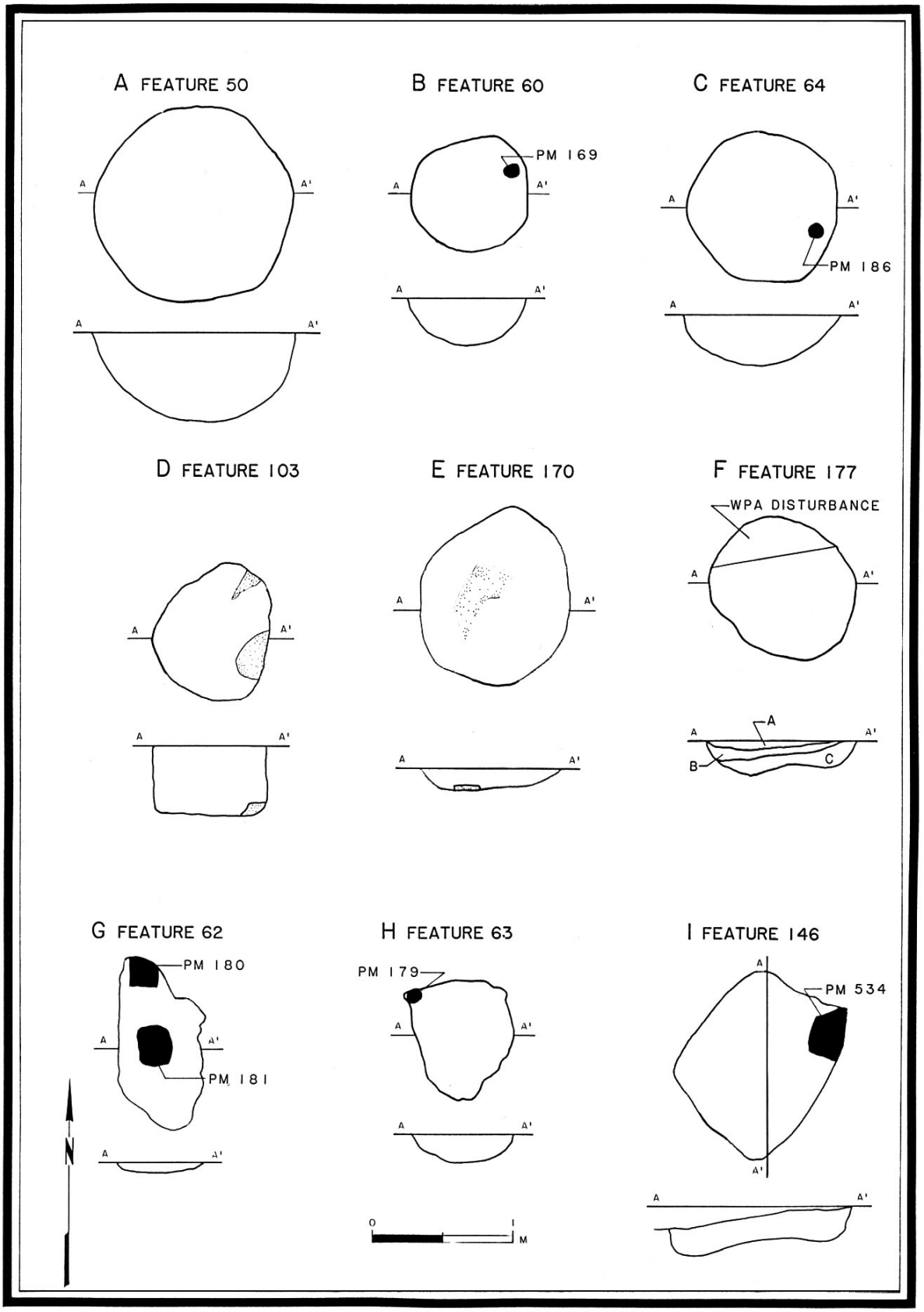

Figure 102. Plans and profiles of selected pit features. The descriptions of the stratigraphic zones in the features are detailed in the text with the discussion of the corresponding feature.

Feature 54 (Pit Feature)

Figures 6A, 62, 63, 64, and 101I

Location: N190.25/E264.90 (within Structure 2).

Shape: Rectangular with vertical walls and a flat bottom.

Dimensions: Horizontal: 131 cm by 76 cm. Defined depth: 29 cm.

Observations: This feature is believed to be the clean-out for the forge within the blacksmith shop. The description of this feature is presented in Chapter 5 in the discussion of Structure 2.

Table 18. Artifacts associated with Feature 54.

Artifact	Quantity
Storage glass fragments	20
Blue green round	1
Indeterminate iron	1
Animal bones	6
Prehistoric sherds	33
Lithic artifacts	4
Lithic waste materials	16
Total	81

Feature 58 (Pit Feature)

Figures 6A, 65, and 100C

Location: N184.35/E264.25 (within Structure 3)

Shape: Oval pit with insloping walls and a flat bottom.

Dimensions: Horizontal: 145 cm by 120 cm. Defined Depth: 38 cm.

Fill and Stratigraphy: Four stratigraphic zones were defined in the fill of this feature. Zone A consisted of a mottled clay and loam with limestone pieces. Zone B was an ash and charcoal lens. Zone C was a yellow clay mixed with some charcoal and ash. Zone D was a brown loam with ash, charcoal, limestone and clay mottling. Artifactual materials were found throughout the fill.

Observations: This feature was probably excavated for a refuse pit. Zone D represents the initial deposition of refuse, and Zone C is probably a cap to seal Zone D. The ash and charcoal lens (Zone B) is probably the result of an in situ fire within the feature and Zone A is the final deposition of refuse and limestone rock. The cultural components (artifacts) appear to have been blacksmith shop and domestic refuse. This Feature was cut on the east side by a WPA exploratory trench. This feature is probably related to the disposal of refuse within Structure 3, and possibly Structure 2, if Structure 3 was taken down during the fort period occupation.

Table 19. Artifacts associated with Feature 58.

Artifact	Quantity
Chinese porcelain sherds	1
Overhill Plain sherds	65
Overhill Checked Stamped	7
Overhill Curvilinear Stamped	2
Dark green round beverage bottle fragment	1
Storage bottle fragment	1

Table 19. Artifacts associated with Feature 58.

Artifact	Quantity
Clear round bottle fragment	1
Indeterminate clasp knife blade	1
Rose head nails	5
T-head nails	5
Square head nail	1
Indeterminate nails	20
Small pintle	1
Heavy strap hinge fragments	3
Bolt	1
Brass sheet scraps	3
Pewter scrap	1
Lead sheet scrap	1
Iron wire	1
Iron pig bar stock	3
Flat iron scrap	1
Sheet iron scraps	15
Slag	21
Tar	1
Musket tumbler	1
Musket shot	1
Touchhole pick chain link	1
Axe	1
Group 3, Type 1 buckle	1
Group 1, Type 1, variety D button	1
Group 1, Type 3, Variety A	1
Group 2, Variety B	6
Type 3, Variety B sleeve link	1
IIa7 buttons	2
IIal4 buttons	2
WIc black button	1
Mirror fragment	1
White clay pipe fragments	3
Animal bones	504
Prehistoric sherds	40
Lithic artifacts	4
Lithic waste materials	44
Total	777

Feature 59 (Pit Feature)

Figures 6A, 65 and 100B

Location: N182.67/E268.65

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 123 cm by 91 cm. Defined depth: 46 cm.

Fill and Stratigraphy: Two stratigraphic zones were defined. Zone A was a dark brown loam with charcoal. Zone B consisted of a consolidated black loam mottled with sand, yellow-orange clay daub, ash and charcoal. Artifacts were recovered throughout the fill.

Observations: Deposition consisted of two episodes of fill, with refuse consisting primarily of domestic refuse and some amount of materials from the blacksmith shop. This feature was located east of Structure 3 and probably functioned as a refuse disposal pit for that structure and possibly for Structure 2.

Table 20. Artifacts associated with Feature 59.

Artifact	Quantity
Overhill Plain sherds	1
T-head nails	5
Indeterminate nails	4
Slag	22
Spall gunflint	1
Cut silver	1
Mirror fragment	1
Animal bones	130
Prehistoric sherds	3
Lithic artifacts	2
Lithic waste materials	14
Total	184

Feature 60 (Pit Feature)

Figures 6A and 102B

Location: N182.10/E272.90

Shape: Circular in plan and bowl-shaped in section.

Dimensions: Diameter: 65 cm. Defined depth: 31 cm.

Fill and Stratigraphy: No stratigraphy was noted. The fill consisted of a dark loam with charcoal throughout. The artifacts represent mainly domestic refuse and some materials from the blacksmith shop.

Observations: The fill appears to have consisted of one episode of filling with refuse, mostly domestic. Post Mold 169 was defined in the base of the feature, but is probably prehistoric in origin. Use of this feature is probably associated with the occupation of Structure 3, and possibly Structure 2.

Table 21. Artifacts associated with Feature 60.

Artifact	Quantity
Rose head nail	1
Indeterminate nail	2
Slag	29
Animal bones	150
Prehistoric sherds	4
Lithic waste materials	9
Total	195

Feature 62 (Pit Feature)

Figures 6A, 60 and 102G

Location: N188.32/E276.25

Shape: Irregular in plan and bowl-shaped in section.

Dimensions: Horizontal: 110 cm by 62 cm. Defined depth: 7 cm.

Fill and Stratigraphy: The fill was a dark loam mottled with charcoal, daub and yellow clay. No internal stratigraphy was noted.

Observations: The pit was probably filled in one episode. Post Molds 180 and 181 were defined in the base of the feature. They were probably posts that had been removed prior to the excavation of this feature, since they were not defined in the fill. The feature was located at the southeast corner of Structure 1 and was probably associated with that structure. The artifact contents are ambiguous, so it is possible that this was a prehistoric pit feature similar to several others that were located in this bastion.

Table 22. Artifacts associated with Feature 62.

Artifact	Quantity
Animal bones	2
Prehistoric sherds	12
Lithic waste materials	10
Total	24

Feature 63 (Pit Feature)

Figures 6A, 62 and 102H

Location: N187.70/E268.0 (Within Structure 2)

Shape: Irregular in plan and bowl-shaped in section.

Dimensions: Horizontal: 85 cm by 66 cm. Defined depth: 21 cm.

Fill and Stratigraphy: The fill consisted of dark loam mottled with yellow clay nodules. No stratigraphy was noted and the artifacts were evenly distributed throughout feature.

Observations: The fill represents probably one episode of deposition. The nature of the refuse indicates a combination of domestic and other refuse, most of which may have been from Structure 2, the blacksmith shop. Post Mold 179, defined only in the base of feature, was probably of prehistoric origin.

Table 23. Artifacts associated with Feature 63.

Artifact	Quantity
Overhill Plain sherds	1
T-head nail	1
Indeterminate nails	15
Latch bar catch	1
Iron rivet	1
Iron brace with angled ends	1
Brass rod pieces	2
Brass sheet scraps	4
Iron pig bar stock	8
Flat iron scraps	2
Sheet iron scrap	1
Indeterminate iron	22
Slag	1
Group 1, Type 1 buckle	1
Group 1, Type 2 buckle	1
Buckle back	1
Group 2 button back	1
Group 2 button eye	1

Table 23. Artifacts associated with Feature 63.

Artifact	Quantity
Prehistoric sherds	50
Lithic artifacts	3
Lithic waste materials	31
Total	149

Feature 64 (Pit Feature)

Figures 6A and 102C

Location: N182.00/E271.75

Shape: Slightly oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 108 cm by 99 cm. Defined depth: 38 cm.

Fill and Stratigraphy: The fill consisted of black loam with moderate amounts of charcoal throughout. Artifacts were also evenly distributed within the fill. No internal stratigraphy was noted.

Observations: This feature was probably used for refuse disposal, similar to several other pits in the immediate area. Debris recovered indicates domestic refuse disposal, with moderate amounts of material which might have been derived from the blacksmith shop, Structure 2.

Table 24. Artifacts associated with Feature 64.

Artifact	Quantity
T-head nail	1
Horseshoe nail	1
Slag	25
Buckle backs	2
Animal bones	61
Prehistoric sherds	10
Lithic artifacts	4
Lithic waste materials	36
Total	140

Feature 82 (Pit Feature)

Figures 6A and 98

Location: N197.60/E206.30

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 91 cm by 60 cm. Defined depth: 15 cm.

Fill and Stratigraphy: No data.

Observations: This feature was originally excavated by Kunkel and designated Feature 22 by him (Kunkel N.D.:19-20, Figure 2). It was stratigraphically below the southeast corner of a chimney base (Feature 192), indicating that it dated to the occupation period before June, 1757, and prior to the construction of the barracks.

Table 25. Artifacts associated with Feature 82.

Artifact	Quantity
Snuff bottle fragment	1
T-head nails	15
Indeterminate nails	3
Group 2 button back	1
Group 3, Type 2, Variety B button	1
Animal bones	46
Total	67

Kunkel (N.D.:20) also listed 1 piece of iron, 1 piece of pewter, 11 Cherokee sherds, 109 animal bones, and 3 pieces of daub.

Feature 86 (Pit Feature)

Figures 6A, 73, 74, and 101H

Location: N216.50/E183.60 (Within Structure 8)

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 150 cm by 37 cm. Defined depth: 60 cm.

Observations: This feature is described in Chapter 5 with Structure 8.

Table 26. Artifacts associated with Feature 86.

Artifact	Quantity
Overhill Plain sherds	13
Overhill Checked Stamped	5
Overhill Cordmarked	4
Wine glass fragment	1
Type 1 clasp knife	1
Rose head nail	1
T-head nails	4
Tacks	2
Indeterminate nails	5
Lead sheet scrap	1
Group 2 button back	1
Group 3, Type 1button	1
IVa bead white over oyster bead	1
Animal bones	28
Total	68

Feature 87 (Pit Feature)

Figure 6A

Location: N220.30/E193.00

Shape: Irregular in plan and roughly bowl-shaped in section.

Dimensions: Horizontal: 3.60 m by 3.00 m. Defined depth: 50 cm.

Fill and Stratigraphy: The fill was red clay mottled with dark loam. This was backfill from the previous excavation of this feature.

Observations: This feature had been completely excavated by the Kunkel excavations in 1959 (Kunkel N.D.: 28-30) and labeled Feature 44. The original fill of this feature was similar to the Zone A fill of Structure 7 and the Zone A fill of Structure 10, and contained few artifactual remains. The original fill consisted of, and was probably part of a layer of relatively clean soil that had been put down over this area after the razing of Structures 7 and 10 in 1757 to level the whole area. The original purpose of this feature is uncertain, but was perhaps a fort period tree removal or an excavation for earth to cover Structure 7. It is quite similar in several respects to Features 104 and 139, which are thought to have also possibly been tree removals that were then filled and leveled. It is not interpreted as a structure because the excavation was not as regular as those for Structures 7 and 10, it lacked the artifact content of those structures, and there was no evidence for a hearth.

Table 27. Artifacts associated with Feature 87.

Artifact	Quantity
Overhill Plain sherds	14
Rose head nails	4
T-head nails	2
Blade gunflint	1
Spall gunflint	1
White clay pipe fragments	3
Animal bones	55
Lithic waste materials	4
Total	84

Most are probably included in the above list, but Kunkel listed the following artifacts from this feature: 11 Cherokee sherds, 11 nails, 4 iron objects, 1 piece of slag, 1 European ceramic sherd, 1 clay pipe fragment, 1 gunflint, 1 pewter fragment, and 9 pieces of waste chert (Kunkel N.D.:29).

Feature 91 (Pit Feature)

Figures 6A, 73, 74, and 101B

Location: N213.96/E183.86 (Within Structure 8)

Shape: Rectangular in plan with rounded corners, vertical side walls and a flat bottom.

Dimensions: Horizontal: 70 cm by 65 cm. Defined Depth: 47 cm.

Fill and Stratigraphy: Three zones of fill were present.
Zone A. Shallow fire basin.
Zone B. Fired clay, burned limestone, charcoal and daub.
Zone C. Brown loam with historic artifacts.

Observations: Described in Chapter 5 with Structure 8.

Table 28. Artifacts associated with Feature 91.

Artifact	Quantity
Overhill Plain sherds	115
T-head nail	1
L-head nail	1
Indeterminate nails	2
Awl	1
Strike-a-light	1
Bone comb fragment	1
Harness decoration	1
Animal bones	17
Lithic waste materials	2
Total	142

Feature 93 (Pit Feature)

Figures 6A and 101G

Location: N216.65/E198.25

Shape: Circular in plan with vertical walls and a flat bottom.

Dimensions: Diameter: 130 cm. Defined depth: 65 cm.

Fill and Stratigraphy: The fill of the pit consisted of a large rock and redeposited subsoil that had been excavated from the pit.

Observations: This pit was apparently excavated to dispose of a large round rock about 90 cm in diameter. Although lacking much artifactual support, it was probably done during the occupation of the fort, specifically during the period of fort construction. This pit was east of, but adjacent to Feature 88, the western line of the innermost palisade.

Table 29. Artifacts associated with Feature 93.

Artifact	Quantity
Indeterminate nail fragment	1
Animal bones	6
Total	7

Feature 97 (Pit Feature)

Figure 6A

Location: N218.80/E183.20

Shape: Rectangular in plan with vertical walls and a slightly concave bottom.

Dimensions: Horizontal: 75 cm by 40 cm. Defined Depth: 18 cm.

Fill and Stratigraphy: The fill consisted of homogeneous medium brown loam with no internal stratigraphy.

Observations: This pit was adjacent on the west to Feature 90, and situated in the red clay fill overlying the old humus. It was possibly associated with Structure 8 to the south or Structure 11 to the north but it probably postdated those structures since it was excavated into the fill overlying those structural remains.

Table 30. Artifacts associated with Feature 97.

Artifact	Quantity
Animal bones	2
Total	2

Feature 98 (Pit Feature)

Figures 6A and 73

Location: N213.50/E181.75

Shape: Rectangular in plan with vertical walls and a concave bottom.

Dimensions: Horizontal: 120 cm by 60 cm. Defined Depth: 20 cm.

Fill and Stratigraphy: The fill was dark brown loam mottled with red clay. The pit had been cut into the red clay lying over the old humus in this area.

Observations: The feature was located just outside the west wall of Structure 8 and was probably associated with the occupation of that building.

Table 31. Artifacts associated with Feature 98.

Artifact	Quantity
Musket shot	1
Total	1

Feature 103 (Pit Feature)

Figures 6A, 73, 74 and 102D

Location: N214.45/E182.70 (Within Structure 8)

Shape: Oval in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 90 cm by 70 cm. Defined depth: 50 cm.

Observations: Described in Chapter 5 with Structure 8.

Table 32. Artifacts associated with Feature 103.

Artifact	Quantity
Overhill Plain sherds	255
WIc1 bead	1
Animal bones	26
Prehistoric sherds	2
Lithic waste materials	2
Total	286

Feature 104 (Pit Feature)

Figures 6A, 89, and 106C

Location: N229.00/E191.50

Shape: Oval to irregular in plan with concave walls and a flat bottom.

Dimensions: Horizontal: 3.30 m by 3.0 m. Defined depth 43 cm.

Fill and Stratigraphy: Two zones of fill were defined in this feature. Zone A varied in depth from 5 cm to 15 cm and was confined to the eastern part of the pit (Figures 89 and 106C). It consisted of a dark brown loam with charcoal and artifacts scattered throughout. Zone B was a dark loam that contained very few artifacts, some rock, and no charcoal.

Observations: It is believed that perhaps this feature was first excavated as a tree removal or possibly for the beginning of another structure similar to Structures 7 and 10. It is clear that it was then refilled, probably with the same dirt originally excavated, with very little refuse deposited in that fill. Zone A is considered to have been a midden deposit that accumulated or was deposited in a shallow depression that resulted from the incomplete filling of the pit. This pit was not believed to have been a structure for the same reasons given for Feature 87.

Table 33. Artifacts associated with Feature 104.

Artifact	Quantity
White saltglazed stoneware	1
Scratch blue sherds	1
Overhill Plain sherds	24
Overhill Checked Stamped	5
Overhill Cordmarked	2
Overhill Curvilinear Stamped	1
Rose head nails	7
T-head nails	9
Indeterminate nails	4
Blade gunflint	1
Group 1, Type 2 buckle	1
Group 1, Type 1, Variety C button	1
Group 1, Type 3, Variety A button	1
Group 4, Type 1, Variety C button	1
Mirror fragment	1
White clay pipe fragment	1
Animal bones	22
Prehistoric sherds	2
Lithic artifact	1
Lithic waste materials	2
Total	88

Feature 106 (Pit Feature)

Figure 6A

Location: N227.50/E173.70

Shape: Oval to irregular in plan with relatively straight walls and a flat but irregular base.

Dimensions: Horizontal: 2.6 m by 1.5 m. Defined depth: 25 cm.

Fill and Stratigraphy: The fill consisted of an orange clay mottled with dark brown and tan clay. Near the center of the feature and on the base was a compact orange clay fill.

Observations: This was a pit that had been excavated and quickly refilled with the excavated earth, with a little refuse included. It was apparently not used primarily for the disposal of refuse and was probably a tree removal excavation. It probably dates from the fort period but could have been the result of later clearing operations. It was partially disturbed on the western edge by the excavation of the trench for palisade reconstruction in the 1960s.

Table 34. Artifacts associated with Feature 106.

Artifact	Quantity
Overhill Plain sherds	12
Overhill Checked Stamped	1
Qualla Cordmarked	2
Qualla Rectilinear Stamped	1
T-head nail	1
Indeterminate nail	1
Prehistoric sherd	1
Lithic waste materials	3
Total	22

Feature 125 (Pit Feature)

Figures 6A, 75 and 100D

Location: N223.00/E180.75 (Within Structure 11)

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 110 cm by 70 cm. Defined depth: 36 cm.

Fill and Stratigraphy: The dark loam fill was heavily mixed with charcoal. Post Mold 399 of Structure 11 cut through the fill of the feature. The basin was adjacent to Feature 90 and was possibly cut by that feature also. There was no defined internal stratigraphy.

Observations: This feature predates Structure 11 and Feature 90. See also the discussions of this feature in Chapter 5 with Structure 11.

Table 35. Artifacts associated with Feature 125.

Artifact	Quantity
Buckle back	1
Total	1

Feature 139 (Pit Feature)

Figure 6A

Location: N225.00/E198.50

Shape: Irregular to oval in plan and bowl shaped in section.

Dimensions: Horizontal: 3.65 m by 2.85 m. Defined depth: 32 cm.

Fill and Stratigraphy: The fill consisted of a dark brown loam with a heavy mottling of red clay approaching about 40 percent of the fill. Charcoal was scattered throughout the excavated portion of the fill. No stratigraphy was noted.

Observations: This feature consisted of a large shallow depression that had been filled with relatively sterile soil material. Only the western one-fourth of the feature was excavated. Excavation was discontinued because of the paucity of materials in the fill and the realization that this feature was probably similar to Features 87 and 104, which had already been completely excavated. It is assumed, like the other similar features that this was some sort of tree removal or other excavation that had been made and quickly refilled, probably with the same earth originally excavated from the pit. Although some refuse was contained in the fill, the primary function of the feature was definitely not that of refuse disposal. The feature is located beneath the estimated northern end of the barracks and this leveling may have been necessary prior to the construction of that building. If it is assumed that the pit was filled before the construction of the Barracks, then it would have been filled prior to the summer of 1757.

Table 36. Artifacts associated with Feature 139.

Artifact	Quantity
Overhill Plain sherds	6
Snuff bottle fragment	1
T-head nails	2
Indeterminate nails	1
Animal bones	10
Total	20

Feature 146 (Pit Feature)

Figures 6A and 102I

Location: N212.90/E238.80

Shape: Oval to rectangular in plan and bowl-shaped in section.

Dimensions: Horizontal: 120 cm by 100 cm. Defined Depth: 11 cm.

Fill and Stratigraphy: The fill of the pit consisted of a dark grey-brown loam with charcoal flecks throughout. No internal stratigraphy was noted.

Observations: This feature was located along the northeastern edge of the parade ground area near the base of the hill slope. The artifacts were scattered throughout the fill without any apparent concentrations. The use of this feature, probably for refuse disposal, as well as nearby Feature 147, may have been associated with the occupation of Structure 6. Post Mold 534 was defined at the base of the feature in the northeast quadrant.

Table 37. Artifacts associated with Feature 146.

Artifact	Quantity
Overhill Plain sherds	28
Overhill Checked Stamped	19
Qualla Rectilinear Stamped	1
Qualla Checked Stamped	4
T-head nail	1
Indeterminate nail	1
Spall gunflint	1
Mortar shell fragment	1
White clay pipe fragment	1
Animal bones	70
Prehistoric sherd	1
Lithic artifact	1
Lithic waste materials	12
Total	141

Feature 147 (Pit Feature)

Figures 6A and 100E

Location: N215.90/E240.20

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 220 cm by 155 cm. Defined depth: 13 cm.

Fill and Stratigraphy: The fill consisted of dark brown loam mottled with orange clay. No internal stratigraphy was defined.

Observations: This feature along with Feature 146 was located along the northeast edge of the parade ground. Its use as a refuse disposal facility may have been associated with the occupation of Structure 6.

Table 38. Artifacts associated with Feature 147.

Artifact	Quantity
Overhill Plain sherds	1
Indeterminate nail fragment	1
Lithic waste materials	6
Total	8

Feature 170 (Pit Feature)

Figures 6A and 102E

Location: N205.90/E224.35

Shape: Circular in plan and bowl-shaped in section.

Dimensions: Horizontal: 100 cm. diameter. Defined depth: 16 cm.

Fill and Stratigraphy: The pit fill consisted of a dark grey loam with charcoal throughout in small quantities. One large piece of limestone was at the center of the base of the pit. No internal stratigraphy was noted.

Observations: This feature was located near the center of the parade ground. It was not clearly associated with the occupation of any structure and its presence on the parade ground is unexplained, unless it was excavated and filled during the early part of the construction of the fort.

Table 39. Artifacts associated with Feature 170.

Artifact	Quantity
Overhill Plain sherds	1
Snuff bottle fragment	1
T-head nails	2
Indeterminate nails	2
Animal bones	32
Prehistoric sherds	6
Lithic artifact	1
Lithic waste materials	3
Total	48

Feature 176 (Pit Feature)

Figures 6A and 100C

Location: N186.00/E257.90

Shape: Slightly oval in plan with insloping walls and a flat bottom.

Dimensions: Horizontal: 107 cm by 92 cm. Defined depth: 24 cm.

Fill and Stratigraphy: The fill was a homogeneous grey-brown loam with flecks of charcoal throughout. No stratigraphy was noted.

Observations: Artifacts were scattered evenly throughout the fill with no apparent concentrations. This feature was located near Feature 178 and was probably associated with the activities in the Southeast Bastion, possibly with Structure 2 or Structure 3.

Table 40. Artifacts associated with Feature 176.

Artifact	Quantity
Overhill Checked Stamped	2
T-head nails	2
WIIc1 bead	1
Animal bones	3
Prehistoric sherds	27
Lithic artifacts	6
Lithic waste materials	162
Total	203

Feature 177 (Pit Feature)

Figures 6A and 102F

Location: N191.00/E255.20

Shape: Oval in plan with insloping walls and a flat bottom.

Dimensions: Horizontal: 95 cm by 80 cm. Defined depth: 24 cm.

Fill and Stratigraphy: Three zones were defined in the fill of this feature: Zone A was about 10 cm thick and consisted of a grey loam with some charcoal mixed throughout. Zone B was a 5 cm thick ash and charcoal layer. Zone C, approximately 9 cm in thickness, was a grey loam with some charcoal mixed throughout.

Observations: The deposition in the feature probably represents an initial filling within the pit followed by some in situ burning. This was then capped by Zone A. The northern part of this feature had been cut by Feature 61S, the inner palisade line. Since this portion of the inner palisade line had been excavated by the WPA project, it was impossible to determine the chronology of this feature and the palisade line. This feature is in the area of Feature 176 and Feature 178 and is probably the result of activities in the Southeast Bastion area, quite possibly the occupation of Structures 2 and 3.

Table 41. Artifacts associated with Feature 177.

Artifact	Quantity
Overhill Plain sherds	2
Overhill Checked Stamped	1
Rose head nails	2
T-head nails	2
Indeterminate nails	5
Brass sheet scrap	1
Lead spatter	1
Tinkling cone	1
White clay pipe fragment	1
Animal bones	46
Prehistoric lithics	109
Lithic waste materials	2
Total	173

Feature 179 (Pit Feature)

Figures 6A and 100F

Location: N245.00/E234.25

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 170 cm by 110 cm. Defined depth: 15 cm.

Fill and Stratigraphy: The fill was a homogeneous dark loam. No stratigraphy was defined.

Observations: This feature was located about 3 m north of Structure 16, and its use is probably associated with the occupation of that building.

Table 42. Artifacts associated with Feature 179.

Artifact	Quantity
Coarse earthenware	1
Overhill Plain sherds	41
Overhill Checked Stamped	4
Overhill Rectilinear Stamped	5
Qualla Plain	1
Rose head nails	2
T-head nails	3
Tacks	5
Indeterminate nails	5
Type 1, Variety A sleeve link	1
Tinkling cone	1
IIa7 bead	1
IIal4 beads	3
WIcl beads	3
White clay pipe fragment	1
Animal bones	40
Lithic waste materials	5
Total	122

Feature 201 (Pit Feature)

Figures 6A and 101E

Location: N240.75/El94.40

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 110 cm by 54 cm. Defined depth 29 cm.

Fill and Stratigraphy: The pit fill consisted of a dark brown loam mottled with red clay. A thin charred layer at a depth of 4 cm covered the entire area of the feature.

Observations: The east end of Feature 198-A, a shallow trench or sill mold, was intrusive to southwest part of this pit. Feature 201 was discovered at the base of Feature 197, a disturbance of much more recent origin. There appeared to have been two primary depositions within the pit separated by an episode of *in situ* burning.

Table 43. Artifacts associated with Feature 201.

Artifact	Quantity
Sheet iron scrap	1
Prehistoric sherds	2
Total	3

Feature 203 (Pit Feature)

Figures 6A, 79 and 101F

Location: N242.25/E187.80

Shape: Rectangular in plan with slightly insloping walls and a flat bottom.

Dimensions: Horizontal: 140 cm by 65 cm. Defined depth: 14 cm.

Fill and Stratigraphy: The fill was a gravelly, tan sandy clay mottled with brown sandy loam. Some large limestone rocks were near the top of the feature, and some charcoal was scattered throughout the fill.

Observations: The feature was cut on the northeast side by Kunkel's test trench T.T. K-5 (Kunkel N.D.:Figure 10). This pit was part of a cluster of features south of Structures 12 and 22, and was probably associated with the occupation of one or both of those buildings.

Table 44. Artifacts associated with Feature 203.

Artifact	Quantity
Overhill Plain sherds	6
Qualla Cordmarked	1
Rose head nail	1
T-head nails	3
Tack	1
Indeterminate nails	2
Screw	1
Animal bones	4
Prehistoric sherd	1
Total	20

Feature 204 (Pit Feature)

Figures 6A and 79

Location: N245.00/E187.0

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 90 cm by 75 cm. Defined depth: 14 cm.

Fill and Stratigraphy: The pit fill consisted of a medium brown loam with charcoal. No internal stratigraphy was noted.

Observations: There was a concentration of charcoal, burned corn cobs, and Cherokee ceramics on the south edge of the feature. This pit cut into the north edge of Feature 143, a palisade trench, indicating its excavation after the palisade was removed and the trench filled in. It was located just south of the south wall of Structure 22 and was probably associated with the occupation of that structure. See also the discussion of this feature in Chapter 5 with Structure 22.

Table 45. Artifacts associated with Feature 204.

Artifact	Quantity
Overhill Plain sherds	42
Overhill Rectilinear Stamped	2
Qualla Checked Stamped	1
Qualla Cordmarked	11
Indeterminate nail fragments	2
IIal4 bead	1
Animal bones	30
Prehistoric sherds	2
Lithic waste materials	6
Total	97

Feature 208 (Pit Feature)

Figures 6A and 79

Location: N243.70/E196.00

Shape: Irregular in plan and bowl-shaped in section.

Dimensions: Horizontal: 195 cm by 120 cm. Defined depth: 30 cm.

Fill and Stratigraphy: The fill was a dark sandy grey-brown loam lacking any internal stratigraphy.

Observations: Feature 208 was intrusive to Feature 143, a palisade trench. It was one of a cluster of pit features to the south of structure 12 and was probably associated with activities resulting from the occupation of that building. This feature is also discussed in conjunction with Structure 12 in Chapter 5.

Table 46. Artifacts associated with Feature 208.

Artifact	Quantity
Overhill Plain sherds	15
Overhill Checked Stamped	1
Qualla Checked Stamped	2
T-head nails	3
Indeterminate nail fragments	9
Lead sheet scrap	1
Lead strip	1
Type 3, Variety B sleeve link	1
Straight pins	3
WIcl bead	1
White clay pipe	1
Animal bones	115
Total	153

Feature 209 (Pit Feature)

Figures 6A and 79

Location: N244.50/E193.50

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 100 cm by 57 cm. Defined Depth: 18 cm.

Fill and Stratigraphy: The fill was a homogeneous red and brown mottled clay with scattered charcoal; some daub and gravel were present. No internal stratigraphy was defined.

Observations: This feature was adjacent to Feature 143 and was possibly intruded by Feature 143 on the southwest corner. This pit was probably associated with the occupation of Structure 12 as is assumed to have been the case with several other pit features in this general area. Additional discussion of this feature is presented in Chapter 5 with the summary of Structure 12.

Table 47. Artifacts associated with Feature 209.

Artifact	Quantity
Chinese porcelain sherds	3
Overhill Plain sherds	17
Overhill Checked Stamped	3
Overhill Rectilinear Stamped	1
Rose head nail	1
Iron rings	2
Iron brace with angled ends	1
Brass sheet scrap	1
IIa7 beads	2
IIal4 beads	4
WIcl beads	9
WIc black beads	2
WIII white with blue inset bead	1
Mirror fragments	3
Animal bones	48
Prehistoric sherd	1
Lithic waste materials	2
Total	101

Feature 210 (Pit Feature)

Figures 6A and 79

Location: N245.00/E191.40

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 100 cm by 90 cm. Defined depth: 20 cm.

Fill and Stratigraphy: The fill consisted of a loosely consolidated brown loam, with no apparent internal stratigraphy.

Observations: This feature is described in Chapter 5 with Structure 12.

Table 48. Artifacts associated with Feature 210.

Artifact	Quantity
T-head nails	1
Indeterminate nails	2
Animal bone	1
Total	4

Feature 211 (Pit Feature)

Figures 6A and 79

Location: N244.45/E196.80

Shape: Rectangular in plan and bowl-shaped in section.

Dimensions: Horizontal: 100 cm by 60 cm. Defined depth: 19 cm.

Fill and Stratigraphy: The fill was a homogeneous grey-brown sandy loam, mottled heavily with red-orange clay.

Observations: The feature was covered with a red clay chip that extended over much of this area of the Northwest Bastion. The pit was cut into the original humus. It was located to the southeast of Structure 12 and like several other pits in this area was probably associated with the occupation of that structure. It is also discussed with Structure 12 in Chapter 5.

Table 49. Artifacts associated with Feature 211.

Artifact	Quantity
Rose head nail	1
Lithic waste material	1
Total	2

Filled Areas and Clay Lenses

This group of features consist of those lenses of materials that appeared to have been put in place simply to level otherwise irregular areas within the fort. Some, such as the clay lenses, were the result of deliberate efforts to fill or level areas with relatively clean soil. In other cases, some midden may have been included as part of the fill and there may have been more accidental or unintentional inclusions of artifactual materials, but overall their primary function was filling and not that of refuse disposal as was the case with several of the midden deposits which are discussed in a later section.

Feature 56 (Filled Crevice)

Figures 6A and 67

Location: N234.90/E219.75 (Below Structure 4)

Shape: Irregular in plan and section.

Dimensions: Horizontal: 90 cm by 70 cm. Defined depth: 50 cm.

Fill and Stratigraphy: The fill consisted of a homogeneous combination of stone rubble, earth, refuse and artifactual materials that had been placed in a bedrock crevice.

Observations: This feature was located within the bounds of Structure 4. The crevice in the bedrock was filled to level an area, presumably for the construction of Structure 4. The superposition of Structure 4 indicates that this crevice was filled early in the occupation of the fort, possibly within the first few months.

Table 50. Artifacts associated with Feature 56.

Artifact	Quantity
Chinese porcelain sherds	1
Overhill Plain sherds	9
Snuff bottle fragments	3
Rose head nails	4
T-head nails	7
Indeterminate nails	4
Curtain ring	1
Lead strip	1
White clay pipe fragments (2 Armorial)	2
Animal bones	119
Prehistoric sherd	1
Lithic artifact	1
Lithic waste materials	2
Total	155

Feature 94 (Filled Depression)

Figure 6A

Location: N208.95/E191.75

Shape: Oval in plan with a bowl-shaped section and an irregular base.

Dimensions: Horizontal: 1.40 m by 1.00 m. Defined depth: 21 cm.

Fill and Stratigraphy: The fill consisted of a grey to dark brown loam with charcoal and small pieces of limestone mixed throughout. No internal stratigraphy was defined.

Observations: There was one large hole in the center of the pit base and numerous smaller ones indicating that this was probably originally a tree fall that had been filled, or had accumulated some midden fill.

Table 51. Artifacts associated with Feature 94.

Artifact	Quantity
Overhill Plain sherds	5
Overhill Checked Stamped	1
Rose head nail	1
T-head nail	1
Animal bones	12
Lithic waste materials	2
Total	22

Feature 116 (Clay Lens)

Figures 6A and 89

Location: N228.50/E193.50

Shape: Irregular in plan and slightly concave in section.

Dimensions: Horizontal: 1.20 m by 2.40 m. Defined depth: 17 cm.

Fill and Stratigraphy: The feature fill consisted of a layer of compacted red clay that overlay the original 1756 humus.

Observations: This layer of clay is adjacent to the east side of Feature 104, an excavated and filled pit. It is believed to have been backdirt removed from Feature 104 that was not returned to that pit. Parts of one Cherokee vessel were concentrated just to the northeast of the center of this feature. Since this feature was directly over the original pre-fort humus, it was probably deposited very early in the occupation of the fort and probably at the same time as the excavation of Feature 104.

Table 52. Artifacts associated with Feature 116.

Artifact	Quantity
Overhill Plain sherds	46
Overhill Checked Stamped	1
Rose head nail	1
T-head nails	4
Animal bones	7
Lithic waste materials	11
Total	70

Feature 119 (Filled Depression)

Figure 6A

Location: N230.00/E195.65

Shape: Irregular in plan and bowl-shaped in section with an irregular bottom.

Dimensions: Horizontal: 120 cm by 60 cm. Defined depth: 21 cm.

Fill and Stratigraphy: The fill was a homogeneous mixture of brown loam and with yellow clay and river cobbles.

Observations: This feature was a shallow depression that was filled in during some sort of leveling operation. The paucity of artifactual materials indicates that it was definitely not utilized for refuse disposal. The loam-clay mixture of this feature was the same as that found over much of this area of the fort.

Table 53. Artifacts associated with Feature 119.

Artifact	Quantity
Animal bone	1
Total	1

Feature 126 (Filled Depression)

Figures 6A and 75

Location: N222.24/E178.53 (Within Structure 11)

Shape: Irregular in plan and bowl-shaped in section.

Dimensions: Horizontal: 170 cm by 95 cm. Defined depth: 5 cm.

Fill and Stratigraphy: Three zones were recorded in the fill. Zone A was a compact and sterile orange clay 2 cm to 3 cm thick that capped the feature. Zone B was approximately 1 cm thick and consisted of a dark brown to black sandy humus with some rock inclusions. Zone C was the basal level and consisted of a mixture of orange and yellow clay and a dark sandy humus.

Observations: This feature was in the floor of Structure 11 and is discussed in Chapter 5 with Structure 11. It was stratigraphically earlier than that structure.

Associated Artifacts: None recovered.

Feature 144 (Clay Lens)

Figure 6A

Location: N240.25/E190.00

Shape: Irregular in plan and concave in section with an irregular base.

Dimensions: Horizontal: 3.80 m by 2.50 m. Defined depth: 26 cm.

Fill and Stratigraphy: This lens consisted of a hard packed zone of red clay with some small charcoal lenses and historic artifacts resting on the subsoil.

Observations: This feature was a layer of clay fill that had been deposited in this area to level or fill a shallow depression. Feature 153, a recent disturbance, was intrusive to this lens of clay. Feature 144 was also cut on the northeast by Feature 198-A, a shallow trench or sill mold.

Table 54. Artifacts associated with Feature 144.

Artifact	Quantity
Overhill Plain sherds	3
Overhill Checked Stamped	1
T-head nail	1
Indeterminate nails	1
Spall gunflint	1
Animal bones	77
Lithic waste materials	3
Total	87

Feature 154 (Clay Lens)

Figures 6A and 71

Location: N208.00/E249.45 (Within Structure 6)

Shape: Oval in plan.

Dimensions: Horizontal: 125 m by 85 cm. Maximum thickness: 5 cm.

Observations: This feature was simply an oval area of orange clay that had been spread over the underlying prehistoric midden and old humus. It was located along the west wall of Structure 6 and was a remnant of the clay layer that had been placed over much of this area, and which was overlying portions of Feature 148 and Feature 150. See the discussions of Features 148 and 150 in Chapter 4 for additional descriptions of the clay layer over this part of the fort. There was a small amount of ash and bone scattered along the north edge of this feature, but there was no *in situ* burning to indicate that this was the location of a hearth. It predated the construction of Structure 6, and is discussed in Chapter 5 with Structure 6.

Table 55. Artifacts associated with Feature 154.

Artifact	Quantity
Dark green round beverage bottle fragment	1
Animal bones	3
Total	4

Feature 169 (Filled Depression)

Figure 6A

Location: N210.50/E216.58

Shape: Irregular in plan and concave in section with an irregular base.

Dimensions: Horizontal: 100 cm by 50 cm. Defined depth: 15 cm.

Fill and Stratigraphy: The fill was an homogeneous dark waxy clay containing a few artifacts.

Observations: This feature was a shallow depression that had been filled with a dark clay and a few artifacts, but was not primarily intended as a refuse deposit. The clay deposit of this feature may have been derived from the excavation of Feature 171, a quarry pit just to the north of Feature 169.

Table 56. Artifacts associated with Feature 169.

Artifact	Quantity
Animal bones	17
Lithic artifacts	2
Total	19

Feature 199 (Clay Lens)

Figure 6A

Location: N240.00/E194.00

Shape: Amorphous.

Dimensions: Horizontal: 2.00 m by 1.75 m. Maximum thickness: 3 cm.

Fill and Stratigraphy: This was a thin layer of red clay and charcoal overlying the original humus level of this area.

Observations: This feature was part of the same filling and leveling that was taking place in this area of the fort and was similar to another area of fill defined as Feature 144. This one is distinguished only by the higher charcoal content of the clay. It lay immediately south of Feature 198-A, a sill mold, and may have been confined in part by that feature. The northeastern section of this feature was cut by Feature 197, a modern disturbance.

Table 57. Artifacts associated with Feature 199.

Artifact	Quantity
Overhill Plain sherds	1
Qualla Plain	3
Snuff bottle fragment	1
Rose head nail	1
Lead strip	1
Group 1, Type 1 buckle	1
Total	8

Besides those specific depressions that had been filled, and lenses of earth fill that have been discussed in the preceding section, there were three major areas within the fort that had been subjected to rather extensive filling and leveling operations during the occupation of the fort. For the most part, many of the features that have been discussed above were in fact portions of those larger areas of fill. Nearly the entire area of the Northwest Bastion had been smoothed by a covering of relatively clean fill dirt. This probably resulted from efforts by the garrison to level that area, which, after the abandonment of the several temporary structures would have had a very uneven surface remaining from the various pits and terraces that had been excavated for structures during the early part of the occupation. The removal of the several palisade lines and traverses would have also required filling of those features. During the early stages of construction of the defensive works, six earthen traverses were begun, extending inward from the north and west faces of that bastion. Presumably the leveling of those earthen features provided most of the earth that was used to level large portions of the Northwest Bastion.

The Southwest Bastion was also another area that had a great deal of fill dirt placed down over the original surface of this area. It is assumed that this was done in order to raise this area to aid in draining water from that part of the fort. The southeast portion of the parade ground from the area of Structure 15 to the west side of Structure 6 had a layer of clay placed down over the original humus zone in this area. Presumably this was also done in order to improve the drainage in that area. The slope area within the fort was another area that had been subject to a great deal of filling and smoothing, using primarily refuse for the fill and some cleaner earth to cap those deposits.

Terrace Cuts

In addition to those terrace cuts made into the slope within the fort to provide level areas for definite building construction, such as Structures 8, 9, 13, 16 and 17, there were two other terraced areas defined. Those two, discussed here, were definite leveled areas, but lacked any evidence for ever having had any sort of construction on them. Both were located in the slope along the west face of the Northwest Bastion, and have been interpreted as early excavations completed as part of the construction of four earthen traverses that were begun in this area as part of the defensive works.

Feature 121 (Terrace Cut)

Figures 6A and 73

Location: N214-216/E178-E182

Shape: Rectangular

Dimensions: Horizontal: 4.0 m by 2.5 m. Maximum defined depth: 42 cm.

Observations: This feature consisted of part of a terrace cut in the slope along the west side of the Northwest Bastion. Stratigraphically it is the earliest phase of construction in this area of the fort. The extent of this feature is shown on Figures 6A and 73. After this terrace was cut out of the slope, it was then filled and buried by a heavy layer of the clay and loam fill that was spread out over most of the lower part of the western side of this bastion. The terrace cut and the overlying fill were then cut by the excavation of the terrace for the construction of Structure 8. This feature, like Feature 138, located on the same side of the bastion but farther up the slope, is interpreted as a cut or terrace remaining from the work that was done early in the construction of the fort. More specifically it was probably part of the construction of one of the four earthen traverses that were part of the defenses on this side of the bastion (see Figure 7 and the survey of the defenses quoted in Chapter 1). The layer of fill that covered this general area of the Northwest Bastion was probably the result of the leveling of those earthen traverses in the early part of 1757.

Associated Artifacts: None were recovered by feature. Any associated artifacts are listed in the appropriate square/level tabulations.

Feature 138 (Terrace Cut)

Figure 6A

Location: N233.50/E172.00

Shape: Rectangular

Dimensions: Horizontal: 3.25 m by 4.00 m. Maximum defined depth: 35 cm.

Observations: This feature was an area along the west side of Northwest Bastion that had been cut down into the slope to provide a level surface. It began at the south wall of Structure 18 and was situated between the west palisade line and Feature 90. Unlike the terraces that had been constructed for Structures 8 and 9, there was no evidence that this area had ever been used for habitation purposes. The lack of any associated artifacts and the reasonably clean fill that was placed over this area may indicate that this was an early excavation during the construction of the fort, which was covered shortly after its excavation. Like Feature 121, it was most likely the result of the excavation of one of the earthen traverses that were to have been in this area, but which were subsequently abandoned and leveled (see Chapter 4).

Associated Artifacts: None were recovered by feature. Any associated artifacts are listed in the appropriate square/level tabulations.

Midden Deposits and Refuse Filled Depressions

This group of features consist of various midden deposits both within and outside of the fort. The primary function or purpose of these deposits was for the disposal of refuse. The refuse filled depressions functioned similarly, but like the filled areas and clay lenses discussed above, also served to level uneven areas within the fort. It was often difficult, if not impossible, to determine if some of the refuse filled depressions may have naturally accumulated rather than having been deliberate episodes of filling and leveling with refuse.

Feature 25 (Midden Lens)

Figures 6A and 47

Location: N238.90/E283.50

Shape: Irregular.

Dimensions: Horizontal: 2.60 m by 0.60 m. Maximum thickness: 14 cm.

Observations: This feature is described in Chapter 4 with the discussion of Ravelin Lyttelton.

Table 58. Artifacts associated with Feature 25.

Artifact	Quantity
Rose head nail	1
Musket trigger guard	1
Musket butt plate	1
Animal bones	31
Total	34

Feature 68 (Midden Lens)

Figures 6A and 68

Location: N205.00/E265.00 (Within Structure 5)

Shape: Irregular.

Dimensions: Horizontal: 3.2 m by 1.1+ m. Maximum thickness: 5 cm.

Observations: This feature is described with Structure 5 in Chapter 5.

Table 59. Artifacts associated with Feature 68.

Artifact	Quantity
Rose head nail	1
T-head nails	11
Indeterminate nails	4
Shutter hook	1
Ic 4-sided oyster white bead	1
IIal4 bead	1
Animal bones	192
Prehistoric sherds	67
Lithic waste materials	34
Total	312

Feature 73 (Midden Filled Depression)

Figures 6A and 71

Location: N207.80/E249.70 (Within Structure 6)

Shape: Irregular.

Dimensions: Horizontal: 1.80 m by 1.40 m. Maximum thickness: 10 cm.

Observations: Described with Structure 6 in Chapter 5.

Table 60. Artifacts associated with Feature 73.

Artifact	Quantity
Buckley Ware	1
Overhill Plain sherds	43
Overhill Checked Stamped	12
Overhill Rectilinear Stamped	1
Overhill Curvililnear Stamped	2
Qualla Net Impressed	1
Rose head nails	2
T-head nails	9
Indeterminate nails	6
White clay pipe fragments	2
Stone pipe fragment	1
Animal bones	4
Prehistoric sherds	11
Lithic artifact	1
Lithic waste materials	11
Total	107

Feature 78 (Midden Filled Depression)

Figure 6A

Location: N216.00/E180.10

Shape: Irregular in plan with a slightly concave but irregular base.

Dimensions: Horizontal: 3.4 m by 1.75 m. Defined depth: 12 cm.

Fill: The fill of this depression consisted of a dark loam with some artifact and charcoal content.

Observations: This feature is interpreted as a midden accumulation in a shallow depression between the west side of Structure 8 and the west face of the Northwest Bastion. The refuse in this feature may have been materials that were being removed from Structure 8. The feature was partially disturbed along the western edge by the 1960s trench for the palisade reconstruction.

Table 61. Artifacts associated with Feature 78.

Artifact	Quantity
Scratch blue sherds	1
Indeterminate clasp knife bolster	1
Rose head nails	2
T-head nails	6
Indeterminate nails	2
Group 2 button back	1

Table 61. Artifacts associated with Feature 78.

Artifact	Quantity
White clay pipe fragments	2
Animal bones	41
Total	56

Feature 83 (Midden Filled Depression)

Figure 6A

Location: N211.00/E199.00

Shape: Irregular but rectangular in overall plan. In section it was concave with an irregular floor.

Dimensions: Horizontal: 2.00 m by 2.10 m. Defined depth: 30 cm.

Fill: The fill consisted of a dark sandy loam that graded into a grey sandy clay at a depth of 10 cm in the feature. Near the southwest corner of the depression was an ash deposit. Most of the artifactual materials were concentrated in the lower zone near the center of the feature, with the bone content localized near the periphery of the pit.

Observations: The south edge of the feature was cut by a WPA exploratory trench and the southeast edge of the feature was adjacent to Feature 89, a hearth, from which some of the ash deposit may have derived. Feature 83 was stratigraphically above Feature 88, the west wall of the innermost palisade, dating the deposit in Feature 83 to some time after the palisade was removed, or after about March, 1757. This feature consisted of a refuse accumulation intentionally deposited in a depression at the rear of Feature 194, one of the chimneys for the barracks building. It is assumed that this refuse was associated with the occupation of those barracks.

Table 62. Artifacts associated with Feature 83.

Artifact	Quantity
Overhill Plain sherds	40
Qualla Plain	1
Snuff bottle fragment	1
Rose head nail	1
T-head nails	4
Indeterminate nails	4
Group 2, Type 1 buckle	1
Buckle back	1
Group 1, Type 1, Variety C button	1
Group 1, Type 3, Variety A button	1
Group 3, Type 2 wood button back	1
Group 3 button face	1
Group 4, Type 1 button back	1
Type 1, Variety A sleeve link	1
Animal bones	296
Prehistoric sherds	2
Lithic waste materials	3
Total	360

Feature 84 (Midden Lens)

Figures 6A and 72

Location: N214.50/E194.25 (Entranceway to Structure 7)

Shape: Irregular in plan.

Dimensions: Horizontal: 2.00 m by 1.40 m. Maximum thickness: 6 cm.

Fill: The fill was dark loam with limestone rocks, artifacts and animal bones.

Observations: This midden lens consisted of the materials that had been deposited in the level entranceway on the south side of Structure 7. Additional descriptions of this feature are presented in Chapter 5 with Structure 7.

Table 63. Artifacts associated with Feature 84.

Artifact	Quantity
Overhill Plain sherds	6
T-head nails	3
Indeterminate nail	1
Animal bones	37
Total	47

Feature 85 (Midden Filled Depression)

Figure 6A

Location: N203.40/E193.10

Shape: Amorphous, but generally oval in plan. Concave in section with an irregular bottom.

Dimensions: Horizontal: 4.10 m by 2.10 m. Defined depth: 18 cm.

Fill: The fill was a dark brown to grey loam with a high charcoal content. No stratigraphy was defined and the fill appeared to have been homogeneous throughout the feature.

Observations: This feature appears to have been a depression that was left, possibly after a tree removal during the fort period, or alternatively, simply a shallow depression which was filled with fort period midden materials. Whether this was an intentional deposit or a natural accumulation in this depression was not determined. The feature had been cut somewhat on the north side by Kunkel's test trench TTrCB5 (Kunkel N.D.:Figure 5).

Table 64. Artifacts associated with Feature 85.

Artifact	Quantity
Overhill Plain sherds	11
Overhill Checked Stamped	2
Overhill Rectilinear Stamped	1
Rose head nails	5
T-head nails	6
Indeterminate nails	3
Nut	1
Sheet iron scraps	2
Musket ball	1
Group 1, Type 2 buckle	1
Group 4, Type 2 button back	1
White clay pipe fragment	1
Harness boss	1
Animal bones	81
Prehistoric sherd	1
Lithic waster materials	5
Total	123

Feature 107 (Midden Filled Depression)

Figures 6A and 89

Location: N233.60/E191.70

Shape: Irregular in plan.

Dimensions: Horizontal: 2.10 m by 0.90 m. Maximum thickness: 9 cm.

Fill: The fill consisted of an orange clay and a brown loam mixture with numerous limestone rocks and some artifacts.

Observations: This feature consists only of the fill that had presumably been placed in a shallow depression to level this area. Moderate amounts of refuse were in the feature, but they are believed to be more accidental inclusions rather than resulting from a deliberate effort to dispose of refuse. This feature was located just north of Structure 19, but any association with that structure is uncertain.

Table 65. Artifacts associated with Feature 107.

Artifact	Quantity
Overhill Plain sherds	3
Overhill Rectilinear Stamped	1
Rose head nails	3
T-head nails	2
Indeterminate nail	1
Iron pig bar stock fragment	1
Group 2 button back	1
Animal bones	2
Lithic artifact	1
Total	15

Feature 109 (Midden Filled Depression)

Figure 6A

Location: N222.00/E187.00

Shape: Long irregular area with a concave section.

Dimensions: Horizontal: 9.10 m by 3.00 m. Maximum defined depth: 60 cm.

Fill and Stratigraphy: Two zones of fill were defined in the feature. The upper zone consisted of dark brown loam that was mixed with gravel and some bone and charcoal. The lower zone was a similar loam, but was much darker and contained larger quantities of artifactual materials.

Observations: This was a long refuse filled depression that paralleled Feature 90 in the Northwest Bastion. For most of its length it was on both sides of, and above, the fill of Feature 90, a traverse trench. The stratigraphy of the two features clearly indicates that the deposition of the refuse was done at some time after Feature 90 was filled in. The refuse in this feature did not extend into the trench of Feature 90, indicating that it had been filled prior to refuse deposition. The deposition of refuse into this depression was the result of efforts to level this area as well as refuse disposal. The original depression may have resulted from the excavation or removal of the palisades and incomplete filling of Feature 90. The two stratigraphic zones that were noted in the fill of Feature 109 may represent an initial filling with refuse and a secondary fill to cover the refuse and complete the leveling of the area. This feature has certain similarities to Feature 79, suggesting that it may have also served as a privy, although its location on the slope may have precluded that possibility.

Table 66. Artifacts associated with Feature 109.

Artifact	Quantity
Overhill Plain sherds	45
Overhill Checked Stamped	7
Overhill Curvilinear Stamped	1
Qualla Plain	1
Dark green round beverage bottle fragments	10
Indeterminate clasp knife bolster	1
Rose head nails	4
T-head nails	4
Tack	1
Indeterminate nails	7
Lead strips	2
Indeterminate piece of iron	1
Musket ball	1
Group 3, Type 4 button	1
White clay pipe fragments	3
Animal bones	890
Prehistoric sherds	4
Lithic artifacts	4
Lithic waste materials	52
Total	1039

Feature 152 (Midden Filled Depression)

Figures 6A and 71

Location: N209.70/E251.00 (Within Structure 6)

Shape: Irregular in plan and bowl shaped in section.

Dimensions: Horizontal: 2.50 m by 1.00 m. Defined Depth: 25 cm.

Observations: Described in Chapter 5 with Structure 6.

Table 67. Artifacts associated with Feature 152.

Artifact	Quantity
Overhill Plain sherds	1
Overhill Checked Stamped	2
Dark green square beverage bottle fragment	1
Fork	1
T-head nail	1
Indeterminate nail	1
Musket shot	3
White clay pipe fragment	1
Animal bones	160
Prehistoric sherds	19
Lithic artifact	1
Lithic waste materials	35
Total	226

Feature 178 (Midden Filled Depression)

Figure 6A

Location: N188.00/E255.50

Shape: Irregular in plan with an undulating and pitted base.

Dimensions: Horizontal: 6.50 m by 5.25 m. Defined depth varies between 6 cm and 35 cm.

Fill: This consisted of a dark brown to black midden that was relatively homogeneous over the entire area.

Observations: This feature was originally defined as a large lens of midden resting on a lighter subsoil. Upon excavation it appeared to have been a midden deposit that was scattered over this area filling numerous shallow depressions in the subsoil. High quantities of prehistoric materials in the fill of this feature indicate a heavy mixture of the historic materials with the older prehistoric midden deposits in this lower part of the fort. It is possible that several of the shallow depressions may have originally been excavated pits, but this could not be determined conclusively. There did not seem to be any differentiation that could be readily discerned between the fill of the various shallow depressions and the overlay of midden. The impression of this area is that of a pig pen or other such animal pen where there is a great deal of mixture and disturbance of the soil and the creation of holes and wallows. The artifactual content of the feature consists of both domestic and blacksmith shop refuse, suggesting associations with Structures 2 and 3.

Table 68. Artifacts associated with Feature 178.

Artifact	Quantity
Chinese porcelain sherds	2
Overhill Plain sherds	919
Overhill Checked Stamped	71
Overhill Curvilinear Stamped	76
Qualla Plain	10
Qualla Checked Stamped	11
Qualla Cordmarked	1
Qualla Curvilinear Stamped	27
Dark green round beverage bottle fragments	13
Dark green square beverage bottle fragments	13
Storage bottle	1
Blue-green round beverage bottle fragment	1
Case knife	1
Type 1 clasp knife part	1
Type 2 clasp knife part	1
Convex blade	1
Rose head nails	42
T-head nails	57
Tacks	7
Square nails	7
Horseshoe nail	1
Indeterminate nail	1
Light strap hinge	1
Heavy strap hinge	1
Iron strapping	1
Brass sheet scraps	2
Lead sheet scrap	1
Lead strip	1
Iron pig bar stock fragments	3
Flat iron scraps	3
Sheet iron scraps	33
Indeterminate iron pieces	3

Table 68. Artifacts associated with Feature 178.

Artifact	Quantity
Pieces of slag	7
Musket side plate	1
Musket ball	1
Cartridge box buttons	2
Scabbard clip	1
Powder flask cap	1
Group 1, Type 1, Variety G button	1
Group 1, Type 3, Variety A buttons	2
Group 2 button back	1
Group 4, Type 2 button back	1
Type 3 sleeve link set	1
Bracelet	1
IIa7 bead	1
IIal4 bead	1
IIb black with 6 white stripes	3
IVa white over ivory	4
WIcl bead	1
White clay pipe fragment	1
Stone pipe fragment	1
Harness bosses	2
Animal bones	2228
Prehistoric sherds	479
Lithic artifacts	137
Lithic waste materials	2242
Total	6433

Feature 182 (Midden lens)

Figure 6A

Location: N184.75/E194.30

Shape: Irregular in plan but approaching a long rectangle.

Dimensions: Horizontal: 170 cm by 40 cm. Defined depth: 7 cm.

Fill: The fill consisted of a medium brown loam with orange clay mottling and scattered charcoal and burned limestone.

Observations: This feature, containing numerous artifacts, particularly faunal remains, was originally thought to have been a short sill mold but upon excavation it appeared to have been just a rectangular pocket of midden in the general fill that was put over this area of the Southwest Bastion to raise its surface elevation.

Table 69. Artifacts associated with Feature 182.

Artifact	Quantity
Chinese porcelain sherds	1
Overhill Plain sherds	1
Rose head nails	2
T-head nail	1
Indeterminate nail	1
Animal bones	80
Lithic waste materials	5
Total	91

Feature 212 (Midden Deposit)

Figures 6A and 106D

Location: N226.25/E233.00

Shape: Irregular in plan, and in section appeared as a crevice between two bedrock outcrops.

Dimensions: Horizontal: 2.00 + m by 2.14 m. Defined depth: 1.00 m.

Fill and Stratigraphy: Five stratigraphic zones were defined (see Figure 106D for profile).
Zone A: Dark brown loam with a limestone rubble concentration.
Zone B: Lens of orange clay.
Zone C: Tan, sandy loam with high concentrations of animal bone and historic artifacts.
Zone D: Dark brown loam with high concentrations of animal bone and historic artifacts.
Zone E: Red and yellow clay subsoil.

Observations: This feature extended to the east and west into the adjoining squares. The square to the east was not excavated and the ones to the west that would have contained this feature were excavated prior to the recognition of the feature. This feature is interpreted primarily as several layers of refuse that had been deliberately deposited in a depression between a couple of bedrock outcrops. It was simply a concentrated deposit of refuse in the slope area, which in general was the repository for a great deal of refuse. It is assumed that the refuse was being deposited on the slope areas, both to dispose of the refuse and to level or smooth out the irregular surface of the original slope. Some of the depressions in the slope, such as the one in which the fill of Feature 212 was deposited, and certainly Feature 171, were probably the result of quarrying or removing rock from the outcrops in the slope for use in the fort construction. The refuse deposits of Feature 212 consisted of Zones C and D as described above and are shown on Figure 106D. These two zones appear to represent two episodes of disposal within this area. Zones A and B, which are stratigraphically above C and D, contained relatively fewer artifactual materials and probably were only an additional fill that was put down over this area to level the slope and to cover the refuse below. Most of one Cherokee vessel was recovered in Zone D in direct association with the faunal remains and other historic artifacts.

Table 70. Artifacts associated with Feature 212.

Artifact	Quantity
Chinese porcelain sherds	1
White Saltglaze sherds	6
Delftware sherds	3
Overhill Plain sherds	17
Overhill Checked Stamped	4
Overhill Net Stamped	3
Overhill Rectilinear Stamped	69
Qualla Plain	1
Dark green round beverage bottle fragments	6
Light blue-green round beverage bottle fragment	1
Storage bottle fragments	2
Spoon fragments	4
Rose head nails	7
T-head nails	19
Square head nail	1
Horseshoe nail	1
Indeterminate nails	8
Piece of brass wire	1
Brass sheet scraps	9
Lead strip	1
Indeterminate iron piece	1
Slag	55

Table 70. Artifacts associated with Feature 212.

Artifact	Quantity
Musket ball	1
Group 3, Type 2, Variety B button	1
Group 3 button face, Variety A	1
White clay pipe fragments	4
Animal bones	2363
Prehistoric ceramics	14
Lithic artifact	1
Lithic waste materials	46
Total	2651

In addition to those areas of midden within the fort that were given specific feature numbers, there were other more generalized areas that were the repositories for varying amounts of refuse. In general, the heavier concentrations of historic midden were in the Southeast Bastion in the vicinity of Structures 1, 2, 3, 5 and 6. There was a relatively high concentration of materials in the Southwest Bastion, which was the result of what has been interpreted as the use of refuse and other materials to fill and raise that area of the fort. The highest concentrations of midden materials and refuse within the fort were located just to the east of the northern part of the barracks building and the slope areas to the east of the barracks. The midden to the east of the barracks and those deposits around the structures in the Southeast Bastion, besides the refuse that was buried in pit features in those areas, is interpreted as resulting from the occupation of the several structures and the barracks building.

The heaviest concentrations of midden and refuse deposits within the fort were located on the slope area between the base of the slope along the north side of the parade ground, and the south side of Structure 4 near the top of the slope, and from an area east of the barracks eastward to about Feature 212 and the west side of Structure 13. These heavy midden deposits have been interpreted as the result of deliberate efforts on the part of the garrison to use refuse to fill crevices and to smooth out the surface of the slope within the fort. The Northwest Bastion area and the parade ground were the areas with the least amount of refuse. For the Northwest Bastion, this probably indicates little in the way of domestic use or habitation in that area after abandonment and razing of the temporary structures there, and the subsequent filling and leveling of that part of the fort. The parade ground, as might be expected, was generally free of much debris.

Ditch Midden Deposits

The ditch midden deposits are similar in most respects to those that have been discussed in the above section. They are separated here as a group only because of the fact that they were in place in the base of the ditch, and are the result of deliberate efforts to remove refuse from within the fort to various areas of the ditch. Feature 3, in addition to serving as a refuse deposit also functioned as a planting bed for the locust hedge in the northwest ditch. Feature 14 functioned as this planting bed also, except that it was composed of prehistoric midden that had been moved from the area of the prehistoric occupation to the south of the fort to the base of the ditch.

Feature 3 (Locust Hedge Midden)

Figures 6A and 37B

Location: Base of the northwest ditch along the counterscarp between N236 and N246.

Shape: Linear.

Dimensions: Horizontal: 11.5 + m by 1.50 m. Maximum thickness: 28 cm.

Observations: This feature consisted of historic midden materials that had been placed in the northwest ditch for planting of the locust hedge along the counterscarp of the ditch. This feature is described in Chapter 4 with the discussion of the locust hedge.

Table 71. Artifacts associated with Feature 3.

Artifact	Quantity
Westerwald sherd	1
Overhill Plain sherds	1094
Overhill Cordmarked	48
Overhill Rectilinear Stamped	7
Overhill Curvilinear Stamped	4
Qualla Plain	3
Qualla Rectilinear Stamped	1
Dark green round beverage bottle fragments	6
Light blue-green round beverage bottle fragment	1
Blue-green round beverage bottle fragments	2
Type 1 clasp knife	1
Type 2 clasp knife	1
Convex blade	1
Rose head nails	7
T-head nail	1
Indeterminate nails	4
Sheet iron scraps	2
Bayonet socket	1
Drift	1
Whetstone	1
Group 6 buckle	1
Group 1, Type 1, Variety C button	1
Tinkling cones	2
Silver pendant	1
Mirror fragment	1
Animal bones	212
Lithic waste materials	5
Total	1410

Feature 14 (Locust Hedge Midden)

Figures 6A, 39B, 40A and 40B

Location: The base of various sections of the ditch along the counterscarp.

Shape: Linear.

Observations: This feature number was applied to the midden that was placed in the base of the ditch in which the locust hedge was planted. The artifact contents indicate the use of prehistoric midden materials for constructing this feature. A general discussion of this feature is presented in Chapter 4.

Table 72. Artifacts associated with Feature 14.

Artifact	Quantity
Prehistoric sherds	126
Lithic artifacts	2
Lithic waste materials	122
Total	250

Any other artifacts that were associated with this feature are included in the summaries for the ditch and are not listed separately.

Feature 42 (Midden Lens)

Figures 6A, 40B and 47

Location: Base of east ditch in Squares N186/E290, N188/E288-290 and N190/E288.

Shape: Irregular.

Dimensions: Horizontal: 7.2 + m by 1.50 m. Maximum thickness: 25 cm.

Observations: This was a midden deposit in the base of the southeast ditch and is described in Chapter 4 with the discussion of the ditch.

Table 73. Artifacts associated with Feature 42.

Artifact	Quantity
Overhilll Plain	40
Overhill Checked Stamped	12
Overhill Rectilinear Stamped	1
Overhill Checked Stamped	2
Blue green round bottle fragments	2
Rose head nail	1
Brass sheet scrap	1
Slag	17
Musket balls	2
Animal bones	27
Prehistoric sherds	296
Lithic artifacts	23
Lithic waste materials	182
Total	606

Feature 185 (Ditch Midden Deposit)

Figures 6A and 39B

Location: In the base of the south ditch between N164-174 and E202-220.

Shape: Oval to irregular.

Dimensions: Horizontal: 20.0 m by 6.0 m. Maximum thickness: 30 cm.

Observations: This feature was a midden deposit located in the south ditch, southwest of the south gate and at the end of Feature 159, the drain. It is described in Chapter 4 with the discussion of the ditch.

Table 74. Artifacts associated with Feature 185.

Artifact	Quantity
Chinese porcelain sherds	1
Delftware sherds	1
Overhill Plain sherds	16
Overhill Checked Stamped	1
Overhill Cordmarked	4
Overhill Rectilinear Stamped	5
Dark green round beverage bottle fragments	2

Table 74. Artifacts associated with Feature 185.

Artifact	Quantity
Rose head nails	6
T-head nail	1
Square nail	1
Indeterminate nail	10
Lead strip	1
Indeterminate iron piece	1
Blade gunflint	1
Spall gunflint	1
Musket ball	1
Tool socket	1
Button, Group 4, Type 1 back	1
White clay pipe fragments	4
Animal bones	1257
Prehistoric sherds	4
Lithic artifacts	2
Lithic waste materials	13
Total	1335

Feature 187 (Ditch midden Deposit)

Figures 6A, 45, and 47

Location: In the east ditch between N220-226 and E270-276.

Shape: Oval.

Dimensions: Horizontal: 6.0 m by 5.6 m. Maximum thickness: 40 cm.

Observations: This feature was a deposit of midden in the base of the east ditch outside the east gate. It is described in Chapter 4 with the ditch discussion.

Table 75. Artifacts associated with Feature 187.

Artifact	Quantity
Overhill Plain sherds	5
Overhill Checked Stamped	6
Dark green round beverage bottle fragments	5
Indeterminate clasp knife bolster	1
Rose head nails	7
Square head nail	1
Indeterminate nails	5
Brass sheet scraps	4
Indeterminate iron piece	1
Axe	1
File	1
Tool sockets	2
Type 1, Variety C sleeve link	1
Mirror fragment	1
Animal bones	376
Prehistoric sherds	8
Lithic artifacts	3
Lithic waste materials	3
Total	431

Fire Basins, Fired Areas and Ash Lenses

This group of features consists of rather informal facilities for heating and or cooking purposes. They are often characterized by a shallow prepared basin, or other convenient depression, but in all cases by *in situ* firing on the base or walls of the basin or pit. Two were distinguished by puddled clay linings. Quantities of ash and charcoal, as well as other artifactual debris are also often present. Feature 128 in the northeast ditch extension consisted only of a fired area with ash and charcoal on the floor and back wall of the ditch. Feature 186 was a lens of ash with some burning of the surface below the ash. Several of the features that are described in the next section under hearths are similar in all respects to the fired areas of this section, but are distinguished as hearths because of the fact that they were within structures.

Feature 53 (Fire Basin)

Figures 6A and 103C

Location: N235.25/E247.10

Shape: Oval bowl.

Dimensions: Horizontal: 86 cm by 78 cm. Defined depth: 33 cm.

Observations: This was a shallow fire basin that was located to the northeast of Structure 13. It was situated at the base of a limestone outcrop on the slope. The base of the feature had been fired and the basin was filled with charcoal, ash, burned limestone and numerous historic artifacts. The feature was covered with an orange clay lens containing a modern nail, indicating that this cap was probably the result of the WPA work, or later work in the fort. The actual fire basin seemed to have been undisturbed. This feature may have been the result of activities associated with Structure 13.

Table 76. Artifacts associated with Feature 53.

Artifact	Quantity
Overhill Plain sherds	2
Dark green round beverage bottle fragment	1
Clear round bottle fragments	2
Fork	1
Rose head nails	3
T-head nails	2
Tack	1
Indeterminate nails	3
Animal bones	120
Lithic waste materials	2
Total	137

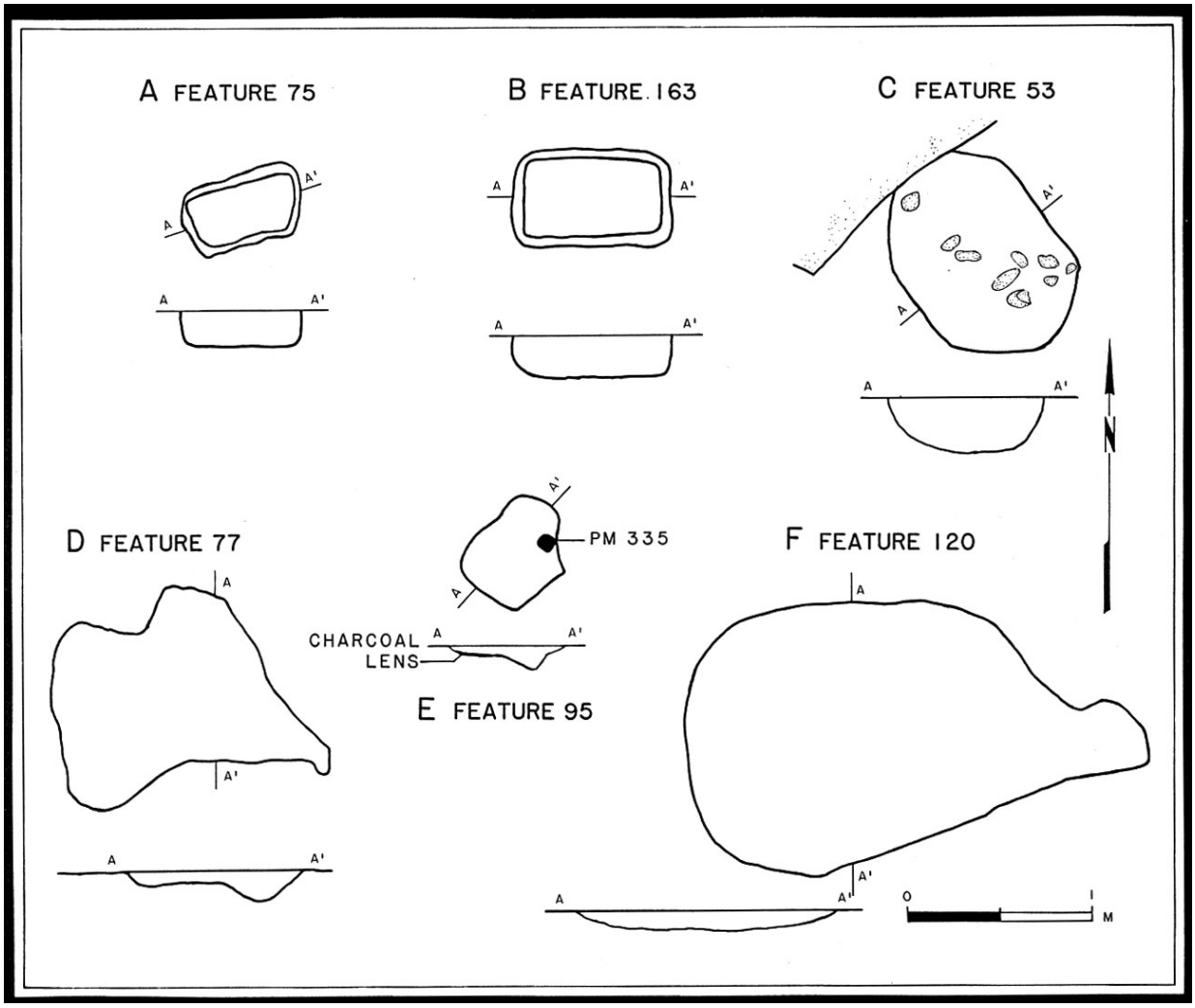

Figure 103. Plans and profiles of selected fire basins.

Feature 67 (Fire Basin)

Figures 6A and 68

Location: N205.00/E266.40

Shape: Oval bowl.

Dimensions: Horizontal: 85 cm by 70 cm. Defined depth: 8 cm.

Observations: The basin of the pit had been burned red, and it was filled with ash, charcoal, and one section of a burned timber. The southwest part of the feature was cut by the excavation of Post Mold 198, an east wall member of Structure 5. Apparently the feature was a fire basin that was used very early in the British occupation of the fort area, predating the construction of Structure 5, which is believed to have been built in late 1756 or early 1757.

Table 77. Artifacts associated with Feature 67.

Artifact	Quantity
Overhill Plain sherds	14
Rose head nails	2
T-head nails	14
Indeterminate nails	8
Animal bones	32
Prehistoric sherds	4
Lithic waste materials	9
Total	83

Feature 75 (Fire Basin)

Figures 6A, 84, and 103A

Location: N191.20/E233.30

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 56 cm by 34 cm. Defined depth: 7 cm.

Observations: This was a small rectangular hearth that was located to the south of Structure 15. It had been lined with clay and heavily fired. The fill within the feature consisted of a dark loam with large quantities of charcoal, one burned log section, and several burned pieces of limestone. This hearth was possibly associated with the occupation of Structure 15, but it is also possible that it derives from the prehistoric occupation of this area. The artifact content is ambiguous. There were no other prehistoric features or structures defined nearby, although the matrix of the feature did consist of prehistoric midden. This hearth is very similar to Feature 163 in the Southeast Bastion west of Structure 3.

Table 78. Artifacts associated with Feature 75.

Artifact	Quantity
Lithic artifacts	3
Lithic waste materials	47
Total	50

Feature 77 (Fire Basin)

Figures 6A and 103D

Location: N218.40/E179.10

Shape: Irregular in plan with a shallow bowl shaped section.

Dimensions: Horizontal: 124 cm by 94 cm. Defined depth: 11 cm.

Fill and Stratigraphy: The fill consisted of a non-stratified lens of orange clay, heavily mottled with dark loam and small limestone. Charcoal was concentrated in center near the base, in association with a large portion of a Cherokee vessel.

Observations: This was a shallow pit possibly used primarily for cooking and secondarily for refuse disposal, since the contents included mainly domestic refuse. It was located along the west wall of Structure 11, but it probably post-dates that structure since it was cut into the fill that overlay Structures 8, 9, and 11.

Table 79. Artifacts associated with Feature 77.

Artifact	Quantity
Overhill Plain sherds	48
Indeterminate nail	1
Group 1, Type 3 buckle	1
Type 1, Variety C sleeve link	1
Animal bones	27
Total	78

Feature 95 (Fire Basin)

Figures 6A and 103E

Location: N202.20/E201.00

Shape: Irregular in plan and bowl shaped in section.

Dimensions: Horizontal: 60 cm by 50 cm. Defined depth: 6 cm.

Fill and Stratigraphy: The fill consisted of a dark loam with small amounts of charcoal overlying a 1 cm to 2 cm thick layer of charcoal and ash on the base in the southern half of the feature.

Observations: The side walls of the feature were heavily burned and the *in situ* deposit of ash and charcoal indicate that this was some sort of facility for burning or cooking. Post Mold 335 was defined in the base of the feature. This feature is adjacent to Feature 88, the western segment of the innermost palisade line. The temporal relationship of the two was not determined, but it is assumed that the fire basin was used in conjunction with the occupation of the barracks, and would have been in use after the removal of the palisade line.

Table 80. Artifacts associated with Feature 95.

Artifact	Quantity
Overhill Plain sherds	12
Animal bones	3
Total	15

Feature 110 (Fire Basin)

Figures 6A and 75

Location: N225.50/E180.35

Shape: Circular in plan and bowl shaped in section.

Dimensions: Diameter: 50 cm. Defined depth: 15 cm.

Observations: This feature was associated with Structure 9 and is described in Chapter 5.

Table 81. Artifacts associated with Feature 110.

Artifact	Quantity
Overhill Plain sherds	4
T-head nails	2
Animal bones	2
Lithic waste	1
Total	9

Feature 120 (Fire Basin)

Figures 6A and 103F

Location: N231.85/E198.00

Shape: Generally oval in plan with a projection to the east, and slightly concave or bowl shaped in section.

Dimensions: Horizontal: 2.50 m by 1.45 m. Defined depth: 10 cm.

Fill and Stratigraphy: This consisted of a dark grey loam with a high concentration of wood charcoal and artifactual remains. No stratigraphy was recorded within the feature.

Observations: The high concentration of charcoal and evidence of burning or firing of the base of this feature and some fire cracked rock indicates that this feature was utilized as a hearth or fire basin. It was not a prepared basin, and the irregularity of the pit seems to indicate that it was simply a convenient depression that was used for containing a fire. This facility was located east of Structure 19 and south of Structure 17 and may have been the result of activities from one or both of those buildings.

Table 82. Artifacts associated with Feature 120.

Artifact	Quantity
Overhill Plain sherds	8
Qualla Checked Stamped	1
Blue-green round bottle fragment	1
T-head nails	3
Indeterminate nails	2
Group 1, Type 3 buckle	1
Group 1, Type 1, Variety D button	1
Animal bones	169
Lithic waste	1
Total	187

Feature 128 (Fired Area)

Figures 6A and 47

Location: N235.70/E277.50 (In northeast ditch extension)

Shape: Irregular area on floor and wall of ditch.

Dimensions: Horizontal: 30 cm by 40 cm.

Observations: This feature consisted of a burned area that was located in the northeast extension of the east ditch. It was defined by heavy firing of the west side wall of the ditch cut and a fired area on the base of the ditch. A thin layer of ash and charcoal was lying on the burned and reddened subsoil. There were no associated artifacts recovered or in association with this feature. This feature probably resulted from one or more fires at this location after the ditch was excavated. Its duration of use was probably very short. At some indefinite time, but probably not too long after the excavation of this section of ditch, this area was filled to form the second or lower terrace of Ravelin Lyttelton as discussed in Chapter 4.

Associated Artifacts: None recovered.

Feature 163 (Fire Basin)

Figures 6A and 103B

Location: N182.25/E254.60

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 98 cm by 52 cm. Defined depth: 13 cm.

Observations: This was a rectangular hearth that was located west of Structure 3 in the Southeast Bastion. The walls of the feature were clay lined and the walls, as well as the base, were heavily fired. In form, it is quite similar to Feature 75, which was located to the south of Structure 15. On the base of the feature were two fragments of burned logs, as well as burned corn cobs. Other artifactual materials in the fill included lithic materials and numerous unspecified animal bones. There were no demonstrably historic artifacts included, so it is somewhat ambiguous as to whether this feature is of British or native origin.

Table 83. Artifacts associated with Feature 163.

Artifact	Quantity
Animal bones	74
Prehistoric sherds	2
Lithic waste materials	6
Total	82

Feature 186 (Ash Lens)

Figure 6A

Location: N188.50/E196.35

Shape: Circular to oval in plan.

Dimensions: Horizontal: 80 cm by 75 cm. Maximum thickness: 10 cm.

Observations: This feature consisted of an ash lens in the western part of the fort. It reached a maximum thickness of 10 cm in the center and then tapered out to the edges. Some loam was mixed with the ash. It was underlain by a layer of red clay that showed some evidence of having been burned. This feature was an

a location of one or more fires that had apparently been made directly on the ground. There was no prepared pit or basin.

Table 84. Artifacts associated with Feature 186.

Artifact	Quantity
Animal bones	73
Total	73

In addition to those fire basins and fired areas that were assigned feature numbers during the course of the excavations, several other fired areas were discovered and mapped. One area of fired clay was located to the northeast of Structure 16 in the Northeast Bastion (Figure 85). Two areas of fired clay were within the limits of Structure 5 (Figure 68) and these have been discussed with that structure. In the Fort Glen area, a burned surface was identified in the southernmost profile trench in that area. It is shown in section on Figure 50. It was on the top of what has been interpreted as a humus and alluvial deposit that accumulated after the abandonment of the Fort Glen area, so it is ambiguous as to whether this would have been a hearth area from the latter part of the fort occupation, or from an unknown time after its abandonment.

Hearths

With the exception of a couple of the features that are described in this section most are somewhat more formal heating and or cooking facilities than the ones described in the previous section. In general they are in association with structures, or are assumed to have been part of a structure whether that structure was defined or not. They are most often characterized by either fired clay or a combination of a fired clay and limestone hearth area, and surrounding stones which defined the edges of the feature. Additionally most contained quantities of charcoal and ash deposits over the hearth area.

Feature 52 (Hearth)

Figures 6A and 67

Location: N231.35/E 216.60 (Southwest of Structure 4)

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.50 m by 1.2 m.

Observations: The description of this feature is presented in Chapter 5 with the discussion of Structure 4.

Table 85. Artifacts associated with Feature 52.

Artifact	Quantity
Overhill Plain sherds	6
Rose head nail	1
T-head nail	1
Indeterminate nail	1
Piece of iron wire	1
Stone pipe fragment	1
Animal bones	22
Lithic artifacts	2
Lithic waste materials	4
Total	39

Feature 71 (Hearth)

Figures 6A and 60

Location: N193.00/E271.60 (Within Structure 1)

Shape: Oval in plan.

Dimensions: Horizontal: 100 cm by 80 cm.

Observations: This hearth was associated with Structure 1 and is described in Chapter 5 with that structure.

Table 86. Artifacts associated with Feature 71.

Artifact	Quantity
T-head nail	1
Animal bone	1
Total	2

Feature 89 (Hearth)

Figure 6A

Location: N209.80/E200.30

Shape: Rectangular in plan and slightly concave in section.

Dimensions: Horizontal: 60 cm by 50 cm. Depth: 3 cm.

Observations: This was a rectangular hearth area that was located behind or west of Feature 194, one of the barracks chimneys. It was adjacent to the southeast corner of Feature 83. It consisted of an area of flat hearth stones and burned clay, which was presumably the location of at least several episodes of heating and firing. It was disturbed somewhat on the west side by a WPA trench.

Associated Artifacts: None Recovered

Feature 117 (Hearth)

Figures 6A, 89 and 90

Location: N231.50/E194.00 (At the east end of Structure 19)

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.50 m by 1.05 m.

Observations: This was the hearth that was associated with Structure 19 and it is described in Chapter 5 with that structure.

Table 87. Artifacts associated with Feature 117.

Artifact	Quantity
T-head nail	1
Total	1

Feature 183 (Hearth)

Figures 6A, 104 and 105A

Location: N235.00/E214.40

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.50 m by 1.00 m.

Observations: This feature was constructed of flat limestone slabs for the hearth and limestone pieces set upright to form the back and sides of the feature. Clay that had been puddled into the spaces between the rocks of the floor had been burned and fired red. This hearth was probably associated with a temporary structure, but no evidence for the building was defined. It was located to the northwest of Feature 52, another hearth, and southeast of Structure 17. In form it is quite similar to Feature 52 adjacent to Structure 4, and Feature 184, which was associated with Structure 17. Both features 52 and 183 opened to the west, and probably indicate the presence of two undefined temporary structures that were side by side in this area.

Table 88. Artifacts associated with Feature 183.

Artifact	Quantity
Indeterminate nail	1
Light strap hinge	1
Animal bones	3
Total	5

Figure 104. Feature 183. View is to the west.

Feature 184 (Hearth)

Figures 6A and 87

Location: N238.50/E208.50 (At the east end of Structure 17)

Shape: Rectangular in plan.

Dimensions: Horizontal: 155 cm by 95 cm.

Observations: This hearth was associated with Structure 17 and described in Chapter 5 with that structure.

Table 89. Artifacts associated with Feature 184.

Artifact	Quantity
Overhill Plain sherds	1
Qualla Curvilinear Stamped	1
Rose head nails	4
T-head nails	3
Indeterminate nails	3
Group 4, Type 2 button backs	2
Animal bones	31
Total	45

Feature 202 (Hearth)

Figures 6A and 79

Location: N248.40/E194.40 (On the north wall of Structure 12)

Shape: Rectangular in plan.

Dimensions: Horizontal: 120 cm by 70 cm.

Observations: This hearth was associated with Structure 12 and is described in Chapter 5 with that building.

Table 90. Artifacts associated with Feature 202.

Artifact	Quantity
Indeterminate nails	3
Animal bones	52
Total	55

Several hearths that were not given feature numbers were associated with some of the temporary structures within the fort. These included ones in Structures 7, 9, 10, and 16. All appeared to have been interior heating, lighting or cooking facilities within those buildings. They have all been previously described in the discussions of the respective structures in Chapter 5.

Rock Clusters

Three rock clusters were defined and assigned feature numbers during the course of the excavations. All consisted of irregular areas that had been covered by flat limestone slabs. Presumably these are the remains of hearths, but they generally lack any confirming evidence for that use. In some cases, this lack of evidence is the result of previous excavations, primarily the WPA work. One, Feature 206, is assumed to have been entranceway stones for Structure 12, mostly on the basis of its relationship to one of the walls of that building.

Feature 80 (Rock Cluster)

Figures 6A and 105C

Location: N212.00/E196.30

Shape: Rectangular area of stones.

Dimensions: Horizontal: 1.90 m by 1.50 m.

Observations: This feature consisted of an area that had been paved with flat pieces of limestone. The major concentration was generally rectangular, and there was a scatter of smaller pieces of limestone primarily to the western side of the feature. Presumably they were the hearth stones of a chimney base, although there is little corroborating evidence to support this. It was located in the area between the barracks and the west curtain of the fort. This group of stones had been previously excavated by the WPA project, and consequently no remains other than the stones were left for the 1975-1976 excavations. This feature is shown on the plan of the WPA excavations as Chimney Base A (Figure 28), but no details were provided on Figure 29, indicating perhaps that there was little evidence remaining at that time either. This hearth or chimney base may have been some sort of freestanding chimney or cooking facility in this area, possibly for bread baking or the like. There was no evidence recovered by the latest excavations to indicate that it had been associated with a structure, although that possibility remains.

Associated Artifacts: None recovered.

Feature 113 (Rock Cluster)

Figures 6A and 105B

Location: N227.75/E195.00

Shape: Irregular cluster of limestone.

Dimensions: Horizontal: 100 cm by 75 cm.

Observations: This feature consisted of an irregular group of limestone slabs paving a small area. The stones appeared to have been burned and it is assumed that this feature was the remains of a hearth or chimney base. It is similar to Feature 80, which has been previously described. Feature 113 was located in the northwest corner of the innermost palisade line and just northeast of Structure 10. It is definitely not associated with Structure 10, since it was built on the same fill that was spread over this area and which covered Structure 10. The function of this feature is uncertain, since there was no evidence for an associated structure. It is possible that it may have been a free standing cooking facility as was the possibility with Feature 80.

Table 91. Artifacts associated with Feature 113.

Artifact	Quantity
T-head nail	1
Total	1

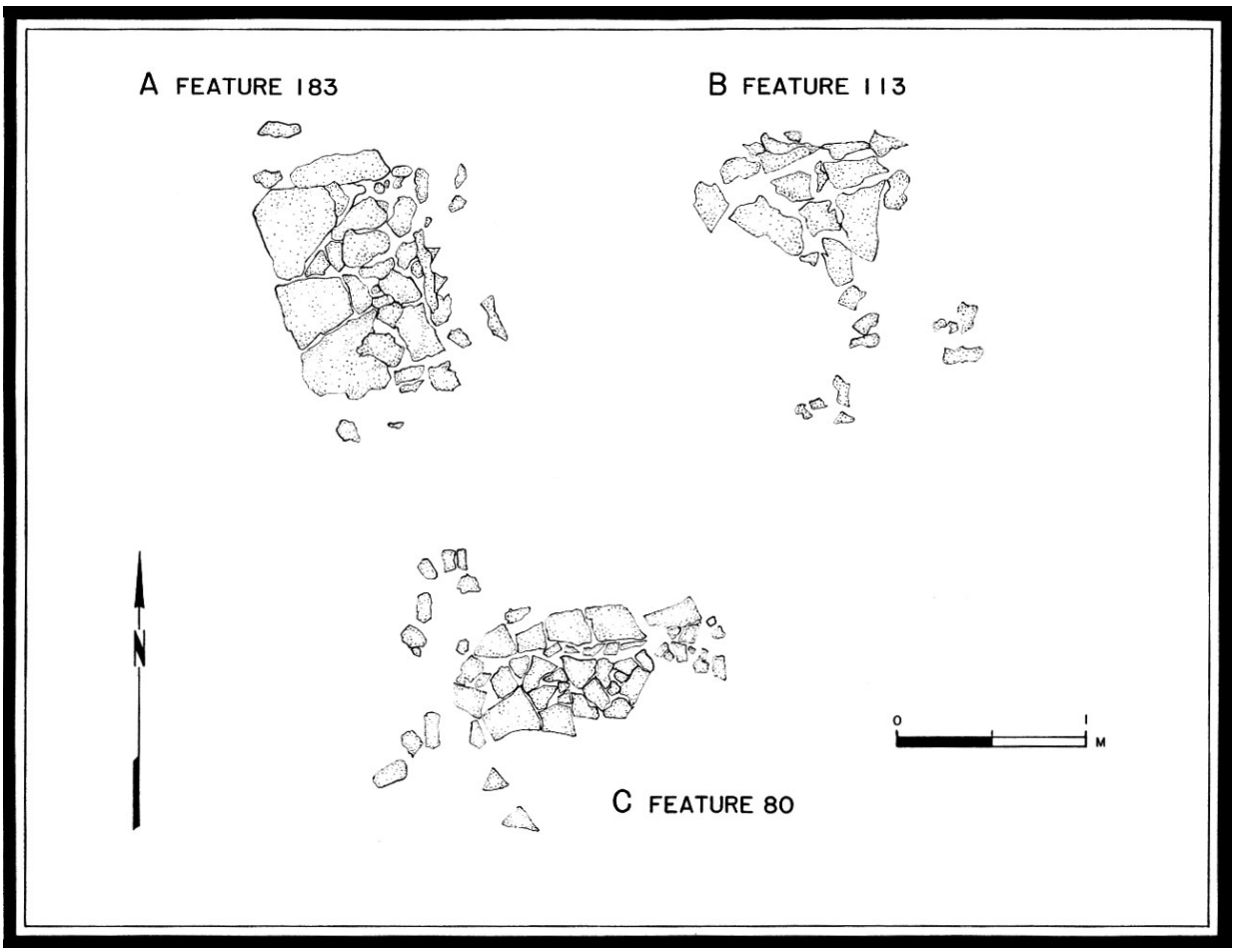

Figure 105. Plans of selected hearths and rock clusters.

Feature 206 (Rock Cluster)

Figures 6A and 79

Location: N246.00/E194.00

Shape: Approximately rectangular.

Dimensions: Horizontal: 80 cm by 50 cm.

Observations: This feature is associated with Structure 12 and is described in Chapter 5 with that structure.

Table 92. Artifacts associated with Feature 206.

Artifact	Quantity
Indeterminate nails	2
Total	2

Chimney Bases

The features that are discussed in this section as chimney bases were those cooking and/or heating facilities that were generally associated with the structures that are believed to have been the more permanent buildings at the fort. There are also a couple of freestanding ones for which structures were not defined. In general, these chimney bases are characterized by heavy stonework that had been mortared together. In their original form they would have had several courses of stonework forming the hearth and fireplace and perhaps in some cases the entire chimney. With only one exception, Feature 65, the chimney base that was associated with Structure 5, all of these features had been previously excavated, and in many cases, partially reconstructed. Therefore, much of the information about their original configuration and construction had been lost prior to the latest excavations. The best documentation for most of these features comes from the WPA drawings of those remains as shown in Figure 29. The historical documentation relating to the building of many of these chimney bases, particularly those associated with the barracks building has been presented in Chapter 5.

Feature 65 (Chimney Base)

Figures 6A, 68, 69, and 70

Location: N210.00/E260.75 (At the north end of Structure 5)

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.21 m by 1.82 m.

Observations: This is the chimney base that was associated with Structure 5 and it is described in Chapter 5 with that structure.

Table 93. Artifacts associated with Feature 65.

Artifact	Quantity
Overhill Plain sherds	1
Overhill Checked Stamped	1
Rose head nails	11
Indeterminate nail	1
Animal bones	13
Prehistoric sherds	88
Lithic artifacts	3
Lithic waste materials	32
Total	150

Feature 72 (Chimney Base)

Figures 6A and 71

Location: N211.00/E251.00 (At the north end of Structure 6)

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.95 m by 1.85 m.

Observations: This chimney base was associated with Structure 6 and is described in Chapter 5 with that structure. It had been previously excavated by the WPA project, so the original configuration of stones is uncertain.

Table 94. Artifacts associated with Feature 72.

Artifact	Quantity
Lithic waste materials	2
Total	2

Feature 166 (Barracks Chimney Base)

Figures 6A, 28, 29C, and 96

Location: N216.20/E200.70

Shape: Rectangular in plan.

Dimensions: Horizontal: 2.10 m by 1.60 m. (See Chapter 5 Table 3).

Observations: This chimney base was previously excavated and reconstructed by the WPA project, and labeled C on their plan (Figure 28). Details as presented by the WPA project are shown on Figure 29C. This feature and the other chimney bases associated with the barracks are discussed as a group with the barracks in Chapter 5.

Table 95. Artifacts associated with Feature 166.

Artifact	Quantity
Indeterminate nail	1
Animal bones	14
Lithic waste materials	2
Total	17

Any other associated artifacts would be in the WPA collection and unassignable to this feature, or included in the square/level artifacts for the contiguous squares.

Feature 191 (Barracks Chimney Base)

Figures 6A, 28, and 29G

Location: N194.40/E206.20

Shape: Rectangular in plan.

Dimensions: Horizontal: 2.43 m by 1.49 m. (See Chapter 5 Table 3).

Observations: This feature was previously excavated and reconstructed by the WPA Project and labeled G on their plan (Figure 28). Details of the remains as presented by the WPA project are shown on Figure 29G. A general description of all of the barracks chimney bases is presented with the discussion of that building in Chapter 5.

Associated Artifacts: Any artifacts from this feature would be unprovenienced and in the WPA collection, or included in the square/level summaries for the contiguous squares.

Feature 192 (Barracks Chimney Base)

Figures 6A, 28, 29F, and 98

Location: N198.00/E205.20

Shape: Rectangular in plan.

Dimensions: Horizontal: 2.82 m by 1.67 m. (See Chapter 5 Table 3).

Observations: This feature was previously excavated and reconstructed by the WPA project and labeled F on their plan (Figure 27). Details presented by the WPA project are shown on Figure 29F. A general description of all of the barracks chimney bases is presented with the discussion of that building in Chapter 5.

Associated Artifacts: Any associated artifacts would be unprovenienced in the WPA collection, or included in the square/level summaries for the contiguous squares.

Feature 193 (Barracks Chimney Base)

Figures 6A, 28, and 29E

Location: N204.50/E203.60

Shape: Rectangular in plan.

Dimensions: Horizontal: 2.79 m by 1.42 m. (See Chapter 5 Table 3).

Observations: This feature was previously excavated and reconstructed by the WPA project and labeled P on their plan (Figure 28). Details as presented by the WPA project are shown on Figure 29E. A general description of all of the barracks chimney bases is presented with the discussion of that building in Chapter 5.

Associated Artifacts: Any associated artifacts would be unprovenienced in the WPA collection, or included in the square/level summaries for the contiguous squares.

Feature 194 (Barracks Chimney Base)

Figures 6A, 28, and 29D

Location: N210.00/E202.00

Shape: Rectangular in plan.

Dimensions: Horizontal: 2.79 m by 1.52 m. (Chapter 5, Table 3).

Observations: This feature was previously excavated and reconstructed by the WPA project and labeled D on their plan (Figure 28).Details as presented by the WPA project are shown on Figure 29D. A general description of all the barracks chimney bases is presented with the discussion of that building in Chapter 5.

Associated Artifacts: Any associated artifacts would be unprovenienced in the WPA collection or included in the square/level summaries for the contiguous squares.

Feature 195 (Chimney Base)

Figures 6A and 28

Location: N206.60/E199.50

Shape: Rectangular in plan.

Dimensions: Horizontal: 1.50 m by 1.00 m.

Observations: This chimney base was previously excavated and reconstructed by the WPA project and shown on their plan of the excavations (Figure 28). This feature was located just west of the line of chimney bases that were associated with the barracks and was centered between Features 193 and 194. The hearth of this chimney base opened to the west. Presumably it was associated with a structure that was located between the barracks and the west curtain of the fort, but no evidence was found by the 1975-1976 excavations to verify the existence of such a building. It is also possible that this was some sort of freestanding hearth used for baking or other cooking activity, as was supposed for Features 80 and 113 which are also located in this same general area of the fort. Feature 195 was located directly above Feature 88, the western palisade trench of the innermost palisade line, indicating that this feature had been constructed after that palisade was removed and the trench filled.

Associated Artifacts: Any associated artifacts would be unprovenienced in the WPA collection, or included in the square/level summaries for the contiguous squares.

Burned Logs and Wood

Two of the features that were assigned numbers during the latest excavations were either portions of burned logs or wooden boards. One was located in the Fort Glen area outside the fort and the other was in the northern part of the Northwest Bastion.

Feature 12 (Burned Logs)

Figures 6A and 47

Location: Squares N210-214/E312-316 (In the Fort Glen area)

Dimensions: Two of the logs were 3.0 m and 3.5 m in length respectively, and the third was not completely excavated but exposed for a length of 2.0 m. Diameters varied from 20 cm to 40 cm.

Observations: These were sections of three charred logs and two smaller fragments that were lying on the original surface of the Fort Glen area. It is believed that they are from the early stages of the construction in this area, and could have been logs cut at that time for use in a palisade or other construction for that area. They appeared to have been abandoned at the time that the construction stopped in the Fort Glen area. Portions of these logs were originally exposed in the 1973 Division of Archaeology excavations in the Fort Glen area.

Table 96. Artifacts associated with Feature 12.

Artifact	Quantity
Prehistoric ceramics	4
Lithic waste materials	5
Total	9

Feature 205 (Burned Wood)

Figures 6A and 79

Location: N249.05/E185.60

Shape: Rectangular with one pointed end.

Dimensions: Horizontal: 65 cm by 24 cm. Maximum thickness: 5 cm.

Observations: This feature was simply the carbonized remains of a board or timber that was defined in the Northwest Bastion. It was located between the north wall of Structure 22 and the north wall of the Northwest Bastion. Assuming that it was from the fort period, then this timber could have derived from either the palisade or Structure 22.

Associated Artifacts: None recovered.

Quarry Pit

One pit feature had apparently been excavated originally for the purpose of mining limestone blocks out of the lower portion of the slope along the north side of the parade ground. Subsequent to the quarrying operation, it was utilized as a receptacle for refuse and then filled and leveled.

Feature 171 (Quarry Pit)

Figures 6A and 106A

Location: N213.60/E216.50

Shape: Rectangular to irregular pit bounded by rock and earth walls.

Dimensions: Horizontal: 5.00 m by 1.50 m. Defined depth: 1.29 m.

Observations: This feature is interpreted as having originally been a excavation for removal of limestone blocks for the construction of various stone facilities within the fort, such as the chimney bases. It was located at the base of the slope near the northwest corner of what would have been the more or less level parade ground and at the base of a fairly large area of exposed bedrock on the slope. The pit was bounded along the north wall by a solid bedrock formation, and the other sides by either isolated limestone blocks or subsoil. The use of this as a quarry is supported by the fort period excavation in and around the bedrock, as well as numerous pieces of fragmented limestone that were in the fill of the pit. Additionally, one large iron wedge (Figure 148L) was recovered from where it was lying on one of the bedrock ledges.

Figure 106A shows the plan and profile of this feature. Three stratigraphic zones below the recent humus were defined in the cross section of this feature. The lowest zone, (Zone C) consisted of a yellow clay mottled with a darker loam. This was backdirt thrown into the base of the feature as other sections of the pit were excavated and quarried. Zone B was a thick lens of dark brown rocky loom with most of the artifacts and a high concentration of faunal remains. This part of the fill is presumed to have been refuse that had been thrown into the pit to dispose of the refuse as well as fill the quarry hole and smooth out the contour of the slope at that point. Zone A was a reddish brown loam, relatively free of artifacts, which probably served as a partial cap over the deposited refuse. The whole of the pit fill was covered with a more recently accumulated slope wash and humus zone.

Table 97. Artifacts associated with Feature 171.

Artifact	Quantity
Overhill Plain sherds	26
Overhill Curvilinear Stamped	2
Dark green round beverage bottle fragments	4
Storage bottle fragments	2
Blue-green round bottle fragment	1
Clear round bottle fragment	1
Rose head nails	7
T-head nails	23
Indeterminate nails	12
Light strap hinge	1
Iron shim	1
Brass sheet scraps	3
Lead sheet scrap	1
Lead strip	1
Piece of iron wire	4
Sheet iron scraps	2
Iron wedge	1
Group 2, Type 2 buckle	1
Group 3, Type 1 buckle	1
Group 2 button backs	2
Type 1, Variety B sleeve links	2
Type 3, Variety A sleeve link	1
White clay pipe fragments	4
Animal bones	2707
Prehistoric sherds	6
Lithic artifact	1
Lithic waste materials	13
Total	2830

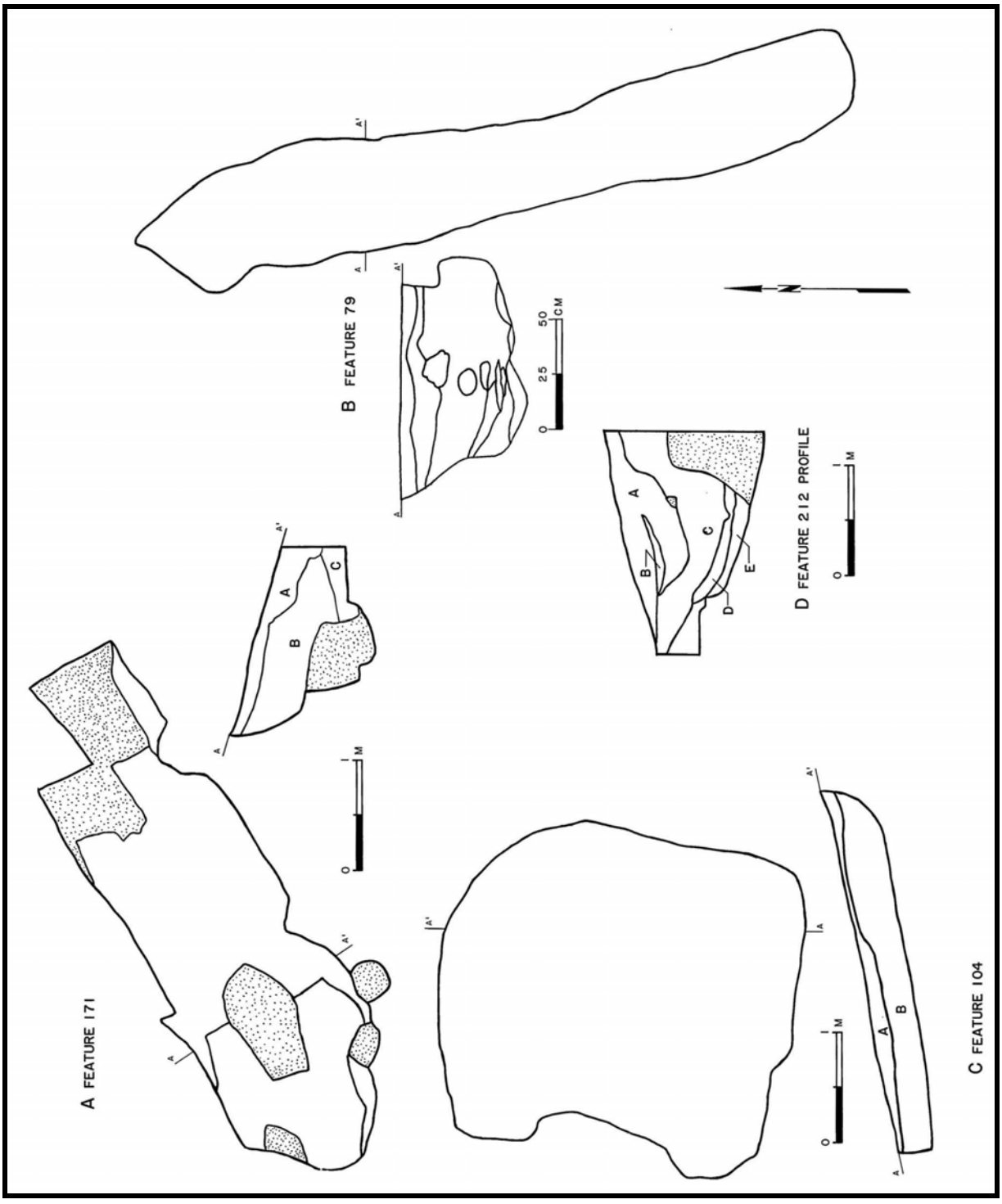

Figure 106. Plans and profiles of Quarry pit and other features.

Sill Molds and Wall Trenches

The features presented here were portions of wall trenches and sill molds that had been assigned feature numbers during the course of the excavations. Most of them were associated with particular structures and have been described in the appropriate sections of Chapter 5. Several others that are presented here did not appear to have been directly associated with buildings, and their function is somewhat more problematic. All would have been the impressions of, or the shallow trenches excavated for horizontal timbers, or trenches excavated for holding vertical members in place for either palisades or structure walls.

Feature 43 (Sill Mold)

Figures 6A and 60

Location: N189.50/E271.63 (West wall of Structure 1)

Shape: Rectangular in plan.

Dimensions: Horizontal: 75 cm by 25 cm.

Observations: This feature is a door sill for Structure 1 and is described in Chapter 5 with that structure.

Associated Artifacts: None recovered.

Feature 74 (Sill Mold or Wall Trench)

Figures 6A, 62 and 63

Location: N195.50/E263.85 (Attached to Structure 2)

Shape: Linear.

Dimensions: Horizontal: 1.72 cm by 35 cm. Defined depth: 26 cm.

Observations: This was a sill mold or wall trench that was associated with Structure 2 and is described in Chapter 5 with that structure.

Table 98. Artifacts associated with Feature 74.

Artifact	Quantity
Indeterminate nails	2
Sheet iron scrap	1
Slag	1
Animal bones	4
Prehistoric sherds	5
Lithic artifact	1
Lithic waste materials	9
Total	23

Feature 100 (Sill Mold)

Figures 6A and 75

Location: Squares N218-220/E178-180 (South part of Structure 11)

Shape: Cross-shaped trenches.

Dimensions: Horizontal: 2.8 m by 3.1 m. Defined depth: 4 cm.

Observations: This feature constitutes part of Structure 11 and is described in Chapter 5 with that structure.

Associated Artifacts: None recovered.

Feature 127 (Sill Mold)

Figures 6A and 75

Location: N220.75/E178.20 (On west wall of Structure 11)

Shape: L-shaped.

Dimensions: Horizontal: 80 cm by 15 cm.

Observations: This feature constitutes part of the west wall of Structure 11 and is described in Chapter 5 with that structure.

Associated Artifacts: None Recovered.

Feature 135 (Sill Mold or Wall Trench)

Figures 6A and 89

Location: Squares N232/E190-192 (North wall of Structure 19)

Shape: Linear.

Dimensions: Horizontal: 2.85 m by 15 cm. Defined depth: 10 cm To 15 cm.

Observations: This feature is the north wall of Structure 19 and is described in Chapter 5 with that structure.

Table 99. Artifacts associated with Feature 135.

Artifact	Quantity
Rose head nail	1
T-head nail	1
Indeterminate nail	1
Total	3

Feature 155 (Wall Trench)

Figures 6A and 88

Location: Squares N236/E168, N238/E166-1688 and N240/E166

Shape: L-Shaped in plan.

Dimensions: Horizontal: 1.8 m north-south, 1 + m east-west. Width: 25 cm to 60 cm. Defined depth: 14 cm to 45 cm.

Observations: This feature constitutes the north wall and part of the west wall of Structure 18 and is described in Chapter 5 with that structure.

Table 100. Artifacts associated with Feature 155.

Artifact	Quantity
Sad iron	1
Animal bone	1
Total	2

Feature 156 (Wall Trench)

Figures 6A and 88

Location: Squares N234/E168-172 and N236/E172

Shape: T-shaped in plan.

Dimensions: Horizontal: 80 cm north-south, 2.15 m east-west. Width: 15 cm to 20 cm. Defined depth: 14 cm to 45 cm.

Observations: This feature constitutes the south and part of the west walls of Structure 18 and is described in Chapter 5 with that structure.

Associated Artifacts: None recovered.

Feature 160 (Sill Mold or Palisade Trench)

Figures 6A and 83

Location: N190/E198-200 and N192/E200-204

Shape: Linear.

Dimensions: Horizontal: 5.45 m by 25 cm to 35 cm. Defined depth: 11 cm to 13 cm.

Observations: This feature was a long shallow sill mold or palisade trench located in the southwestern part of the fort. It was oriented in an east-west direction and was situated approximately 50 cm south of the end of Feature 88, the west wall of the innermost palisade line. The fill consisted of a dark loam that was mottled with some red clay. This feature is interpreted as some sort of traverse associated with the innermost palisade system, or a wall associated with an otherwise undefined structure. It is possible that it constituted the north wall of a structure that would have been much larger than Structure 24 as that structure has been defined in this report. This feature is also discussed in Chapter 4 with the innermost palisade line.

Table 101. Artifacts associated with Feature 160.

Artifact	Quantity
Animal bone	1
Total	1

Feature 198 (Sill Molds)

Figure 6A

Location: Squares N238-240/E190-E192

Shape: Linear.

Observations: This feature consisted of two shallow parallel trenches or sill molds. The northernmost one has been labeled Feature 198-A and the southern one, Feature 198-B. Feature 198-A began at N240.70/E190.95 and ran for a length of 3.20 m, ending at N240.50/E194.15. It had a width that varied between 30 cm and 45 cm. The section of the trench was shallow and concave, with a defined depth that varied between 3 cm to 5 cm. The fill within the trench consisted of a dark brown loam with historic artifacts included. This trench was intrusive on the western end to Feature 153 and Feature 144, indicating a later construction of this trench or sill. Feature 197, a modern disturbance was intrusive to the east end of this trench. Feature 198-B was a similar trench, beginning at N239.00/E191.05 and had a length of 3.00 m, ending at N239.35/E194.00. Its width varied from a minimum of 25 cm to a maximum of 35 cm. Also like Feature 198-A, it was concave and shallow in section and had a maximum defined depth of 2 cm to 3 cm. The fill consisted of a grey to brown clay and loam.

The western end of Feature 198-A was intrusive to Feature 144, a layer of fill, and in part to Feature 153, a subsequent fill. Feature 201 was located just east of the east end of this sill. That feature, as well as the sill, were intruded upon by Feature 197, a modern disturbance. Feature 199, a layer of charcoal and clay, lay directly east and north of the east end of Feature 198-B. These two shallow trenches are interpreted as sill molds, but their function remains undetermined. They are located just north of and parallel to the north curtain of the inner palisade (Feature 96-N), and to the west and northwest of Structure 17.

Table 102. Artifacts associated with Feature 198.

Artifact	Quantity
Overhill Plain sherds	6
Qualla Plain	1
T-head nails	5
Indeterminate nails	5
Animal bones	18
Prehistoric sherds	41
Lithic artifacts	3
Lithic waster materials	20
Total	99

Feature 200 (Sill Mold)

Figures 6A and 87

Location: N238.50/E202-35 (Within Structure 17)

Shape: Rectangular in plan.

Dimensions: Horizontal: 75 cm by 25 cm. Defined depth: 15 cm.

Observations: This feature is located within Structure 17 and is described in Chapter 5 with that structure.

Table 103. Artifacts associated with Feature 200.

Artifact	Quantity
Scratch blue sherd	1
Overhill Plain sherds	1
T-head nail	1
Total	3

Latrines

One long pit feature that was excavated has been interpreted as a privy and is discussed here. Also indicated are other possible latrine facilities within the fort.

Feature 79

Figures 6A and 106B

Location: Squares N206-210/E188-190

Shape: Parallel sided with rounded ends in plan, with vertical to insloping walls and a relatively flat bottom.

Dimensions: Horizontal: 6.5 m by 75 cm to 125 cm. Defined depth: 38 cm.

Fill and Stratigraphy: The fill within this feature consisted primarily of a dark brown loam that was mottled throughout with red clay. Artifacts within the fill were segregated to some extent, with the majority of the faunal remains located in the bottom two-thirds of the pit and most of the remainder of the artifacts in the upper level of the feature. A cross section of the pit (Figure 106B) indicates some of the layering within the feature, which consisted of zones of dark humus and lenses of generally sterile clay.

Observations: This feature was an elongated pit located in the western part of the fort, parallel to the northern part of the west curtain. It was situated on the interior side of the inner palisade line trench. This pit had probably been excavated into the filled trench of the inner palisade line, but since that trench had been excavated by the WPA project this could not be determined with certainty. This feature is interpreted as a long latrine facility. It was located behind the barracks building and about midway from either end of that structure. If in fact this feature was originally excavated and used for a latrine. then during the course of that use, and also subsequent to that use, it became the receptacle for a great deal of domestic and other refuse prior to its complete filling and abandonment.

Table 104. Artifacts associated with Feature 79.

Artifact	Quantity
Chinese porcelain sherds	1
White Saltglaze sherds	1
Delftware sherds	2
Overhill Plain sherds	304
Overhill Checked Stamped	50
Overhill Cordmarked	2
Overhill Net Impressed	1
Overhill Rectilinear Stamped	10
Qualla Plain	6
Qualla Checked Stamped	17
Dark green round beverage bottle fragment	1
Dark green square beverage bottle fragment	1
Wine glass fragment	1
Type 1 knife bolster fragment	1
Convex knife blade	1
Rose head nails	8
T-head nails	41
L-head nail	1
Indeterminate nails	30
Heavy strap hinge	1
Brass sheet scrap	1
Lead strip	1
Flat iron scrap	1
Sheet iron scraps	2
Indeterminate iron pieces	2

Table 104. Artifacts associated with Feature 79.

Artifact	Quantity
Spall gunflint	1
Musket sideplate	1
Cartridge box button	1
Scabbard clip	1
Group 1, Type 2 buckle	1
Group 3, Type 1 buckle	1
Group 1, Type 2, Variety G button	1
Group 1, Type 3, Variety A button	1
Type 1, Variety A sleeve link	1
Tinkling cone	1
Silver pendant	1
White clay pipe fragments (1 Armorial)	6
Stone pipe fragment	1
Jews harp	1
Animal bones	2506
Prehistoric sherds	53
Lithic artifacts	7
Lithic waste materials	86
Total	3158

With the exception of Feature 79, there is very little good evidence for other latrines or "necessaries" within the fort. Although there are several references in the historical documentation indicating the need for "necessaries" and "bog houses" any confirmation of their construction in those records is lacking. The use of portions of the ditch for this purpose, as well as areas around the outside of the fort, would have been possible, and probably preferred, throughout most of the period of occupation. Certainly during the siege of the fort in the last few months of its occupation, interior facilities would have been necessary. It has been suggested in an earlier portion of this chapter that a portion of Feature 159, the drain, may have had a latrine structure constructed over it. The only other possible feature that may have served similarly is Feature 109, a portion of which is a long narrow pit or trench, similar in many respects to Feature 79. That feature was situated similarly to Feature 79 along the inside of the inner palisade line behind the barracks. It was located on the slope within the fort, however, and may not have been ideally situated for such a facility.

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
Fort Interior Drain																																
F. 76	22	15	1	5		1	36				15							1							2		1	116		2	15	212
F. 150	4	9		2			37		1		2	1				1			1				1		2			807	109	9	275	1261
F. 159	17	195	13	29			101	1			59			2					4		6		3	1	4	2	1	2453	539	56	1311	4781
F. 167											1																	1		2	29	33
Totals	**73**	**219**	**14**	**36**		**1**	**174**	**1**	**1**		**77**	**1**		**2**		**1**		**1**	**5**		**6**		**4**	**1**	**8**	**2**	**2**	**3377**	**648**	**69**	**1630**	**6287**
Ditch																																
F. 188																												18	11	1	33	**63**
Historic Pit																																
F. 1		1							2																				1			4
F. 7		36																	1					1				48			9	95
F. 44	2	79		6			29	1	1		689	1		3		1			1	3			97	1	3		1	1312	106	6	192	2534
F. 45	1	345	5	4			36		1	1	1991	2	1	9					1	2			24		1		2	467	417	21	311	3642
F. 46		52									11																	11	53	3	51	181
F. 50	4	259	39	4	6	1	109	2	1	1	393	1	5	5		1		1	2	10		3	15	1	6	1	3	883	131	3	279	2169
F, 54				21			9				1												2					6	33	4	16	92
F. 58	1	74		3		1	31	4	1		49		1	1		1		1	1	8	1		5	1	3			504	40	4	44	779
F. 59		1					9				22	1											1	1				130	3	2	14	184
F. 60							3				29																	150	4		9	195
F. 62																												2	12		10	24
F. 63		1					16	1	1	1	40								3	2								14	50	3	31	163
F. 64							1				25								2								1	61	10	4	36	140
F. 82				1			18													2								46				67
F. 86		22		1		1	12				1									2			1					28				68
F. 87		14					7		1			2													3			55			4	86
F. 91		115					4											2						1			1	17			2	142

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
F. 93							1																					6				7
F. 97																												2				2
F. 98														1																		1
F. 103		255																					1					26	2		2	286
F. 104	2	32					20					1							1	3				1	1			22	2	1	2	88
F. 106		13	3				3																						1		3	23
F. 125																			1													1
F. 139		6		1			3																					10				20
F. 146		47	5				2					1			1										1			70	1	1	12	141
F. 147		1					1																								6	8
F. 170		1		1			4																					32	6	1	3	48
F. 176		2					2																1					3	27	6	162	203
F. 177		3					9				2												1		1			46	109		2	173
F. 179	1	50	1				15														1		8		1			40			5	122
F. 201											1																		2			3
F. 203		6	1				7		1																			4	1			20
F. 204		44	12				2																1					30	2		6	97
F. 208		16	2				12				2										1	3	1		1			115				153
F. 209	3	21					3		2	1	1												18	3				48	1		2	103
F. 210							3																					1				4
F. 211							1									3															1	5
Totals	**14**	**1496**	**68**	**42**	**6**	**3**	**372**	**8**	**11**	**4**	**3257**	**9**	**7**	**19**	**1**	**6**	**0**	**4**	**13**	**32**	**3**	**6**	**176**	**10**	**21**	**1**	**8**	**4189**	**1014**	**59**	**1214**	**12073**
Filled Areas and Clay																																
F. 56	1	9		3			15	1			1														2			119	1	1	2	155
F. 94		6					2																					12			2	22
F. 116		47					5																					7			1	60
F. 119																												1				1

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
F. 126																																0
F. 144		4					2					1																77			3	87
F. 154				1																								3				4
F. 169																												17			2	19
F. 199		1	3	1			1				1								1													8
Totals	**1**	**67**	**3**	**5**			**25**	**1**			**2**	**1**							**1**						**2**			**236**	**1**	**1**	**10**	**356**
Terrace																																
F. 121																																0
F. 138																																0
Totals																																**0**
Midden Deposits and Filled																																
F. 25							1					2																31				34
F. 68							16	1															2					192	67		34	312
F. 73	1	58	1				17																		2	1		4	11	1	11	107
F. 78	1					1	10													1					2			41				56
F. 83		40	1	1			9												2	5	1							296	2		3	360
F. 84		6					4																					37				47
F. 85		14					14		1		2			1					1	1					1		1	81	1		5	123
F. 107		4					6				1									1								2		1		15
F. 109		53	1	10		1	21				3			1						1					3			890	4	4	52	1044
F. 152		3		1		1	2							3											1			160	19	1	35	226
F. 178	2	1066	49	28	1	3	173	2		1	52		1	1	4					5	1		10		1	1	3	2228	479	137	2242	6490
F. 182	1	1					4																					80			5	91
F. 212	10	93	1	9		4	35				67			1						2					4		1	2363	14	1	46	2642
Totals	**6**	**1338**	**53**	**49**	**1**	**10**	**312**	**3**	**1**	**1**	**125**	**2**	**1**	**7**	**4**				**3**	**16**	**2**		**12**		**14**	**2**	**5**	**6405**	**597**	**145**	**2433**	**11547**

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
Ditch Midden																																
F. 3	1	1153	4	9		3	12				2					1		2	1	1			3	1				212			5	1410
F. 14																												126		2	122	250
F. 42		55		2			1				18			2														27	296	23	182	606
F. 185	2	26		2			18				2	2		1				1		1					4			1257	4	2	13	1335
F. 187		11		5		1	13				5							4			1			1				376	8	3	3	431
Totals	**3**	**1245**	**4**	**18**		**4**	**44**				**27**	**2**		**3**		**1**		**7**	**1**	**2**	**1**		**3**	**2**	**4**			**1998**	**308**	**30**	**325**	**4032**
Fire Basins, Fired Areas and																																
F. 53		2		3		1	9																					120			2	137
F. 67		14					24																					32	4		9	83
F. 75																														3	47	50
F. 77		48					1												1		1							27				78
F. 95		12																										3				15
F. 110		4					2																					2			1	9
F. 120		8	1	1			5												1	1								169			1	187
F. 128																																0
F. 163																												74	2		6	82
F. 186																												73				73
Totals		**88**	**1**	**4**		**1**	**41**												**2**	**1**	**1**							**500**	**6**	**3**	**66**	**714**
Heart																																
F. 52		6					3				1															1		22		2	4	39
F. 71							1																					1				2
F. 89																																0
F. 117							1																									1
F. 183							1	1																				3				5
F. 184		1	1				10													2								31				45

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
F. 202							3																					52				55
Totals		**7**	**1**				**19**	**1**			**1**									**2**						**1**		**109**		**2**	**4**	**147**
Rock																																
F. 80																																0
F. 113							1																									1
F. 206							2																									2
Totals							**3**																									**3**
Chimney																																
F. 65		2					2																					13	88	3	32	140
F. 72																															6	6
F. 166							1																					14			2	17
F. 191																																0
F. 192																																0
F. 193																																0
F. 194																																0
F. 195																																0
Totals		**2**					**3**																					**27**	**88**	**3**	**40**	**163**
Logs and Burned																																
F. 12																													4		5	9
F. 205																																0
Totals																													**4**		**5**	**9**
Quarry Pit																																
F. 171		27	3	8			42	1	1		11							1	2	2	3				4			2707	6	1	13	2832

Table 105. Historic Feature Artifact Summary

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
Sill Molds																																
F. 43																																0
F. 74							2				2																	4	5	1	9	23
F. 100																																0
F. 127																																0
F. 135							3																									3
F. 155																						1						1				2
F. 156																																0
F. 160																												1				1
F. 198		6	1				10																					18	41	3	20	99
F. 200	1	1					1																									3
Totals	**1**	**7**	**1**				**16**				**2**											**1**						**24**	**46**	**4**	**29**	**131**
Latrin																																
F. 79	4	367	23	3		2	80	1			7	1	1			2			2	2	1		2		6	1	1	2506	53	7	86	3158
G.	**36**	**4863**	**171**	**165**	**7**	**21**	**1131**	**16**	**14**	**5**	**3509**	**16**	**9**	**31**	**5**	**10**	**0**	**13**	**29**	**57**	**17**	**7**	**197**	**13**	**59**	**7**	**16**	**22096**	**2782**	**325**	**5888**	**41515**

Notes. Column headings are as follows: 1=English and Chinese Ceramics; 2=Overhill Cherokee Ceramics; 3=Qualla Ceramics; 4=Glass; 5=Kitchen and Eating Utensils; 6=Clasp Knives; 7=Nails; 8=Strap Hinges; 9=Building and Furniture Hardware; 10=Braces and Strapping; 11=Raw Materials and Manufacturing Debris; 12=Gunflints; 13=Gunparts; 14=Musket Balls and Shot; 15=Accoutrements; 16=Ordnance; 17=Tools; 18=Measuring Instruments; 19=Buckles; 20=Buttons; 21=Sewing and Tailoring Items; 22=Needles and Straight Pins; 23=Personal Adornment; 24=Personal Adornment; 25=Grooming Items; 26=White Clay Pipes; 27=Stone Pipes; 28=Equestrian Items; 29=Animal Bones; 30=Prehistoric Ceramics; 31=Lithic Artifacts; Lithic Waste; Totals

CHAPTER 7

TUSKEGEE: HISTORIC CHEROKEE OCCUPATIONS

As outlined in the introductory chapter, large scale excavations were carried out in the area to the south of Fort Loudoun. These excavations were done as the result of TVA pan scraping operations in the area for fill dirt that was to be placed over the original site of Fort Loudoun to create a surface above the projected lake level on which to build a reconstruction. The archaeological work conducted in the Tuskegee area was carried out during July and August of 1976, concurrently with the completion of the excavations in the upper part of the fort interior. Because of this large scale earthmoving operation it was possible to examine approximately 10,000 square meters, or approximately 2.5 acres, for cultural remains to the south of the fort. This archaeological work, while not done necessarily under the best of circumstances, resulted in the definition of some 12 structures and 162 features dating from the Archaic period through the historic Cherokee occupation, including various Woodland and Mississippian remains. The purpose of this chapter is to describe the various structures and features associated with the eighteenth century Cherokee occupations of this area. The artifacts derived from the Cherokee features are described in Chapter 8 with the artifactual materials that were recovered from the British occupation of Fort Loudoun. Those that were specifically associated with the features and structures discussed in this chapter are detailed with the various features as Tables 106-124. The extent of the excavations to the south of Fort Loudoun are shown in Figures 6, 6A, 6B, and 108. The landfill and the area pan scraped is shown in Figure 109. The Cherokee features and structures are detailed in Figures 118, 119, 120, and others.

There is ample historical documentation describing the eighteenth century, and later Cherokee occupations and culture in the Tennessee, Georgia, South Carolina and North Carolina areas (Adair 1775; McDowell 1970; Bartram 1980; Haywood 1973; Williams 1927), as well as numerous other studies and syntheses (e.g., Swanton 1946; King 1979; Reid 1970, 1976; Corkran 1962; Mooney 1900; Gearing 1958; Schroedl 2000; Williams 1928, 1931). Several eighteenth century maps provide the locations of the Cherokee and their towns (see Cumming 1958 and Smith 1979:58-59). Smith (1979) provides an excellent summary of the distribution of Cherokee settlements throughout most of the eighteenth century, based on contemporary maps, historical accounts, and lists of Cherokee towns. The overall distribution of the Cherokee for about the middle of the eighteenth century, including the town locations is shown on Map 3 of Smith's article (1979:49).

For the Little Tennessee River valley, there are a number of eighteenth century sources that either list the Cherokee towns, or show their locations. These include Stuart's map of about 1757 (Figure 107), DeBrahm's *Plan of the Environs of Fort Loudoun* (Figure 3), and notably, Henry Timberlake's 1762 map of the Little Tennessee River valley (Figure 11). Later maps include those of William Christian from 1775 (Figure 14), Stuart's *Map of the Cherokee Country* (see Kelly 1978), and DeBrahm's 1766 *Map of the Indian Nations* (Figure 10). The locations of the Overhill Cherokee villages in the Little Tennessee Valley are best and most accurately known from Timberlake's map. Their locations as now known from archaeological survey and excavations are shown on a present day map of the valley in Figure 1. The presence of these towns is also verified by the numerous references to the towns in the correspondence in the *South Carolina Indian Affairs* volumes (McDowell 1970) and the *South Carolina Gazette* (see for example *South Carolina Gazette*, Number 1352, June 28 - July 5, 1760), in addition to other sources.

Cherokee Archaeology

During the last century considerable archaeology has been done on Cherokee sites in the Cherokee region, including parts of Tennessee, North Carolina, South Carolina and Georgia. This work, through about the 1960s, has been summarized by Dickens (1976:6-9, 1979). The earliest reported work was that described by Thomas (1894) on the explorations in the Little Tennessee River valley by the Smithsonian Institution under the direction of J. W. Emmert in 1884 (see Polhemus 1987:Appendix A). At about the same time, Cherokee materials were being excavated by the Valentine brothers in North Carolina (Dickens 1976:7, 1979:4). During the period of 1915-1919, the Museum of the American Indian, Heye Foundation, conducted research in North Carolina, Georgia and East Tennessee that was related to the Cherokee problem (Heye, Hodge and Pepper 1918; Harrington 1922). During the 1930s, archaeological excavations carried out by WPA crews continued to explore the archaeological remains of the Cherokee culture. Notable among these

excavations were those at the Peachtree Mound, North Carolina, by Setzler and Jennings (1941), Hiwassee Island by University of Tennessee crews (Lewis and Kneberg 1946), as well as the Chota Site in the Little Tennessee River valley (Gleeson 1970:49; Schroedl 1986:19-20). Work on Cherokee materials during the period from the late 1940s through the early 1960s was centered primarily in Georgia and North Carolina (Wauchope 1948, 1966; Caldwell 1955, N.D.; Kelly and Neitzel 1961; Coe and Keel 1965; Keel 1972; and Egloff 1967).

Little Tennessee River Valley Cherokee Studies

Between the time of the WPA excavations at the Chota Site (Gleeson 1970:49; Schroedl 1986:19-20) and the mid-1960s, there was apparently little systematic work done at any of the Cherokee sites in the Little Tennessee River valley. There are some scattered reports of materials that were excavated from some of the towns, such as Citico (Lewis 1960, Myers 1964, Rice 1975). Most notable of this work, was that carried out by the Knoxville Chapter of the Tennessee Archaeological Society at the site of Tallassee (40BT8) prior to its inundation by the Chilhowee Dam (Cornett 1976).

Beginning with the construction of the Tellico Reservoir in March of 1967, the University of Tennessee began a long term systematic survey and excavation of most of the Cherokee sites in the portion of the Little Tennessee River valley scheduled for inundation behind the Tellico Dam. During the period between 1967 and the closing of the dam in 1979, surveys, tests, and major excavations were done on most of the Cherokee sites. Work at the site of Tomotley (40MR5) began in 1967 (Milligan 1969a:13-25) and was continued in 1973 and 1974 (Guthe and Bistline 1978a) and again in 1976 (Baden 1983). Work was done at the Citico Site (40MR7) in 1967 and 1968 (King, Olinger and Salo 1969:26-84) and still later in 1978 (Chapman 1979). A small Cherokee component was excavated at the Starnes Site (40MR32) in 1967 (Milligan 1969b:166-178; Polhemus N.D.). Toqua (40MR6) was the subject of large scale excavations from 1975 through 1977 (Schroedl and Polhemus 1977; Polhemus 1987:12-15). Chota-Tanasee (4OMR2), recognized as the Cherokee capital, was excavated over a period of six field seasons, beginning in 1969 (Gleeson 1971; Newman 1977:3; Schroedl 1982, 1986:20-40). Additionally, excavations were conducted at the site of Mialoquo in 1976 and 1977 (Russ and Chapman 1983).

Previous Tuskegee Archaeology

Archaeological work at the site of Tuskegee (40MR4, 40MR24, and 40MR64) was begun in 1967 by University of Tennessee field crews in conjunction with the mitigation being done in anticipation of the flooding of the lower Little Tennessee River valley by the Tellico Dam. The initial work consisted of a surface reconnaissance and the excavation of several test pits on the second terrace between Fort Loudoun and the next ridge to the southeast (see Figure 108). Salo (1969:7-11) reported the results of the surface examination and three 10 ft. by 10 ft. test units, which were located approximately 300 yards from the south wall of the fort. As far as the location or verification of Tuskegee was concerned, the results were disappointing. One Cherokee rim sherd, a mortar bomb or grenade fragment, and several pieces of glass were recovered from the test excavations. These were the only materials recovered that could be used to support the eighteenth century Cherokee occupation of the area.

The Icehouse Bottom Site (40MR23), located during the 1967 season on the first alluvial terrace (Figure 108), was tested in 1969. Materials that could be assigned to the eighteenth century Cherokee occupation of the area included one Qualla Complicated Stamped sherd, two sherds of Overhill Plain and one harness boss (Gleeson 1970:7, 15, 18, 47, 48). The site consisted, predominately, of much earlier occupations as was clearly demonstrated by later excavations. During the 1976 and 1971 seasons at this site, one black glass barrel shaped bead was recovered that could be assigned to the eighteenth century (Chapman 1973:111). Except for the work reported at 40MR64 on this same terrace, later work in the Icehouse Bottom area failed to recover any additional historic materials (see Chapman 1977:13).

Continuation of the work on the first terrace on which the Icehouse Bottom site was situated was done by Chapman in 1975. The work consisted of a series of backhoe trenches on the first terrace approximately 2300 feet (700 m) downstream from the 1970 excavations at Icehouse Bottom. Three trenches were located near the edge of the first terrace where a small intermittent drainage that drains the back of the lower terrace joins the Little Tennessee River (Figure 108). This particular location was subsequently given

the site number 40MR64. One of the backhoe trenches bisected a large Cherokee pit feature (Chapman 1977:13, Figure 8).

Subsequent work in this area on the first terrace by University of Tennessee crews defined two pit features that could be assigned to the eighteenth century Cherokee occupation of this terrace (Guthe and Bistline 1978:64, Table 12). This assignment was based on three pottery types of the Overhill Series and two types of the Qualla Series, as well as numerous other eighteenth century historic artifacts (Guthe and Bistline
1978:87; Newman 1978c:111-115). Excavations for Tuskegee on the upper terrace at 40MR24 were also carried out during the 1975 field season. This work, consisting of extensive testing, revealed five features and two possible structures that could be assigned to the historic Cherokee occupations. The results of this excavation and the one at 40MR64 have been reported by Guthe (1978) and the artifactual materials have been described by Newman in the same report (Newman 1978c).

Tuskegee Documentation

The available historical documentation and the archaeological remains recovered by the Tennessee Division of Archaeology excavations and the University of Tennessee excavations that can be related to the Cherokee occupation of the area of Tuskegee are reasonably consistent. Both lines of evidence point to a Cherokee occupation beginning about 1757 and lasting through about October of 1776, or a span of no more than about 20 years. Documentation for the existence, or absence, of Tuskegee is in the form of various eighteenth century maps, certain accounts of that period, lists of towns, and various notes in the *South Carolina Gazette*.

There are at least three maps made prior to 1756 that show several of the Overhill Cherokee towns, but fail to show one with the name of Tuskegee. These maps include the George Hunter Map of 1730 (Williams 1928:542), the John Mitchell map of 1755 (Cumming 1968: Plate 59), and the DeBrahm map of the area between Fort Loudoun and Tomotley to the south of Fort Loudoun (Figure 3), which was based on the John Pearson survey of 1755 (Brown 1971). Two accounts of travels in the Overhill area during this period also fail to mention a town of Tuskegee. Colonel George Chicken visited the area in 1725 (Williams 1928:93-104) and Sir Alexander Cumming was there in 1730 (Williams 1928:122-143). Neither mentioned the town in question, but both noted several of the other Overhill Cherokee towns. Perhaps the most important document indicating that Tuskegee did not exist prior to 1755 is the DeBrahm map of the environs of Fort Loudoun. It is quite clear from a comparison of Figures 2 and 3 that the map is unquestionably accurate. To the point here, is some of the detail that is presented, in particular the houses and arrangement of Tomotley. The lack of any houses in the area of Tuskegee or the area immediately to the south of the fort is probably a good indicator that there were no houses present at that time.

The map does indicate a location of “Taskigee old Town” to the south of the fort and on the upper terrace. This is the area where the Indians had proposed the location of the fort and Raymond Demere believed would be more suitable than the location actually chosen. In all probability, this designation refers to a cleared area from a previous settlement in the same sense as “old Fields” or “Indian old Fields” were used to indicate locations of prior villages. This location may correspond to the location of the town of Tuskegee that Smith (1979:Table 4) lists for the period 1721-1725, although it is interesting that it is not listed by Colonel George Chicken or Alexander Cumming who were there during that time. It should also be pointed out that the actual location and shape of Fort Loudoun is shown on the DeBrahm map. This was probably done to show its location in relation to the King’s land and Tomotley, but this is certainly a later modification or addition to the original survey plat, since the location of the fort was not decided until after the arrival of the British troops in the area, or during the fall of 1756 (see Chapter 2).

John Stuart’s map (Figure 107) was probably produced in 1756 or 1757 while he was at Fort Loudoun commanding one of the provincial companies, or shortly thereafter. This map shows the location of Fort Loudoun and the other Cherokee towns in the valley, with the exception of Tuskegee which does not appear. This map is probably also a reliable indicator that there was not a village of Tuskegee near the fort at the time of the building of Fort Loudoun.

With the exception of the mention of “Taskigee old Town” on the map of the environs (Figure 3), the name does not regularly appear in other documents, or the correspondence from the fort. In one of

Raymond Demere's earliest letters written from the location of Fort Loudoun, he does not refer to Tuskegee, but indicates that he is writing "From the English Camp, one Mile and a half from the Town of Tomatly" (R. Demere to Lyttelton, November 13, 1756, SCIA:214). In later references in the correspondence and other documents, documentation for Tuskegee does not appear until after the fort was under construction in 1757, and in some cases the name appears to have been used synonymously with Fort Loudoun. For example it is listed as "Tuskegee (Fort Loudoun)" in 1757 (Wall to Tellico Indians, January 11, 1757, SCIA:317-319), and is listed in the *South Carolina Gazette* in 1760 as "Tuskee-ghi, or Fort Loudoun" (*South Carolina Gazette*, No. 1352, June 28-July 5, 1760). Other mentions of Tuskegee are scattered throughout the correspondence from Fort Loudoun for the period that it was garrisoned (see for example, Otossite to Demere, December 21, 1756, SCIA:277; and Cherokee Head Men to Governor of Virginia, December 21, 1756, SCIA:278). Interestingly, but perhaps due to its relatively small size or possibly its close association with Fort Loudoun, Tuskegee does not appear in Captain Christopher French's (1760-1761) account of the towns in the Cherokee country (French 1977:297-299).

Lieutenant Henry Timberlake's map (Figure 11) is the most definitive documentation for the existence of Tuskegee in the early 1760s. Timberlake produced this map in March 1762 during his 1761-1762 journey into the Overhill Cherokee area (Williams 1927). It shows the location of Fort Loudoun, the Virginia fort, and the several Cherokee towns that were in the valley. Tuskegee is represented by 17 triangles that presumably represent houses, and Timberlake indicates 55 warriors under the leadership of Attakullakulla. The portion of the map representing Tuskegee, now appears to be reasonably accurate, since the location of the line of three structures just to the south of Fort Loudoun was verified by the 1976 excavations. The three clusters of Cherokee houses and features that were defined by those excavations (described below) correspond very closely to the pattern on Timberlake's map (see Figures 6A, 6B, 11, and 108). The cluster of features and the one possible structure that was defined by the University of Tennessee excavations at 40MR24 (Guthe 1978) are probably the remains of one of the structures on the opposite end of the village from Fort Loudoun.

Assuming that the Timberlake map is correct, and that the archaeological remains recovered by the 1976 excavations and the University of Tennessee excavations in 1975 are in fact the remains of Tuskegee, and all factors indicate they are, it is clear that this settlement was dispersed over most of the bottom between Fort Loudoun and the next ridge to the south, and situated substantially within the area that was defined as King's Land (Compare Figures 3 and 108). At one point during the occupation of Fort Loudoun, Demere wrote to Lyttelton indicating that he had "fenced the 700 acres of land that were granted" (P. Demere to Lyttelton June 24, 1758, Clemments Library). It is possible that this fencing was along the southeastern boundary of the King's land, which ran from the Little Tennessee River to the Tellico River, a distance of some 9400 feet (2865 m) or about 1.8 miles (2.9 km). The remainder of the property was bounded by the Tellico and Little Tennessee Rivers. What this all means is unclear, except that it appears that the garrison was amenable to this settlement, and that there was no effort to prevent its establishment. Perhaps this settlement consisted initially of those Indians who were closely affiliated with members of the garrison.

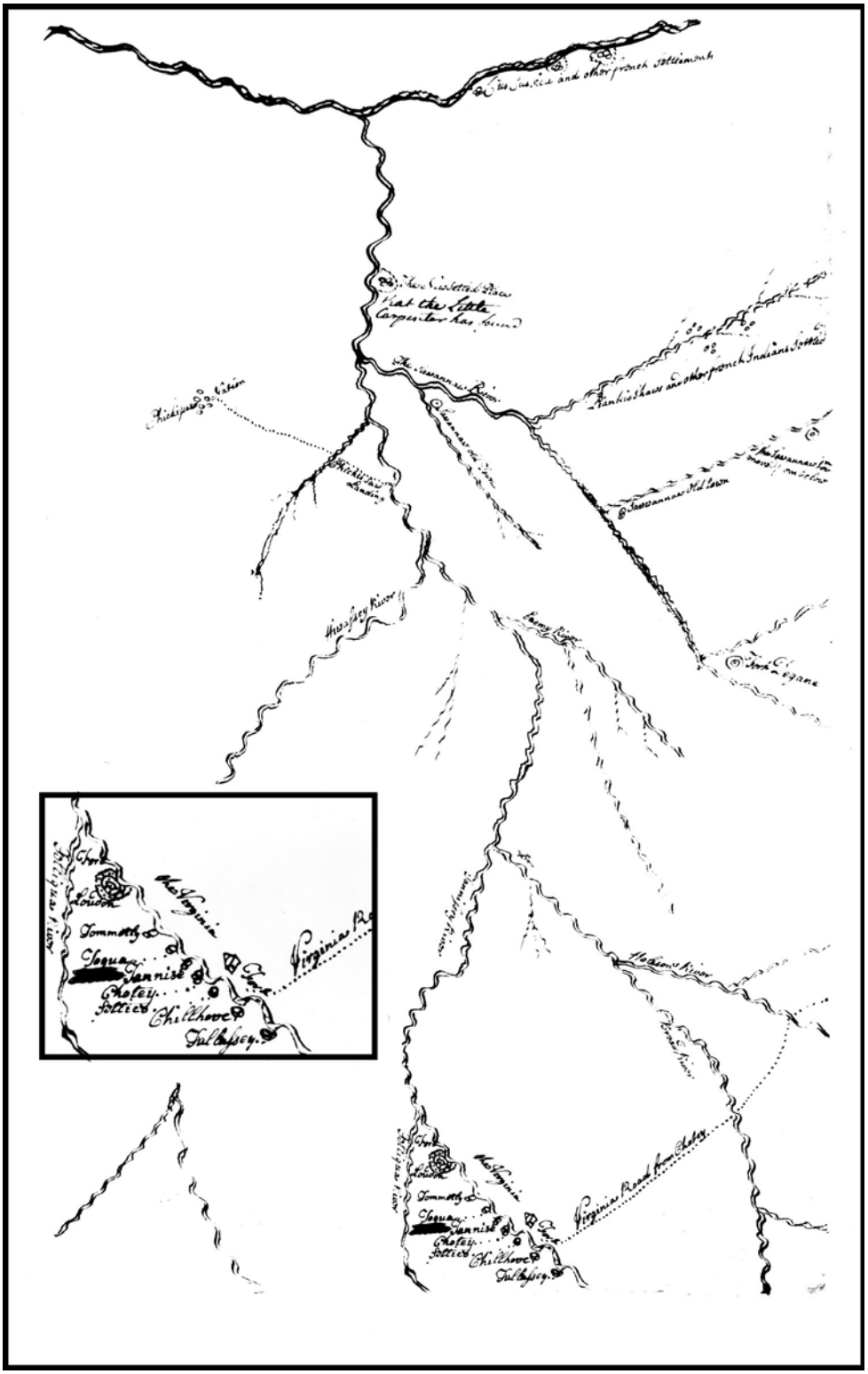

Figure 107. John Stuart's Map of the Cherokee Country about 1757. The inset shows an enlargement of Cherokee sites in the lower Little Tennessee River valley. Map enclosed in the William Henry Lyttelton Papers, William L. Clemments Library, University of Michigan. Published by permission of the William L. Clemments Library.

For the next 14 years after Timberlake's stay in the area, there is little, if any, information relating to Tuskegee. It next appears in the documentation in 1776, mostly as a result of the difficulties arising between the Watauga settlements and the Cherokee (see Kuttruff 1977; Evans 1977). That conflict in the same year ultimately lead to the destruction of Tuskegee. William Bartram documents the existence of Tuskegee in 1776 in a list of Cherokee towns for May, 1776, which includes Tuskegee (Bartram 1980:371-372). He did not visit that area, though, and therefore does not provide any details on that particular settlement. After the Cherokee attack on the Watauga settlements and Fort Watauga in early July of 1776, Mrs. William Bean and a boy named Moore were captured and taken to the Little Tennessee River valley towns. Mooney reported that the boy was burned, but that Mrs. Bean was saved by Nancy Ward (Mooney 1900:48). A note, probably by Kneberg, in a reprint of Haywood's *Natural and Aboriginal History of Tennessee* (1973:427, Note ii) states that Mrs. Bean and the boy were taken to Tuskegee. The description that is given of the location appears to be that of Tuskegee, namely a town just above the junction of the Tellico River with the Little Tennessee River, but, the description of Mrs. Bean being tied to a stake on the top of the mound sounds more like Toqua.

As a result of the conflict between the Cherokee and the Watauga settlements, a Virginia expedition was formed in that year to conduct a retaliatory raid into the Cherokee country. A force of some 2000 men led by Colonel William Christian left the Long Island of the Holston for the Cherokee country in August of 1776. They arrived in the Little Tennessee River valley about the middle of October, and finding it virtually deserted camped the night of the eighteenth at Tomotley. The following day they passed through the town of Tuskegee and set up a permanent camp at the Great Island Town (Mialoquo). Relevant to this discussion of Tuskegee is that this expedition burned five of the Cherokee towns, probably including Tuskegee, which had been earmarked for destruction because of its (possible) role in the burning of Moore there earlier in the year (Mooney 1900:50-51; Williams 1944:56-59; Christian to Governor Patrick Henry, October 23, 1776. VMHB XVII:61-64. See Russ and Chapman 1983:18 for a list of the towns burned). During this campaign, Christian produced a map showing several of the towns in the valley (Figure 14), but they are not named, and it is indefinite whether Tuskegee is one of those marked, although it is probably the one located at the junction of the Tellico and Little Tennessee Rivers.

The overall effect of this raid, which was only part of a more general conflict with the Cherokee over a several state area, was that the Little Tennessee River valley was effectively reduced in population and number of towns. It seems clear that Tuskegee no longer existed after that time. Although emphasizing Chota-Tanase, Schroedl (1986:12-16) provides a concise summary of the Cherokee in the valley from the 1760s through the end of the century. The best descriptions of the valley and its inhabitants near the end of the 1700s are from individuals coming into the valley and visiting at the Tellico Blockhouse. Important to this discussion of Tuskegee, is that several of those available accounts, which describe travel through the remains of Fort Loudoun and the area to the south of the fort, fail to mention the existence of any town. Benjamin Hawkins mentions passing through an old town of Tuskegee, but from his description and distance from Fort Loudoun he was probably talking about Tomotley (Williams 1928:372). Louis-Philippe describes one Indian house near the site of Fort Loudoun in 1797 (quoted in Chapter 2) but does not mention an adjoining town (Louis-Philippe 1977:81-94). Similarly, Abraham Steiner and Frederick C. DeSchweinitz who were in the area in 1799 described the area of Tuskegee as follows:

> ... flat land with amazingly extensive plains about us, covered with high grass. Of woods there is little on this side of the river, the more, however, on the other side. The plains are pretty good bottoms, partly more elevated, fertile land. Under the grass the earth was covered with strawberry plants. Here and there peach and wild apple trees may be seen (Williams 1928:470-471).

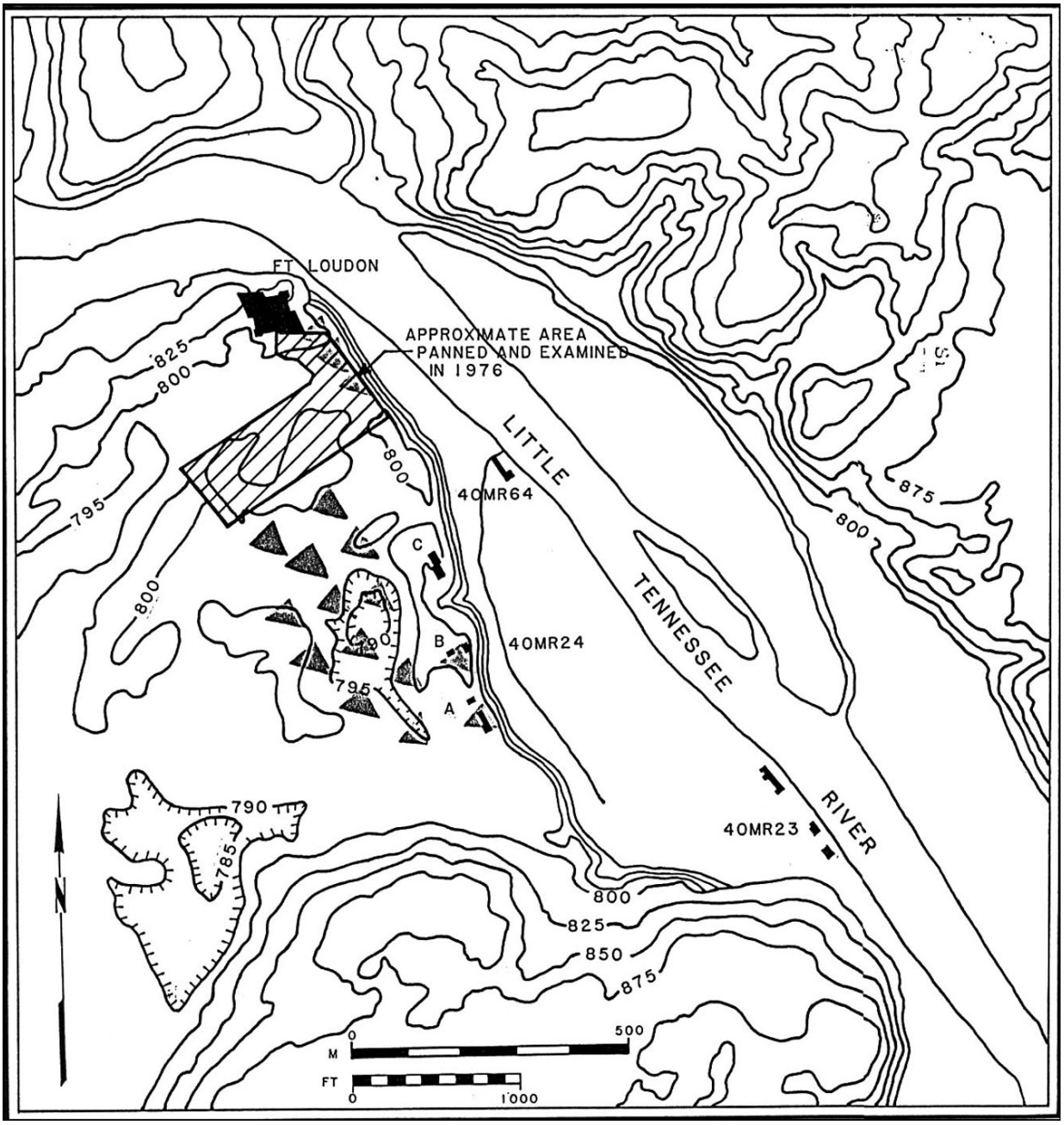

Figure 108. Map of the area of Fort Loudoun and Tuskegee showing the Tennessee Division of Archaeology and University of Tennessee excavations, and an overlay of a portion of the 1762 Henry Timberlake Map.

From the documentation and the archaeological evidence that was recovered by the several excavations in the Tuskegee area, it appears that Tuskegee was settled after the construction and occupation of Fort Loudoun. It probably went out of existence in 1776 after the Christian raid in the Little Tennessee River valley. The artifactual materials that were recovered do not contain any items that could clearly be dated prior to the mid-1750s, or to the last quarter of the eighteenth century.

1976 Excavations at Tuskegee

The 1976 excavations in the area of Tuskegee to the south of Fort Loudoun defined three Cherokee structures and some 19 features that were associated with those structures. Three clusters consisting of one structure and several Cherokee features were defined. They were relatively evenly spaced in a line near the river edge of the second terrace and corresponded remarkably well to the line of three structures that Timberlake's map shows just southeast of Fort Loudoun (Figures 6A, 6B, 11, and 108). The following sections present the structure and feature descriptions. The concluding portion of this chapter discusses the components of the three Cherokee household clusters and compares those with similar clusters at other Cherokee sites in the valley.

Structures

There is ample historical documentation describing eighteenth century Cherokee house and council house structures. It is not the purpose of this discussion to present that information, since it has been well summarized in several other reports (see Baden 1983:127-128; DeBaillou 1967; Polhemus 1973; and Schroedl 1986:217-228). Some of the most important historical accounts include: John Herbert in 1727 (Salley 1936); William DeBrahm of the mid-1750s (DeVorsey 1971); Henry Timberlake's account of 1761 and 1762 (Williams 1948); those of William Bartram (1980) and James Adair (1775) for the third quarter of the century; the journals of the Reverends Steiner and De Schweinitz (Williams 1928) and Louis-Philippe (1977) near the end of the 1700s; and John Norton's notes from 1809 and 1810 (Klinck and Talman 1970).

Equally important are the descriptions and illustrations of the numerous Cherokee structures that have been excavated in the Lower Little Tennessee River valley at the sites of Chota-Tanasee (Schroedl 1986:217-272), Toqua (Polhemus 1987:222-376), Milaquo (Russ and Chapman 1983:38-56), and Tomotley (Baden 1983:127-134; Guthe and Bistline 1978:17-43). Polhemus has established a structure typology for the Cherokee structures at Toqua that includes three different structural types (Polhemus 1987:321, Figure 5.3, 242-243). These include a Type 6 square structure with truncated corners and four main interior roof supports, a Type 7 circular structure with four interior roof supports and two subtypes of Type 8 elongate rectangular structures. The major difference between the two elongate subtypes is the presence of interior partitions in the subtype 8b. He has interpreted the Type 6 square structures as townhouses. The Type 7 circular structures have been interpreted as winter structures and the two subtypes, 8a and 8b, have been interpreted as summer dwellings (see Polhemus 1975; Schroedl 1986:263-270, Table 4.6). Additionally, circular townhouses have been defined, as well as other structures such as corn houses and hot houses.

Three Cherokee structures were defined in the excavated area to the south of Fort Loudoun, in addition to several other structures that were of Mississippian period occupation. Their assignment to the Cherokee occupation is based on their similarities to other demonstrably Cherokee structures excavated in the valley, closely associated groupings of Cherokee pit and other types of features, and their seeming correspondence of location to those on the Timberlake map.

Figure 109. Aerial photograph of the Fort Loudoun and Tuskegee area showing the landfill for Fort Loudoun and the pan-scraped area to the south of the fort. The landfill and rip-rap for part of the Tellico blockhouse is in the upper right of the photograph. TVA Photograph 7-130665, September 1976.

Rectangular Structures

Two rectangular Cherokee structures were defined (Figures 110 and 111). They were 6.5 m by 13.4 m and 4.5 m by 13.0 m. These are comparable to, although somewhat larger than, the two Type 8a Cherokee structures from Toqua (Polhemus 1987:231, Figure 5.3, 243, 362, Figures 3.18 and 5.6, 368, Figure 3.16) that were 3.0 m by 7.6 m and 3.7 m by 7.9 m. Eight rectangular Cherokee structures were defined at Tomotley (Baden 1983:128, Figures 3.6-3.10, Table 4.5). Those ranged in width from 3.4 m to 14.0 m and in length from 6.0 m to 16.1 m. At Mialoquo five rectangular Cherokee structures were excavated. Lengths varied from 6.7 m to 9.8 m, and widths from 3.7 m to 4.3 m (Russ and Chapman 1983:42-56, Figures 24-34). At the site of Chota-Tanasee numerous rectangular Cherokee structures of comparable type were defined and excavated (Schroedl 1986:228-270). Generally these have been interpreted as summer domestic dwellings, and are often paired with circular winter dwellings, particularly at the site of Chota-Tanasee. That was not the case in the excavated areas of Tuskegee, nor is that pairing present at Tomotley. Only one circular structure in possible association with two rectangular ones was present at the site of Mialoquo.

Structure V-8

Figures 6B and 110

Location: N72-84/E359-372

Shape: Irregular rectangle

Dimensions: Maximum length: 13.0 m (42.6 ft.); Maximum width: 4.5 m (14.7 ft.)

Floor Area: 58.5 sq. m (626.2 sq. ft.)

Orientation: The long axis was oriented 45 degrees east of north.

Observations: This structure was defined as an irregular rectangle, outlined by some 28 post molds. The post molds ranged in diameter from 11 cm to 33 cm, with most of them within the range of 15 cm to 27 cm. Although there were a number of post molds located within the walls of this structure, none appeared to have been from partition walls or platforms within the structure. In all probability most were the result of earlier prehistoric occupations in the same area. The west corner of this structure overlapped Structure V-7, a Mississippian period building. Several of the Cherokee post molds were clearly intrusive to the earlier Mississippian ones. There were no interior features in association with this Cherokee structure.

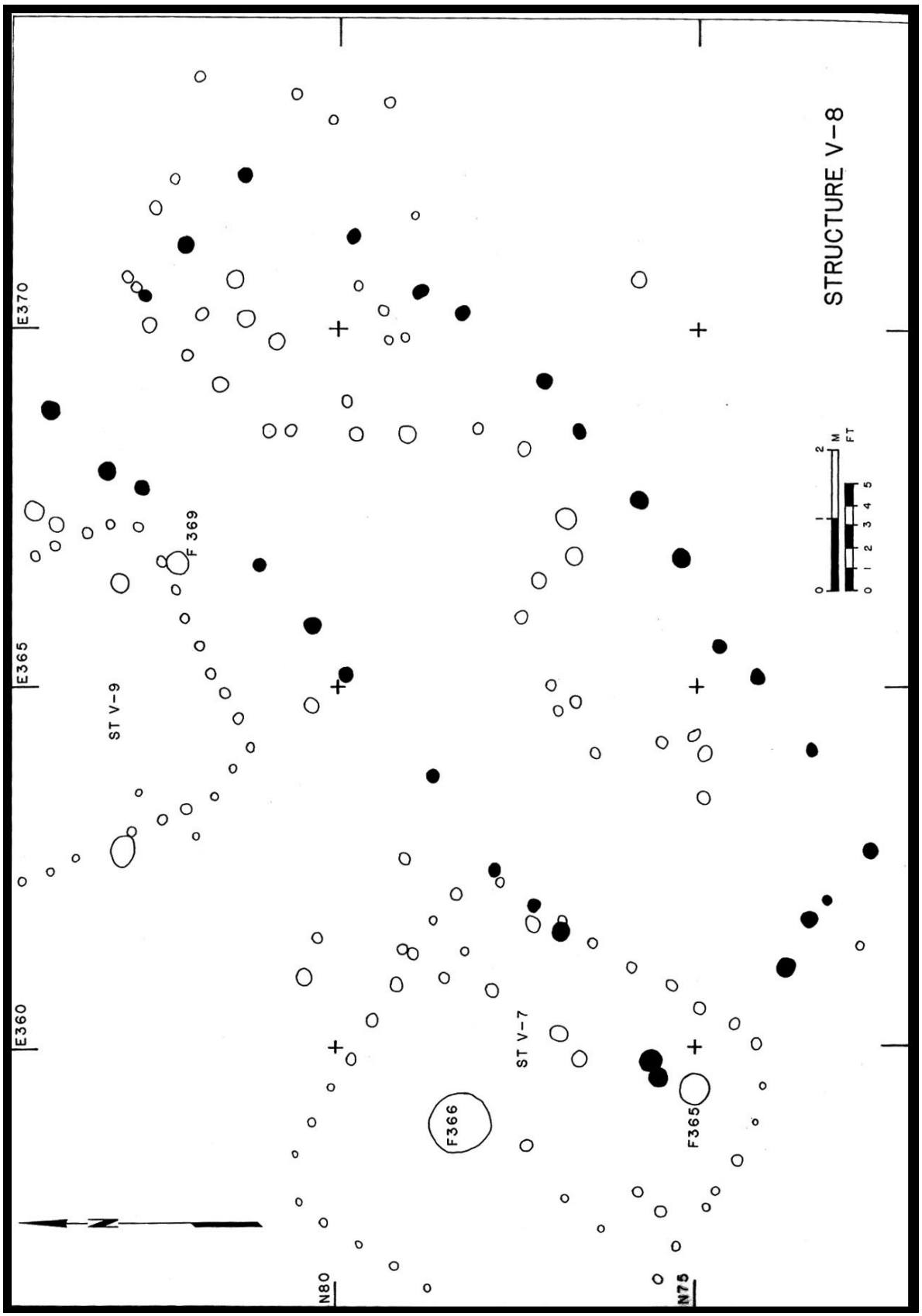

Figure 110. Plan of Structure V-8.

Structure V-11

Figures 6A and 111

Location: N155-169/E312-323

Shape: Irregular rectangle

Dimensions: Maximum length: 13.4 m (43.9 ft.); Maximum width: 6.5 m (21.3 ft.)

Floor area: 87.1 sq. m (935.1 sq. ft.)

Orientation: The long axis was oriented 25 degrees west of north.

Observations: This structure was defined by an irregular rectangular outline of at least 44 post molds. The post molds varied in diameter between 10 cm and 35 cm; post spacing along the north, west and south walls varied between 40 cm and 2 m. The east wall was less well defined, and had gaps between the posts of up to 4 m. Since most of the posts in this area were relatively shallow, having been truncated by plowing and archaeological removal of the plow zone and shovel skimming, it is assumed that the posts for this wall were in part gone, or otherwise went unrecognized. There did not appear to have been any interior partitions. Feature 270, a shallow bowl-shaped feature was located near the south wall of the structure.

Rectangular Structure with Rounded Corners

Only one structure of this type was defined in the Tuskegee area south of Fort Loudoun. That structure had a general overall appearance similar to the two Type 6 structures from Toqua with the rectangular form and rounded or truncated corners (Polhemus 1987:242,342-344, Figures 3.17, 3.18, 5.58, 5.59). They do differ significantly in the fact that the structure from Tuskegee has dimensions only about half those of the structures from Toqua, or about one-fourth the floor area. Additionally there were only two main interior support posts instead of the four that are associated with the Type 6 structures. At the nearby site of Tomotley there were several comparable structures that were attributed to the Cherokee occupations of that site. Those with the closest similarities are Structures 22, 27, and 32. All are rectangular in form with rounded corners, and Structure 32 appears to have two internal support posts located along the long axis of the building. The ones at Tomotley are somewhat larger, ranging in size from 7.7 m by 8.5 m to 8.5 m by 11.1 m, and in area from 65.5 sq. m to 94.35 sq. m (Baden 1983:129, Table 4.5, Figures 3.8, 3.11, 4.30, 4.35, 4.38). There were no comparable structures reported from either Chota-Tanasee (Schroedl 1986:228-270) or Milaquo (Russ and Chapman 1983:38-56).

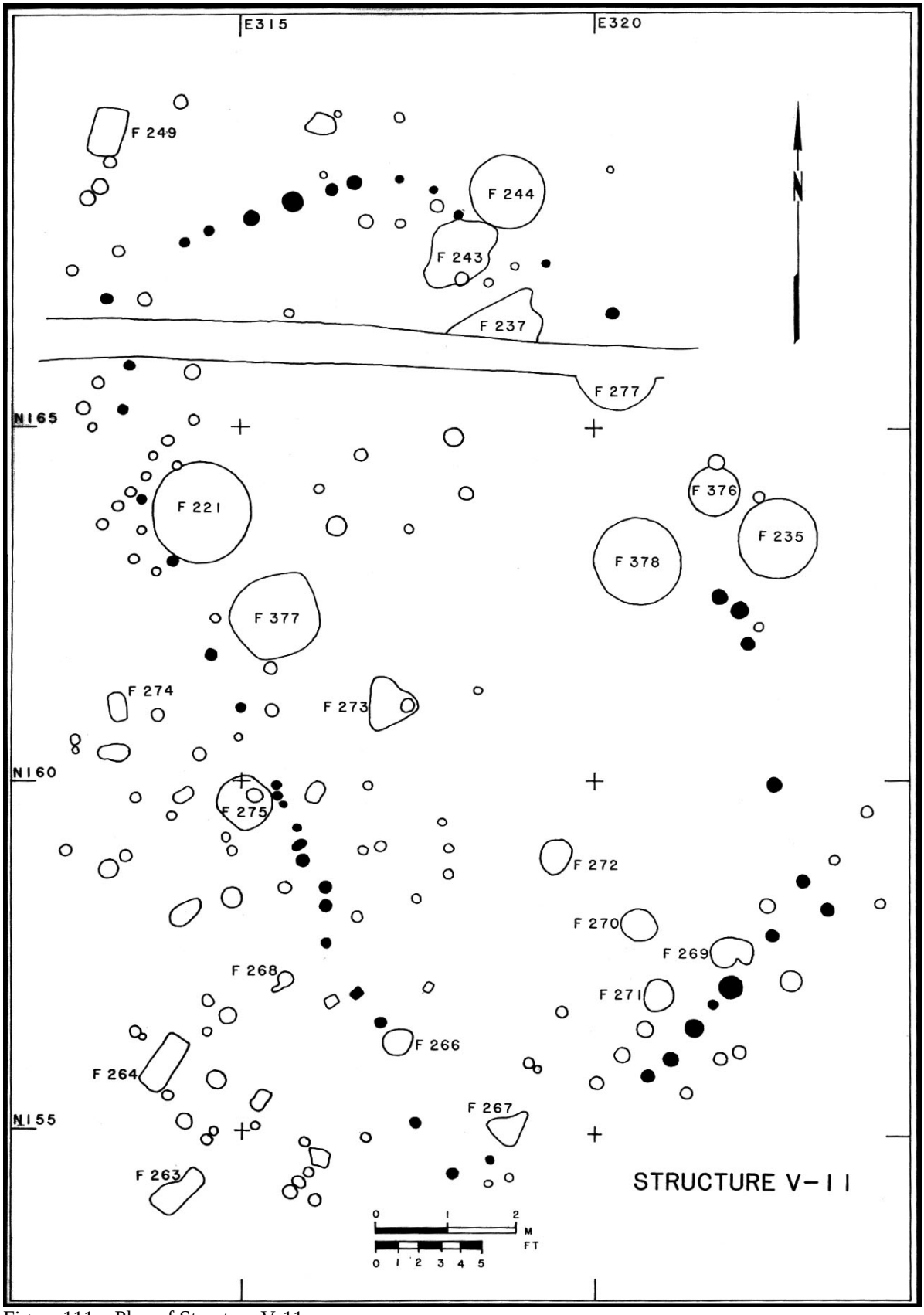

Figure 111. Plan of Structure V-11.

Structure V-4

Figures 6B and 112

Location: N106-115/E322-332

Shape: Rectangular with rounded or truncated corners.

Dimensions: Maximum length: 7.9 m (25.9 ft.); Maximum width: 6.2 m (20.3 ft.)

Floor area: 48.98 sq. m (525.77 sq. ft.)

Orientation: The long axis was oriented 50 degrees east of north.

Observations: This structure was defined by a relatively evenly spaced series of 54 post molds forming a rectangle with rounded corners. Post mold diameter ranged between 10 cm and 20 cm; the spacing between posts varied from 20 cm to 60 cm with most of them in the 50 cm range. There were two central support posts, 1.8 m apart, and 26 cm and 28 cm in diameter situated along the centerline of the long axis of the structure. Within the interior of the structure there were numerous post molds in the floor. Presumably many of these were for supporting sleeping or sitting platforms. Most clearly defined were the ones in the north and west corners (Figure 112), although it is probable that there were also platforms in the other two corners, and perhaps others along the walls. There was no clearly defined doorway, although the spacing between the posts near the center of the walls for the most part would have been adequate for an entranceway.

In addition to the structures just described which were excavated by the Tennessee Division of Archaeology in the area of Tuskegee, one probable Cherokee structure was excavated by a University of Tennessee crew in 1975. It was located in Excavation Area B on the edge of the second terrace approximately 600 m south of Fort Loudoun (Figure 108). That structure was outlined by 18 circular post molds forming and irregular rectangle approximately 3.0 m by 7.3 m, well within the range of many of the other rectangular Cherokee structures excavated in the valley (Guthe 1978:Figure 3). Closely associated were two Cherokee pit features. A cluster of post molds in Area C of those excavations in association with several Cherokee pit features, may have been the remains of another Cherokee structure, but one for which the evidence is not nearly so definitive (Guthe 1978:Figure 4). If the correlation of the Timberlake map and that of the present-day topographic map of this area is correct (Figure 108), then there is a close correspondence between excavation Area B and one of the locations that Timberlake shows for house structures.

Features

Nineteen features that were defined and excavated in the area to the south of Fort Loudoun were determined to have been of Cherokee origin. Although not nearly so numerous as at several of the other Cherokee sites excavated in the Little Tennessee River valley such as Chota-Tanasee (Schroedl 1986), Tomotley (Baden 1983), and Mialoquo (Russ and Chapman 1983), examples of comparable types of features were located at Tuskegee. The disparity in quantity of features is the product of at least two different factors. The first and most important is the relatively short term occupation of the site of Tuskegee of some 25 years at most, compared to the much more long term occupations at some of the other Cherokee villages. The second factor is the relatively smaller areas of excavation that were done at Tuskegee, when compared to some of the other excavations in the valley.

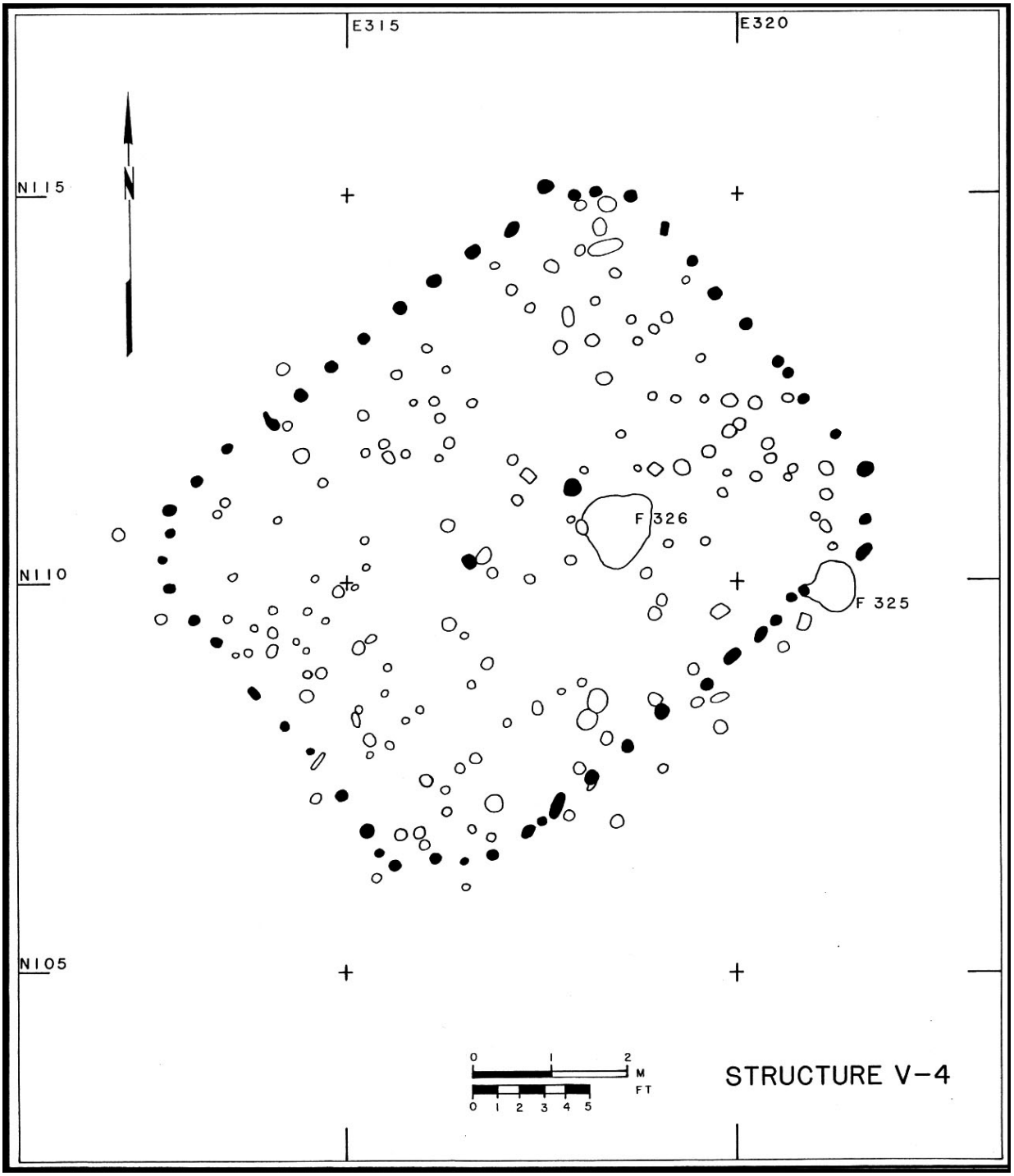

Figure 112. Plan of Structure V-4.

Two of the features were fire basins and a third that was given a feature designation was a burned area within a large refuse filled pit. The remainder were various pit features that can be divided into several different groups based on function and/or pit shape and size. One of the pit features was a burial pit, apparently excavated for that purpose only. Two rectangular pit features, with flat bottoms and with post molds in the bottom and/or a central fired area have been classified is hothouses. The remainder of the pits, regardless of their generally undetermined original use, appeared to have been use finally, if not solely, for refuse disposal. Eight of these were large circular to oval-shaped pits with insloping walls and either flat or

concave bases. Three were rectangular in plan with vertical walls and flat bottoms; and two other pit features were shallow oval bowl-shaped pits.

In addition to those features that were associated with the occupation of Tuskegee and excavated by this project, there are also the ones recorded by University of Tennessee projects in the area of Tuskegee. At 40MR24 on the upper terrace of the bottom south of Fort Loudoun (see Figure 108 and Guthe 1978:13-17, Figures 1-4) there were six features excavated that were of definite Cherokee origin, and five others which contained either historic materials or Cherokee ceramics. The types of features included large refuse filled features, basin shaped pits, a rectangular pit with two posts in the base and one burial pit. At 40MR64 on the river edge of the lower terrace (Figure 108; Guthe 1978:61-63, Figure 5, Table 12) there were two features of definite Cherokee origin, and another one which probably was. One was a large oval pit with insloping sides and an irregular bottom. The second was a small rectangular pit that had been filled with refuse, and the third was a small vertical walled oval pit.

Large Circular and Oval Refuse Filled Pits

Of the 19 features that were assigned to the Cherokee occupation, nine were large circular to oval pits (The two pits of Feature 190 were given the same number). As a group, these were the largest features in the sample and contained the highest quantities of artifactual materials (see Table 125). In form they were generally circular to oval in plan; four were deep bowl-shaped in section; three had vertical walls and flat bottoms; and the last had slightly bell-shaped walls and a flat bottom. Horizontal dimensions varied from 100 cm by 60 cm (Feature 376) to a maximum of 3.60 m by 2.75 m (Feature 190, Pit A). Defined depths below the plow zone ranged from 32 cm (Feature 311) to 1.10 m (Feature 317). However, all but two were 44 cm or more deep. Five of the pits, generally the deeper ones, were definitely stratified, and two others had some variation in the fill. Artifact counts ranged from a low of 27 (Feature 376) to a maximum of 1260 for both pits of Feature 190. With the exception of Feature 376, all had counts above 300 artifacts, and two individual pits had counts above 900 (Features 356 and 367). As a group they contained 4933 or approximately 94 percent of the total of 5268 artifacts from all of the Cherokee features. With the possible exception of the bell-shaped pit, which suggests a storage pit, the original function of most of the features was not determined. Schroedl (1986:85-90) presents a discussion of the problems of assigning original function, and the possible stages of feature use and change. However, regardless of the original use of these large pit features, most appeared to have been finally used for refuse disposal, if that was not, in fact, their original function.

In general, these large circular and oval refuse filled pits are the most common form of Cherokee pit features and are well represented in other excavated areas of Tuskegee (Guthe 1978:Table 1). Additionally they have been found at all of the other Cherokee sites in valley, including Chota-Tanasee (Schroedl 1987:47-55), Tomotley (Baden 1983:103, Tables 4.4 and 4.6, Figure 4.23), Mialoquo (Russ and Chapman 1983:21-27, Table 2), and Toqua (Polhemus 1987:164).

Feature 190 (Pit Feature)

Figures 6A, 113A, and 118

Location: N180.00/E320.60 (in the base of the southeast most extension)

Shape: Two adjacent oval pits. Both were bowl shaped in section.

Dimensions: Pit A Horizontal: 3.60 m by 2.75 m. Defined depth: 50 cm.
Pit B Horizontal: 3.25 m by 2.70 m. Defined depth: 45 cm.

Fill and Stratigraphy: The fill of the two portions of this feature were quite similar. Basically there were two stratigraphic zones in each of the two pits. Zone A, which varied in thickness from 15 cm to 25 cm extended over the area of both of the pits. It consisted of a dark brown loam with numerous Cherokee and some historic artifacts in the fill. Zone B in both of the pits consisted of a clay fill that was mottled with brown loam that graded into the yellow subsoil. The only distinguishing difference between Zone B in the two pits was that Zone B in Pit A contained relatively more artifacts than did that of Pit B.

Observations: This feature was encountered in the base of the southeastern fort ditch extension during the backhoe clearing of that section (see Figures 44 and 118). It was initially defined as a large contiguous oval area, and it was not until excavation of the fill had begun was it realized that it consisted of two pits. The easternmost of the two pits, Pit B, appeared to have been cut into the eastern edge of Pit A. There seemed to have been a concentration of historic artifacts (other than Cherokee ceramics) on the contact line between the two zones of fill in these pits. It appears as if these pits had been excavated (Pit B somewhat later than Pit A), and then partially filled. The second episode of filling began with the disposal of historic period materials on the top of Zone A, and then the remainder of the feature was then filled with refuse containing large quantities of historic materials. Since the feature was only defined at the base of the ditch after clearing by the backhoe, it was not possible to define the exact relationship of the fort ditch and the feature. There was no information on the stratigraphic relationship of the pit and the ditch that would indicate whether the pit was excavated while the ditch was in use, or after the abandonment of the fort. The cluster of Cherokee features and one structure to which this pit belongs is located in the area within and adjacent to the southeast ditch extension and the southeast corner of the ditch, in close proximity to the fort. It is perhaps doubtful that Cherokee occupation would have been so close to the fort during its occupation by the British. It is probable that this area may have been occupied by Cherokee immediately after the fall of the fort, or at least prior to 1762, if one assumes that this cluster is the one closest to the fort shown on Timberlake's map of that year (see Figure 11).

Table 106. Artifacts associated with Features 190-A and 190-B.

Artifact	Quantity
Overhill Plain	614
Overhill Checked Stamped	18
Overhill Rectilinear Stamped	114
Qualla Plain	1
Qualla Rectilinear Stamped	5
Dark green round beverage glass	3
Dark green square beverage glass	1
Brass kettle lug	1
Rose head nail	1
Indeterminate nails	3
Brass sheet scraps	5
Sheet iron scraps	108
Musket ball	1
Axes	3
Tool socket	1
Group 6 buckles	2
IIa7 bead	1
White clay pipe fragment	1
Animal bones	5
Prehistoric sherds	118
Lithic artifacts	10
Lithic waste materials	244
Total	1260

Feature 311 (Pit Feature)

Figures 6B, 113B, and 119

Location: N111.60/E318.40

Shape: Circular in plan with insloping walls and a concave base.
Dimensions: Diameter: 1.67 m. Defined depth: 32 cm.

Fill and Stratigraphy: The fill of the feature consisted of dark clayey midden. No internal stratigraphy was defined.

Observations: This feature was a Cherokee pit associated with Structure V-4 in Cluster 2. The assignment to the Cherokee occupation was made on the basis of the quantities of Cherokee ceramics and other historic artifacts. This feature is interpreted as an exterior refuse pit associated with the nearby Cherokee structure.

Table 107. Artifacts associated with Feature 311.

Artifact	Quantity
Overhill Plain	153
Overhill Checked Stamped	11
Iron brace with angled ends	1
Animal bones	11
Prehistoric sherds	94
Lithic waste materials	98
Total	368

Feature 317 (Pit Feature)

Figures 6B, 113C, and 119

Location: N107.00/E333.60

Shape: Oval in plan and bowl shaped in section

Dimensions: Horizontal: 1.95 m by 1.85 m. Defined depth: 1.10 m.

Fill and Stratigraphy: There were three stratigraphic zones defined in the feature fill (Figure 113C). Zone A consisted of a dark brown loam with Cherokee ceramics and other historic materials, approximately 20 cm thick across the top of the feature. Zone B was separated from Zone A by a hearth area and a scatter of ash (Feature 318), which was on top of the Zone B fill. Zone B was a dark loam containing quantities of historic materials, similar to Zone A. Zone B had a maximum thickness of 45 cm, and was separated from Zone C by another lens of ash that rested on the top of the Zone C fill. Zone C consisted of dark loam that was heavily mottled with yellow clay, which contained large quantities of historic and Cherokee artifacts. At the base of the pit there was a burned area where the subsoil had been fired, which had an associated ash and charcoal deposit.

Observations: This was a large Cherokee pit that was associated with Structure V-4 in the second cluster of Cherokee features and one structure. It had several episodes of burning and filling as indicated by the internal stratigraphy. After the original excavation of the pit, a fire had been built at the base of the pit. This was followed by a lens of fill (Zone C), burning on the top of that fill, and two subsequent zones of fill separated by an episode of burning within the pit. The feature is interpreted as having been a refuse disposal facility located to the southeast of Structure V-4.

Table 108. Artifacts associated with Feature 317.

Artifact	Quantity
Chinese porcelain	1
Overhill Plain	131
Overhill Check Stamped	26
Rose head nail	1
Indeterminate nail	1
Sheet iron scrap	1
Group 1, Type 2 buckle	1
Animal bones	29
Prehistoric ceramics	62
Lithic artifacts	2
Lithic waste materials	108
Total	363

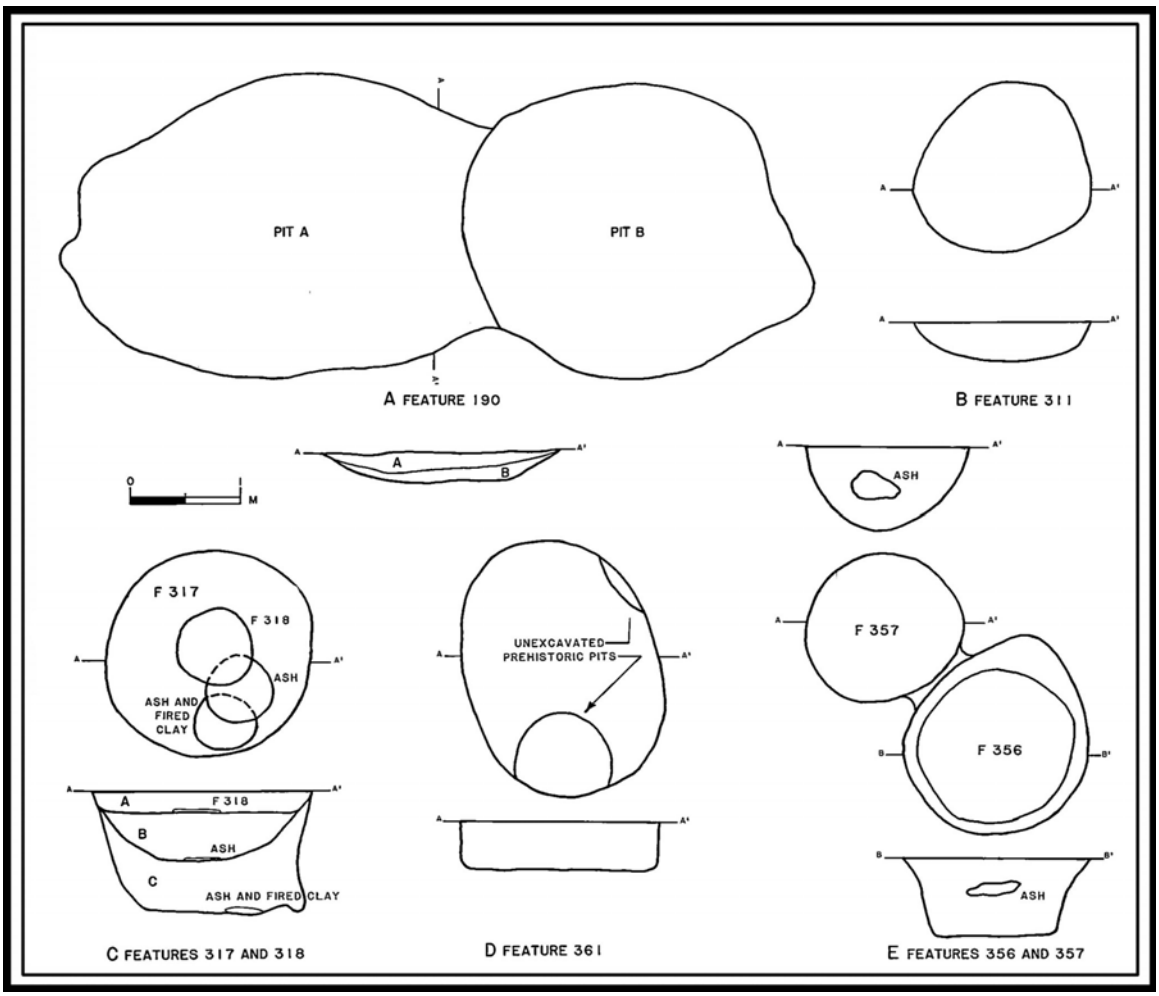

Figure 113. Plans and profiles of selected Cherokee pit features.

Feature 356 (Pit Feature)

Figures 6B, 113E, and 120

Location: N71.00/E355.00

Shape: Circular in plan with relatively straight walls and a flat bottom.

Dimensions: Diameter: 1.90 m. Defined depth: 68 cm.

Fill and Stratigraphy: The fill of the feature was a relatively homogeneous dark brown loam with charcoal scattered throughout. About halfway down in the feature there was a discrete area of ash, but no burning of the surrounding area.

Observations: This was one of a pair of large Cherokee pits that were located just southwest of Structure V-8. They were intrusive to, and within an earlier Mississippian structure. Features 356 and 357 probably functioned as refuse pits in association with Structure V-8.

Table 109. Artifacts associated with Feature 356.

Artifact	Quantity
White saltglaze	3
Delftware	9

Table 109. Artifacts associated with Feature 356.

Artifact	Quantity
Lead glazed slipware	1
Overhill Plain	286
Overhill Checked Stamped	4
Dark green round beverage glass	3
Dark green square beverage glass	1
Lead plugs	2
Rose head nails	3
T-head nails	4
Square head nail	1
Indeterminate nail	2
Brass sheet scraps	4
Lead spatters	26
Spall gunflints	3
Blade gunflints	2
Musket balls	2
Musket shot	19
Silver stud	1
Silver earring	1
Finger ring	1
IIa7 beads	4
IIa14 beads	6
WIc_ (black) beads	5
WIc_(turquoise) bead	1
WIc1 bead	1
Iva_ (white over ivory) beads	6
Silver cross	1
Mirror fragments	3
White clay pipe fragment	1
Saddle brace	1
Harness buckles	2
Spur	1
Animal bones	249
Prehistoric sherds	144
Lithic artifact	1
Lithic waste materials	172
Total	976

Feature 357 (Pit Feature)

Figures 6B, 113E, and 120

Location: N71.60/E353.40

Shape: Circular in plan and bowl shaped in section.

Dimensions: Diameter: 1.35 m. Defined depth: 75 cm.

Fill and Stratigraphy: The fill consisted of a brown sandy loam or midden that was relatively homogeneous throughout, except for a deposit of ash and charcoal near the center of the pit and about halfway down in the fill.

Observations: This feature was adjacent to Feature 367 and was also intrusive to a Mississippian house structure. Feature 356 was intrusive to the west side of this feature. As with Feature 356, this feature was probably a refuse pit associated with Structure V-8 and Cluster 3. The configuration of a pair of refuse pits,

one slightly earlier than the other, adjacent to a house structure is similar to the pattern noted in Cluster 1 with Structure V-11 and the associated Feature 190, which has been described previously.

Table 110. Artifacts associated with Feature 357.

Artifact	Quantity
Overhill Plain	255
Overhill Checked Stamped	3
Light blue-green round beverage bottle fragment	1
T-head nail	1
Indeterminate nail	2
Brass sheet scrap	1
Sheet iron scraps	1
Piece of indeterminate iron	1
Musket breech plug tang	1
Escutcheon plate	1
Musket shot	1
IIa14 beads	2
Mirror fragments	7
Bit	1
Animal bones	92
Prehistoric sherds	180
Lithic artifact	1
Lithic waste materials	359
Total	910

Feature 361 (Pit Feature)

Figures 6B, 113D, and 120

Location: N89.20/E379.40

Shape: Oval in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 2.39 m by 1.60 m. Defined depth: 44 cm.

Fill and Stratigraphy: The fill consisted of a dark brown loam or midden that was mottled with yellow subsoil clay. There was no internal stratigraphy defined.

Observations: This feature, interpreted as a Cherokee refuse pit, was located outside the eastern end of Structure V-8 in Cherokee Cluster 3. The pit was intrusive to two earlier features that were either Woodland or Mississippian. These remained unexcavated.

Table 111. Artifacts associated with Feature 361.

Artifact	Quantity
Overhill Plain	168
Overhill Checked Stamped	154
Dark green round beverage glass	1
Dark green square beverage glass	1
Rose head nails	3
T-head nails	1
Curtain ring	1
Brass sheet scrap	1
Spall gunflint	1
Group 1, Type 2 buckle	1
Group 2, Type 3 buckles	2
Thimble	1

Table 111. Artifacts associated with Feature 361.

Artifact	Quantity
Silver brooch	1
Animal bones	19
Prehistoric sherds	60
Lithic artifacts	3
Lithic waste materials	305
Total	723

Feature 375 (Pit Feature)

Figures 6B, 114A, and 119

Location: N101.50/E348.5

Shape: Elongated oval in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 2.20 m by 60 cm. Defined depth: 35 cm.

Fill and Stratigraphy: The fill consisted of four zones or lenses within the pit. Zone A was a light brown sandy clay that was mottled with pieces of yellow clay and flecked with charcoal. Zone B was a small pocket of the same material with a higher yellow clay content. Zone C, which generally separated Zones A and D, consisted of a lens of wood charcoal, burned cane, and charred acorns. Zone D was a grey to brown sandy loam with some charcoal and burned limestone throughout.

Observations: This was probably some sort of Cherokee roasting pit that was associated with Cluster 2. The fill within the pit represents several episodes of use and fill, with at least one representing the use of the feature as an acorn roasting pit (Zone C). In form, and probably function, this pit is similar to Feature 364 in Cherokee Cluster 3.

Table 112. Artifacts associated with Feature 375.

Artifact	Quantity
Overhill Plain	43
Overhill Checked Stamped	1
Dark green round beverage bottle fragments	2
Type 2 clasp knife bolster	1
Beaked back clasp knife blade	1
Rose head nails	5
T-head nails	17
Tacks	2
Indeterminate nails	4
Light strap hinge fragments	3
Lock casing fragments	2
Indeterminate iron	1
Spall gunflint	1
Musket ball	1
Buckle backs	3
White clay pipe fragments	5
Stone pipe	1
Harness buckle	1
Prehistoric sherds	147
Lithic artifacts	2
Lithic waste material	62
Total	305

Feature 376 (Pit Feature)

Figures 6B, 114B, and 120

Location: N68.40/E366.60

Shape: Oval in plan and slightly bell shaped in section.

Dimensions: Horizontal: 100 cm by 60 cm. Defined depth: 50 cm.

Fill and Stratigraphy: The fill consisted of a homogeneous dark brown loam or midden. No internal stratigraphy was defined.

Observations: This pit was located south of Structure V-8 and may have originally been some sort of storage facility that was later used for refuse disposal.

Table 113. Artifacts associated with Feature 376.

Artifact	Quantity
Overhill Plain	25
Prehistoric sherd	1
Lithic waste	1
Total	27

Rectangular Refuse Filled Pits

Three of the Cherokee pit features were rectangular in plan with vertical walls and relatively flat bottoms. As a whole they were smaller than the previous grouping of oval refuse filled pits, and contained less refuse. They are similar in form to comparable features that have been found elsewhere in the valley on Cherokee sites (see Russ and Chapman 1983:27-29; Schroedl 1986:55-57, Figures 2.16 2.18).

Feature 314-A (Pit Feature)

Figures 6B, 114C, and 119

Location: N123.40/E344.20

Shape: Rectangular in plan with insloping walls and a flat bottom.

Dimensions: Horizontal: 1.50 m by 1.02 m. Defined depth: 23 cm.

Fill and Stratigraphy: The fill of this pit consisted of a dark brown loam with only a few artifacts. No internal stratigraphy was defined in the Cherokee portion of this feature.

Observations: This feature was originally defined as one pit; however, upon excavation it was clear that part of the feature consisted of a Mississippian period pit (Feature 314-B) that had been intruded by a shallow basin-shaped pit of Cherokee origin (Feature 314-A). Feature 314A was assigned to the Cherokee occupation on the basis of the stratification and the presence of cow bones in the fill. It is similar in form, and perhaps function, to Feature 315. This feature was probably a refuse pit associated with the second Cherokee cluster centered around Structure V-4.

Table 114. Artifacts associated with Feature 314-A.

Artifact	Quantity
Animal bones	4
Lithic artifact	1
Total	5

Feature 315 (Pit Feature)

Figures 6B, 114E, and 119

Location: N117.00/E322.00

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 160 cm by 80 cm. Defined depth: 30 cm.

Fill and Stratigraphy: The fill consisted of an homogeneous dark brown clayey midden. No internal stratigraphy was defined.

Observations: This feature was assigned to the Cherokee occupations on the basis of Cherokee ceramics and the presence of domesticated animal bones, namely that of cow. It is similar in form and probably function to Feature 314-A and is part of the cluster of features that is centered on Structure V-4.

Table 115. Artifacts associated with Feature 315.

Artifact	Quantity
Overhill Mat Impressed	18
Animal bones	7
Prehistoric ceramics	12
Lithic artifact	1
Lithic waste materials	25
Total	63

Feature 364 (Pit Feature)

Figures 6B, 114D, and 120

Location: N90.80/E380.80

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 170 cm by 55 cm. Defined depth: 10 cm.

Fill and Stratigraphy: The fill consisted of an homogeneous dark brown loam that was mottled with yellow clay.

Observations: The floor of this feature had been heavily fired in places, primarily near the center, and the floor was flecked with considerable quantities of charcoal. Its exact function is unknown, although it was probably used as some sort of cooking or roasting facility. The lack of a thick lens of ash or charcoal probably indicates that the feature was cleaned out after use. The absence of any quantity of refuse seems to indicate that it was not used secondarily as a refuse pit. It is assigned to the Cherokee occupation on the basis of one nail, one glass bead, and its association with Cluster 3.

Table 116. Artifacts associated with Feature 364.

Artifact	Quantity
T-head nail	1
IIa14 bead	1
Animal bone	1
Prehistoric sherds	11
Lithic waste materials	9
Total	23

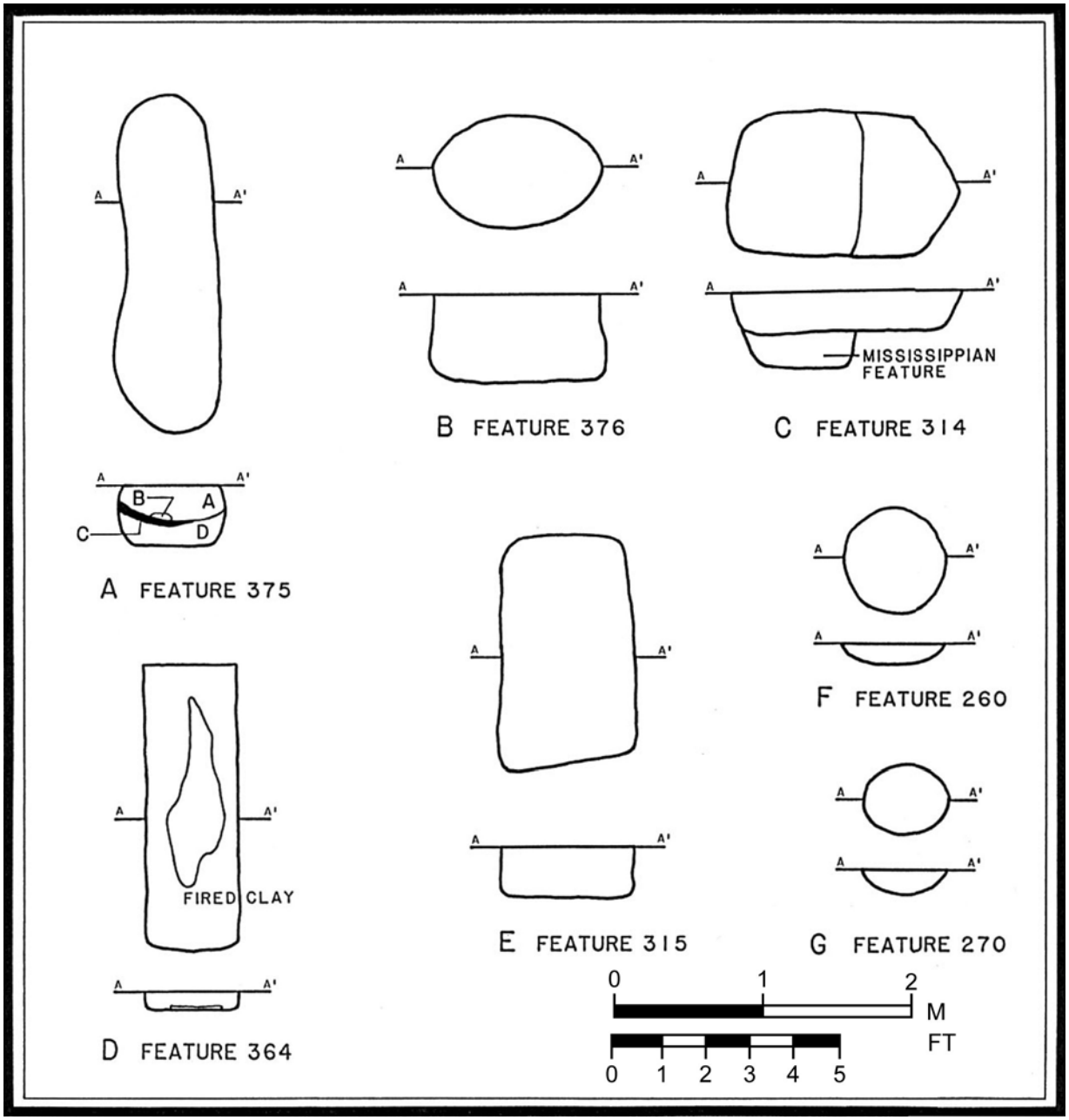

Figure 114. Plans and profiles of selected Cherokee pit features.

Bowl-Shaped Pit Features

Two oval bowl-shaped pit features were identified as having been Cherokee in origin. Both were located in Cluster 1 in association with Structure V-11. Artifact contents were sparse. Comparable features have been recognized as a minority type of pit feature at other Cherokee sites in the valley such as Chota (Schroedl 1986:5762) and Tomotley (Baden 1983:103). The ones that were recovered at Tuskegee were generally smaller than those at the other sites, and appear to have been a different class of features from the larger refuse filled pits. In general, the Tuskegee refuse filled pits have much lower artifact counts.

Feature 260 (Pit Feature)

Figures 6A, 114F, and 118

Location: N154.60/E310.50

Shape: Slightly oval in plan with concave walls and a nearly flat bottom.

Dimensions: Diameter: 62 cm. Defined depth: 13 cm.

Fill: The fill consisted of dark brown loam mottled with a light clay. No internal stratigraphy was defined within the feature.

Observations: This was a small pit located to the west of Structure V-11. It was assigned to the Cherokee occupations on the basis of one Overhill Plain sherd, one nail fragment, and one piece of pearlware. It is associated with Cluster 1 of Cherokee features and the Cherokee structure in this area, although the pearlware sherd tends to put its use considerably later than is expected for this cluster. It is quite possible that this feature was associated with a later occupation in this area, and quite possibly with the structure that was described by Louis Philippe in 1797 (see Chapter 2). This latter association is suggested by the pearlware sherd which should date after about 1780 (South 1972).

Table 117. Artifacts associated with Feature 260.

Artifact	Quantity
Pearlware	1
Overhill Plain	1
Indeterminate Nail	1
Prehistoric sherds	5
Lithic artifacts	2
Lithic waste materials	8
Total	18

Feature 270 (Pit Feature)

Figures 6A, 114G, and 118

Location: N158.00/E320.70

Shape: Oval in plan and bowl-shaped in section.

Dimensions: Horizontal: 40 cm by 50 cm. Defined depth: 15 cm.

Fill and Stratigraphy: The fill consisted of a dark loam with relatively few artifactual materials. No internal stratigraphy was defined.

Observations: This was a shallow pit feature that was located within and near the southern end of Structure V-11, the Cherokee structure associated with Cluster 1. Presumably it was some sort of interior storage feature. There was no evidence to indicate it was used as a heating or cooking facility.

Table 118. Artifacts associated with Feature 270.

Artifact	Quantity
Indeterminate nail	1
Lithic waste materials	10
Total	11

Pit Hothouses

This class of features, which appears to be unique to the Cherokee occupations of the valley, were defined only in Cluster 3. They are generally comparable to similar features from most of the other Cherokee sites in the valley. Both of these features were rectangular in form, but in general they can vary from nearly circular to oval, to square or rectangular. Numerous examples of these features are known from Chota-Tanasee (Schroedl 1978:67-77, Figures 2.35-2.42), Mialoquo (Russ and Chapman 1983:29-31, Figures 18 and 19), Tomotley (Baden 1983:103, Figure 4.21), Toqua (Polhemus 1987:178), and one from the University of Tennessee excavations in the another part of the Tuskegee area to the south (Guthe 1978:14,Table 1, Plate 2). It has been suggested in Chapters 5 and 6 that Feature 44 within Structure 1 may also have served as a hothouse facility. The defining, characteristics seem to be the post molds for two support posts in the base of the feature, and evidence for burning on the floor of the feature. While some refuse was present in the pits, the nature of the fill did not seem to indicate a primary function of refuse disposal after cessation of use as a hothouse.

Feature 352 (Pit-Hothouse)

Figures 6B, 116A, and 120

Location: N78.60/E350.40

Shape: Rectangular in plan with vertical walls and a flat bottom.

Dimensions: Horizontal: 2.05 m by 1.85 m. Defined depth: 40 cm.

Fill and Stratigraphy: The fill consisted of a homogeneous dark brown loam that got progressively lighter toward the bottom of the feature. No stratigraphy was defined within the fill.

Observations: This feature was located to the west of Structure V-8 in Cluster 3 of the Cherokee occupation. The floor of the feature was covered with a thin layer of sand, and in the center of the floor there was a burned area. This feature is similar to Feature 358 located to the east of Structure V-8. Both are interpreted as hothouses or sweat houses that were associated with the nearby structure. Similar features have been excavated at other Cherokee sites in the valley. These include ones at Chota-Tanasee (Polhemus 1975:152, Figure 7; Schroedl 1986:72-77), Tuskegee (Guthe 1978:Figure 2, Plate 2), Tomotley (Baden 1983:Figure 4.21), Mialoquo (Russ and Chapman 1983:29-31, Figure 19). Although this feature certainly had the same function as Feature 358 and the ones referenced from Chota and the other Cherokee sites in the valley, it lacked the paired posts in the base of the pit. A similar function has also been noted for Feature 45, which was associated with Structure 1 within the fort (see Chapters 5 and 6). Polhemus provides a description and possible reconstruction for one of these facilities (1975:151, Figure 7). They are interpreted as having two uprights supporting a roof pole. That, in turn, supports an earth covered A-frame roof structure.

Table 119. Artifacts associated with Feature 352.

Artifact	Quantity
Overhill Plain	5
Rose head nails	2
Musket sear	1
Animal bones	8
Prehistoric ceramics	54
Lithic waste materials	19
Total	89

Feature 358 (Pit-Hothouse)

Figures 6B, 115, 116B, and 120

Location: N86.00/E375.80

Shape: Rectangular in plan with vertica1 walls and a flat bottom.

Dimensions: Horizontal: 1.85 m by 1.65 m. Defined depth: 25 cm.

Fill and Stratigraphy: The fill consisted of a dark brown loam or midden that was mottled with grey sand and some charcoal near the base of the feature.

Observations: This feature is similar to Feature 352 and is also interpreted as a Cherokee hot house. It is similar in plan to that feature and has a comparable fired area on the center floor of the pit. Additionally, there were post molds at either end of the base of the feature, similar to the features from other Cherokee sites in the valley that were discussed with Feature 352. On the burned portion of the floor there were a number of pieces of burned limestone and charcoal. Charcoal was present on the floor of the feature around the edge of the hearth area and scattered over the remainder floor in lesser quantities. This feature was associated with the Cherokee features and Structure V-8 in Cluster 2.

Table 120. Artifacts associated with Feature 358.

Artifact	Quantity
Overhill Plain	1
T-head nail	1
Hinge	1
Staple	1
Iron ring	1
Sheet iron scrap	1
Blade gunflint	1
Musket butt plate	1
Indeterminate gun lock part	1
Group I, Type 3 buckle	1
Group 1, Type 1, Variety D button	1
Group 4, Type 1, Variety D button	1
Group 4, Type 2 button back	1
Group 4 button face	1
White clay pipe fragments	3
Total	**17**

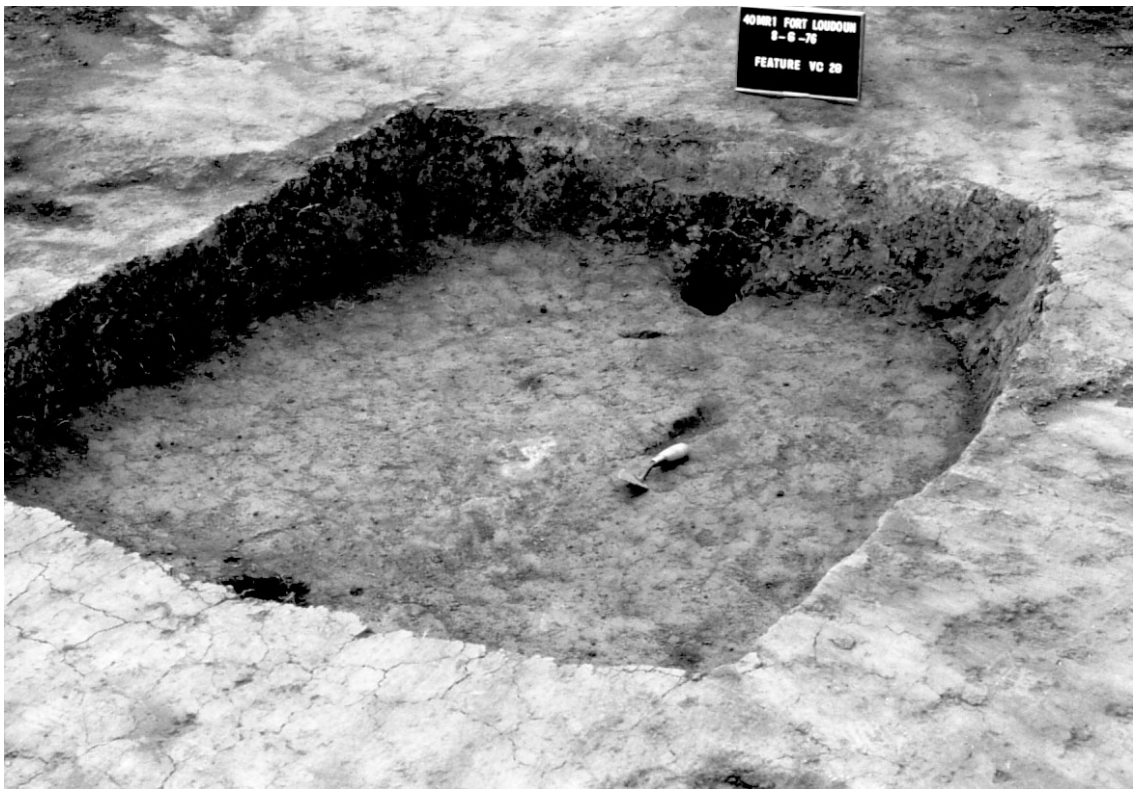

Figure 115. Feature 358, a Cherokee hothouse pit.

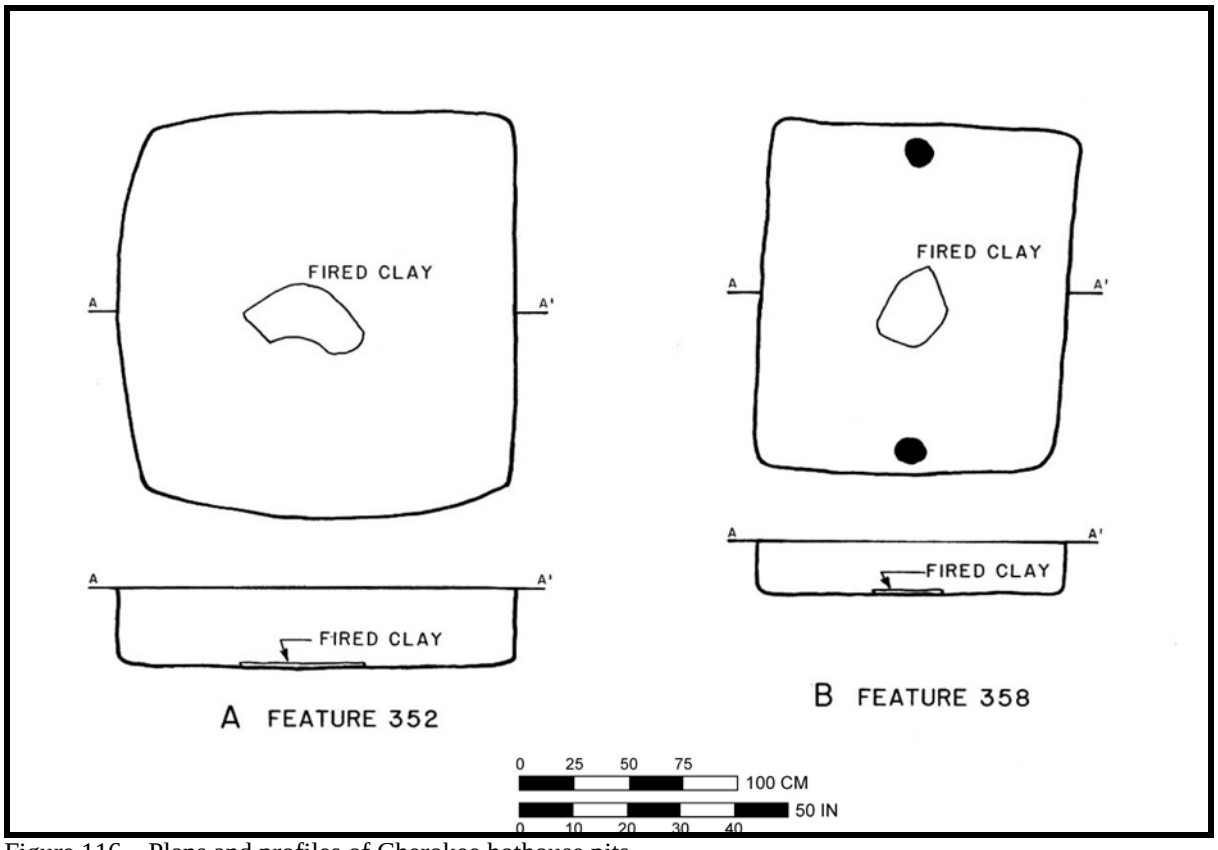

Figure 116. Plans and profiles of Cherokee hothouse pits.

Fire Basins

Two features were defined that were interpreted as fire basins. Both were in Cluster 1. One (Feature 218) was located just west of the west wall of Structure V-11 and the other was about 16 m west of that structure. One of the features described here as a hearth was located within a larger refuse filled pit, and may have resulted from burning refuse in the feature, rather than from being some sort of more formal heating or cooking facility. At other Cherokee sites in the valley, fire pits or fire basins are also present, but in relatively few numbers. Their lack of original depth from the surface, and the subsequent plowing that has taken place over most of these sites, probably served to effectively eliminate the remains of most of these types of features. They certainly would have been expected to have been much more numerous, since they were presumably heating and cooking facilities.

Feature 218 (Fire Basin)

Figures 6A and 118

Location: N265.00/E310.70

Shape: Circular in plan and bowl shaped in section.

Dimensions: Horizontal: 35 cm by 25 cm. Defined depth: 3 cm.

Observations: This feature consisted of a hard fired clay area that was slightly concave in section. It was located just to the west of Structure V-11, and was superimposed over Feature 219, a Mississippian period post pit. It is assigned to the Cherokee occupation on the basis of one associated nail, its stratigraphic relationship to Feature 219, and its proximity to Structure V-11. The portion of the feature that remained consisted of the basal part of a shallow fire basin. The remainder of the feature would have originated above the subsoil and was destroyed by plowing. This feature is assumed to have been an outdoor hearth associated with the nearby house structure.

Table 121. Artifacts associated with Feature 218.

Artifact	Quantity
Rose head nail	1
Total	1

Feature 252 (Fire Basin)

Figures 6A and 118

Location: N151.60/E301.00

Shape: Circular in plan and concave in section.

Dimensions: Diameter: 35 cm. Defined depth: 15 cm.

Observations: This feature consisted of a fire reddened base of a fire basin that was intrusive to Feature 250, a Mississippian period pit within Mississippian Structure V-1. It was assigned to the Cherokee occupation of this area on the basis of two Overhill Plain sherds and three complete or fragmentary nails. It is similar in form and probably function to Feature 218 which was another fire basin, and it is also assumed to have been associated with the nearby Cherokee house, Structure V-11.

Table 122. Artifacts associated with Feature 252.

Artifact	Quantity
Overhill Plain	2
Rose head nails	2
Indeterminate nail	1
Prehistoric sherd	1
Total	6

Feature 318 (Hearth)

Figures 6B, 113, and 119

Location: 107.00/E333.60 (within Feature 317)

Shape: Oval in plan.

Dimensions: Horizontal: 50 cm by 35 cm. Maximum thickness: 4 cm.

Fill and Stratigraphy: The feature was a lens of burned earth and associated ash and charcoal.

Observations: This feature was a hearth between Zones A and B within Feature 317. Two other similar burned areas were located stratigraphically lower than this feature within the same pit. All appeared to have been the result of burning refuse or other materials in the pit prior to the addition of another zone of fill.

Table 123. Artifacts associated with Feature 318.

Artifact	Quantity
Overhill Plain	2
Prehistoric ceramics	6
Total	8

Cherokee Burial

One Cherokee burial was excavated in the area outside of Fort Loudoun. It was in the area southeast of the southeast corner of the ditch. It was west of Structure V-11 and is considered to be part of Cherokee Cluster 1.

Feature 216 (Burial 2, Note: Burial 1 was a prehistoric and is not discussed in this report)

Figures 6A, 117, and 118

Location: N161.00/E311.40

Shape: In plan the pit was an elongated oval that was nearly pear shaped. In section it had vertical walls and a flat bottom.

Dimensions: Horizontal: 1.40 m by 1.10 m. Defined depth: 31 cm.

Observations: This was a pit containing the partially flexed burial of a 17 to 22 year old female. The skeleton was reasonably intact, but in a poor state of preservation. No stature measurements were possible on the recovered bones. The individual was placed in a shallow elongate oval pit and the body oriented with the head to the southeast at an azimuth of approximately 157 degrees (magnetic). The individual was on its back with the knees flexed and oriented toward the east. The head was also facing, to the east. Several artifacts were associated with this individual. There were a pair of the typical silver earrings of this period located on either side of the head (see Figures 117 and 199F). On the right shoulder five brass thimbles had been suspended by leather thongs through perforations in the ends of the thimbles (Figures 202 A-G), and in the center front of the waist area there was a row of five silver brooches that had apparently been attached to a

ribbon or were closures spaced along the front of a shirt. Three of the brooches were heart shaped and the other two were circular (Figures 199D and E). A silver bracelet (Figures 199A) was on the left wrist, and below that was a ferrous metal snuff box (Figure 207B). The fill of the pit consisted of mostly prehistoric midden that had been excavated for the grave and then replaced in the pit.

The burial was about three meters west of Structure V-11, and is assumed to have been one of the occupants of that structure. This was certainly a Cherokee burial, but the date of interment is uncertain. If this burial is associated with the other Cherokee features and the one Cherokee structure in this area just to the southeast of the fort, then it is expected that the interment dated to a time possibly shortly after the occupation of the fort. Similar burials have been reported from other Cherokee sites in the area, and it generally conforms to a pattern of partially flexed interments that have the head oriented to the south. Examples have been reported from Chota-Tannsee (Olinger 1969; Newman 1971; Schroedl and Breitberg 1986:125-181), Citico (Olinger 1969), Tallasse (Cornett 1976), Tomotley (Baden 1983:134-149), and Tuskegee (Guthe 1978:22, Plate 6).

After analysis, this skeleton was turned over to Jefferson Chapman at the McClung Museum, University of Tennessee, to be reinterred with the other Cherokee burial remains from the Little Tennessee River valley (Letter, Jefferson Chapman to Carl Kuttruff, September 8, 1981). It was subsequently reinterred at a grave site that was constructed at the Sequoia Museum near Fort Loudoun.

Table 124. Artifacts associated with Feature 216.

Artifact	**Quantity**
Overhill Checked Stamped	4
Overhill Mat Impressed	1
Thimbles	5
Silver bracelet	1
Silver brooches	5
Silver earrings	2
IIa14 bead	1
Snuff box	1
Animal bone	1
Prehistoric sherds	40
Lithic waste materials	33
Total	94

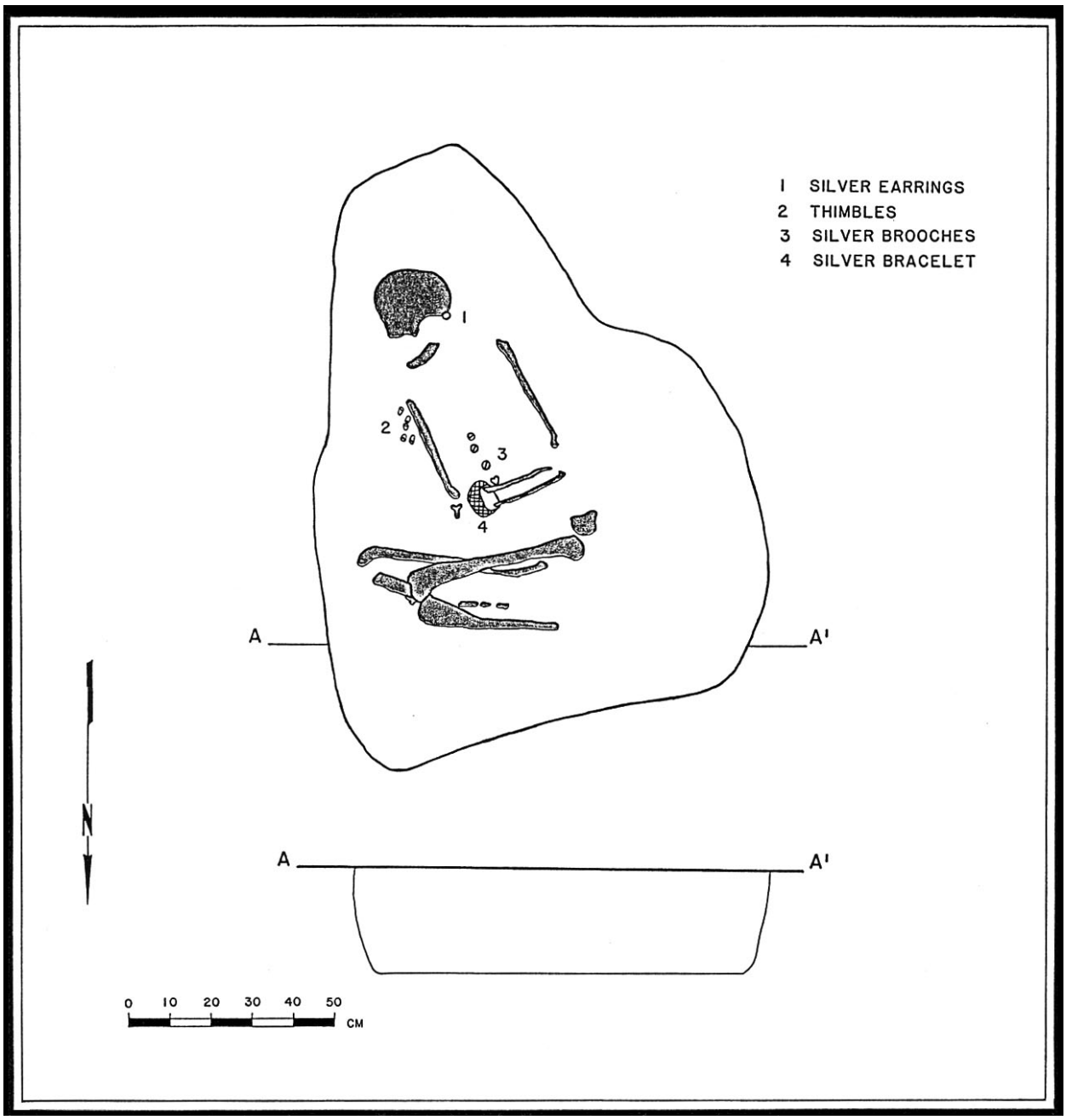

Figure 117. Feature 216 with Cherokee Burial.

Table 125. Cherokee Feature Artifact Summary

Prov.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Totals
Large Circular and Oval Pits																													
F. 190		746	6	4	1		4	4				113			1		2		1			1			5	118	10	244	**1260**
F. 311		164									1														11	94		98	**368**
F. 317	1	157						2				1					1								29	62	2	108	**363**
F. 356	13	290		4	2			10				30	5		21	4			27	3		1			249	144	1	172	**976**
F. 357		258		1				3				4		2	1	1			2	7					92	180	1	359	**911**
F. 361		322		2				4	1			1	1				3		1		1				19	60	3	305	**723**
F. 375		44		2		2		28	5			1	1		1	1	3					5	1			147	2	62	**305**
F. 376		25																								1		1	**27**
Totals	**14**	**2006**	**6**	**13**	**3**	**2**	**4**	**51**	**6**		**1**	**150**	**7**	**2**	**24**	**6**	**9**		**31**	**10**	**1**	**7**	**1**		**405**	**806**	**19**	**1349**	**4933**
Rectangular Pits																													
F. 314A																									4		1		**5**
F. 315		18																							7	12	1	25	**63**
F. 364								1											1						1	11		9	**23**
Totals		**18**						**1**											**1**						**12**	**23**	**2**	**34**	**91**
Bowl-Shaped Pits																													
F. 260	1	1						1																		5	2	8	**18**
F. 270								1																				10	**11**
Totals	**1**	**1**						**2**																		**5**	**2**	**18**	**29**
Pit Hothouses																													
F. 352		5						2						1											8	54		19	**89**
F. 358		1						1	1	2		1	1	2			1	4				3							**17**
Totals		**6**						**3**	**1**	**2**		**1**	**1**	**3**			**1**	**4**				**3**			**8**	**54**		**19**	**106**
Fire Basins																													
F. 218								1																					**1**
F. 252		2						3																		1			**6**
F. 318		2																								6			**8**
Totals		**4**						**4**																		**7**			**15**
Cherokee Burial																													
F. 216		5																	9		5			1	1	40		33	**94**
G. Total	**15**	**2040**	**6**	**13**	**3**	**2**	**4**	**61**	**7**	**2**	**1**	**151**	**8**	**5**	**24**	**6**	**10**	**4**	**41**	**10**	**6**	**10**	**1**	**1**	**426**	**935**	**23**	**1453**	**5268**

Notes: Column headings are as follows: 1=English and Chinese Ceramics; 2=Overhill Cherokee Ceramics; 3=Qualla Ceramics; 4=Glass; 5=Kitchen and Cooking Utensils; 6=Clasp Knives; 7=Tools; 8=Nails; 9=Building and Furniture Hardware; 10=Other Hardware; 11=Braces and Strapping; 12=Raw Materials and Manufacturing Debris; 13=Gunflints; 14=Gunparts; 15=Musket Balls and Shot; 16=Equestrian Items; 17=Buckles; 18=Buttons; 19= Personal Adornment; 20=Grooming Items; 2 =Sewing and Tailoring Items; 22=White Clay Pipes; 23=Stone Pipes; 24=Snuff Box; 25=Animal Bones; 26=Prehistoric Ceramics; 27=Lithic Artifacts; 28=Lithic Waste

Cherokee Household Clusters

To summarize this section on the archaeology of Tuskegee, it is instructive to examine the configuration and spatial arrangements of the several house structures and their associated features. By doing this it is possible to gain some insight into the organizational structure of, in this case, a small Cherokee village of relatively short duration. The historical documentation for Tuskegee consists primarily of the Timberlake map of 1762. This is now believed to be relatively accurate, based on the demonstrable correlation of archaeological remains with that portion of his map showing the Tuskegee area (Figures 11 and 108). Other eighteenth century documentation relating to Cherokee villages in general describe Cherokee villages as having been dispersed settlements, with widely separated single family household units. Tuskegee seems to be no exception.

Assuming that the correlation of the archaeological remains and the distribution of the 17 Cherokee structures that Timberlake shows on his map provides a reasonable estimation of the area over which that village was dispersed, then a rough approximation of the density of the settlement can be estimated. Using Figure 108 as the base, the 17 structures are scattered in a area of about 31 hectares (76 acres). The average density then would be roughly one house structure for every 1.8 hectares (4.47 acres). The large-scale and continuous excavation of a portion of the Tuskegee area (Figures 6A, 6B, 108, and 109) was sufficient to demonstrate, for at least a portion of the Tuskegee area, that the structures and their associated features were, in fact dispersed and discrete units. Parenthetically, this is, of course, much easier to determine at sites of relatively short duration, such as Tuskegee that may have been existence for less than 20 years, than at others such as Chota that had long occupations. It is assumed that this pattern was the same for the rest of the Tuskegee village area. Given the dispersal of the village and the archaeological demonstration of that fact, then it is possible to assume that the groupings of structures and features reflect at least a portion of the organizational structure of this village.

Marcus Winter and Kent Flannery developed the concept of the household cluster for Formative Mesoamerican villages, which is also quite applicable for many other archaeological contexts. Flannery defined the household cluster as an archaeological unit "... which consists of the house and all the surrounding storage pits, burials, middens and features that can be reliably associated with that same household" (Flannery 1976:5). Winter explained the usefulness of that concept for interpreting units of archaeological remains:

> The household cluster concept is useful because it provides a context in which pits, burials, house remains and other features can be understood not simply as isolated cultural features, but as manifestations of a specific segment of society (Winter 1976:25).

Flannery has later suggested that the term household cluster be renamed the household unit to more accurately describe what it is (Flannery and Marcus 1983). The remainder of this section, then consists of a description of the archaeological components that made up three, and perhaps as many as six of the household clusters at Tuskegee.

Cluster 1

Cluster 1 (Figure 118) was located adjacent to the southeast corner of the ditch of Fort Loudoun. It consisted of Structure V-11 and seven pit features. Those features included two large oval, refuse filled pits (Features 190-Aand 190-B), two shallow fire basins (Features 218 and 252), two small oval bowl-shaped pits (Features 260 and 270), and one burial (Feature 216). As with the case of Cluster 3 (below), the large refuse filled pits were paired. Both of the fire basins were located outside of the structure; one was near the northwest corner of the structure, and the other was located about eight meters west of the building. This was the only cluster for which fire basins were found, even though they would be expected originally for the other clusters. In general, fire basins would have been the shallowest of the features and their presence in this cluster and not the others is probably a product of differential preservation. This probably resulted from two things. The area in which Cluster 1 was located had not been plowed since the late 1930s, and at that, had never been subjected to the mechanized plowing that had been done over the areas of the other clusters. Additionally, the area of Cluster 1 was rather carefully cleared of topsoil and plow zone to the level of feature definition with a backhoe, while the other areas were stripped with large pan scrapers. The mechanized plowing probably lowered the base of the plow zone in other parts of the site considerably more than where it was stabilized in the late 1930s in the area of Cluster 1. The backhoe clearing of Cluster 1 probably provided a level of feature and structure definition that was higher than in those areas which were exposed with the pans.

Figure 118. Archaeological Plan of Cherokee house and feature Cluster 1.

One of the shallow bowl-shaped pits was within the structure, centrally located just within the south wall. The other was three meters west of the southern part of the west wall. This was the only cluster with an associated burial and that was located approximately two meters west of the center of the west wall of the structure. In addition to those features that were clearly Cherokee, there were two prehistoric features (Features 219 and 244) which contained what were probably intrusive historic materials.

Cluster 2

Cluster 2 (Figure 119) was situated approximately 50 meters south southwest of Cluster 1 and set back about 25 meters west of the edge of the upper terrace formation of this bottom. Likewise it was about 50 meters northwest of Cluster 3, or about midway between Clusters 1 and 3. The cultural elements of this cluster consisted of a rectangular house structure (Structure V-4), three large oval, refuse filled pits (Features 311, 317 and 375), two smaller rectangular pit features (Features 314-A and 315), and one feature designated as a fire basin (Feature 318). Unlike the fire basins discussed in Cluster one, this one was located well down in one of the refuse filled pits, and is believed to have been the result of burning refuse rather than heating or cooking as is assumed for the two in Cluster 1. In the same pit feature (Feature 317) there were two other episodes of burning. All of the features were located outside of Structure V-4. Three other pit features in this area contained historic artifacts. They have been interpreted as prehistoric features with intrusive historic materials, and include Feature 305, a Mississippian pit with a single nail, Feature 308, also Mississippian, with one, glass bead, and Feature 313 containing Woodland and Mississippian artifacts and one nail.

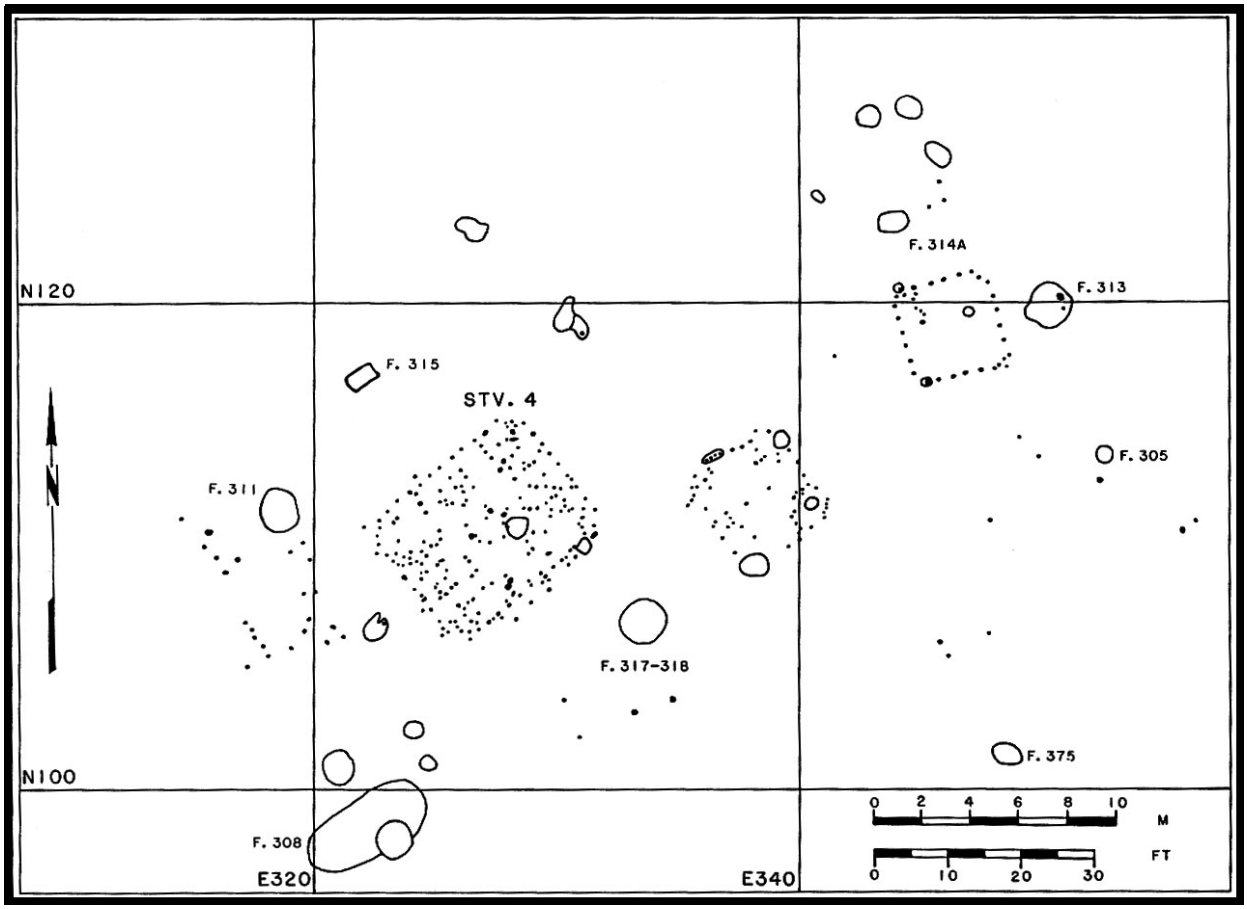

Figure 119. Archaeological plan of Cherokee structure and feature Cluster 2.

Cluster 3

Cluster 3 (Figure 120), the southernmost of the three clusters defined by the 1976 excavations, was made up of one long rectangular house structure (Structure V-8) and seven pit features. Four of those features (Features 356, 357, 361 and 376) were large oval to circular refuse filled pits, and like Cluster 1, two were paired (Features 356 and 356). There was one rectangular pit (Feature 364) located 18 m east of the structure, which probably served as some sort of cooking or roasting facility. Just east of the structure there were two hothouse pits (Features 358 and 361). One Mississippian pit feature in this area, Feature 353, contained an intrusive button.

The following four clusters are ones that were excavated by the University of Tennessee crews in other portions of Tuskegee at 40MR24 and 40MR64 in earlier field seasons. Three of them were in excavation Areas A, B and C at 40MR24, and one was in the excavation unit at 40MR64 (Figure 108 and Guthe 1978:Figure 1). Two of them, Excavation Areas A and B at 40MR24, seem to correspond to locations shown on the Timberlake map (see Figures 11 and 108); Area C at 40MR24 and 40VR64 does not have a similar concurrence with Timberlake's map.

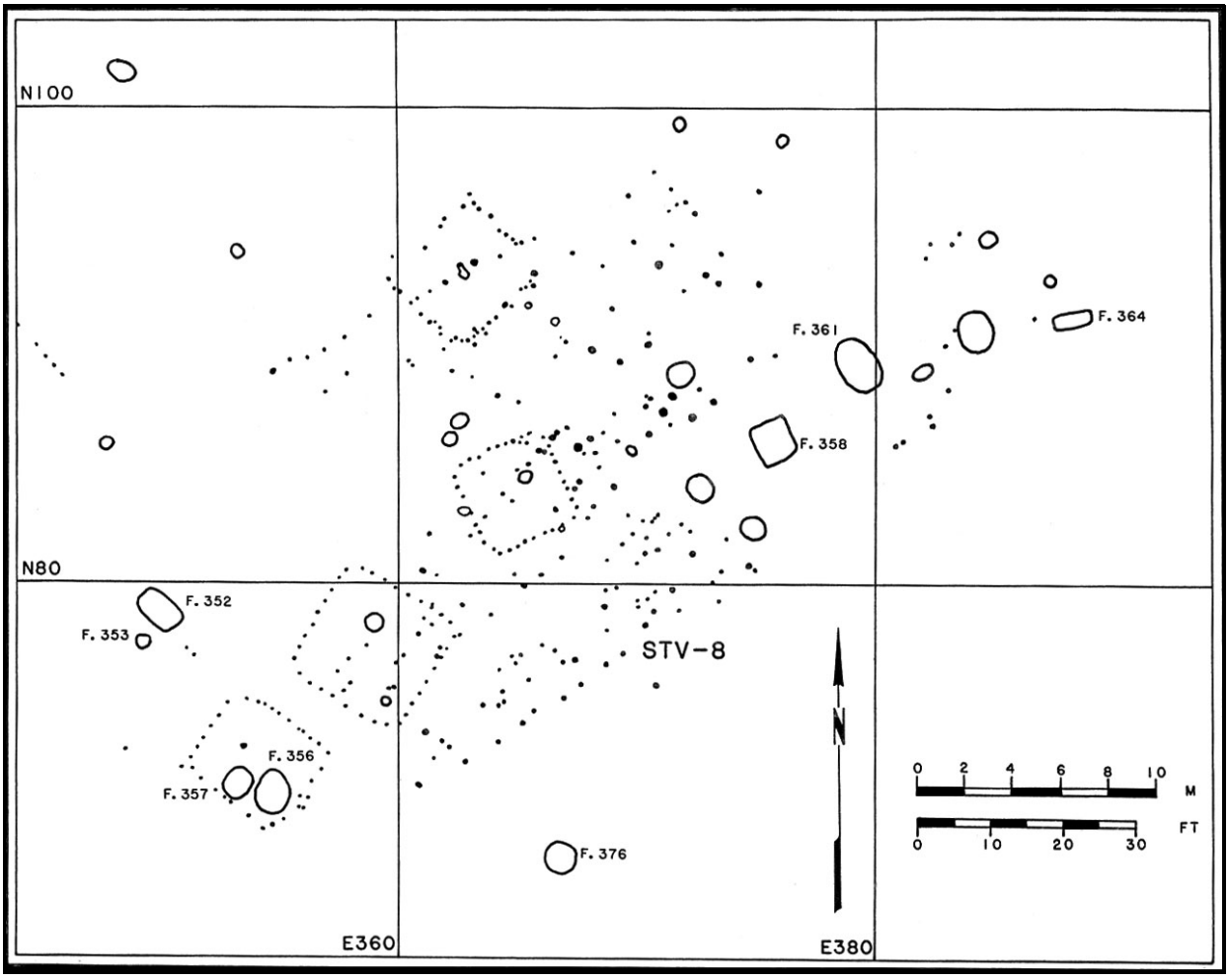

Figure 120. Archaeological plan of Cherokee structure and feature Cluster 3.

Cluster 4 (40MR24 Area A)

This cluster in Area A (Guthe 1978:Figure 2) was made up of two oval refuse filled pit features and one oval hothouse pit feature with two post molds in the floor of the feature, and a small single post structure with a trapezoidal shape which may have been of Cherokee origin. However, the shape is somewhat unusual for a Cherokee structure (Guthe 1978:24, 59). If that structure was not associated with the Cherokee pit features, then presumably there would have been an associated Cherokee structure, and perhaps other Cherokee pit features in this general area, but the exposure of the excavation unit was insufficient to ascertain that.

Cluster 5 (40MR24 Area B)

The most comparable Cherokee household cluster from the University of Tennessee excavations, to the ones defined closer to Fort Loudoun by this project in 1976, was located in the Area B excavations at 40MR24. That cluster consisted of one rectangular structure and two pit features (Guthe 1978:Figure 3). The smaller of the features (Feature 6), a circular pit With vertical walls and a flat bottom was located within the structure in the northeast corner. The larger feature (Feature 7), a circular refuse filled pit was located adjacent to the southeast corner of the building.

Cluster 6 (40MR24 Area C)

This cluster of Cherokee features did not correspond to one of the structures of Timberlake's map. However, it did consist of a group of at least three, but probably six Cherokee pit features (Guthe 1978:Figure, 4, Table 1). Features 8 and 11 were circular and oval refuse filled pits respectively; Feature 16 was an oval basin shaped pit that was filled with refuse; Feature 20 was a circular pit with vertical sides and a flat bottom; and Feature 27 had a similar profile configuration, but was rectangular in plan. Approximately 42 meters north of the main cluster of features was a pit containing a Cherokee burial (Guthe 1978:22). There were a number of post molds defined near the main cluster of Cherokee features, but no definite structure was discerned.

Cluster 7

The last cluster of Cherokee features was located at 40MR64 and consisted of only two pit features. One was a large oval refuse filled pit and the other (Feature 10) was a rectangular pit with vertical walls and a flat bottom (Guthe 1978:Figure 5, Table 12). No structural remains were defined.

Summary

The exposure of large areas at Tuskegee by the 1976 excavations allowed the definition of at least three Cherokee household clusters, and the relative certainty of their discreetness because of the demonstrable areas in between those clusters which lacked any Cherokee features. Although they were not discussed in terms of household units, a similar pattern of more or less discrete clusters of Cherokee structures and their concomitant features can be seen at other Cherokee sites that have been excavated in the lower Little Tennessee River valley. As with Tuskegee, where there was a relatively short and not so dense occupation, the pattern is much more readily discernable than at sites such as Chota-Tanasse where there was a long-term and relatively concentrated occupation. However, even at that site there readily appears to be groups of various types of Cherokee features closely associated with the paired structures which were common at that site (see Schroedl 1986:Figures 1.16, 1.21, 1.26, 1.30, and 1.40). At other less densely occupied sites the pattern is much more readily seen, such as Tomotley (Baden 1983:Figures 3.6, 3.8, 3.9 and 3.10), and Mialoquo (Puss and Chapman 1983:Figures 11, 12 and 13).

While it is not the intent of this study to do so, the excavations in the valley have provided a data base that should allow for the reconstruction of a number of discrete Cherokee household units for the middle and later parts of the eighteenth century. Of great potential is the possibility of determining the general pattern of types of pit and other features associated with a given household structure, the quantities and variation in the associated artifact inventory, and subsequently by analysis of those components, an archaeological reconstruction of the Cherokee household (family unit) activities.

The 1976 field season at Tuskegee terminated with the close of the excavations that have been described in this chapter. Impoundment of the valley was expected in the near future, with the inevitable loss of the remaining archaeological resources in the valley. In February 1977, the 6th Circuit Court issued an injunction against the flooding of the valley. After a preliminary analysis of the materials and information on the Cherokee occupation that had been recovered from the area of Tuskegee (including the prehistoric features and structures) several things became clear. First was the apparent accuracy of the Timberlake map and its potential for helping to locate other structures and features that were associated with that eighteenth century settlement, as has been discussed in preceding sections. The importance of Tuskegee as an eighteenth century Cherokee settlement was unquestionable, and the information to be gained through further, extensive excavations would have been invaluable for Cherokee studies. There was also a great deal of potential for exposing and defining additional Mississippian period household clusters, as well as the possibility of recovering materials that would add greatly to the knowledge of the Woodland period of the valley, particularly the Late Woodland time period of about A.D. 300 to A.D. 900, a time period for which there is relatively little known for that valley, and for which there will probably never much be known now.

Once flooding of the Little Tennessee River valley again looked inevitable, but while there was still something of a reprieve before its ultimate destruction, a proposal was submitted to the Tennessee Valley Authority in the fall of 1979 to carry out large-scale excavations at Tuskegee prior to the then possible flooding of the valley. That effort to secure funding was unsuccessful, therefore relegating the unrecovered remains of Tuskegee to the lost forever category.

CHAPTER 8

HISTORIC ARTIFACTS

Introduction

This chapter presents the descriptions and illustrations of the historic artifacts that were recovered by the 1974-1975 excavations, as well as those that were available for study from the McClung Museum and the Fort Loudoun Association. The latter two collections included materials from the 1936 WPA excavations and the Ellsworth Brown and Kunkel excavations that have been described in Chapter 3. Since the historic artifacts associated with Fort Loudoun resulted from a limited occupation of only four years (1756 to 1760) it was believed that it was important to present those materials in as much detail as possible, so as to be useful to other researchers as a comparative collection. Likewise, the materials that are of Cherokee origin, primarily the ceramics and stone pipes, are believed to be limited to a short period of time. At the most, they may have been deposited over an estimated 20 year time period. However, the bulk of the Cherokee materials recovered from within the fort from contexts were of fort period origin. Therefore, it seems reasonable to assume that most of the Cherokee materials can be dated to the same four year period as the other artifacts from within or about the fort. The only exception would be those artifacts from the various pit features in the Tuskegee area described in the preceding chapter, some of which may have been deposited after the fall of Fort Loudoun in 1760, but not later than the William Christian raid in 1776.

Table 126 provides the listing of the various artifact categories, and the various items that are included within the major categories. While this organization differs somewhat from other historical archaeology studies, it is a reasonable categorization that suits this assemblage. The faunal remains are not described. A summary of those materials can be found in Breitburg (1983). The prehistoric ceramics and lithic materials that were recovered by the 1975-1976 excavations are not considered here. While some of the lithic materials from the Cherokee pit features materials may have Cherokee origin, they are likewise not included here.

Since nearly all the artifacts that are reported in this volume are from such a short period of time, efforts have been made to provide as many artifact illustrations as possible, particularly of those items that are believed to be relatively time sensitive, such as decorated buttons. Additionally, efforts were made to examine the historical archaeology literature for similar items which are then referenced. Particular efforts were made to reference similar artifacts from excavations at other Cherokee sites in the Little Tennessee River valley that were contemporary with Fort Loudoun. The comparative examples presented in this chapter come primarily from literature available through the late 1980s, with a few more recent additions. A search of more recent literature would certainly provide many additional examples.

This chapter is organized according to the artifact categories that are presented in Table 126. For those wishing to do various plots of artifacts, the tables that follow each major category provide the specific proveniences for the various artifacts included in those categories.

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Chinese and European Ceramics	
Chinese Export Porcelain	210
White Salt Glazed Stoneware	176
Scratch-Blue Stoneware	53
Brown Saltglazed Stoneware	6
Westerwald Blue-on-Grey Stoneware	3
Delftware	116
Astbury-Type Leadglazed Fine Red Earthenware	1
Clouded Ware (Whieldon Ware)	4
Leadglazed Slipware	13
Buckley Ware	120
Other Coarse Earthenwares	12
Spongeware	1

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Brown-Glazed Stoneware	1
Creamware	32
Pearlware	41
Yellow Ware	1
Ironstone	29
Total	**819**
Cherokee Ceramics	
Overhill Shell Tempered Ceramics	17,065
Grit Tempered Ceramics	400
Qualla Ceramics	477
Sand Tempered Ceramics	50
Fatherland Incised	45
Total	**18,856**
Glass Containers	
Dark Green Round Beverage Bottles	579
Dark Green Square Beverage Bottles (Case Bottles)	109
Dark Green Octagonal Beverage Bottles	3
Clear Glass Square Beverage Bottles	7
Light Blue-Green Round Beverage Bottles	5
Storage Bottles (Snuff)	167
Round Pharmaceutical Bottles - Blue-Green Glass	141
Square Pharmaceutical Bottles - Blue-Green Glass	18
Round Pharmaceutical Bottles - Clear Glass	22
Square Pharmaceutical Bottles - Clear Glass	26
Oval Pharmaceutical Bottles - Light Blue-Green Glass	1
Turlington Bottle	3
Wine Glasses	16
Total	**1097**
Cooking and Kitchen Related Items	
Brass Kettle Fragments	18
Kettle or Bucket Bales	3
Cast Brass Kettle Lugs	2
Iron Wire Kettle Lugs	2
Lead Plugs	4
Pot or Kettle Hooks	11
Warming Pan Tang or Handle	1
Skewer	1
Total	**42**
Cutlery and Eating Utensils	
Case or Sheath Knives	10
Bone Knife Handle	1
Forks	6
Spoons	16
Total	**33**
Clasp Knives and Straight Razors	
Bolsters	68
Springs	11
Blades	40
Bone Handle Plates	2
Total	**121**

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Ground Stone	
Whetstones	6
Grindstone	1
Total	**7**
Tools	
Axes	33
Froes	2
Wedges	4
Gimlets	10
Cold Chisel Hammer	1
Files	3
Hand Vise Jaw	1
Drift or Punch	1
Shovels	3
Hoes	11
Picks	1
Sickle	2
Awls and Punches	19
Tool Sockets	14
Strike-A-Lights (Fire Steels)	2
Ferrules	5
Corn Mill Cranks	2
Total	**114**
Measuring Instruments	
Sundial and Pocket Compass	2
Dividers	1
Total	**3**
Building and Furniture Hardware	
Pintles	6
Shutter Hooks	5
Wrought Iron Strap Hinge	1
Strap Hinge Fragments	55
Hasp	1
Door Latch	2
Latch Bar Catches	3
Curtain Rings	2
Butt Hinge	1
Flat Corner Brace	1
Locks and Lock Parts	9
Keys	3
Keyhole Escutcheon	1
Drawer Pulls	2
Total	**92**
Nails	
Rose head nails	2124
L-Head nails	7
Square head nails	126
T-Head nails	3832
Nail Fragments	2427

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Total	**8516**
Miscellaneous Hardware	
Tacks	9
Staples	22
Brass Rivet	1
Iron Rivets	2
Bolts	3
Washers	8
Nuts	7
Screws	6
Cotter Pins	2
Square Headed Iron Pins	5
Lynch Pins	2
Wrought Iron Socket	1
Tethering Pin	1
Shims	14
Iron Rings	16
Brass Wire Ring	1
Total	**100**
Iron Braces and Strapping	
Iron Braces with Angled Ends	15
Iron Strapping	9
Iron Reinforcing Pieces	7
Wrought Iron Braces	2
Total	**33**
Manufacturing Debris and Raw Materials	
Brass Wire	5
Brass Rod or Bars	4
Brass Sheet Scrap	165
Pewter Scrap	13
Lead Sheet Scrap	14
Lead Strips	75
Lead Sprues	3
Lead Waste (Spatters)	67
Iron Wire	78
Iron Pig Stock and Bar Stock	77
Flat Iron Scrap	47
Sheet Iron Scrap	600
Indeterminate Iron Objects	191
Slag	4369
Tar	13
Total	**5721**
Weaponry	
Gunflints	142
Gun Parts	80
Musket Ball/Shot	76
Shot	113
Cannon	1
Ordnance	7
Spontoon	1

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Accouterments	32
Brass Projectile Point	1
Total	**453**
Equestrian Related	
Harness Buckles	18
Saddle or Harness Decorations	11
Saddle Braces	2
Stirrup	1
Spurs	3
Bits	10
Horseshoe	1
Horseshoe Nails	76
Total	**122**
Clothing	
Buckles	164
Shoe Buckle Backpieces	68
Buttons	379
Sleeve Links	47
Textiles	26
Bale Seals	3
Total	**687**
Ornamentation and Personal Adornment	
Glass Beads and Wampum	338
Bracelets	5
Tinkling Cones	21
Silver Ferrule	1
Brass Hawk Bell	1
Silver Stud	1
Silver and Brass Pendants	3
Brooches	8
Earrings	7
Finger Rings	3
Cut Silver	3
Silver Cross	1
Decor Bone	1
Total	**393**
Grooming	
Mirrors	62
Bone Combs	11
Straight Razor Blades	4
Total	**77**
Tailoring and Sewing Objects	
Scissors	20
Thimbles	10
Straight Pins	18
Needles	11
Sad Iron	1
Total	**60**

Table 126. Fort Loudoun Artifact Totals.

Artifact	Number Recovered
Tobacco Group	
White Clay Pipes	586
Steatite/Stone Pipes	85
Snuff Box	1
Total	**672**
Entertainment Items	
Jews Harps	9
Marble	1
Gaming Pieces	4
Total	**14**
Fishing Gear	
Fishhooks	11
Lead Sinker	1
Total	**12**
Writing	
Lead Pencils	3
Total	**3**
Coins	**2**
Faunal Remains	**81,622**
GRAND TOTAL	**118,852**

Note: Prehistoric ceramics and lithics not included.

Chinese and European Ceramics

by Beverly E. Bastian

A total of 819 Chinese and European ceramics were analyzed. The 1975-1976 excavations recovered 687, and the remaining 132 were from previously excavated collections. The majority of the ceramics could be associated with the short occupation of the fort, while the reminder probably resulted from later occupations of Tuskegee, and an occupation during the Tellico Blockhouse period and the early part of the nineteenth century. The summary of these ceramics by provenience is presented in Table 130. The following sections provide the descriptions of the various types of the Chinese and European ceramics.

Chinese Export Porcelain

Total: 210
Figures 121 and 122

Common on eighteenth century colonial American sites, Chinese export porcelain is well represented in the historic ceramic assemblage from Fort Loudoun, comprising 25.64 percent of the total and numbering 210 sherds (Table 127). Available throughout the eighteenth century, the presence of this porcelain is the result of the 1756-1761 occupation of the fort by British and colonial soldiers. However, this ware continued to be imported into the United States well into the nineteenth century and its presence at Tellico Blockhouse, occupied from 1794 until 1807 (Polhemus 1979), leaves open the possibility that some of the porcelain found at Fort Loudoun may have come from the Blockhouse and, consequently, be of a later type. It is also possible that it may derive from later occupations of the site of Fort Loudoun (see the Louis Philippe account in Chapter 2). The best means for discriminating the later Chinese export porcelain from the earlier is the relative care taken with the painting (Noel Hume 1972a:261), but the sherds in the Fort Loudoun assemblage were generally small, with few cross-mends, so the quality of the painting is hard to assess. Generally, however, the painting appears to be workmanly, and the potting is skillful and thin.

Vessel forms in this ware from Fort Loudoun include: teabowls, saucers, bowls, plates (or platters) a single "can" or mug (Noel Hume 1972a), and some kind of handled vessel, possibly a teapot or creamer. The minimum number of saucers is 15 and the maximum number is 24. The minimum number of bowls is 16 and the maximum number is 25. The minimum (and maximum) number of plates or platters is two, and the one can and one handled vessel bring the minimum number of vessels present up to 41, with the maximum being 62 (Table 128). Most of the porcelain vessels in the assemblage are the teaware items, though there appear to be no matching pieces from sets. The plate or platter form, while identifiable, is the least completely represented, and no plate rim sherds are present to refine this identification. The bowls, with the exception of the single, larger diameter one, are not teaware, but presumably were used for food consumption.

Measurements from the measurable porcelain sherds are summarized in Table 129. Teabowls range between 3 in. (76 mm) and 4 in. (101 mm) in rim diameter. All the measurable teabowl feet are 1-1/2 in. (38 mm) in diameter. No teabowls with a complete profile were recovered, so determination of proportions for this vessel form is not possible. Figure 121A, showing a reconstruction, provides an idea of the size and shape of these vessels. Saucers range between 4-1/2 in. (114 mm) and 6 in. (153 mm) in rim diameter and between 2-3/4 in. (70 mm) and 3-1/2 in. (89 mm) in foot diameter. The two fully measurable saucers in this assemblage have the following dimensions: 1) 5-1/4 in. (134 mm) rim diameter, 3 in. (76 mm) foot diameter, and 1 in. (25 mm) in height, and 2) 4-1/2 in. (114 mm) in rim diameter, 2 3/4 in. (70 mm) foot diameter, and 3/4 in. (19 mm) height (Figures 121B and C).

The porcelain bowls range between 4 in. (101 mm) and 5-1/2 in. (140 mm) in rim diameter and between 2 in. (51 mm) and 2-1/2 in. (63 mm) in foot diameter. The single bowl which has a complete profile, measures 4-1/2 in. (114 mm) in rim diameter, 2 in. (51 mm) in foot diameter, and 2 3/8 in. (61 mm) in height (Figure 121D). The single bowl rim sherd, which measures 7 in. (178 mm) in diameter, represents a larger bowl whose function probably would have differed from that of the smaller ones. It is possible that it may have been a tea "slop bowl" (Roth.1963:86), or maybe a sugar bowl like that illustrated by Palmer (1976:114). Besides being larger, it is distinctly different from most of the other bowls in two other respects.

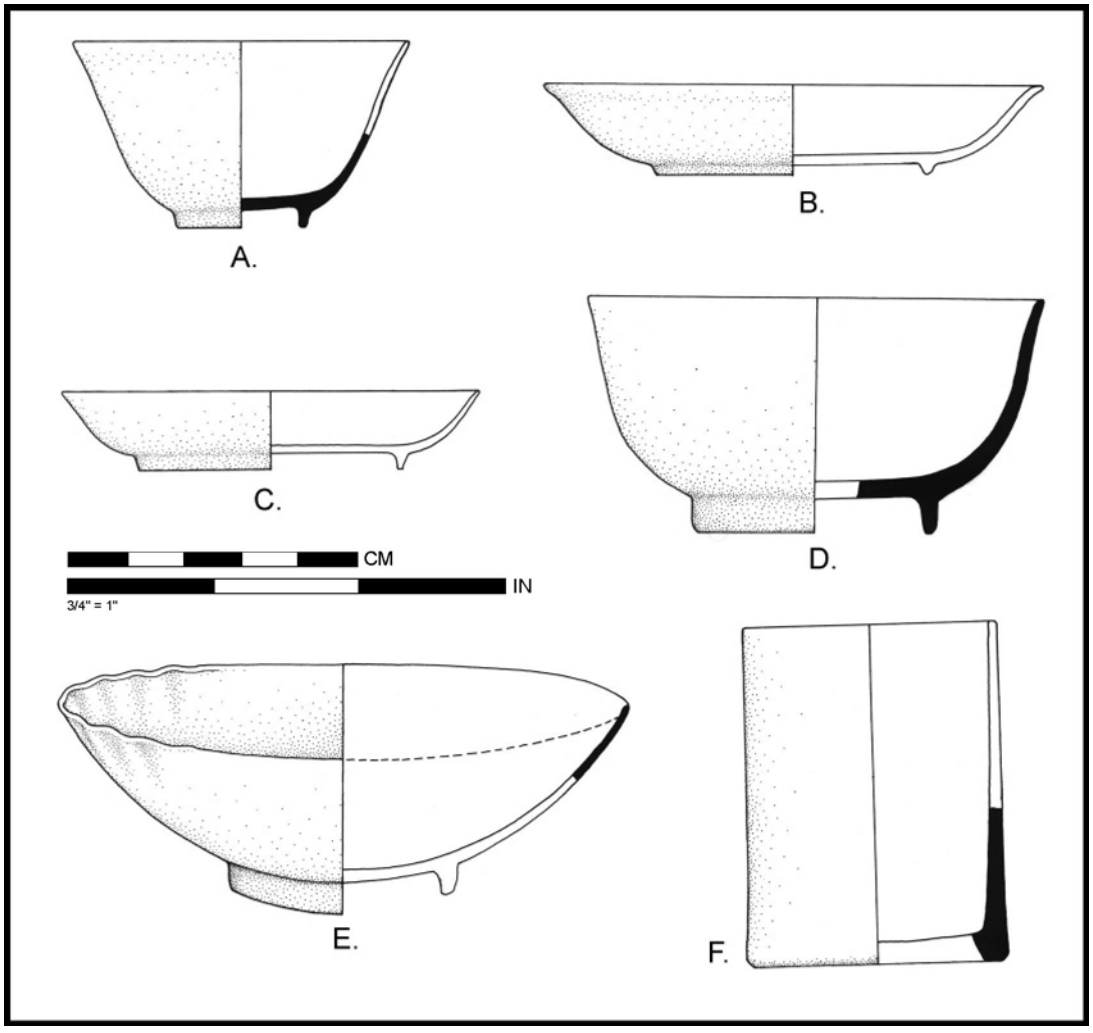

Figure 121. Profile and reconstruction drawings of Chinese export porcelain ceramics. **A** Teacup. **B** and **C** Saucers. **D** and **E** Bowls. **F** Can or Mug.

Its painted landscape design is on the inside surface and it exhibits a regular, low relief fluting inside and out (Figure 121E), which was probably achieved by molding. Two of the smaller bowl rims also have this fluting. They measure 4 in. (101 mm) and 4-1/2 in. (114 mm) in diameter. None of these fluted rims are large enough to permit determination of the extent of the fluting down the body of the bowl. A Chinese export porcelain fluted tea cup and saucer are illustrated by Roth (1963:80), and a fluted cup is illustrated by Calver and Bolton (1950:244). The can is 2-1/2 in. (63 mm) in both foot and rim diameters (Figure 121F). No height measurement for the can could be obtained. Whatever the nature of the handled vessel, no measurements could be taken since the remains of this vessel consist of one solitary body sherd bearing the scar left by the broken handle.

Decoration in this ware from the Fort Loudoun assemblage consists of the underglaze blue hand-painting that characterizes most Chinese export porcelain, and which was imitated by many English production wares of the eighteenth century. There is no discernible evidence of overglaze enamels or underglaze painting in any color but blue, nor of colored glazes or applied gilt. There is one teabowl rim that is without decoration, which may represent at least one entirely undecorated vessel, but the few other plain white body sherds recovered are most likely undecorated parts of decorated pieces. The blue painting varies in shade and intensity of color between and, often deliberately, within vessels.

Motifs discernible from the Fort Loudoun assemblage include borders and free, asymmetrical designs (see Figure 122). The borders are all geometric in character, and there are nine variants evident, ranging from simple single or double lines to repeating Xs and counterclockwise spirals within bands of single and

double lines. Borders appear on the inside rims of saucers, bowls, and teabowls and on the outside rims of bowls and teabowls. In addition, the simple line borders, both single and double, appear on the inside bottom circumference of teabowls, bowls, and plates or platters. Free designs include dots, florals or foliates, and landscapes, including houses, willow trees, boats, and fishermen. The dots are found on the outside surfaces of bowls, often in combination with other designs, and on the inside center bottom surface of bowls. The floral or foliate designs are found on the inside surfaces of saucers and, in combination with the single or double line borders, on the inside surface of plates or platters. Also, a single flower appears on the inside center bottom of teabowls and a grouping of conventionalized water lilies appears on the center bottom of a bowl. Floral or foliate designs are also found on the outside surfaces of bowls, teabowls, and the single can. Landscapes are painted on the outside surfaces of bowls and teabowls, on the inside surfaces of saucers, plates and/or platters, and the single larger bowl. Only one vessel, a teabowl, has conventionalized landscape designs isolated within compartments composed of single blue lines, and these are on the outside of the vessel.

No modifications of any kind are observable. Only one porcelain vessel (the most complete saucer in the collection) has a hallmark of any kind (Figures 122K and L). It is hand-painted in underglaze blue, but cannot be identified from the literature as to its significance.

Distribution of porcelain sherds within the bounds of the fort is concentrated in and around structures. Structure 14, a storehouse at the lower end of the west Barracks area, and Feature 76, the partially stone-lined drain which ran under Structure 14, produced more porcelain sherds than any other structure or feature. An adjacent area, between the west curtain and the Barracks, had the most porcelain sherds recovered from the general proveniences within the fort. Structure 14 had 14 porcelain sherds, Feature 76 had 22 porcelain sherds, and the area adjacent had 18 sherds. All the common vessel types are represented by these sherds.

Structures and features in the Southeast Bastion had some porcelain, but relatively little. Feature 45 within Structure 1 produced one teabowl sherd, Feature 58 in Structure 3 produced one saucer sherd, and Feature 50, in the area between Structure 2 and Structure 3, produced one bowl sherd and one teabowl sherd. Structure 5 produced three teabowl sherds and one bowl sherd, and Structure 6 produced one teabowl sherd and one saucer sherd. The general proveniences around Structure 6 yielded six sherds. West of Structure 6, the Parade Ground proveniences produced eight porcelain sherds. The drainage system, Features 150 and 159, yielded seven sherds, from the segment within the fort and one sherd from the area of the ditch where Feature 159 emptied into the south ditch.

The ridge slope structures and the adjacent slope midden area were fairly productive of porcelain. Structure 16 yielded 21 sherds, most of them from the nearly complete saucer (Figure 122K and L), but bowls and at least one more saucer were present in the fill of that structure. Structure 4 and its Feature 56 had one saucer sherd and one bowl sherd. Nine more sherds came from the midden deposits in the bedrock crevice area around and between Structures 4 and 16.

The temporary structures on the west side of the Northwest Bastion produced the least porcelain. Three of them, Structures 7, 8, and 10, had porcelain. Structure 7 had one bowl sherd, Structure 8 had one bowl sherd, and Structure 10 had two sherds which, when mended together, comprised a teabowl base. Structures 12 and 17, along the north flank of the Northwest Bastion, each had a few sherds (four and seven, respectively), and the area between them yielded nine more. Saucers and bowls were represented here, with saucers predominating.

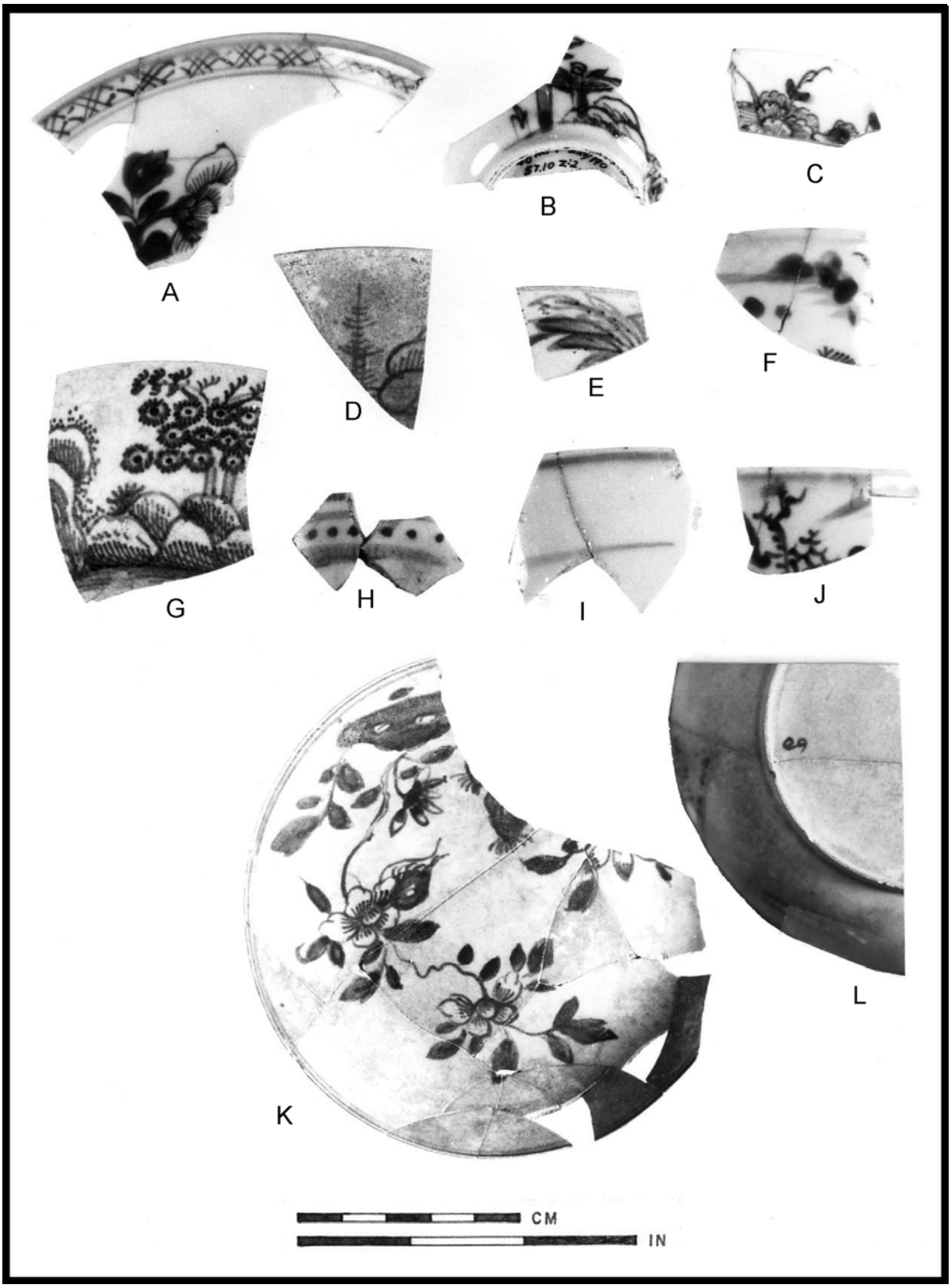

Figure 122. Chinese export porcelain ceramics.

Other features yielding porcelain were: Feature 44, a large trash pit in the Southeast Bastion, which had one sherd; Feature 79, a latrine located along the west curtain, which had one sherd; Feature 178, a large shallow trash deposit in the Southeast Bastion, which had two sherds; and Feature 182, a short, shallow trench in the Southwest Bastion, which had one sherd. There are eight sherds from the entire ditch and ravelins area. The remainder of the porcelain sherds with known proveniences were scattered among the general proveniences within the fort, or were from unknown (e.g., WPA) contexts.

Generally, the variety of sizes and designs found in the Fort Loudoun porcelain assemblage could be interpreted as Miller and Stone interpreted the same phenomenon observed in several historic ceramic types from Fort Michilimackinac (1970:30), that is, as indicative of repeated acquisitions of small lots. Certainly this would be consistent with the remoteness and uncertainty of supply that confronted Fort Loudoun, but considering the short duration of occupation there could also suggest that Fort Loudoun's eighteenth century occupants did not preoccupy themselves with keeping fashionable standards at the tea table.

Chinese export porcelain has been found on many eighteenth century colonial sites. Besides Fort Michilimackinac, Miller and Stone mention Rosewell, Marlborough, and Williamsburg in Virginia, Fort Ligonier in Pennsylvania, the Fortress at Louisbourg, Nova Scotia, and the trading post at Portland Point, New Brunswick (Miller and Stone 1970:82). Additionally, Fort Stanwix in New York had Chinese export porcelain in quantity (Hanson and Hsu 1975:115), and Fort Prince George, Fort Moore, and Toxaway in South Carolina, and Fort Dobbs and Brunswick Town in North Carolina are reported by South as having this ware (1977a:154-259).

In the Little Tennessee Valley, Chota-Tanasee, the Overhill Cherokee capital and Fort Loudoun's nearby contemporary site, also has produced Chinese export porcelain sherds (Newman 1977:26;1986:418-419, Table 8.3). Newman suggests that some of the European ceramics at Chota-Tanasee probably came from Fort Loudoun, and it is interesting to note that he reports mid-eighteenth century Chinese export porcelain with overglaze enamel decoration but none with underglaze blue painted decoration, the only kind found at Fort Loudoun. Chinese export porcelain has also been recovered from the nearby Cherokee village of Tomotley (Carnes 1983:Table II.3) and the village of Mialoquo (Russ and Chapman 1983:100).

White Saltglazed Stoneware
Total: 176
Figures 123A-G and 124A and B

Typical of the ceramic advances made by the English in the first half of the eighteenth century, the thin, hard ware now most commonly called white saltglazed stoneware was well represented at Fort Loudoun. The sherds number 176, which constitutes 21.49 percent of the total historic ceramic assemblage (Table 127). Miller and Stone give a date range of 1730-1770 (1970:68) for this ware, and South (in collaboration with Noel Hume) provides two ranges: 1720-1805 for the generalized ware (excluding plates and molded forms), and 1740-1775 specifically for white saltglazed stoneware plates (1977a:210-211). Godden gives the same range as Miller and Stone (1965:xv). Clearly, Fort Loudoun's occupation dates are widely bracketed by the known chronological limits of white saltglazed stoneware, and the presence of this ware at the fort could have been reliably predicted.

The white saltglazed stoneware vessel forms evident in the Fort Loudoun assemblage are teabowls, saucers, octagonal plates, a teapot or other spouted vessel, and possibly a small covered jar or bowl (Table 128). As with the Chinese porcelain, these forms are mostly teaware items. There is some variation in the quality of the potting displayed, but generally this ware is thin and light and as graceful as the Chinese porcelain. The minimum number of teabowls is nine and the maximum number is 14. The minimum number of saucers is 19 and the maximum number is 30. The minimum number of plates is five and the maximum number is nine. Only one teapot is represented by a single sherd that appears to be from a gently curved, elongated spout. The proposition that a small covered jar or bowl is present in the assemblage derives from a single fragment from a lid (Figure 123B). Only 2 in. (51 mm) in outer diameter, it is intended to fit within a rather small aperture (1-1/2 in.; 38 mm) and may actually be a teapot lid, corroborating the identification of the spout sherd mentioned above and eliminating the covered jar or bowl form from the inventory of forms. Hanson and Hsu identified a similarly sized lid and the bowl it fitted as a sugar bowl (1975:120). There is one other sherd that also may be from a teapot but this attribution is wholly conjectural. Unlike any

other sherd in the saltglazed stoneware assemblage, this curved body sherd has a simple decoration composed of a set of three concentric impressed lines, which presumably encircled the body of whatever vessel the sherd came from. Unfortunately, no other observations or impressions about the nature of this vessel can be made. So, the overall minimum number of white saltglazed stoneware items is 34 and the maximum number 54, not counting the possible jar.

Measurements taken from the measurable sherds are summarized in Table 129. Teabowls range between 2-1/2 in. (63 mm) and 3-1/2 in. (89 mm) in rim diameter. All the teabowl feet have diameters of 1-1/4 in. (32 mm) or 1-1/2 in. (38 mm). Although no teabowls complete enough to allow measurement of height were recovered, Figure 123A suggests some of the proportions of these vessels based on similar pieces reported by Hanson and Hsu (1975:120). Saucer rim diameters range between 4 in. (101 mm) and 5 in. (127 mm), and saucer foot diameters range between 2 in. (51 mm) and 2 3/4 in. (70 mm). Three saucers with full profiles measure as follows: (1) 4-1/2 in. (114 mm) rim diameter, 2-1/2-1/2in. (63 mm) foot diameter, and 1-1/4 in. (32 mm) height (Figure 123C); (2) 4-1/2 in. (114 mm) rim diameter, 2 in. (51 mm) foot diameter, and 1 in. (25 mm) height (Figure 123D); and (3) 4-1/4 in. (108 mm) rim diameter, 2-1/4 in. (57 mm) foot diameter, and 1-1/4 in. (32 mm) height (Figures 123E and 124A). The octagonal plates (Figures 123F and G and 124B) are all 8 3/4 in. (222 mm) in their outer marly diameter (i.e., capable of being inscribed within a 8 3/4 in. diameter circle), all 6-1/2 in. (165 mm) in cavetto diameter, and all 5-1/2 in. (140 mm) in basal diameter.

With the single exception of the impressed-line decorated sherd mentioned above, none of the plain white saltglazed stoneware sherds from the Fort Loudoun assemblage have any decoration whatever, not even the molded relief designs so common in this ware everywhere else it has been found. More typically, no hallmarks or modifications are evident.

The saucers and teabowls are all thrown, as doubtless is the teapot. Some teabowls and saucers show irregular, unglazed patches on their bases, which may be the result of kiln stacking protecting these areas from exposure to the saltglazing atmosphere. The plates are formed by molding but appear to be the products of several different molds, unless marked differences in size and shape of the marly (as viewed in section) existed within the same mold from one side of the plate to the other. In addition, some plate sherds exhibit faint concentric scratches as though they had been turned on a wheel subsequent to being removed from the mold. This plain octagonal plate form in white saltglazed stoneware was not described in the literature available to this author, but this shape is known in delftware. Ray (1968:Figure 79) illustrates such a plate, attributing it to the period 1745-1755. It is illustrated in shell-edged pearlware by Noel Hume (1969b:25) and in both plain and relief molded, enameled creamware, again by Noel Hume (1972b:351, 353), but the only stoneware version of an octagonal plate located in the literature was both relief molded (scroll, five-dot and stellate diaper) and transfer printed (Rackham and Road 1924:Plate XCI, Figure 164). The size given for this plate (8-1/4 in. or 209 mm) is closely equivalent to that of the plates from Fort Loudoun.

The pattern of distribution of white saltglazed stoneware within the fort, as with Chinese export porcelain, focuses on structures and the areas near and between them. In the Southeast Bastion, Structures 5 and 6, the area between them and all around Structure 6 yielded the greatest number of sherds. Structure 5 had three sherds within it, all from the plate form, and Structure 6 had 10 sherds within it, with at least one saucer, one teabowl, and one plate represented. The area between these two structures produced 13 sherds from plates and saucers, and the other three sides of Structure 6 had 13 sherds which represent mostly saucers, but at least two teabowls and one plate were present. The only other white saltglazed stoneware from the Southeast Bastion was one saucer sherd from Feature 44, a trash pit near the apex of the bastion. The Parade Ground to the west of Structures 5 and 6 had four more sherds from saucers and a plate. Features 150 and 159, the drainage system, produced seven sherds, with saucers and at least one teabowl evident. Feature 158, part of the innermost abandoned palisade line trench, yielded one additional saucer sherd in this general Parade Ground area.

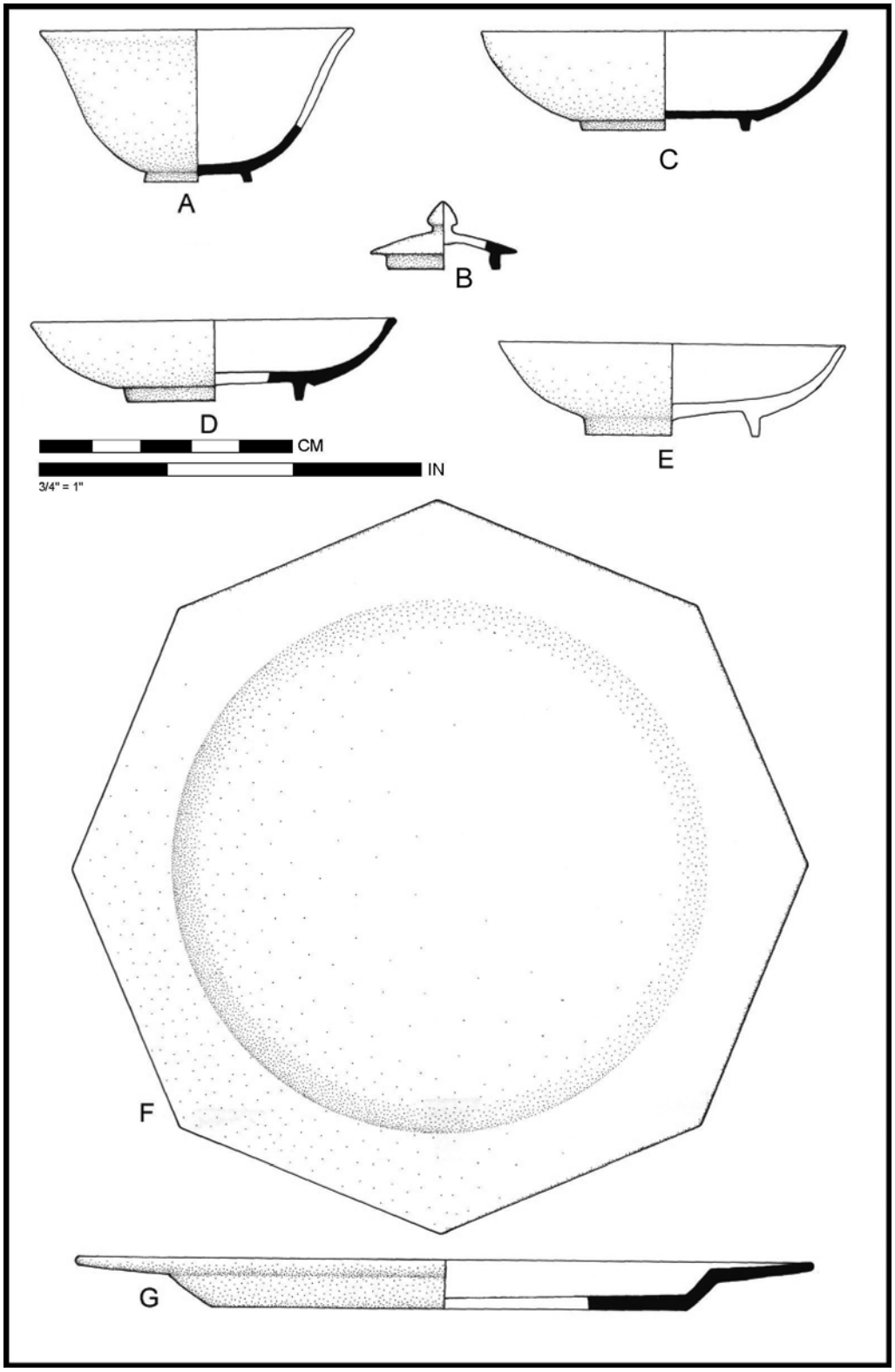

Figure 123. Profiles and reconstructions of selected white saltglaze stoneware ceramics. **A**. Teabowl. **B**. Teapot Lid. **C, D,** and **E**. Saucers. **F**. and **G**. Octagonal Plate.

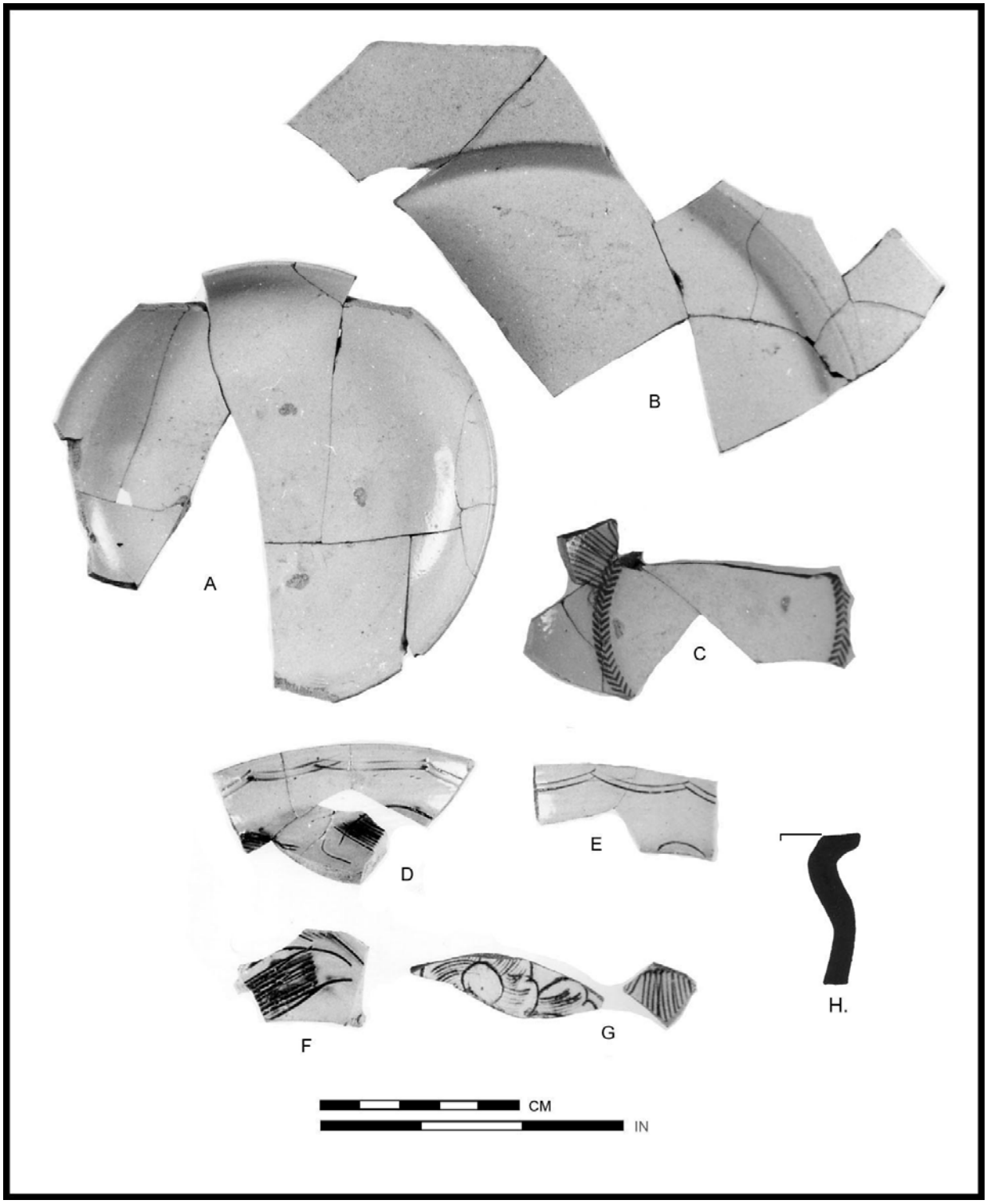

Figure 124. Saltglaze ceramics.
A-B. White saltglazed stoneware ceramics. **C-G**. Scratch-blue saltglaze stoneware ceramics. **H**. Brown saltglaze stoneware rim profile.

In the Northwest Bastion, the two areas where structures were located both yielded white saltglazed stoneware. The west area, where the temporary buildings (Structures 7, 8, 9, 10, and 11) were, yielded relatively little of this ware: Structure 7 had one plate sherd, Structure 8 had one saucer sherd within its boundaries and two plate sherds from adjacent squares, and Structure 10 and its Feature 104 had 16 sherds representing several saucers and at least two plates. The northern Structures, 12 and 17, produced white saltglazed stoneware as follows: one saucer sherd from within Structure 12, and one saucer sherd and one plate sherd from adjacent squares; 12 sherds, one representing a saucer and the remainder plates were recovered from within Structure 17 and one adjacent square, produced two additional plate sherds.

The slope midden area produced 11 sherds representing saucers, teabowls, plates, and a teapot. Structure 16, in the Northeast Bastion, had three saucer sherds in its fill.

The Barracks area produced 13 sherds of white saltglazed stoneware, one saucer sherd from Feature 79, a latrine, and the remainder from the general proveniences, including the teapot (bowl?) lid sherd. A single teabowl is represented, but except for the teapot sherd mentioned above, all the rest of the sherds are from saucers. The only structure in this area, Structure 14, did not have any white saltglazed stoneware directly associated with it, nor did the area of the Barracks yield any of this ware. Other areas where this ware was recovered included: the southwest corner of the ditch; the Rivergate area terraced for the construction of the Ravelin Lyttelton; and the Cherokee village Feature 356, a trash pit which produced two saucer sherds and the impressed-line decorated sherd which is thought to be from a teapot. All the rest of the white saltglazed stoneware sherds are from the general proveniences within the fort, although some came from disturbed contexts such as WPA fill redeposition and so are not included in the distributional study.

The limited number of vessels and vessel forms, the relative uniformity of sizes within vessel forms, and the lack of variation in decoration could suggest that, unlike the Chinese export porcelain, much of the white saltglazed stoneware at Fort Loudoun arrived there as a limited number of sets, perhaps only two or three. Even the octagonal plates, although shaped in slightly different molds, could be from the same manufacturer and be contemporaneous, assembled into a set by a distributor.

Miller and Stone, in their account of the white saltglazed stoneware from Fort Michilimackinac, cite the presence of this ware at Fort Ligonier, Pennsylvania, and at the Fortress at Louisbourg in Nova Scotia (1970:68). It has also been found at Fort Stanwix, New York (Hanson and Hsu 1975:119-121), at Rosewell, Virginia (Noel Hume 1962b:169), at Marlborough, Virginia (Watkins 1968:135-6), at Williamsburg, Virginia (Noel Hume 1969b:14-17), at Brunswick Town, North Carolina, Fort Prince George, South Carolina, Fort Moore, South Carolina, Goudy's Trading Post (Fort Ninety Six, South Carolina), at the Rock Turtle Site, South Carolina, the Paca House, Annapolis, Maryland (South 1977a:154-259), in the British Revolutionary War camps in Manhattan (Calver and Bolton 1950:245-6) and at Chota-Tanasee, Tennessee (Newman 1977:26, 1986:Table 8.3). Again, Newman's historic ceramic assemblage from Chota-Tanasee has a variant of a type which was not found at Fort Loudoun. Although Fort Loudoun is the most likely source for the white saltglazed stoneware found at Chota-Tanasee, Newman reports the presence of molded (presumably relief decorated) white saltglazed stoneware (1977:26), of which none was recovered at Fort Loudoun. This ware was also recovered at the Cherokee village of Tomotley in small quantities (Carnes 1983:Table II.3)

Scratch-Blue Saltglazed Stoneware
Total: 53
Figures 124C-G

Scratch-blue saltglazed stoneware is present in the Fort Loudoun historic ceramic assemblage and is the only fine, decorated white saltglazed stoneware that was encountered. There are 53 sherds, which constitute 6.47 percent of the total historic ceramic assemblage. More sherds might have been expected, according to Noel Hume as cited by Grimm (1970:162). Noel Hume explicated Fort Ligonier's greater ratio of scratch-blue saltglazed stoneware to plain white saltglazed stoneware (as compared with Williamsburg) by observing that the scratch-blue variant was not common until the third quarter of the eighteenth century, and thus a site occupied within that quarter would evidence more scratch-blue relative to the plain white saltglazed stoneware than an earlier site. The ratio at Fort Ligonier (1758-1766) is three scratch-blue sherds to five plain white sherds. The ratio at Fort Loudoun (1756-1760) is three scratch-blue sherds to 10 plain white sherds. Although by Noel Hume's dating, Fort Loudoun may be somewhat early for a lesser differential in ratio between these stoneware types, other researchers extend scratch-blue saltglazed stoneware back in time a decade or so earlier. South (1977a:210) gives a range of 1744-1775, and Miller

and Stone give a range of 1740-1770 (1970:72). Even from dated pieces in various collections, it is evident that the popularity of scratch-blue saltglazed stonewares was established by the time of the occupation of Fort Loudoun, so perhaps the remoteness of the fort can account for the relative scarcity of this variant, as compared with Fort Ligonier, for example.

Nonetheless, even this small number of sherds forms a surprisingly coherent sample. Only two vessel forms are present and these are teaware items – teabowls and saucers (Table 128). There are a minimum and maximum of three teabowls in the assemblage. Saucers minimally number six and maximally number ten. The minimum number of vessels, then, is nine and the maximum number is 12 (one saucer rim type and one saucer foot type are from the same vessel and though they cannot be reconstructed into a full profile vessel, they cannot be counted as two different vessels in the calculation of the maximum vessel number).

Although no full profile vessels were recovered, a review of measurements of rims and feet shows a uniformity in size for the two vessel types present. Two teabowl rims measure 2-1/2 in. (63 mm) in diameter and one teabowl rim measures 3 in. (76 mm) in diameter. No other measurements for this vessel form could be made, unfortunately. Two saucer rims measure 4-1/2 in. (114 mm), one other saucer rim measures 4 3/4 in. (120 mm), and three more saucer rims measure 5 in. (127 mm) The three measurable saucer feet are all 2-1/2 in. (63 mm) in diameter.

Like the plain white saltglazed stoneware vessels, these are thin and well-potted. The cobalt-filled incised designs are skillful and pleasing, though one saucer shows some roughness in the glaze surface where the closely incised graffito lines are used to fill in a flower petal, as though the saltglaze has bubbled in these areas where the cobalt oxide colorant is concentrated.

Decorative motifs include two kinds of borders and two kinds of free designs (Figure 124C-G). The border on all of the vessels but one is the double line swag or scallop border. This was used in combination with free floral designs. The other border and other free design type are also found together but only on one saucer. The border is of small rouletted chevrons and it is associated with a free design motif that Grimm refers to as "wheat pattern" (1970:162). Apparently a conventionalized wheat sheaf is represented. Grimm illustrates several vessels bearing both this motif and the rouletted chevron border, though they do not appear on the same vessel (see Grimm 1970, Plate 65). The free design motifs appear on the outsides of teabowls and on the insides of saucers. The swag border appears on both the inside and outside rims of teabowls and on the inside rims of saucers. The rouletted chevron border circles the bottom inside circumference of the wheat decorated saucer. No hallmarks or modifications are evident.

As far as distribution is concerned, two areas within the fort had the primary concentrations of scratch-blue saltglazed stoneware . These areas were the Structure 6 and Parade Ground area of the Southeast Bastion, and Structure 17 and surrounding area in the Northwest Bastion. From three squares within Structure 6 and one square immediately adjacent, four sherds from the wheat pattern saucer were recovered. The Parade Ground between Structure 6 and the Barracks yielded two teabowl sherds, two additional wheat saucer sherds, and two more sherds with floral designs. Feature 159 produced one more floral saucer sherd. The only other Southeast Bastion provenience having scratch-blue saltglazed stoneware was one square within Structure 1, which had one saucer sherd.

Structure 17 in the Northwest Bastion had within its boundaries or as part of the fill eight saucer sherds, with four more saucer sherds coming from adjacent squares. These are all probably from one saucer, two other pieces of which came from Feature 104 and from the slope midden area, respectively. The latter area, east and slightly south of Structure 17, also produced three teabowl sherds.

There are several other areas where this type of stoneware was recovered, though in small quantities. Structure 16 produced four saucer sherds, and one more saucer sherd came from an adjacent square; probably only one saucer is represented. Near Structure 8 in the Northwest Bastion three teabowl sherds were recovered. It is interesting to note that these are the only scratch-blue saltglazed stoneware sherds found near the northwest living area of the fort. The east ditch near the Rivergate yielded one saucer sherd. Any other sherds with known proveniences not summarized just above came from disturbed contexts.

The limited number and kind of vessels and the rather exclusive distribution of this kind of saltglazed stoneware suggest that it was only present at Fort Loudoun as a few odd items of teaware, perhaps the

possessions of officers. This latter interpretation is suggested, not because of the relative expense of this type of stoneware, but rather because it is assumed that fancy teaware, especially a comparatively uncommon kind at Fort Loudoun, would be more likely the preference or prerogative of higher status individuals.

Other sites where this kind of saltglazed stoneware has been found include Fort Michilimackinac in Michigan (Miller and Stone 1970:72), Fort Prince George and the Rock Turtle site in South Carolina (South 1977a:255-256), Brunswick Town in North Carolina and the Paca House in Annapolis, Maryland (South 1977a:256, 258), Marlborough in Virginia (Watkins 1968:135), Fort Stanwix in New York (Hanson and Hsu 1975:121), and the British Revolutionary War hut camps of Manhattan (Calver and Bolton 1950:249). Miller and Stone also cite Williamsburg, Virginia, Fort Ligonier, Pennsylvania, Portland Point, New Brunswick, and the Fortress at Louisbourg, Nova Scotia (1970:72). Grimm, in his discussion of the scratch-blue saltglazed stoneware from Fort Ligonier, also cites its presence at the contemporary Indian encampment at Fort Ligonier and at the Great Crossings on the Washington Braddock Road (1970:162). This ware has not been reported from any of the other Cherokee villages in the vicinity of Fort Loudoun.

Brown Saltglazed Stoneware
Total: 6
Figure 124H

This ware, dating between 1690 and 1755 (South 1977:210), is found mostly in the form of robust, utilitarian vessels such as mugs, jugs, jars, and bowls. It has been variously described, and the literature leaves the impression that quite a range of colors and textures is included in this ware. Subsumed under this name are Nottingham stoneware, which is fine-grained, light-weight, and evenly glazed a rich, dark brown (Miller and Stone 1970:77), and a coarser, heavy-bodied stoneware that features a dark, brownish, mottled zone on the upper part of the vessel and a light-colored lower body, also known as “tiger-ware” (Miller and Stone 1970:77). No description exactly fitting one of the utilitarian stonewares from Fort Loudoun emerged from the literature on British ceramics. Presumably the stoneware in question is one of the varieties of brown saltglazed stoneware and merely differs in color from the more typical material described in the literature. Because only six sherds (0.73 percent of the total ceramic assemblage) were found and they are all from one vessel (a small storage jar), no notion of the color parameters of English brown saltglazed stoneware can be achieved on the basis of this assemblage, resulting in the recovered stoneware appearing to be more atypical in color than it probably would seem within a much larger collection of contemporary stoneware.

In any case, the brown saltglazed stoneware from Fort Loudoun is a light color, intermediate between tan and grey, and the same color is to be found on both surfaces, as well as, all the way through the bodies of the sherds. The outside surface has been smoothed with a self-slip, while the inside bears clear throwing marks. No decoration of any kind is evident. The exact shape or proportions of the jar cannot be determined from the recovered fragments, but it probably resembles the larger, globose, brown stoneware jars illustrated by Noel Hume (1962:209, Figures 28-3 and 4). One distinctive feature of this small jar is the flattened, everted, shelf-like rim (Figure 124H), which may have been designed to facilitate the seating of a lid. The only measurements that could be made on this vessel were of the rim diameter. The outer diameter was just over 2-1/2 in. (64 mm) and the inner diameter, or aperture of the jar, 2-1/4 in. (57 mm).

Only four of these stoneware sherds have specific proveniences. One came from the Parade Ground west of Structure 6. Another was found within Structure 16 in the Northeast Bastion. The other two came from proveniences immediately adjacent to the south curtain. The easternmost provenience was an excavation square midway along the south curtain and about halfway between the outer palisade line and the Parade Ground drainage ditch, Features 150 and 159. The sherd from the western end of the south curtain came from Feature 162, a large WPA disturbance just west of the south gate and intrusive upon the juncture of the two drains, Features 76 and 159.

Westerwald Blue-on-Grey Stoneware
Total: 3
Figure 125J

Persisting well into the eighteenth century in the form of mugs, jugs, and chamber pots, German Westerwald blue-on-grey stoneware had deteriorated from its seventeenth century excellence into mass-produced ordinariness by the time of the occupation of Fort Loudoun (Noel Hume 1972a:281). Its near

indestructibility made it a superior choice for hard use, such as taverns, and it would certainly have been a practical ware for frontier use. South (1977a:210) gives this ware a dating range from 1700 to 1775.

At Fort Loudoun, only three sherds of Westerwald blue-on-grey stoneware were recovered, representing 0.37 percent of the total historic ceramic assemblage. At the least and at the most, these sherds came from two mugs. They would have been generally similar to those illustrated by Noel Hume (1972a:Figure 92; 1967:Figure 6). Two of the sherds are rims that include a remnant of the decorative cordoning (Figure 125J). The other sherd is a body sherd with both the cordoning and the decorative blue zone present. The measurable rim is 4-1/2 in. (114 mm) in diameter, which approximates the 4-3/8 in. rim diameter Noel Hume correlates with the one quart capacity Westerwald mugs and jugs, often marked with the number "4" (Noel Hume (1967:352, 1972a:282).

No decorated areas of the Westerwald mugs from Fort Loudoun were recovered so no motifs can be identified and described from this material. Throwing marks are quite visible on the inside surfaces of the sherds. The potting is heavy, as might be expected in a ware intended for hard use. The interior of the body and the surfaces are the same uniform grey. The blue decoration varies in color between the two sherds exhibiting it.

Within the fort, the one rim sherd and the body sherd are from two nearby squares situated between Structures 12 and 17. The other rim sherd came from Feature 3, a fort period trash deposit in the west ditch.

Many eighteenth century sites have yielded Westerwald archaeologically. Military sites where it has been found are: the British Revolutionary War hut camps in Manhattan, New York (Calver and Bolton 1950:247), Fort Moore, South Carolina (South 1977a:254) Goudy's Trading Post at Fort Ninety-Six, South Carolina (South 1977a:255), Prince George, South Carolina (South 1977a:255), Fort Ligonier, Pennsylvania (Grimm 1970:162). Fort Stanwix, New York (Hanson and Hsu 1975:121), Fort Michilimackinac, Michigan (Miller and Stone 1970:74), and the Fortress at Louisbourg, Nova Scotia (Miller and Stone 1970:76).

Domestic sites with this ware include: Williamsburg, Virginia (Noel Hume 1969d:27), Marlborough, Virginia (Watkins 1968:129), Rosewell, Virginia (Noel Hume 1962b:186), the Paca House in Annapolis, Maryland (South 1977a:258), and Brunswick Town North Carolina (South 1977:256-258). Ethnohistoric sites from which Westerwald stoneware was recovered includee Chota-Tanasee in Tennessee (Newman 1977:26; 1986:Table 8.3) and the Rock Turtle site in South Carolina (South 1977a:256).

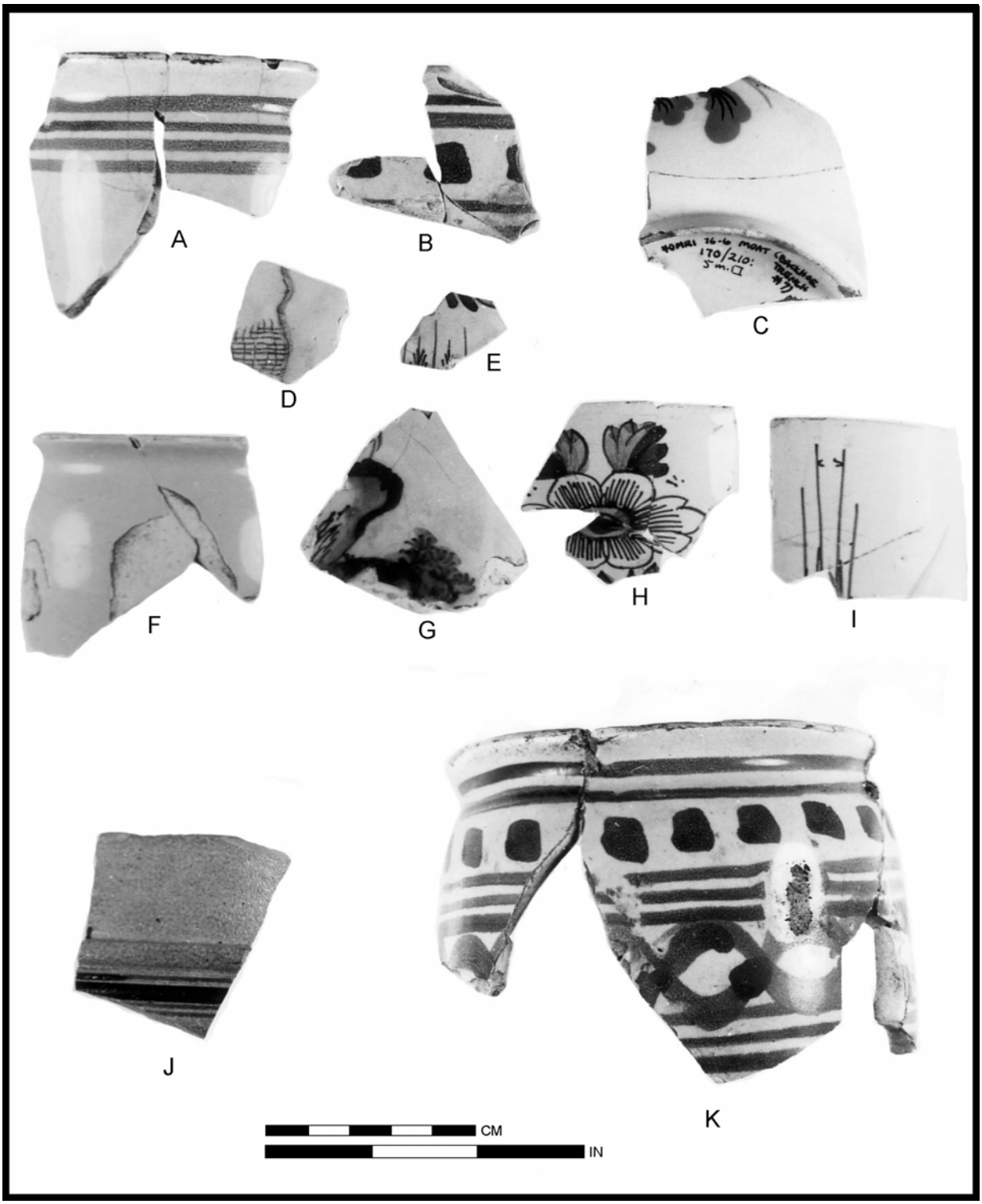

Figure 125. Delftware and Westerwald Blue-on-Grey Stoneware.
A-**I**, and **K**. Delftware ceramics. **J**. Westerwald Blue-on-Grey Stoneware.

Delftware
Total: 116
Figures 125A-I and K and 126A-C

English delftware was available in Colonial America throughout the eighteenth century, so its presence at Fort Loudoun was to be expected. There were 116 sherds of delftware in the historic ceramic assemblage, accounting for 14.16 percent of the total assemblage (Table 127). The vessel forms are of two kinds, storage vessels (apothecary jars and ointment pots) and vessels for the consumption of food (plates and bowls). There is a minimum of four bowls and a maximum of seven. At the most, two plates are represented, and that is also the least number of plates present. Apothecary jars minimally and maximally number seven, and there are at least (and at most) three ointment pots (Table 128). The minimum number of delftware vessels represented, then, is 16 and the greatest number is 19.

Measurements of these vessels are shown in Table 129. Bowl rim diameters range between 5 in. (127 mm) and 6 in. (153 mm). Bowl foot diameters range between 3-1/2 in. (89 mm) and 4-1/2 in. (114 mm). No fully measurable bowl profiles were recovered, but these bowls are probably the same shape as those illustrated by Hanson and Hsu (1975:Figure 62-a), essentially the footed oriental style much favored by eighteenth century English taste. Only one plate could be measured. It is round, with a wide marly and a deep, flat-bottomed cavetto (Figure 126A; Ray 1968:238, Profile E; Noel Hume 1977:Figure VII-14). Its outer marly diameter is 8-1/2 in. (215 mm), its inner marly diameter is 6 3/4 in. (171 mm), and its basal cavetto diameter is 5 3/8 in. (137 mm). No measurement of height can be made.

So-called apothecary jars are essentially cylindrical vessels used for the storage of various materials, not necessarily just drugs or chemicals. Rims from delftware apothecary jars in the Fort Loudoun ceramic assemblage all have the constricted neck combined with an everted lip, which characterizes apothecary jars in both the seventeenth and eighteenth centuries. Of the three measurable bases from Fort Loudoun apothecary jars, two evidence the earlier characteristic of a constriction just above the base, and one does not have the constriction (Noel Hume 1972a:203-204, 1977:25). Apothecary jars range between 4 in. (101 mm) and 4-1/2 in. (114 mm) in rim diameter, and between 3-1/2 in. (89 mm) and 4-1/2 in. (114 mm) in basal diameter. Although no fully measurable apothecary jars were recovered, one jar so closely resembles Noel Hume's description and illustration (1972a:204-205) of a typical mid-eighteenth century apothecary jar that the proportion of the scaled illustration have been used to project the probable height of the recovered, but incomplete, jar. The projected height is 7 in. (178 mm) and the reconstructed piece is illustrated in Figure 126B.

Recovered ointment pots are of two shapes, both illustrated by Noel Hume (1972a:Figures 67-4 and 67-6). One pot of the later, pedestaled, post-1730 shape was found, as well as two pots of the other, earlier and more cup-like shape. The time ranges of the two shapes overlap from 1730 and 1780, so their co-occurrence at Fort Loudoun is not remarkable. The pedestaled form has a fully measurable profile (Figure 126C). Its rim diameter is 2 in. (51 mm), its basal diameter is 1 in. (25 mm), and the height is 1 3/8 in. (35 mm). The other form is represented by basal sherds only and their diameters measure 1-1/4 in. (32 mm) and 1-1/2 in. (38 mm) respectively.

Some Delftware vessels in the assemblage are not decorated in any way. At least two apothecary jars are plain grey (Figure 125F); the ointment pots (typically) are all undecorated, and there is a number of thinly potted plain grey sherds, possibly from bowls. The latter sherds may be from undecorated areas of decorated bowls, however. Overall there are 22 plain grey sherds, which is 19 percent of all the delftware sherds. Bowls, plates, and apothecary jars are decorated with either monochromatic blue or polychrome painting on the greyish or white tin enamel surface. Lighter and darker tones of the blue are exploited to some advantage on the tin enamel ground, which is usually one or another shade of grey, uniform over each vessel, but varying from one vessel to the next. Three bowls, two plates, and five apothecary jars have blue painted decoration.

On bowls the decoration includes borders on the inside or outside of rims and free asymmetrical designs. The nature of the bowl border motifs cannot be determined from the small sherds on which they appear. Free designs of bowls appear on the outsides of the vessels and consist of floral and landscape motifs, with the Chinese influence apparent. Blue painting on plates appears on the marly in the form of what is probably a geometric border, but the plate remains are so fragmentary that the exact pattern is undeterminable. Some sherds from the bottoms of plates have remnants of blue decoration on them,

suggesting that the cavetto centers of plates were decorated, but motifs could not be identified. Decorated only on the outside surfaces, apothecary jars have blue painting of two kinds: (1) unevenly painted horizontal bands of lines, perhaps alone or perhaps accompanying bands of blob-like dots and a chain-link band around the middle of the vessel; and (2) Chinese landscapes painted with more care than the geometric designs just described and accompanying borders of single or multiple thin lines painted around the constriction at the necks of these vessels.

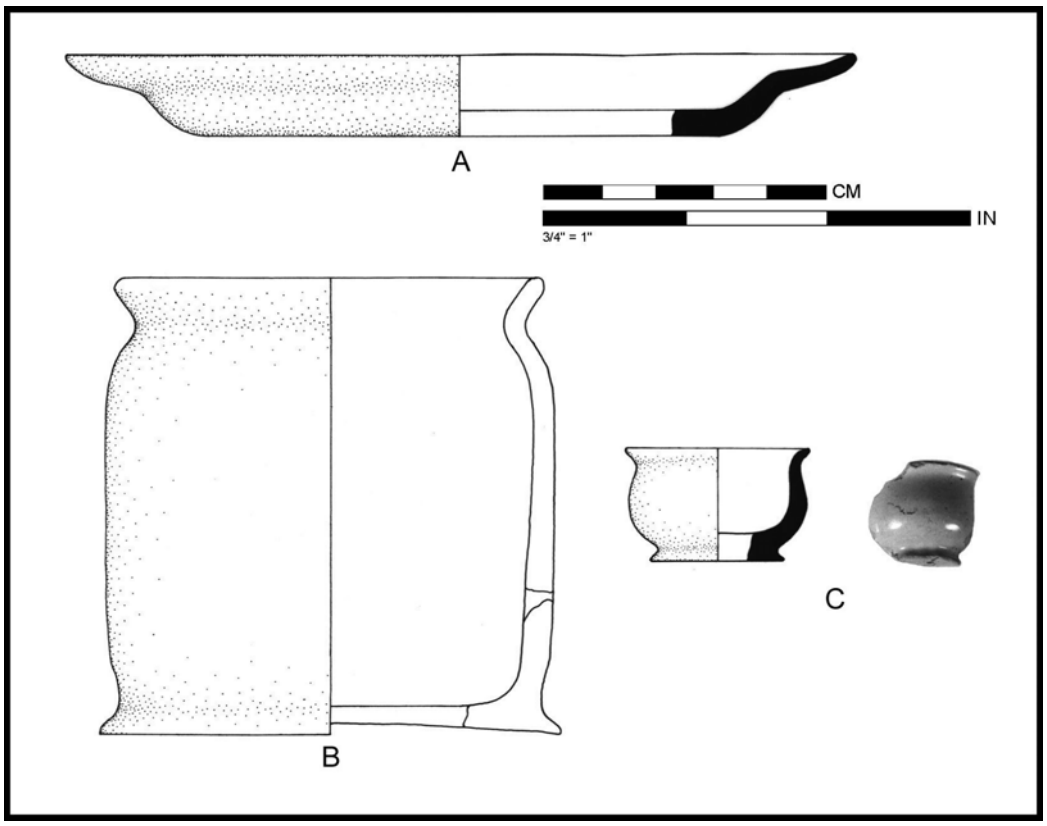

Figure 126. Profiles and reconstructions of selected Delftware ceramics.
A. Plate **B**. Apothecary Jar **C**. Ointment Pot

Figures 125A-I and K illustrate some of the range of variation in decoration in the Fort Loudoun assemblage. One apothecary jar exactly corresponds in its decoration to Noel Hume's description of the monochrome mid-eighteenth century version of typical seventeenth century delftware jars decorated in blue and purple or orange (1972a:203-4). There is also a jar that is probably of the later, "most degenerate" type (also described by Noel Hume in the same passage), having only three groups of four thin blue horizontal lines with blank zones separating the groups. Noel Hume dates these between 1755 and 1780. There are 81 blue decorated sherds which comprise 70 percent of all the delftware sherds recovered.

Only one polychrome decorated delftware vessel was recovered. It is a medium sized bowl, with a 6 in. (153 mm) rim diameter and a 3-1/2 in. (89 mm) foot diameter. The design is floral and the colors are the Fazackerly ones: yellow-green, blue, red, yellow, and black. The design appears on the sides of the bowl and also on the center bottom. Although too fragmentary to describe, the design probably resembles that illustrated by Hanson and Hsu (1975:Figure 62-a). In comparison with the greyish enamel ground of the blue-decorated delftware, the ground of which the polychrome colors are painted is quite white. The Fazackerly colors and the floral motifs associated with them are dated about 1760 by Miller and Stone (1970:34), and the collectors' documentary vessels, a pair of mugs, are inscribed with the dates 1757 and 1758 (Ray 1968:181). These colors and floral designs are most often attributed to the Liverpool delftware potteries, and Miller and Stone make the interesting observation that Liverpool and Bristol were the two major ports serving the American trade, a fact which may in part explicate the presence of Fazackerly polychrome delftware at Fort Michilimackinac (Miller and Stone 1970:36), Fort Stanwix (Hanson and Hsu 1975:123), at Fort Ligonier (Grimm 1970:159), and Fort Loudoun, all contemporary mid-eighteenth century

military occupations. Altogether there are 13 polychrome sherds, which constitute 11 percent of the total delftware sherds recovered. No examples of other decorative schemes for delftware were found.

From this assemblage, quite a range of variation can be observed in the paste of the body, in the potting, and in the thickness of the enamel on the body. The soft body itself is buff-colored for all the vessels except ointment pots. Two out of the three ointment pots present have a pale red body and the third has the buff body noted for all the other vessels. Even this buff color varies among the vessels. In some it is more yellow; in others, more grey. Potting varies from fairly thick and rough in the ointment pots and plain grey apothecary jars to quite thin and carefully smoothed in the Fazackerley polychrome bowl and one other, apparently "fancy," blue-decorated bowl. Potting flaws (gouges and rough spots), painting flaws (smeared designs and a thumbprint-sized area where paint and enamel have been accidentally wiped away), and enamel-firing flaws (patches of missing enamel where two vessels stuck together) are all notable on the utilitarian vessels. The enamel on the more robust utilitarian vessels tends to be thicker than the enamel of the finer vessels, but all vessels evidence the same propensity, typical of delftware, for the enamel to break away from the body and be lost. The "fit" of the enamel on the earthenware body is good on all the delftware vessels, but the enamel is more brittle than the body and consequently subject to both attrition and wear. There are no hallmarks, inscriptions, legends, or other such intelligence on the delftware, nor are any efforts at repair or modification evident.

Distribution of delftware at Fort Loudoun, again, tends to be in and around structures. In the Southeast Bastion and Parade Ground area, Structure 2 and adjacent Feature 50 yielded three plain grey apothecary jar sherds and one ointment pot sherd. Structure 6, the area adjacent to it (mostly on the west), the Parade Ground drainage system (Features 150 and 159 and the southwestern part of the ditch), and the abandoned innermost palisade line (Feature 158) had 46 blue-decorated sherds, representing one bowl, two plates, and three apothecary jars. From the Southwest Bastion and the general southwest quadrant of the site, two undecorated bowl sherds and two plain grey apothecary jar sherds were recovered. The same area yielded two blue-decorated bowl sherds and the blue-decorated apothecary jar sherds. Located near the corner of the west curtain and the south flank of the Northwest Bastion, Feature 79 had two sherds from an ointment pot.

In the western part of the Northwest Bastion, Structure 7 had two plain grey apothecary jar sherds and two blue-decorated bowl sherds, Structure 8 had two blue-decorated bowl sherds, and Structure 9 had one blue-decorated bowl sherd. An additional undecorated bowl sherd came from the area between these four temporary structures. Structure 12 in the Northwest Bastion produced one plain grey apothecary jar sherd, Structure 17 produced one blue-decorated bowl sherd, and the area between them had two blue-decorated bowl sherds and one blue decorated apothecary jar sherd. The slope midden deposits yielded four blue decorated sherds, three from an apothecary jar and one from a bowl. Structure 16 in the Northeast Bastion had one blue-decorated bowl sherd. Other proveniences outside the fort yielding plain or blue-decorated delftware sherds were a pit in the Cherokee village area, Feature 356, which had eight blue-decorated apothecary jar sherds from two different vessels, and the fill over the terraced area intended for the construction of Fort Glen, which yielded one ointment pot sherd.

The polychrome sherds were spread over the whole west side of the fort. There were four sherds from the area between Structures 12 and 17. Three more sherds came from the fill of Structure 7. One polychrome sherd came from a square in the Southwest Bastion. The remaining three whose proveniences are known were recovered from the midden deposit in the ditch west of the south gate of the fort.

Delftware has been found on many North American colonial sites, both seventeenth and eighteenth century ones. The notable eighteenth century sites include Fort Michilimackinac in Michigan, the Fortress at Louisbourg in Nova Scotia, and Rosewell and Marlborough in Virginia (Miller and Stone 1970:28-37). Also in Virginia, Williamsburg has delftware (Noel Hume 1969d:13). Fort Stanwix in New York (Hanson and Hsu 1975:122-125) and Fort Ligonier in Pennsylvania (Grimm 1970:159) are on the list, as are Fort Moore, South Carolina, Goudy's Trading Post at Fort Ninety Six, South Carolina, Fort Prince George, South Carolina, the Rock Turtle Site, South Carolina, Brunswick Town, North Carolina, and the Paca House in Annapolis, Maryland (South 1977a:254-258). Calver and Bolton found this ware in the Manhattan Revolutionary War hut camps (1950:253). The Cherokee sites in the vicinity of Fort Loudoun with this ware included Chota-Tanasee (Newman 1977:26, 1986:Table 8.3), Tomotley (Newman 1978a:51) and Mialoquo (Russ and Chapman 1983:100).

Astbury-Type Leadglazed Fine Red Earthenware
Total: 1
Figure 127A

From the description given by Noel Hume (1972a:123), this single sherd of fine-grained, thin, hard-boiled, pale red earthenware with a clear lead glaze should more properly be called "Bell-type" leadglazed fine red earthenware. Representing 0.12 percent of the total historic ceramic assemblage from Fort Loudoun, this sherd is probably from a mug or a tea bowl, and its only ornamentation is a band of white pipe-clay (appearing yellowish under the glaze) around the outside of the rim (Figure 127A). However, this sherd is small enough that, had sprigging or other such typically Astbury-type pipeclay ornament been present on the vessel, it would not have been possible to determine that from this one sherd. The vessel the sherd represents has a rim diameter of 3 in. (76 mm). The sherd came from one of the slope squares containing fort period trash deposits.

Minimally, two contemporary historic sites yielded this ware: Williamsburg, Virginia (Noel Hume 1969d:35) and Fort Stanwix, New York (Hanson and Hsu 1975:126), but not in quantity. Possibly this Staffordshire, Newcastle-under-Lyme, or Bristol product was not as available to the colonies or was not as popular as other contemporary wanes.

Clouded Ware (Whieldon or Tortoiseshell Ware)
Total: 4
Figures 127B and C

Also referred to as Whieldon-type ware or tortoiseshell ware, this fine earthenware is characterized by shaded mottling or streaking under the clear lead glaze (Figures 127B and C), achieved by the application of oxides of manganese, iron and copper to the creamware body (Hanson and Hsu 1975:125). The resultant colors are various tones of translucent brown, green, blue, purple, grey, and orange. The dating range suggested for this ware is 1740 to 1770 (South 1977a:211), although Godden extends the range another decade later to 1780 (1965:xvi).

In the Fort Loudoun assemblage there are four sherds of polychrome clouded ware (0.49 percent of the total). They are all from one vessel, a cream jug with applied sprigged ornamentation. The sherds include the entire spout of the jug and three body sherds, only one with sprigging. No measurements could be made on this vessel, but the shape of the spout and the style of the sprigging are similar to the tortoiseshell cream jug illustrated by Taggsrt (1963:Figure 1). It is quite likely that this Art Institute of Chicago jug is a good indication of the shape and size of the vessel whose fragments were recovered at Fort Loudoun.

The underglaze colors on the Fort Loudoun clouded ware sherds include brown, green, and a muddy aqua. Only the outside surface is colored. The inside is the deep cream color of early creamware. The sprigging is neatly applied and appears to have been molded rather than modeled by hand. The potting is thin and skillful, but faint throwing marks are visible on the inside surfaces of the body sherds. The inside of the spout shows that it was formed with a tool, probably a fettling knife.

Of the four sherds of this vessel, two were excavated by the WPA project and have no specific provenience. The other two sherds are body sherds and came from the area between Structures 12 and 17, and from the slope trash deposit.

Clouded ware has been found at most of the archaeologically known British and French military sites which were contemporary with Fort Loudoun: Fort Michilimackinac, Michigan (Miller and Stone 1970:63), Fort Stanwix, New York (Hanson and Hsu 1975:125). Fort Ligonier, Pennsylvania (Grimm 1970:164), the Fortress at Louisbourg, Nova (Miller and Stone 1970:64), and Fort Prince George, South Carolina (South 1977a:255). Domestic and ethnohistoric sites yielding clouded wares include the Rock Turtle site in South Carolina, Brunswick Town in North Carolina, the Paca House in Annapolis, Maryland (South 1977:256-258), the Dyckman House in Manhattan, New York (Calver and Bolton 1950:255), Marlborough in Virginia (Watkins 1968:139), Williamsburg in Virginia (Noel Hume 1969d:20) and Rosewell, also in Virginia (Noel Hume 1962b:188).

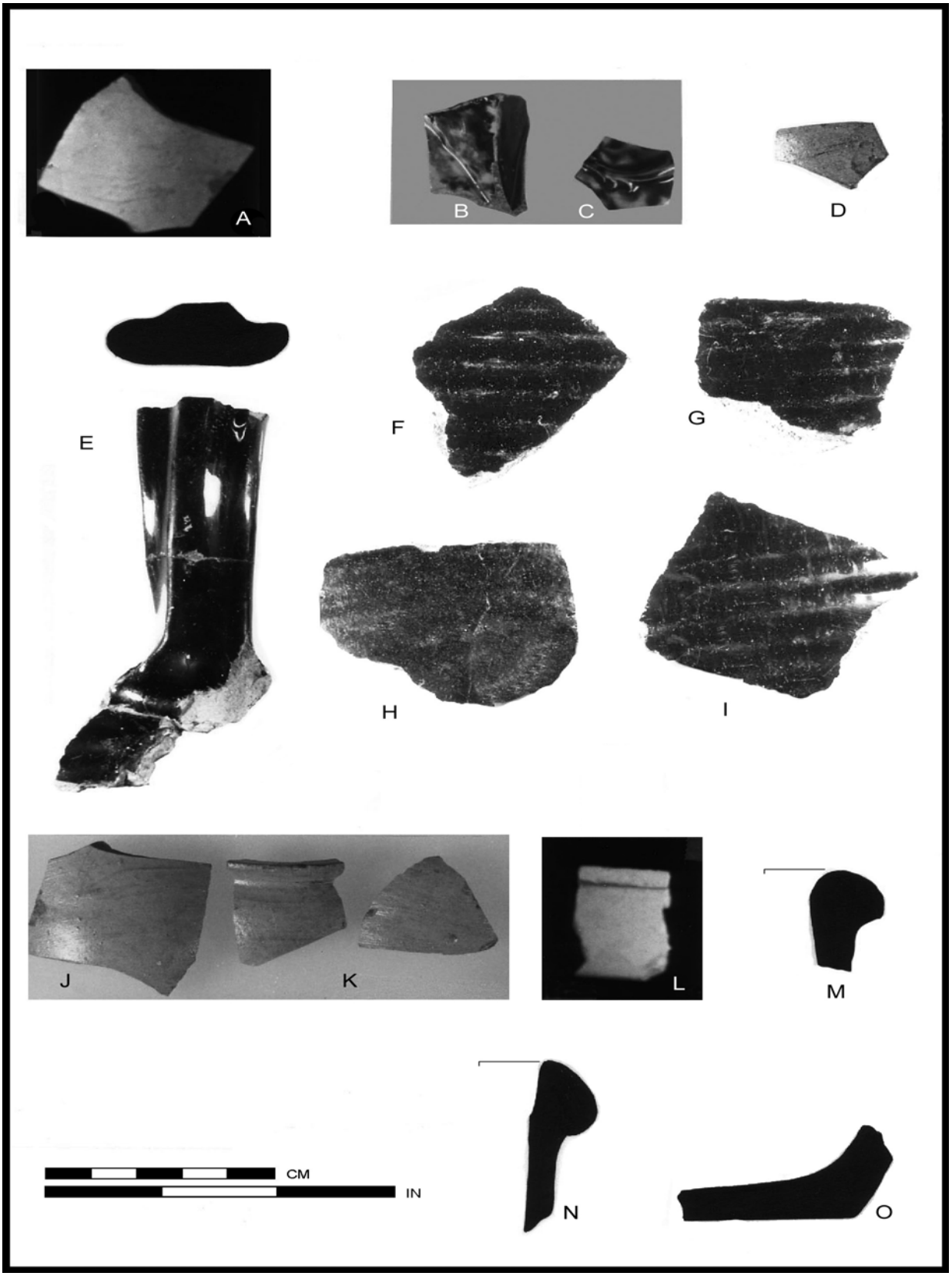

Figure 127. Astbury Ware, Clouded Ware, Leadglaze Slipware, Buckley Ware and Coarse Earthenwares. **A**. Astbury Ware. **B-C**. Clouded Ware. **D**. Leadglaze Slipware. **E**. Buckley Ware Strap Handle and Profile. **F-I**. Buckley Ware. **J-K**. Buff Type 1 Coarse Earthenware. **L-M**. Red Type 1 Coarse Earthenware. **N-O**. Red Type 2 Coarse Earthenware.

Leadglazed Slipware
Total 13
Figure 127D

Also known as "combed ware" this medium fine earthenware has a dating range of 1670 to 1795 (South 1977a:211), although Godden illustrates a platter in every way similar to middle-to-late eighteenth century examples, but which he dates to the nineteenth century (1965:Plate 30). The Fort Loudoun excavations yielded 13 combed ware sherds, which comprise 1.59 percent of the total historic ceramic assemblage.

This material is both scant and small (Figure 127D), so determination of vessel forms and counts becomes somewhat conjectural. The sherds are glazed on both the inside and outside surfaces, except for a basal sherd that is glazed on the inside only. The size and shape of the basal sherd and the fact that the decorative combed lines would have been on the outside of the vessel support the interpretation that most of the sherds are from a cup, of which probably only one is represented. Its basal diameter is 2-1/2 in. (63 mm) but no other dimensions can be determined. This vessel probably resembles those illustrated by Noel Hume (1969d:Figure 24), Calver and Bolton (1950:Figure 7) and Miller and Stone (1970:Figure 33), the cup form being one of the most common found in this ware. Another vessel or two may be represented by these sherds, a proposition based more on the proveniences of two particular sherds than on observable morphological differences.

One sherd came from a trash deposit in the southeast ditch (Feature 34) that yielded primarily pearlware and has been interpreted as resulting from activities associated with the late eighteenth and early nineteenth century occupation of the Tellico Blockhouse or an occupation in this area at the same time. This combed ware sherd has a pinkish tinge to its buff earthenware body, but is otherwise similar to the rest of the combed ware sherds. The other sherd with a suspect provenience is from Feature 356. This feature was a Cherokee pit that contained much European material. The sherd from this feature has a large brown dot rather than lines as decoration. Exactly what vessel forms may be represented by these two sherds from outlying proveniences cannot be ascertained due to their lack of diagnostic vessel characteristics. The distribution of combed ware sherds, except for the two just mentioned, is mostly confined to the Northwest Bastion area, between Structures 12 and 17. Nine sherds came from that area. Another came from one of the slope deposit squares, and the remaining sherd was found in a square south of the Barracks.

Buckley Ware
Total: 120
Figures 127E-I

This distinctive utilitarian ware is present in the Fort Loudoun historic ceramic assemblage in the form of one large vessel, either a storage jar or a pitcher. Although 120 sherds (14.65 percent of the total assemblage) were recovered, there are no rim sherds to elucidate the vessel's function. Storage jars were common in this ware, however, and at least one large strap handle is present (Figure 127E), suggesting that the vessel could have been a pitcher. South dates Buckley ware between 1720 and 1775 (1977a:211), so it might have been expected at Fort Loudoun.

The Buckley ware vessel has a basal diameter of 5-1/2 in. (140 mm), and, as far as it has been reconstructed, it is at least 9 in. (229 mm) tall. In section, the coarse-tempered body is light red with yellow streaks running parallel to the glazed surfaces. This lamellar orientation of the two mixed clays, characteristic of Buckley ware, results in a tendency to fracture along these planes. Less frequently seen, but present, are instances of the glaze chipping off the body. The lower, outside, unglazed part of the body has a rich, purplish-red slip applied below where the glaze begins, but restricted to a zone approximately 1.0 in. (25 mm) wide. This slip is also seen on the outside surface of those sherds where glaze has chipped off. The rest of the unglazed body surface is fired a dark red except for three oval spots on the bottom where exposure to the kiln was prevented by some tripodal stand on which the vessel rested.

The glaze of Buckley ware has been described elsewhere as "treacly" (Watkins 1968:126) and this very well explicates both the color and consistency of the glaze. The color is rather like that of molasses, glossy, dark brown to black, and somewhat translucent where the glaze is thin. There are areas where densely concentrated tan flecks give the glaze the appearance of a lighter color. There is a notable build-up of the glaze at the bottom of the outside glazed zone.

The potting is thick and rough. On the outside bottom, gouges and scratches have not been smoothed. Pronounced horizontal turning ridges, also characteristic of Buckley ware, have been left on the outside surface from where the glaze begins presumably up to the top of the original vessel. While present on the entire inside surface, the ridges are less pronounced on the bottom and lower sides.

The strap handle has a gross kind of reeding (Figure 127E) and shows evidence of being rather carelessly applied. Other flaws are also present. The glaze has occasional fissures and bubbles. Thin smears of slip and glaze are found on the unglazed, unslipped part of the vessel. The base shows odd bits of clay not smoothed away after the tooling. The result is solid and functional, but hasty and rough.

Of the 111 sherds with specific proveniences, 101 of them were recovered either within Structure 6 or at a distance no more than six meters from it. The greatest concentration of sherds was in squares N216/E250 and E252 (21 sherds and 31 sherds, respectively), six meters north of Structure 6. Only two additional sherds were found any farther north than this concentration, and most were located south and southwest of the concentration, a distribution probably accounted for by nineteenth and early twentieth century plowing. The two more northerly sherds just mentioned came from a square in the northeast part of the Southeast Bastion and from a square near the east curtain. Other Southeast Bastion squares account for six more sherds, two of which came from Feature 61-E, the inner palisade trench previously excavated by the WPA project and re-excavated by the 1975-1976 project. A Parade Ground square and a square just southwest of Structure 14 finish the summary of Buckley sherd distribution. Conceivably these more remote proveniences (relative to the sherd concentration near Structure 6) could suggest that more than one vessel is present, however; no grounds for distinguishing sherds by vessel can be observed. Perhaps attesting to the scarcity of this ware is the lack of any reported Buckley ware from any of the nearby Cherokee sites.

Other Coarse Earthenwares
Total: 12
Figures 127J-O

Coarse utilitarian earthenwares in several varieties were found at Fort Loudoun, though not in quantity. A total of 12 coarse earthenware sherds represents 1.47 percent of the historic ceramic assemblage. No common names or known date ranges exist for these wares, nor were descriptions precisely fitting them encountered in the historical archaeological literature. Four types having a red body and one type having a buff body are described below, and are referred to as simply Buff Type 1, Red Type 2, etc. They are assumed to be contemporary with the fort's occupation.

Buff Type 1: Five sherds of this ware were recovered (Figure 127J and K). They are all from one bowl, only the base of which is available for measurement: 5-1/2 in. (140 mm). The shape probably resembles those coarse earthenware bowls illustrated by Miller and Stone (1970:Figure 28). The bowl is thick in section (a body sherd measures 0.285 in. or 0.725 cm) and the turning ridges are evident on the inside glazed surface, but not on the bottom and outside unglazed surfaces. The glaze is a clear lead glaze stained a medium brown and streaked with a darker brown by metallic oxides (probably iron and manganese). The outside surface has an applied tan slip. A smeared thumbprint in the slip is located near the base of the bowl. The buff paste is medium-grained, with occasional large tempering inclusions. The buff paste is medium-grained, with occasional large tempering inclusions. All of the sherds of this ware were found in the fill of the southeast corner of the ditch.

Red Type 1: A bowl with a rolled rim (Figure 127L and M) is represented by two sherds found in the village area, south of the fort. The inner rim diameter measures 7-1/2 in. (191 mm) and a body sherd measures 0.24 in. (.61 cm) in section. The paste is a pale orange-red and fine-grained, with a medium-fine quartz temper identifiable among several tempering agents. The vessel has a self-slip all over which fired to an orange-tan color on the outside, unglazed surface. A clear lead glaze applied over the slip of the inside of the vessel and extending up and over the folded rim became ginger-brown in firing. The glaze and slip are worn away at the top of the rim. The bowl's shape probably resembles the bowls from Fort Michilimackinac referred to just above.

Red Type 2: Another rolled rim bowl also has a red paste, but the red is a little darker than that of Red Type 1. The paste is also fine-grained, but no tempering material can be identified. Two sherds of this ware are present, a rim sherd measuring 6 in. (163 mm) in inner diameter, and a basal sherd measuring 4 in. (101 mm) in diameter. The vessel wall is fairly thin in section below the rim (0.165 in., or 0.425 cm), but

the rim and basal sections are thick (Figures 127N and 0). The vessel shape is similar to those referred to above with a flat bottom, straight sides, and rolled rim. No slip is present, but a clear lead glaze was applied on the inside up to the inner edge of the rim. The clear glaze directly over the red body fired to a translucent yellow-orange color. The rim sherd came from a square in the slope area, and the basal sherd came from Feature 179, a small pit just north of Structure 16 in the Northeast Bastion.

Red Type 3: Two sherds of this ware were found in the village area to the southeast of the fort. There are several traits this ware shares with Red Type 1 including paste color and texture, medium-fine quartz temper, and a glazed inside surface with the clear lead glaze over self-slip combination that results in a ginger-brown appearance to the glaze. However, what makes Red Type 3 distinct is the presence of another tempering material and a dark brown glaze on the outside surface of the ware. The additional tempering agent cannot be precisely identified, but it appears similar to small pockets of soft red ochre in the paste and is probably some kind of iron oxide inclusion naturally occurring in the clay. The dark brown outside glaze is presumably the result of coloring the ubiquitous clear lead glaze with iron and/or manganese oxides. No assessment of vessel form could be made on the basis of the two available body sherds, and no measurements were taken. It is possible that the two sherds are not from the same vessel, since the dark outside glaze varies in tone between the two.

Red Type 4: One very small sherd represents this last coarse earthenware category. No vessel form determination could be made. The paste of this sherd has the same texture and pale orange-red color as do Red Types 1 and 3, but neither quartz nor iron oxide granules are present as temper. Clear lead glaze has been applied directly to the body, yielding a fired, pumpkin-orange color. The sherd of Red Type 4 was recovered from the upper level of the WPA-reconstructed parapet on the east flank of the Southeast Bastion.

Spongeware
Total: 1
Figure 128A

Produced in Staffordshire from the beginning of the nineteenth century, spongeware was a cheap and durable utilitarian ware. The decorative technique was applied to both coarse earthenware and stoneware (Travelstead 1978:18). The single sherd (0.12 percent of the total assemblage) found at Fort Loudoun has a stoneware body, and the sponged decoration is in blue (Figure 128A). In section, the sherd measures 0.23 in. (0.58 cm). It was not possible to determine the vessel form in which this sherd came, but pitchers and platters were most common. The sherd was recovered by the Kunkel excavations, but the records do not give a provenience for this sherd. The sherd could be contemporary with the Tellico Blockhouse occupation or it could be of a later date.

Brown-Glazed Stoneware
Total: 1
Not Illustrated

This brown-glazed ware is a fully vitrified buff stoneware, but it is not saltglazed. The single large sherd (representing 0.12 percent of the total historic ceramic assemblage) is probably from the base of a very large, flat-bottomed jar. No basal diameter could be taken. In section, the thinnest part of the sherd measures 0.55 in. (1.41 cm) and the thickest part measures 0.89 in. (2.28 cm). The glaze is on the inside of the vessel, and is dark brown, very thin, and opaque, with occasional small bubbles and pits in it. While no comparative information about this ware has been accumulated, it is more likely of nineteenth century date than mid-eighteenth. Recovered during the Kunkel excavations, the sherd has come into the present historic ceramic assemblage without a record of its specific provenience.

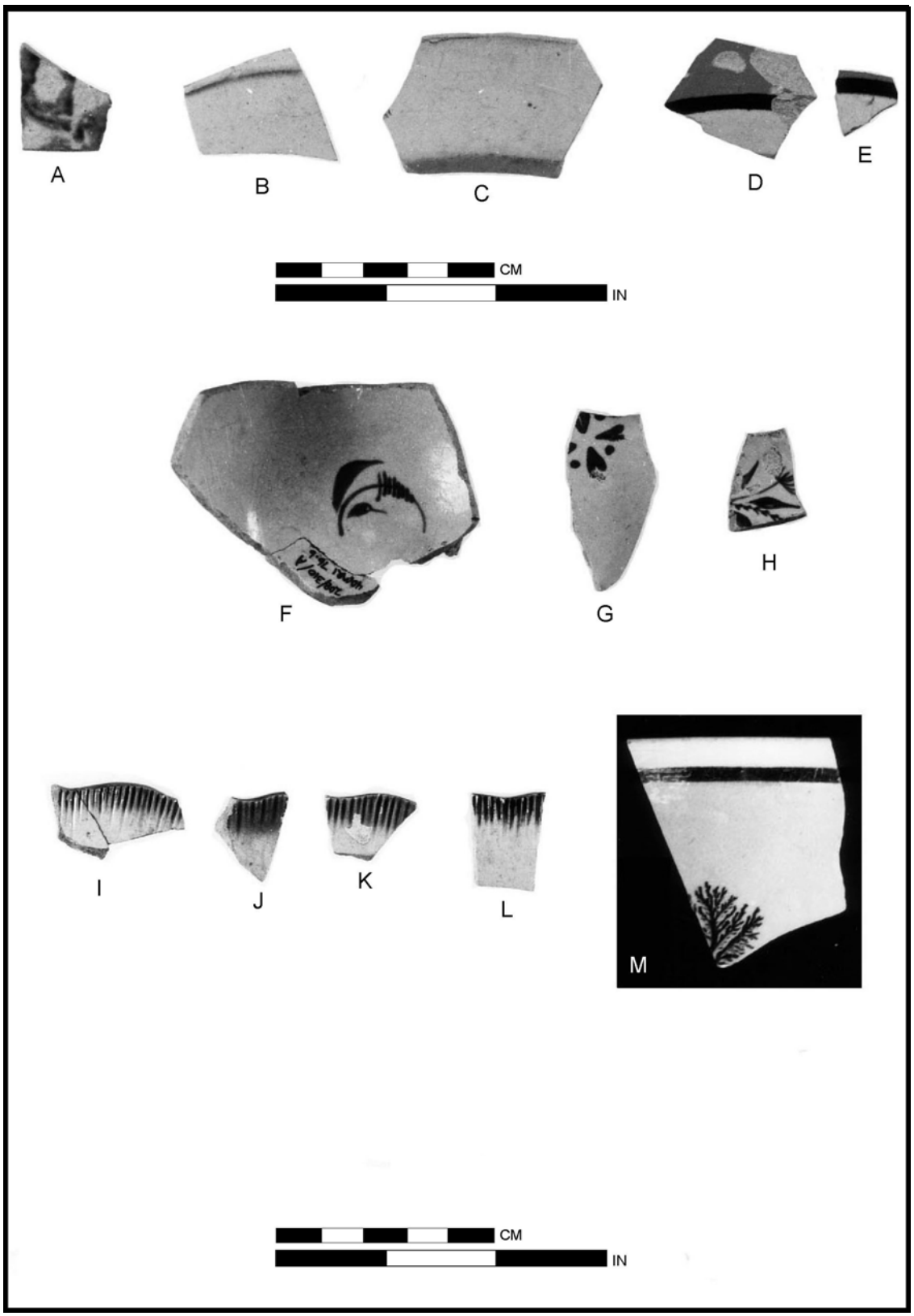

Figure 128. Spongeware, Creamwares, Pearlwares, Mocha Ware and Brown-Glazed Stoneware. **A**. Spongeware. **B**-**C**. Creamware. **D**-**E**. Banded Creamware. **F**-**H**. Hand-painted Pearlware. **I**-**L**. Shell-Edge Pearlware. **M**. Banded Mocha Creamware. **N**. Brown-Glazed Stoneware.

Creamware
Total: 32
Figures 128B - E

Examples of three different wares based on a cream-colored earthenware body were recovered in the Fort Loudoun excavations: plain creamware, banded creamware, and so-called "clouded" ware. The dating implications of these finds are several. The presence of clouded ware, dating between 1740 and 1770 (South 1977a:211), is wholly consistent with the known occupation dates of Fort Loudoun. The presence of banded creamware with a date range of 1780 to 1815 (South 1977a:211) unequivocally indicates a later contamination, presumably due to the activities of the Federal garrison at Tellico Blockhouse. The presence of plain creamware (Figures 128B and C), however, is ambiguous with respect to dating. It could be either very early or it could be late, contemporary with the banded creamware and with pearlware, also recovered at Fort Loudoun and discussed in another section below.

Historic ceramics experts allow that the creamware body and clear lead glaze were both extant among the potteries of Staffordshire after 1740 (Godden.1965:xv; Noel Hume 1972b:350), and other experts acknowledge that plain clear leadglazed creamware was made before 1760 (Miller and Stone 1970:42; Towner 1957:44), but the commonly accepted earliest date for creamware in America is 1763 (Deagan 1974) and South gives its time range as 1762 to 1820 for the purpose of computing a mean ceramic formula date (South 1977a:212). At St. Augustine, Florida, Deagan found creamware in two different, sealed pre-1763 contexts, leading her to suggest 1750 as an approximate date for this early creamware (1974:26), and compelling her to call for the attention of other archaeologists on this question of creamware dating on other pre-1763 British sites. Such is Fort Loudoun, and creamware found at Fort Loudoun in unimpeachable contemporary contexts would support and reinforce Deagan's St. Augustine findings. However, no entirely unquestionable contexts at Fort Loudoun yielded creamware, so the evidence presented here is unfortunately moot with respect to the question posed by Deagan. The contexts of the creamware found at Fort Loudoun and other observations relevant to dating this ware will be further discussed after the recovered creamware has been described.

There are 28 sherds of plain creamware and four sherds of banded creamware (Figures 128D and E), constituting respectively 3.42 percent and 0.49 percent of the total historic ceramic assemblage. The vessel forms represented are bowls, saucers, and plates, with at least (and at most) one banded creamware bowl, two plain creamware saucers, and one plain creamware bowl. There is at least one plain creamware plate present and at most, two. Thus, the minimum vessel number is five and the maximum vessel number is six (Tables 13 and 14). Measurable sherds are few. No complete profiles of any vessel form are available in the creamware assemblage. The banded creamware bowl had a 5 in. (127 mm) rim diameter. The plain creamware saucer rims measure 4.5 in. (114 mm) and 5 in. (127 mm). The plain creamware plate form has the following measurements: outer marly diameter, 9 in. (229 mm), and inner marly diameter, 6.75 in. (171 mm). A creamware plate cavetto base sherd (not necessarily from the plate whose marly measurements are given just above) measures 5 in. (127mm) in diameter. The creamware plate's profile probably closely resembles those illustrated by Hanson and Hsu from Fort Stanwix (1975:Figure 63-c), although the Fort Stanwix creamware plates have the feather-edge molded marly rim, while the marly sherds from Fort Loudoun have no decoration of any kind. This plain plate rim form has temporal significance, but, again, it is ambiguous. Noel Hume states that creamware plates with entirely plain rims were made before 1783 but generally that form is found later, in the 1790s and the early nineteenth century (1970:126).

The decoration on the banded creamware bowl is of the "mocha" variety and occurs on the outside of the vessel (Figure 128M). The dendritic effect is dark brown against a clear pumpkin-orange ground in a zone segregated from the unembellished cream body of the rest of the piece by dark brown bands above and below it. The bowl's decoration and color correspond to the later variety of banded creamware (Rennsselaer 1966:337). Presumably this bowl was thrown, as were the plain creamware bowl and saucers, although no distinct throwing marks are evident. The creamware plate was probably molded.

Of some temporal importance is the relative light or dark tone of the color of plain creamware. Noel Hume states that earlier creamware is a deeper yellow than later creamware, and the watershed date he gives is 1785 (1972a:126). Towner notes that creamware predating 1760, made by Whieldon and the Warburtons in Staffordshire, and also at Derby and Liverpool, was a "deep cream" in color (1957:44), and that after 1765, Wedgewood's creamware was lighter than that of any of the other manufacturers. In theory, therefore, if Fort Loudoun's creamware sherds were contemporary with the fort's occupation period, their color should

contrast with that of creamware sherds from known later contexts. In a comparison of the Fort Loudoun creamware to creamware from an early nineteenth century Nashville domestic cellar fill (40DV56), no difference in tone could be discerned. Even compared to the uncolored parts of the banded creamware bowl found at Fort Loudoun, the plain creamware from Fort Loudoun was no darker in color. A last comparison to the uncolored inside of the clouded ware sherds from Fort Loudoun (certainly representative of what early and darker yellow creamware would be like) showed the Fort Loudoun creamware is probably later than the fort's occupation period and, therefore, present as a contaminant from the later Tellico Blockhouse occupation across the river (see Polhemus 1979).

In spite of the above, rather subjective, evidence about the relative dating of the Fort Loudoun creamware, had any creamware been recovered from undisturbed trash pits, an argument might have been made for the creamware's contemporaneity with the fort's occupation period. However, within the fort, creamware was found only in Feature 159, in one square in the Southeast Bastion, and in three squares in the Parade Ground. Five miscellaneous plate sherds came from these five contexts. Unfortunately, none of these contexts can be regarded as either undisturbed or sealed before the abandonment of the site. All of the squares in the south half of the fort were subject to plowing in the nineteenth century, and Feature 159, part of the Parade Ground drainage system, probably was not completely filled in until after the surrender of the garrison in August of 1760. It must be noted, however, that in the same two-meter segment of that drainage ditch in which one creamware sherd was found, two Chinese export porcelain sherds, two white saltglazed stoneware sherds, and one blue-decorated delftware sherd were also found, and these have been assumed to be contemporary with the fort. This two-meter segment of Feature 159 had been cut by a WPA trench. Since the precise context of this sherd was not directly observed by the authors, its association with that feature is suspect, and it is possible that it was introduced by the WPA excavations.

Outside the palisade, in the ditch around the Southeast Bastion, the area west of the Northwest Bastion, and in the Tuskegee area, is where 15 of the remaining creamware sherds were found. Three other sherds came from the parapet reconstructed by the WPA with fill from the general area which, again, would have been subject to prior plowing. The three banded creamware sherds whose provenience is known came from the southeast corner of the ditch. It will be seen below that the distribution of both the plain creamware and the banded creamware mirrors the distribution of the pearlware, i.e., it was mostly found in areas peripheral to the fort, especially on the river side of the fort nearest to the Tellico Blockhouse, and the area south of the fort which Cherokees probably continued to inhabit up to 1766 and the latter part of the eighteenth century and into the early nineteenth century.

Plain creamware has been found on many sites of the second half of the eighteenth century. Fort Michilimackinac in Michigan and Fort Stanwix in New York both had plain creamware in quantity (Miller and Stone 1970:42; Hanson and Hsu 1975:125). Miller and Stone note that it was present in very small quantities at Fort Ligonier, Pennsylvania, and at the Fortress at Louisbourg, Nova Scotia (1970:42). The creamware find at St. Augustine, Florida, has already been cited. Watkins (1968:140) found creamware at Marlborough, Virginia, and Noel Hume has amply documented it at Williamsburg (1969d:22). The Revolutionary War campsites in Manhattan, New York, yielded creamware (Calver and Bolton 1950:255). South's compilation of sites and ceramic inventories shows creamware present at the first Fort Moore, at Goudy's Trading Post at Fort Ninety Six, at Fort Prince George, and at the Rock Turtle site, all in South Carolina; at Brunswick Town in North Carolina, the Paca House in Annapolis, Maryland, and at Tallassee in Tennessee (1977a:254-260). South also lists the Nipper Creek site in South Carolina as having both plain and banded creamware. Newman described the creamware in the historic ceramic assemblage from Chota-Tanasee in Tennessee (1977:26, 1986:Table 8.3); it has also been recovered from the sites of Tomotley (Carnes 1983:Table 11.3) and Citico (Ford 1979:Table 2). Although Fort Loudoun may have been the source of the creamware found at the nearby Cherokee sites, considering the evidence presented above, it is more probable that the Tellico Blockhouse was the source of the creamware that was found at Fort Loudoun and the other sites.

Pearlware
Total: 41
Figures 128F-L

Dating from the late eighteenth century through at least the first quarter of the nineteenth, the presence of pearlware at Fort Loudoun has to be assumed to have been the result of activities associated with the Federal garrison at the Tellico Blockhouse. Several decorative schemes are represented. There are 16 undecorated plate sherds, but Noel Hume states that there is no totally undecorated pearlware (1969c:392), so these plain sherds are probably from plates with border decoration. Representing the latter, four blue shell edge rim sherds and seven green shell-edge rim sherds are present. Nine sherds bearing hand-painted underglaze blue decoration and five sherds with hand-painted underglaze polychrome decoration complete the pearlware inventory, for a total of 41 sherds, or 5.01 percent of the total historic ceramic assemblage.

Vessel forms include plates with either the colored shell-edge decoration or blue underglaze painted decoration, saucers and bowls with either underglaze blue or polychrome painted decoration, and teabowls with underglaze blue painted decoration. There are at least (and at most) two blue shell-edge plates, two green shell-edge plates, and one underglaze blue-decorated plate. For the saucers, there is at least (and at most) one of each in the polychrome painted decoration. There are a minimum and a maximum of two bowls decorated in underglaze blue and one bowl decorated in underglaze polychrome colors. One blue-decorated teabowl represents both the minimum and maximum number of these vessels. So, there are five plates, two saucers, three bowls, and one teabowl, for a minimum and maximum vessel count of 11. The sherds are generally small, so measurements are very limited. A cavetto base, which is probably from a shell-edge plate, measures 4.5 in. (114 mm) in diameter. The foot diameter of the blue-decorated bowl is 2.5 in. (63 mm), as is the foot diameter of a blue-decorated saucer. The blue-decorated teabowl has a foot diameter of 1.75 in. (32 mm).

Decorative treatment is the variable most observable in this small pearlware assemblage. The shell-edge plates are both relief-moulded and painted, either blue or green (Figures 128I-L). The underglaze painting in blue appears on the inside surfaces of saucers, on the outside surfaces of bowls and teabowls, on the inside bottom center of bowls and teabowls, around the marly of plates, and on the inside center of the cavetto of plates (Figures 128F-H). Exact motifs are not discernible, but they are probably floral in nature. The underglaze polychrome painting is in orange, blue, green, and yellow and appears on the outside surface of bowls and on the inside surface of saucers. The only motif that can be identified is floral.

Pearlware was largely recovered from areas peripheral to the fort. Within the fort, three green shell-edge plate rim sherds from one vessel were found in Parade Ground squares, and one polychrome bowl sherd came from the slope trash deposit. Outside the fort, two blue-decorated teabowl sherds came from the leveled area adjacent to the river intended to be the outwork called Fort Glen. Three sherds representing a blue-decorated saucer and a blue shell-edge plate were recovered from either WPA trenches or from the WPA reconstructed parapet. The village area south of the fort yielded 14 sherds. The vessels of which these are the remains include a green shell-edge plate, an underglaze blue-decorated teabowl, saucer, and a polychrome decorated saucer and bowl, or nearly the full range of pearlware varieties and vessels found in the entire Fort Loudoun area. Finally, 15 pearlware sherds came from the ditch, mostly that part which surrounds the Southeast Bastion. Represented are a blue shell-edge plate, a blue-decorated plate and bowl, and a polychrome saucer.

Yellow Ware
Total: 1
Not Illustrated

One very small sherd of what has been tentatively identified as yellow ware is in the Fort Loudoun ceramic assemblage, constituting 0.12 percent of the total. Yellow ware is a mostly nineteenth century product. Giving a date range of 1780-1835, Savage and Newman (1974:318) describe it as having a refined earthenware body (either creamware or pearlware) that has been dipped in a yellow lead glaze so that the inside and outside surfaces are uniformly yellow. Various decorative schemes were used on this ware, singly or in combination: overglazed enameling, transfer printing, applied relief ornamentation, banding, moca, “finger-painted” effects and even silver lustre. A common vessel form is the jug, but other forms were made.

Table 128. Kind and Number of Vessels by Ware.

	Tea Drinking						**Food Consumption**								**Food Preparation, Storage Serving**									
	Tea-Bowl		*Saucer*		*Teapot Cream Jug, Sugar Bowl*		*Small Bowl*		*Plate Platter*		*Can, Mug, Cup*		*Large Bowl*		*Small Jar*		*Large Jar*		*Ointment Jar*		*Unidentified*		*All Vessels*	
Chinese Porcelain	6	**9**	15	**24**	1	**1**	16	**25**	2	**2**	1	**1**											41	**62**
White Saltglazed Stoneware	9	**14**	19	**30**	1	**3**			5	**9**													34	**56**
Scratch-Blue Saltglaze	3	**3**	6	**10**																			9	**13**
Brown Saltglazed Stoneware															1	**1**							1	**1**
Westerwald Blue-on-Grey											2	**2**											2	**2**
Delftware							4	**7**	2	**2**					7	**7**			3	**3**			16	**19**
Astbury Earthenware											1	**1**											1	**1**
Clouded Ware					1	**1**																	1	**1**
Slipware											1	**1**											1	**1**
Buckley Ware																	1	**1**					1	**1**
Other Coarse Earthenwares													3	**6**									3	**6**
Spongeware																					1	**1**	1	**1**
Other Stoneware																	1	**1**					1	**1**
Ironstone							2	**2**	2	**2**	3	**3**											7	**7**
Creamware			2	**2**			1	**1**	1	**2**													4	**5**
Banded Creamware							1	**1**															1	**1**
Pearlware	1	**1**	2	**2**			3	**3**	5	**5**													11	**11**
Yellow Ware																					1	**11**	1	**11**
Totals	19	**27**	44	**68**	3	**5**	27	**39**	17	**22**	8	**8**	3	**6**	8	**8**	2	**2**	3	**3**	2	**12**	136	**200**

Note: Bold type indicates maximum number of vessels and regular type indicates minimum number of vessels.

The single tiny yellow ware sherd from Fort Loudoun cannot be assigned to any one vessel form. It has what appears to be a pearlware body, is glazed on both sides and is 0.125 in. (.32 cm) thick. It came from a square in the west Parade Ground, adjacent to the Barracks. Considering its dating range, it is certainly too late to have been contemporary with the occupation of the fort. Possibly the sherd found at Fort Loudoun can be related to Tellico Blockhouse activities.

Ironstone
Total: 29
Not Illustrated

This ware was introduced early in the nineteenth century (Godden 1965:xxiii) and, consequently, would have been present at Fort Loudoun as a result of the occupation of the Tellico Blockhouse if the sherds recovered at the fort are as old as the ware itself. This is almost certainly not the case. The ironstone from Fort Loudoun is probably of twentieth century date. A total of 29 sherds was found (3.54 percent of the total historic ceramic assemblage). These represent two plates, three cups, and two soup bowls. All of the vessels are plain white. One plate has a decorative wavy rim, and the other has a molded raised design on the rim which is duplicated on the foot of one of the cups. Nineteen ironstone sherds came from four adjacent squares in the area west of the northwest ditch. These sherds can probably be credited to the occupation of that area by a family living in a trailer before the fort site was developed and opened to the public in the 1950s. The relief-decorated plate is represented by one sherd, which came from a square in the Northeast Bastion. The six sherds that make up the nearly complete relief-decorated cup came from the top level of the southeast ditch fill.

Table 127. Chinese and European Ceramic Totals.

Ceramic Type	Min[1]	Max	Total Sherds	Percent
Chinese Porcelain	41	62	210	25.64
White Saltglazed Stoneware	34	54	176	21.49
Scratch-Blue Saltglazed Stoneware	9	12	53	6.47
Brown Saltglazed Stoneware	1	1	6	0.73
Westerwald Blue-on-Grey Stoneware	2	2	3	0.37
Delftware	16	19	116	14.16
Astbury Lead Glazed Fine Red Earthenware	1	1	1	0.12
Clouded Ware	1	1	4	0.49
Leadglazed Slipware	1	3	13	1.59
Buckley Ware	1	1	120	14.65
Other Coarse Earthenwares	4	4	12	1.47
Spongeware	1	1	1	0.12
Brown-glazed Stoneware	1	1	1	0.12
Creamware	5	6	32	3.91
Pearlware	11	11	41	5.01
Yellow Ware	1	1	1	0.12
Ironstone	7	7	29	3.54
Totals	**137**	**187**	**819**	**100.00**

Note: Estimated minimum and maximum number of vessels represented.

Table 129. Frequencies of Measurable Porcelain, White Stoneware, and Delft Sherds by Size

Rim Diameters															
Inches	2	2.5	3	3.5	4	4.25	4.5	4.75	5	5.25	5.5	6	7	8.5	8.75
Millimeters	51	63	76	89	101	108	114	121	127	134	140	153	178	215	222
Chinese Porcelain															
Teabowls			3		2										
Saucers						2		1	1	3	2				
Bowls					2		8	1	2		1		1		
Can		1[1]													
White Stoneware															
Teabowls		1	5	3											
Saucers					1	1	7		2						
Plates															3
Delftware															
Bowls								1		1	2				
Plates													1		
Apothecary Jars					2		4								
Ointment Pots	1														

Heights						
Inches	.75	1.0	1.25	1.38	2.38	7.0
Millimeters	19	25	32	35	61	178
Chinese Porcelain						
Teabowls						
Saucers	1	1				
Bowls					1	
Can						
White Stoneware						
Teabowls						
Saucers		1	2			
Plates	1					
Delftware						
Bowls						
Plates						
Apothecary Jars						1[2]
Ointment Pots				1		

Cavetto Diameters, Base or Foot Diameters															
Inches	6.5	6.75	1.0	1.25	1.5	2.5	2.25	2.5	2.75	3.0	3.5	3.75	4.5	5.38	5.5
Millimeters	164	171	25	32	38	51	57	63	70	76	89	95	114	137	140
Chinese Porcelain															
Teabowls					3										
Saucers									2	4	4				
Bowls						5	1	2							
Can								1							
White Stoneware															
Teabowls				4	1										
Saucers						1	2	7	1						
Plates	3													3	
Delftware															
Bowls										2		1			
Plates		1											1		
Apothecary Jars										1	1	1			

Table 129. Frequencies of Measurable Porcelain, White Stoneware, and Delft Sherds by Size

Ointment Pots			1		1		1											

Notes: Although no rim sherd from this can was present in the assemblage, the vessel is cylindrical in shape, so the foot diameter and the rim diameter would be the same. Conjectural reconstructed height based on proportions of example illustrated by Noel Hume (1969:Figure 67-1).

Table 130. Chinese and European Ceramics Summary**.**

Provenience[1]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
166/280															1	1		2
167/273																1		1
168/280															1	1		2
170/278															1			1
176/196						2												2
178/280											1					1		2
180/202	1																	1
182/200		1																1
182/252			1															1
184/198	1																	1
184/208	1																	1
184/210						1			1									2
184/216				1														1
184/236				1														1
184/276		1														1		2
186/196	1					1												2
186/200(24)	1																	1
186/204(24)		1				1												2
186/206(14/24)	1																	1
186/208(14)	1																	1
186/256	1																	1
186/268(2)						1				1								2
186/274(l)	1																	1
186/290														6				6
188/194		1																1
188/198	2					3												5
188/202(24)	2																	2
188/206(14/24)										1								1
188/208(14)	1																	1
188/210(14)	4																	4
188/212(14)	3	1																4
188/228						1												1
188/268(2)															1			1
188/270(1)						1												1
188/280																1		1
190/198	2																	2
190/202(24)	1																	1
190/208(14)	1																	1
190/210(14)	2																	2
190/254										1								1
190/280	1														3			4
192/208(14/B)	1																	1
192/210(14/B)	2																	2
194/200	1																	1
194/206(B)	1																	1
194/208(B)	1																	1
194/210(B)	1																	1

Table 130. Chinese and European Ceramics Summary.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
196/194	1					1												2
196/208(B)		1																1
196/222	1																	1
196/234(15)																1		1
196/248		1								1								2
196/252		1																1
196/266(l)										1								1
198/198		1																1
198/200		1																1
198/216																	1	1
198/232	1																	1
198/240	1																	1
198/242										1				1				2
198/244			1															1
198/246										1								1
198/248		3																3
198/250	1																	1
198/268(5)	1																	1
200/206(B)	1	1																2
200/228			1															1
200/242																1		1
200/244						3										1		4
200/248(6)						6				1								7
200/250(6)										1								1
200/252(6)		1																1
200/256		1								1								2
200/262(5)		1																1
202/200		2																2
202/218			1															1
202/222			2															2
202/234	1																	1
202/238		1	1															2
202/244		1	1			2												4
202/246	1	1				11									1			14
202/248(6)						3												3
202/250(6)			1															1
202/252(6)		1																1
202/258		1																1
204/190		1																1
204/232	1	1																2
204/236	1																	1
204/246(6)		2				2												4
204/250(6)		1								1								2
204/254(6)		2								1								3
204/258		1																1
204/264(5)	3																	3
206/224		1																1
206/240						1												1
206/242				1						1								2
206/246(6)		1													1			2
206/250(6)		2				1												3
206/252(6)	1									3								4
206/254(6)			1							2								3
206/258(5)		1																1
206/260(5)		1																1

Table 130. Chinese and European Ceramics Summary.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
208/204(B)	1																	1
208/220			1															1
208/238	1	2																3
208/244		1																1
208/246										1								1
208/250(6)										4								4
208/252(6)		4								2								6
208/254(6)	3	6								10								19
208/256		2																2
208/260(5)			1															1
208/310						1										2		3
210/192		1																1
210/224										1								1
210/250(6)										6								6
210/254										3								3
210/256		1				3												4
210/258(5)										1								1
210/260(5)	1																	1
212/182(8)		1																1
212/184(8)	1					1												2
212/186(8)		1																1
212/188		1																1
212/240	1																	1
212/248(6)		1																1
212/252(6)										1								1
212/254										1								1
212/256						1				1								2
212/258										2								2
212/260		1																1
214/216		1																1
214/252	1	1								2								4
214/254										1								1
216/178			2															2
216/192(7)						1												1
216/250										21								21
216/252										31								31
218/184						2												2
218/192(7)						1												1
218/212			1															1
218/216		1	1													1		3
218/252						1												1
220/252										1								1
222/214		1																1
222/218	1																	1
222/232	1																	1
224/200(B)							1											1
224/206	1																	1
224/230											1							1
224/232		2																2
226/204	2		1						1									4
226/232						1												1
226/248	1									1								2
228/194	1									1								2
228/204	1																	1
228/220	1																	1

Table 130. Chinese and European Ceramics Summary.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
228/224	1																	1
228/226			1															1
228/254		1	1															2
230/138						1												1
230/204			1															1
230/224								1										1
230/234	1																	1
230/248	1																	1
232/190(19)					1													1
232/204			1															1
232/206			1															1
232/238	1																	1
232/278	1																	1
234/174			1															1
234/188	1					1			1									3
234/202(17)	1		1															2
234/204(17)		9																9
234/218(4)	1																	1
234/238		1																1
236/128	1																	1
236/138														1	3			4
236/186									2									2
236/1881	1																	1
236/192			1															1
236/198(17)		1																1
236/208(17)		1																1
236/210		2																2
236/228		1																1
238/136														15				15
238/138														2				2
238/140														1				1
238/142	1																	1
238/186	1							1										2
238/188									1									1
238/194(17)	2																	2
238/230(16)	1																	1
238/238(16)	1																	1
238/244		1	1															2
240/186	3				1	3			1									8
240/188	1					3			3									7
240/190	1																	1
240/234(16)	1																	1
240/242		1																1
240/282		1																1
242/194	1																	1
242/236(16)	3																	3
242/244														1				1
242/246	1																	1
244/184(22)									1									1
244/192(12)	1	1																2
246/186(22)		1																1
246/1 88(22)						1												1
246/194(12)		1																1
F. 3				1														1
F. 44	1	1																2

Table 130. Chinese and European Ceramics Summary.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
F. 45	1																	1
F. 50	2					2												4
F. 56	1																	1
F. 58	1																	1
F. 61E			1							2								3
F. 73										1								1
F. 76	22																	22
F. 78			1															1
F. 79	1	1				2												4
F. 96N		1																1
F. 104		1	1															2
F. 150		1				3												4
F. 158		1				1												2
F. 159	7	6	1			2									1			17
F. 178	2																	2
F. 179											1							1
F. 182	1																	1
F. 185	1					1												2
F. 200			1															1
F. 209	3																	3
F. 212	1	6				3												10
F. 260																1		1
F. 317	1																	1
F. 356		3				9			1									13
St. 7	1	1				5												7
St. 9						1												1
St. 10	2	15				2												19
St. 16	17	1	4	1		1												24
St. 17	4	1	6			1												12
PM 450	1																	1
Ditch	7	1	1			8			1		5				8	12		43
Village	2	2									4					4	13	25
No Prov.	36	45	11	2		13		2		9		1	1	3	6	3		132
Totals	211	175	53	7	2	116	1	4	13	121	12	1	1	30	27	32	14	820

Notes: Numbers in parentheses indicate structure associations; (B) indicates association with barracks building. Column headings are as follows: 1=Chinese Export Porcelain, 2=White Saltglazed Stoneware, 3=Scratch-Blue Stoneware, 4=Brown Saltglazed Stoneware, 5=Westerwald Stoneware, 6=Delftware, 7=Astbury Ware, 8=Whieldon Ware, 9=Leadglaze Slipware, 10=Buckley Ware, 11=Coarse Earthenwares, 12=Spongeware, 13=Buff Stoneware, 14=Ironstone, 15=Creamware, 16=Pearlware, 17=Yellow Ware, 18=Totals

Cherokee Ceramics

Cherokee ceramics constituted one of the largest classes of artifacts in the collection, totaling some 18,045 specimens. The are included here because it is clear from the contextual information that these ceramics were being used by the garrison of the fort as utilitarian vessels. However, there is no mention of this in the historical documentation. As with the importance of the English and Chinese Ceramics for ceramic studies, the Cherokee ceramics are equally important for Cherokee studies. All of the Cherokee ceramics that were recovered from fort contexts can generally be assumed to have been produced and used during an approximate four year time period. Those from the village area can be assumed to date from about 1756, or near the beginning of the fort, to 1776 when Tuskegee was destroyed.

Table 131 provides a summary of the Cherokee ceramics by type and percentages for each. Figures 129 to 138 illustrate typical Cherokee vessel forms, rim forms and surface decorations. Table 132 gives the number and percentages of English and Chinese and Cherokee that were associated with the structures inside the fort. Appendix 11 summarizes the various Cherokee and Qualla ceramics by type and provenience.

Cherokee ceramics from the contemporary Cherokee sites in the Little Tennessee River valley have been described in detail in numerous reports, and it is not the purpose of this section to repeat that information. For those details and other information on mid-eighteenth century Cherokee ceramics from the nearby Cherokee sites, the reader is referred to the following reports and articles: *Overhill Cherokee Archaeology at Chota-Tanasee* (Schroedl 1986), *The 1978 Archaeological Investigations at the Citico Site (40MR7)* (Chapman 1979), *Excavations at Tomotley, 1973-74, and the Tuskegee Area: Two Reports* (Guthe and Bistline 1978a), Vessel Morphology of Eighteenth Century Overhill Ceramics (King 1977), and *Archaeological Investigations at the 18th Century Overhill Cherokee Town of Mialoquo* (Russ and Chapman 1983).

Table 131. Summary of Cherokee Ceramics by Type.

Pottery Type	**Total**	**Rims**	**Percent**
Overhill Shell Tempered Plain	14,535	(1274)	
Overhill Shell Tempered Checked Stamped	1946	(55)	
Overhill Shell Tempered Cordmarked	54	(1)	
Overhill Shell Tempered Rectilinear Stamped	358	(38)	
Overhill Shell Tempered Curvilinear Stamped	121	(6)	
Overhill Shell Tempered Net Impressed	23	(3)	
Overhill Shell Tempered Incised	1	(1)	
Overhill Shell Tempered Mat Impressed	23		
Overhill Shell Tempered Cob Impressed	2		
Overhill Shell Tempered European Fabric Impressed	1		
Total	**17,064**		**94.61**
Grit Tempered Plain	93	(13)	
Grit Tempered Checked Stamped	165	(2)	
Grit Tempered Cordmarked	18		
Grit Tempered Net Impressed	22		
Grit Tempered Rectilinear Complicated Stamped	15	(1)	
Grit Tempered Curvilinear Complicated Stamped	87	(3)	
Total	**400**		**2.22**
Qualla Plain	126	(28)	
Qualla Checked Stamped	107	(10)	
Qualla Cordmarked	113	(5)	
Qualla Rectilinear Stamped	68	(2)	
Qualla Curvilinear Stamped	63		
Total	**477**		**2.64**
Sand Tempered Plain	1		
Sand Tempered Checked Stamped	11		
Sand Tempered Cordmarked	1		
Sand Tempered Curvilinear Stamped	36		
Sand Tempered Net Impressed	1		
Total	**50**		**0.28**
Fatherland Incised	**45**		**0.25**
Total	**18,036**		

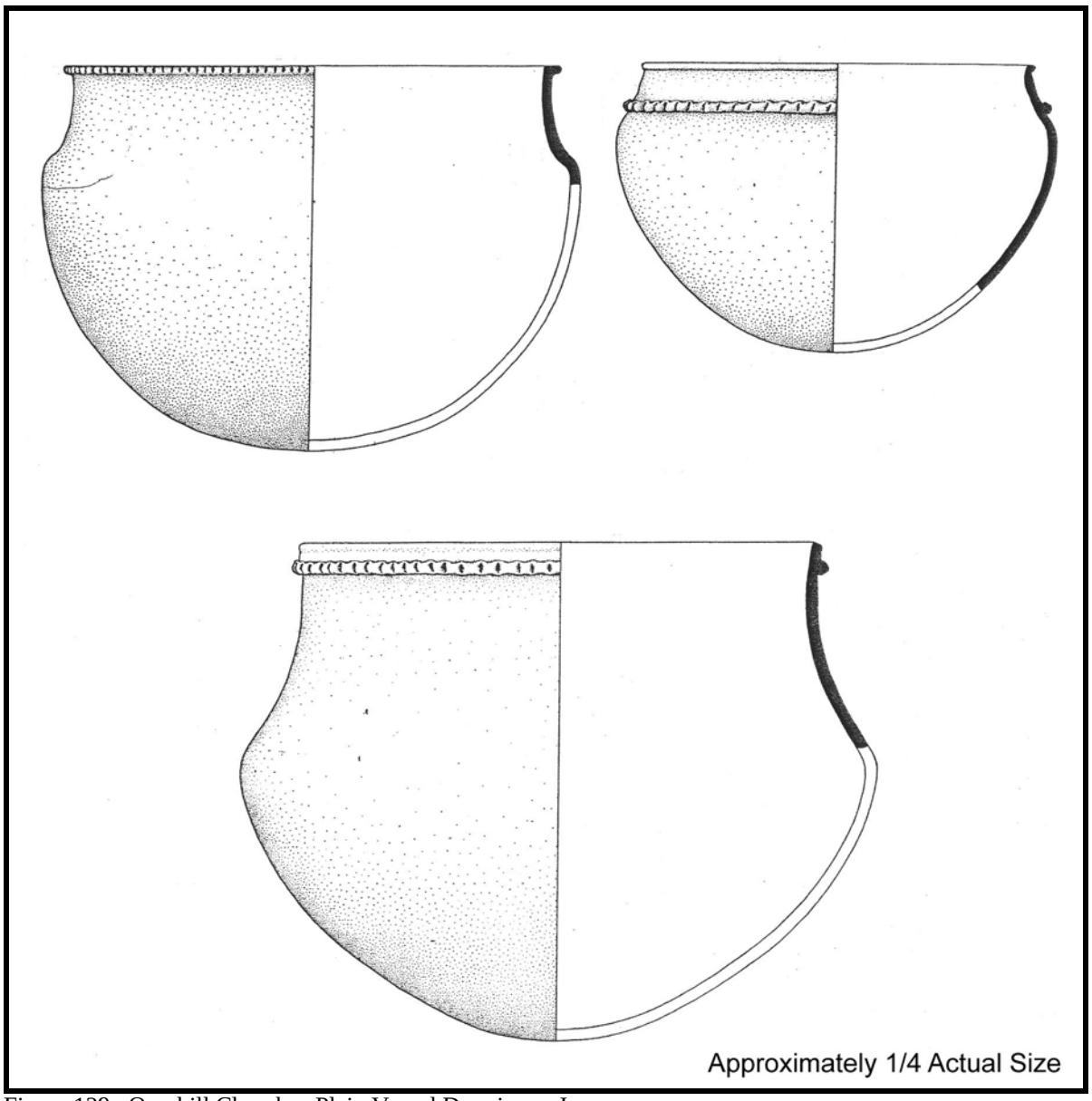

Figure 129. Overhill Cherokee Plain Vessel Drawings - Jars

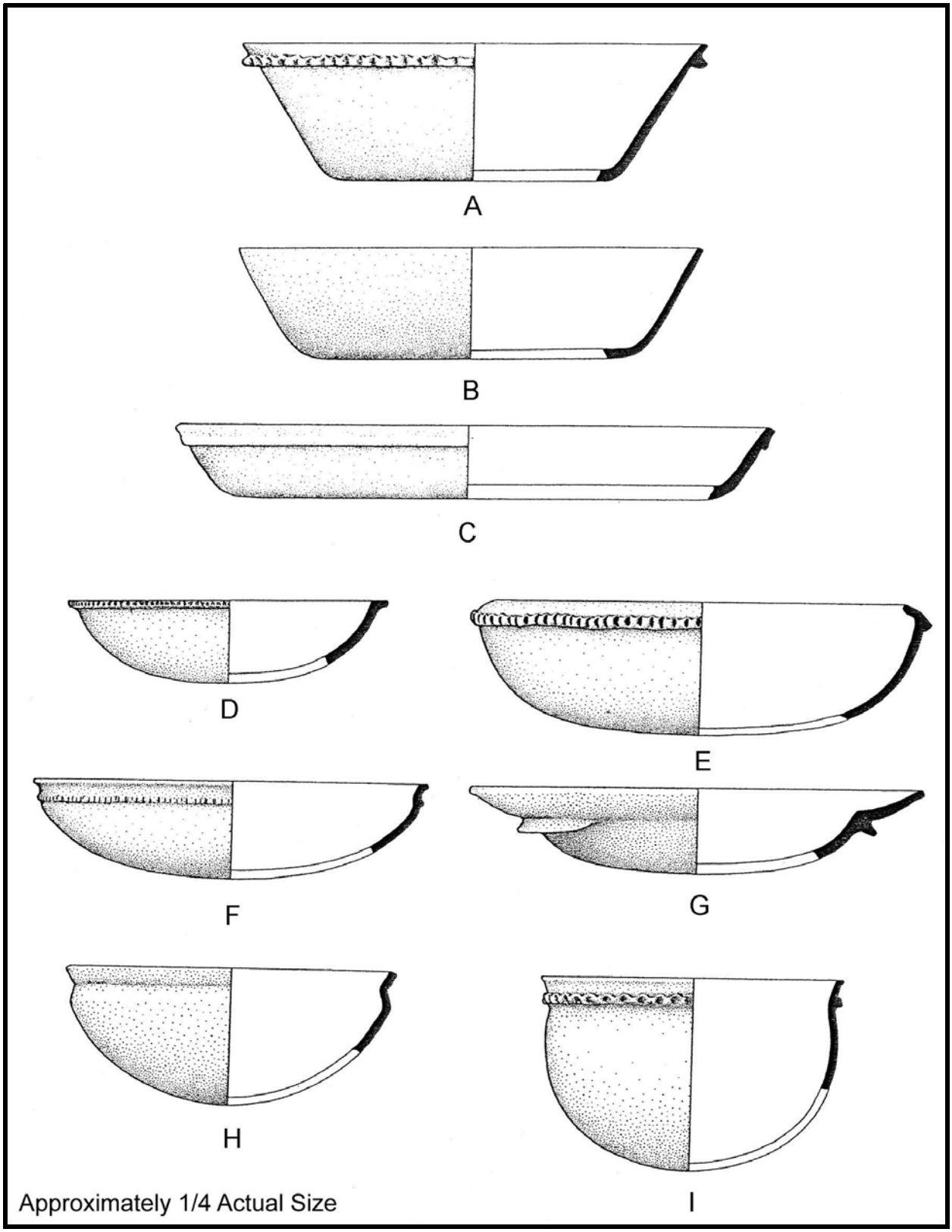

Figure 130. Overhill Cherokee Plain Pans and Bowl Reconstruction Drawings.
A-C. Pans. **D- I**. Bowls.

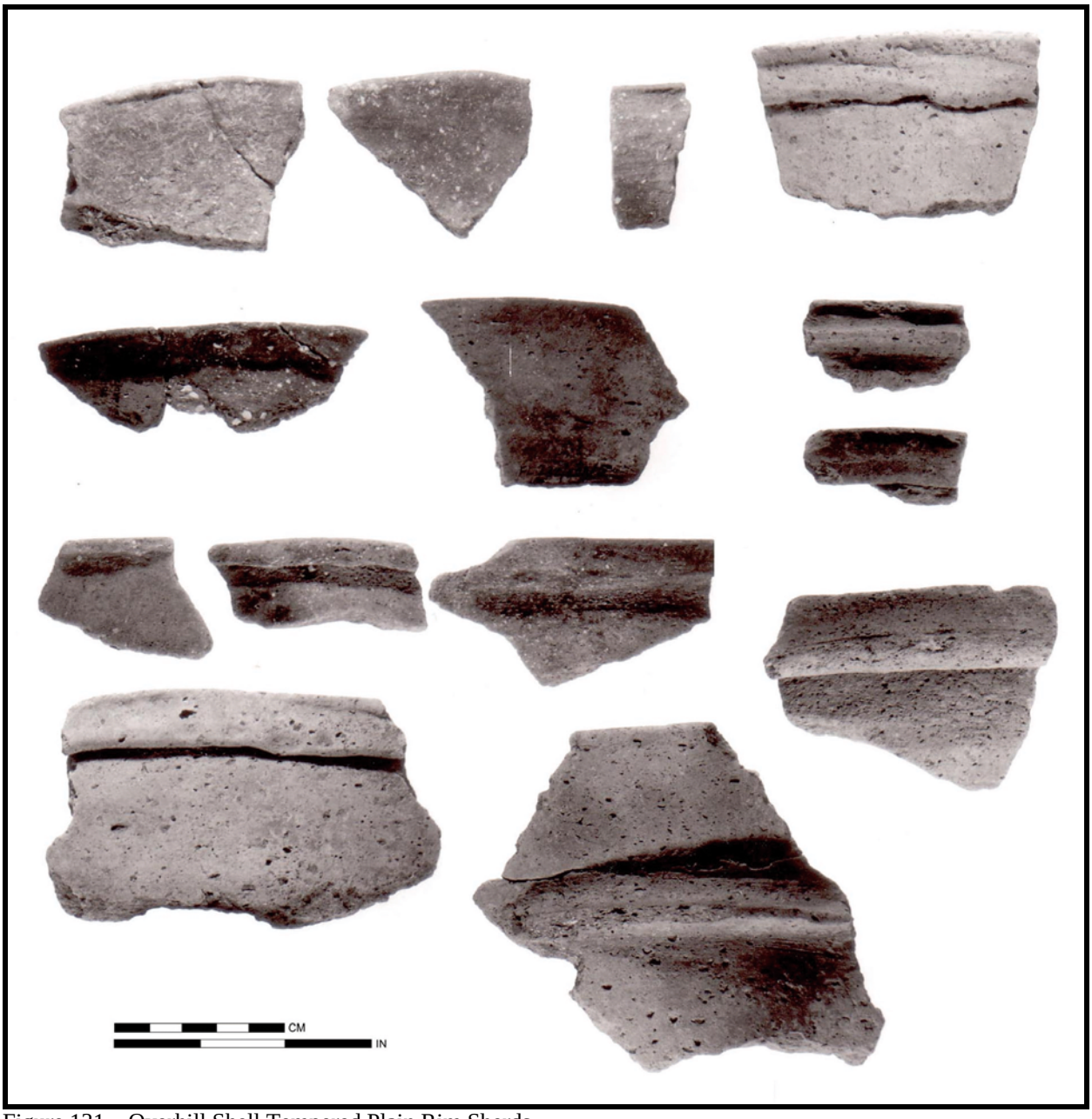

Figure 131. Overhill Shell Tempered Plain Rim Sherds

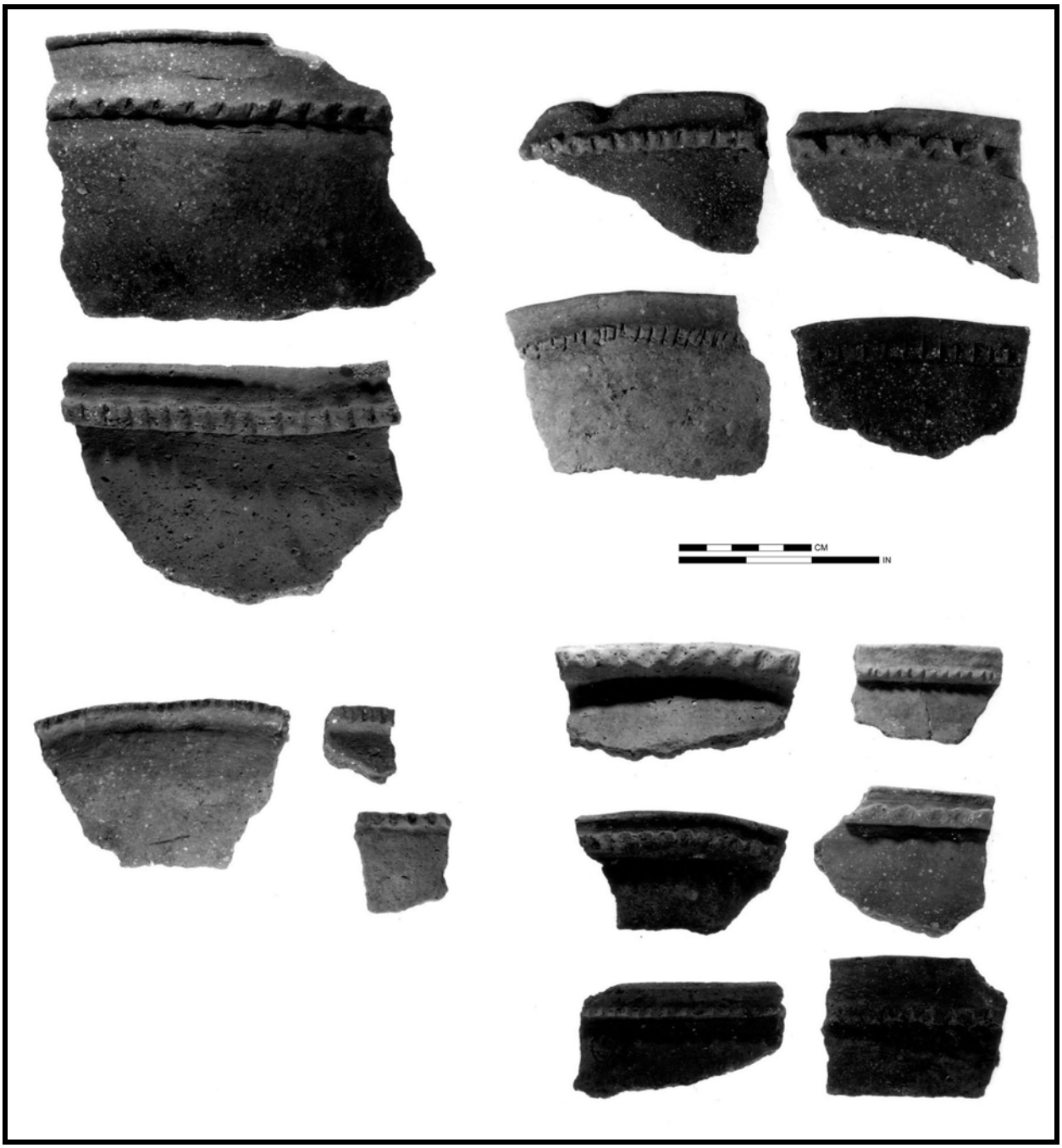

Figure 132. Overhill Shell Tempered Plain Rim Sherds

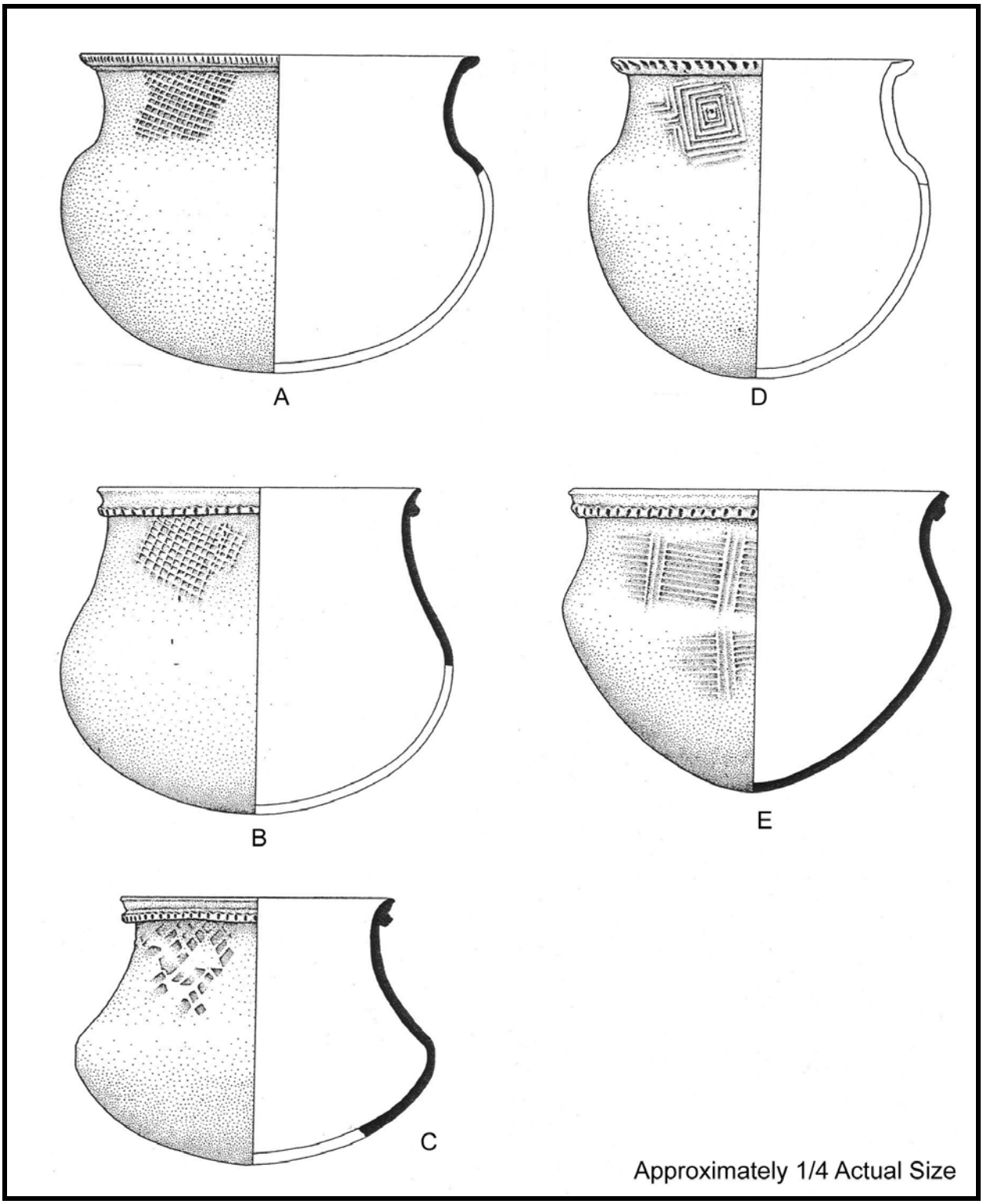

Figure 133. Overhill Cherokee Checked Stamped and Rectilinear Stamped Jars. Reconstruction drawings. **A-C**. Checked Stamped. **D** and **E**. Rectilinear Stamped.

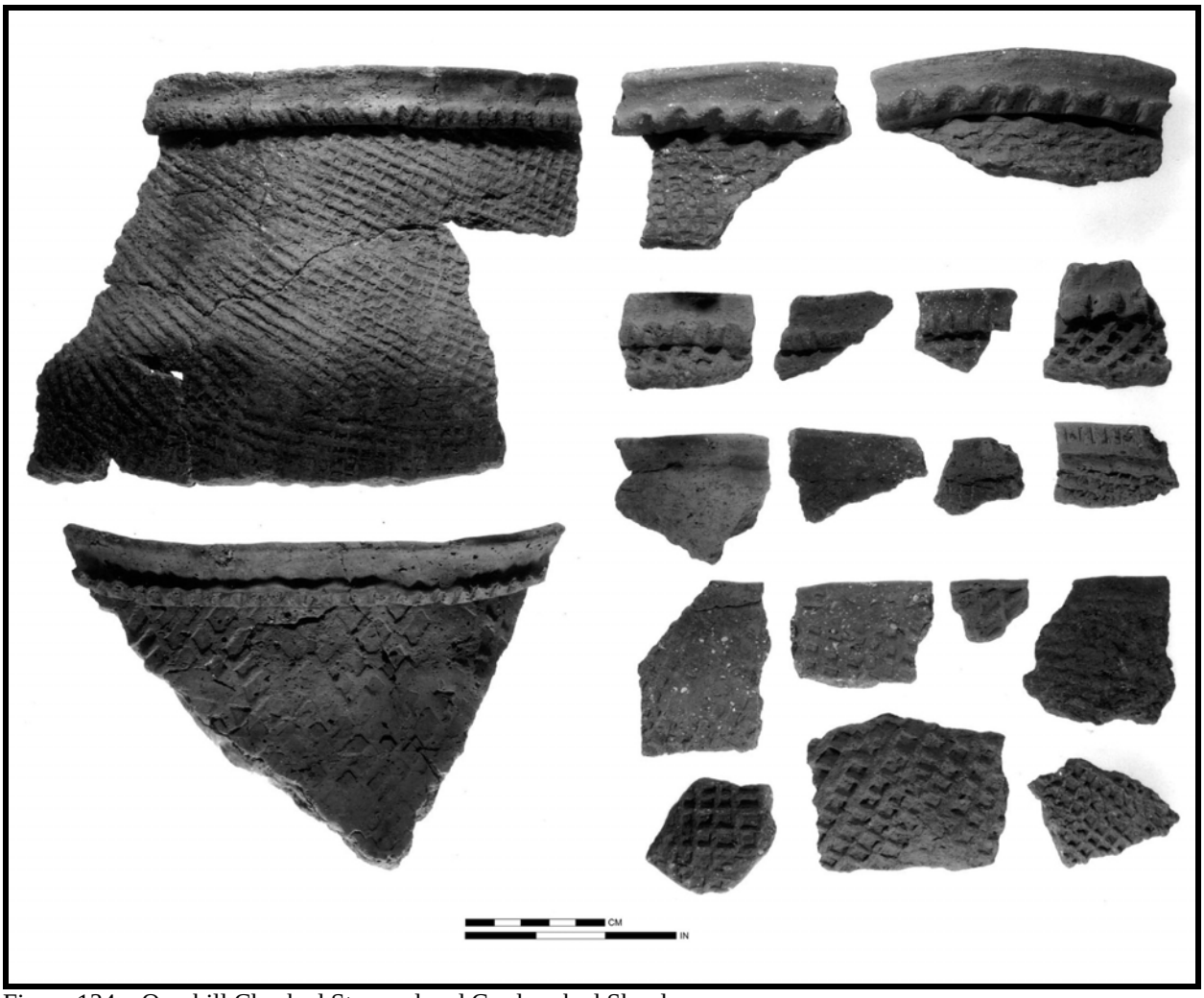

Figure 134. Overhill Checked Stamped and Cordmarked Sherds.

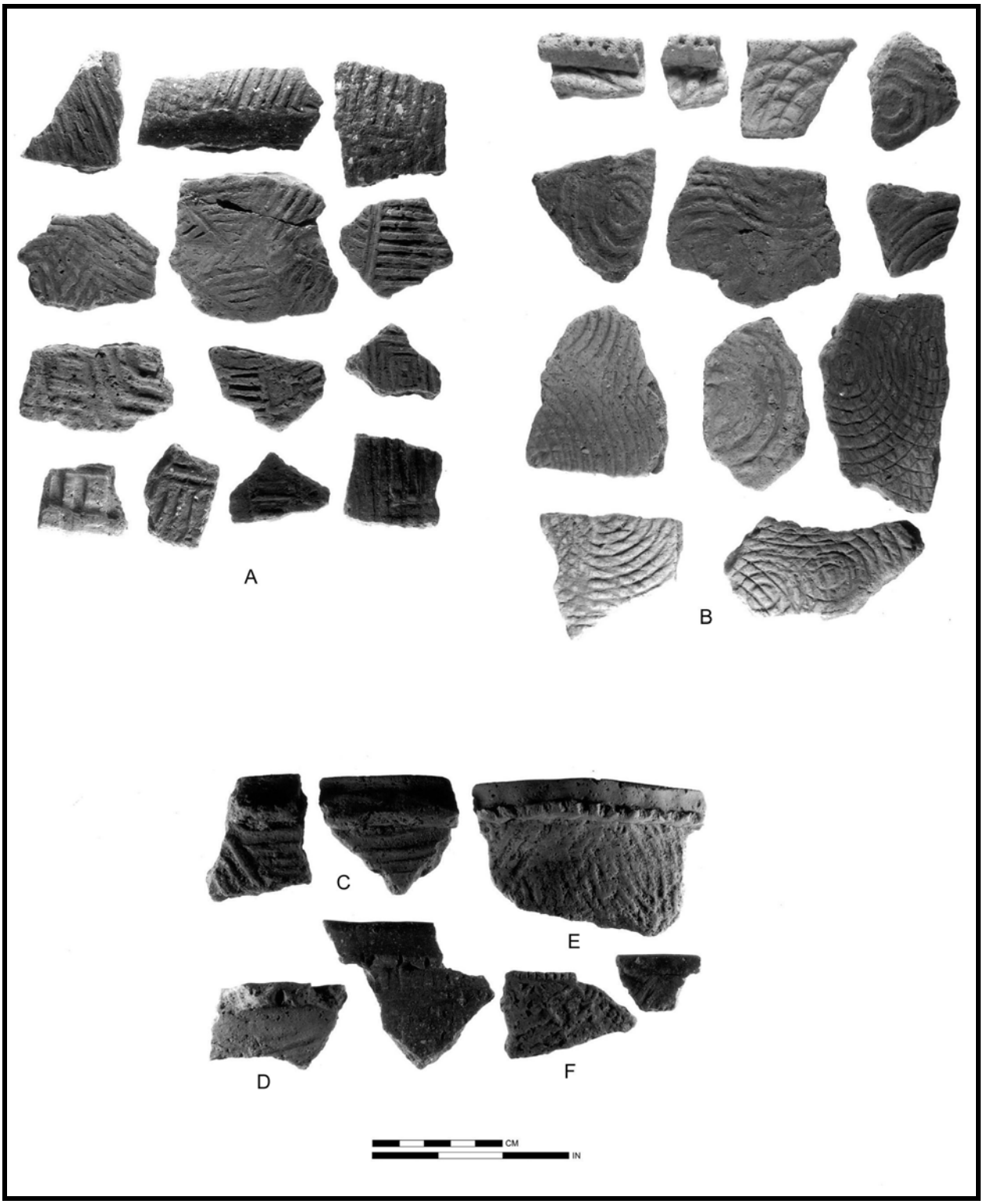

Figure 135. Overhill Cherokee Rectilinear and Curvilinear Stamped and Cordmarked Sherds.
A. Overhill Rectilinear Stamped. **B**. Overhill Curvilinear Stamped. **C** and **D**. Overhill Simple Stamped. **E**. Overhill Cordmarked. **F**. Overhill Net Impressed.

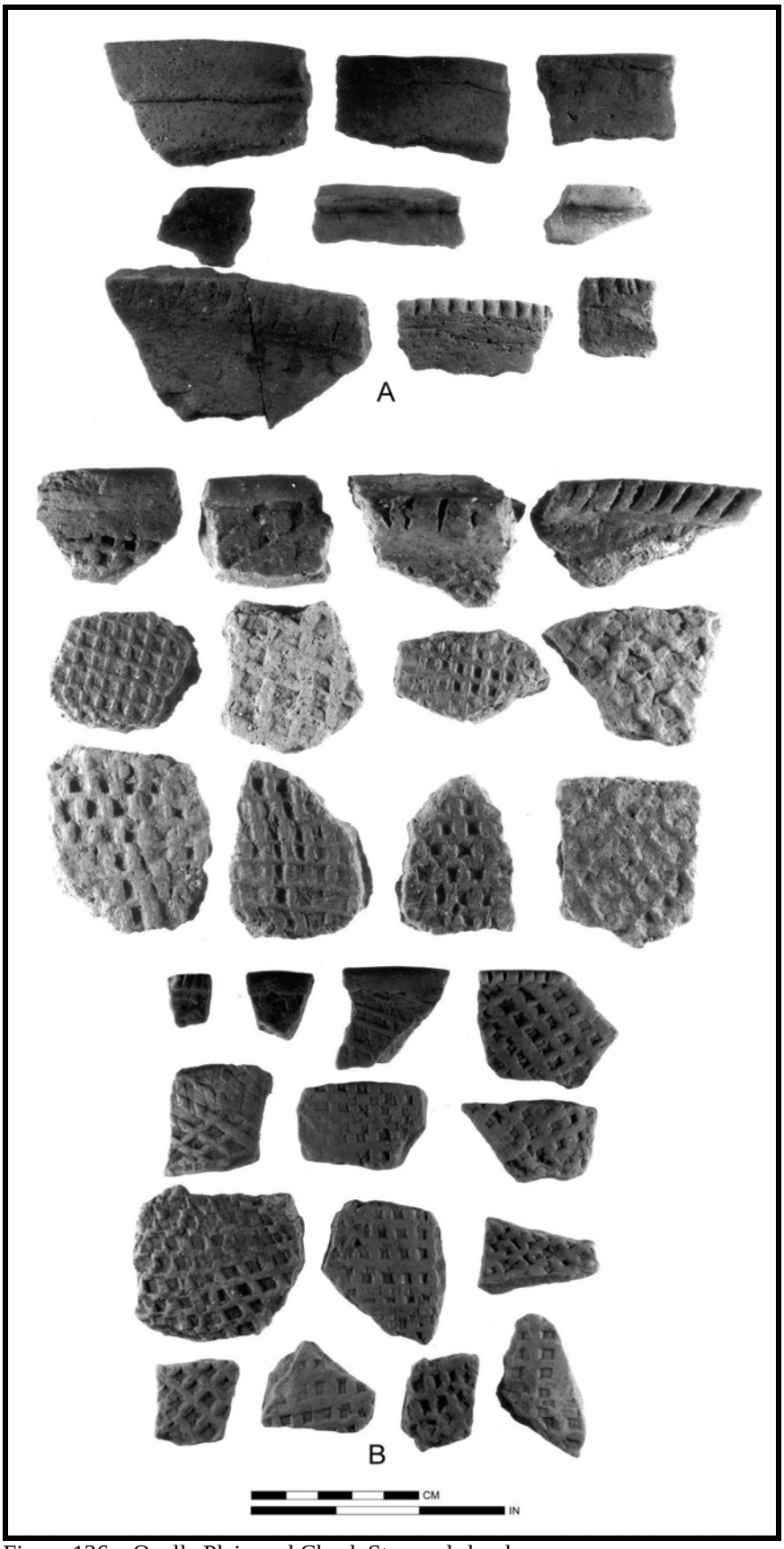

Figure 136. Qualla Plain and Check Stamped sherds.
A. Qualla Plain. **B**. Qualla Check Stamped.

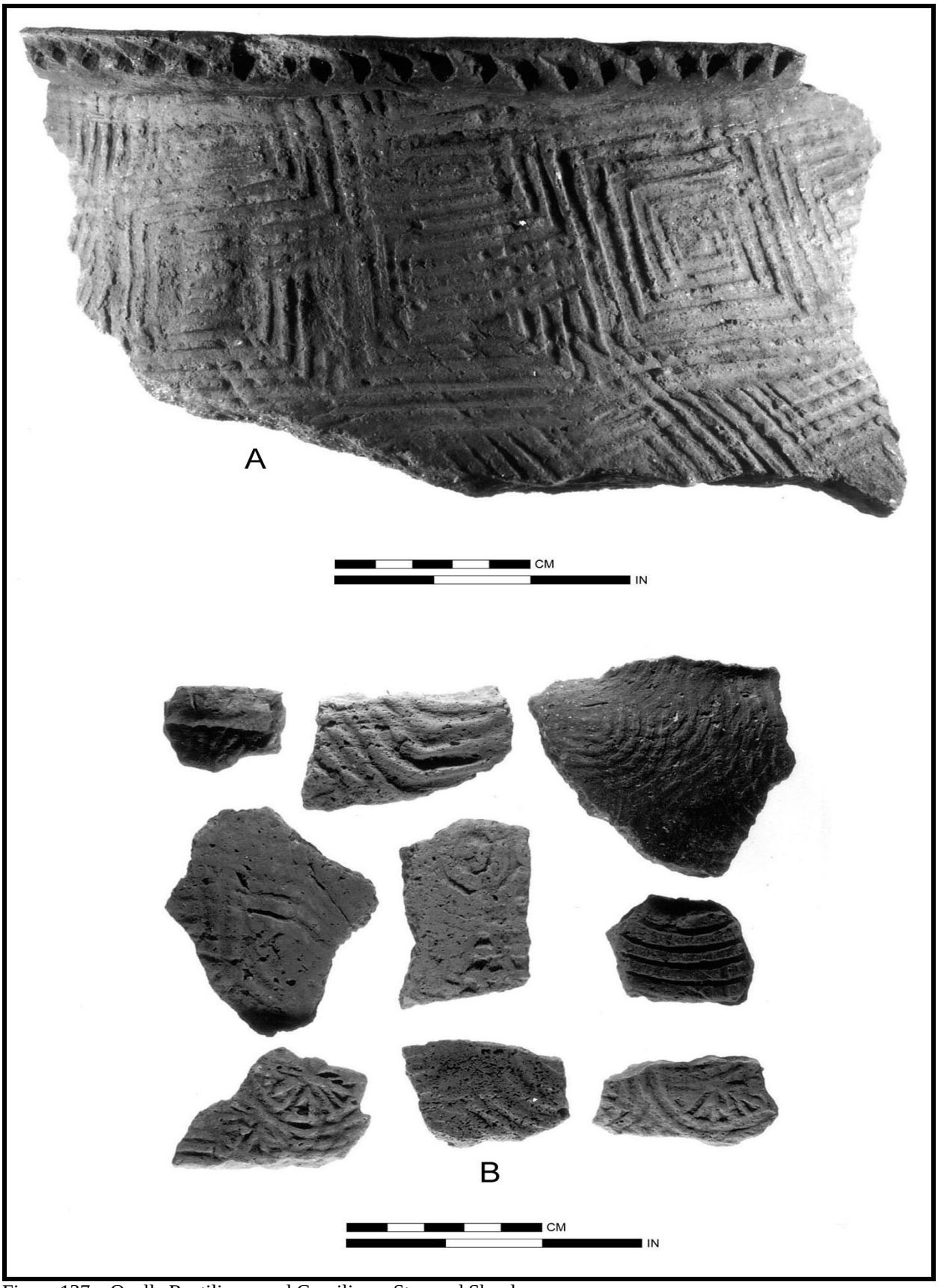

Figure 137. Qualla Rectilinear and Curvilinear Stamped Sherds.
A. Qualla Rectilinear Stamped. **B**. Qualla Curvilinear Stamped.

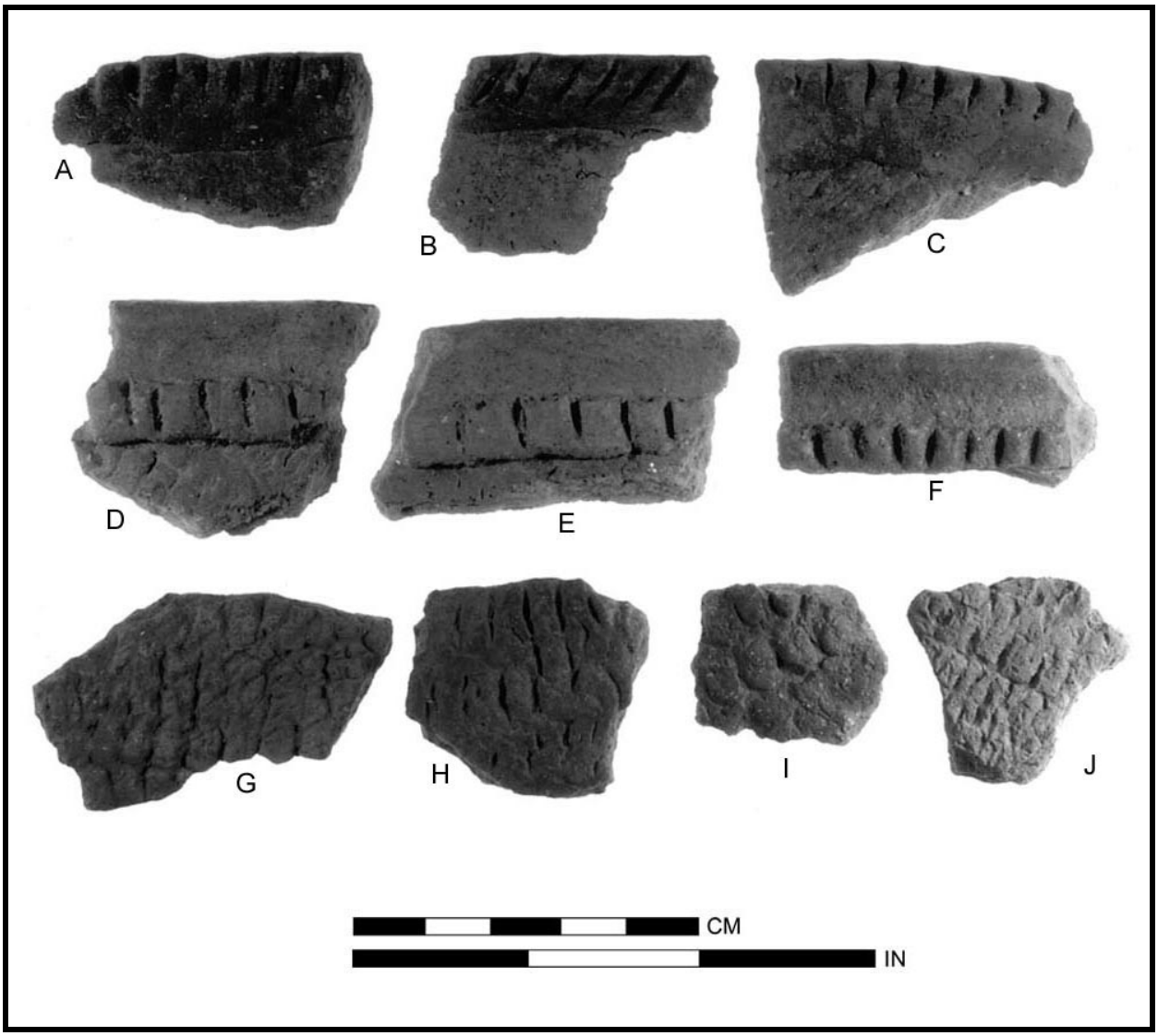

Figure 138. Qualla Cordmarked, Cob and Net Impressed sherds.
A-**G**. Qualla Cordmarked. **H** and **I**. Qualla Cob Impressed. **J**. Qualla Net Impressed.

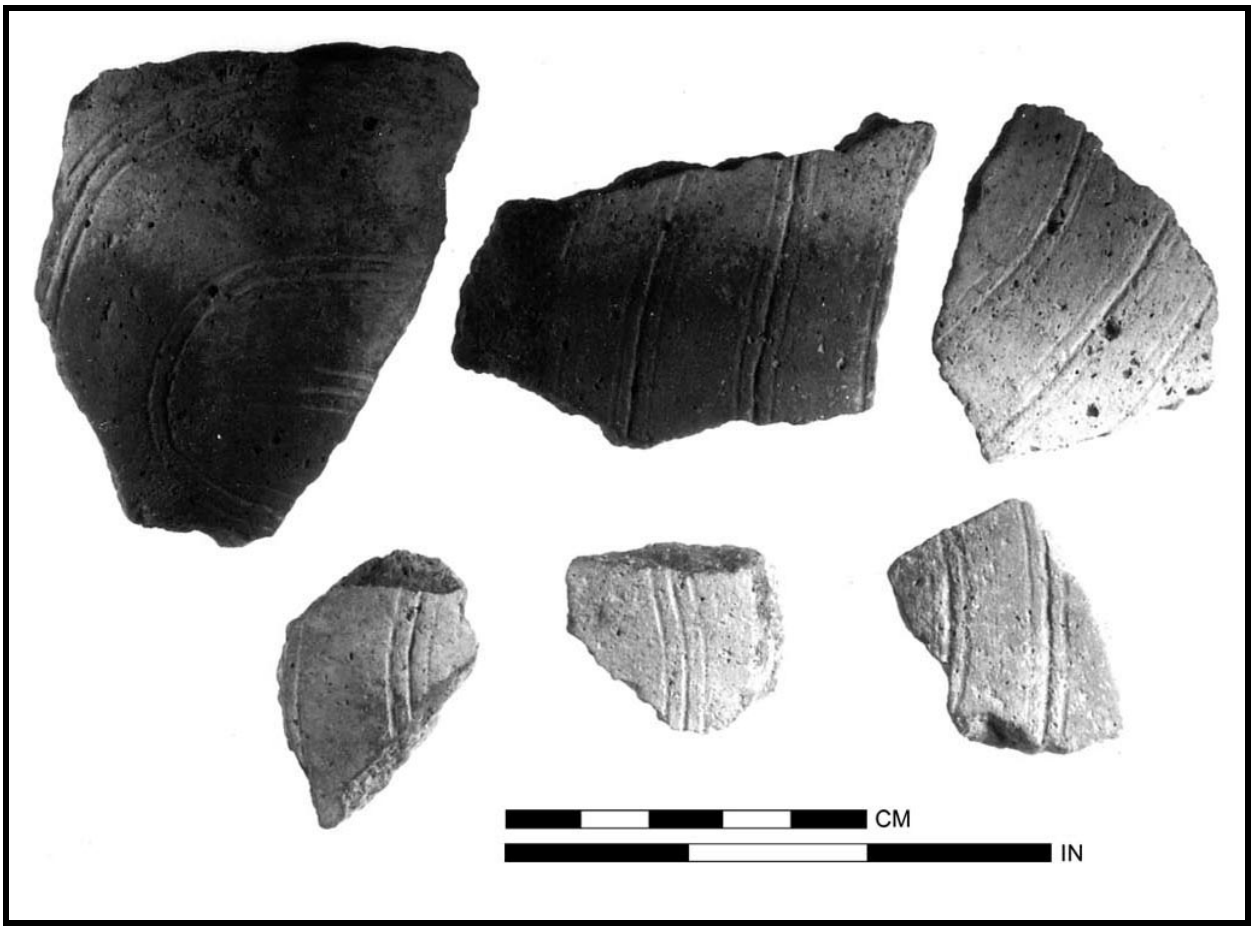

Figure 139. Fatherland Incised Sherds

Fatherland Incised

Forty-five sherds recovered from several contexts within the fort were of definite Lower Mississippi Valley origin and identified as Fatherland Incised. Some of these are illustrated in Figure 139. The reader is referred to *Archaeological Survey in the Lower Yazoo Basin, Mississippi, 1949-1955* by Philip Phillips (1970) for the type description for Fatherland ceramics. These ceramics are most likely from one of the Natchez villages in the vicinity of Natchez, Mississippi. Many of them were in unquestionable fort period contexts, but the documentation offers no clue as to their final deposition at Fort Loudoun.

Large numbers of the Cherokee ceramics were associated with structures clearly suggesting their use by the garrison as a substitute for European ceramics throughout the occupation of the fort. Table 132 shows the number of European ceramics considered to be associated with each structure, as well as the Cherokee and Qualla ceramics that were also associated. The percentages of the various categories are shown in parentheses.

Table 132. English and Cherokee Ceramics by Structure.

Structure	E.C.	O.H.	Q.	T.C.	Total
ST. 1	3 (3.37)	81 (91.01)	5 (5.62)	86 (96.63)	89
ST. 2	3 (4.62)	60 (92.31)	2 (3.07)	62 (95.38)	65
ST. 3	0 (0.00)	10 (100.00)	0 (0.00)	10 (100.00)	10
ST. 4	1 (1.20)	82 (98.80)	0 (0.00)	82 (98.80)	83
ST. 5	8 (2.59)	275 (88.89)	26 (8.41)	301 (97.41)	309
ST. 6	66 (36.26)	111 (60.99)	5 (2.75)	116 (63.74)	182
ST. 7	9 (2.24)	392 (97.51)	1 (0.25)	393 (97.76)	402
ST. 8	4 (2.48)	107[1] (66.46)	50 (31.06)	157[1] (97.52)	161
ST. 9	1 (3.03)	30 (90.91)	2 (6.06)	32 (96.97)	33
ST. 10	19 (3.65)	499 (95.77)	3 (0.58)	502 (96.35)	521
ST. 11	0 (0.00)	82 (89.13)	10 (10.87)	92 (100.00)	92
ST. 12	3 (1.80)	142 (85.03)	22 (13.17)	164 (98.20)	167
ST. 13	0 (0.00)	25 (69.44)	11 (30.56)	36 (100.00)	36
ST. 14	18 (41.86)	24 (55.81)	1 (2.33)	25 (58.14)	43
ST. 15	1 (11.11)	8 (88.89)	0 (0.00)	8 (88.89)	9
ST. 16	30 (6.49)	396 (85.71)	36 (7.80)	432 (93.51)	462
ST. 17	27 (1.51)	1626 (91.14)	131 (7.35)	1757 (98.49)	1784
ST. 18	0 (0.00)	1 (50.00)	1 (50.00)	2 100.00)	2
ST. 19	1 (0.74)	133 (97.79)	2 (1.47)	135 (99.26)	136
ST. 20	0 (0.00)	6 (100.00)	0 (0.00)	6 100.00)	6
ST. 22	2 (1.59)	124 (98.41)	0 (0.00)	124 (98.41)	126
ST. 23	0 (0.00)	2 (100.00)	0 (0.00)	2 (100.00)	2
ST. 24	8 (25.81)	23 (74.19)	0 (0.00)	23 (74.19)	31
Barracks	11 (4.70)	204 (87.18)	19 (8.12)	223 (95.30)	234
TOTALS:	**215 (4.31)**	**4443 (89.13)**	**327 (6.56)**	**4770 (95.69)**	**4985**

Notes: Percentages are shown in parenthesis. Column headings are as follows: E.C.=Chinese and European ceramics; O.H.=Overhill Cherokee ceramics; Q.=Qualla ceramics; T.C.=Total Cherokee ceramics.
1. Fatherland Incised sherds are included.

Glass Containers

There was a total of 1097 pieces of glass in the collections. Dark green, clear glass, and light blue green beverage bottles comprise the majority of the collection, represented by 703 specimens (64 percent). Storage or snuff bottles made up 15 percent (167 pieces) of the glass collection, and pharmaceutical bottles amounted to 19 percent (208 pieces). One Turlington bottle was represented by three pieces of glass. Wine glass was another minor part of the glass assemblage with only 16 pieces found or about 1.5 percent of the collection. Figures 140 to 142 illustrate some of the glass that was found. Table 133 provides a listing by provenience for the various categories of glass. The measurements that have been given in this section generally follow those of Brown (1971). The bottle nomenclature used here follows Brown (1971) and Noel Hume (1969a) and (1972a).

Dark Green Round Beverage Bottles
Total: 579
Figures 140A-I and 141

In the various collections there is a total of 579 fragments of olive green round bottles, consisting of 94 basal fragments, 54 neck fragments, 14 lips, and 417 side or other indeterminate pieces. There are no complete specimens in the collection, but a composite drawing of a nearly complete neck and shoulder section of one bottle, and the basal section of another bottle are shown in Figure 140A. These bottles are generally comparable in shape to one illustrated by Noel Hume (1972a:67), Brown (1971:Figure 5 and Plates 7 and 8). They are also similar to one from Burial 47 at Chota-Tanassee where Newman (1977:Figure 3 and 1986:419, Figure 8.1) indicates that the bottle, according to Noel Hume's (1970) criteria would have dated to 1757.

Three types of lip treatment are observed, including V-section string rings, V-section tooled down, and round section string rings. The seven V-section string rings (Figures 140A, F, and G) have diameters ranging from 2.5 cm to 3.5 cm and orifice diameters ranging from 1.7 cm to 2.1 cm; ring heights vary from 0.7 cm to 1.4 cm. There are seven V-section tooled down rings (e.g. Figures 140B, E, and H). The measurable ones have diameters ranging from 2.9 cm to 3.0 cm, orifices ranging between 1.5 cm and 1.7 cm, and ring heights varying between 1.2 cm and 1.6 cm. One round section string ring (Figure 140I) has a height of 0.8 cm; the diameter and orifice were unmeasurable.

The bases or basal fragments that can be measured have basal sections ranging from 8.8 cm to 12.5 cm. Basal rings measure between 6.3 cm and 9.5 cm; kickup heights range between none and 5.8 cm. Figures 141A-I show the range of sizes and variations in the heights and shapes of the kickups.

Dark Green Square Beverage Bottles (Case Bottles)
Total: 109
Figure 140J

These bottles, often referred to as case bottles, are all made of dark green glass. In the collection there is a total of 109 fragments assigned to this category, including 17 basal sections, 91 side or other indeterminate pieces, and one neck that is definitely from a square bottle. Additional necks and lips that were discussed in the previous section could also have come from square bottles. The bases of these bottles are generally flat and lacking a kickup, and the sides taper outward toward the top. Measured bases range from 6.0 cm by 7.0 cm, to 7.5 cm by 7.5 cm. The one assigned neck (Figure 140J) is similar to one form illustrated by Brown (1971:Figure 4-C) although the lip treatment is slightly different. It has a neck height of 2.5 cm, a diameter of 3.0 cm and an orifice diameter of 2.1 cm.

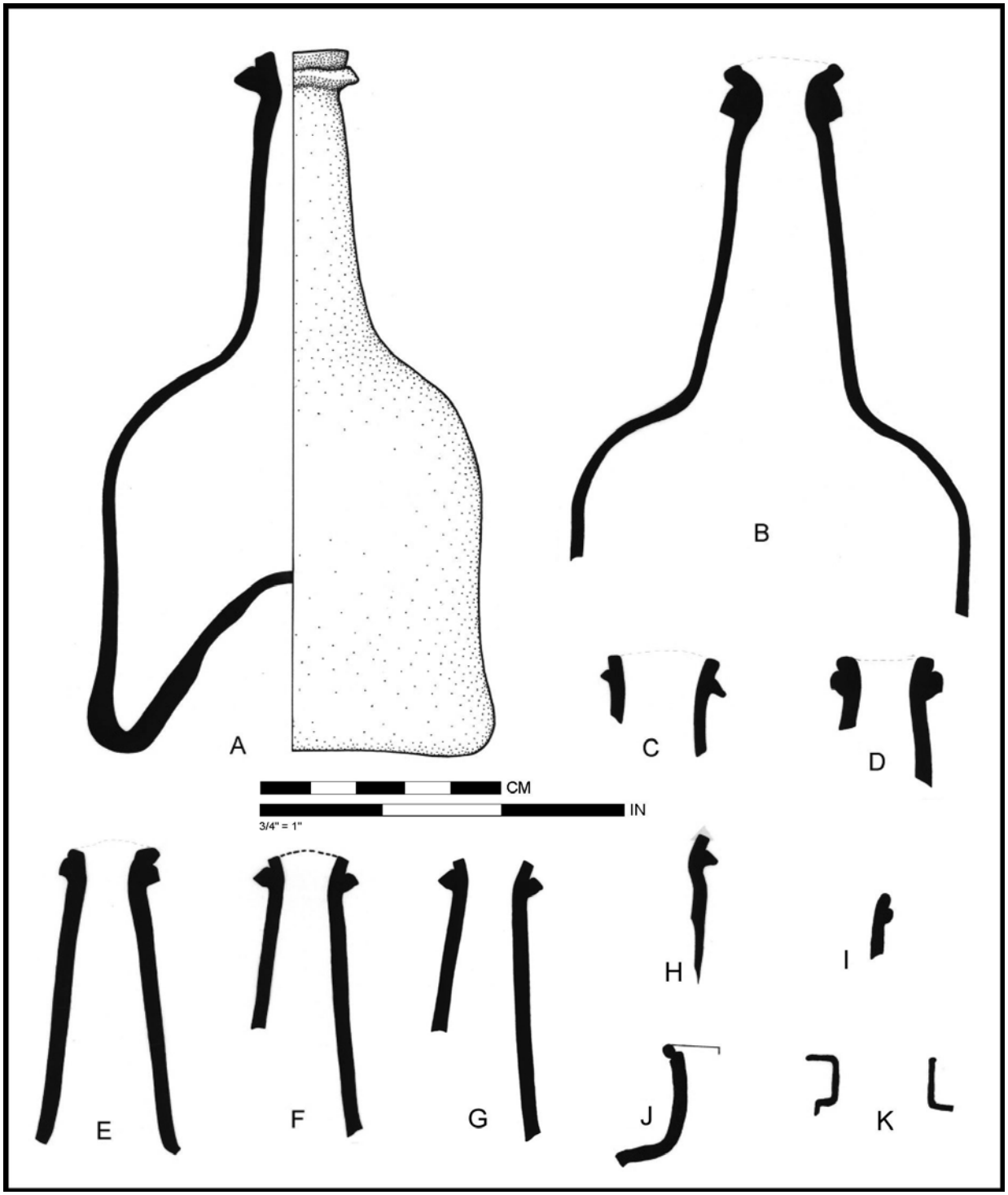

Figure 140. Dark Green Round Beverage Bottles, Square Beverage Bottle, Pharmaceutical Vial.
A-**B**. Round beverage bottle profiles. **C**-**I**. Round beverage bottles neck and rim profiles. **J**. Square beverage bottle neck and rim profile. **K**. Pharmaceutical vial neck and rim profile.

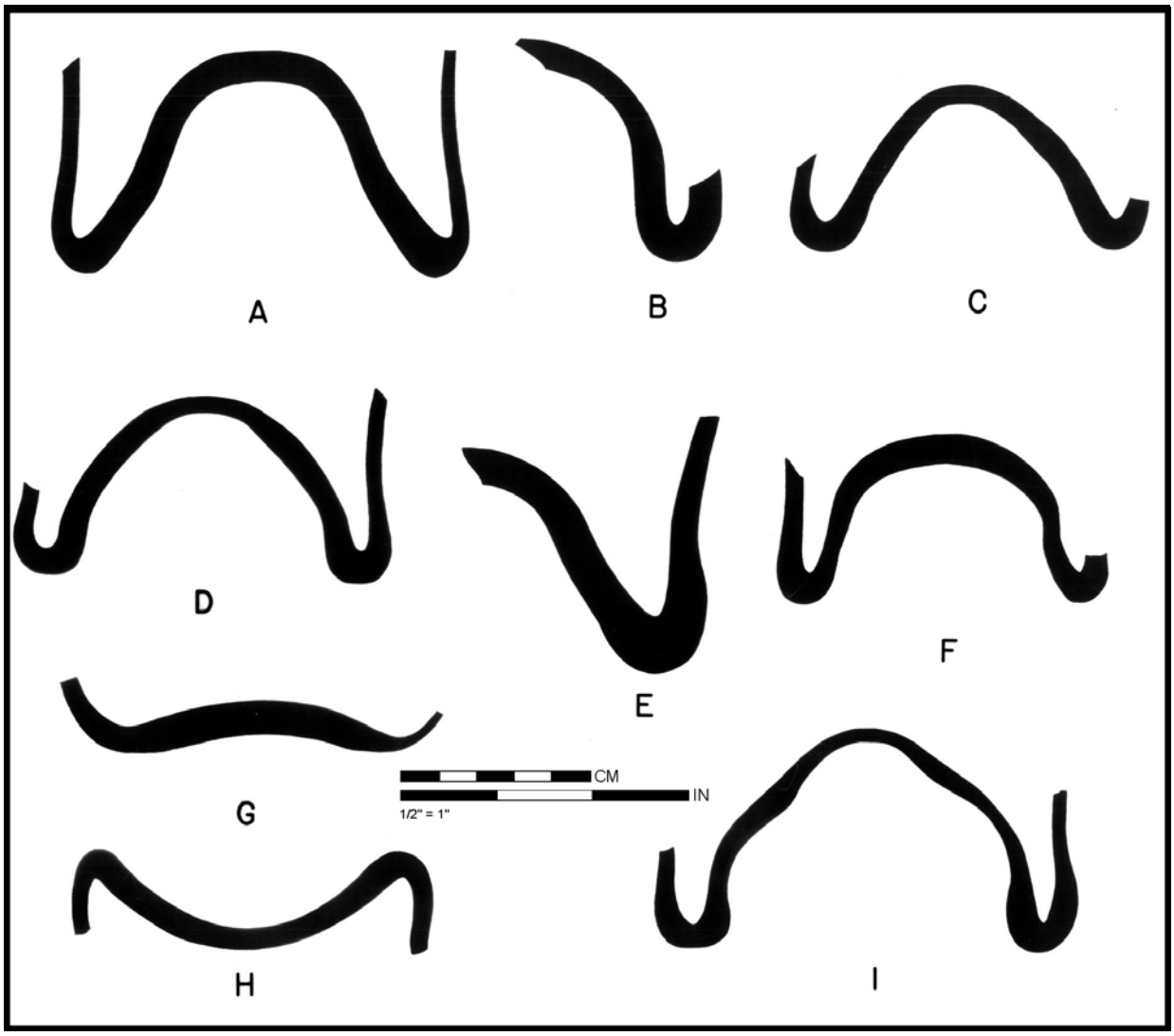

Figure 141. Dark Green Round Beverage Bottle Kickups.

Dark Green Octagonal Beverage Bottles
Total: 3
Not Illustrated

Three fragments of glass that can definitely be assigned to octagonal bottles were recovered, including two bases and one side piece. These are made of a similar glass to the round and square bottles, and are of comparable weight and size to the square case bottles discussed above. One measurable base has a maximum width of 6.0 cm. These specimens would have come from bottles similar to ones illustrated by Noel Hume (1969a:Figures 28 and 32).

Clear Glass Square Beverage Bottle
Total: 7
Not Illustrated

Seven pieces of clear glass that were recovered from two proveniences represent what would have been one or more clear glass beverage bottles. All of the pieces recovered are side pieces and are from square bottles. The thickness of the glass indicates that they probably came from a bottle similar in size to a case bottle.

Light Blue Green Round Beverage Bottles
Total: 5
Not Illustrated

Five pieces of glass from the same number of proveniences are a light blue-green. All are from the sides of round bottles, with thicknesses comparable to the size of the round dark green beverage bottles described above.

Storage Bottles (Snuff or Blacking Bottles)
Total: 167
Figure 142A

The bottles of this category, made of olive green glass and often referred to as snuff or blacking bottles (Noel Hume 1969a:45), are somewhat smaller than the beverage bottles described above. They are characterized by flat bottoms, square sections with flat sides, and short necks with everted lips. The collections include seven neck/rim/shoulder sections, two bases, and 158 side section pieces.

The specimen shown in Figure 142A is the most complete that was recovered. Orifice diameters range from 2.4 cm to 8.6 cm. Corresponding lip diameters vary from 3.6 cm to 10.0 cm, and neck heights range from 0.5 cm to 1.7 cm. The estimated width of the section of the bodies of these bottles is on the order of 8.0 cm to 10.0 cm. These bottles are comparable to several illustrated in the literature (Brown 1971:Plate 6 and Plate 11; and Noel Hume 1969a:Figure 40).

Wine Glasses
Total: 16
Figures 142B, C, and F

The remains of a minimum of four wine glasses were recovered from within the fort. The collection includes six stem fragments, six bowl fragments, and four basal pieces. All are clear lead glass. The bowl fragments represented came from either trumpet-shaped or funnel-shaped bowls. The basal elements appear to be from plain conical bases. Four of the stems are straight or slightly tapered, one stem is a slightly tapered air twist stem with a pair of corkscrew elements with an "S" twist (Figure 142B), and two have basal knobs (Figure 142C). The most complete base has been reworked by pressure flaking around the edge to form a steep scraper-like edge (Figure 142F). These wine glasses, although incomplete, would probably be from glasses similar to those complete ones illustrated by Bickerton (1971:Figures 220, 222, 223, and 283), and Noel Hume (1969a:Figures 8 and 9).

The distribution of these wine glass fragments that can be plotted is rather disperse, and not completely conclusive as would have been hoped for in making some sort of distinction between officer and enlisted personnel quarters. Associations are generally with Structure 6 and the area between that structure and Structure 1, Structure 8, Structure 4, and Structure 16. Two were recovered just east of the powder magazine, one was in the southeast ditch, one in the slope deposits just east of the Barracks, and one was in the Northeast Bastion. This does tend to confirm, however, that the temporary buildings defined on the slope and the northern part of the fort, particularly Structures 16 and Structure 4, may have been the temporary dwellings of the officers during the early part, and possibly later periods of the fort's occupation. Their occurrence around Structure 6 tends to confirm its use as an officers' quarters or headquarters during the latter part of the occupation after some of the more permanent buildings were erected.

Pharmaceutical Vials
Total: 208
Figures 142D, E, and G-I

Because of the fragmentary nature of most of the bottles that are classified as pharmaceutical vials, this section is intended to describe the range of variation in the glass type, neck and lip size, basal shapes, and overall shape of the bottles. These generally conform to the groups of pharmaceutical bottles that have been described from other contemporary sites. Basically, they are elongate bottles that are either round, square, or in one case oval in section, with varying diameter necks. They typically all have sharply everted lips that project outward at approximate right angles to the neck.

Round Pharmaceutical Bottles - Blue Green Glass
Total: 141
Figures 140K and 142D, E, and G-I

There are some 141 fragments that are attributed to round, blue-green glass pharmaceutical bottles. No complete specimens were recovered, but the collection contains 110 side or body fragments, 18 bases or fragments of bases, and 13 lip and/or neck sections. Bases in the collection vary in diameter from 2.4 cm to 6.2 cm and kickups range from 0.8 cm to 2.2 cm. Lip diameters measure 1.8 cm to 3.0 cm, and corresponding orifice diameters vary between 1.1 cm and 1.3 cm. Neck heights vary from 1.0 cm to 1.5 cm. Similar bottles are illustrated from numerous sites (Brown 1971:162-163 Figure 10B-E; Grimm 1970:Plate 63 7-10 and 16-17; Noel Hume 1969a:Figure 36).

Square Pharmaceutical Bottles - Blue Green Glass
Total: 18
Not Illustrated

Eighteen pieces of blue-green glass are attributed to square pharmaceutical vials. One square base is present but unmeasurable, and the side pieces that are included here are flat. The two measurable neck and lips and orifice have diameters of 3.6 cm and 2.8 cm. Lip diameters are both 5.0 cm. Neck heights are 1.1 cm and 1.8 cm. The size of these necks compared to other classes of pharmaceutical vials seems to show that these are a wide mouth variety, comparable to one from Fort Michilimackinac (Brown 1971:Plate 15).

Round Pharmaceutical Bottles - Clear Glass
Total: 22
Not Illustrated

Twenty-two fragments of clear glass pharmaceutical vials or bottles are present in the collection. Generally they appear similar to the blue-green ones. The one measurable base of the two bases present has a diameter of 3.0 cm with a 0.6 cm kickup. One lip has a diameter of 4.2 cm and an orifice diameter of 3.0 cm. It has a flat lip and is similar to the wide-mouthed variety of the blue-green vials (Figures 140K and 142H). One measured neck height is 0.7 cm. A similar bottle is illustrated from Williamsburg (Noel Hume 1969a:Figure 38).

Square Pharmaceutical Bottles - Clear Glass
Total: 26
Not Illustrated

Twenty-six fragments of clear glass are classified as square pharmaceutical bottles. Most were recovered from within or in the vicinity of Structure 17. The collection includes one base 4.6 cm by 4.5 cm with a kickup of 0.6 cm. One lip from probably the same bottle has a vertical neck and a straight lip flared out at right angles to the neck. No measurements are possible, but it is similar to the blue-green pharmaceutical vials shown in Figure 142D, E, G-I.

Oval Pharmaceutical Bottle - Light Blue-Green Glass
Total: 1
Not Illustrated

One oval base from what has been attributed to a pharmaceutical bottle, mainly on size, was recovered from the southeast ditch. It is made of a light blue-green glass and has dimensions of 5.0 cm by 4.2 cm and a kickup of 1.0 cm.

Turlington Bottle
Total: 3
Not Illustrated

Three fragments of a clear glass Turlington bottle were in the WPA collection from the site. While it is possible that this bottle was contemporary, the shape appears to have been a later form (see Noel Hume 1969a:43-44, and Figure 39).

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
166/282	1										1		2
170/280	2												2
172/280						1							1
174/280	1												1
178/196	1					2							3
178/198	1												1
178/200						1							1
180/192						1							1
180/194	3												3
180/200	1												1
180/202						1							1
180/270	1												1
180/276							1						1
182/196	1												1
182/240							1						1
182/260(3)	1												1
182/262(3)	3												3
182/274						1		1					2
182/276						1							1
184/208	1												1
184/210		2											2
184/216							2						2
184/250		1											1
184/256	1	1											2
184/264(3)	1												1
184/266						1	1						2
184/270	1												1
186/196	1												1
186/200(24)					1								1
186/204(24)	1												1
186/210	1												1
186/236	1												1
186/254	1												1
186/256	1												1
188/208(14)		1					1						2
188/210(14)	1												1
188/228		1	1										2
188/230	1												1
188/232	1												1
188/252	1												1
188/256	2												2
188/266(2)	1					1							2
188/270(1)	1												1
188/278	1												1
190/194							1						1
190/198	1												1
190/236						1							1
190/252		1					1						2
190/280	1												1
190/282	1						1						2
192/202						1							1
192/208(14/B)	1												1
192/218	1												1

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
192/220	2												2
192/224							1						1
192/238(15)						1							1
192/266(2)	1												1
194/202							1						1
194/210(B)						1							1
194/212	2												2
194/220	2												2
194/232(15)	1												1
194/240							1						1
194/242	2												2
194/246	1						1						2
194/252	1												1
196/220		1											1
196/234(15)							1	1					2
196/238(15)	1						2						3
196/240		1						1		1			3
196/242	3					1							4
196/248	1												1
196/250	1												1
196/258	1												1
198/198		1											1
198/200	1					1							2
198/206(B)	1					1							2
198/212	1	1											2
198/214	1												1
198/220						1							1
198/240							1						1
198/242	1												1
198/244	1												1
198/246		1				1							2
198/248	1												1
198/250						2							2
198/254	1												1
200/224	2												2
200/232	1												1
200/236							1						1
200/238		1				1							2
200/240	1					2	1						4
200/242	1					1							2
200/244	1												1
200/246	2					1	2					1	6
200/248(6)							1						1
200/250(6)		1											1
200/254(6)	1	3											4
200/266(5)	1												1
202/194		1											1
202/228	1												1
202/238							1						1
202/244						1	2						3
202/246	7						16						23
202/248(6)	3					2							5
202/250(6)	1												1
202/252(6)	1												1

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
202/256									1				1
202/258						1	1						2
204/190	1												1
204/218	1												1
204/224	2												2
204/226	2												2
204/228	1												1
204/232	3												3
204/236	1						1						2
204/240								1					1
204/246(6)	2	1				1	1						5
204/248(6)	1												1
204/254(6)	1					1	1	1					4
206/222	2												2
206/230						1							1
206/244						1							1
206/246(6)						2							2
206/250(6)							1						1
206/256									1			1	2
206/260(5)		1											1
206/262(5)	1												1
208/188		1											1
208/192	2												2
208/202(B)	1												1
208/216	1												1
208/218		1				1							2
208/228	2	1											3
208/238	1												1
208/240	1												1
208/246	1				1								2
208/248(6)	1												1
208/250(6)							1						1
208/252(6)							1						1
208/254(6)	1						1						2
208/256	1												1
208/258(5)	1						1						2
208/264(5)						1	1						2
210/198	4												4
210/226	1												1
210/228		1											1
210/250(6)	1					1							2
210/260(5)		1						1					2
212/230							1						1
212/244	1												1
212/252(6)	1												1
212/260		3											3
212/262	1								1				2
214/184(8)		1											1
214/216		1											1
214/254	1	1											2
216/184(8)	3												3
216/194(7)	1												1
216/196(7)	1												1
216/208						2						1	3

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
216/214	1	2											3
216/216	1	1				1			1				4
216/220	1												1
216/222	1												1
216/224	2												2
216/250	1												1
216/252	1												1
216/256	1			6					1				8
216/258	1												1
216/260	1												1
218/182(11)	1												1
218/184	12	1					1						14
218/186	1												1
218/206							1						1
218/210	1												1
218/212	1						1						2
218/216	2												2
218/224	3						1						4
218/226	1												1
220/182(1l)	1												1
220/196	1												1
220/198(B)								1					1
220/208						1							1
220/214	1												1
220/216									1				1
222/176(11)		1											1
222/186	4												4
222/194(10)	1												1
222/200(B)						1							1
222/218	1						1						2
222/224							1						1
222/232							1	1	1				3
224/174(9)						1							1
224/196	1												1
224/204	2												2
224/224						1							1
226/188	1												1
226/190(10)				1									1
226/194(10)	2												2
226/196(B)	8	1				21							30
226/200(B)							1						1
226/204	4					1							5
226/206									1				1
226/224						1							1
226/226	2	2				1		1	1			1	8
226/230		1											1
226/232	1												1
226/246(13)	2												2
226/248	1												1
228/194						1	1						2
228/198(B)	1												1
228/204	1												1
228/206	2												2
228/212	1												1

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
228/246(13)	1												1
228/254						2							2
230/176	1												1
230/206									1				1
230/218(4)	1												1
232/138	2	1											3
232/204		1											1
232/208	2												2
232/216(4)							7						7
232/218(4)		1					3						4
232/220(4)												1	1
232/242	2					1							3
232/248	3												3
233/140	1												1
234/140	1						1						2
234/184												1	1
234/204(17)	1									1			2
234/206(l7)	1												1
234/216(4)						1							1
234/218(4)						1							1
234/220(4)						1							1
234/222(4)		3											3
236/132	1							1					2
236/134							2						2
236/190							1						1
236/202(l7)	1												1
236/206(17)	1												1
236/218		1				1							2
236/226		1											1
236/232							1						1
238/134							1						1
238/190							2						2
238/194(17)	1									1			2
238/198(17)	1						1						2
238/202(17)	1												1
238/208(17)	2												2
238/228(23)						4							4
238/242						2	1						3
238/244							2						2
240/188	2						1						3
240/190							1						1
240/238(16)	1												1
240/242	1	1				3							5
240/282						1							1
242/150	1												1
242/168		1											1
242/178	1												1
242/194	1												1
242/230(16)	1												1
242/244						1							1
244/184(22)	1												1
246/190(12)	1	1											2
246/248								1					1
250/246		2											2

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
F.3	6				1		2						9
F.42							2						2
F.44	4	1	1										6
F.45	1					2	1						4
F.50	1	1					2						4
F.53	1								2				3
F.54						20	1						21
F.56						3							3
F.58	1					1			1				3
F.61E	2											1	3
F.61S	1												1
F.76	2					3							5
F.79	1	1										1	3
F.82						1							1
F.83						1							1
F.86												1	1
F.88	2						1						3
F.96N												1	1
F.109	10												10
F.120							1						1
F.123	2												2
F.139						1							1
F.148	4					1	5						10
F.150							1	1					2
F.152		1											1
F.154	1												1
F.158	1	1				1	2						5
F.159	14	1				3	9		2				29
F.168						3							3
F.170						1							1
F.171	4					2	1		1				8
F.178	13	13				1	1						28
F.185	2												2
F.187	5												5
F.190	3	1											4
F.199						1							1
F.212	6				1	2							9
F.356	3	1											4
F.357					1								1
F.361	1	1											2
F.375	2												2
ST.6	5												5
ST.7	1	2				1							4
ST.8	1												1
ST.9	3					1							4
ST.10	7	3											10
ST.14	1												1
ST.16	23	1					1					1	26
ST.17	1	2					1		6	23			33
PM271						1							1
PM279							1						1
PM450							1						1
PM487	3					2							5
PM1078	1												1

Table 133. Glass Containers.

Provenience	DGR	DGS	DGO	CRB	LBG	SNF	BGR	BGS	CR	CS	BGO	WG	TOTALS
V. Surf.		6											6
Ditch	11	2				1	9					1	24
No Prov.	182	24	1			25	15	6				4	257
TOTALS	**573**	**115**	**3**	**7**	**5**	**167**	**142**	**18**	**22**	**26**	**1**	**16**	**1095**

Notes: Numbers in parentheses indicate structure associations; Three fragments of a Turlington bottle in the WPA collection are not included in this table. Column headings are as follows: DGR=Dark Green Round Beverage Bottle Glass; DGS=Dark Green Square Beverage Bottle Glass; DGO=Dark Green Octagonal Beverage Bottle Glass; CRB=Clear Round Beverage Bottle Glass; LBG=Light blue-Green Round Beverage Bottle Glass; SNF=Storage (Snuff) Bottle Glass; Blue Green Round Bottle Glass; BGR=Blue Green Square Bottle Glass; BGS=Blue-Green Square Bottle Glass; CR=Clear Round Bottle Glass; CS=Clear Square Bottle Glass; BGO=Light Blue Green Oval Bottle Glass; WG=Wine Glass
(B) indicates the barracks building

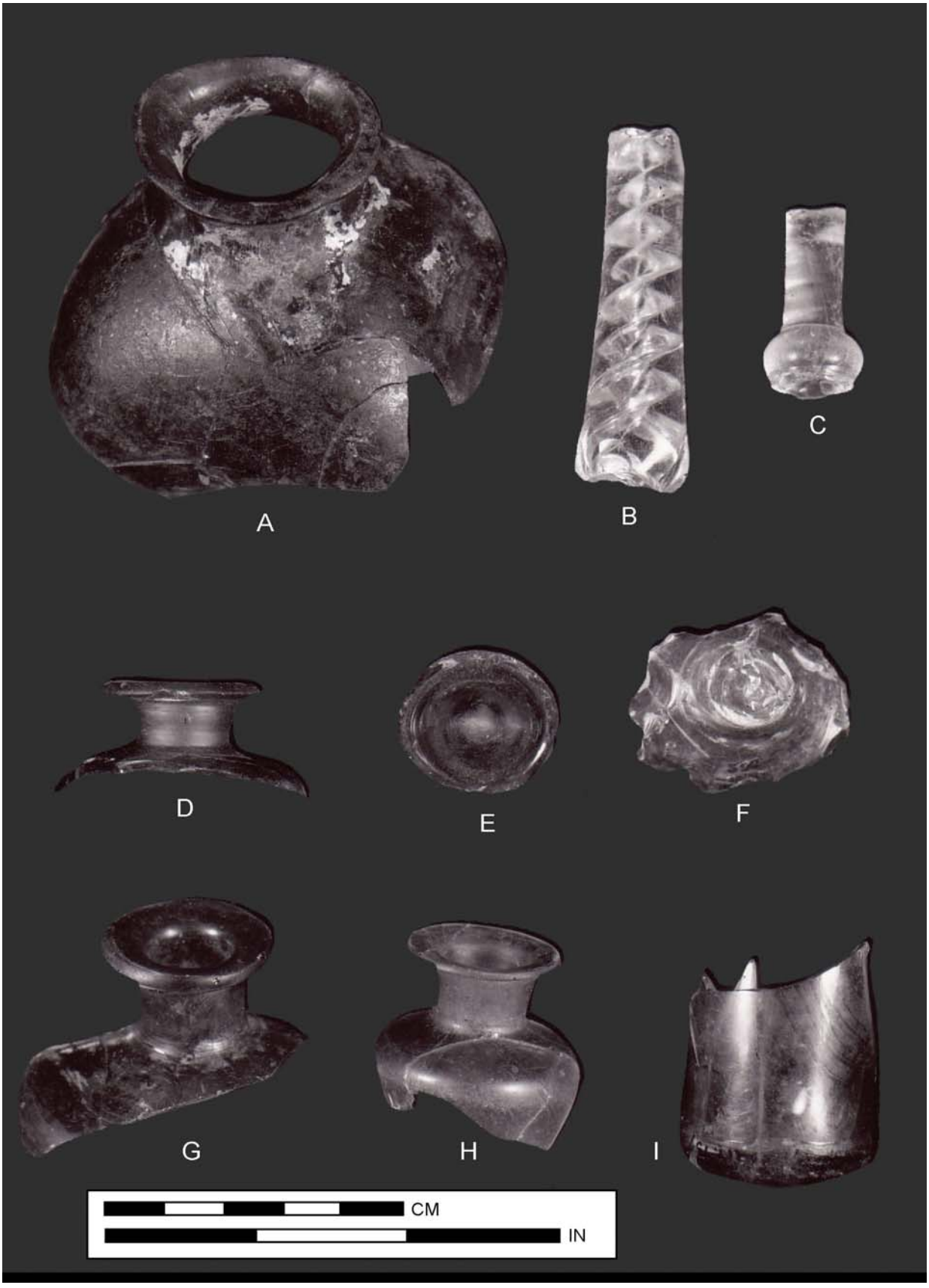

Figure 142. Snuff Bottle, Pharmaceutical Vials and Wine Glass Stems.
A. Snuff bottle. **B** and **C**. Wine glass stems. **D, E, G-I**. Pharmaceutical vials. **F**. Flaked wine glass base.

Cooking and Kitchen Related Items

There were only 42 items recovered that could be included in the cooking and kitchen related items. Except the one skewer, all of the items in this category are from large pots and perhaps one shallow handled pan. This is certainly well below what might be expected for a garrison of this size. However, it is assumed that the low number of large cooking pots is the result of two factors. First is the difficulty of transporting equipment to Fort Loudoun. Secondly, it is assumed that such items that were at the fort were abandoned when the garrison surrendered, and were subsequently removed by the Cherokee. To compensate for a minimal number of copper or cast iron kettles and the like, it is assumed that Cherokee ceramic vessels that were locally available were used in quantity, as the numbers of Cherokee ceramics in the preceding section attest. The proveniences and counts for the cooking and kitchen related items are given in Table 134.

Brass Kettle Fragments
Total: 18
Figure 161A

These specimens are the pieces of brass that could definitely have come from kettles. This identification is based on the presence of a fold along one edge of a piece, where the upper edge of the bucket had either been folded for strength or folded over a wire strengthener. Numerous other pieces of brass scrap, some from the same proveniences as these kettle fragments, are listed as brass scrap, but are, in all probability, parts of the same vessel or vessels, particularly those from Feature 50. A sample of the brass scrap, much of which can probably be attributed to kettle remains is illustrated in Figure 161A. The distribution of these specimens considered kettle pieces generally follows that of the scrap brass and appears to represent residue from cutting up the brass of unserviceable buckets for other uses. This appears to have been an individual activity, rather than one associated with the blacksmithing or gunsmithing work. This conclusion is based primarily on a wider distribution of these materials, which was not centered on the Blacksmith Shop.

Kettle or Bucket Bails
Total: 3
Not Illustrated

Three pieces of iron wire were located in square N196/E268 toward the north end of Structure 1. These are assumed to be pieces of kettle or bucket bails or the reinforcing rings around the top edge of the same. Diameters of these fragments are 0.4 cm. Several complete bales are illustrated from Fort Michilimackinac by Stone (1974:Figure 92).

Cast Brass Kettle Lugs
Total: 2
Figure 143A-D

Two cast brass kettle lugs were recovered by the excavations. One, recovered from square N222/E178 in the western part of the Northwest Bastion, still has the two copper rivets in place as well as some of the copper kettle to which it had been attached. The number **4** had been stamped on the reverse side (Figures 143A and B). The other specimen came from Feature 190, a large Cherokee pit feature in the southeast extension of the ditch. It is slightly larger than the first, and has a **5** stamped on the reverse side. One rivet is still in place (Figures 143C and D). A large piece of flattened brass was also recovered from Feature 190, and the two objects may represent the remains from cutting up and dismantling a single, large brass kettle.

Similar specimens have been illustrated from Virginia (Heite and Batte 1968:Figure 8-D), Fort Michilimackinac (Stone 1974:Figure 94G) and James bay, Ontario (Kenyon 1986:Plate 159). From the Little Tennessee River valley, nine have been reported from Chota-Tanassee (Newman 1983:Figure 8.2). They have also been found at Toqua, including one with a stamped **7** (Polhemus 1987 Volume II:922 and Figure 10.3d), one stamped with the number **6** has been reported from the Citico Site, upstream from Fort Loudoun (Ford 1979:54 and Figure 9), and Tomotley (Newman 1978a:Plate 28b).

Iron Wire Kettle Lugs
Total: 2
Figure 143E

These two specimens consist of small kettle or bucket lugs made of iron wire that has been bent into a loop. One is illustrated in 143E. The lower ends that were attached to the container have been flattened and punched. They were attached to the bucket or kettle with a copper rivet through each of the end holes. These are similar to the Type A bail holders at Toqua (Polhemus 1987 Volume II:Figure 10.3a).

Pot or Kettle Hooks
Total: 11
Figures 143F-K

In the various collections from Fort Loudoun there is a total of 11 artifacts classified as pot or kettle hooks. On the basis of construction they are divided into three categories, which are described as follows:

Wire Hooks: Three of the pot hooks are S-shaped and were constructed of either wire or thin square bar stock (Figures 143F and G).

Strap Iron Hooks: Three pot hooks were made of flat strap iron varying in width from 2.0 cm to 2.2 cm that was then bent into an S-shape form (Figures 143H, I, and J)

Wrought Iron Hook: This single specimen was forged of square bar stock and twisted in the center for decorative purposes (Figure 143K).

The seven pot hooks that have provenience were from the following locations. One came from a square within Structure 17, four were recovered from the slope midden deposits, one was from Feature 148, the eastern trench of the innermost palisade line, and the last is from Post Mold 513 between Structure 6 and Structure 15 in the southeastern Parade Ground area.

Skewer
Total: 1
Figure 143L

A small wrought iron skewer with an eye at one end and a length of 11.6 cm was recovered from Square N238/E246 to the southwest of Structure 16. It is similar to, but somewhat smaller than, one illustrated from Rosewell, Virginia (Noel Hume 1962b:223-224 and Figure 36-9).

Warming Pan Tang
Total: 1
Not Illustrated

One tang from a skillet or warming pan is in the Fort Loudoun Museum collections. It has a heart-shaped flattened area on one end with the remains of three rivets, which served to hold it in place on the edge of a pan. The rest of the piece is tapered for insertion into a socket in a wooden handle. The attachment portion of this tang is similar to one illustrated from Fort Michilimackinac by Stone (1974:Figure 106A).

Lead Plugs
Total: 4
Not Illustrated

Four objects were recovered that appear to be lead plugs. Apparently molten lead was simply poured into holes (perhaps in kettles) that needed to be filled, then sheared off on one side and flattened out on the other, producing the appearance of a rivet. Two of these were recovered from Feature 356, a Cherokee pit feature, and one was from Structure 10, within the fort. The other is in the WPA collections and without provenience.

Table 134. Cooking and Kitchen Related Items.

Provenience	1	2	3	4	5	6	7	8	Totals
196/268(1)		3							3
214/216						1			1
220/180(11)	1								1
222/178(11)			1						1
224/194(10)	1								1
228/212						1			1
230/232						1			1
234/214						1			1
238/202(17)						1			1
238/246							1		1
242/236(16)	2								2
F. 50	4								4
F. 148						1			1
F. 190			1						1
F. 356					2				2
ST. 9	2								2
ST. 10					1				1
ST. 13				1					1
PM 513						1			1
Ditch	1								1
No Prov.	7			1	1	4	1		14
Totals	**18**	**3**	**2**	**2**	**4**	**11**	**2**		**42**

Notes: Numbers in parentheses indicate structure associations. Column headings are as follows: 1=Brass Kettle Fragments, 2=Kettle or Bucket Bales, 3=Brass Kettle Lugs, 4=Iron Wire Kettle Lugs, 5=Lead Plugs, 6=Pot or Kettle Hooks, 7=Warming Pan Tang, 8=Skewer

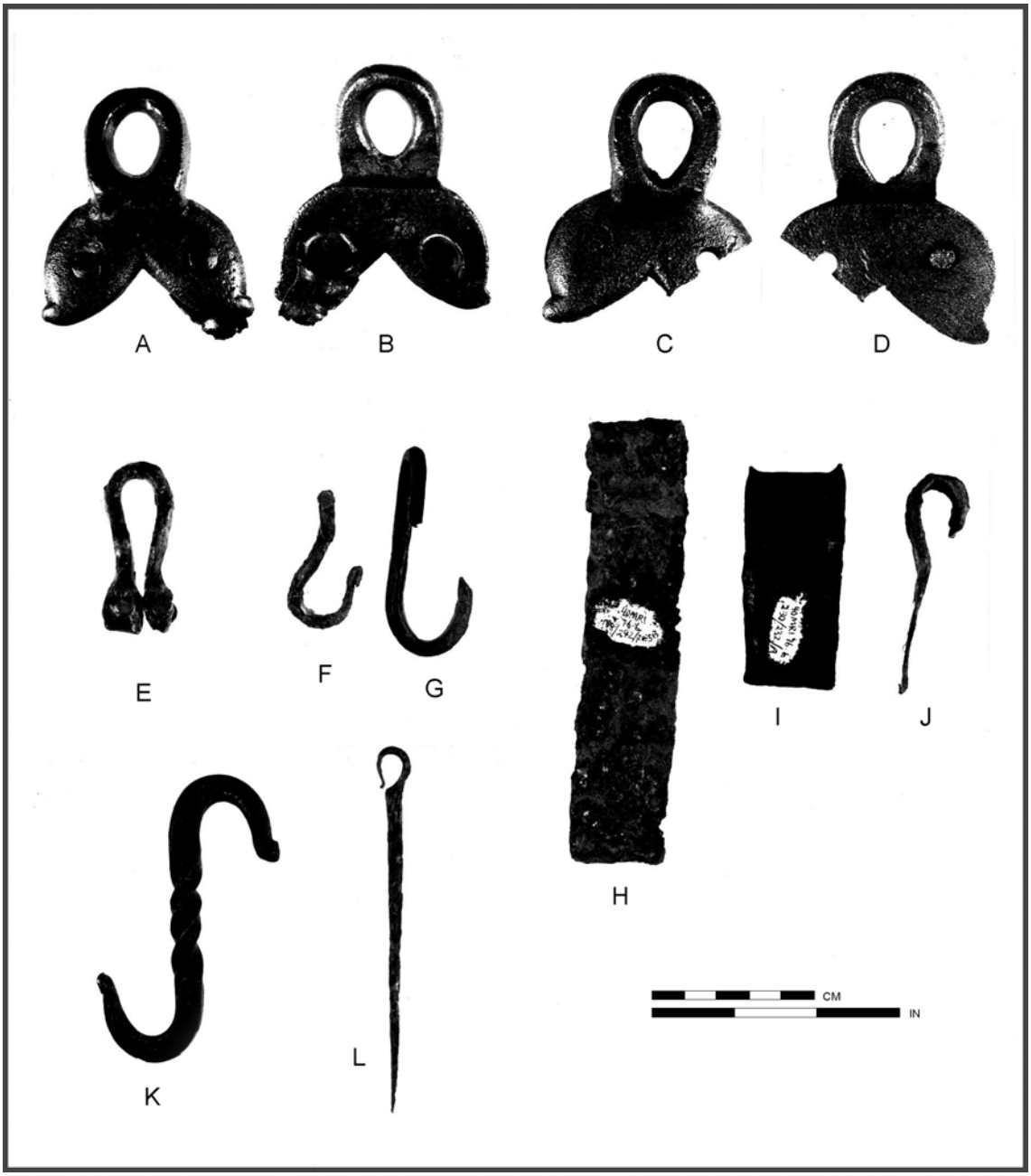

Figure 143. Cooking and Kitchen Related Items.
A-D. Front and rear of cast brass kettle lugs. **E**. Iron wire kettle lug. **F-G**. Iron wire kettle hooks. **H-J**. Strap iron kettle hooks. **K**. Wrought iron kettle hook. **L**. Skewer.

Cutlery and Eating Utensils

Figure 144A-M

Also small in number, cutlery and eating utensils, often referred to as tableware, these items only totaled 33. While larger quantities were certainly at the fort, and some may have been part of messes, many, if not most of the items were probably personal items curated by individuals. The ones in the collection probably only represent those that were lost, or broken and discarded during the occupation. It is assumed that when the garrison left the fort, these items would have been carried along by the troops. Table 136 gives the numbers of these items and the proveniences they were recovered from.

Case or Sheath Knives
Total: 10
Figure 144A-E

Ten case or sheath knives are in the collections, and they are grouped here under cutlery, as distinct from the classification of clasp knives. It is believed that these may have been more commonly used in activities related to kitchen preparation or butchering than the clasp knives, which were probably carried on the person. It is assumed that the clasp knives (discussed later) probably served many functions, but were in all likelihood also an integral part of the individual's mess kit. Eight of the case knife specimens have a tang for attachment of the handle to the knife. The remaining two specimens are blade fragments only, and the hafting element is unknown. All of the blades are of iron or steel and are generally wedge-shaped in section. The tangs on all of the specimens are square in section and tapered to a point. Six of the blades have bolsters between the blade and the tang. Three are oval in section and the others are circular in section.

The three knife blades with the oval bolsters had blades that are of the convex type, with both edges rounded to the point (Figure 144A and C) . One blade is marked with a **2**. Those knives that have the circular or cylindrical bolster (Figure 144B) have the "standard blade" type consisting of an angular blade back and a convex blade and are virtually the same as several illustrated from Fort Michilimackinac (Stone 1974:265, Figures 163 E and G). One specimen is rather delicate and well made and may have possibly been a surgeon's knife (Figure 144D). Two of the specimens did not have a bolster, but simply a tang that is a continuation of the back of the blade, similar to Stone's Types CII, SA, Cat. 1, T2 and CII, SA, Cat 1 (Stone 1974:Figures 162 Q and R, Figure 165H). Blade shapes are convex and similar to some from Fort Stanwix (Hanson and Hsu 1975:144, Figure 73-C). One of these specimens was repaired by welding the tang back onto the blade. This knife additionally has a **BR** or **BP** stamped on the blade.

Two case knife blades that are included here are both fragmentary. One (Figure 144E), is the "kitchen knife blade" shape. This is similar to Stone's type CII, SB, T3 (Stone 1974:271 and Figure 164 D). The specimen is also similar to illustrated ones from Fort Stanwix (Hanson and Hsu 1975:144, Figure 73E and F). The last specimen is of indeterminate blade shape. All of these case knives would have had some type of bone handle, probably of the pistol grip variety similar to the one described below.

Bone Knife Handle
Total: 1
Not Illustrated

One pistol grip bone handle was recovered from Structure 16. This handle is designed to take either a socketed type knife or fork, more likely in this case a knife. The hole in the end of the handle is much larger than any of the tangs on any of the forks recovered, but compatible with some of the knife tangs. Cut into the otherwise undecorated handle are the initials **I V** or **AI**. This form of handle is comparable to Stone's type CII, SB, T3 (Stone 1974:Figures 164 D and E).

In form, this handle is comparable to the handles described for the forks in the following section, and illustrated elsewhere (e.g., Noel Hume 1972a:Figures 63-64; Stone 1974:Figures 164 D and E; Grimm 1970:Plate 61-17; and Hanson and Hsu 1975:Figure 73E).

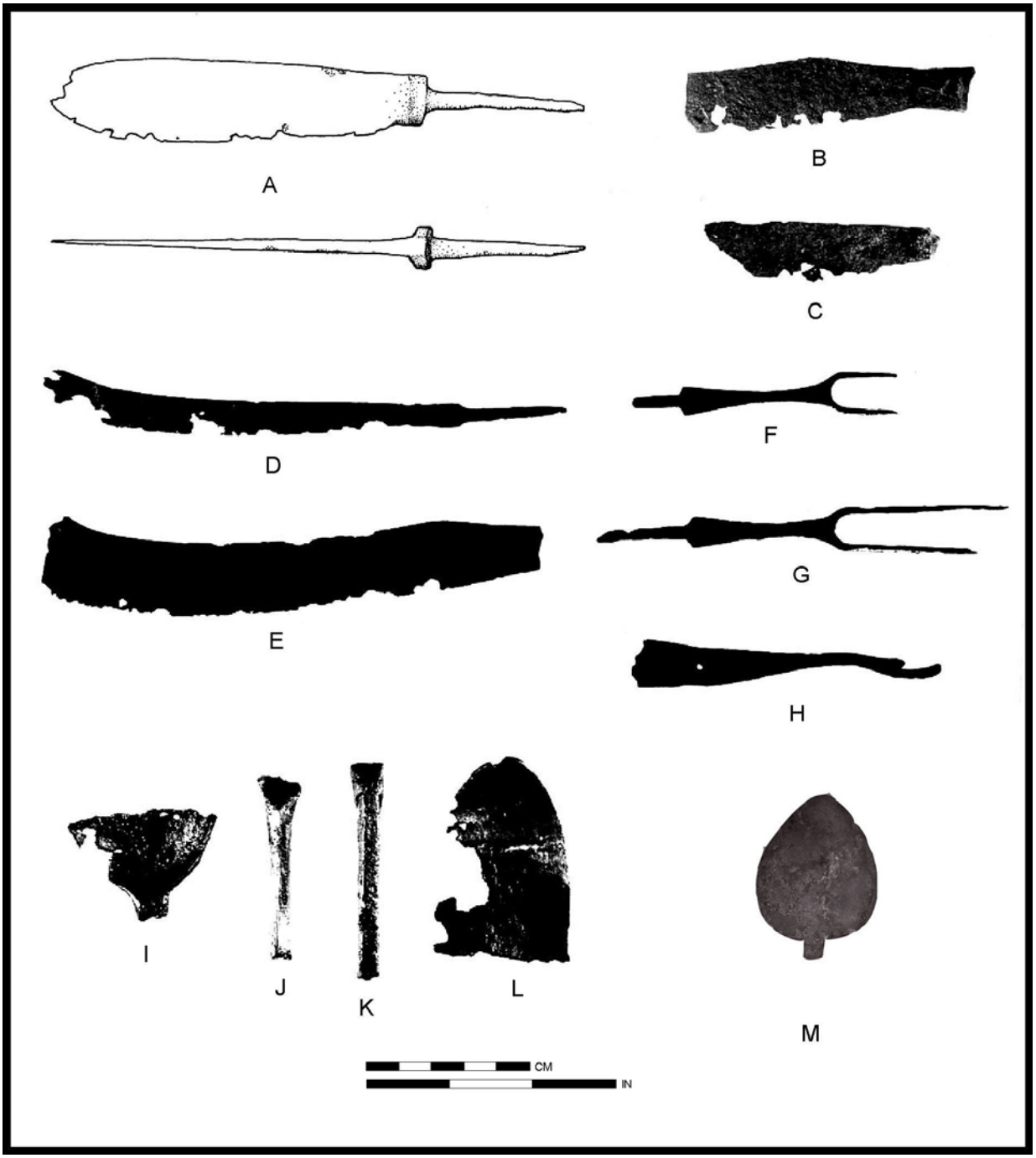

Figure 144. Knives, Forks, and Spoons.
A-**E**. Case knife blades. **D**. Possible surgeon's knife. **F**-**G**. Forks with tangs for mounting. **H**. Fork with flat handle mounting piece. **I**-**M**. Spoons.

Forks
Total: 6
Figure 144F, G, and H

Six forks or parts thereof are in the various collections. All are the two-tined variety that were common for the eighteenth century. On the basis of the shape of the handle, they can be divided into two categories. Three specimens have a rattail-like tang projection for insertion into a drilled bone handle (Figures 144F and G). This form is comparable to Stone's Types CI, SB, T1 and T2 (Stone 1974:Figure 95G and H). Two of the specimens have a flat handle mounting piece and would have had a composite handle of two pieces of flat bone riveted to the flat iron shank (one is shown in Figure 144H). Stone also illustrates similar examples, his Types CI, SA, T1 and T2 (Stone 1974:Figures 95 A-F). The other fork specimen is fragmentary and indeterminate as to the type of handle. The forks with the tangs would have had either a straight bone handle, or the pistol grip variety as indicated above, and are in respects similar to those illustrated by Noel Hume (1972a Figure 63-8), Grimm (1970:86, Plate 61-16), Stone 11974:175-177 and Figure 95), and Hanson and Hsu (1975:145 and Figure 74). The ones with the flat mounting piece would have had a piece of bone attached to both sides with rivets.

Spoons
Total: 16
Figure 144I-M

Sixteen spoon fragments were recovered or were in the collections. The more complete specimens are shown in Figures 144I-L. One of the shanks is six sided, three are oval, and the others are relatively flat and thin, particularly near the finial end. The two finials are widened out portions of the handle and are simply rounded on the end. Most of the bowl fragments appear to have come from oval-shaped bowls that were relatively shallow. Although not identical, these pewter spoons are quite similar to those described for contemporary and other sites (Hanson and Hsu 1975:145-146 and Figure 74; Stone 1974:Figure 99; Gibson 1980:73, Figures 58 and 59; and Kelso 1979:132, Figures 52, 9-12). One is illustrated by Newman from Chota-Tanassee (1983:Figure 8.2d). One specimen in the Fort Loudoun Museum collection is the bowl part of a brass spoon (Figure 144M) that is slightly heart shaped. The remainder of the specimens are of pewter and consist of eight bowl fragments, five shank portions, two of which have part of the bowl remaining, and two handle finials.

Cutlery Distribution

Twenty-four of the cutlery specimens can be securely provenienced. Of those, 10 items or 42 percent were recovered from within structures. Structure 10 had one spoon fragment; Structure 16 had the bone handle; a pit within Structure 6 (Feature 178) contained a knife; and Structure 17 had one knife, one fork, and one spoon. One spoon was recovered from Feature 76, a drain at the south end of the Barracks. Additionally, several specimens were recovered from deposits in the general vicinity of several structures. A fork and a spoon came from Feature 50 a pit just east of Structure 3, and another from a square just southwest of Structure 14. A knife came from the area between Structure 12 and Structure 17, and two spoon fragments were excavated from just southwest of Structure 6. Of the remaining specimens, six were recovered from the slope midden deposits, one from the south parapet, and the last from Feature 16, a lens of historic midden in the south ditch. With a few exceptions, the general association of these items in or about habitation structures tends to suggest that these items would have been personal items curated by individuals as part of their mess kits. The distributional evidence does not make it completely clear whether there was any distinction between the officers and enlisted men in the possession of these items.

Table 135. Cutlery and Eating Utensils.

Provenience	Case Knives	Bone Knife Handle	Forks	Spoons	Total
178/280				1	1
184/204				1	1
200/256				2	2
228/208	1				1
236/206(17)				1	1
238/196(17)	1		1		2
240/190	1				1
F. 50			1	1	2
F. 53			1		1
F. 76				1	1
F. 152			1		1
F. 178	1				1
F. 212				4	4
ST. 7	2				2
ST. 10				1	1
ST. 16		1			1
Ditch				1	1
No Prov.	4		2	3	9
Total	**10**	**1**	**6**	**16**	**33**

Note: Numbers in parentheses indicate structure association.

Clasp Knives

Figures 145 and 146

Clasp knives were a relatively common personal artifact at Fort Loudoun. There was a total of 121 items from clasp knives found. In addition to several nearly complete specimens, there were individual complete or partial bolsters, blades, springs and bone handle plates. These are described in the following sections. Table 136 provides the proveniences and counts for these items.

Type 1 (Curved Handle Bolster)
Total: 21
Figures 145A-K

This type of clasp knife is characterized by bolster plates with raised areas on both ends, and an area in between for attaching bone handle plates (Figures 145A-K. Figure 145C, D, and E shows a photograph and two drawings of the same bolster.). This knife type is comparable to Stone's type CI G2 SB T4 knife (Stone:267-268 and Figure 162-C). Several of those that were recovered at Fort Loudoun have all or parts of the bone plate still intact. One example has a smooth finish to the bone, while on four, the bone is finished in the rippled antler look, like the bone plated illustrated in Figures 146A-D, and still common to modern knives. Another specimen is smooth, but has cross-hatched lines that were incised over the surface. It was then cut with a series of **V**s **W**s or **X**s (Figure145A). Three other knife handles are initialed **WM**, **N**, and **VI** or **IA** respectively (Figure 145B, C, E, and F). The **WM** may correspond to William Martin of John Stuart's Provincial Company. The others do not seem to correspond to any of the other individuals known to have been at the fort (see Appendix 2).

The blades that are associated with this kind of bolster (Type 1 Curved Handle Bolster) have an offset blade or notched blade at the hinge end (Stone 1974:266). The one determinate blade shape that was associated with a Fort Loudoun specimen is a convex blade shape. One with the notched blade in place is the specimen shown in Figure 145B. Other similar blades are shown in Figures 146G, L, M, and O. One of the Ft. Loudoun blades, like one described and illustrated by Stone (1974:266, Figure 160-H), is stamped either **OLD** or **OHD**. A clasp knife blade stamped **OLD** was recovered at Fort Ligonier (Grimm 1970:102). At the site of Chota, one similar blade has **OLD** stamped on it (Newman 1986:Figure 8.16f). A similar blade was also found at the site of Tomotley (Carnes 1983:Figure II.2d), and a mark of **DOJD** was on a similar shaped knife blade from Fort Michilimackanac (Stine 1974:267).

Type 2 (Slightly Curved Handle with Metal End Knob)
Total: 7
Figures 145O-R

This group of knives is of the slightly curved bolster type. The bolster plate is raised only on the blade end, and bone handle plates would have extended from the rear of the bolster plate to the opposite handle end. Characteristically, the rear of the handle is capped by a metal cup-like device (Figure 145O and P, Q and R which are the same knife). The cap was formed by flattening the rear portion of the spring and forming it into a terminal cup which would have protected the rear of the handle and the bone plates. Two blade hinges still attached are of the step hinge type, and the nearly complete blade is of the convex blade type and is marked with a symbol and HOOL and shown in Figure 145Q. This type is similar to Stone's CI G2 SB T6 category (1974:267-26 and Figure 162-E). It is also similar to one illustrated from Jamestown and where the cap end is possibly misidentified as a powder cup (Peterson 1958:129).

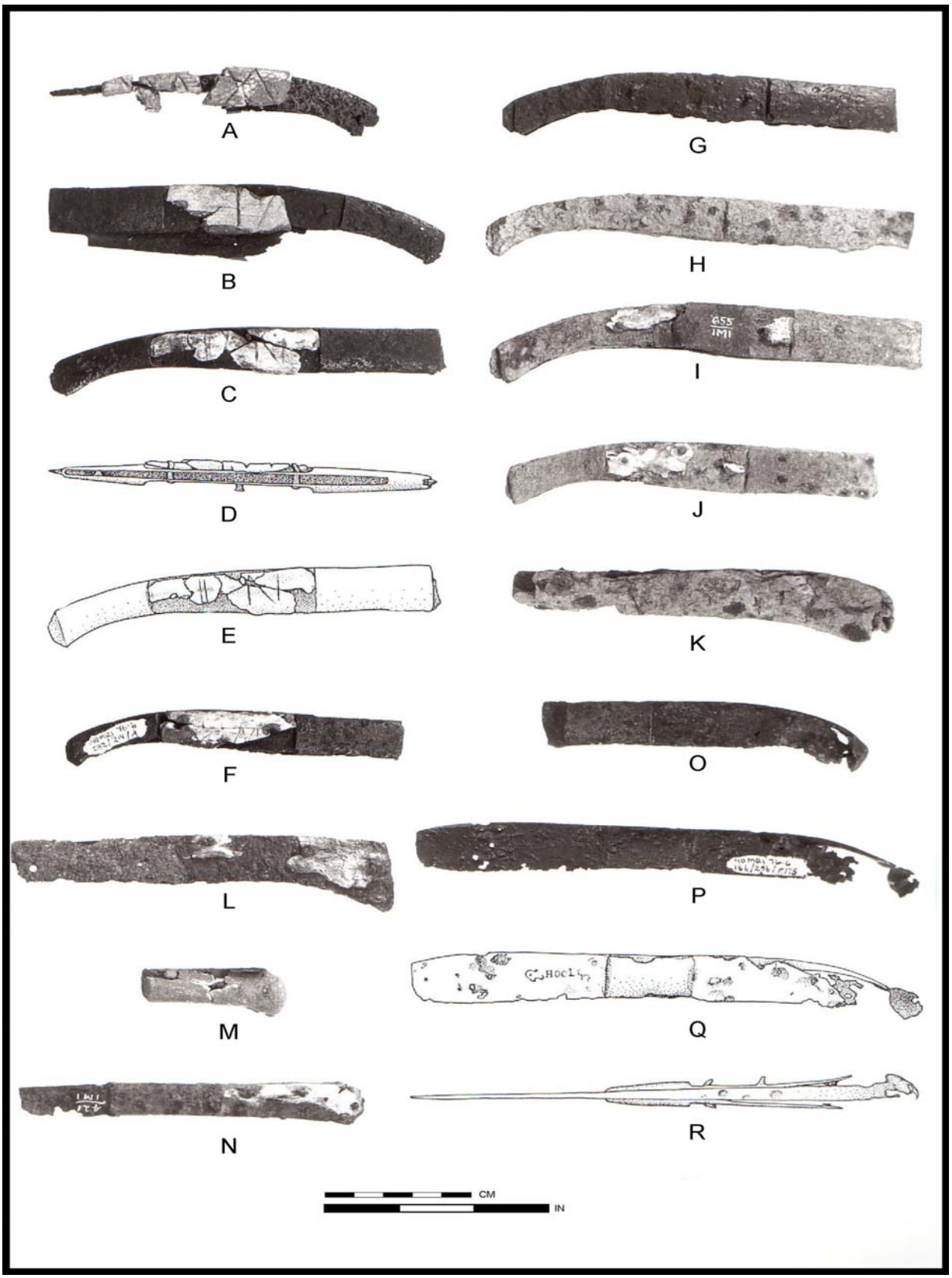

Figure 145. Clasp Knives.
A-F. Type 1 Curved handle bolster. **G-K**. Type 3 Curved handle with rounded handle end. **L**. Type 4 Straight handle bolster with beak end. **M-N**. Type 5 Straight handle bolster with curved end. **O-R**. Type 2 Curved handle with metal end knob.

Type 3 (Curved Handle with Rounded Handle End)
Total: 7
Figures 146A-F

This bolster knife is characterized by a slightly curved handle and a rounded handle end. The bolsters are distinct from other types of bolster knives in that near the middle of both sides there is a narrow raised metal ridge welded to the bolster to separate the two sections of the bone handle plates, seen clearly in Figure 146A-D. On the same specimen with the bone handle plates intact, the bone surface was carved to have the appearance of antler. No blades are attached to any of these bolsters, but the one specimen with a spring remaining would have accommodated a blade with a step hinge. They are similar to but not identical to Stone's CI G2 SB T1 knives (1974:Figure 161N). This group includes one complete handle, one complete bolster, four bolster sections with the back end, and one bolster section with the front end.

Type 4 (Straight Handle Bolster with Beak End)
Total: 1
Figure 145L

This knife type is constructed similarly to the rounded end handle one, except that instead of the handle end being rounded, it is squared off and the bottom part of the knife is curved downward to meet the back edge, forming a beak-like projection on the bottom side of the knife. The bone side plates are continuous from the end to a raised plate on the bolster at the hinge or blade end (Figure 145L). No blades are attached to any of the handles, but the shape of the end of the spring would indicate a step hinge. This type is similar to Stone's CI G2 SB T3 specimens (Stone 1974:Figure 162-A).

Type 5 (Straight Handle Bolster with Curved End)
Total: 5
Figures 145M and N

These specimens are bolstered handle knives with a straight edge and a curved handle end that forms a small beak on the underside. These knives are generally smaller than the other categories described above. Characteristically, the bone handle plate extends from the handle end to about the midpoint of the bolster. The remainder of the handle is a raised metal plate on the bolster. One blade fragment still attached to one of the specimens is of indeterminate shape, but of the step hinge variety. This type is similar to Stone's CI G2 SA T4 and CI G2 SB T2 types (Stone 1974:Figures 161 M and P).

Bolster Fragments
Total: 27
Not Illustrated

In addition to the clasp knife handles that are discussed above, there are 18 bolster fragments recovered that were from either Type 1 or Type 2 knives. Because of the fragmentary nature of these bolsters, it was not possible to specifically assign them to one of the categories. Furthermore there are nine bolster fragments that are too fragmentary or incomplete to assign them to even a group of types.

Clasp Knife Springs
Total: 11
Not Illustrated (see Figure 149B below for illustrations of clasp knife springs made into awls)

Eleven unmodified springs from clasp knives are in the collections. These could not be assigned to any particular type of bolster. In addition to these springs that are listed here, four are in the category of awls and consist of those where one end of the spring had been sharpened into a long point.

Bone Hand Plates
Total: 2
Not Illustrated (see Figures145 and 146)

In addition to the bone hand plates that remained on the bolsters, two unassociated bone plates from clasp knives were recovered. One came from Feature 50 and the other was recovered between the north curtain of the Northwest Bastion and the north wall of Structure 12.

Clasp Knife Blades
Total: 45
Figures145 and 146

In addition to the clasp knives that are described above, there are some forty-five clasp knife blades that are not associated with the bolsters. These are described in the following section and are grouped by shape, using the terminology that has generally been used in the current literature.

Pointed Blade
Total: 1
Figure 146G

One blade is classified as a pointed end blade. The back has a slight convex curve, and the blade edge is straight to slightly concave, forming a long slender blade with a long point. This is perhaps just a convex blade that has been sharpened a great deal to its present form. It is of the step hinge type.

Rounded End Blade
Total: 2
Figure 146H

The edges of these blades are parallel and the ends are rounded. The hinge type is indeterminate for both specimens. One is marked with a Maltese Cross and an indeterminate circular stamp (Figure 146H).

Straight Back Convex Edge Blade
Total: 1
Figure 146I

This single blade has a straight back and a highly convex blade edge. This blade was broken and welded together. The hinge is indeterminate, but is probably of the step hinge variety.

Convex Blades
Total: 10
Figures 146J and K

These blades are characterized by curved blade edges and curved backs that terminate in a point at the end of the blade (Figures 146J and K). Three are of the step hinge type, and the others are indeterminate. One was heated and hammered into a spoon-like shape. None are marked.

Hawk Bill Blades
Total: 7
Figure 146L and M

These blades are characterized by a straight back that rises up to a peak before the back angles sharply downward to meet a slightly convex blade edge. Three of the specimens are of the step hinge variety (Figure 146L and M). The others are indeterminate. Similar blades are illustrated by Stone (1974:262, Figures 160 J, 266). One specimen is marked with a **FIR** or **PIR**.

Hooked Blades
Total: 2
Figures 146N and O

Two blades have upper edges and blades that curve in the same direction joining in a downward slanting point. One has a step hinge and the hinge type of the other is unknown.

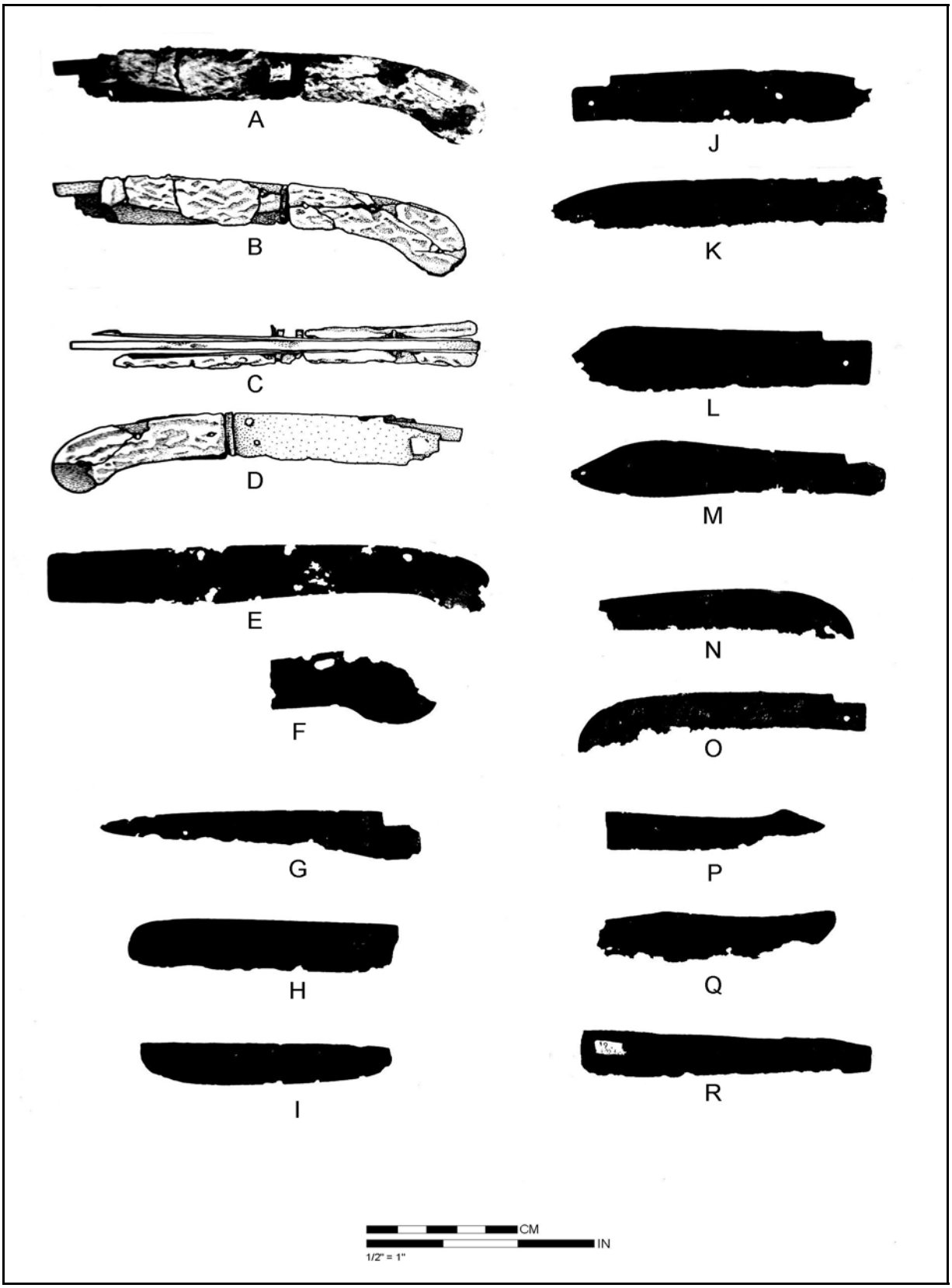

Figure 146. Clasp Knives, Clasp Knife Blades and Straight Razor.
A-F. Type 3 Clasp knives with curved handle and rounded handle end. **G**. Pointed blade. **H-I**. Rounded end blades. **J-K**. Convex blades. **L-M**. Hawk bill blades. **N-O**. Hooked blades. **P**. Beaked back blade. **Q**. Peaked blade. **R**. Straight razor blade with straight back and straight edge.

Beaked Back Blade
Total: 2
Figure 146P

These blades are probably a variation of the hawk bill blades. The front ends are similar to the hawk bill type, but the backs of the blades are concave. The blade edge is convex. They are of the step hinge variety.

Peaked Blade
Total: 1
Figure 146Q

The back of this blade rises to a peak in front of the hinge and then is concave between the peak and the rounded point. The blade edge is convex and the hinge is of the step hinge variety.

French Clasp Knife Blade
Total: 1
Not Illustrated

This specimen is the hinge section of what has been called the French clasp knife type blade, characterized by a flattened or hinge element on the top of the blade. Although it is fragmentary, it is thought to have had the shape of what has been called the "standard blade form" (see Stone 1974:265 and Figures 160 A-F).

Indeterminate Blades
Total: 13
Not Illustrated

An additional 13 blade fragments are present in the collections that can not be assigned to the above categories due to their fragmentary nature.

Table 136. Clasp Knives.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
186/270(2)																		1		1
190/268(2)										1								1		2
190/280						1														1
198/250										1										1
200/254(6)						1														1
204/238																		1		1
204/254(6)											1									1
212/262							1													1
216/222			1																	1
216/256						1														1
218/216						1														1
218/310									1											1
224/194(10)																		1		1
224/204	1						1													2
226/224			1																	1
228/208	1																			1
230/206																		1		1
230/208																			1	1
230/228						1														1
232/186						1														1
232/214	1																			1
232/218(4)						1														1
234/206(17)			1																	1
236/196(17)							1													1
236/198(17)		1																		1

Table 136. Clasp Knives.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
236/206(17)	1													1						2
238/186						1														1
238/234(16)											1									1
240/242	1																			1
240/246					1															1
244/192(l2)		1																		1
248/186(22)								1												1
248/198	1																			1
F. 3	1	1								1										3
F. 50								1												1
F. 58																		1		1
F. 78						1														1
F. 79	1									1										2
F. 86	1																			1
F. 96N					1															1
F 96W					1															1
F. 109						1														1
F. 178	1	1								1										3
F. 187						1														1
F. 375		1													1					2
ST. 3				1		1														2
ST. 8	1												1							2
ST. 10						1	1			1								1		4
ST. 16										1				1						2
ST. 17	1																			1
PM 453							1													1
Ditch							1													1
No Prov.	9	2	4		2	14	5			3	5	2			1	1	1	6	3	58
TOTALS	**21**	**7**	**7**	**1**	**5**	**27**	**11**	**2**	**1**	**10**	**7**	**2**	**1**	**2**	**2**	**1**	**1**	**13**	**4**	**125**

Notes: Numbers in parentheses indicate structure associations. Four clasp knife springs that were reworked into awls are not included in this table. Straight razors are discussed in the Grooming section. Column headings are as follows: 1=Type 1, 2=Type 2, 3=Type 3, 4=Type 4, 5=Type 5, 6=Indeterminate Bolster, 7=Clasp Knife Springs, 8=Bone Plates, 9=French Blade, 10=Convex Blades, 11=Hawk Bill Blades, 12=Hooked Blades, 13=Pointed Blade, 14=Rounded Blades, 15=Beaked Back Blades, 16=Peaked Blade, 17=Straight Back, Convex Edge Blade.

Ground Stone

Ground stone artifacts were relatively scarce. Except for the one piece of grindstone, most of the other pieces were informal pieces of stone that had been variously used for sharpening knives and perhaps other items such as awls. These artifacts are illustrated in Figure 147 and listed on Table 137.

Whetstones

Total: 6
Figures 147A-E

Six whetstones were recovered. Five consist only of pieces of sandstone that been smoothed on one side from use. The other one is a rectangular piece of grey sandstone that was roughly shaped and used on one side for sharpening. Five of these specimens are shown in Figure 147A-E. Three of these specimens were closely associated with the Barracks, and one is from the slope midden deposits east of the Barracks area. Another is from Feature 3, the historic midden deposit in the ditch along the west side of the Northwest Bastion. The last, without provenience, was recovered by the WPA excavations. The distribution of these items seems to indicate a complete association with the historic deposits and occupation and, more specifically, to the Barracks area. They are probably locally derived pieces of stone that were utilized in a personal context by the occupation troops.

Grindstone
Total: 1
Figure 147F

A portion of a red sandstone grindstone was recovered by the WPA excavations. It is 4.0 cm (1.57 in.) thick and would have had a diameter of approximately 40 cm (15.7 in.). The sides are rough cut, but the working edge is well smoothed from use (Figure 147F). In a letter of February 27, 1759, Paul Demere mentions the need for "two Grind Stones Eighteen inches in diameter" (P. Demere to Lyttelton, February 27, 1759, Clements Library). If, in fact, this specimen is one that may have been sent in response to Demere's request, then the difference in diameter was probably the result of heavy use. While there is no record of where this piece of grindstone was found, it can be reasonably assumed that it was part of the equipment in the Blacksmith Shop.

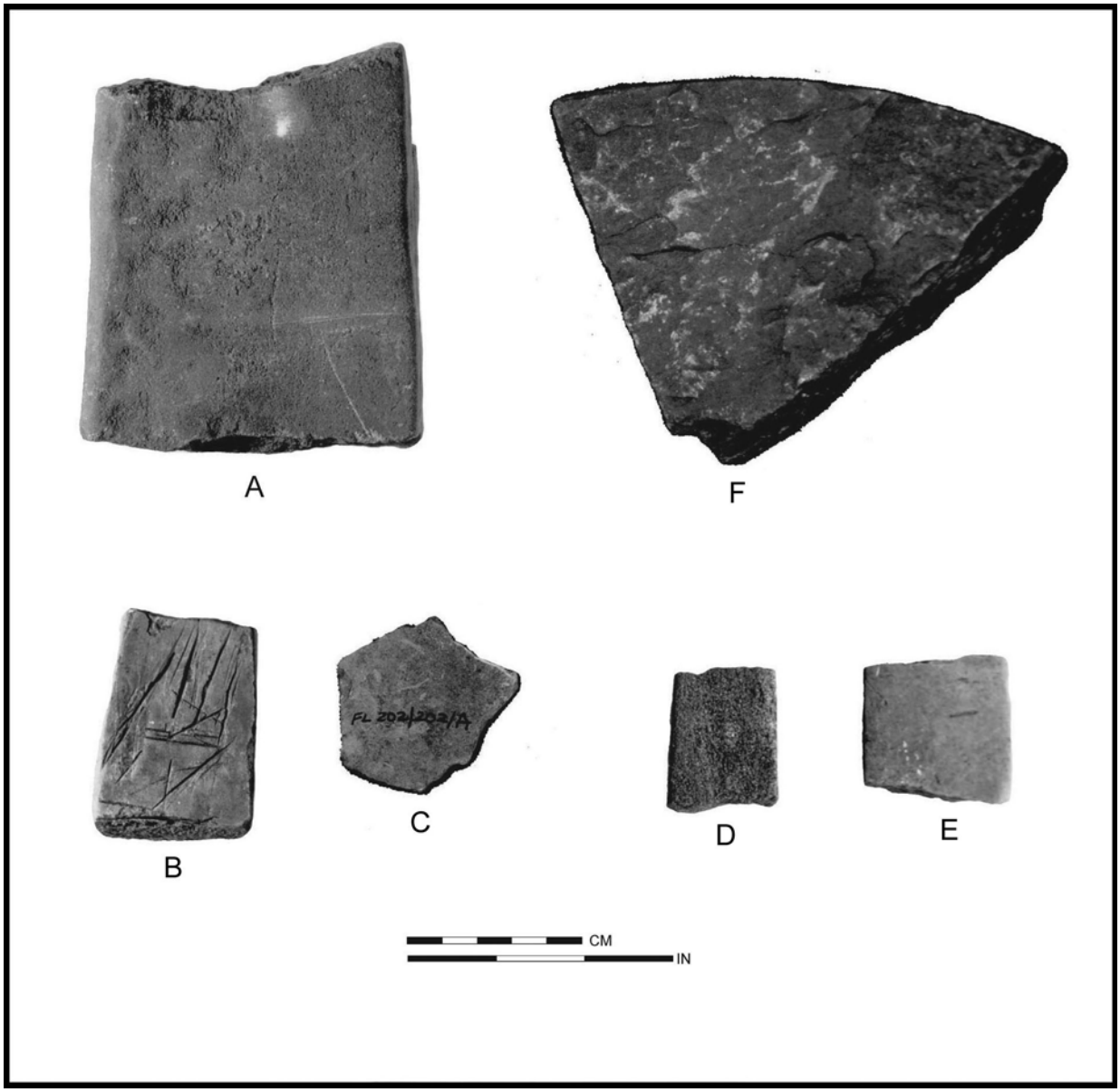

Figure 147. Whetstones and Grindstone.
A-E. Whetstones. **F**. Grindstone.

Tools

As expected for an installation where diverse activities were carried out, there were a goodly number of tools recovered. Minimally, carpentry and woodworking, blacksmithing, agricultural, and subsistence related tasks are represented in the tool inventory. Illustrations of the range of these items is shown in Figures 148-151. They are enumerated by provenience in Table 137.

Axes
Figures 148A-K
Total: 33

There were a total of 33 complete or partial axe heads in the several Fort Loudoun collections. They were classified into seven types. Axe nomenclature follows that of Peterson (1971:Figure 1). Russell (1967:232-311, 334-337) provides a good summary of early axes in America. The types are generally based on Russell and other reports on forts of this period.

Type 1
Figure 148A
Total: 5

These axes and hatchets are socketed and characterized by nearly parallel leading and rear edges, with only a small flare to the rear near the bit. No poll is present. One is shown in Figure 148A. The three with provenience consisted of a complete specimen, and the socket from another from Cherokee pit Feature 190 in the southeast ditch extension and another came from the south ditch. There were two specimens in the Fort Loudoun Museum collection, one of which was stamped with a **2**.

Type 2
Figures 148B-D
Total: 3

This type is often referred to as the trade axe style. They have a round socket which projects to the rear of the axe. The leading edge is straight, but the rear edge flares outward from the base of the socket to the bit. The specimens were in the Fort Loudoun collection and without provenience, but were probably recovered by the WPA project.

Type 3
Figures 148E and F
Total: 7

These are socketed axes that are characterized by a socket that is diamond-shaped from the side and has a flat poll. Additionally, the blade flares outward to the cutting edge on both the leading and rear edges. Two are illustrated in Figures 148E and F. The collection contained two blade sections from this type of axe from Features 58 and 190. The remaining specimens were from the other collections and without provenience. One in the WPA collection had a wrought iron nail in the bottom of the socket (Figure 148E), which was used to secure a probable loosened handle. In addition to the specimens that are described by type, there were three other pieces of axe heads that could not be typed. All consisted of either blades or blade fragments.

Type 4
Figures 148G and H
Total: 6

These are relatively large axes characterized by a flattened poll, and a triangular ear to the socket that projects to the rear. The leading edge of the socket is straight, and the blade front can be either straight or flare outward to the blade edge. Likewise, there is some flare of the blade to the rear of the blade edge. The 1974-1975 excavations recovered a large axe of this type (broken in two pieces) from Feature 187, and another poll portion from Square N194/E208. The remainder were from the WPA and Fort Loudoun Museum collections.

Type 5
Figure 148J
Total: 1

This type is only represented by one poll and socket section form the WPA collection. This type is similar to Type 4, except that the ear projecting to the rear of the socket is asymmetrical. The top portion of the ear is much shorter than the bottom portion and is nearly parallel to the to the top of the poll.

Type 6
Figure 148K
Total: 1

This type is a socketless hatchet. The poll is flat on top, the front edge is straight, and the rear edge curves outward to the rear from the top of the poll to the blade edge. This specimen was recovered from Square N238/E138, a unit on the ridge outside the Northwest Bastion and ditch.

Type 7
Not Illustrated
Total: 1

One broad hatchet was included in the fort Loudoun Museum collection. The poll was flat on the top, and the socket had triangular ears to the front and rear similar to the Type 3 axes. The front and rear edges of the blade were shaped in a convex curve from the base of the socket to the edge of the blade.

Type 8
Not Illustrated
Total: 4

There were four typical broad axes in the Fort Loudoun Museum collection. They were similar in form to the Type 7 broad hatchets, except that the width of the blade was considerably larger.

Wedges
Total: 4
Figures 148L-N

Four wedges are in the collections. The three with proveniences came from the following locations. One was in Feature 50, a pit adjacent to Structure 3; the largest wedge was in Feature 171, resting on a rock ledge in a trash-filled area which is thought to have originally been an excavation where rock was being quarried from the slope; and the third was located in the midden deposits in the slope area. Sizes range from 1.6 cm by 1.7 cm by 10.0 cm to 4.0 cm by 6.0 cm by 25.0 cm. Several show the flattening and curling along the top that is characteristic of heavy use. One is fractured and part of the top has split off. It is assumed that these tools would have been used in carpentry and other activities related to woodworking and procurement, as well as for the quarrying and shaping of stone.

Corn Mill Cranks
Total: 2
Figures 148O and P

Two wrought iron objects are identified as cranks from corn mills. They are almost identical and have a square socket to go over the shaft of the mill. Both would have had a wooden handle held on by a washer pressed over the end of the metal shaft. Figure 148O still has the washer in place. One specimen was in the Fort Loudoun Association collection, and the other was recovered by the latest excavations from Structure 17. It is documented that corn mills were in use at the fort as indicated by the statement of Raymond Demere “That the Corn Mills be taken down out of the Forge, and placed some where else.. .” (Council of War Held by Captain Rayd. Demere, December 26, 1756, SClA:287). It is quite possible that when they were removed from the Blacksmith Shop (Structure 2) in late December 1756, or shortly thereafter, they were placed in Structure 17, a building thought to have been originally built as a temporary structure, but one which probably remained throughout the occupation of the fort (see Structure 17 discussion

in Chapter 5). The overall length of both cranks is 27.0 cm (10.6 in.) and the complete handle part is 16.0 cm (6.2 in.) long.

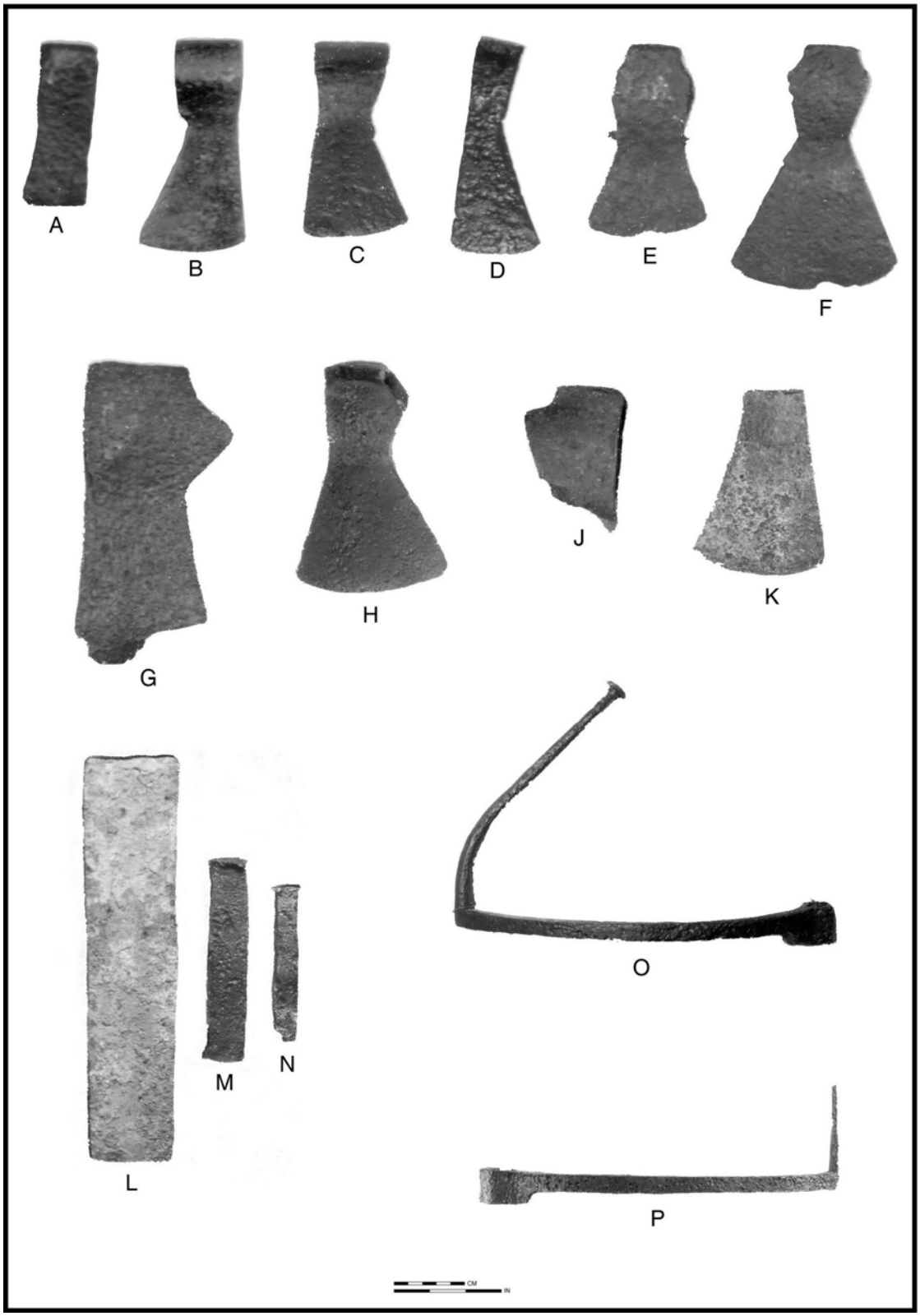

Figure 148. Axes, Wedges and Cornmill Cranks.
A. Type 1 Axe. **B-D**. Type 2 Axe. **E-F**. Type 3 Axes. **G-H**. Type 4 Axes. **J**. Type 5 Axe. **K**. Type 6 Axe. **L-M**. Wedges. **O-P**. Corn Mill Cranks.

Froes
Total: 2
Not Illustrated

Two froes were in the Fort Loudoun Museum collection. These would have been necessary to have at the fort, particularly for making the shingles and/or clapboards that were used to cover the various structures. While it is not completely certain that these specimens are from the fort, they are period pieces and, at the least, they were probably recovered either from the fort or at another contemporary site in the valley, and were certainly items imported into the valley, most likely by the garrison.

Gimlets
Total: 10
Figure 149A

Ten complete or partial gimlets were recovered. Six are illustrated in Figure 149A. These are small tools that were used for boring holes, most often in wood. They have a gouge-like end with a screw tip to let it into the piece being drilled. The opposite end is shaped similarly to a flat screwdriver and would have been fitted into a handle perpendicular to the shaft. See Grimm (1970:Plate 25-2) for an illustration of a complete one and Stone (1974:298 and Figure 186-H) for other examples. Measured sizes (for hole diameters) in the Fort Loudoun sample are, in inches: 1/8, 3/16, 1/4, 5/16, 3/8, and 7/16. There are two that are larger but were unmeasurable. Two were located just northwest of Structure 17, two were located in Structure 10, and one was in the slope midden deposit to the east of the Barracks. Four are without provenience. The remaining one is from the parapet on the east face of the Southeast Bastion and probably was redeposited there from the interior of that bastion during the WPA work.

Awls and Punches
Total: 19
Figures 149B-E

The 19 awls that were in the collections were all made of wrought iron, and on the basis of their shape, were divided into four categories. Two of the awls were larger than the rest and were made of round stock, pointed at one end and blunted on the other (Figure 149B). They had probably been socketed into a wood or bone handle.

Four simple awls had been made from the springs of clasp knives (Figure 149C). Typically, one end had been pointed, and the other was presumably mounted in a wood or bone handle.

The third group, consisting of four specimens, were characteristically thicker in the center and tapered to both ends (Figure 149D). The working end is rounded in section, and the other remained square in section, possibly to facilitate securing the awl into a socketed handle. These are similar in form to Stone's Type 1, Variety D awls (1974:147 and Figures 84 D-F).

Nine of the awls were characterized by a distinctive long S-shape with the working end being slightly curved, and the socketed end relatively straight (Figure 149E). The working end is round in section and the other end is square. All taper from the center to the ends. These are similar to ones illustrated by Kenyon (1986:Plate 96 B-E).

Files
Total: 3
Figure 149F

Three fragmentary triangular files are in are in the collections. Two still have the tang, and the two measurable files have flats of 0.8 cm and 2.5 cm. Among other uses, these are quite possibly part of the Blacksmith Shop inventory, particularly since triangular files are listed in the equipment necessary for a gunsmith (Table 6). One was located in the slope deposits and the other was in the midden deposit (Feature 187) outside the Rivergate. They were probably discarded after they had worn out or were broken. The third is a triangular one from the WPA excavations and without provenience.

Hand Vise Jaw
Total: 1
Figure 149G

One part of a hand vise jaw was located in the slope midden deposits east of the Barracks (Square N218/E210). This is possibly similar to the one referred to in the list of goods necessary for the Gunlock Smith (Table 6), and is smaller than, but similar to the one illustrated by Stone (1974:Figure 191-A). The jaw has a width of 3.8 cm (1.5 in.).

Strike-A-Lights (Fire Steels)
Total: 2
Figure 149H

Two partial fire steels were recovered from Features 91 and 162. Both typically have the flat bar for the center section and the smaller ends curved around to make gripping easier. One showed considerable amount of use. Lengths of the two specimens would have been approximately 9 cm. Comparable specimens have been illustrated from Fort Michilimackinac (Stone 1974:186 and Figure 102).

Cold Chisel Hammer
Total: 1
Figure 149I

One tool identified as a small cold chisel hammer was located in square N184/E272 to the south and east of the Blacksmith Shop. This artifact is similar to the cold chisel that is illustrated by Richardson (1977:Figure 110). The cutting edge of the tool is parallel to the handle and the estimated length of the head is 12 cm. The blade edge has a length of 2.5 cm. This tool would have probably been part of the complement of tools that were associated with the Blacksmith Shop (see Table 6).

Drift or Punch
Total: 1
Figure 149J

One large iron drift was recovered from Feature 3, a midden deposit in the ditch along the west side of the Northwest Bastion. It has a length of 10.0 cm and tapers from 2.6 cm at the top to 1.8 cm at the end. It is octagonal in section, and the top end shows heavy curling from use, and the lower end shows utilization to a lesser extent. Noel Hume identifies a similar tool as a farrier's punch (1962b:223-224, Figure 36-15), which would have been associated with blacksmithing and horseshoeing.

Sickles
Total: 2
Figure 149K

Parts of two blade sections of sickles are in the collection. Both are triangular in section and curved. One is a 7.5 cm section and the other is 12.5 cm section. The one with a provenience was recovered from Square N232/E234 in the slope midden deposits.

Tool Sockets
Total: 14
Figure 149L

These specimens are cylindrical, tanged, iron objects of unknown function. They were constructed by bending a flat piece of iron into a cylinder and leaving a tang projecting to the side near one end of the object. Lengths vary between 3.8 cm (1.49 in.) and 4.5 cm (1.77 in.). Exterior diameters range from 2.5 cm (0.98 in.) to 3.0 cm (1.18 in.). Six of the specimens in the collection have provenience data. One was recovered from the midden in the ditch outside the south gate (Feature 185); two are from Feature 187, the midden deposit in the east ditch outside the Rivergate; one is from the large Cherokee pit (Feature 190) in the southeast ditch extension; two specimens from within the fort were recovered from Square N186/E262 adjacent to the southwest side of the Blacksmith Shop, and from Square N240/E180 adjacent to the Powder Magazine. The remaining seven specimens were recovered by the WPA excavations and the provenience

is unknown. Additionally, another similar specimen was recovered in 1982 on the ridge to the west of the fort.

No similar items have been noted in the literature that was examined. The closest similarity is to the socket from an implement from the Trudeau Site described by Brain (1979:158) as a *pic*. That particular implement has a socket with a thin blade extending outward from one side. Those sockets that were recovered at Fort Loudoun may have been the remaining socket after the blade had been broken off. Comparable tools have not been reported elsewhere to this writer's knowledge.

Pick
Total: 1
Figure 149M

The point of a pick was recovered just north of Structure 10 in Square N228/E194. It is made of wrought iron, and has been broken where it joined the socket for the handle. This part has a length of 21.5 cm and is square in section with beveled edges and a rather blunt point. It is very similar to the Type 1 picks from Fort Stanwix (Hanson and Hsu 1975:100-101 and Figure 54-B). A maker's mark is stamped on one side but the lettering is illegible.

Ferrules
Total: 5
Not Illustrated

Several pieces of brass and one piece of iron are classed as ferrules. These consist of pieces of sheet iron or brass that have been rolled into tapered cylinders. Lengths vary from 0.7 cm to 2.8 cm. Diameters range from 0.8 cm to 1.3 cm. Presumably these would have been placed around the end of wooden handles of various sorts where a tool was socketed into the handle to keep the wood or other material from splitting. One was recovered from Structure 10, two were located adjacent to the east wall of Structure 3, and two were recovered just to the east of Structure 6. This type of distribution may simply indicate that these items were associated with individual use or were personal items of certain individuals.

Figure 149. Miscellaneous Tools.
A. Gimlets. **B-E**. Awls and punches. **F**. Files. **G**. Vise jaw. **H**. Strike-a-lights. **I**. Cold chisel hammer. **J**. Drift or punch. **K**. Sickle. **L**. Tool sockets. **M**. Pick.

Shovels
Total: 3
Figures 150A and B

Only three shovels are in the various collections. One specimen, which is in the Fort Loudoun Museum collections, consists of the blade section of a rounded end shovel (Figure 150A). There is a V-shaped notch in the upper part of the blade where the handle would have been attached, probably to a wedge-shaped end of the wooden handle. The second specimen, also part of the Fort Loudoun Museum collection, is a nearly complete pointed blade shovel with a socket for holding the handle in place (Figure 150B). The socket has a diameter of 3.7 cm (1.5 in.) and has a hole in the front of the socket for a nail or pin to secure the handle in place. The third specimen is from a pointed blade shovel similar to the first, except that most of the blade is missing. It was from Square N242/E184 in the Northwest Bastion, northwest of the powder magazine (Structure 20). The dimensions of the socket are similar to the above, and it also has a hole in the socket for a nail or pin. The upper part of the blade has an illegible maker's mark stamped into it. These two shovels are similar to ones illustrated from Fort Ligonier (Grimm 1970:Plate 26-1), Fort Stanwix (Hanson and Hsu 1975:Figure 53E), and Wormslo (Kelso 1979:Figure 55-8).

Hoes
Total: 11
Figures 150C-G

The 11 hoes that are in the various collections are divided into two categories according to the general usage of the terminology for hoes of this period (Noel Hume 1972:275-276). Of the 11, six are classified as broad hoes (Figures 150C, D, F, and G). These have round eyes and the blades are wide, with straight edges that are rounded toward the top to the point where they join the socket. All have a V-shaped reinforcement that extends from the eye toward the center of the inside of the blade. Two bear makers' stamps on the reinforcement area. These were made by a rectangular die common to the eighteenth century (Noel Hume 1968:21, Note 46 and 1972:275). One contains the letters **WK**, and the other is illegible. One of these broad hoes, shown front and rear (Figures 150C and D), has been repaired by attaching a new blade section to the upper part and eye of another hoe by four large rivets. This was apparently common practice in this area, since another similarly repaired hoe is recorded from the site of Tallassee, also in the Little Tennessee River valley. The hoe from Tallassee is quite possibly one removed from Fort Loudoun (Cornett 1976:18 and Figure 9).

Four of the hoes in the collection are typical of the type of hoe that is commonly referred to as the grubbing hoe (Figure 150E), which has a similar eye to the above, but the blade is nearly triangular in shape and much smaller (Noel Hume 1972:275-276). These have a similar triangular reinforcement as the broad hoes. One is stamped with a rectangular die with an initial that is possibly, but not certainly, an **I**. Similar hoes have been illustrated from other more eastern sites of this period, for example, Rosewell, Virginia (Noel Hume 1968:225-226 and Figure 37-4).

In addition to those hoes that could be classified above, there was one socket recovered that can not be assigned to either category. This is the only specimen that derived from the 1975-1976 excavations, and the only one in the collections with a provenience. It was recovered in Square N234/E238, in the midden deposits on the slope between Structure 16 and Structure 13.

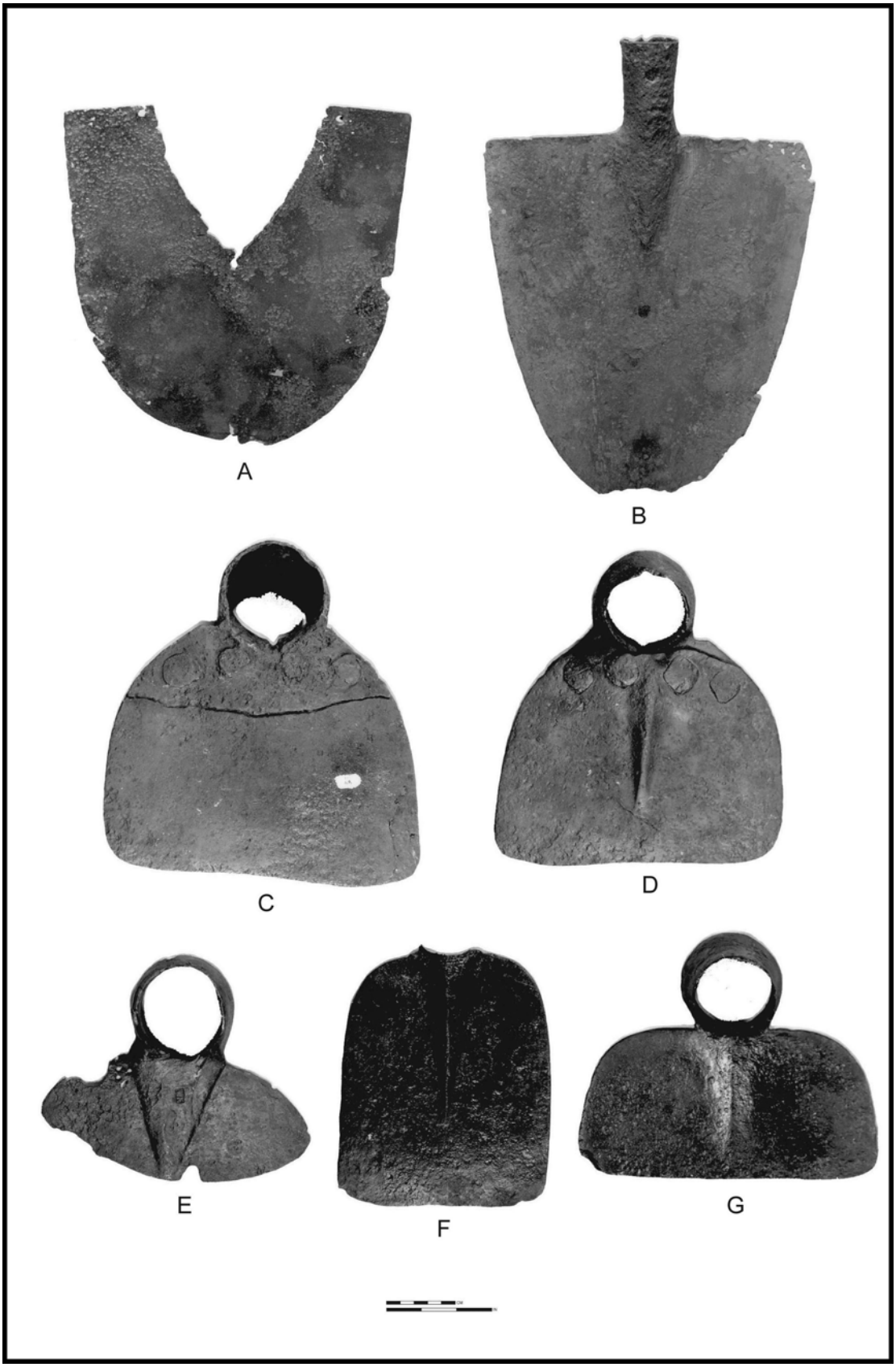

Figure 150. Shovels and Hoes.
A. V-Notched shovel. **B**. Socketed shovel. **C-G**. Hoes.

Sundial and Pocket Compass
Total: 2
Figures 151A-C

Two parts of a brass combination compass and sundial were located. One of the pieces of this instrument is the fragmentary part of the sundial face (Figures 151A and B) that was recovered from Square N242/E240 just east of Structure 16. The Roman numerals on the dial face would have ranged from V to XII and I to VII, indicating the hours. Half-hour and quarter-hour marks are also present on the remaining part of the dial. The other specimen is the backing plate, which would have been behind the compass needle (Figure 151C). This part was excavated by the WPA project and is in the Fort Loudoun Association collections. It is reasonably certain because of the correspondence in size that these two parts are from the same instrument. They were probably set in a wooden case. The back piece has lines marked on it showing the eight major directions, and has a hole in the center through which the pin on which the compass needle rode would have projected. The small loop in the center of the bar across the face piece would have held a movable gnomen, which would have been raised when in use and laid flat when the instrument was closed. The combination of the sundial with the compass was necessary for the proper orientation of the dial so the gnomen could be oriented toward true north (Gould 1933). It is possible that these parts are from a pocket compass that belonged to Paul Demere. On October 11, 1757, Paul Demere acknowledged the receipt of a "Pokett compass" that was sent by Governor Lyttelton, enclosed with a letter of July 21, 1757 (P. Demere to Lyttelton, October 11, 1757, Clements Library).

Several similar instruments are illustrated and described in the literature. Brown illustrates one from the Zimmerman site in Illinois, where it was incorrectly stated that the gnomen was to read the latitude (Brown 1975:35 and Plate IX bf). Stone also illustrates five parts of sundial/pocket compass combinations from Fort Michilimackinac (1974:298:Figures 193 and 194), but he does not indicate that the dial was for a sundial.

Dividers
Total: 1
Figures 151D and E

One pair of iron folding dividers was located in Feature 76, that portion of the drain south of Structure 14. Figure 151D and E shows a drawing and a photograph of this instrument. The dividers could have served either for map work, or for carpentry work. Their size (length 15.0 cm) and weight tends to support the idea that they were probably associated with carpentry activities. They are quite similar to those illustrated from Fort Michilimackinac (Stone 1974:Figure 195-B) and a pair from Fort Independence, South Carolina (Bastian 1982:Figure 45).

Table 137. Tools.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Totals
180/200															1							1
180/262(3)															1							1
182/266																		2				2
184/216																	1					1
184/272					1																	1
186/262(2)																1						1
188/280				1																		1
190/280															1							1
194/208(B)	1																					1
196/262	1																					1
202/202(B)										1												1
204/200										1												1
206/254(6)																		1				1
210/222															1							1
212/184(8)															1							1
212/252(6)																		1				1
216/212										1												1
218/210							1								1							2
222/210				1																		1
224/224			1																			1

Table 137. Tools.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Totals
228/194													1									1
230/204	1				1																	2
232/234														1								1
234/204(17)										1												1
234/206(17)															1							1
234/2 20(4)															2							2
234/238												1										1
236/196(l7)															1							1
236/222															1							1
238/138	1																					1
238/192				1																		1
240/180																1						1
240/190				1																		1
242/184											1											1
242/240																			1			1
F. 3								1		1												2
F. 50			1																			1
F. 58	1																					1
F. 76																				1		1
F. 91															1		1					2
F. 96															1							1
F.171			1																			1
F.185																1						1
F.187	1					1										2						4
F.190	3															1						4
ST. 10				2														1				3
ST. 17																					1	1
Ditch	1																					1
No Prov.	23	2	1	4		1			1	1	2	10		1	6	8			1		1	62
TOTALS	**33**	**2**	**4**	**10**	**1**	**3**	**1**	**1**	**1**	**6**	**3**	**11**	**1**	**2**	**19**	**14**	**2**	**5**	**2**	**1**	**2**	**124**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: 1=Axes, 2=Froes, 3=Wedges, 4=Gimlets, 5=Cold Chisel Hammer, 6=Files, 7=Hand Vise Jaw, 8=Drift, 9=Grindstone, 10=Whetstone, 11=Shovels, 12=Hoes, 13=Picks, 14=Sickle, 15=Awls and Punches, 16=Tool Sockets, 17=Strike-a-Lights, 18=Ferrules, 19=Pocket Compass, 20=Dividers, 21=Corn Mill Cranks.
(B) indicates the barracks building

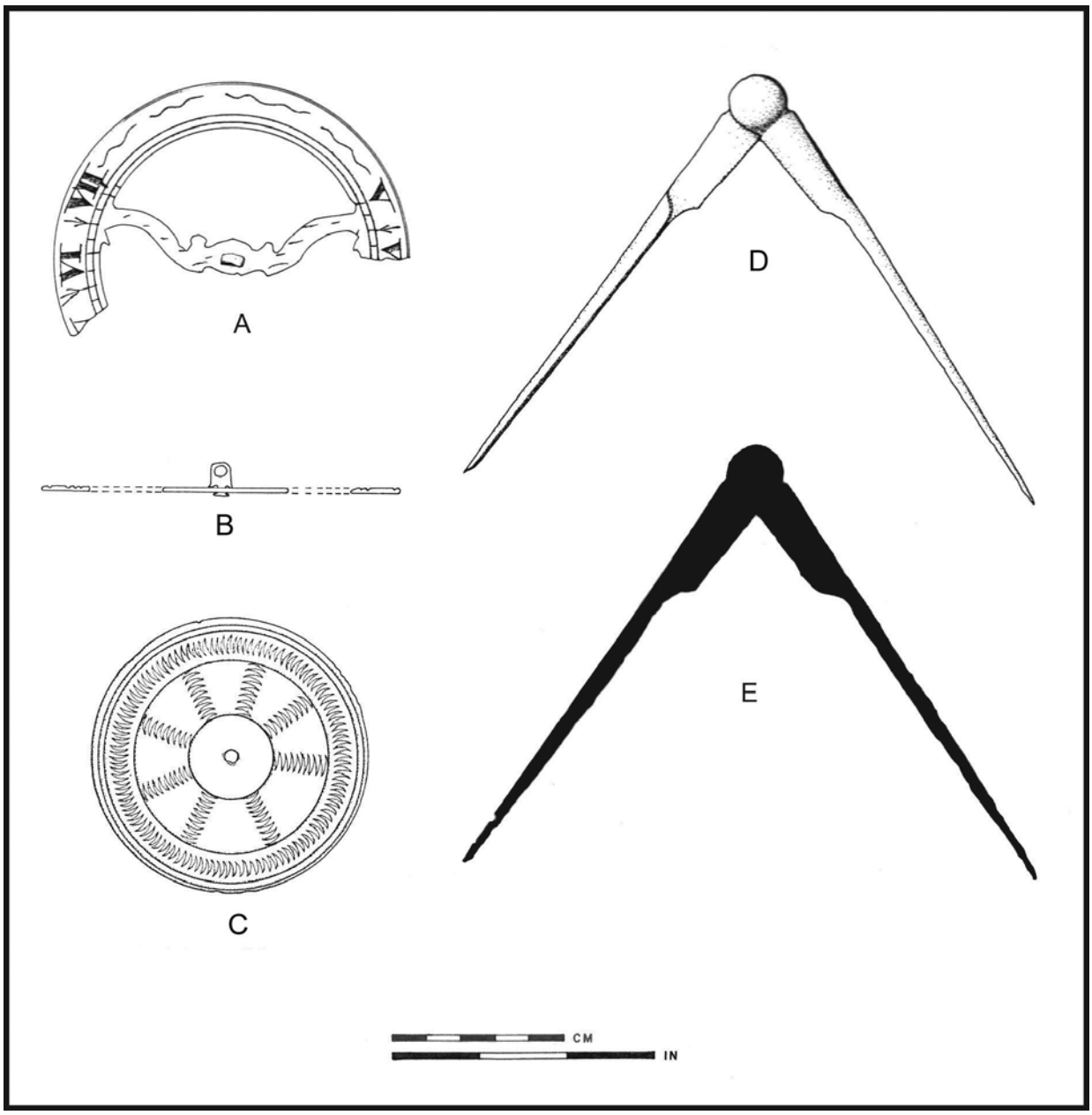

Figure 151. Sundial, Pocket Compass and Dividers.
A-C. Sundial-Pocket Compass parts. **D** and **E**. Dividers.

Building and Furniture Hardware

Building and furniture hardware at Fort Loudoun, not counting the nails which are included in the next section comprise only a small part of the collection. However quite a variety of items are present, mostly related to doors and gates, window shutters, trunks and possibly some furniture items. A selection of these artifacts are illustrated in Figures 152 and 153. The counts of the various artifact types and their proveniences are given in Table 138.

Pintles
Total: 6
Figure 152A-E

Six pintles of various sizes are in the collections. Two pintles are large, and sufficient for a heavy door or a gate. One of these (Figure 152A and B) has a length of 26 cm, and is notched along its length to ensure fastness in the supporting timber. The pivot is a separate piece of metal that has been socketed into the shank. The second large pintle has a length of 17.5 cm (Figure 152C). The head is hexagonal, and the pivot has also been socketed into the head and welded or forged together. Both of the larger pintles have pivot diameters of approximately 1.75 cm. The other four of the six are small ones, sufficient for shutters, and possibly for small doors (Figure 152D and E). In the group of small pintles, the part of the pintle that was driven into the supporting timber is square in section and pointed at the end. The pivot part is round.

Only three small pintles have provenience data. The remainder are from the Fort Loudoun Museum or WPA collections. One is from Feature 58, a pit within Structure 3, one came from a square in the area between Structures 5 and 6, and the third one came from a square in the slope midden deposits. Comparable examples are illustrated by Grimm from Fort Ligonier (1970:95, Plate 30-9) and by Stone from Fort Michilimackinac (1974:221-225 and Figure 135).

Shutter Hooks
Total: 5
Figure 152F-I

Five shutter hooks are in the collections. They were made of pieces of wrought iron formed into a loop or circle at one end, and a hook formed at the other end by bending the shank at right angles. The shanks have been twisted during the forging process for decorative purposes. These hooks would have been attached to the door or shutter by either a large headed nail or a staple driven through the eye end of the hook (see Stone 1974:240, Figure 145). Similar specimens are illustrated from Fort Ligonier (Grimm 1970:95, Plate 30-4) and from Fort Stanwix (Hanson and Hsu 1975:62, Figure 42-F).

The three shutter hooks in the collection that have proveniences were recovered from the following locations. One came from just east of Structure 17, one from Feature 68, a midden lens in the floor of Structure 5, and the third came from along the approximate east wall of the Barracks. This latter specimen in particular may have been from one of the 37 shutters that Demere had made for that structure (P. Demere to Lyttelton, October 11, 1757, Clements Library).

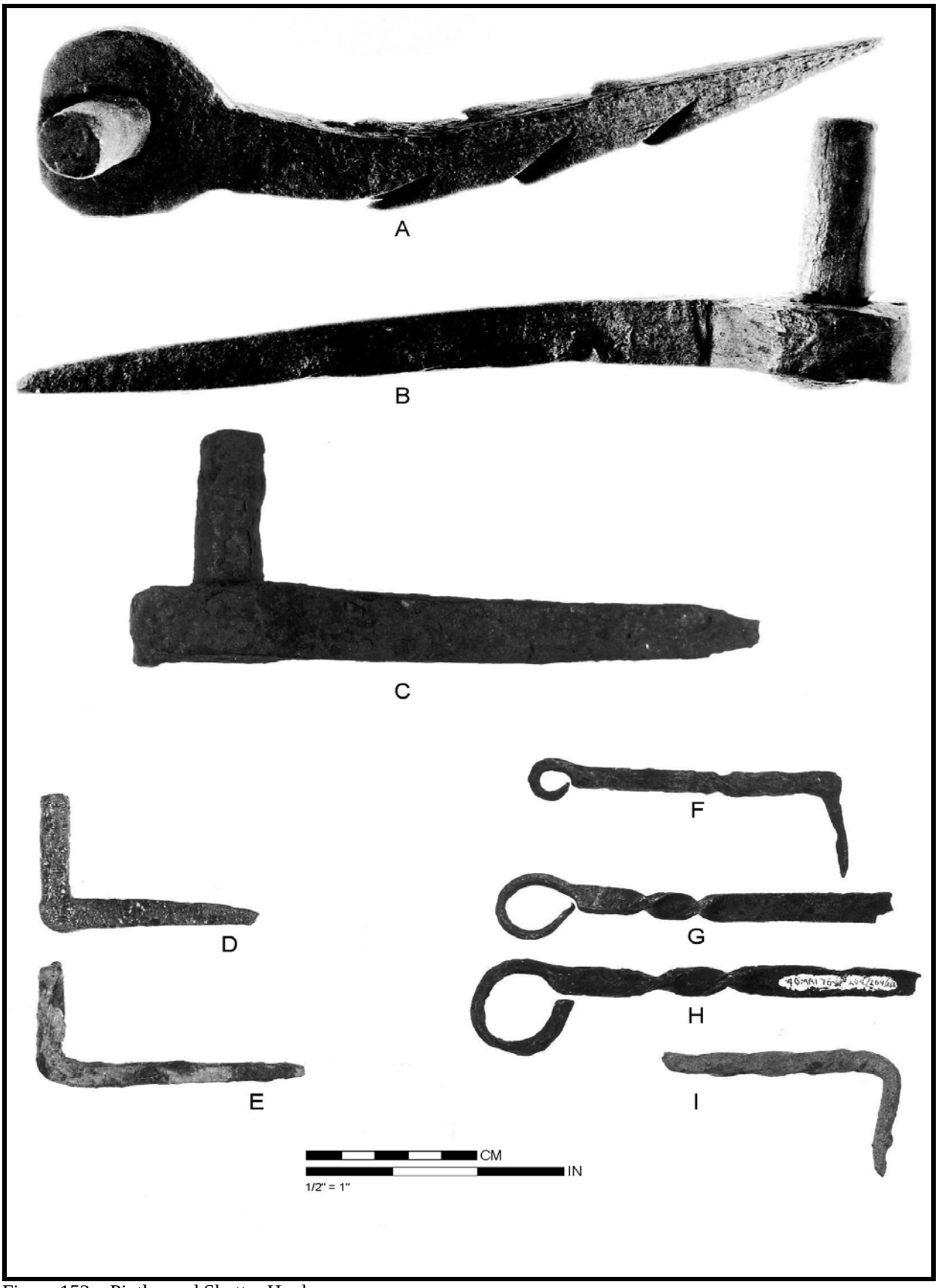

Figure 152. Pintles and Shutter Hooks.
A-C. Large pintles. **D-E**. Small pintles. **F-I**. Shutter hooks.

Wrought Iron Strap Hinge
Total: 1
Figure 153A

The terminal decorative end of one wrought iron strap hinge was recovered from Square N184/E266 just east of Structure 3 (Figure 153A). It is similar to several illustrated by Stone from Fort Michilimackinac (1974:222, Figure 134 H) and from Fort Stanwix (Hanson and Hsu 1975:58, Figure 40E and F), and Streeter (1974), except that it lacks the characteristic hole in the terminal end. Since this specimen is from the Blacksmith Shop area and in a pit feature that had other items that appear to have come from the smith's refuse, this may be simply an incomplete, or broken and discarded specimen.

Strap Hinge Fragments
Total: 55
Figure 153B-D

A total of 55 iron specimens are classified as strap hinge fragments. These are wrought iron, and most are characterized by a series of holes along the length, several of which still contain either nails or rivets. Representative examples of the range of these items are shown in Figure 153B-D. Presumably these are associated either with windows or shutters, or more probably with chests and boxes. There does not seem to be definite correlation with the structures, except in the cases of Structures 1, 10, and 17. It is quite possible that these are not, then, related to building hardware, but strap hinges from other items as mentioned above.

Hasp
Total: 1
Figure 153M

One hasp was recovered. This specimen is made of wrought iron and has a slot through which a loop could have been passed for securing with a lock or pin.

Door Latches
Total: 2
Figure 153E and F

The two specimens in the collection were constructed of wrought iron bent into a loop on one end and welded together at the other. A smaller loop at the welded end would have been held in place on the door by a large nail, about which it could pivot. One specimen (Figure 153E) was bent at a right angle, and the other (Figure 153F) is somewhat smaller but basically similar in shape. Similar specimens are illustrated by Grimm (1970:95:Plate 30-3) from Fort Ligonier.

Latch Bar Catches
Total: 3
Figure 153G-I

There are three wrought iron latch bar catches in the collection. They are shown in Figure 153G-I. These are similar to ones from Fort Michilimackinac (Stone 1974:242 and Figure 147-F). One was recovered from the slope midden deposits, and two are from Structure 5. The latter two came from a square at the northeast corner of the building, and from Feature 63, a midden deposit within the structure near the south wall of the north room.

Butt Hinge
Total: 1
Figure 153J

One wrought iron butt hinge was recovered from Square N236/E210 just east of Structure 17. The sides are rectangular, and tapered in thickness from the hinge to the edge. There are three holes on each side that had been countersunk to receive screws.

Flat Corner Brace
Total: 1
Figure 153K

One flat corner brace was recovered from Square N188/E296 in the ditch on the east side of the Southeast Bastion. This was probably from a box or a trunk.

Curtain Rings
Total: 2
Figure 153L

Two specimens were recovered which are classified as curtain rings. One is cast of pewter and the other of brass. Diameters are 2.3 cm and 2.5 cm respectively, and both have a thickness of 1.5 cm. The identification of these objects as curtain rings is based on their similarity to ones recovered from Rosewell, Virginia (Noel Hume 1962:194), Tutter's Neck, Virginia (Noel Hume 1968:70 and 71, and Figure 20-4), and Marlborough, Virginia (Watkins 1968:156, Figure 83-1). They are alternately identified as harness rings, but the specimens from Fort Loudoun are probably too small and fragile for use that might be associated with harness gear. One was recovered from Feature 56, a midden deposit in the slope area, and the other was associated with Feature 361, a Cherokee pit in the village to the south of the fort.

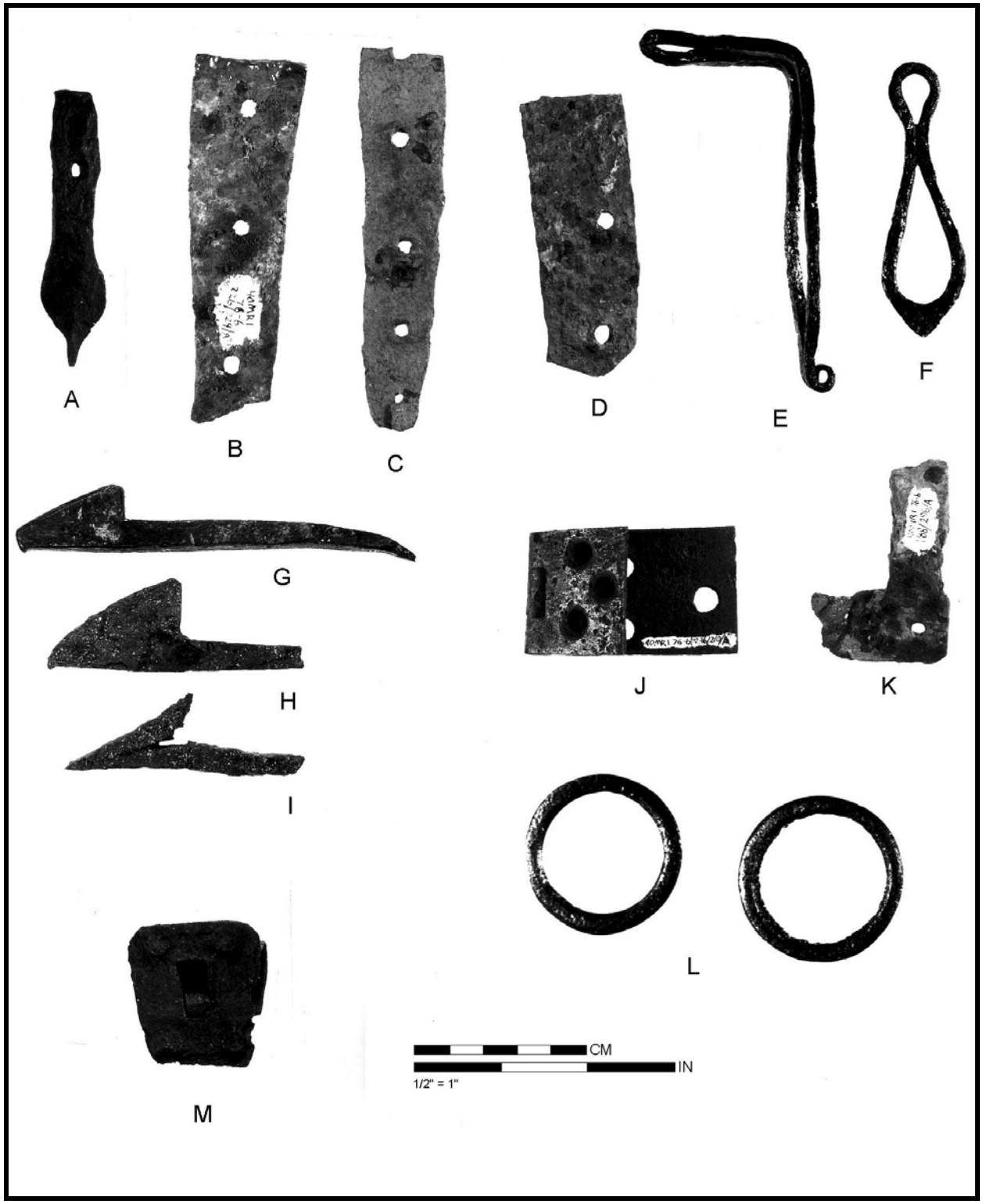

Figure 153. Strap Hinges, Door Latches, Latch Bar Catch, Butt Hinge, Flat Corner Brace, and Curtain Rings. **A**. Wrought iron strap hinge. **B-D**. Strap hinges. **E-F**. Door latches. **G-I**. Latch Bar Catches. **J**. Butt hinge. **K**. Flat corner brace. **L**. Curtain rings. **M**. Hasp.

Locks and Lock Parts
Total: 9
Figures 154A, B, F- I

Seven lock parts and two complete locks are in the collections. The two complete padlocks are shown in Figures 154A and B. One is bag-shaped, and the other is distinctly heart-shaped. Both have keyhole covers on pivots. The larger, bag-shaped lock has a total height of 4.0 in. (10.1 cm) and the heart-shaped one has a height of 3.2 in. (8.1 cm). The keyhole cover on the heart-shaped lock has a pair of crossed keys impressed above an **F**.

The various lock parts can be divided into two different types generally following the classification of Noel Hume (1972:243-252). Two of the items are from plain stock locks. One (Figure 154G showing front and back) is from a ward with a collar that is nearly identical to two illustrated by Noel Hume (1969:247, Figures 77a-5 and 77a-6). The other lock part that came from this type of lock is an iron bolt. It is rectangular in section, and one end of it has been thickened (Figure 154I).

The three other lock parts in the collection are from plate stock locks. One (Figure 154H showing front and back) is a ward with a collar similar to one illustrated by Noel Hume (1969:248, Figure 77b2). The other specimens are lock casing fragments or cover plate fragments, one of which has part of the keyhole remaining (Figure 154F showing front and back).

The five specimens that have provenience data came from the following areas. Two were recovered west of Structure 17 and east of the Powder Magazine. Another is from a square just southwest of the Rivergate, and two are from a Cherokee pit (Feature 375) to the south of the fort.

Keys
Total: 3
Figure 154C and D

The three complete or fragmentary keys that are in the collections have oval handles and hollow shanks. Two are shown in Figure 154C and D. One of the specimens is similar to an illustrated one from Fort Michilimackinac (Stone 1974:226, Figure 136-F). One of these keys was recovered from Square N220/E204, along with a shutter hook adjacent to the east side of the Barracks. Another came from a square at the southeast corner of Structure 12. The third is without provenience.

Keyhole Escutcheon
Total: 1
Figure 154E

One oval brass keyhole escutcheon (Figure 154E) was recovered from Square N236/E214 to the west of Structure 23, east of Structure 17, and north of Structure 4, but not really in direct association with any of them. This specimen is probably an escutcheon from a box or trunk, rather than a door.

Drawer Pulls
Total: 2
Figure 154J and K

Two drawer pulls are present in the collections and are shown in Figure 154J and K. One is made of iron and was hand forged (Figure 154J). It has a length of 5.7 cm, a depth of 2.0 cm and was located on the floor of Structure 17. It is virtually identical to one illustrated by Stone (1974:204, Plate 120 A) from Fort Michilimackinac. Another pull, cast of brass, is in the WPA collections. It is oval in section and has a length of 11.5 cm (Figure 154K).

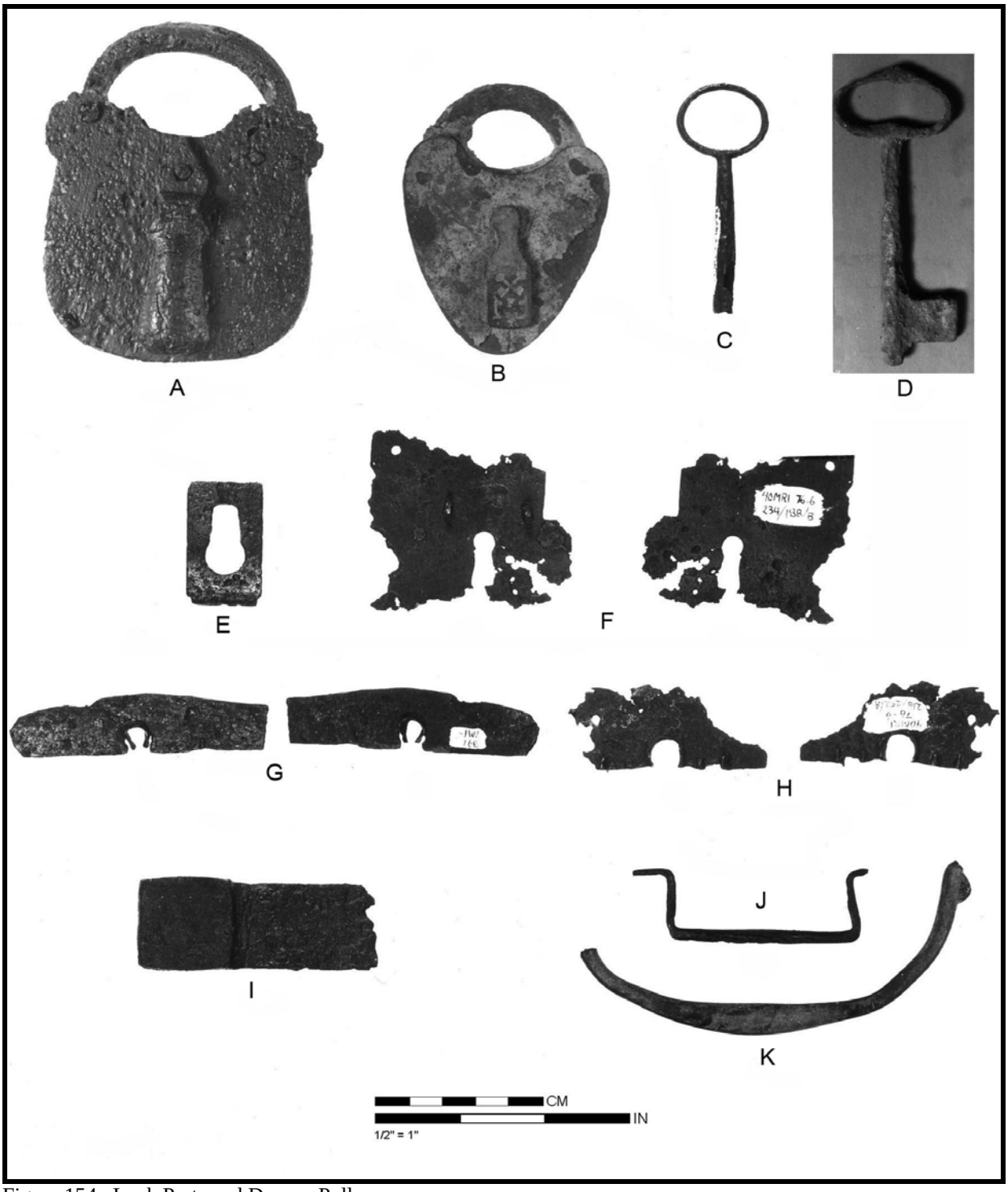

Figure 154. Lock Parts and Drawer Pulls.
A and **B**. Padlocks. **C** and **D**. Keys. **E**. Keyhole Escutcheon. **F** and **H**. Plate stock lock wards showing front and reverse sides. **G**. Plain stock lock ward. **I**. Stock lock bolt. **J**. Iron drawer pull. **K**. Brass drawer pull.

Table 138. Building and Furniture Hardware.

Provenience	1	2	3	4	5	6	7	8	9	10	11
182/272		1									1
184/216		1									1
184/266		3									3
188/272(1)		1									1
188/280		1									1
188/296			1								1
206/224		1									1
208/242		1									1
208/256	1										1
210/262(5)					1						1
214/180(8)		1									1
216/216		1									1
216/226		1									1
216/252							1				1
218/210	1										1
218/212		1									1
218/222					1						1
220/204(B)				1		1					2
220/220		1									1
224/220		1									1
226/204		1									1
226/224		1									1
226/226		1									1
232/138		1									1
234/188							1				1
236/192		1									1
236/210		1									1
236/214								1			1
238/192							1				1
238/198(17)									1		1
238/202(17)		1									1
240/208(17)				1							1
242/198		1									1
244/192(12)						1					1
248/194(12)		1									1
F. 44		1									1
F. 50		2									2
F. 56										1	1
F. 58	1	3									4
F. 63					1						1
F. 68				1							1
F. 79		1									1
F.159		1									1
F.171		1									1
F.178		2									2
F.183		1									1
F.358		1									1
F.361										1	1
F.375		3					2				5
ST. 10		2									2
ST. 17		1									1
No. Prov.	3	14		2	3	1	4		1		28
TOTALS	**6**	**57**	**1**	**5**	**6**	**3**	**9**	**1**	**2**	**2**	**92**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: 1=Pintles. 2=Hinges, 3=Corner Brace, 4=Shutter Hooks, 5=Door Latch Parts, 6=Keys, 7=Lock Parts, 8=Key Hole Escutcheon, 9=Drawer Pulls, 10=Curtain Rings.
(B) indicates the barracks building.

Hardware

This section includes the bulk of the hardware items that were from the Fort Loudoun collections. The majority can generally be consider fasteners of various sorts, dominated by the nails. Many of these could be reasonably included with the building and furniture category, primarily the nails, but could have also been used for a variety of other purposes

Nails
Total: 8,637
Figure 155-157

The 8,637 nails and spikes in the collections are classified into five major categories. Four are discussed here, and the 76 horseshoe nails are discussed in the equestrian section. Within the individual categories, they are not separated into nails or spikes, as is done in some classifications. The type of point, when present, has also been recorded. By head count there is a minimum of 6,276 nails represented, and by point count there are 5,486. Since there are only 1,438 points without heads and 2,228 heads without points, the head count represents the largest minimum nail number possible. There were 84 nails that had been clenched (Table 139) and are illustrated in Figure 157. An additional 1147 nails or fragments had been burned. This is about 13.3 percent of the total, another indication that one or more of the buildings within the fort may have been burned, as has been suggested by a couple of other lines of evidence. A summary of the nails by provenience is presented in Table 139. The horseshoe nails are listed in Table 146.

Rose Head Nails
Total: 2,124
Figure 155

The 2,124 rose head nails in the collection have the characteristic faceted heads that are associated with this type. Figure 155 shows the range of variation of length and head that is grouped in this category. Most are of the characteristic form, but several have an enlarged head (Figure 155, top row right three) in relation to the length of the shank, and probably served as decorative items on doors or other items. Another variation is a head that is nearly flat with only minor faceting around the edges. There are 1,298 pointed ones and 447 that have the flattened ends.

Rose head nails range in length from 22 mm (0.86 in.) to 170 mm (6.69 in.). The 776 measured nails with pointed ends range in length from 22 mm (0.86 in.) to 133 mm (5.23 in.), with the majority falling between 26 mm (1.02 in.) and 71 mm (2.79 in.). The 252 measured specimens with flattened points range in length between 52 mm (2.04 in.) and 170 mm (6.69 in.) with the majority of these falling between 100 mm (3.93 in.) and 131 mm (5.15 in.). The type of point does seem to be clearly related to the length of the nail. Although there is a certain amount of overlap in the middle range of sizes, it is clear that the flat points are dominant on the longer nails and the pointed ones on the smaller sizes.

Square Head
Total: 126
Figure 156A

This is a separate category that has been defined on the basis of 126 specimens in the collection. These nails generally are longer and larger than the rest of the categories and have a distinctive head form. The head is square and is generally flat on the top and rather thick (Figure 156A). In a number of examples the tops of the four corners are faceted. There are 67 of these that have flattened ends, but none is pointed. This is consistent with the other types of nails in that the larger sizes are almost exclusively flattened at the end. The 28 that have been measured range in size between 121 mm (4.76 in.) and 155 mm (6.10 in.).

L-Head Nails
Total: 7
Figure 156B

Only seven L-head Nails are in the collection, showing the lack of need for flooring or finishing nails at Fort Loudoun. Five of these are pointed. The measured ones are 55 mm (2.16 in.), 71 mm (2.79 in.), and 110 mm (4.33 in.), and 118 mm (4.64 in.).

T-Head Nails
Total: 3,832
Figures 156C

The T-head nails in the collection are also typical of this general classification as applied at other sites where the nail heads are flattened on two sides. Of the 3,832 nails that are classified as T-heads, 2158 are pointed, and only 13 had flattened ends. The remainder of those classified as T-head nails are incomplete and are without points. The range of lengths of the 1,006 T-head nails that were measured varies from 31 mm (1.22 in.) to 144 mm (5.71 in.). It is also very clear that the shorter lengths (31-103 mm) have the pointed ends and that the flattened points are generally confined to the longer nails. They fall within the range of 66 mm (2.59 in.) to 144 mm (5.66 in.), but with most of them between 123 mm (4.84 in.) and 135 mm (5.31 in.).

The majority of the small pointed T-head nails fall between 39 mm (1.53 in.) and 90 mm (3.54 in.), with three major groupings falling around 48 mm or 49 mm, 67 mm and less so around 83 mm, corresponding roughly to 1.88 in., 2.27 in., and 3.26 inches. The size range of the majority of the pointed T-head nails corresponds rather well with the length of the rose head nails, except they seem to start somewhat longer than the rose heads and numerically continue somewhat past the longer lengths of the pointed rose heads.

Nail Fragments
Total: 2,427
Not Illustrated

In addition to the above nails and fragments that can be classified, there is a total of 2,426 nail fragments that can not be so classified. Of this total, 1,130 are pointed nails, and 307 have flattened ends.

Figure 155. Rose head Nails.

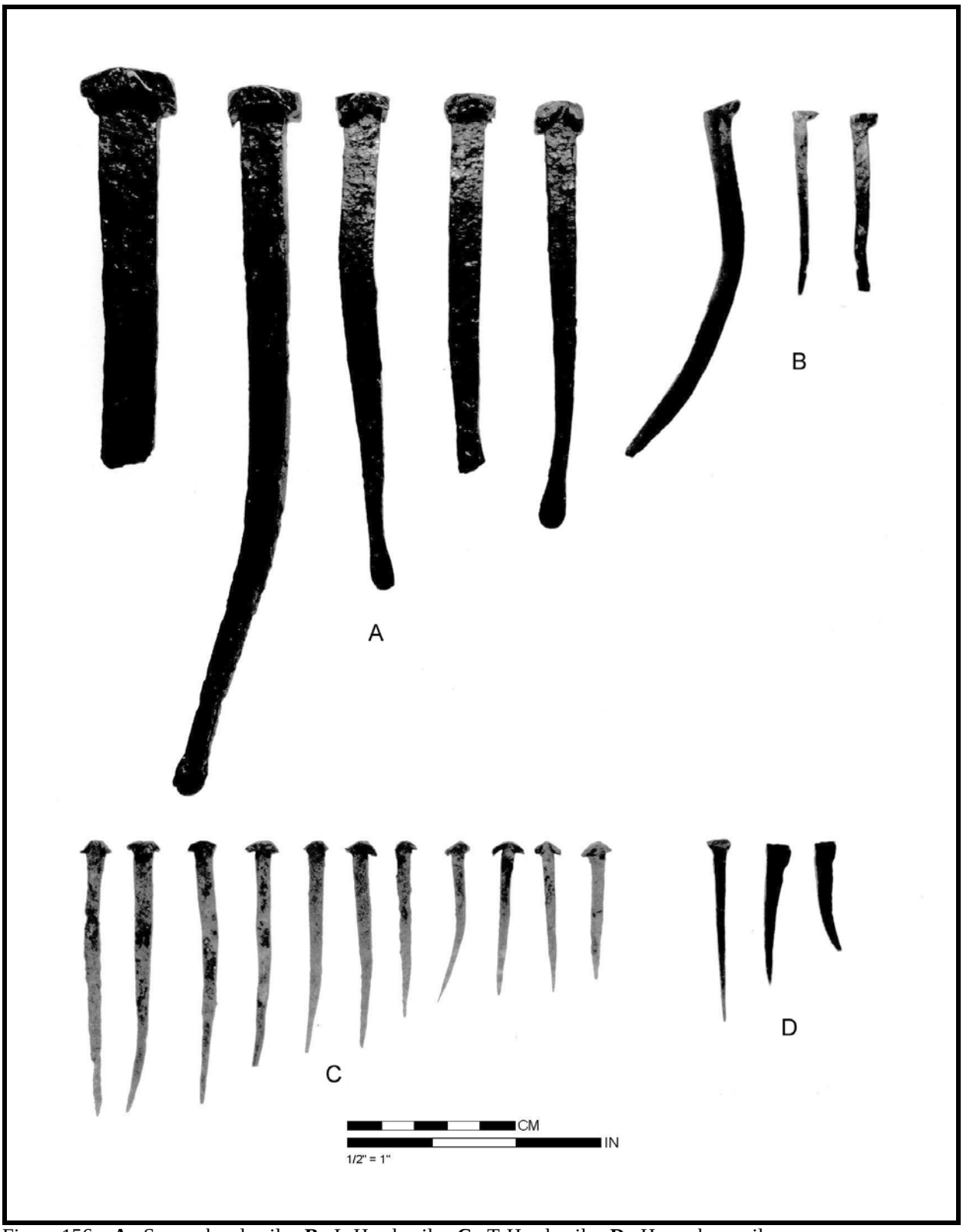

Figure 156. **A**. Square head nails. **B**. L-Head nails. **C**. T-Head nails. **D**. Horseshoe nails.

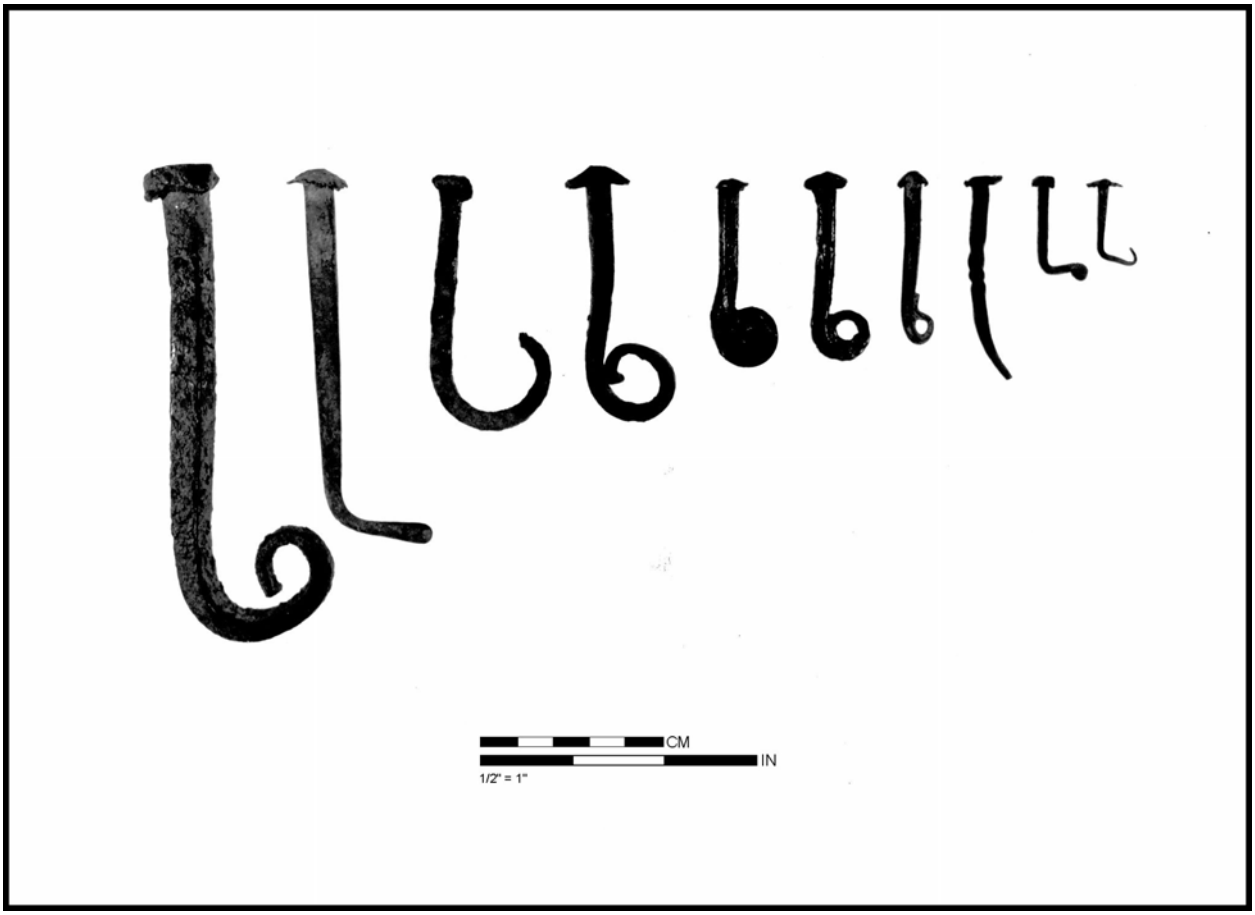

Figure 157. Clenched Nails.

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
160/320													**1**					**1**
162/280										**1**								**1**
165/294	**1**	1																**1**
166/280	**1**	1																**1**
166/282	**1**																	**1**
170/280													**1**					**1**
174/280													**1**					**1**
176/194	**1**																	**1**
176/198				**1**	1													**1**
176/280				**1**									**1**					**2**
178/194				**1**	1													**1**
178/196				**6**	6								**1**					**7**
178/198	**1**			**1**	1								**1**				1	**3**
178/200				**3**	2								**1**					**4**
178/202	**1**																	**1**
178/280	**3**	1																**3**
180/192	**1**			**6**	2													**7**
180/194	**3**	2		**14**	7								**9**	5				**26**
180/196	**1**	1		**4**	2					**1**			**2**					**8**
180/198	**1**	1											**1**					**2**
180/200				**1**	1													**1**
180/202													**5**	1				**5**
180/240				**1**														**1**
180/268				**1**		1												**1**
180/270	**1**	1		**1**												1		**2**
180/274	**1**	1		**1**														**2**
182/194				**5**	4													**5**
182/202				**1**		1												**1**
182/240				**1**	1								**1**	1			1	**2**
182/242				**1**														**1**
182/262(3)				**1**	1												1	**1**
182/266				**1**														**1**
182/268													**3**					**3**
182/270	**1**	1		**1**														**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
182/272				**2**									**1**	1			1	**3**
182/274	**1**			**1**	1								**2**					**4**
182/276	**3**	2	1	**5**	2								**6**	5			2	**14**
182/278				**1**	1													**1**
184/198				**3**	1						**1**		**1**					**5**
184/206				**1**														**1**
184/208				**1**														**1**
184/216	**2**	1											**2**	1				**4**
184/240				**1**									**1**				1	**2**
184/242				**1**	1								**2**	1				**3**
184/250				**3**	1													**3**
184/262(3)				**1**	1													**1**
184/264(3)				**6**	4								**4**	1				**10**
184/266	**5**	2	2	**6**	2						**1**		**4**	3			2	**16**
184/270				**2**	2													**2**
184/272													**1**					**1**
184/274	**1**	1		**1**									**2**	2				**4**
184/276	**2**	2		**2**	2								**2**	1			1	**6**
186/196													**1**	1				**1**
186/198	**1**	1		**3**	3													**4**
186/204(24)	**2**	1		**5**	2								**1**					**8**
186/206(14/24)													**1**	1				**1**
186/208(14)	**1**	1		**2**	2								**2**	2				**5**
186/210	**2**		1	**4**	1	1							**1**	1				**7**
186/240	**1**	1																**1**
186/252				**1**	1					**1**								**2**
186/260				**1**	1								**2**					**3**
186/266(2)				**2**	1								**2**	1				**4**
186/268(2)	**2**	2		**7**	2								**2**					**11**
186/274(1)				**1**	1													**1**
186/276	**1**	1		**1**	1								**2**	1				**4**
186/288													**1**					**1**
186/292													**1**					**1**
188/194				**2**	1													**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
188/196	**1**	1		**4**	3								**4**	1				**9**
188/198	**1**	1		**2**	2								**2**		1			**5**
188/204(24)													**1**					**1**
188/206(14/24)	**1**			**2**									**2**	1				**5**
188/208(14)	**2**	1		**6**	4								**4**	1	1			**12**
188/210(14)	**3**	1	1	**9**	4								**1**					**13**
188/212(14)				**1**														**1**
188/234													**2**	1				**2**
188/236	**1**	1		**1**	1													**2**
188/238				**1**	1								**1**					**2**
188/242				**1**	1								**1**					**2**
188/244													**1**					**1**
188/248	**1**		1															**1**
188/250	**1**		1										**1**	1				**2**
188/252				**1**	1								**1**					**2**
188/256	**2**	2		**2**	2								**1**					**5**
188/258	**1**	1		**1**	1													**2**
188/266(2)				**1**														**1**
188/272(1)	**3**	2		**1**									**3**	1				**7**
188/274(1)	**3**	1		**3**	1								**4**	1				**10**
188/278	**1**			**1**	1								**4**	1				**6**
188/280	**7**	2		**9**	1						**1**		**24**	4			2	**41**
188/282	**1**			**2**	2								**4**					**7**
188/284	**1**																	**1**
188/296	**1**		1													1		**1**
190/192				**2**									**1**	1				**3**
190/194				**1**							**1**		**1**	1				**3**
190/200(24)	**2**																	**2**
190/202(24)				**1**	1													**1**
190/204(24)	**1**	1		**2**	1													**3**
190/206(14/24)				**2**	1													**2**
190/208(14)	**2**	1									**1**							**3**
190/210(14)				**6**	1								**2**	1	1			**8**
190/220				**1**														**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
190/236													**2**	2				**2**
190/238	**1**	1		**1**	1													**2**
190/242				**1**														**1**
190/246													**1**					**1**
190/248				**1**	1													**1**
190/262(2)	**1**	1		**1**	1													**2**
190/264(2)	**1**	1																**1**
190/266(2)				**7**	2								**2**		1		2	**9**
190/268(2)	**3**	1		**2**	1								**2**		1			**7**
190/272(1)	**1**	1											**1**	1				**2**
190/274(1)													**1**		1			**1**
190/280	**4**	2		**17**	7								**34**	7	1		2	**55**
190/284	**1**	1																**1**
192/204(B)	**1**	1											**1**	1				**2**
192/206(B)	**2**		1															**2**
192/208(14/B)	**3**	2		**8**	4								**2**	1	1			**13**
192/210(14/B)	**1**			**3**	3											1		**4**
192/212(14)	**3**	2																**3**
192/214				**2**	2								**3**	3				**5**
192/220	**2**	2																**2**
192/224													**1**	1				**1**
192/232(15)													**1**	1				**1**
192/234(15)				**1**	1													**1**
192/240											**1**							**1**
192/246				**1**														**1**
192/254	**3**	1	1	**1**	1													**4**
192/264(2)				**1**	1													**1**
192/266(2)				**2**	1								**5**	2				**7**
192/268(1)													**1**	1				**1**
192/270(1)	**1**	1		**2**	1												1	**3**
194/194	**1**	1											**1**	1				**2**
194/196	**1**																	**1**
194/202				**2**														**2**
194/204(B)	**1**	1		**2**	1													**3**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
194/206(B)	**1**			**2**	2													**3**
194/208(B)	**2**	2		**10**	4								**5**	2			1	**17**
194/210(B)				**3**	2								**2**	1	1			**5**
194/212	**2**	1		**7**	6								**10**	4	1			**19**
194/214	**5**	3	2	**5**	2								**2**		1			**12**
194/220	**4**	2	1	**2**	1													**6**
194/222													**2**	2				**2**
194/224	**1**			**1**														**2**
194/230(15)				**1**	1													**1**
194/234(15)	**1**																	**1**
194/236(15)				**1**	1								**1**	1				**2**
194/240				**4**	3													**4**
194/246				**1**														**1**
194/248													**2**					**2**
194/250				**1**	1								**1**					**2**
194/252				**1**	1													**1**
194/254													**1**					**1**
194/256	**1**	1																**1**
194/258	**1**																	**1**
194/260				**1**		1							**1**					**2**
194/264(2)				**2**														**2**
194/268(1)	**1**	1																**1**
194/270(1)	**1**																	**1**
194/272(1)				**1**									**1**	1			2	**2**
196/192	**1**			**3**	2								**2**	1				**6**
196/194													**1**	1			1	**1**
196/196				**1**														**1**
196/202	**1**		1															**1**
196/204(B)				**2**	2													**2**
196/212	**1**			**1**														**2**
196/214	**1**	1											**1**	1				**2**
196/216	**1**																	**1**
196/220				**2**	1													**2**
196/222				**1**	1													**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
196/224	**1**	1																	**1**
196/226	**1**																		**1**
196/228(15)				**1**	1														**1**
196/234(15)	**1**	1																	**1**
196/236(15)	**3**	1	2	**1**	1														**4**
196/240	**1**		1	**1**										**1**	1				**3**
196/244	**2**	1		**1**															**3**
196/246	**1**																		**1**
196/248	**1**	1		**2**	2														**3**
196/250	**3**	1	1	**1**	1														**4**
196/252				**4**	4									**1**	1				**5**
196/254				**3**	3									**2**	1				**5**
196/256	**1**		1	**1**	1						**1**	1							**3**
196/258														**1**					**1**
196/264										**1**				**1**	1				**2**
196/266(1)	**3**	2		**2**	2									**3**	1				**8**
196/270(1)	**1**	1																	**1**
198/192				**2**	1														**2**
198/194	**1**	1		**3**	1									**2**	1	1		2	**6**
198/196				**1**	1														**1**
198/202	**2**	1		**1**	1														**3**
198/206(B)				**2**	2														**2**
198/210(B)														**1**					**1**
198/212				**1**	1														**1**
198/214	**2**	1		**1**							**1**								**4**
198/218	**1**	1																	**1**
198/220	**1**		1																**1**
198/226	**1**																		**1**
198/232	**1**	1																	**1**
198/234	**1**	1												**1**	1				**2**
198/236	**2**	1	1																**2**
198/240	**2**	1		**3**	2									**2**	1				**7**
198/242	**1**	1		**1**										**1**	1				**3**
198/244				**2**	1														**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
198/246	**1**	1		**4**	3														**5**
198/24B	**2**	2		**2**	1														**4**
198/250	**3**	2	1	**6**	5									**1**		1			**10**
198/252	**1**		1	**1**	1						**1**	1		**1**	1				**4**
198/254	**1**	1									**1**	1		**1**	1				**3**
198/256				**5**	3									**1**					**6**
198/262(5)	**1**													**1**					**2**
198/264(5)	**5**	5		**1**															**6**
198/266(5)	**2**	2		**1**	1									**2**		1		2	**5**
200/192	**1**		1	**1**	1													1	**2**
200/200	**1**	1		**1**	1													1	**2**
200/204(B)	**2**	1	1	**3**	1									**1**					**6**
200/214				**1**	1														**1**
200/218	**1**	1								**1**									**2**
200/222														**1**	1				**1**
200/224	**1**	1																	**1**
200/228														**2**	1				**2**
200/234														**2**	2				**2**
200/240	**1**			**2**	1														**3**
200/242	**2**	2		**1**	1														**3**
200/244	**3**	3		**4**	3					**1**									**8**
200/246	**2**	1		**2**	1									**1**					**5**
200/248(6)	**1**			**2**	2									**1**					**4**
200/250(6)	**3**	1	1	**1**	1														**4**
200/252(6)	**2**	2		**3**	3														**5**
200/254(6)				**7**	6									**2**					**9**
200/256	**4**	3		**8**	5									**6**	4	1		1	**18**
200/258	**1**	1											**1**	**1**				1	**3**
200/260														**1**	1				**1**
200/266(5)	**2**		2	**1**	1									**1**	1				**4**
202/190				**2**	2														**2**
202/192				**1**	1													1	**1**
202/194														**1**					**1**
202/196				**3**	3														**3**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
202/198														**1**					**1**
202/216														**1**					**1**
202/220	**1**	1		**1**															**2**
202/222	**1**		1																**1**
202/224				**1**	1														**1**
202/230				**1**															**1**
202/236	**1**	1		**1**	1														**2**
202/238				**2**	2														**2**
202/240	**1**		1	**3**															**4**
202/242				**1**	1														**1**
202/244	**4**	4		**1**							**1**	1		**1**	1				**7**
202/246	**4**	2		**1**									**1**	**2**					**8**
202/248(6)				**2**	2									**2**	1	1			**4**
202/250(6)				**5**	4														**5**
202/252(6)	**3**	1		**4**	3									**1**	1				**8**
202/254(6)	**1**			**5**	2		**1**	1						**1**	1				**8**
202/256	**1**	1		**4**	3														**5**
202/258	**2**	2		**4**	2									**4**	2	1			**10**
202/260(5)	**1**			**2**	1									**2**	2			2	**5**
202/262(5)	**1**			**1**	1														**2**
202/264(5)	**3**	3		**5**	4														**8**
204/192	**1**																		**1**
204/194				**1**	1														**1**
204/196				**1**	1														**1**
204/198				**1**	1														**1**
204/200				**1**	1									**1**	1				**2**
204/220				**1**	1									**1**		1			**2**
204/222				**1**	1									**1**					**2**
204/224				**1**	1						**1**	1							**2**
204/226	**1**	1		**2**	2														**3**
204/228														**1**	1				**1**
204/232	**1**	1		**2**	1					**1**									**4**
204/236				**2**	1									**1**					**3**
204/238				**3**	2														**3**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
204/240				**2**	1														**2**
204/242	**4**	3		**2**	2														**6**
204/244	**1**		1	**4**	3									**2**	1	1			**7**
204/246(6)	**2**	1	1	**4**	2														**6**
204/248(6)	**3**			**3**	2									**4**					**10**
204/250(6)	**2**	1	1	**5**	3									**4**	2				**11**
204/252(6)	**5**	1	1	**2**									**1**	**1**					**9**
204/254(6)	**1**	1		**5**	3														**6**
204/256(6)	**2**	2		**4**	3									**1**					**7**
204/258	**2**	2																	**2**
204/260(5)				**1**	1														**1**
204/262(5)				**2**	2														**2**
204/264(5)				**1**	1									**3**	2				**4**
204/266(5)	**4**	4		**5**	1									**2**	1			3	**11**
206/188														**1**		1			**1**
206/190	**3**	3		**6**	2					**1**				**8**	5	1		4	**18**
206/218														**1**	1				**1**
206/224	**3**	3												**1**		1			**4**
206/228				**1**															**1**
206/232														**1**	1				**1**
206/234	**1**	1																	**1**
206/236	**1**	1																	**1**
206/238														**1**	1				**1**
206/240				**2**	2									**1**	1				**3**
206/242	**2**	2		**1**	1						**1**			**1**		1	1	1	**5**
206/244	**3**	1		**3**	3									**3**	2		1		**9**
206/246(6)	**2**	2		**7**	5									**1**		1			**10**
206/250(6)	**4**	3		**5**	4						**1**	1		**1**					**11**
206/252(6)	**4**	3		**9**	7													2	**13**
206/254(6)	**2**			**3**	2					**2**				**3**	3			1	**10**
206/256	**1**			**10**	5									**2**		2			**13**
206/258(5)														**1**					**1**
206/260(5)	**1**	1		**3**	2														**4**
206/262(5)	**2**	1		**6**	2					**1**									**9**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
206/264(5)	**1**	1		**4**	4								**1**	1			2	**6**
206/266				**1**	1												1	**1**
208/188	**1**	1																**1**
208/192											**1**							
208/200(B)											**1**							**1**
208/204(B)	**1**	1																**1**
208/206(B)				**1**	1								**1**	1				**2**
208/216				**2**	1													**2**
208/218	**1**	1		**1**	1					**1**								**3**
208/222	**2**		2													1		**2**
208/224				**4**	2													**4**
208/228				**2**	2													**2**
208/230											**1**							**1**
208/238				**1**	1													**1**
208/240	**1**	1		**1**									**2**	1				**4**
208/242				**1**														**1**
208/244	**1**		1															**1**
208/246				**7**	5								**3**	1				**10**
208/248(6)	**1**	1		**6**	2								**1**					**8**
208/250(6)	**3**			**6**	3								**2**	1				**11**
208/252(6)	**2**	1	1	**6**	3								**1**	1				**9**
208/254(6)				**7**	2								**2**	1				**9**
208/256	**4**	3	1	**6**	4						**1**		**2**	1			2	**13**
208/258(5)	**1**	1		**4**									**3**		1			**8**
208/260(5)	**3**	2		**3**	2								**1**				2	**7**
208/262(5)				**2**	1								**2**	1				**4**
208/264(5)	**2**	1		**6**	2								**2**				4	**10**
210/187				**1**	1						**2**							**3**
210/190				**2**	2								**1**	1			1	**3**
210/198	**1**		1	**1**	1								**2**	1	1		2	**4**
210/206(B)													**1**	1				**1**
210/216				**2**	2													**2**
210/222	**1**		1										**1**		1	1	1	**2**
210/224										**1**								**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
210/230														**1**	1				**1**
210/232														**1**					**1**
210/234				**1**															**1**
210/236				**1**										**1**		1			**2**
210/238														**1**	1				**1**
210/242														**1**	1				**1**
210/246	**3**	2	1	**2**	1									**1**	1			1	**6**
210/250(6)				**6**	2									**3**	1				**9**
210/254	**5**	3	1	**7**	5									**2**					**14**
210/256	**6**	4	1	**7**	5									**5**	3	1	1	3	**18**
210/258(5)	**18**	16		**21**	15									**6**	3			18	**45**
210/260(5)	**11**	9	1	**10**	8	1					**1**			**4**	1			13	**26**
210/262(5)	**1**	1		**3**	3									**1**	1				**5**
212/180(8)				**1**	1														**1**
212/182(8)				**1**	1														**1**
212/184(8)	**2**	1		**4**	2									**1**	1			5	**7**
212/186(8)	**1**		1	**1**	1									**2**	2			2	**4**
212/188	**2**		1	**1**	1						**1**	1		**1**	1			1	**5**
212/190				**2**	1														**2**
212/194				**1**	1									**1**		1			**2**
212/196	**1**																		**1**
212/214				**1**															**1**
212/216				**6**	3														**6**
212/218				**2**	1														**2**
212/220	**1**																		**1**
212/222	**1**		1	**1**	1									**1**		1			**3**
212/224				**3**	2									**1**				1	**4**
212/226	**1**	1		**1**	1														**2**
212/230														**1**	1				**1**
212/232				**1**	1														**1**
212/234														**1**	1				**1**
212/238	**1**													**1**		1		1	**2**
212/242	**1**	1		**1**	1									**1**		1		1	**3**
212/252(6)	**2**		2																**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
212/254	**1**	1		**3**	2					**1**									**5**
212/256	**4**	1	1	**4**	2						**2**			**3**	2				**13**
212/258	**11**	8	1	**7**	5									**3**	1	2		5	**21**
212/260	**4**	4		**14**	8									**2**		1		1	**20**
212/264				**1**															**1**
214/178	**1**			**1**															**2**
214/180(8)	**2**		2	**3**	3						**1**	1		**5**	3	1		1	**11**
214/182(8)	**1**	1		**1**	1									**2**	2			1	**4**
214/184(8)	**1**		1	**2**	1									**4**	3			2	**7**
214/186(8)				**3**	2									**1**	1			1	**4**
214/188														**1**	1				**1**
214/190				**1**										**1**	1				**2**
214/194(7)				**1**	1														**1**
214/202(B)				**1**	1														**1**
214/204(B)	**1**	1		**1**															**2**
214/206(B)	**1**													**1**	1				**2**
214/208				**2**						**1**				**3**					**6**
214/216	**3**	2		**3**	2					**1**				**1**	1			1	**8**
214/242				**1**	1														**1**
214/250	**1**	1																	**1**
214/252	**2**	1		**9**	7									**2**	2				**13**
214/254	**2**	1	1	**6**	5									**3**			1	1	**11**
214/256	**4**	3		**4**	4									**2**	1				**10**
214/258	**3**	1	2	**2**	2									**2**	1			1	**7**
214/260	**2**	1	1	**4**	4						**1**	1							**7**
214/262	**1**		1																**1**
216/178	**2**	1		**10**	6									**2**	1			2	**14**
216/182(8)				**2**	2									**1**					**3**
216/184(8)	**3**	1	2	**6**	3					**1**								3	**10**
216/186(8)				**2**	2													1	**2**
216/188	**1**	1												**1**		1			**2**
216/192(7)	**1**	1		**1**	1														**2**
216/196(7)				**1**														1	**1**
216/206	**2**	2		**1**	1													1	**3**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
216/208	**1**	1		**6**	4								**1**	1		2		**8**
216/210	**7**	4	2	**19**	10						**1**		**17**	8	2		14	**44**
216/212	**3**	3		**11**	6								**6**	3	1	1	8	**20**
216/214	**2**	2		**1**	1								**3**	3			5	**6**
216/216				**3**	2								**1**		1		1	**4**
216/220	**1**	1		**2**	1												2	**3**
216/224				**1**														**1**
216/238				**1**	1													**1**
216/252	**1**	1		**1**	1								**1**					**3**
216/254	**1**	1																**1**
216/256	**1**	1											**2**	1	1		1	**3**
216/258	**1**		1	**2**	2													**3**
216/260	**1**	1																**1**
218/178(11)				**2**									**1**					**3**
218/184	**1**	1		**4**	3								**2**	1				**7**
218/186	**1**			**2**	2													**3**
218/188	**1**	1		**2**														**3**
218/190				**3**	1													**3**
218/192(7)				**2**	2								**2**	2			2	**4**
218/196(7)				**1**	1													**1**
218/200(B)				**1**	1													**1**
218/202(B)	**1**			**1**														**2**
218/206	**1**	1		**9**	3					**1**			**10**	6	1		3	**21**
218/208	**1**		1	**4**	1								**2**	1			1	**7**
218/210	**5**	4		**7**	6					**1**			**6**	2	2		9	**19**
218/212	**2**			**10**	3					**6**			**10**	4	1		10	**28**
218/214	**1**	1		**2**	1								**1**	1				**4**
218/216	**4**	2	1	**3**	2								**4**	3			4	**11**
218/222													**2**	2			2	**2**
218/226	**1**			**1**														**2**
218/324													**1**					**1**
218/330													**1**					**1**
220/176(11)													**1**	1			1	**1**
220/178(11)				**4**	2													**4**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
220/180(11)				**2**														**2**
220/182(11)	**1**	1		**1**	1								**1**	1				**3**
220/184	**1**	1											**1**		1		1	**2**
220/186				**1**	1								**1**	1			1	**2**
220/190				**1**														**1**
220/198(B)													**1**	1				**1**
220/200(B)				**1**	1													**1**
220/204(B)	**2**	2		**5**	1								**3**	2			3	**10**
220l206	**2**	2		**1**	1								**3**	1	2		3	**6**
220/208				**1**									**2**					**3**
220/210	**1**		1	**4**									**2**					**7**
220/212													**1**					**1**
220/214	**1**	1		**23**	6								**21**	12	5		11	**45**
220/216				**8**	4					**1**								**9**
220/220	**1**			**1**														**2**
220/222				**4**	3								**1**	1			4	**5**
220/224	**1**																	**1**
220/226	**1**	1											**1**	1				**2**
220/252	**2**	2		**3**	2													**5**
222/176(11)	**2**	1	1	**3**	2													**5**
222/178(11)	**4**	2		**10**	5								**2**	1	1			**16**
222/180(11)	**2**		1	**1**														**3**
222/182				**2**	2													**2**
222/184	**1**	1															1	**1**
222/186	**1**	1									**1**							**2**
222/192(10)				**3**	2													**3**
222/194(10)	**1**	1		**2**	1												2	**3**
222/196				**1**		1					**1**	1						**2**
222/198(B)				**2**	2													**2**
222/206	**10**	5		**22**	5					**7**	**1**		**35**	17			3	**75**
222/208				**6**	1								**2**	1			2	**8**
222/210	**1**												**1**				1	**2**
222/212													**1**					**1**
222/214	**1**	1		**8**	3								**7**	2	1		4	**16**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
222/216	**3**	2		**10**	8								**2**	2			2	**15**
222/218	**2**	1	1	**3**	1								**1**	1			1	**6**
222/220	**1**	1		**1**	1												2	**2**
222/222				**2**	1								**1**				1	**3**
222/224				**1**	1								**1**	1				**2**
222/228				**4**	1					**1**			**3**	3			5	**8**
222/232	**1**		1	**3**	1								**2**	2				**6**
224/174(9)	**1**	1		**1**	1													**2**
224/176(9)	**2**			**1**									**2**	1	1			**5**
224/180(11)	**1**		1	**3**	3													**4**
224/182				**3**	2								**1**	1			1	**4**
224/184	**1**	1															1	**1**
224/186	**1**	1															1	**1**
224/188				**1**														**1**
224/190(10)													**2**					**2**
224/192(10)				**1**	1													**1**
224/194(10)	**1**	1																**1**
224/196	**2**	1		**1**	1								**1**		1		1	**4**
224/198(B)	**2**	1		**12**	11								**2**		1		3	**16**
224/200(B)	**1**	1											**2**	1				**3**
224/202(B)				**2**	1								**1**		1		1	**3**
224/204	**5**	5		**21**	5								**13**	7				**39**
224/206	**3**	3		**6**	2								**3**	1			2	**12**
224/208	**1**	1		**3**	1								**2**	1	1		2	**6**
224/210	**1**	1															1	**1**
224/218													**1**	1				**1**
224/220				**5**	1													**5**
224/222				**5**	3												1	**5**
224/224	**1**	1		**8**	5								**1**	1			3	**10**
224/226				**1**	1													**1**
224/230	**1**																	**1**
224/232	**1**			**6**	5						**1**						1	**8**
226/176(9)	**1**			**1**	1													**2**
226/178(9)	**1**												**3**	2	1		1	**4**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
226/180													**1**	1			1	**1**
226/182	**1**																	**1**
226/186	**1**																	**1**
226/194(10)	**1**		1	**3**	2								**2**	1	1			**6**
226/196(B)				**6**	5								**2**	1				**8**
226/198(B)				**1**														**1**
226/200(B)	**1**	1											**1**		1		1	**2**
226/202(B)	**1**		1	**2**	2												1	**3**
226/204	**5**	2		**39**	9					**7**			**43**	34	1		7	**94**
226/208	**1**																	**1**
226/210				**2**														**2**
226/212	**1**	1																**1**
226/214	**1**			**2**	1								**1**	1			1	**4**
226/218	**1**			**1**														**2**
226/220	**1**			**2**	2								**1**	1			1	**4**
226/224	**4**	2	1	**8**	5								**4**	1	1		3	**16**
226/226	**5**	2	1	**13**	7								**13**	10	1		10	**31**
226/228	**4**	4		**6**	3								**2**	1			3	**12**
226/230	**1**	1		**3**	2								**2**		1		3	**6**
226/232													**1**		1		1	**1**
226/246(13)	**4**	4		**1**									**3**	2				**8**
226/248				**1**														**1**
228/178(9)	**1**		1															**1**
228/180	**3**	2		**3**	2	1												**6**
228/182													**1**		1			**1**
228/184													**1**	1			1	**1**
228/186	**2**	1											**1**	1			1	**3**
228/188	**1**										**1**	1						**2**
228/190													**1**	1				**1**
228/192				**2**	2								**2**					**4**
228/194	**1**	1		**3**	3								**3**	2				**7**
228/198(B)													**1**					**1**
228/200(B)				**3**	2	1												**3**
228/202(B)	**3**	1		**2**														**5**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
228/206	**3**			**8**	4								**12**	6	2			**23**
228/208	**1**			**2**	1													**3**
228/210	**2**	1		**2**	1								**1**	1				**5**
228/212													**2**	2				**2**
228/214	**1**	1		**3**	1												1	**4**
228/216	**1**	1											**2**	1				**3**
228/218	**2**	1		**1**	1								**1**	1			1	**4**
228/220	**1**	1		**5**	3								**2**	2				**8**
228/222	**1**										**1**		**1**		1			**3**
228/224	**1**		1	**1**	1								**6**	5			4	**8**
228/226	**3**	2		**4**	2								**3**	2			2	**10**
228/228				**2**	1													**2**
228/230	**1**	1		**2**													1	**3**
228/232				**2**	2								**1**					**3**
228/246(13)	**1**	1		**3**	2								**1**	1			1	**5**
228/248	**3**	2		**11**	3								**10**	7				**24**
228/254	**5**	4	1	**8**	3					**1**			**3**	3				**17**
230/172	**1**		1															**1**
230/182	**2**	1	1	**1**	1													**3**
230/184													**1**		1		1	**1**
230/186	**2**	1		**2**	2												2	**4**
230/188	**2**	2		**1**	1								**1**				1	**4**
230/190(19)	**1**	1		**2**	2													**3**
230/192(19)	**5**	4		**11**	8								**10**	7			1	**26**
230/194(19)	**1**	1		**2**														**3**
230/196(B)	**1**	1		**2**														**3**
230/198(B)				**2**	1								**1**	1				**3**
230/200(B)				**2**	1													**2**
230/204	**2**	2		**24**	9					**1**			**17**	7	1		3	**44**
230/206	**5**	2		**24**	12								**17**	10	1		3	**46**
230/208				**2**	2													**2**
230/214	**1**	1		**2**	2								**1**					**4**
230/216	**1**	1																**1**
230/218(4)	**3**	3		**2**	1								**3**	1	1		1	**8**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
230/220(4)	**3**	1	1	**3**	2									**5**	3	1		2	**11**
230/222	**1**	1		**2**										**4**	4			2	**7**
230/224	**1**			**5**	1									**4**	2	1		2	**10**
230/226	**2**	2								**1**				**4**	2				**7**
230/228	**5**	5		**7**	3									**10**	8			7	**22**
230/230				**2**	2									**2**	1			1	**4**
230/232	**2**	1		**1**	1									**1**				1	**4**
230/234				**1**	1									**3**	1	1			**4**
230/244(13)				**2**	1									**1**					**3**
230/246(13)														**1**	1				**1**
230/248				**1**	1														**1**
232/170				**1**										**1**	1				**2**
232/172	**1**	1																	**1**
232/178	**1**		1											**1**	1				**2**
232/180				**1**															**1**
232/184				**2**															**2**
232/186	**1**			**1**	1														**2**
232/188				**2**	1														**2**
232/190(19)	**2**	2		**2**	1						**1**								**5**
232/192(19)				**1**	1														**1**
232/194(19)	**2**	2		**1**										**2**	1				**5**
232/196(B)				**1**	1									**1**		1			**2**
232/202	**2**	1		**2**	2									**3**	1	2			**7**
232/204	**5**	4		**14**	8									**17**	15			6	**36**
232/206	**5**	2		**21**	12									**12**	8			5	**38**
232/208	**5**	4		**25**	11									**14**	7	2		9	**44**
232/214	**2**	1		**2**	1									**1**	1			1	**5**
232/216(4)	**1**	1		**1**	1									**1**					**3**
232/218(4)	**7**	5	1	**8**	1									**5**	2	1		10	**20**
232/220(4)	**8**	3	1	**6**	2									**6**	4	1		10	**20**
232/222(4)				**3**															**3**
232/226														**1**	1				**1**
232/230	**1**		1								**1**	1		**1**	1		1		**3**
232/232	**1**	1		**1**	1														**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
232/238	**2**	2																**2**
232/240	**2**	2																**2**
232/242	**2**	2		**5**	3													**7**
232/244				**3**	1								**2**	2				**5**
232/248				**1**														**1**
234/138				**1**														**1**
234/184	**4**	3	1	**1**	1								**1**					**6**
234/186	**1**	1		**1**									**1**	1				**3**
234/188	**2**	1		**9**	7								**2**	2			1	**13**
234/194(17)	**1**		1	**3**	2													**4**
234/196(17)				**2**	2													**2**
234/198(17)	**1**			**2**	2													**3**
234/200(17)													**1**	1				**1**
234/202(17)	**1**			**3**	1								**3**	1				**7**
234/204(17)	**6**	4		**34**	20								**26**	13	2		8	**66**
234/206(17)	**5**	3	1	**23**	11	1				**1**			**8**	5	2		1	**37**
234/208	**1**		1	**1**	1													**2**
234/210				**2**	1													**2**
234/212	**1**	1														1	1	**1**
234/216(4)				**2**	1													**2**
234/218(4)	**4**	3	1	**3**	1								**3**	2			3	**10**
234/220(4)	**11**	10		**18**	7								**8**	5	1		9	**37**
234/224	**2**	1	1	**1**									**2**	1	1		1	**5**
234/238	**3**	1		**4**	2								**4**	1	1		1	**11**
234/240				**1**									**1**		1			**2**
234/246				**1**	1													**1**
234/248				**2**	1													**2**
236/140													**1**					**1**
236/168(18)	**1**		1														1	**1**
236/172(18)													**1**		1			**1**
236/174	**1**	1											**1**					**2**
236/178				**1**	1													**1**
236/184	**4**	1		**7**	4								**1**				1	**12**
236/186	**1**			**3**	2													**4**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
236/188				**8**	4								**2**	1			1	**10**
236/190	**5**	4	1	**4**	3								**5**	2	1		3	**14**
236/192				**1**	1													**1**
236/194(17)				**2**	1													**2**
236/196(17)				**1**														**1**
236/198(17)	**4**	2		**6**	4													**10**
236/200(17)				**13**	8	1							**3**	2			1	**16**
236/202(17)	**3**	1	1	**15**	8								**6**	4			3	**24**
236/204(17)				**4**	3								**2**	2				**6**
236/206(17)	**5**	3		**10**	8								**7**	5	2		8	**22**
236/208(17)	**4**	1	1	**7**	3								**5**	4			1	**16**
236/210	**3**			**6**	3								**2**	2				**11**
236/218	**1**			**1**									**2**	1				**4**
236/222	**5**	5		**4**	1					**1**			**2**	1			2	**12**
236/224				**1**														**1**
236/226	**1**	1		**2**	1								**2**				1	**5**
236/228				**3**	3													**3**
236/230				**2**	2												1	**2**
236/232	**3**	1		**2**	2								**2**				1	**7**
236/238	**1**		1														1	**1**
236/240	**1**	1		**7**	3													**8**
236/246													**1**	1				**1**
236/248													**1**		1		1	**1**
238/144	**1**	1																**1**
238/168(18)	**1**	1																**1**
238/170(18)	**1**																	**1**
238/172(18)	**1**		1	**1**	1													**2**
238/174	**1**		1															**1**
238/184	**3**	3		**3**	3								**4**	4			1	**10**
238/186	**2**	2		**4**	2								**3**	1	1	1	2	**9**
238/188				**1**														**1**
238/190	**5**	4		**10**	7								**10**	7	1		8	**25**
238/192	**1**			**4**	3								**4**	2			2	**9**
238/194(17)	**9**	7	2	**31**	16					**1**	**2**	1	**11**	6	1		2	**54**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
238/196(17)	**1**												**2**					**3**
238/198(17)	**6**	4	1	**5**	2								**3**	2	1		4	**14**
238/200(17)	**8**	4	2	**8**	5								**9**		5		4	**25**
238/202(17)	**9**	6	1	**19**	12					**4**			**6**	1			7	**38**
238/204(17)	**2**	2		**2**	1								**1**	1				**5**
238/206(17)	**2**			**7**	3												3	**9**
238/208(17)				**7**	3								**4**	2			1	**11**
238/210	**3**	2		**5**	3						**1**		**3**	1	1			**12**
238/226(23)				**1**														**1**
238/228(23)	**1**	1		**1**	1								**2**	2				**4**
238/230(16)				**4**	2								**1**	1				**5**
238/232(16)	**3**	1	1										**3**	2			1	**6**
238/234(16)	**3**	1	1	**1**	1								**6**	2	1			**10**
238/236(16)	**1**	1											**2**	2			1	**3**
238/238(16)				**9**	6								**2**		1		1	**11**
238/240	**2**	2		**3**	1								**1**	1				**6**
238/242	**2**	1		**2**	2					**2**							1	**6**
238/244				**4**	3								**4**	3			1	**8**
240/180	**3**	2		**18**	4								**11**	7	1		13	**32**
240/184				**2**	2								**1**					**3**
240/186	**4**	2	1	**9**	3						**1**		**2**	1			6	**16**
240/188	**4**	1		**6**	3								**8**	5	1		2	**18**
240/190	**5**	4		**11**	6								**9**	3			3	**25**
240/192	**3**	1		**13**	7								**13**	6	2		3	**29**
240/194(17)	**1**			**3**	3								**2**	2				**6**
240/196(17)				**1**	1								**4**	3				**5**
240/198(17)	**2**		2	**1**	1													**3**
240/200(17)	**1**	1		**3**	1												1	**4**
240/204(17)	**2**	1	1	**1**	1												1	**3**
240/206(17)	**2**	1	1	**2**	1													**4**
240/208(17)	**1**			**12**	9								**2**		1	1	2	**15**
240/216				**1**														**1**
240/230(16)	**2**	2		**1**							**1**		**1**	1		1		**5**
240/232(16)	**1**		1	**3**	3												1	**4**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
240/234(16)	**1**													**1**		1		1	**2**
240/236(16)	**5**	3		**12**	7		**1**							**7**	4	1		7	**25**
240/238(16)	**1**	1		**6**	2									**3**	1				**10**
240/240	**1**			**5**	2									**2**	1			1	**8**
240/242	**2**	1	1	**4**	2									**1**					**7**
240/244	**3**	2		**2**	2									**1**				3	**6**
240/246	**1**	1		**4**	2									**3**	3			7	**8**
242/168	**1**	1																	**1**
242/170				**2**	1														**2**
242/174	**1**																		**1**
242/178				**1**	1									**3**	1	1			**4**
242/180														**1**					**1**
242/182														**1**	1				**1**
242/184	**1**			**1**			**1**	1											**3**
242/186				**2**															**2**
242/188				**3**	1														**3**
242/190				**1**															**1**
242/192	**4**	2	1	**4**	2						**1**	1		**5**	2				**14**
242/194	**3**	3		**12**	7									**1**				4	**16**
242/196	**1**	1																	**1**
242/198				**4**	3	1								**1**	1				**5**
242/204				**2**	2														**2**
242/228(23)	**1**	1												**1**	1				**2**
242/232(16)	**1**	1												**1**	1				**2**
242/234(16)				**1**															**1**
242/236(16)	**2**	2		**6**	6									**4**	3			4	**12**
242/238(16)				**1**	1													1	**1**
242/240				**2**	1									**2**	2				**4**
242/242	**2**		1	**2**										**2**		1		1	**6**
242/244	**3**	1	2	**3**										**9**	2	1		2	**15**
242/246	**1**			**3**	2									**1**					**5**
244/162	**1**	1									**1**	1							**2**
244/172														**1**	1				**1**
244/180(21)				**1**															**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
244/182(22)														**1**	1				**1**
244/184(22)				**6**	4									**2**	1			1	**8**
244/186(22)				**6**	3									**3**	2	1		3	**9**
244/188(22)				**2**	1						**1**								**3**
244/190(12)				**1**	1									**1**				2	**2**
244/192(12)	**3**	2	1	**16**	11									**8**	7	1		7	**27**
244/194(12)	**4**	2	1	**8**	3						**2**	2		**1**	1				**15**
244/196(12)	**1**																		**1**
244/200				**1**															**1**
244/206	**2**													**1**		1			**3**
244/226				**1**															**1**
244/234	**1**	1																	**1**
244/238	**1**			**1**										**1**		1		1	**3**
244/240														**2**	2				**2**
244/244	**1**	1		**4**	2									**1**	1			3	**6**
244/246	**3**	1		**1**						**1**								2	**5**
244/248	**2**										**1**								**3**
245/148				**1**	1													1	**1**
246/180(21)				**1**															**1**
246/182(22)	**4**	3		**7**	4					**1**				**3**	3			2	**15**
246/186(22)				**2**										**3**	2	1			**5**
246/188(22)				**1**	1														**1**
246/190(12)	**1**		1	**2**	1									**1**	1				**4**
246/196(12)														**1**	1			1	**1**
246/236	**1**		1																**1**
246/240	**1**	1		**1**														2	**2**
246/246				**1**	1						**2**	2		**1**	1			2	**4**
246/248				**1**										**1**		1		2	**2**
248/166	**2**		2																**2**
248/168	**1**																		**1**
248/170	**2**																		**2**
248/172	**1**			**1**	1														**2**
248/174(21)	**1**		1	**1**															**2**
248/178(21)	**1**													**1**		1			**2**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
248/180(21)				**1**															**1**
248/182(22)	**2**	1		**3**	2									**2**				1	**7**
248/184(22)	**1**	1												**2**					**3**
248/186(22)	**1**													**1**					**2**
248/192(12)	**1**		1																**1**
248/194(12)				**4**	4									**2**	2			2	**6**
248/196(12)														**1**		1			**1**
248/246	**3**		1	**1**	1														**4**
248/248														**1**	1			1	**1**
250/164											**1**	1							**1**
250/246				**1**	1														**1**
F. 3	**7**	4		**1**	1									**4**	3	1		4	**12**
F. 25	**1**	1																	**1**
F. 28(P)				**1**															**1**
F. 34	**2**	1		**1**									**1**	**1**	1				**5**
F. 42	**1**																		**1**
F. 44	**4**	3		**10**	5								**1**	**14**	7			8	**29**
F. 45	**5**	4		**14**	4					**1**			**1**	**15**	2			1	**36**
F. 48(P)				**1**															**1**
F. 49	**2**	1		**4**						**1**				**3**					**10**
F. 50	**17**	9	1	**33**	18					**5**				**54**	8	3		13	**109**
F. 52	**1**	1		**1**										**1**	1			1	**3**
F. 53	**3**	3		**2**						**1**				**3**	3				**9**
F. 54				**1**										**8**					**9**
F. 56	**4**	1	3	**7**	4									**4**	1			3	**15**
F. 58	**5**	2		**5**	2						**1**	1		**20**	4			2	**31**
F. 59				**5**	3									**4**	2				**9**
F. 60	**1**	1												**2**	2				**3**
F. 61	**10**	3	2	**11**	8						**1**			**5**	1			3	**27**
F. 63				**1**	1									**15**	1	1			**16**
F. 64				**1**	1														**1**
F. 65	**1**													**1**	1				**2**
F. 67	**2**	1	1	**14**	13									**8**	7			16	**24**
F. 68	**1**			**11**	5									**4**	2				**16**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ	D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F	No.	P	F			
F. 69				**1**														**1**
F. 71				**1**	1													**1**
F. 73	**2**	2		**9**	6								**6**	2			1	**17**
F. 74													**2**	2				**2**
F. 76	**2**	1		**20**	12						**1**		**13**	5	2			**36**
F. 77													**1**	1				**1**
F. 78	**2**	1		**6**	2								**2**	2			2	**10**
F. 79	**8**	3	1	**41**	22		**1**						**30**	8	1		5	**80**
F. 82				**15**	8								**3**	2	1			**18**
F. 83	**1**			**4**	3								**4**				2	**9**
F. 84				**3**									**1**	1			2	**4**
F. 85	**5**	4		**6**	5								**3**	1				**14**
F. 86	**1**			**4**	3					**2**			**5**	3	1		1	**12**
F. 87	**4**	3		**2**	1								**1**				3	**7**
F. 88	**1**			**1**	1													**2**
F. 90				**2**	2								**1**					**3**
F. 91				**1**			**1**	1					**2**	1				**4**
F. 93													**1**					**1**
F. 94	**1**			**1**	1												1	**2**
F. 96	**12**	7		**15**	7								**11**	4			4	**38**
F. 104	**7**	4	1	**9**	6								**4**	1		1	4	**20**
F. 106				**2**	1								**1**					**3**
F. 107	**3**	1	1	**2**	2								**1**			1		**6**
F. 109	**4**	2	2	**9**	4					**1**			**7**	4			2	**21**
F. 110				**2**	2													**2**
F. 113				**1**	1													**1**
F. 116	**1**	1		**4**	3												2	**5**
F. 117				**1**														**1**
F. 120				**3**	1	1							**2**	1	1			**5**
F. 123	**1**		1	**1**	1								**1**	1				**3**
F. 129											**1**	1				1		**1**
F. 133				**2**	2													**2**
F. 135	**1**	1		**1**									**1**					**3**
F. 139				**2**	1								**1**					**3**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
F. 143	**1**			**3**	3									**5**	2	1			**9**
F. 144				**1**										**1**				1	**2**
F. 146				**1**										**1**	1				**2**
F. 147														**1**	1				**1**
F. 148	**1**		1	**17**	11									**5**	2		1		**23**
F. 150	**2**	2		**20**	11					**4**				**11**	7			1	**37**
F. 152				**1**										**1**				1	**2**
F. 158	**3**	2		**19**	5					**1**				**9**	3			1	**32**
F. 159	**18**	8	7	**36**	16					**1**				**46**	9		6	5	**101**
F. 166														**1**	1				**1**
F. 168				**1**															**1**
F. 170				**2**										**2**		1			**4**
F. 171	**7**	3	2	**23**	13									**12**	5	4		3	**42**
F. 176				**2**														1	**2**
F. 177	**2**	2		**2**										**5**	1			3	**9**
F. 178	**42**	21	11	**57**	28					**7**	**7**	5		**60**	12	7		3	**173**
F. 179	**2**		1	**3**						**5**				**5**	2			3	**15**
F. 182	**2**	1	1	**1**	1									**1**			1	1	**4**
F. 183														**1**	1			1	**1**
F. 184	**4**	3	1	**3**	1									**3**	3		3	4	**10**
F. 185	**6**	1	1	**1**	1						**1**	1		**10**	1				**18**
F. 187	**7**	2	1								**1**	1		**5**	3	1			**13**
F. 190	**1**													**3**	1				**4**
F. 198				**5**	2									**5**	3			2	**10**
F. 199	**1**	1																	**1**
F. 200				**1**	1														**1**
F. 202														**3**	2				**3**
F. 203	**1**	1		**3**	1					**1**				**2**		1		2	**7**
F. 204														**2**	1	1		1	**2**
F. 206														**2**					**2**
F. 208				**3**										**9**	2				**12**
F. 209	**1**	1		**2**														1	**3**
F. 210				**1**										**2**		2		1	**3**
F. 211	**1**																	1	**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
F. 212	**7**		4	**19**	15						**1**			**8**	6			9	**35**
F. 218	**1**																		**1**
F. 244(P)														**1**	1				**1**
F. 252	**2**	2												**1**	1				**3**
F. 260														**1**					**1**
F. 270														**1**					**1**
F. 305(P)				**1**	1														**1**
F. 313(P)														**1**					**1**
F. 317	**1**													**1**					**2**
F. 352	**2**	2																	**2**
F. 356	**3**	1		**4**	2						**1**	1		**2**	2				**10**
F. 357				**1**	1									**2**	1				**3**
F. 358				**1**	1														**1**
F. 361	**3**	2	1	**1**	1														**4**
F. 364				**1**															**1**
F. 375	**5**	2		**17**	8	1				**2**				**4**	1			5	**28**
ST. 6				**1**										**1**					**2**
ST. 7	**7**	5	2	**21**	12		**1**	1						**5**	1	1		8	**34**
ST. 8	**2**	1	1	**2**							**1**	1		**4**	3				**9**
ST. 9	**7**	2	1	**5**	1						**3**			**8**	3	2	1	4	**23**
St. 10	**39**	23	6	**155**	73		**1**	1		**8**	**1**	1		**81**	50	5	3	38	**285**
St. 11	**1**																		**1**
ST. 13	**8**	7		**8**	3									**7**	6			3	**23**
ST. 14	**1**		1	**2**	1														**3**
St. 16	**23**	18	3	**35**	17					**2**	**2**	1		**29**	16	8	3	12	**91**
ST. 17	**67**	42	9	**124**	78					**8**	**4**	1		**75**	48		7	61	**278**
STV. 2	**1**																		**1**
PM 18				**1**															**1**
Pm 22	**2**	1	1	**2**	1														**4**
PM 26	**1**	1																	**1**
PM 30														**1**					**1**
PM 38														**1**					**1**
PM 39				**1**	1														**1**
PM 57	**1**	1																	**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
PM 66				**1**															**1**
PM 67														**1**					**1**
PM 142														**1**	1				**1**
PM 174	**1**		1																**1**
PM 185														**2**					**2**
PM 197	**1**		1											**1**	1				**2**
PM 198	**1**	1																	**1**
PM 200	**2**	2																	**2**
PM 206														**1**	1				**1**
PM 214				**1**	1														**1**
PM 215				**2**	1									**1**	1				**3**
PM 216	**1**	1																	**1**
PM 218	**1**	1																	**1**
PM 219	**1**	1																	**1**
PM 244				**2**	2									**1**					**3**
PM 269				**1**	1									**4**	2	1			**5**
PM 274				**1**	1														**1**
PM 277				**1**															**1**
PM 282				**1**															**1**
PM 285	**1**	1																	**1**
PM 375				**1**															**1**
PM 394				**1**	1													1	**1**
PM 398	**1**																	1	**1**
PM 448	**1**	1		**2**	2													1	**3**
PM 449				**6**	3									**2**				1	**8**
PM 450	**1**			**1**										**1**					**3**
PM 451	**1**	1		**1**	1									**1**					**3**
PM 453-4	**1**	1		**6**	5						**1**	1						1	**8**
PM 455														**1**	1				**1**
PM 456				**6**	2														**6**
PM 457				**2**										**1**					**3**
PM 461														**1**	1				**1**
PM 462				**1**	1													1	**1**
PM 465	**1**	1																	**1**

Table 139. Nail Summary

Provenience	Rose Head			T-Head			L-Head			TA	SQ		D	Frag.			Clin.	Burn	Totals
	No.	P	F	No.	P	F	No.	P	F			F		No.	P	F			
PM 472														**1**	1				**1**
PM 509				**1**	1														**1**
PM 556				**1**															**1**
Ditch	**3**	1		**2**	2						**1**			**8**	3	1		1	**14**
No Prov.	**736**	386	248	**791**	508					**8**	**49**	33	**4**	**422**	187	127	39	331	**2010**
TOTALS	**2124**	1186	446	**3832**	2158	13	**7**	5	0	**113**	**126**	68	**10**	**2427**	1130	307	84	1147	**8639**

Note: Column headings are as follows: Rose head=Rose head nail; T-Head=T-Head nail; L-Head=L-Head nail; TA=Tacks; SQ=Square head nails; D=Decorative nails; Frag.=Fragmentary nails; Clin.=Clinched nails; Burn=Burned nails; No.=Number; P=Pointed ends; F=Flattened ends

Miscellaneous Hardware

Tacks
Total: 9
Not Illustrated

Only nine specimens that were recovered are classified as tacks. The smaller range of pointed rose head nails are certainly tacks, but are not separated in that manner. Those that are listed here are all made of brass and were certainly decorative items for furniture, chests, and other household goods. They are of two head forms. One is a thin convex head, and the other has a wide flat head. All were apparently cast as one piece, since there are no hammer marks or faceting on any of the heads. The shanks are square in section and taper to a point. Lengths of the measurable tacks range from 6 mm (0.23 in.) to 15 mm (0.59 in.).

Staples
Total: 22
Figure 158 A, B, and C

Twenty-two specimens in the collection are classified as staples. These are in turn divided into three different groupings based on size and shape. The first group consists of small staples that are made of either wire or pieces of round wrought iron that have been bent into form and the ends pointed (Figure 158A). The second group of six staples was made similarly except that they are much larger and were obviously wrought (Figure 158B). These are similar in form to several illustrated by Grimm (1970:119, Plate 43-5-7) from Fort Ligonier. These quite possibly served as tethering eyes or other type of heavy attachment device. The four items of the third category are made of wrought iron and are square in shape (Figure 158C). They are rectangular in section, and have been tapered to a point to facilitate being driven into a piece of wood. This latter group of staples could have been parts to a door latch mechanism (see Stone 1974:210, Figure 126), and are also quite similar to one illustrated by Grimm (1970:119, Plate 43-1) from Fort Ligonier.

Screws
Total: 6
Figure 158D

Six round-headed screws were recovered from Fort Loudoun. All are approximately 0.7 cm in diameter and 3.5 cm in length. All of the heads are slotted. One was recovered from the Southwest Bastion area, and the other four that have provenience information are from the Northwest Bastion area. One of those was recovered from Feature 203, another from Structure 12, another came from a square just east of the Powder Magazine, and the last is from a square adjacent to the northwest corner of the Barracks.

Square Headed Iron Pins
Total: 5
Figure 158E

These specimens consist of iron pins that have a tapered shank and a flat end, with lengths varying between 2.1 cm and 4.2 cm. The shank is square where it joins the head and then changes to a round section near the point. They characteristically have square heads (cube-like in most cases) and several have a line or groove around the sides of the head (Figure 158E). Four of the five were located in the midden deposits just east of the northern end of the Barracks, and the other was located in a square adjacent to the northwest corner of Structure 7. Their function is undetermined, and similar examples have not been noted in the literature that has been examined.

Bolts, Washers, and Nuts
Total: 18
Figures 158 F-I

Three bolts are in the collections. One large bolt, 16.5 cm (5.50 in.) in length, has a square shank and a square, beveled head (Figure 158F). The shank tapers from 1.5 cm (0.60 in.), at the top to 1.2 cm (0.47 in.) just before the threaded part. The threads are approximately 1.09 cm (0.43 in.) and are of the same size as several of the nuts described below. Another has a 1.3 cm (0.51 in.) threaded shank with a cog near the

top and a flattened piece above that, probably for turning the bolt (Figure 158G). The third bolt has a diameter of 1.5 cm (0.60 in.), with a flattened piece with an eye on the top (Figure 158I).

Eight flat washers that are made of iron are present. Five are round and range in diameter from 2.0 cm (0.78 in.) to 3.5 cm (1.37 in.) and one is square, 2.3 cm (0.90 in.) on a side. Two are rectangular and have dimensions of 1.5 cm (0.59 in.) by 2.5 cm (0.98 in.) and 1.4 cm (0.55 in.) by 2.6 cm (1.02 in.).

Seven nuts are also present. All are similar in that they are square, have threaded hole diameters of approximately 7/16 in., and are notched along the edges on the top of the nut (Figure 158H).

The locations of these objects that have provenience information were as follows: one bolt is from Feature 58 within Structure 3, and the other is from Structure 10. One nut is from Feature 1 to the west of the fort, another is from Feature 85 along the west curtain, four are from Structure 17, and the last is from the Structure 14 area. Two washers are from a square in the Blacksmith Shop, one is from Square N196/E256 in the Southeast Bastion, one is from a square between Structures 5 and 6, and another was recovered adjacent to the rear of the Barracks. The last one with provenience is from the slope midden deposits.

Lynch Pins
Total: 2
Figure 158J

One lynch pin was recovered from Square N212/E250. It is 15.1 cm in length with a shank diameter of 1.5 cm. The head is conical, and the opposite end is tapered somewhat and has a slot for holding a retaining device (Figure 158J, left). Another was recovered by the WPA excavations. It has a length of 12.3 cm and a square head. It also has a hole through the shaft at the end opposite the head for holding a cotter pin or other securing device (Figure 158J, right).

Shims
Total: 14
Figure 158K

These are small wedge-shaped pieces of iron, that may have been used as wedges or shims in certain implements. Two have tops that had been folded to one side as if to prevent them from falling completely through an opening (Figure 158K, left two), similar to one illustrated by Watkins (1968:166, Figure 89h). Most of the others are flattened somewhat on the upper end, indicating that they were driven into whatever they were inserted. Lengths varied from 3.1 cm to 8.5 cm.

One was located in the east ditch, one in Feature 50 in association with Structure 3, one in Feature 88, an early palisade trench west of the Barracks, one in Feature 171 which was a trash pit at the base of the slope, one between Structure 10 and the Barracks, and one from a square just east of Structure 16. One was recovered from each of the following structures: Structure 14, Structure 1, and the Blacksmith Shop. While their use is unknown, there does appear to be some association with structures.

Brass Rivet
Total: 1
Not Illustrated

This is a small brass rivet with a length of 1.2 cm that has been made from a brass tube or cylinder 0.3 cm in diameter. It has been flattened out on both ends to secure it and the two objects that it was holding together. Its actual use and on what it was used are undetermined. It was recovered from Square N238/E238 adjacent to the south side of Structure 16.

Iron Rivets
Total: 2
Not Illustrated

These two similar specimens consist of the flattened head of a rivet and part of the shank, which have diameters of 0.9 cm. They were apparently cut and removed from whatever they were holding together. One

was recovered from Post Mold 214 and the other from Feature 63, a pit feature. Both were in association with the Blacksmith Shop and are probably the by-products of some blacksmithing activities.

Cotter Pins
Total: 2
Not Illustrated

Two cotter pins were recovered. One was made of a piece of rectangular section wrought iron that was bent into shape. The other was made of a piece of copper that was flat on one side and convex on the other. It was bent into shape with the flat part to the inside. One was recovered from the fill of Structure 17 and the other from a square within the area of Structure 11.

Wrought Iron Socket
Total: 1
Figure 159B

One wrought iron socket was recovered from Structure 9. It consists of a rectangular loop with two perforated tangs that would have been fastened to the side of a container or other piece of equipment with nails or rivets that would have gone through the four holes in the two flattened tangs. This object is quite similar to one illustrated from Fort Ligonier (Grimm 1970:119, Plate 43-2) that is described as a staple. This object could have functioned similarly to a bucket bail or could have been utilized to secure a rectangular piece of wood to the side of another object.

Tethering Pin
Total: 1
Figure 159A

This specimen consists of a wrought iron pin 12.5 cm in length with a hole through the head that held a wrought iron ring. The pin is rectangular in section, tapering from the head to the wedge-like point. The head of the pin shows evidence of pounding, evidently from its being driven into a heavy timber. The ring is 11.0 cm in diameter and was made of a 1.0 cm diameter rod inserted through the hole in the head of the pin, bent into shape, and then welded or forged together. This object is probably some type of tethering or restraining device, quite possibly from the side of a gun carriage or the floor of a gun platform (see Dunnigan 1973:Figure 28, and Manucy 1968:50, Figure 30).

Iron Rings
Total: 16
Figure 159C-N

Sixteen iron rings of various sizes ranging in diameter from 3.30 cm (1.3 in.) to 5.58 cm (2.2 in.) were recovered or are in the collections. Most of these probably served as fittings on single trees or similar implements, or bands around wooden handles or parts of tools. Several have holes on opposite sides that would have served to hold retaining pins. They are variously made of round and flat bar stock that has been formed into a circle and welded together. Figure 159C-N shows a representative sample of the variation of these rings.

Brass Wire Ring
Total: 1
Not Illustrated

This object consists of a small ring made of brass wire 0.1 cm in thickness, bent into a circle of 1.3 cm and soldered together. Its use is unknown. Several similar rings were recovered at Fort Ligonier (Grimm 1970:157).

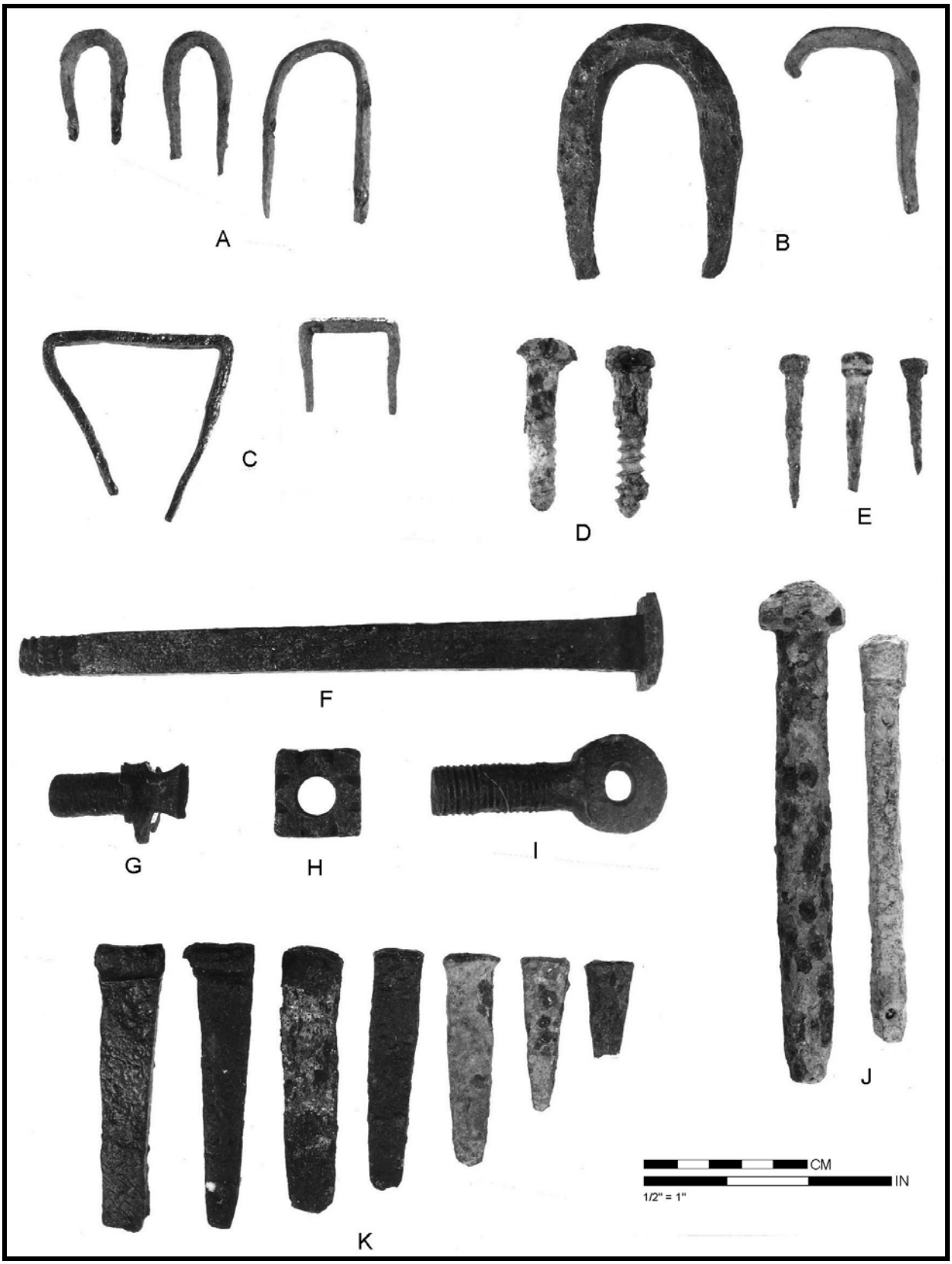

Figure 158. Various Hardware Items.
A-B. Staples. **C**. Square staples. **D**. Screws. **E**. Square headed iron pins. **F**, **G** and **I**. Bolts. **H**. Nut. **J**. Lynch pins. **K**. Shims**.**

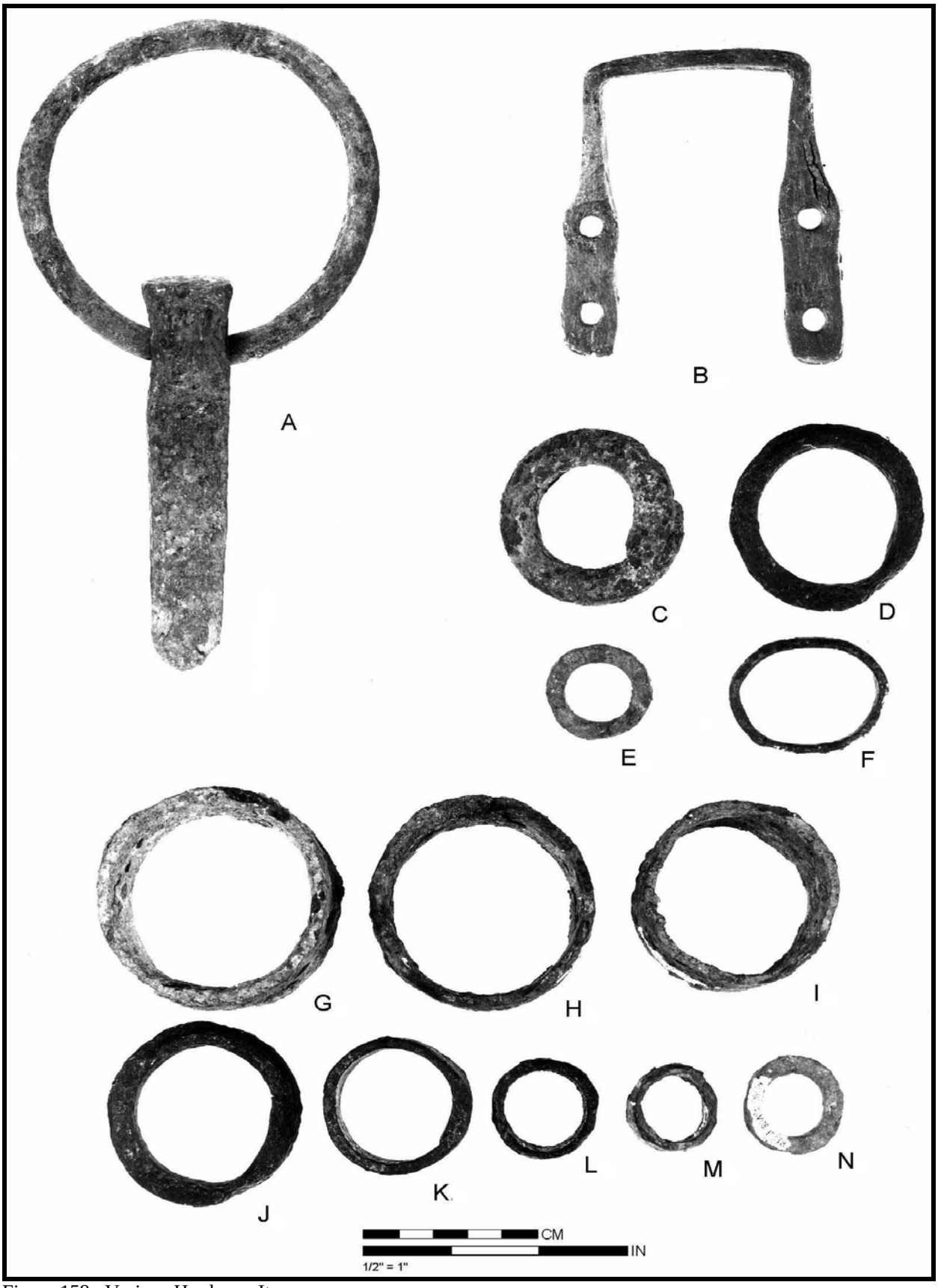

Figure 159. Various Hardware Items.
A. Tethering pin. **B**. Wrought iron Socket. **C-N**. Iron Rings.

Table 140. Miscellaneous Hardware.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Totals
180/198								1									1
186/266(2)							2										2
188/208(14)		1												1			2
188/212(14)						1											1
188/240	1																1
188/272(l)														1			1
190/266(2)		1															1
190/268(2)														1			1
190/280															2		2
190/282	1																1
192/288		1															1
194/216		1															1
196/256							1										1
202/244		1															1
208/200(B)							1										1
210/256							1										1
212/250(6)											1						1
216/220										1							1
218/190										1							1
218/206										1							1
220/252							1										1
224/206										1							1
224/210		1															1
226/196(B)														1			1
226/204	1																1
226/206																1	1
226/22411															1		1
228/208										1							1
230/184									1								1
230/194(19)								1									1
236/188								1									1
236/190	1																1
236/198(17)						1											1
236/206(17)															1		1
238/238(16)			1														1
240/208(17)	1																1
240/240														1			1
244/192(12)								1									1
F. 1		1				1											2
F. 44		1															1
F. 45	1																1
F. 50														1			1
F. 58					1												1
F. 63				1													1
F. 85						1											1
F. 87		1															1
F. 88														1			1
F. 96N															1		1
F. 123		1															1
F. 150	1																1

Table 140. Miscellaneous Hardware.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Totals
F. 171														1			1
F. 203								1									1
F. 209															2		2
F. 358		1													1		2
ST. 7															1		1
ST. 9												1					1
ST. 10	1				1												2
ST. 16		1														1	2
ST. 17						3			1								4
PM 214				1													1
Ditch														1			1
No Prov.		10			1		2	1			1		1	4	6		26
TOTALS	**8**	**22**	**1**	**2**	**3**	**7**	**8**	**6**	**2**	**5**	**2**	**1**	**1**	**13**	**15**	**2**	**98**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: 1=Tacks, 2=Staples, 3=Brass Rivets, 4=Iron Rivets, 5=Bolts, 6=Nuts, 7=Washers, 8=Screws, 9=Cotter Pins, 10=Square Head Iron Pins, 11=Lynch Pin, 12=Iron Socket, 13=Tethering Ring, 14=Shims, 15=Iron Rings, 16=Brass Ring.
(B) indicates the barracks building.

Iron Braces and Strapping

A number of items of flat iron stock were recovered that are believed to be braces and/or strapping for various containers such as trunks and boxes, or fastening pieces of wood together. A couple of other items in this category were much more formal than the majority and clearly were made for a particular pieces of equipment or applications.

Iron Braces with Angled Ends

Total: 15
Figure 160A

This category of items is rather distinctive, and generally rather consistent in form and size. These consist of pieces of iron with thicknesses of 2.0 mm and widths that range from 2.8 cm to 3.7 cm. The distinctive feature of all of them is that the ends are angled at forty-five degrees, forming a long parallelogram. Typically, they have two holes in each end for attachment. Their function at this point is unknown, except that they in all probability served as some type of diagonal brace on a wooden object such as a box or trunk, or door or shutter. Eight of the 10 that can be plotted were in close association with six structures, indicating that these may have been some type of bracing on doors or shutters. Three of these specimens were in pits that had high quantities of other manufacturing debris that has been associated with blacksmithing activities. It is possible that those items in Zone A of Feature 45, Feature 50 and Feature 63 which are generally associated with Structures 1, 2, and 3 are probably the result of waste from the Blacksmith Shop. Those in association with Structures 6, 12, and 22, and the Barracks are possibly related to their use on or within those buildings.

Iron Reinforcing Pieces

Total: 7
Figure 160B

These are various small pieces of sheet iron that were used for reinforcing some unknown items. One is curved and the others are either rectangular or trapezoidal, with a series of holes in each. They were apparently nailed or tacked to an item in order to hold two sections together or to reinforce two sections. Three of the five that have proveniences were in association with structures, so it is possible that these items were associated with certain personal items that had been repaired.

Wrought Iron Braces
Total: 2
Figure 160C and D

One specimen consists of a heavy wrought iron S-shaped brace of undetermined usage. The main shaft is wrought into a round section and the ends of the piece are flattened. Each of the ends has a 1.0 cm diameter hole to allow for a bolt, nail, or pin to pass through to secure the object to whatever it was bracing. This specimen is from the WPA excavations and is without provenience.

The second wrought iron brace consists of a piece of square bar stock 36 cm in length that had been flattened on each end. A single hole was present at each end for securing this object to whatever it was designed to brace.

Iron Strapping
Total: 9
Not Illustrated

Nine pieces of iron are tentatively identified as fragments of iron strapping from either barrels, buckets or other types of containers. They vary in width from 1.8 cm to 3.0 cm and in thickness from 1.0 to 2.0 mm.

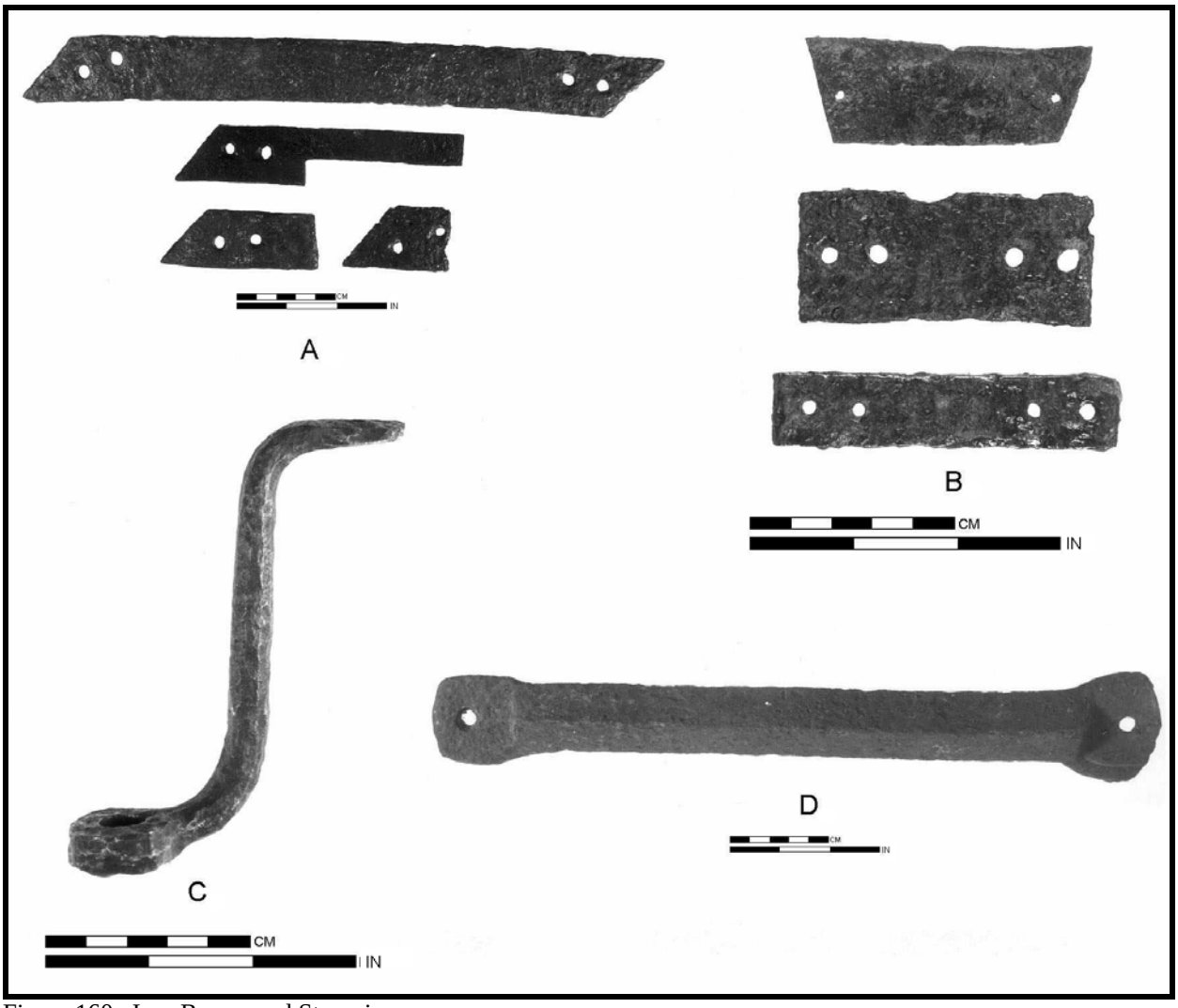

Figure 160. Iron Braces and Strapping.
A. Iron braces with angles ends. **B**. Iron reinforcing pieces. **C**. S-shaped wrought iron brace. **D**. Wrought iron brace.

Table 141. Braces and Strapping.

Provenience	Iron Braces w/Angled Ends	Iron Strapping	Iron Reinforcing Pieces	Wrought Iron Braces	Totals
184/276			1		1
186/266(2)	1				1
188/280		1			1
196/206(B)	1				1
200/202(B)			1		1
204/254(6)	1				1
208/258(5)			1		1
228/186		1			1
228/254			1		1
244/1 82(22)	1				1
F.45	1				1
F.50	1				1
F.63	1				1
F.178		1			1
F.209	1				1
F.311	1				1
ST. 6			1		1
Ditch	1				1
No Prov.	5	6	2	2	15
Totals	**15**	**9**	**7**	**2**	**33**

Note: Numbers in parentheses indicate structure associations;
(B) indicates the barracks building.

Manufacturing Debris/Raw Materials

This group of material are for the most part by-products of various activities, many relating to blacksmithing and other metal working activities. Some such as the pig iron and bar stock are unused supplies. Much of the sheet brass and sheet iron, and the various pieces of wire represent the residue from fabrication of artifacts from apparently unserviceable buckets or kettles. The several pewter and lead categories are quite possibly related to local production of ball and shot. The varying distributions of several of these artifact categories suggest individual activities, while others reflect the production of a garrison installation, namely the blacksmith shop. Illustrations of some of these items are shown in Figures 161 and 162. The proveniences from which these materials are derived and the counts are presented in Table 143.

Sheet Brass Scrap
Total: 165
Figure 161A

One hundred and sixty-five miscellaneous pieces of scrap brass are in the collections. Very few seem to have been worked, and most appear to have been the remains from cutting other objects out of a larger sheet of brass. Several had holes punched in them or cut-out circles or rectangles. Several had numerous holes around the edges, indicating they were probably patches tacked to a piece of wood, perhaps from a trunk or wooden keg. One has two punched holes, another has a rivet still in place, and several had been rolled into cylinders. Several of these pieces with alterations are shown in Figure 161A. Of note, is the collection of 15 pieces of varying size from Feature 50, located just east of Structure 3. These pieces, along with several others that are obviously bucket parts (described under that category), represent the reduction of probably one brass bucket and the deposition of the waste materials in this pit. Within Structure 10 there were 21 small brass pieces that were cutting scraps. These also certainly represent the residue from cutting a larger piece of brass to fashion some unknown object.

There is no clear pattern to the distribution, except that many of these pieces were found in association with number of the structures, or nearby midden deposits. This probably indicates that the majority of these items were the result of individual manufacturing activities that were taking place in or near buildings. As might be expected, there was a concentration of these materials in the Southeast Bastion in the vicinity of the Blacksmith Shop, although it was not as high a concentration as might be expected for a facility of that sort.

Sheet Iron Scrap
Total: 600
Figure 161B

This category of specimens consists of a large number of thin pieces of sheet iron that were probably the remains of various tin cups, buckets, kettles and other similar items. Several in the collection still retained some of the plating that was common for this period. Other pieces showed evidence of being the remains from cutting or manufacturing other items from larger pieces of sheet iron. The large quantities of these items from Features 44, 50, 58, 178, and 190, as well as those from Structure 10, probably represent the remains of sections of buckets or kettles. Those pieces that were recovered from Features 50, 58, and 178 can be correlated with several other artifact categories in this series that are thought to have been refuse from blacksmithing or, in this case, whitesmithing activities in or near the vicinity of the Blacksmith Shop. With the exception of those several features, the remainder of the distribution is affiliated to a lesser degree with several structures, but primarily with general midden levels in the areas of the fort that seem to have been most heavily utilized for habitation.

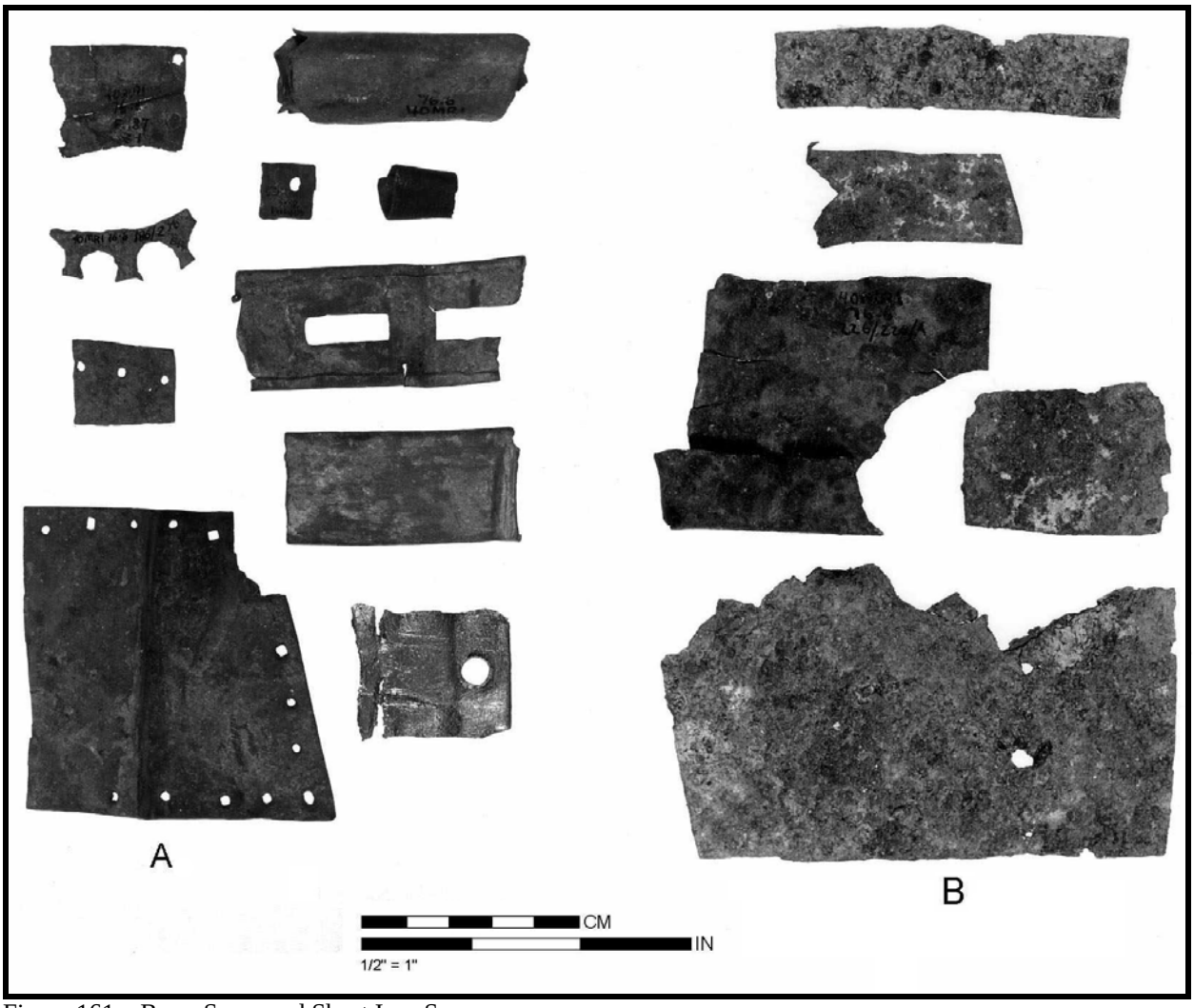

Figure 161. Brass Scrap and Sheet Iron Scrap.
A. Sheet brass scrap. **B**. Sheet iron scrap.

Brass Wire
Total: 5
Not Illustrated

These are short sections of brass wire that are in the collections. Lengths vary between 6.0 cm and 16.0 cm, and the diameters range from 2.0 mm to 5.0 mm. The large pieces were probably parts of bales or reinforcing rings for buckets or kettles. Several had apparently been cut from longer pieces and were possibly the waste the from fabricating some other object.

Brass Rod or Bars
Total: 4
Not Illustrated

These specimens are small bars of brass stock that show evidence of having been beaten and filed. All but one are rectangular in section. The other is oval and appeared to have been cut out of a drawer pull. The two specimens that have proveniences, and which were recovered along with two pieces of brass, were from Feature 63, a pit located within the Blacksmith Shop. They were probably waste products of the gunsmithing activities that were done there.

Pewter Scrap
Total: 13
Not Illustrated

Thirteen small pieces of pewter waste or scrap were recovered. Several of these are small cut pieces of pewter, while the remainder are melted pieces, or spatters, apparently the result of melting down other pewter objects for recasting. The distribution of this material again generally follows that of the other waste materials in this section, with many of the specimens located in or near structures. The highest concentration (7 pieces) was in Square N226/E204, and was associated with a high concentration of other metal waste in that square or closely associated squares. Twenty-nine button eyes were also recovered from Square N226/E204. Those eyes and this pewter scrap were probably the result of melting down a number of pewter or white metal buttons in the area just east of the Barracks.

Lead Sheet Scrap
Total: 14
Not Illustrated

Fourteen pieces of lead sheet scrap were recovered. These were separated from the lead strips on the basis of shape and overall dimensions. Thicknesses are comparable, ranging from 1.2 mm to 2.9 mm. Flat dimensions vary from 1.98 cm by 2.97 cm to 2.80 cm by 4.15 cm. Several had been cut along the edges, and others appeared to have been torn. One was folded and another was rolled. No particular function is assigned to these objects other than the fact that they are apparently waste from the production of other items from sheet lead, such as perhaps gunflint pads. The distribution corresponds well with the distributions of the other lead waste materials. Once again, there is a correlation with structures and nearby midden deposits.

Lead Strips
Total: 75
Not Illustrated

Numerous lead strips were recovered from within the fort. They were grouped into size categories. One consists of pieces of lead with thicknesses ranging between 0.9 mm and 2.9 mm. The other group has thicknesses between 4.1 mm and 6.9 mm. Widths of the strips are between 3.4 mm and 11.6 mm, and the lengths range up to 11.7 cm. No particular use is attributed to these objects. They are too narrow to have been pads for gunflints, and additionally none were bent into the **U** shape that generally characterizes gunflint pads. They could, however, have been strips that were trimmed off larger ones in the production of those pads.

To some extent the distribution of the lead strips follows that of the lead spatters, in that there were a number of specimens recovered in association with structures or deposits immediately adjacent to structures. The highest single concentration (17 specimens) was located adjacent to the northeast end of the Barracks, in an area with high concentrations of lead spatters and other lead waste materials. Otherwise the heaviest concentration was in the midden deposits on the slope area of the fort.

Lead Sprues
Total: 3
Not Illustrated

Three short segments of lead sprues were recovered from Square N226/E204, just east of the northern end of the Barracks. These specimens were probably the result of the final trimming of musket balls. These were located in the same general vicinity as a number of musket balls and other pieces of cut lead and lead spatters. This further supports contention that the remains of lead, ball, and the like in the vicinity of the Barracks and other structures probably represent the individual nature of some production of musket ball and shot and other metal working activities.

Lead Waste (Spatters)
Total: 6 (69.6 grams)
Not Illustrated

A total of 67 lead spatters, runs, or small beads of lead was recovered. These surely were the by-products and waste that resulted from the melting of lead and the casting of other objects, quite possibly musket ball and shot. This material was not concentrated as would be expected if this were some type of specialized activity, but was distributed about the fort. It was primarily associated with several structures, or closely related midden deposits. If this material is, in fact, evidence of casting either shot or musket balls, then it seems to indicate (as do several other classes of materials) that these activities were being carried out by individuals in the vicinity of living quarters. This correlates to some extent with the distribution of musket balls and shot where the distribution of those materials is interpreted as having been the result of loss from personal curation of those objects. Twenty-six lead beads or spatters recovered from Cherokee Feature 356 indicates that this type of activity may have also been occurring in or about the Cherokee houses in the village area outside of the fort.

Iron Wire
Total: 78
Not Illustrated

The seventy-eight pieces of iron wire in the collections are generally short fragments, but there were none that could definitely be classified as any type of artifact. Some of the thicker ones may have been bail sections or reinforcing rings for the top of buckets or kettles. The diameters of those pieces of wire have a range of 1.4 mm to 4.8 mm. Although there is some association with several of the structures, most were isolated finds in the general midden in various areas of the fort. As was the case with several of the other artifact categories that are in this group of manufacturing debris, the wire does not seem to be associated particularly with the Blacksmith Shop area, or several of the pit features that had large quantities of remains in the Southeast Bastion area near the Blacksmith Shop.

Iron Pig Stock and Bar Stock
Total: 77
Figure 162A-F

These artifacts consist of various sized pieces of round and flat rectangular iron stock. Several of the larger pieces (Figure 162A-E) are certainly some of the fragments of iron pig stock that were brought into the fort at various times as is recorded in the documents:

The remainder of these items are pieces of flat bar stock that were residue from various manufacturing activities of the blacksmith. Several are sections of bar stock that had been welded together, and several had been heated and hammered and/or cut in the process of making some unknown object.

Of the 44 specimens that could be plotted, 32 were located in or around the area surrounding the Blacksmith Shop (Structure 3). An additional four were recovered in other parts of the Southeast Bastion.

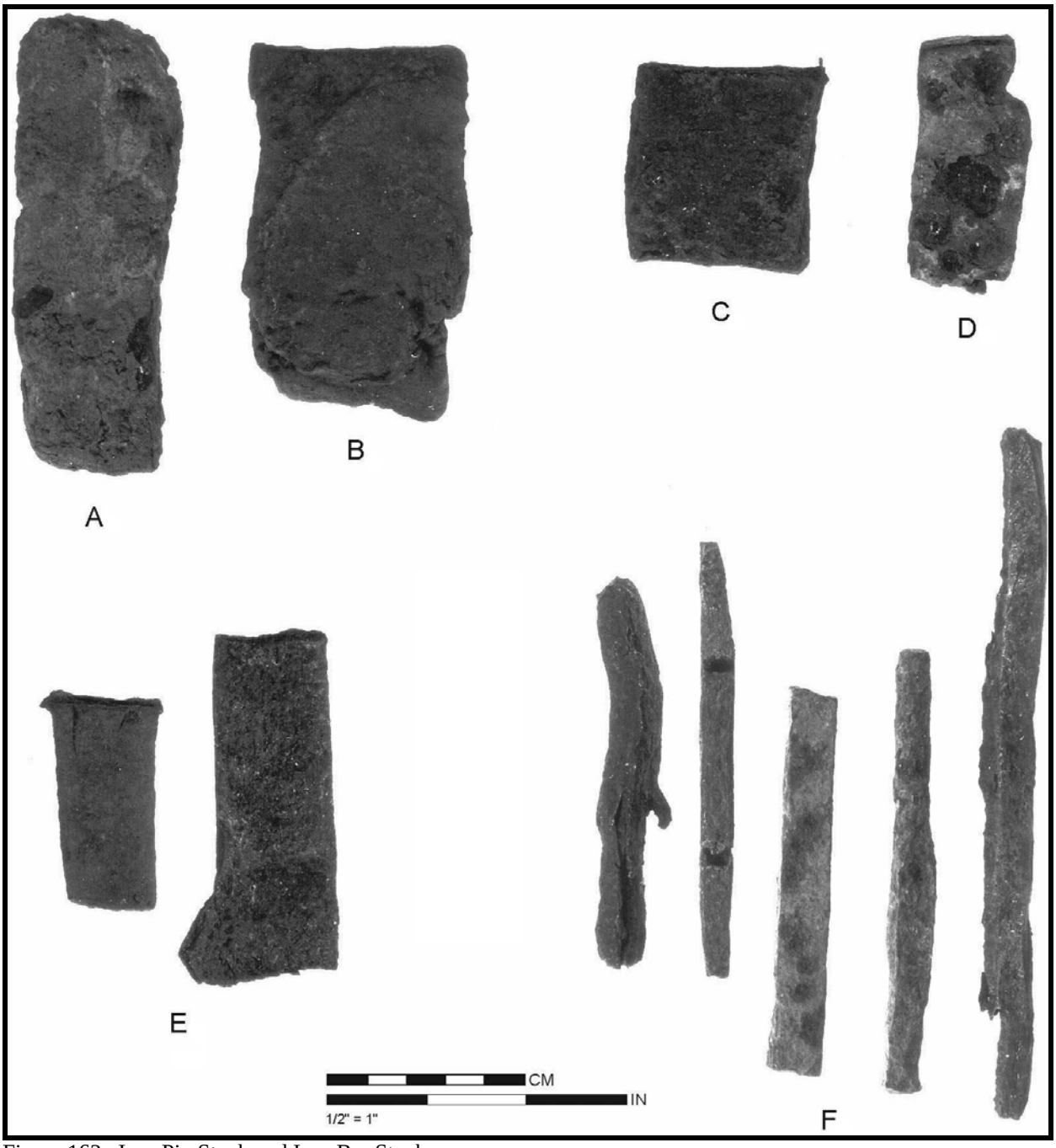

Figure 162. Iron Pig Stock and Iron Bar Stock.
A-E. Iron Pig Stock. **F**. Iron bar stock.

Flat Iron Scrap
Total: 47
Not Illustrated

These specimens consist of pieces of flat iron sheet stock that are thicker than those in the sheet iron category but which are definitely not equivalent to the bar stock, particularly since they were from larger flat pieces of iron. Like several other categories of iron scrap, these items are only by-products of blacksmithing and the production of some unknown items from these materials. Several show signs of having been cut and/or hammered, and some have square corners and straight edges, but most are irregular.

The distribution of these items follows that of the other categories of iron scrap and blacksmithing residue, in that the majority of those that could be plotted (n=21) were concentrated in the Southeast Bastion area, with most of those near the Blacksmith Shop, particularly in Features 50, 58, 63, and 179, which also contained large amounts of other blacksmithing residue.

Indeterminate Iron Objects
Total: 191
Not Illustrated

This category is composed of numerous pieces of iron that were unrecognizable as any of the above categories. For the most part they are probably the by-products and waste from iron working on the site, or other small pieces of iron that had rusted beyond recognition and were generally irregular in shape and size.

The distribution of these items indicates that, with the majority of them in the vicinity of the Blacksmith Shop, they are probably waste from the blacksmithing operation in that area.

Slag
Total: 4,369 (37.9 kg)
Not Illustrated

A total of 4,369 pieces (37.9g) of slag was recovered from the excavations. This material has iron inclusions, and is often magnetic. It contains a glassy, siliceous substance, and some white chalky material that is probably derived from limestone. This material is specifically the by-product of hammer forging, impurities driven off of remelted used iron, and the flux mixture used for welding.

The majority of the slag was concentrated in the apex of the Southeast Bastion, centered around the Blacksmith Shop (Structure 2). Lesser amounts were in other parts of the same bastion, and relatively minor amounts were recovered from other parts of the fort. One moderate concentration outside of the Southeast Bastion was located in the Southwest Bastion and consisted of 61 pieces of slag weighing 2.04 kg. All of this slag was located in a zone of fort period fill overlying the 1756 (pre-fort) humus. This concentration is probably the result of the slag being included with other trash and soil used to deliberately elevate the surface of this area, probably for drainage purposes.

In addition to the square/level units in the Southeast Bastion which had varying amounts of slag, 12 historic pit features (Features 44, 45, 46, 47, 48, 50, 58, 59, 60, 63, 64, and 79) contained moderate to large amounts of slag. Eleven of these were located in the Southeast Bastion and one, was located along the west curtain of the fort. Those within the Southeast Bastion are within, or centered around, the Blacksmith Shop. As a group, these 12 features contained 69.7 percent by count (3048) and 41.7 percent by weight (15,829.5 g) of the total amount of slag recovered. Feature 45, a root cellar underneath what was Structure 1, produced 45.2 percent of the slag by count (1976) and 29.3 percent (11,132.8 g) of the total weight recovered. Three features combined (Features 44, 45, and 50) had 65.4 percent (2860) and 38.0 percent (14,416.5 g) of the total by count and weight respectively. These three features and Feature 79, which contained 64 pieces of slag (164.3 g) and which were located well away from the main concentration, seem to represent deliberate attempts at disposing of the slag in subsurface pits. It may also represent the utilization of the slag and other refuse to fill and level pits no longer in use for other purposes, although there were not definite lenses of slag in any of the features. Other features in the Southeast Bastion contain amounts of slag varying from 0.2 g to 379.0 g, which small quantities possibly resulted from the accidental and/or non-deliberate inclusion of this material in those features.

An interesting feature of the distribution of this material in the Southeast Bastion is the relationship that it might have to the interpretation of the history of Structures 1, 2, 5 and 6 (Chapter 5). The heavy distribution of slag over the area of Structure 1 and in particular the large quantities of slag in Feature 45 within that structure, and a similar although lighter concentration of slag over Structure 3 and in Feature 58, located within that structure, may indicate that these buildings were taken down at some point during the occupation of the fort, possibly after the summer of 1757. In contrast to the distribution of slag over Structures 1 and 3, there is virtually no slag within what would have been the walls of Structures 5 and 6. Although these two buildings are on the periphery of the major distribution of slag, the absence of associated slag, except on the exterior, may indicate that they stood for the duration of the fort.

In comparison to the rest of the Southeast Bastion and Structure 1, the Blacksmith Shop (Structure 2) contained relatively small amounts of slag, approximately 72 pieces. By contrast, the area of Structure 1 had on the order of 2,272 pieces, and there were 603 pieces in the bastion east of Structure 3. This probably reflects a concerted effort to keep the Blacksmith Shop cleared of refuse and other accumulations, possibly because this structure was variously used for other purposes such as quarters at certain periods of time during the early part of the occupation of the fort. The presence of only 26 pieces of slag in Structure 3 probably indicates that this structure was in use throughout the occupation, precluding the spread of slag over its area. In addition to these structures in the Southeast Bastion which contained slag, small quantities of slag were recovered from Structure 7 (1), Structure 10 (1), Structure 12 (1), and Structure 17 (1). All of these were located in the Northwest Bastion, and it is assumed that the presence of slag in these structures, as well as the few squares in other parts of the fort which have small amounts, resulted from accidental deposition such as being tracked into buildings.

Moderate quantities of slag were located in the earth composing the parapet of the east and south sides of the Southeast Bastion. Sections of the parapet were hand excavated during the 1975 season to determine the stratigraphy of the parapet and ditch. The relatively high frequency and weight of slag from the east parapet, compared to the squares within the bastion, is probably the result of having screened all of the levels in that area through one-quarter inch mesh, which, except for the features, was not done on the interior of the fort. From the east parapet in the hand excavated area, 215 pieces of slag (1,334.5 g) were recovered and 3 pieces (31.1 g) were recovered from the parapet on the south. While it is at least possible that the inclusion of these materials in the parapet is in part derived from fort period depositional activities, most, if not all, of these materials came from stratigraphic levels of the parapet which are the result of the WPA excavations or later landscaping activities which were above the remnant of the original parapet. One may conclude that there was some amount of movement of slag (and other materials) from the interior of the fort by the WPA work. There is, however, some evidence for the deposition of slag as refuse in the ditch on the east and south sides of the Southeast Bastion. A total of 81 pieces of slag (891.5 g) was recovered from these areas of the ditch. A particular case which demonstrates this rather convincingly is the inclusion of 17 pieces (239.2 g) in Feature 42, which was a thin lens of midden on the base of the east ditch. These amounts are small in general, but their association with the base of the ditch does show at least the nominal use of this feature for deposition.

Several other proveniences, most of them in the southern part of the fort, contained varying small amounts of slag, some possibly the result of deliberate deposition of the materials, and the remainder from accidental inclusion. The drainage system across the lower part of the fort area (variously Feature 76, 159, and 167) contained 39 pieces of slag (338.8 g). Two areas that are interpreted as midden deposits, Feature 179, located west of the Blacksmith Shop and Feature 212, a filled-in depression at the base of the slope, contained 7 (81.1 g) and 55 (1,220.2 g) pieces respectively. The deposition in Feature 178 is probably scatter from the Blacksmith Shop area, while the materials in Feature 212 were deliberately deposited, since it is somewhat removed from the shop area. The inner palisade line (Features 61E and 61S) in the Southeast Bastion contained 28 pieces (291.4 g) of slag, probably the result of refilling of this feature after the WPA excavations, and the eastern palisade line (Feature 158) of the innermost palisade contained 39 pieces of slag (1,823.8 g). This latter deposition was an undisturbed context and illustrates that these materials were deposited in this trench probably at the time that the palisades were removed and the trench filled. Finally, a sill mold in the area (Feature 49) contained 137 pieces of slag (629.5 g) which resulted from the deposition of those materials in the immediate area of the Blacksmith Shop.

Tar
Total: 13 (1203.0 g)
Not Illustrated

A total of 1203.0 grams of tar was recovered from the fort area. While it is not exactly certain that all of this material derives from the fort period occupation, some of it certainly does, in particular, that which was derived from the B levels and pit features, and some other that came from around the rivets of a kettle lug. This latter was probably the result of either the tar having been melted in that container, or the tar applied to patch a leak. In the contemporary letters, Raymond Demere mentioned tar on two different occasions. According to his statements, the tar was to be used to keep the gun platforms and the gun carriages from splitting in the hot weather, and he stated that he would have the tar made at the fort (R. Demere to Lyttelton, January 31, 1757, SCIA:328). Two months later he reported that the carpenters were working on the gun platforms and that the tar had been made (R. Demere to Lyttelton, March 1, 1757, SCIA:345). But he also wrote the following month, that "Your Excellency has been misinformed concerning the Plenty of Terpentine that might be made in this Nation, for there are but very few Pine Trees in this Country. I have Tar enough made for the purposes intended" (R. Demere to Lyttelton, April 11, 1757, SCIA:366).

Since Demere indicated that the tar was to be made there, the technique used was probably quite similar to that method described by Du Pratz, parts of which are excerpted below:

> . . . they made a great deal of tar . . . from pines and firs; which is done in the following manner. . . . it is only made from the trees that are old, and are beginning to decay, because the older they are, the greater quantities they contain of that fat bituminous substance, which yields tar; it is even proper that the tree should be felled a long time, before they use them for this purpose.
>
> . . . they saw them in cuts with a cross-cut saw, about two feet in length; [then] . . . split these cuts lengthwise into small pieces, the smaller the better. In the mean time they make a square hollow in the ground, four or five feet broad, and five or six inches deep: from one side of which goes off a canal or gutter, which discharges itself into a large and pretty deep pit, at the distance of a few paces. From this pit proceeds another canal, which communicates with a second pit; and even from the first square you made three or four such trenches, which discharge themselves into as many pits, according to the quantity of wood you have, or the quantity of tar you imagine you may draw from it. Then you lay over the square hole four or five pretty strong bars of iron, and upon these bars you arrange crosswise the split pieces of pine . . . laying them so, that there may be a little air between them. In this manner you raise a large and high pyramid of the wood, and when it is finished, you set fire to it at the top. As the wood burns, the fire melts the resin in the pine, and this liquid tar distills into the square hole, and from thence runs into the pits made to receive it (Du Pratz 1774:193-194).

Another similar but earlier account of tar making by Mark Catesby (1754) is quoted by Combes (1974:7-9). Combes reports on the excavation of two charcoal rings resulting from a tar making operation at Paris Mountain State Park, South Carolina, and presents drawings of how a tar kiln could have been constructed (1974:10). Assuming that a similar method of tar production was being used at Fort Loudoun, it must be assumed that it was taking place away from the fort, near the source of pines. No features fitting this description were located in the fort or in the areas excavated outside the fort.

It is quite evident that the actual distribution of the tar does not reflect the distribution that would have been expected from the documentation that was noted above. In only one instance was there any tar located that might have possibly been associated with the gun platforms, and that was in the apex of the Southeast Bastion. Tar does, however, seem to be associated with several structures, notably the Blacksmith Shop and Structures 9, 12, and 17. If these are correct associations, then possibly some tar was being used for roof patching on some of the structures. If the fort was in fact burned after its surrender, then little tar would be expected to have remained in the area of the gun platforms or structural features (there was some evidence that Structure 2 had burned) since it would have been readily consumed in the conflagration.

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
164/280														1		1
167/273														1		1
167/294													1			1
168/282														1		1
170/278													1			1
174/280														1		1
176/198														13		13
176/280														1		1
178/196			1											5		6
178/198								1						21		22
178/200														19		19
178/280														1		1
180/194													1			1
180/200														3		3
180/268														1		1
180/270														4		4
180/274														9		9
180/276														1		1
182/262(3)														3		3
182/264(3)														2		2
182/266														7		7
182/268										1				3		4
182/270														6		6
182/272										1				17		18
182/274														5		5
182/276														11		11
182/278														6		6
184/216			1													1
184/250														1		1
184/258				1												1
184/264(3)													1			1
184/266													12	14		26
184/268			2													2
184/270														19		19
184/272														13		13
184/274												1		7	1	9
184/276														8		8
186/256														1		1
186/260													1			1
186/266(2)										3	1		3	3		10
186/268(2)											1		1	3	1	6
186/270(2)													1	2		3
186/272(1)														17		17
186/274(l)													1	51		52
186/276														8		8
186/278														5		5
186/290												5				5
188/196						1										1
188/206(14/24)									1				1			2
188/236									3							3
188/238															1	1
188/240															1	1
188/256											1					1
188/266(2)														11		11
188/270(l)														6		6
188/272(l)						1				1			3	82		87
188/274(1)													2	42		44
188/276(l)													1	1		2
188/278														6		6

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
188/280			2			1							4	57		64
188/282														47		47
190/204(24)														2		2
19O/208(14)												2				2
190/244									2							2
190/254															1	1
190/256													1			1
190/258										1				2		3
190/260(2)														2		2
190/262(2)														1		1
190/264(2)														6	1	7
190/266(2)														11		11
190/268(2)														3		3
190/272(l)														5		5
190/274(l)						1								8		9
190/280			5			3							13	105		126
190/282													1	3		4
190/292										1						1
192/208(B/14)			1													1
192/256										1			1			2
192/264(2)													1	4	1	6
192/266(2)			1										1	4		6
192/268(l)														1		1
194/210(B)								1								1
194/216			1													1
194/238(15)												7				7
194/248											1					1
194/262(2)														1		1
194/264(2)											1					1
196/240													1			1
196/242												2				2
196/252													1			1
196/254														1		1
196/256													1			1
196/266(l)												1	1			2
198/194														1		1
198/196									1							1
198/200						1										1
198/204(B)			1													1
198/242											1	2				3
198/246														1		1
198/254										1						1
198/262(5)														2		2
198/264(5)														3		3
198/268(5)													1			1
198/270														1		1
198/272														38		38
200/226													1			1
200/236											1					1
200/240													1			1
200/244														1		1
200/252(6)										1						1
200/256													1			1
200/258			1													1
202/192												2				2
202/200								1				1				2
202/210						2										2
202/244												1				1
202/246			1											1		2
202/252(6)									2							2

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
202/254(6)														4		4
202/256											1					1
202/25833														3		3
204/236														1		1
204/250(6)			1							1						2
204/254(6)														1		1
204/266(5)									5							5
206/246(6)	1															1
206/256			1													1
206/262(5)			1													1
208/194												4				4
208/196												1				1
208/204(B)					1											1
208/228									1							1
209/248(6)													1			1
208/250(6)													1			1
208/256			1									1				2
208/262(5)													1			1
210/187						1										1
210/202(B)									1							1
210/222						1										1
210/230		1							1							2
210/252(6)														1		1
210/258(5)								2		1						3
210/262(5)	1															1
212/192			1													1
212/214												1				1
212/222						1										1
212/258			1													1
212/262													1			1
214/182(8)								1								1
214/184(8)												4				4
214/186(8)									1							1
214/216						1			1			1				3
214/254													1			1
214/256						1										1
216/184(8)														1		1
216/198(B)									1							1
216/210										2						2
216/216													1			1
216/252													1			1
216/254														1		1
216/256									1					1		2
218/192(7)											1			1		2
218/194(7)						1										1
218/206													1			1
218/212			1									1	1			3
218/216						1										1
220/204(B)			1										2			3
220/206			1							1						2
220/214								1								1
220/216						1						1				2
222/178(1l)															1	1
224/174(9)									1							1
224/196												1				1
224/204						1							1			2
224/218						1										1
224/222												1				1
226/178(9)						1										1
226/204	1				2	11	3	14				6				37

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
226/206			1	7		3										11
226/212						1										1
226/220												2				2
226/226			1													1
226/228													1			1
226/248						1										1
228/174												1				1
228/180												2				2
228/192									1							1
228/204									2				1			3
228/224						1										1
228/226									1							1
228/254				1		1			1							3
230/182												6				6
230/204						2										2
230/228			1													1
230/248													1			1
232/170												1				1
232/194(19)									1							1
232/204						1						2	1			4
232/220(4)									1							1
234/188					1				1							2
234/204(17)			1						2							3
234/210												1				1
234/220(4)									1							1
234/222(4)						1										1
234/224														1		1
234/238			1			1						1				3
234/240			1													1
236/130			1													1
236/186									1							1
236/188												1				1
236/200(17)												1				1
236/208(17)			1		1										1	3
236/234			1													1
236/240													1			1
238/184									1							1
238/192			1													1
238/198(17)									1							1
238/200(17)			1													1
238/206(17)									1							1
238/210			1									2				3
238/228(23)			1													1
238/240									2							2
240/180			1						1							2
240/186											1					1
240/188			1			1		2								4
240/190										1					1	2
240/194(l7)													1			1
240/236(l6)									1							1
240/238(16)			2													2
240/242		1														1
242/150															1	1
242/236(16)												1				1
242/242												1				1
242/246			1													1
244/180(21)						1			1			8				10
244/182(22)															1	1
246/182(22)								1								1
248/184(22)									1	1						2

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
248/194(12)														1		1
F. 3											2					2
F. 42			1											17		18
F. 44			2			1		1				47		3	635	689
F. 45			1			1						2	11	1976		1991
F. 46														11		11
F. 47(P)														12		12
F. 48(P)														3		3
F. 49													137			137
F. 50			15					2		9	5	88	25	249		393
F. 52									1							1
F. 54													1			1
F. 56						1										1
F. 58			3	1	1				1	3	1	15	2	21	1	49
F. 59														22		22
F. 60														29		29
F. 61E										1		2	3	24		30
F. 61S													2	4		6
F .63		2	4							8	2	1	22	1		40
F. 64														25		25
F. 70(P)								1						64		65
F. 74												1		1		2
F. 76						1						14				15
F. 79			1			1					1	2	2			7
F. 85												2				2
F. 86					1											1
F. 96N			2						6							8
F. 107										1						1
F. 109						2							1			3
F. 123												1				1
F. 148			1		1											2
F. 150												2				2
F. 158														39		39
F. 159			2			2		1				16	1	37		59
F. 167														1		1
F. 171			3		1	1			4			2				11
F. 177			1					1								2
F. 178			2		1	1				3	2	33	3	7		52
F. 185						1							1			2
F. 187			4										1			5
F. 190			5									108				113
F. 199						1										1
F. 201													1			1
F. 208					1	1										2
F. 209			1													1
F. 212	1		9			1							1	55		67
F. 317												1				1
F. 356			4					26								30
F. 357			1									2	1			4
F. 358												1				1
F. 361			1													1
F. 375													1			1
ST. 3													1			1
ST. 7														1		1
ST. 8			3													3
ST. 9			5						1		1	9				16
ST .10			21	2	2	3		1	2			117	2	1		151
ST. 16						2			1			4				7
ST. 17			4			1		4	1	1		10			1	22
PM 4														3		3

Table 142. Raw Materials and/or Manufacturing Waste.

Provenience	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PM 6														1		1
PM 13														6		6
PM 17														1		1
PM 20														30		30
PM 24														1		1
PM 27														1		1
PM 29														1		1
PM 30														1		1
PM 32														3		3
PM 85														3		3
PM 132														2		2
PM 135														2		2
PM 162														4		4
PM 166														8		8
PM 167														2		2
PM 180														2		2
PM 185														1		1
PM 187														1		1
PM 195														1		1
PM 198			1													1
PM 216			1													1
PM 461														1		1
PM 496														1		1
Ditch			1		1	1			1			2		21		27
No Prov.		2	22	1		7		6	17	33	25	39	27	132		311
TOTALS	**4**	**6**	**165**	**13**	**14**	**75**	**3**	**67**	**78**	**77**	**49**	**597**	**324**	**3601**	**649**	**5722**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: 1=Brass Wire, 2=Brass Rod/Bar, 3=Brass Sheet Scrap, 4=Pewter Scrap, 5=Lead Sheet Scrap, 6=Lead Strips, 7=Lead Sprues, 8=Lead Waste, 9=Iron Wire, 10=Iron Pig Bar Stock, 11=Flat Iron Scrap, 12=Sheet Iron Scrap, 13=Indeterminate Iron, 14=Slag, 15=Tar.
(B) indicates barracks building;
(P) indicates prehistoric feature with intrusive historic materials.

Weaponry

This section describes the various weapon parts and accouterments that were in the several collections of materials from Fort Loudoun. These are grouped into standard categories. Other militaria items that are in the collection probably include some of the metal buttons, but little else. The relatively low numbers of items recovered, as compared with some of the available returns of ammunition and the like (Table 143) can be attributed to two factors. First, when the garrison abandoned the fort they were allowed to take their weaponry. Secondly, it is certain that all military items left at the fort, were removed by the Cherokee, including the 12 cannon.

Gunflints

Total: 142
Figure 163

A total of 142 gunflints is in the collections from Fort Loudoun and the village area to the south of the fort. These gunflints have been classified into four categories on the basis of manufacture and, correspondingly, on the type of material used for the gunflint. This grouping generally conforms to several typologies for gunflints and materials that have been presented for other sites, beginning with Whitthoft's 1966 study. The three categories of eighteenth century gunflints that are used here are Dutch, French, and English gunflints, with the first one consisting of spalls and the latter two of blades. This typology generally follows that of Whitthoft (1966), Hanson (1970), and Hanson and Hsu (1975:70-76). The French gunflint category corresponds to Stone's Series A gunflints, the Dutch ones to Stone's Series B and C gunflints (Stone 1974:247-263). The English gunflints correspond to the English gunflint category of Whitthoft (1966:34-39) and Hanson and Hsu (1975:74). The fourth category consists of a single late twentieth century gunflint.

There is no attempt in this study to distinguish between flints for guns and those for use against fire steels. It is quite possible that some of the larger gunflints were used for fire starting purposes. Additionally, no effort was made to further subdivide the Fort Loudoun gunflints into the finer distinctions that have been made for the gunflints from Fort Stanwix and Fort Michilimackinac. The categories of Dutch and French gunflints that are used here tend to conform to a classification of these flints that was in use during the mid-eighteenth century. An advertisement in the *South Carolina Gazette* for 1760 requested "Common black and French gunflints" (Advertisement, South Carolina Gazette, No. 1363, September 6-13, 1760). The English gunflints are generally regarded as having been produced much later in time than the occupation of Fort Loudoun (see Whitthoft 1966:34-36), so the ones described below are attributed to later use or occupation of the site of Fort Loudoun.

Dutch Gunflints
Total: 110
Figure 163A-H

There is a total of 110 of these Dutch gunflints in the collection. They were all made of a grey to black flint and are made from individual spalls that had been removed from a core. A definite bulb of percussion is present on most of the specimens. Secondary retouch or flaking was done to form the flake into the proper shape. Widths vary from 20.8 mm to 39.1 mm and the lengths from 17.1 mm to 33.0 mm. The width distribution is shown in Figure 164B, and a sample of these are illustrated in Figure 163A-H.

French Gunflints
Total: 30
Figure 163I-O

Thirty French gunflints are in the collections. They had been made of a yellow, waxy, translucent flint and consist of sections of larger blades (Whitthoft 1966:30). The widths of these gunflints range between 22.0 mm and 37.1 mm, and lengths vary from 18.9 mm to 28.1 mm. Figure 163I-O shows the form and range of sizes of this type of gunflint. The distribution of the width measurements for the 20 blade flints for which measurement was possible is shown graphically in Figure 164A.

English Gunflints
Total: 2
Figures 163P and Q

Only two specimens of this type were recovered from Fort Loudoun. They were made from prismatic blades and consist of a glassy grey to black flint. Dimensions of the two gunflints are 25.5 mm by 30.0 mm (width) and 25.8 mm by 21.6 mm (length). These two examples are shown in Figure 163P and Q and are comparable to those that have been recovered from the Tellico Blockhouse immediately across the river from Fort Loudoun (Polhemus 1980:206). Since it is accepted that English gunflints date from some time after 1780 (Hanson and Hsu 1975:74 and Whitthoft 1966:35-36), these flints are obviously not associated with the 1756-1760 occupation of Fort Loudoun. In all likelihood they derive from the period of the Tellico Blockhouse occupation (c. 1800) or the occupation of the fort area by Cherokee prior to that time, such as the occupation described by Louis-Philippe in 1797 and quoted in Chapter 2. Although one of these gunflints came from the Barracks area (Square N198/E210), it was from the upper zone of deposits and in an area that had been previously disturbed by other excavations, notably the WPA work. The second specimen came from the village area just southeast of the ditch, which was near the presumed location of the house that Louis-Philippe described.

Modern Gunflint
Total: 1
Figure 163R

In addition to the gunflints that are described above, one modern gunflint was recovered from the Parade Ground area of the fort. It is made of a tan flint and was sawn into shape. It is trapezoidal in section. This specimen is probably from one of the reenactments that had been done at the fort prior to 1975.

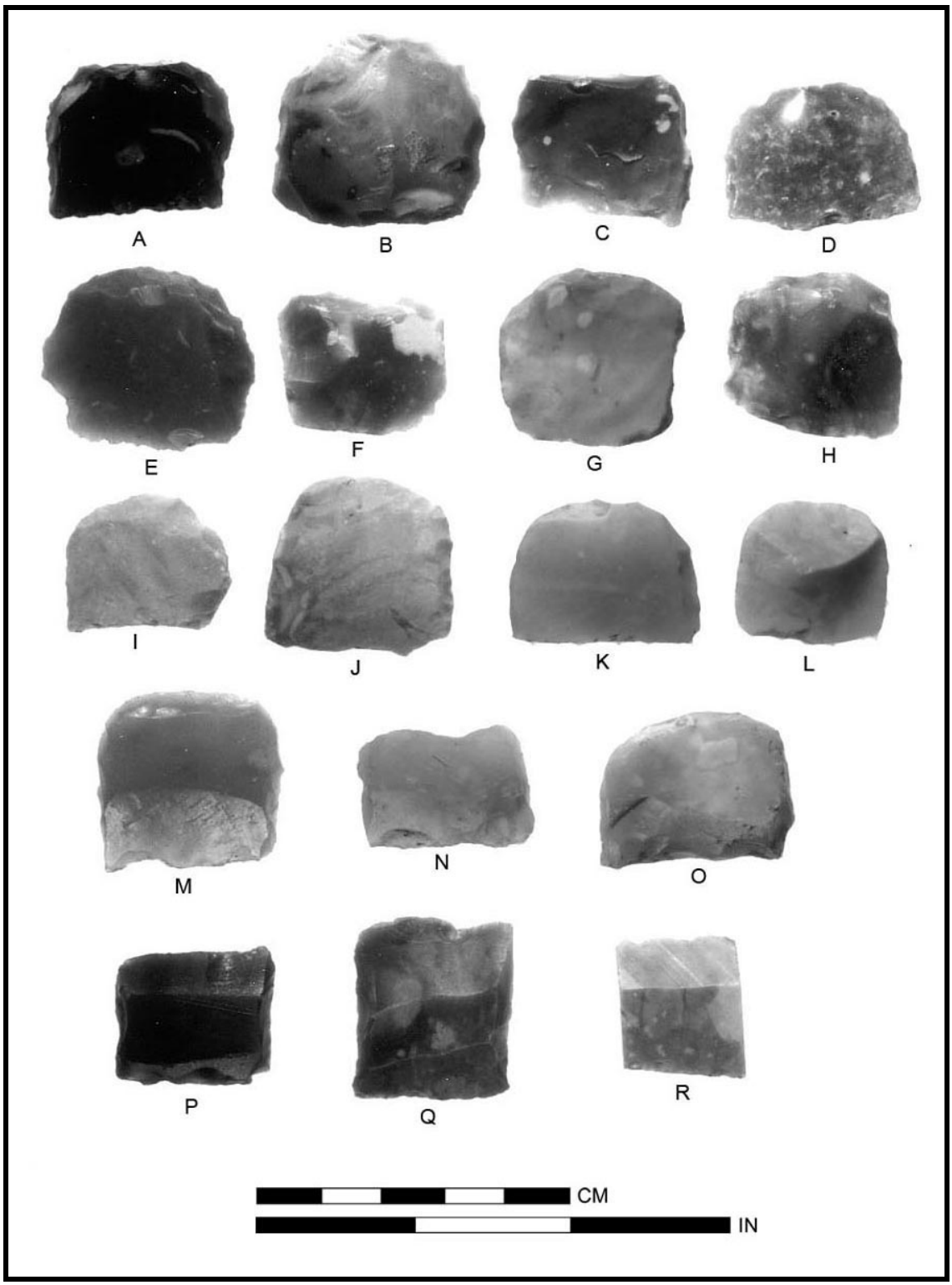

Figure 163. Dutch, French, British, and Modern Gunflints.
A-H. Dutch spall gunflints. **I-O**. French blade gunflints. **P-Q**. English blade gunflints. **R**. Modern reenactment gunflint.

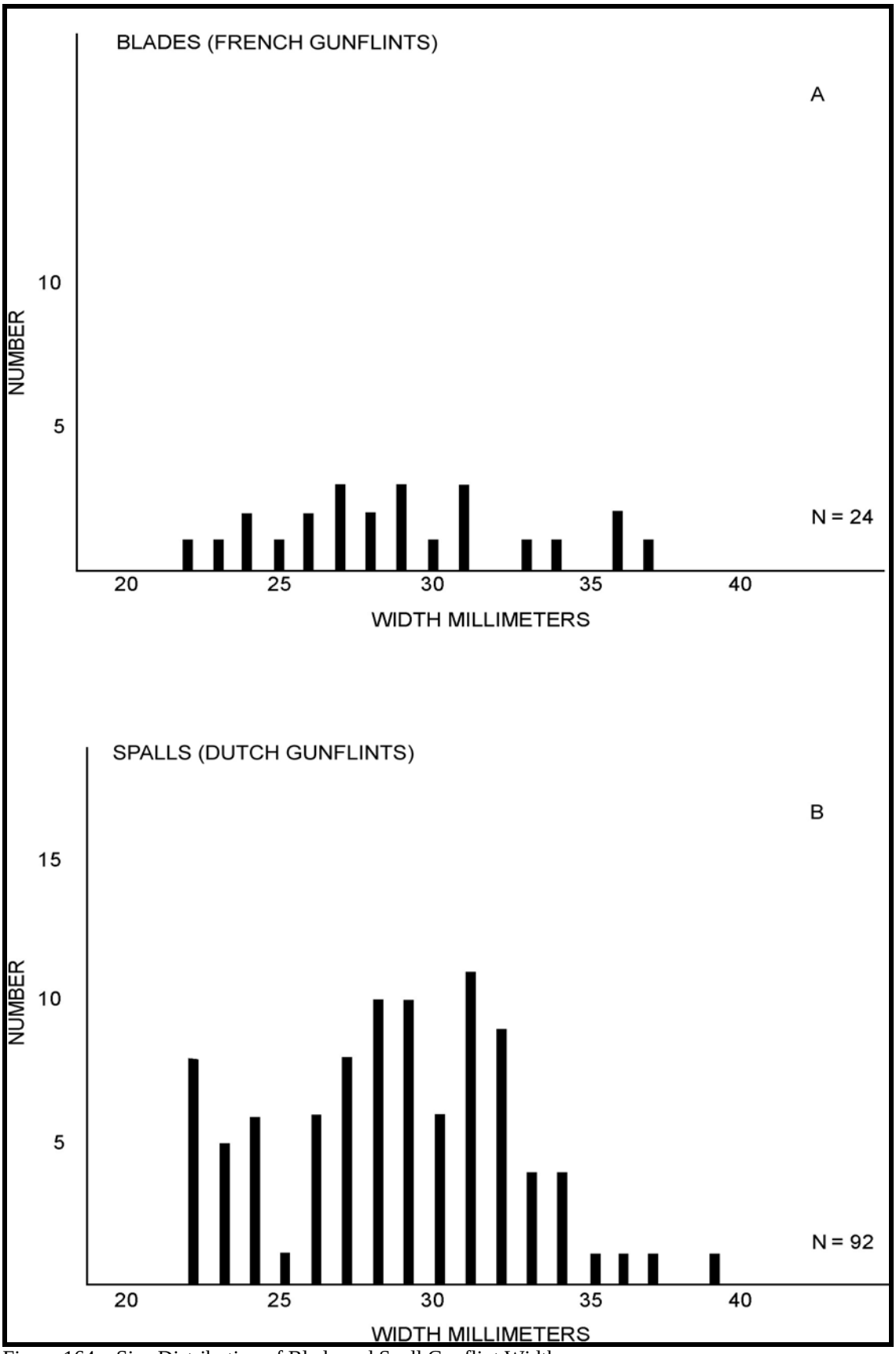

Figure 164. Size Distribution of Blade and Spall Gunflint Widths.
A. Blade gunflints. **B**. Spall gunflints.

Gunflint Discussion

The distribution of the French and English gunflints reveals that no large grouping of these items was located within the fort, but distribution seems to correlate more closely with the structures and the nearby midden deposits. Those that were in the heavy midden deposits on the slope are probably ones that had been expended and discarded with the rest of the refuse.

Following the work that was done by Hanson and Hsu (1975:75-76) and Barry Kent (personal communication), an examination of the percentages of French and Dutch gunflints from Fort Loudoun is interesting. It appears to substantiate a trend that has been noted, in that there is an increase in French gunflints in collections dating after 1735, increasing through the Revolutionary War. Omitting the English gunflints, 78.5 percent (N=110) of the collection are Dutch gunflints or spalls, and the French gunflints or blades make up 21.4 percent (N=30) of the collection. The percentages for these two categories of gunflints have also been calculated for those gunflints that were from unquestionable fort period context, or those contexts believed to date between 1756 and 1760, and which were sealed or otherwise free of later disturbance. Additionally, the percentage has also been calculated for those gunflints that were recovered from pits in the Cherokee village area to the south of the fort. These are summarized in Table 143. The percentage that has been derived for the gunflints from fort contexts is 31.4 percent (N=11) blades and 68.5 percent (N=24) spalls. Those from the village area are 30.0 percent (N=3) blades and 70.0 percent (N=7) spalls. Given the small numbers of gunflints used for the latter calculations, they are reasonably consistent with the percentages of 21.4 and 78.5 for the entire collection.

These figures correspond remarkably well with those from several other contemporary forts. Fort Leboeuf, Pennsylvania (1755-1757), contemporary with the early part of the Fort Loudoun occupation, had a distribution of 77.8 percent spalls to 22.2 percent blades. The percentages for Fort Loudoun fall within the ranges for Fort Stanwix with 62.9 percent spalls and 37.1 percent blades, and Fort Ligonier, with 82.2 percent spalls and 17.8 percent blades. The Fort Loudoun figures are generally closer to those of Fort Ligonier because of its shorter occupation (1758-1766). At Fort Stanwix (1758-1781) the percentage of French gunflints or blades is apparently increased by its participation in the Revolutionary War. Fort Frederica, Georgia, with a beginning date of 1736, has percentages of 87.5 for spalls and 12.5 for blades, respectively (Hanson and Hsu 1975:75, Table 8), clearly showing the earlier end of the continuum.

Table 143. Distribution and Percentages of Gunflint Types.

Provenience	No. of Blades	Percentage of Blades	No. of Spalls	Percentage of Spalls	Totals
Fort-Period Features: 44, 45, 50, 59, 79, 87, 104, 123, 144, 146, 150, 158, 185.	4	23.5%	13	76.5%	17
Fort-Period Structures: 7, 10, 16, 17 and Post Molds 197, 450, 453, 495.	7	38.9%	11	61.1%	18
Structure/Feature/PM Totals:	11	31.4%	24	68.6%	35
Village Features: 338, 356, 361, 375 and Village Surface	3	30.0%	7	70.0%	10
Summary of Above	14	31.1%	31	68.9%	45
Total Collection	**30**	**21.4%**	**110**	**78.6%**	**140**

Musket Barrels
Total: 3
Not Illustrated

Three incomplete gun barrels are in the Fort Loudoun Museum collections. These are without provenience, but it is assumed that they were recovered from the fort at one time or another, or at least from within the vicinity, even possibly from one or more of the nearby contemporary Cherokee villages. All are octagonal, or partly octagonal, with remaining lengths varying from 48.4 cm to 51.7 cm (22.0 in. to 23.5 in.). One with a length of 48.4 cm (22.0 in.) has a bore of approximately 0.65 in. to 0.70 in. Another has a length of 57.5 cm (22.6 in.) and is octagonal in section. The plug is in place, but the tang is broken off. The slot for the rear sight is plainly visible. An approximation of the bore diameter could not be determined. Another is 51.7 cm (23.5 in.) long, the plug is in place with the tang broken off, and the touch hole is open. There are two letters stamped on the top of the barrel near the plug end, possibly **R** and **S**. Bore diameter is between 0.75 in. and 0.80 in.

While the information is minimal, it is possible that at least two of these barrels are those of the Brown Bess or other English military musket. This is based primarily on the estimated bore diameters, which seem to fall within the range that was common for the British military weaponry, or around 0.75 in. (Hamilton 1976:33).

Breech Plug Tangs
Total: 3
Not Illustrated

Three breech plug tangs were recovered from the fort and the village area. All are broken, one at a point away from the plug, and two retain part of the plug. One was apparently broken as the result of pounding on one side near the plug, probably in an attempt to remove the plug from a barrel. The other two had been modified, probably as part of the blacksmithing activities. One had been brazed to the rear part of the breech plug, and the other, recovered from a Cherokee pit (Feature 357) in the village, had an extension brazed to the tang, probably an attempt at repairing a broken tang or modification to fit another stock other than the one from which it originated. Similar repairs or modification have been illustrated by Hamilton (1980:Figures 73 E-I). The various historical documents indicate that one of the principal duties of the blacksmith was to repair the guns of the garrison, and those of Indians, and this probably represents one example of this work that was done for the Cherokee. The other two breech plug tangs were recovered from within the fort. One was from Feature 50, a pit just south of the Blacksmith Shop (Structure 2) and east of Structure 3. The third tang was from square N218/E210 to the east of the Barracks.

Musket Noseband
Total: 1
Figure 165A

This is a thin brass noseband from either a British military musket or a trade gun. It was recovered from within Structure 17. The ends of this specimen (Figure 165A) would have been folded over the wooden stock and secured to the stock with a metal pin through the hole in the lower part of the noseband.

Musket Ram Pipes
Total: 3
Figure 165B, C, and D

Two of the recovered ram pipes were rear ram pipes and one is a front or intermediary pipe. One of the rear pipes (Figure 165B) was made from sheet iron cut and bent into shape. It would have been attached with a retaining pin. This specimen was either from a trade musket, or was a local replacement part for one. The second rear pipe was made of sheet brass and cut and bent into shape and then soldered (Figure 165C). The mounting rib has several holes, indicating that it was possibly remounted several times. This pattern of ram pipe is quite similar to a ram pipe illustrated by Hamilton (1976:17, Plate IV-B) from Fort Michilimackinac, and quite possibly derives from the British short land pattern musket (Darling 1970:27-32). The front ram pipe (Figure 165D) is cast of brass and was from an undetermined model of the British musket, and quite similar to ones illustrated from Fort Ligonier (Grimm 1970:74, Plate 18-5) and from Fort Stanwix (Hanson and Hsu 1975:69, Figure 44b). Ellsworth Brown also illustrates two additional front ram pipes from

Fort Loudoun that are nearly identical. These were originally in the WPA collections, but were not located for this study (Brown 1955f).

Escutcheon Plates
Total: 3
Figure 165E and F

Three pieces of brass were identified as parts of escutcheon plates from muskets. One (Figure 165F) bears an engraving of indeterminate design. Another is a plain brass plate with several holes for attachment to the stock by small tacks (Figure 165E), and the third is a fragment of a brass escutcheon plate with an indeterminate design that was stamped rather than engraved. One was recovered from a Cherokee pit (Feature 357) and the other with a provenience was from Feature 34, the east ditch fill.

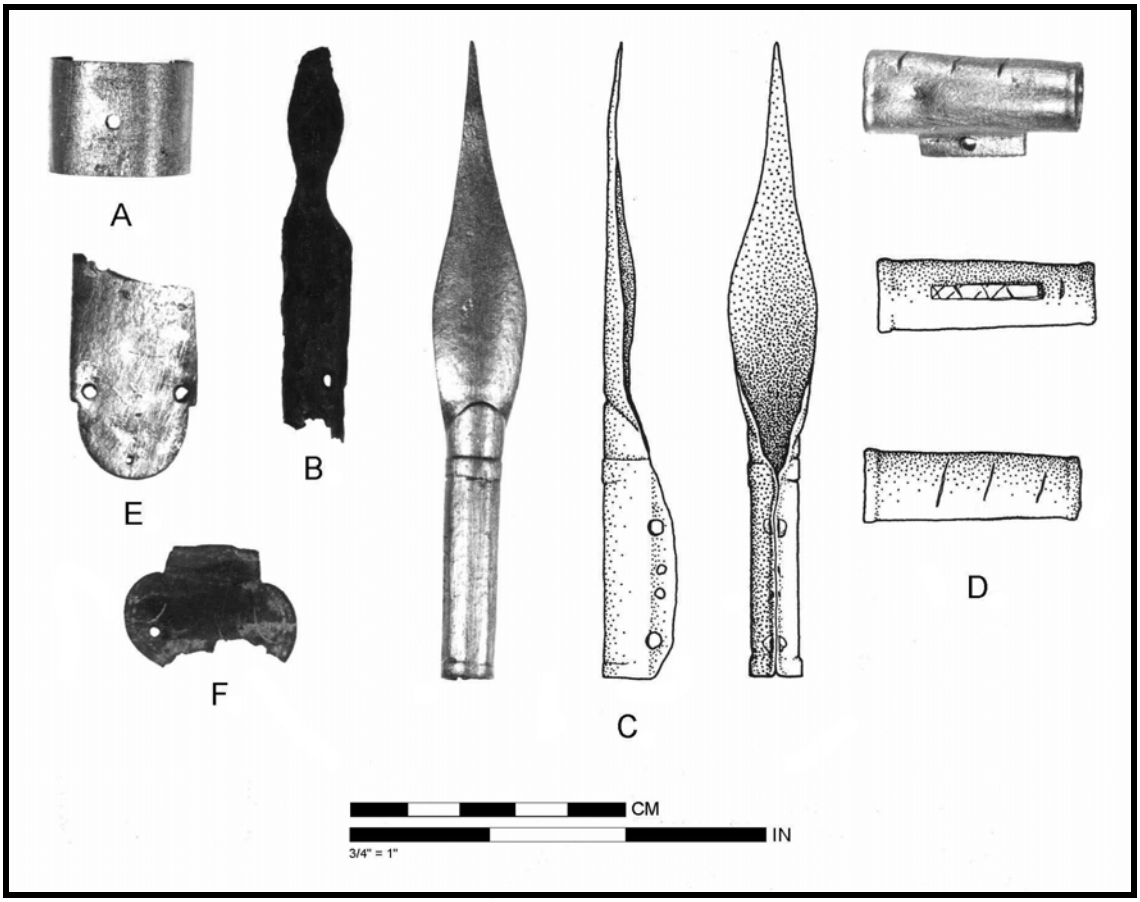

Figure 165. Nosebands and Ram Pipes.
A. Musket noseband. **B**. Iron rear ram pipe. **C**. Brass rear ram pipe. **D**. Brass front ram pipe. **E- F**. Escutcheon plates.

Butt Plates
Total: 3
Figure 166A and B

Three butt plates or fragments of butt plates were recovered. One is from the interior of the fort, and one from a midden deposit on a ravelyn outside the Rivergate (Feature 25). The third, a nearly complete butt plate from a Long Land Pattern British musket (Figure 166B) was recovered from Feature 358, a Cherokee pit south of the fort. It was cast of brass and has a graduated stepped tang (Darling 1970:18, Figures 4 and 42, Figure 35-A). The finial has been cut off with a chisel just in front of the mounting stud. A fragmentary iron butt plate was recovered to the east of the Barracks area from Square N210/E216. It was made of flat iron stock hammered into form and was attached to the rear of the gun stock by nails, one of which still remains in the specimen. It is quite similar in form to ones illustrated by Hamilton from Fort Michilimackinac and identified as typically English (Hamilton 1976:10, Figure 5-B). The presence of engraved lines at the shoulder where it narrows to the tang, and some engraving on the remains of the tang, which is mostly broken off, also resemble the Type D butt plates that are described by Hamilton (1968:11, Figures 7-E and F) and attributed to French trade guns for the period 1730-1760. The final specimen (Figure 166A) is only the butt plate finial from what was probably a common grade Type D trade gun and similar to one from Fort Michilimackinac (Hamilton 1976:9 and Figure 4-F). It was made of brass and cut and engraved to resemble a stylized torch or plant. This specimen, alternatively, could have been the front finial from the trigger guard of an English holster pistol common during the first half of the eighteenth century, but used much later (see Neumann 1967:166-169, Figures P.15 and P.17).

Trigger Guard
Total: 9
Figure 166C-D, E, F, and G

Several different varieties of trigger guards were recovered from the site. Only one was from a Brown Bess or British military musket (Figure 166E). The remainder are from either English or French trade guns. The one Brown Bess trigger guard was recovered from Feature 25, a midden deposit on the lower Ravelin Lyttelton outside the Rivergate. This specimen is complete except that the front of the plate is broken off at the screw hole. It is typical of the type used on the Sea Service Type 1 Brown Bess, although it does have a hole for a sling swivel at the front of the trigger guard bow, which is rarely found on this type of musket (Darling 1970:28, Figure 11-12).

There are six trigger guard specimens that can be attributed to English trade guns, consisting of parts of four rear tangs and two front tangs. Two of the rear tangs were made of brass, and the brass tang is curved transversely to ensure a snug fit against the stock without inletting. One of these is shown in Figure 166F. They are plain and have simple rounded finials. They generally match the description for the Type G English Trade Gun (Hamilton 1968:15-16 and Figure 10), and span a time of some 50 years centered around the mid-eighteenth century. In actual shape these more closely resemble a trigger guard that Hamilton indicates may have been from an English sea service musket, but possibly pre-Brown Bess (Hamilton 1976:12-13 and Figures 9H and 11-A). These specimens are also quite similar in shape to the rear tang on an English Dog-Lock musket illustrated by Neumann (1967:56-57 and Figure M.4) dated between 1710 and 1720. This latter may in fact be the proper identification, since one complete and one fragmentary three-hole side plate, identical to the one on the Dog-Lock musket referenced above, were recovered from Fort Loudoun. Another fragmentary specimen of a brass rear tang containing the mounting screw hole was recovered from Square N198/E238 and is probably of the same type as described above.

In addition to the two brass rear tangs described previously, two quite similar ones were found that are made of iron. Besides the difference in materials, they are similar in all respects. One came from Structure 17 and the other was recovered by the WPA excavations.

There were two brass front tangs recovered that probably came from a British Type G trade gun. One, from Feature 50, is cast brass (Figure 166C) and similar in all respects to that described and illustrated by Hamilton (1968:15-16 and Figure 10-C). A complete one was recovered from Chota and is illustrated by Newman (1977:36, Figure 5-G). The second specimen of this type was recovered from Square N232/E208 and is either a cheaper version of the above or a replacement made out of a piece of sheet brass (Figure 166D). It had been hammered so that it is transversely concave to allow seating against the stock without inletting. The design had been cut out, and then augmented with either filed or engraved lines.

One fragmentary brass trigger guard that is in the WPA collections can possibly be attributed to a French trade gun, although an illustration of a similar specimen could not be located in the literature. It consists of the front tang of a brass trigger guard that has been cast and filed into shape. The edges are beveled and there is a decorative panel at the front end, perpendicular to the length (Figure 166G). The tongue for mounting is intact, and part of the bow is still present.

Finally, there is one fragment of a brass trigger guard from Feature 45 that consists only of a section of the bow. It is cast brass, but could not be attributed to any particular weapon, other than a trade gun, since it is too narrow for a Brown Bess.

Sling Swivels
Total: 10
Figure 166H- J

The collections from the site contain a total of 10 sling swivels or parts. Two of these are illustrated in Figure 166H-J. These were made of round iron rod bent into form and attached to the musket by means of a threaded bolt that passed through one side of the swivel and screwed into the other side. Of the 10, seven are front swivels and the remainder are rear ones. All are probably from the British military musket or Brown Bess models and are similar to ones from Fort Ligonier (Grimm 1970:72, Plate 17-10 and 12), and Fort Stanwix (Hanson and Hsu 1975:66, Figure 43-A).

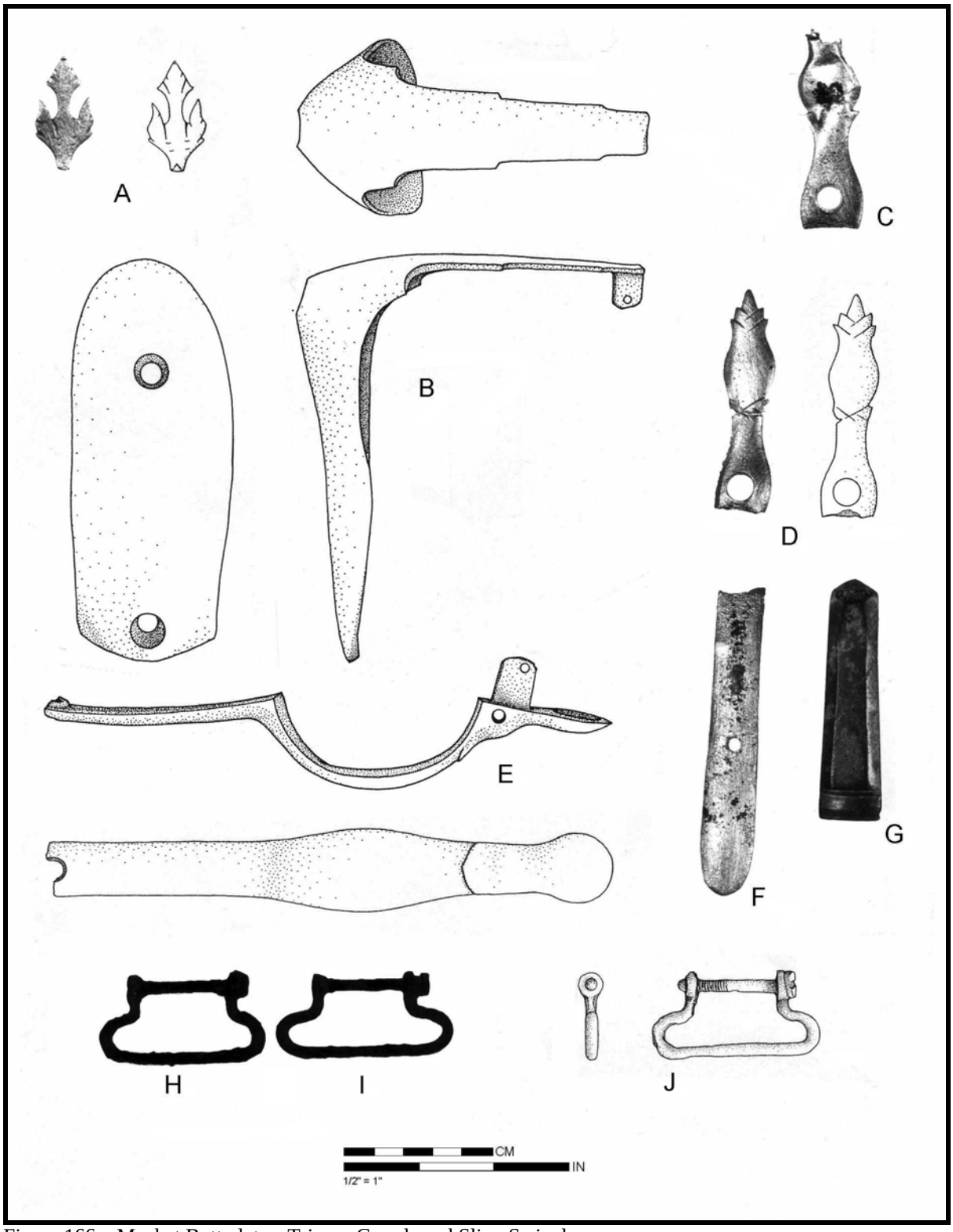

Figure 166. Musket Butt plates, Trigger Guards and Sling Swivels.
A. Butt plate finial. **B**. Brown Bess butt plate. **C**-**D**. Trigger guard front tangs. **E**. Brown Bess trigger guard. **F**. Trigger guard front finial. **G**. Trigger guard. **H**-**J**. Sling swivels.

Musket Side Plates
Total: 6
Figures 167A-H

Of the six side plates or fragments that were recovered from the site, three were probably of English origin and the remaining three of French origin. One whole cast brass side plate is similar in nearly all respects to those that are characteristic of the cast brass side plates for the Brown Bess except that it has three holes for mounting bolts instead of the characteristic two (Figure 167A and B). The reverse side is marked with a broad arrow. The only similar illustrated specimen noted is an identical side plate on an English Dog-Lock musket of the period 1710-1720 (Neumann 1967:56-57 and M.4). This is quite possibly for the same or similar musket noted previously that had a rear trigger guard tang that was characteristic of the dog-lock musket. There is another front part of a side plate identical to the one described above, but since it was broken at the central hole, it is indeterminate whether it would have been from a dog-lock or from a Brown Bess model that would not have had the third screw hole at the rear of the plate (Figure 167C).

The other side plate specimen that has been attributed to a musket of British origin consists only of the rear part of a side plate from what was probably a Type G trade gun (Figure 167D). It was cast of brass and has an engraved line around the edge and screw hole, and is quite similar to one illustrated by Hamilton (1968:15-16 and Figure 10-B), which was recovered from Alabama. This specimen is probably from a musket similar to, or the same one from which the type G trigger guard finials discussed above derived.

The remaining three side plates or fragments have been attributed to French origin. One side plate fragment is a part of a brass side plate (Figure 167E-G). Recovered from the village area. It has been broken and cut, and scored perhaps in preparation for other cuts. This specimen is probably a discarded side plate that was being utilized for materials. The complete specimen recovered from Feature 79 within the fort is an iron side plate from a French military musket (Figure 167H). It is virtually identical to one from Fort Michilimackinac (Hamilton 1976:15, Figure 14-0). The rear half of a cast brass side plate probably came from a Type D trade gun, produced by the French and known for the period 1730-1760 (Hamilton 1968:10-13 and Figure 6). It is similar in form to those illustrated, except that it is not engraved but plain. This specimen is also quite similar to the side plate from an American fusil musket for the period 1744-1750 (Neumann 1967:62-63 and Figure M.14). It is also possible that this side plate is a locally made replacement for a Type D or other French musket. It also resembles an iron side plate from a French musket from Fort Michilimackinac (Hamilton 1976:15, Figure 14-K).

Lockplates
Total: 6
Figure 168A-H

There are six lockplates in the collections. Five of them are virtually the same, with some minor variations between the specimens. Figure 168B, C-E, and F-H show three of the specimens and the variation present. These are similar to one illustrated by Hamilton from Fort Michilimackinac (1976:21-22 and Figure 18-P) that he attributed to English manufacture. They are also quite similar to the lockplates of Hamilton's Type J, which he dates as an English gun of the period 1730-1760 (Hamilton 1968:19-21 and Figure 13-G). One specimen in the Fort Loudoun Museum collection has the cock sear, mainspring and frizzen spring still attached (Figure 168B). The cock is a reinforced one and is from an English dog lock. One specimen from Feature 50 (Figure 168C) has an engraved line around the rear of the plate, and one from square N194/E244 has a floral motif engraved on the rear of the plate in addition to the engraved line around the edge (Figure 168F).

In addition to the lockplates noted above, there is one plate from a Brown Bess musket, with the frizzen still in place in the Fort Loudoun Museum Collection (Figure 168A and Brown 1955f). There are no markings visible and it cannot be attributed to a specific model. It does, however, parallel those of the Brown Bess Muskets of the middle part of the eighteenth century (see Darling 1970).

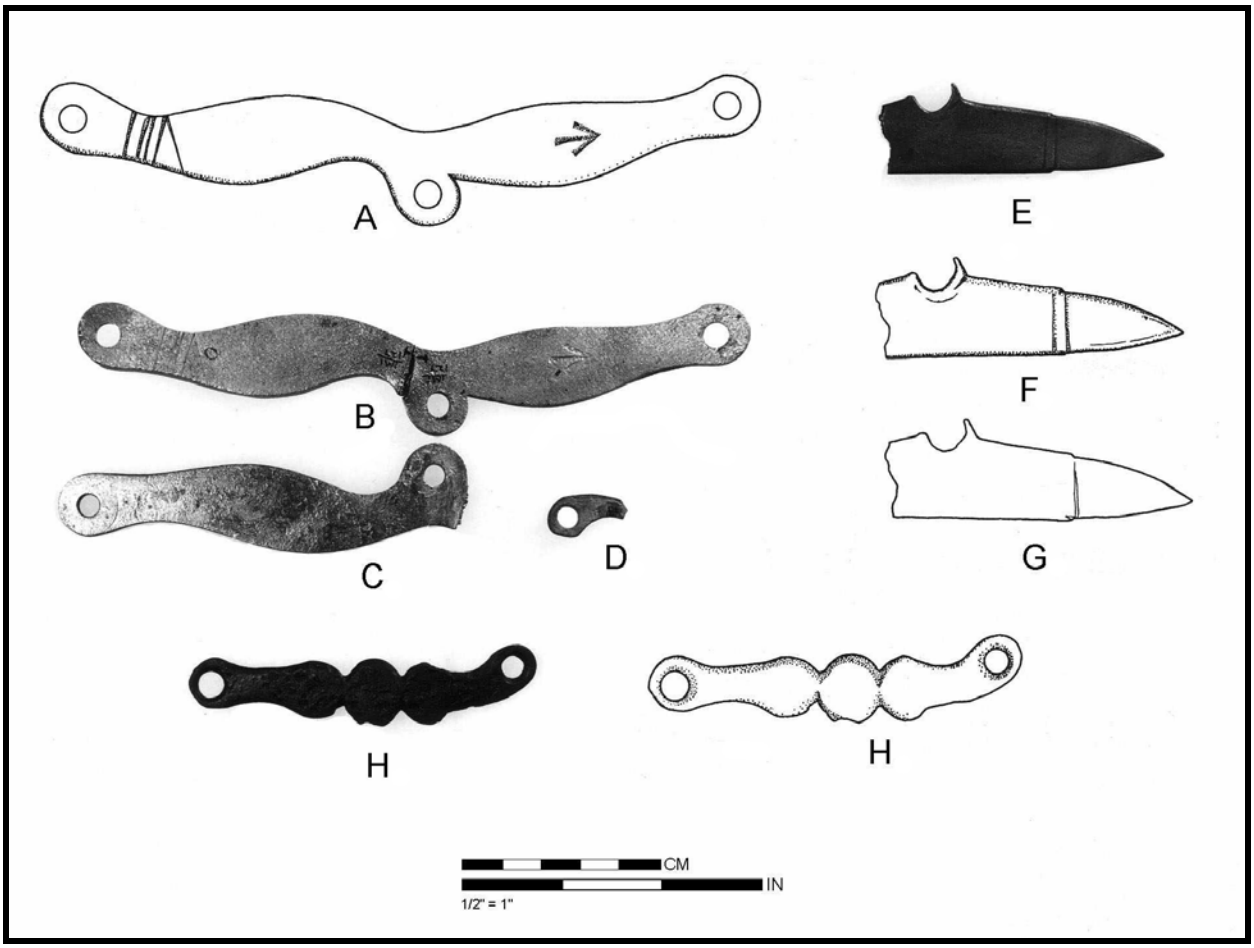

Figure 167. Musket Side Plates.
A-**C**. Brown Bess side plates. **D**-**H**. Trade musket side plates.

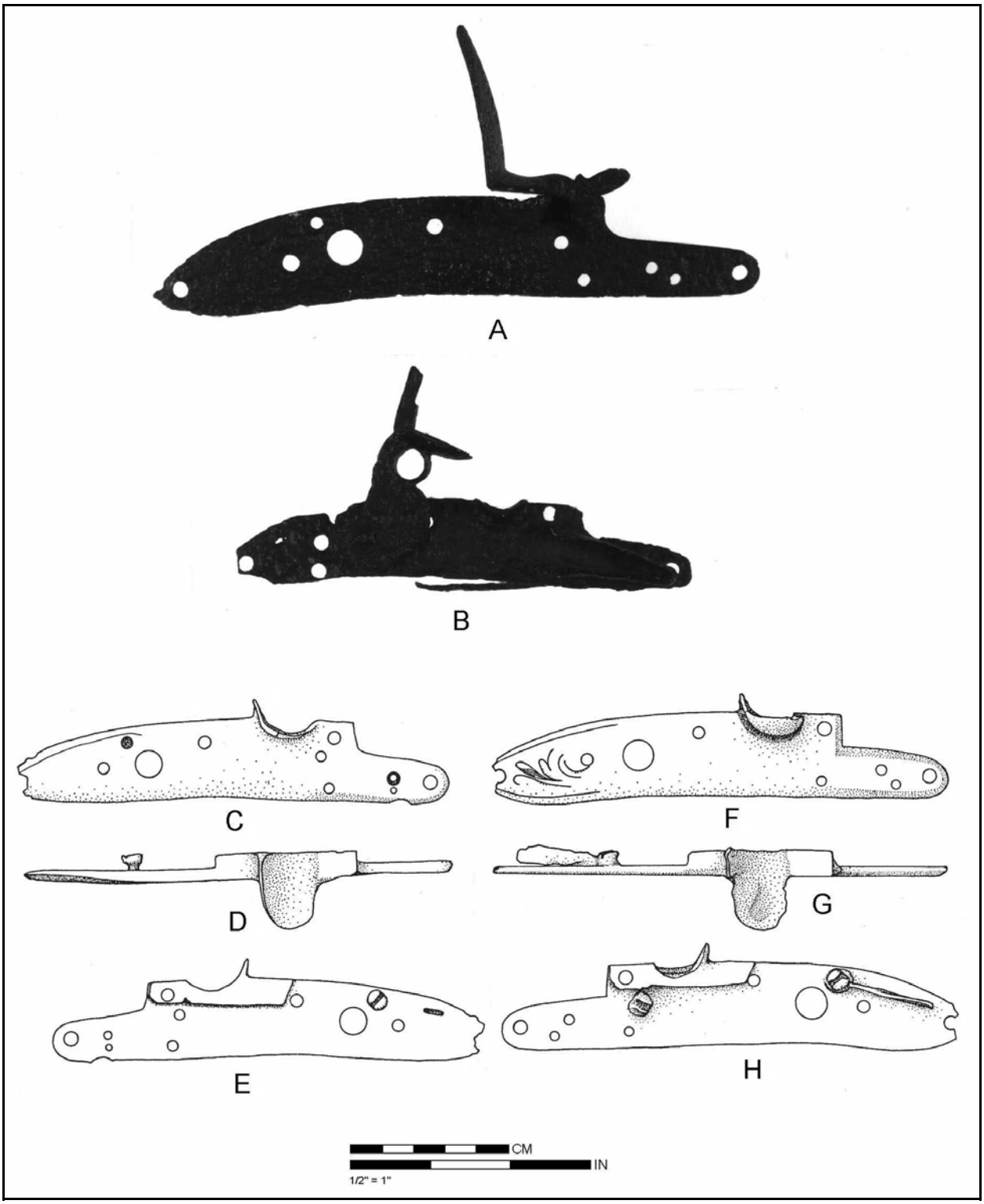

Figure 168. Musket Lockplates.
A. Brown Bess lockplate. **B**. English musket lockplate. **C**-**E**. English musket lockplate. **F**-**H**. English musket lockplate.

Cocks
Total: 3
Figure 169A-E

Three whole or partial cocks are in the collections, separate from the ones that are still attached to the side plates. Two are of the size that would have been on muskets (Figure 169A and B-E) and one is smaller and probably from a pistol. The larger specimens are probably from the Brown Bess (see Darling 1970 and Grimm 1970:72, Plate 18 1-4 and 91). The one larger cock with a provenience is from square N186/E268 in the Blacksmith Shop, and was probably a discard from the gunsmithing work. The pistol cock was from Post Mold 197 of Structure 5.

Musket Cock Vise Jaw
Total: 2
Figure 169F-J

Two nearly identical musket cock vise jaws were recovered. Both are plain except for an engraved line around the outside edge (Figure 169G and F-J). One came from square N234/E204 adjacent to the south wall of Structure 17 and the other was from square N216/E216 in the midden deposits on the slope.

Musket Cock Vise Jaw Screw
Total: 2
Figure 169K and L

Two musket cock vise jaw screws were recovered from the fort. One is illustrated in Figure 169K and L. One came from the fill of Structure 17, and the other was recovered from Square N194/E224 west of Structure 15. Neither can be positively identified as to what type of musket they would have come from, although the Brown Bess or another English musket is most probable.

Tumbler
Total: 1
Figure 170A

One iron tumbler from the trigger mechanism of a musket was recovered from Feature 58, a trash-filled pit within Structure 3. The musket type is unidentified.

Sears
Total: 4
Figure 170B-D

Four iron sears were recovered. Figure 170B-D shows the range of sizes that are present. The three larger ones in the collection are probably ones from muskets and the smaller one was probably from a pistol. Two were recovered from the Southeast Bastion in squares N190/E280 and N196/E264. The other one with provenience data came from Feature 352, a Cherokee pit to the south of the fort.

Musket Main Springs
Total: 8
Figure 170E-G, and H-I

Eight complete or fragmentary specimens of musket main springs are in the collection. The range of these is shown in Figure 170E-G, and H-I. The larger range is believed to have been from the Brown Bess, while the small ones are from English trade muskets. Of the five that have provenience information, one was from square N230/E224, in the midden on the slope southeast of Structure 4. The other four are from the Southeast Bastion from Squares N188/E238, N196/E258, N210/E256, and Feature 50, south of the Blacksmith Shop and east of Structure 3.

Pistol Mainsprings
Total: 1
Figure 170J

One mainspring that is about half the width of those that are classified as musket main springs is thought to have been from a pistol. It is from the WPA collection and has no provenience.

Frizzen Springs
Total: 2
Figure 170K and L

Two fragmentary frizzen springs are in the collections. Both are probably from the Brown Bess or other English gun. The one with provenience was recovered from square N194/E226, immediately west of Structure 15.

Sear Spring
Total: 1
Figure 170M

One fragmentary sear spring from a musket, probably a Brown Bess, was recovered from square N182/E276 in the apex of the Southeast Bastion. It was been broken at the curve of the spring.

Trigger
Total: 1
Figure 170N

One iron trigger with a flat finger piece and a curled back tip was recovered just south of Structure 6 from square N200/E252. It was probably from a Brown Bess and is similar to one from Fort Ligonier (Grimm 1970:72, Plate 17-7) and one from Fort Stanwix (Hanson and Hsu 1975:66, Figure 43-A), which are attributed to the Brown Bess musket.

Pistol Barrels
Total: 4
Figure 170O

There are three round iron pistol barrels and one brass one in the Fort Loudoun collections. The only one that was recovered by the latest excavations is an iron one that came from Structure 16. It had been broken at both ends, and one end was flattened. The remaining length is 18.0 cm (7.1 in.), and it has an approximate bore diameter of 0.54 in.. Two other iron ones are in the Fort Loudoun Museum collections. One of those specimens was also broken at both ends, and had one end flattened. The remaining length of one is 16.5 cm (6.5 in.), and the approximate bore diameter is 0.58 in. The second one has a length of 19.0 cm (7.5 in.) and a bore diameter of approximately 0.60 in.

The brass specimen was broken 3.5 cm from the breech end of the barrel. Threads are well preserved on the inside of the rear of the barrel. The barrel is round and has a clear touchhole on the right side and a notch on the underside for fitting to the stock. The bore diameter is 0.60 inch. **LONDON** is stamped on the barrel (Figure 170O). This barrel, in all likelihood, is from an English screw-barrel pistol, similar to those illustrated by Neumann (1967:152-157) and possibly carried by an officer.

Bolts
Total: 2
Not Illustrated

Two small bolts were recovered that were probably from the lockplate of an unidentified musket. One is a side plate bolt and the other was probably used for holding the sear spring in place.

Miscellaneous Gun Lock Parts
Total: 2
Not Illustrated

There were two additional fragmentary specimens that are thought to be parts from a gunlock. One is marked with an **H** and the other is possibly a fragment of a side plate. One came from square N234/E240 in the slope deposits south of Structure 16, and the other was recovered from Feature 358, a Cherokee pit to the south of the fort.

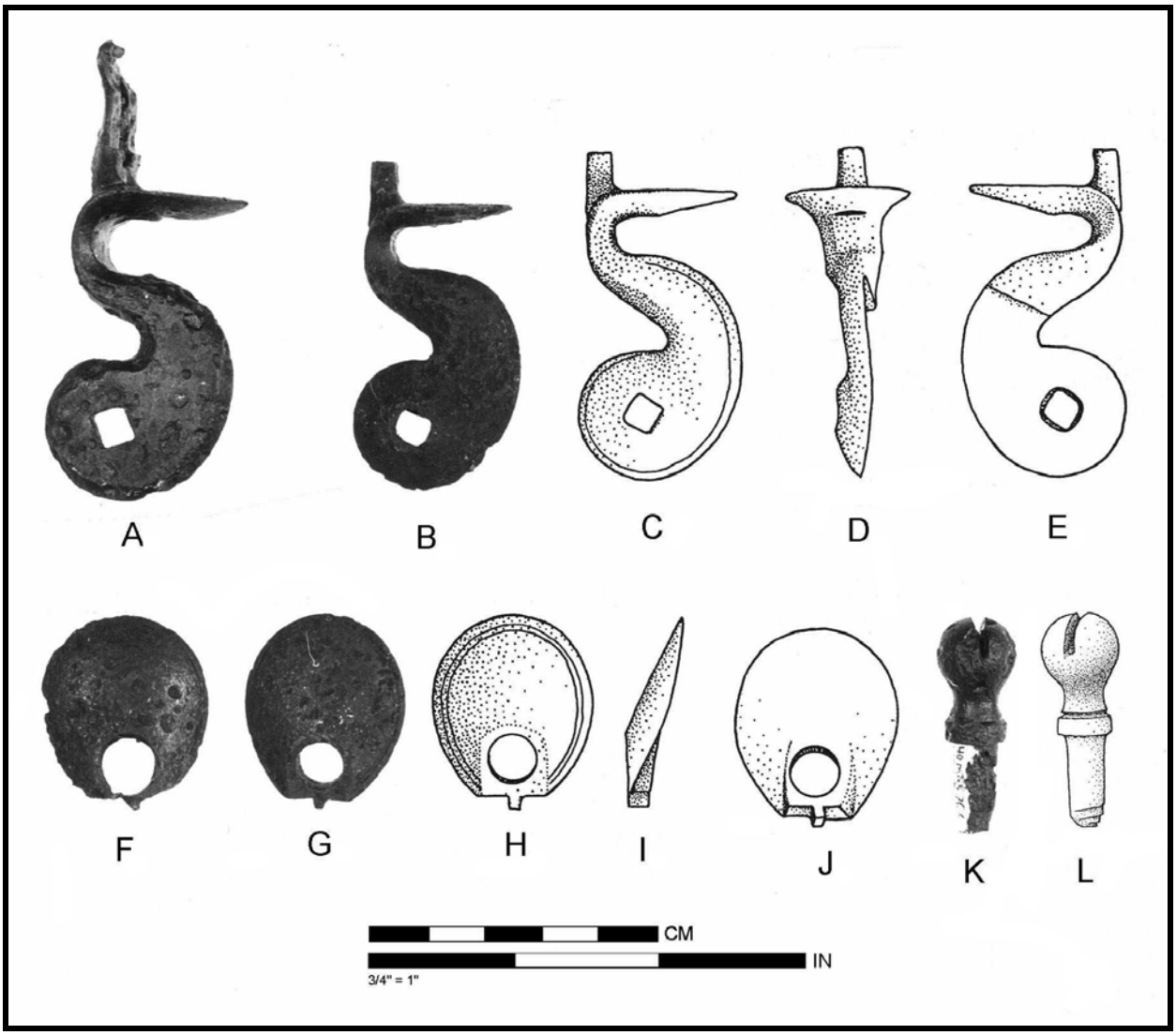

Figure 169. Musket Cocks, Vice Jaw, and Vice Jaw Screw.
A. Musket cock. **B**-**E**. Musket cock. **F**. Musket vice jaw. **G**-**J**. Musket vice jaw. **K**-**L**. Musket vice jaw screw.

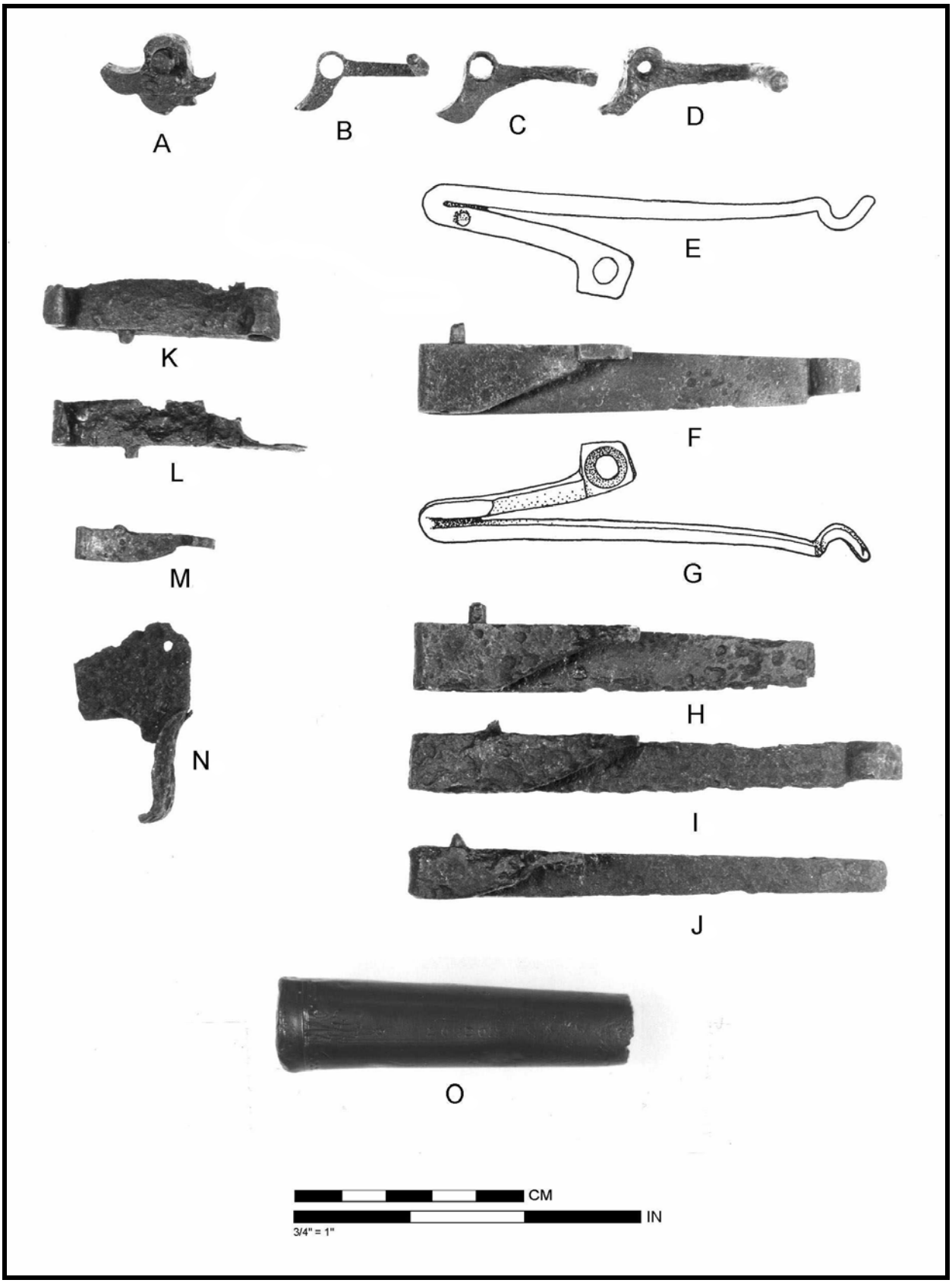

Figure 170. Musket and Pistol Lockplate Parts, Trigger Parts and Pistol Barrel.
A. Tumbler. **B-D**. Sears. **E-G** and **H-I**. Musket main springs. **J**. Pistol main spring. **K-L**. Frizzen springs. **M**. Sear spring. **N**. Trigger. **O**. Brass pistol barrel.

Musket Ball and Shot
Total: 189
Figures 171A-C

During the period of occupation of the fort large quantities of ball and shot were, of record, brought into the fort (Table 144). Of this a great deal was distributed to the Indians during the first several years of occupation. Some 2000 weight of ball was surrendered to the Cherokee at the fall of the fort. The shot and ball that was recovered archaeologically at Fort Loudoun, totaling 76 musket balls and 113 shot, represent only a small fraction of the amount documented to have been brought into the fort. The ones recovered probably represent only those that were lost during the occupation and/or fired during hostilities. The distribution of this material seems to indicate that most was lost in structures, or very nearby, and along the parapets where loss could have been expected, particularly if these areas had been manned during an attack or siege. There must have been a careful curation of the ammunition, considering the amount brought in compared to the sample recovered, as might have been expected. What this sample probably represents are those munitions deposited as the result of loss that could be attributed to individual curation of shot and ball issued to the garrison. Several instances of the association of cartridge box buttons in excavation units with either ball or shot may also be indicative of this type of individual curation and loss of musket cartridges.

Musket Balls
Total: 76
Figure 171A and B

A total of 76 lead musket balls was recovered from the excavations of the fort, the ditch, and village area to the south. Sixty were from within the fort; 12 from the ditch, parapet, or areas adjacent to the fort; and four were from Cherokee features in the village areas to the south of the fort. The 64 musket balls from the interior of the fort are generally distributed in two broad contexts: (1) along the west, south, and east curtains; and (2) in association with structures or closely associated midden deposits. Unfortunately, excavation and disturbance of the Powder Magazine (Structure 20) by the WPA excavations (see Chapters 3 and 5) destroyed any evidence there may have been of content and distribution of shot and shell within or about the Powder Magazine. In fact, no projectiles were located anywhere near the Powder Magazine by the latest excavations. It is interesting that only 16 musket balls were recovered by the WPA excavations, based on Brown (1955f). Eleven remain in the collections, and although the ones recovered were without provenience, the small number seems to imply that at the time of the 1936 excavations there was no heavy concentration of musket ball or shot within, or in the vicinity of the Powder Magazine (c.f., the discussions of WPA recovery of nails and buttons in this chapter). It is therefore impossible to discuss the comparative distributions of ball and shot between the Powder Magazine and the marked correlation of lead projectiles with habitation structures.

Sixty of the musket ball diameters were measurable, and they range between 0.43 in. and 0.77 in.. While the lower end of this scale is sometimes referred to as shot (see Hamilton 1976:35), there is a larger break between the sizes of 0.43 in. and 0.36 in., the upper end of the arbitrary cut-off for shot sizes used here, than anywhere else in the distribution (Figure 143). The musket balls cluster into two primary groups. One group ranges between 0.55 in. and 0.60 in. (26 or 43 percent), and the other between 0.67 in. and 0.69 in. (19 or 32 percent). This latter group was quite possibly used for the Brown Bess or other English military musket. Hamilton (1976:33) indicates that balls with diameters of 0.68 in. to 0.73 in. could have been used with the 0.75 in. bore British guns. He also notes that the 0.68 in. balls, of which there were 12 recovered at Fort Loudoun, could have possibly been used with the French musket. The cluster of smaller balls that was noted is comparable to the 0.54 in. to 0.58 in. grouping that Hamilton (1976:33) says can be attributed to both English and French trade guns. Three of the four musket balls that were associated with Cherokee features outside the fort are of the trade musket size: 0.55 in. (l) and 0.58 in. (2) from Features 356 and 367. The other ball from Cherokee context, Feature 190 in the southeast extension of the fort ditch, measures 0.62 in. and falls in that somewhat ambiguous range between the trade musket size and those which would have fit the Brown Bess (Hamilton 1976:33). Interestingly, of the 51 measured musket balls from Chota-Tanassee, most cluster in the 0.53 in. to 0.59 in. range, which compares favorably with the expected trade gun bore size. Only one from that site with a diameter of 0.70 in. is within the Brown Bess range (Newman 1977:37-39 and Table 5). Similarly, at the Citico site the 11 measurable lead balls range from 0.51 in. to 0.59 in. (Ford 1979:161), also in the trade gun range.

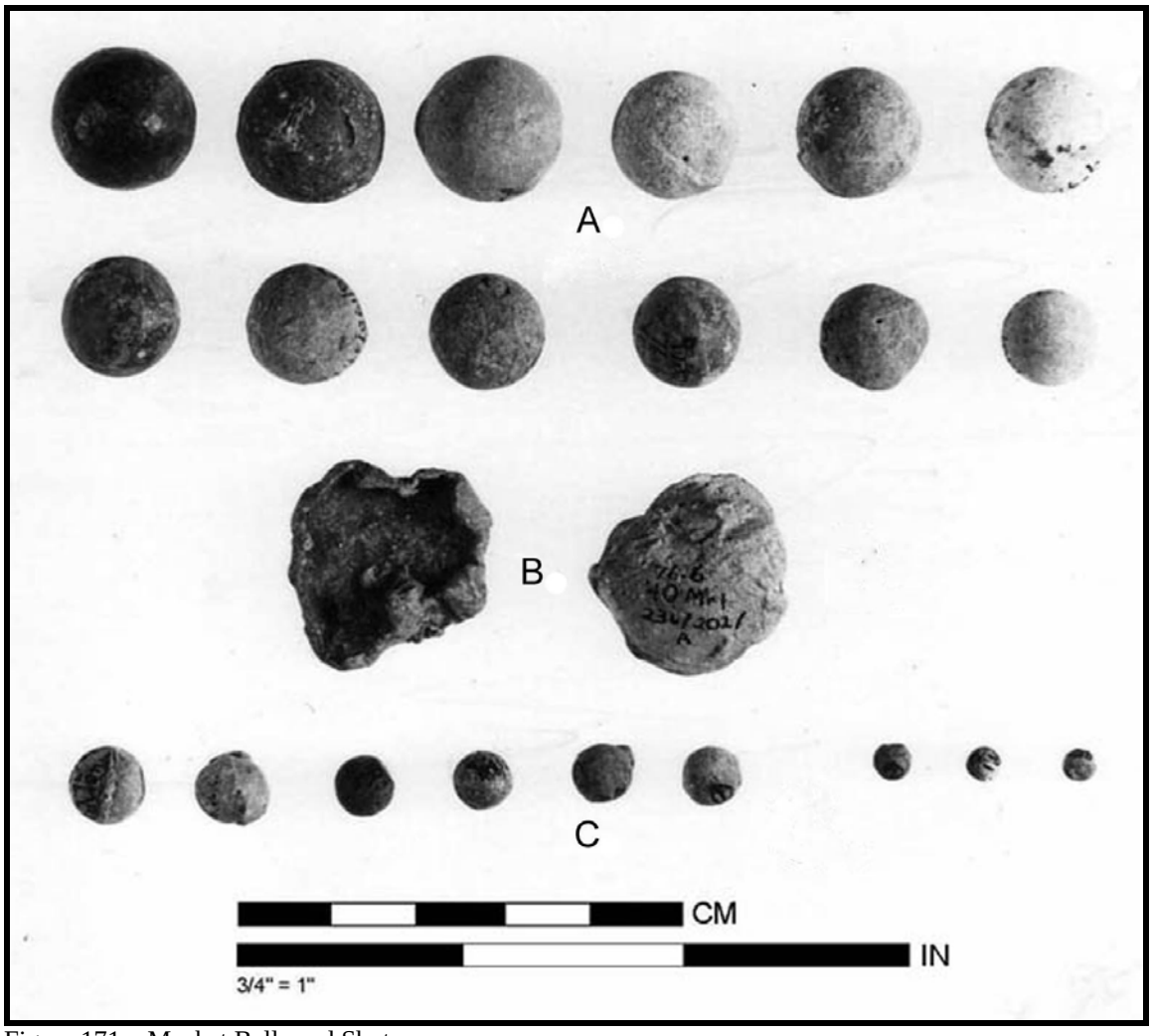

Figure 171. Musket Balls and Shot.
A. Musket Balls. **B**. Impacted Musket Balls. **C**. Shot.

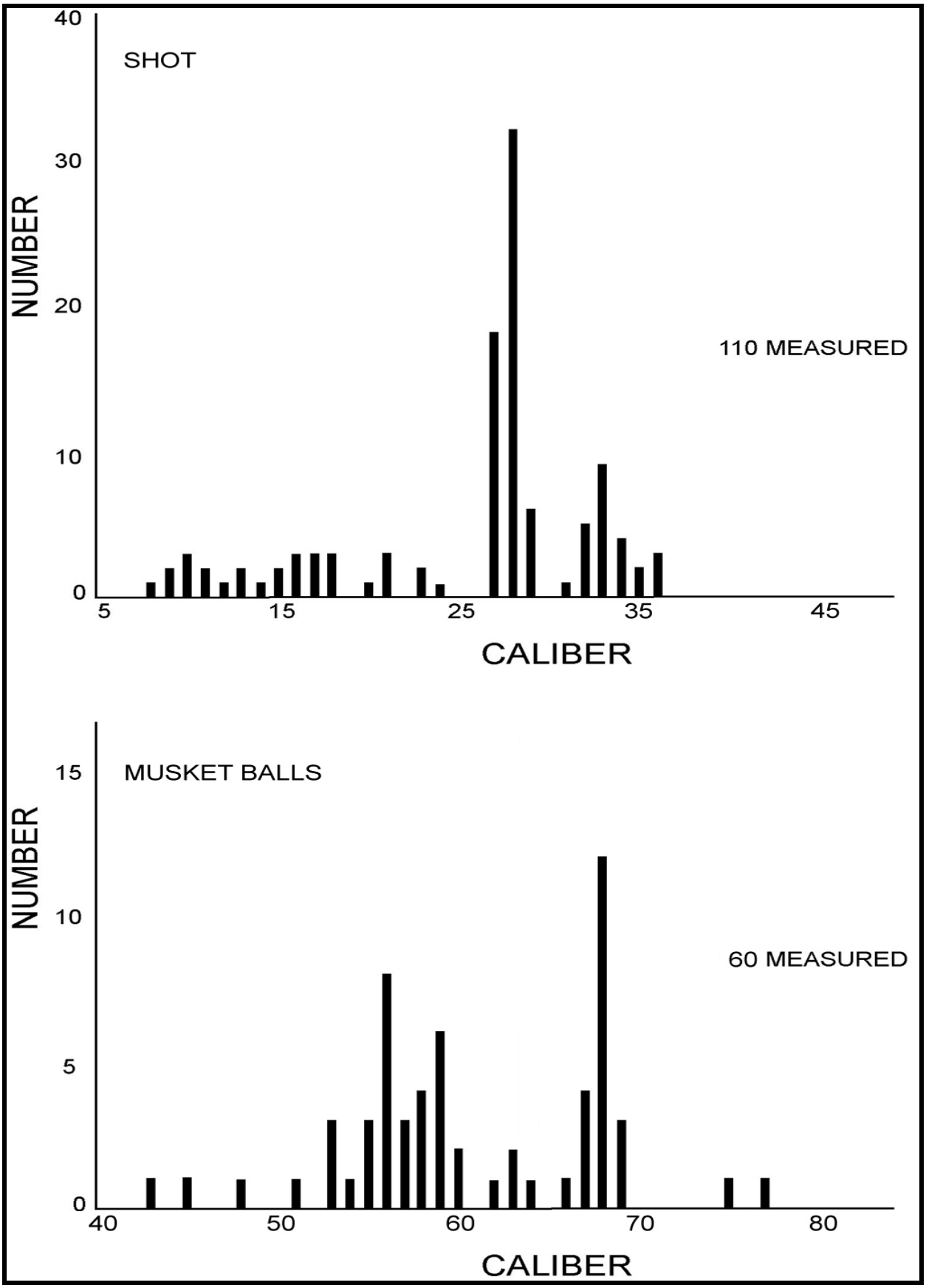

Figure 172. Shot and Ball by diameter.

Although no calibers are generally given, the historical documents do make quite clear the distinction between Indian trading ball and that to be used for the British weapons. The various trade lists and documents that are available for the period make this point quite clear (see Appendix 9). The returns of ammunition from Fort Loudoun, and other references to ammunition from Fort Loudoun, variously mention trading ball, trading bullets, or ball, in addition to the ball that were to be used by the British (see Table 144). The only actual reference to size is in a letter by Raymond Demere to Lyttelton where he states that "All the bullits I have are ounce ball which are not fit for the Indians" (R. Demere to Lyttelton SCIA:159-161). Presumably only musket balls for the military muskets of the garrison were available at that time.

Musket balls recovered at other contemporary forts generally show a similar distribution of size to that of Fort Loudoun. At Fort Ligonier the range in size is quite similar to that of Fort Loudoun, with the major cluster falling between 0.67 in. and 0.70 in., with most of the ball in this cluster having a diameter of 0.69 in. Other groupings cluster around 0.62 in. and 0.52 in., which are not exactly comparable to anything at Fort Loudoun (Grimm 1970:109). At Fort Stanwix (Hanson and Hsu 1975:78-80 and Table 12) nearly half cluster around 0.69 in.. The other cluster is around 0.63 in., and again there is no really comparable grouping at Fort Loudoun. In comparison to Fort Loudoun, Forts Ligonier and Stanwix generally lack any quantity of ball that would have fallen within the trade gun size. The reason for this is that there was a real difference between Fort Loudoun and the other two forts in their relationships to the local Indian inhabitants. That does not seem to have been the case at Fort Michilimackinac where there was a substantial number of ball in the range that Hamilton ascribes to the trade gun size (Hamilton 1976:33).

Sixteen of the musket balls that were recovered from Fort Loudoun were impacted. Figure 171B shows two examples. Because of their deformed nature they could not be measured to size and assigned to either trade ball or British musket groupings, although the weight of the balls might clarify this. Of the 15 that can be assigned proveniences, seven were located on the exterior of the fort. One was located on the ridge to the west of the Northwest Bastion, one was from Feature 185, a midden deposit in the base of the ditch and on the lower slope of the parapet outside the south gate. One was in the parapet south of the apex of the Southeast Bastion, another was in the Fort Glen area to the east of the fort, and the last one was in Feature 190, a Cherokee pit in the southeast extension of the east fort ditch. Additionally, there were 5 musket balls in the east ditch and Fort Glen area that are not impacted but which presumably could have been fired.

Within the interior of the Fort there were 8 musket balls recovered that had been impacted. Three were from the apex of the Southeast Bastion associated with a midden level and two features (Features 50 and 61), one was from inside the south curtain in the drain (Feature 159), two were within Structure 10, one within Structure 17, and one was in the slope deposits just west of the east curtain.

With the possible exceptions of the one ball that was recovered from the slope and the one from the midden deposit in the Southeast Bastion, the remainder of the impacted ball within the interior of the fort appears to be in contexts which do not suggest that deposition was the result of hostile activities. Additionally, these impacted shot were generally in association with large quantities of faunal remains, both domestic and wild (see Tables 5 and 105 summarizing the contents of the structures and features). They therefore could possibly have consisted of spent ball that were removed from animal carcasses and disposed of with other parts of the animal.

If, following the lead of Ferguson (1977:57-67), and assuming that the distribution of the musket balls outside the fort, and particularly the impacted ones, is a reliable indicator of a direction of attack, then several general statements can be made about Fort Loudoun and the Indian attack and siege that took place toward the end of its occupation. Although the actual numbers of ball are low, the bulk of the firing appears to have been either at or toward the east ditch area. The actual distribution of shot and ball amounts to 9 ball and 10 shot on the east, 2 ball and 6 shot on the south, and one ball on the west sides of the fort. The one musket ball from Feature 190, a Cherokee pit feature, probably resulted from a different type of deposition. It is assumed here that the musket balls and shot found in those areas mentioned were probably fired from both inside and outside the fort. An attack from the southeast, or south and east, would account for most of the distribution. Additionally, the Cherokee would have had the most protection by attacking from that direction, as well as the additional advantage of being able to effectively block both the south and east gates to the fort. The slope from the upper terrace to the lower terrace in the Fort Glen area and the area leveled for Fort Glen (see section in Chapter 4 on Fort Glen for profiles of this cut bank) would have provided a reasonable amount of protection and cover for the attacking or besieging Indians east and southeast of the

fort. Additionally, the continuation of this terrace edge to the south for several hundred meters, or to the next ridge south (see Figure 2), would have provided cover for nearly all the distance from Tomotley, the next Cherokee village to the south.

Two ball and six shot in the south ditch give the impression that there was some firing at that quarter, and one impacted ball in the ridge to the west of the Northwest Bastion may indicate that there was some hostile activity from that sector.

Lead Shot
Total: 113
Figure 171C

A total of 113 lead shot was recovered from proveniences within and outside the fort. A range of these shot is shown in Figure 171C. Measured sizes of 110 of these shot ranged between 0.08 in. and 0.36 in. Two major clusters appear to center around 0.28 in. and 0.33 in. (Figure 143). This range is generally comparable to that from Fort Michilimackinac, which had a range of 0.087 in. to 0.471 in. (Hamilton 1976:35). Hamilton ranges buck or swan shot from 0.247 in. to 0.45 in., so it is quite possible that the ball from Fort Loudoun with sizes of 0.43 in. and 0.45 in. should be grouped with the shot as the upper range of that category.

Although there is some variation in the clustering of the shot sizes, the Fort Loudoun sample is comparable to that at Fort Stanwix (Hanson and Hsu 1975:8081) and at Fort Ligonier (Grimm 1970:109). The range of shot in sizes below about 0.25 in. is generally categorized as birdshot. Historical documentation listing trade goods for the Indians and supplies at Fort Loudoun variously list this type of shot as birdshot, buckshot, and swanshot (Table 144 and Appendix 9).

The lead shot is generally distributed in about the same way as the musket balls. Significantly, 14 shot were located in the ditch and parapet area east of the Southeast Bastion. If it is assumed here, as with the ball, that the distribution of these specimens was the result of hostile activities, then this may indicate that the buck and ball combination shot were being used against the Indians, or possibly by the Indians against the fort. Although the records do not specifically mention the use of this type of shot against the Indians, Demere did recommend their use against the French, indicating that it was also a popular tactic of the French:

> I hope your Excellency will likewise send the Powder and Ball and some swan Shot, that if we should be attacked by the French we may serve them in their Kind as they always make use of Shot in their first Attacks in this Part of the World, which answers much better than Ball (R. Demere to Lyttelton, October 28, 1756, SCIA:233).

As Table 144 shows, there were upwards of 8,200 musket cartridges made up of ball and swan shot in the magazine at one time. In addition to the historical documentation which indicates the use of this type of shot and the apparent association or combination of ball and shot in the ditch, there are several instances within the fort where musket balls were recovered in association with shot, generally in the ratio of one ball to four shot. One group that was recovered from square N216/E260, just to the north of Structure 5, is apparently the remains of two discarded or lost buck and ball loads. Two squares within Structure 17 each produced one ball and four shot. Additionally, several other two-meter squares produced combinations of ball and shot ranging from one ball and one shot to one ball and 12 shot.

Fort Loudoun Cannon
Total: 1
Figure 173

There were 12 cannon brought to Fort Loudoun as part of its armament. After the surrender they were removed by the Cherokee to the town of Chota. There are no additional accounts that indicate that some may have been subsequently moved from Chota to other places. In the 1960s, two were recovered from Chota by a farmer. The Fort Loudoun Association was able to acquire one of them and it has been on display at Fort Loudoun ever since. At last report, the second one was still in private hands. A scale drawing of the one at Fort Loudoun is shown in Figure 173.

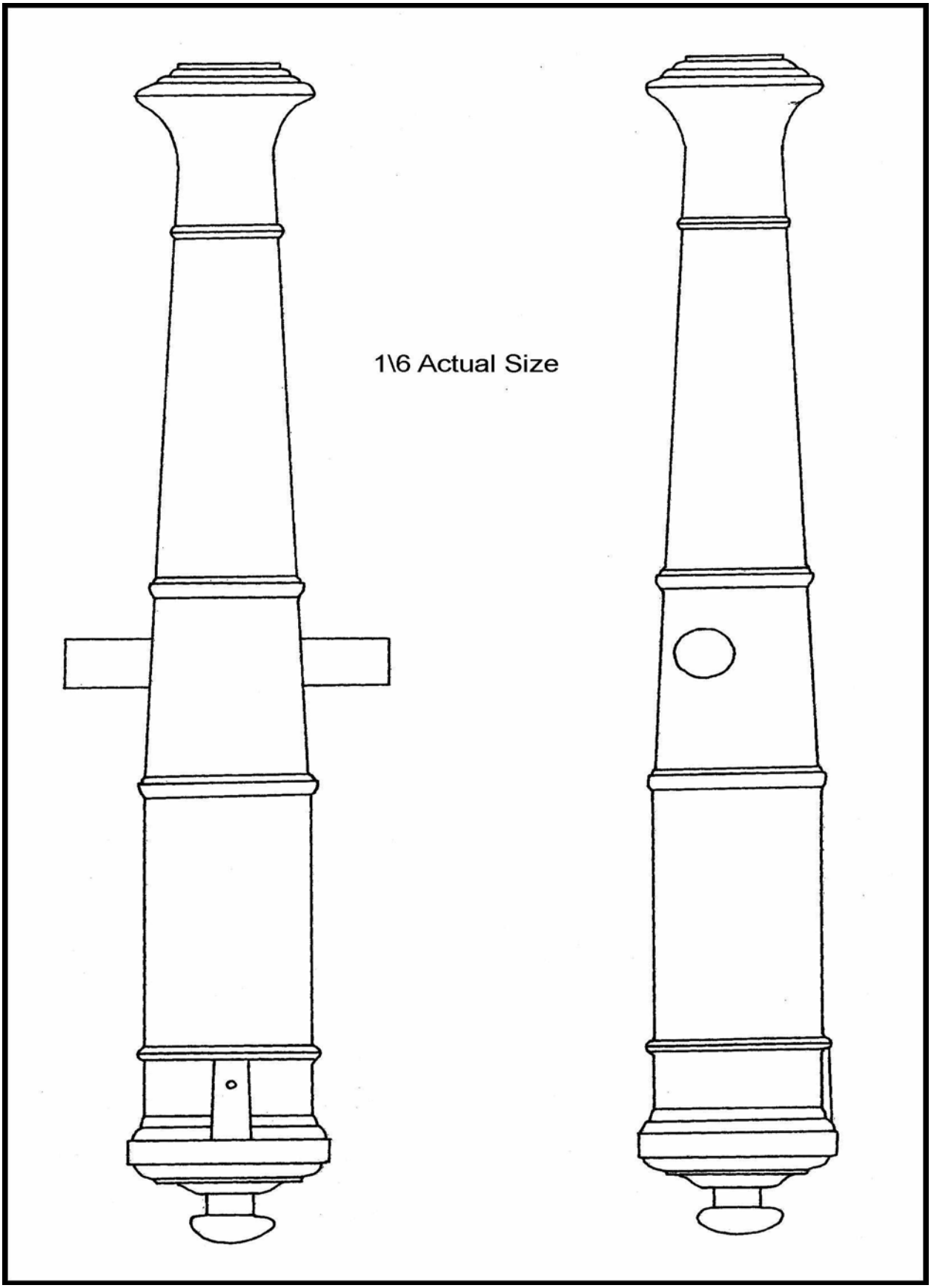

Figure 173. The Fort Loudoun Cannon. Top and side views are shown.

Ordinance
Total: 7
Figure 174

In the collections there are one solid cannon shot, and one complete and five fragmentary cohorn shells or mortarbombs. Four of the mortarbomb fragments were recovered within the fort by the last excavations from the following areas. Two were from the midden deposits on the slope, one was from Feature 146 near the southeast corner of Structure 12, and the fourth was from a square just east of the Powder Magazine (Structure 20). Another fragment of a mortar bomb is in the WPA collections. Additionally, Brown (1955f) illustrates two other fragments that had been recovered by the WPA project but which were not relocated for this study. Interestingly enough, all of those specimens from the fort, with the exception of the one complete one in the Fort Loudoun collections, and those from other sites in the valley (see below), had been exploded.

The complete cohorn shell in the Fort Loudoun Museum collection has a diameter of 4.0 in. The fragments in the collections are estimated to have had diameters that ranged from 3.0 in. to 4.5 in. Wall thicknesses vary from 0.4 in. to 0.65 in. Mortarbombs that are described from other archaeological sites range in size from 4.0 in to 5.5 in. Two complete shells and six fragments were recovered at Fort Ligonier. The complete shells have diameters of 4.5 in. and two of the fragments are estimated to have had diameters of 5.5 in. (Grimm 1970:76 and Plate 21). At Fort Stanwix two complete shells are 4.5 in. in diameter, and the other 179 fragments are estimated to have been 4.5 in. shells (Hanson and Hsu 1975:78, Table 9 and Figure 46C). At Frederica, Georgia, five fragments were recovered, with at least one estimated to have been about 4.0. in. diameter (Honerkamp 1980:139 and Figure 5-20). What has been identified as a grenade with a diameter of 3.5 in. (7.8 cm) was recovered from the Trudeau Site in Louisiana (Brain 1979:158). A hand grenade from Fort Stanwix has a diameter of 3.75 in. (Hanson and Hsu 1975:78). The implications are that the smaller range of sizes noted for the Fort Loudoun mortarbombs may have in fact been hand grenade fragments.

Several other mortarbomb fragments have been found at other sites in the Little Tennessee River valley. Salo reported finding a fragment of a hollow cannon ball or grenade in his test excavations at Tuskegee about 300 yards south of the fort (Salo 1969:7 and 9). Polhemus (1970:84 and Plate 87) described and illustrated a fragment of an explosive 4.0 in. shell fragment from Feature 128 at Chota, and Fielder reported four fragments of explosive iron shells with diameters of about 4 in. from the 1970 excavations at Chota (Fielder 1971:61). Newman's study of the historic artifacts from Chota illustrates one of the shell fragments from Chota and indicates that there were a total of six fragments recovered from that site (Newman 1977:87-89 and Figure 9b, 1986:440 and Figure 8.10c). At the Citico site two mortar shell fragments were recovered from Feature 261 (Ford 1979:93).

It is almost certain that all of these shells and fragments in the Tellico Valley were originally part of the ordnance stores at Fort Loudoun. The method of distribution is undocumented, with the exception of the record of the loss of the cannons and other ammunition and powder stores at the surrender, which were then presumably removed to Chota. It is quite possible that any shells that remained at the fort at the surrender were also removed to Chota and/or the other Cherokee towns in the Valley. Whether the fragmentary nature of the shells was the product of their being exploded accidentally or on purpose is unknown. There is also no documentation to explain the exploded shells within the fort.

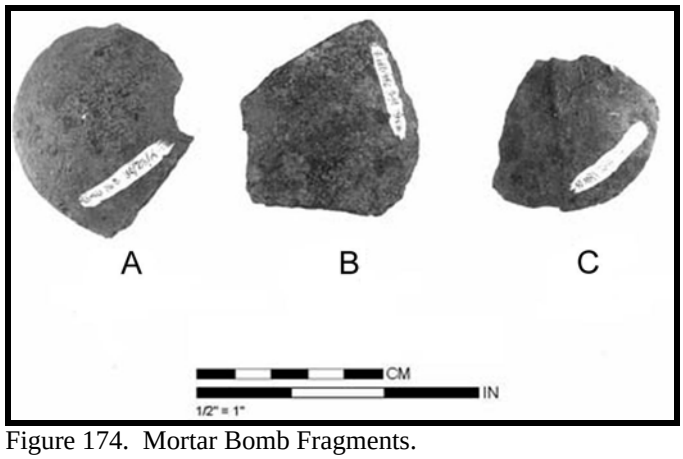

Figure 174. Mortar Bomb Fragments.

In addition to the mortar shells and grenades, there is one solid cannon shot in the Fort Loudoun Museum collection. It has a diameter of 1.5 in. This is comparable in size to other solid shot that has been reported from other military installations of the period (Grimm 1970:76 and Plate 21 and Hanson and Hsu 1975:78, Table 9 and Figure 46). The two cannon that were recovered at Chota (see above), one of which is in the Fort Loudoun

collection, has a bore diameter of 2.05 in. These would have fired a shot somewhat larger than the solid shot that is in the collections, something probably on the order of a pound shot. The one shoe in the collection is probably one that would have been used with the two swivels that were documented to have been at Fort Loudoun.

Spontoon
Total 1
Not Illustrated

One spontoon was reported from Fort Loudoun by Kunkel (1960:7). It could not be relocated for this study. One, however, is illustrated from Chota-Tanassee (Newman 1986:440 and Figure 8.10e) may be a spontoon tomahawk.

Table 144. Returns and Mentions of Ammunition Supplies and Related Articles

October 26, 1756
There is but ten Bags of Powder and fourteen Bags of Bullits... In the List of Indian Goods there is no trading Guns or Powder which with some more Ball is much Wanted (R. Demere to Lyttelton, SClA:230).

June 11, 1757
Return of Ammunition in Magazine at Fort Loudoun.

Powder	Lead	
450	640 Muskett Ball	8200 Muskett Cartorrages
	100 Indian Do	with Ball and Swan Shott
	396 Do made up in Grape Shott	
	210 Swan Shott	
	69 Iron Shott	
	49 Cow Horn Shells	
	49 Small Do	

(Joseph Callaway, Return of Ammunition, Clements Library)

July 11, 1757
...but the Little [Ammunition] we have in the fort... (R. Demere to Lyttelton, Clements Library).

August 31, 1757
...As I'm Informed by the Gummer there is no trading ball here begg Your Excellency will order a supply by the first Opportunity... (P. Demere to Lyttelton, Clements Library).

September 18, 1757
We have ... little Gun Powder. As you may see in the Return; there is no trading Ball in the Magazine (P. Demere to Lyttelton, SClA:404).

October 11, 1757
I recived from Keowee by John Elliot ... 9 trading Guns, twelve of which are Spoil'd or broke, 400 wt Powder Damaged, 403 Ball according the Receit from Keowee... (P. Demere to Lyttelton, Clements Library).

February 24, 1758
A Return of the Ammunition in the Magazine at Fort Loudoun.

Powder 284 Lb.	Lead
820 Musquet Cartridges	392 Lb. of Muskett Balls
200 Cannon Do. 281 of Indian Do.	
800 Cannon Do. not filled	420 of Musquet Balls in paper Baggs for Grape Shott
625 Paper Baggs for Grape Shott	
69 Iron Shott	150 of Swan Shott
49 Cohorn Shells	
49 Hand Granaed Shells	
50 Quier Cartridge Paper	
10 Pounds Mach	1243

Powder 320 Lb. that Captain Raymond Demere left August 16th, 1757
Do. 390 came by Mr. Elliott October 3rd
710

Table 144. Returns and Mentions of Ammunition Supplies and Related Articles

Lead 1200 Lb. that Captain Raymond Demere left
405 came by Elliott
1605

31 Indian Guns that Captain Raymond Demere left
39 Ditto came by Elliott
70

Indian Guns 23 given to the Indians at sundry Times
46 now in the Store
1 that the Barrell broke and the Lock repaired the others
70

Ammunition expended from the 16th August to the 24th February, 1758

August 18th, 1757	To the Indians for Scalps	10	30
	To saluting the Indian Warrours at sundry times	64	-
	To the Indians at sundry Times to go to War	192	234
November 10th	Fired three Volleys, it being his Majesty's Birthday	6	
	To the Little Carpenter and Judg's Friend at sundry Times	5	12
	To the Butchers at sundry Times 3	6	
	To the Miners	3	
	In Cannon Cartridges	100	
I	In Musquet Do.	40	80
February 12th	To saluting the Indians at their Town with three Vollys small Arms	3	
	Expended	429	356
	In the Magazine	284	1243
		713	1599

JOSEPH CALLAWAY, Gunner (SCIA:449)

May 2, 1758
Ammunition delivered by John Elliot.
80 Weight Gun Powder
1600 Weight Trading Bullettes
2 Small Baggs of Flints
(SCIA:458)

September 13, 1759
...no flints & very little Match (P. Demere to Lyttelton, Clements Library).

November 3, 1759
Capt. Stuart Arrived here with his Party 27th of last Month, he has brought with him the Ammunition. (P. Demere to Lyttelton, Clements Library).

August 31, 1760
At Fort Loudoun the Indians captured small arms numbering 80, 1000 wt. of powder, 2000 wt of ball, 14 cannon. (William Bull to Lords of Trade, August 30, 1760, BPRO, Vol. 28, 394).

Accouterments

Cartridge Box Buttons
Total 8
Figure 175A

Eight cartridge box buttons are in the collections from Fort Loudoun. Five of them are shown in Figure 175A. These are all of brass and are quite comparable to others listed in the literature from other contemporary forts (Grimm 1970:86 and 115, Plate 40-1 and 116, Plate 41-A-1; Hanson and Hsu 1975:69, 71 and Figure 44-L where they are identified as scabbard tips). There is some variation in the length and size, and to some degree the shape, indicating different molds or places of manufacture. But, stylistically they are of the same general pattern. Figure 175A shows the range of variation of the ones from Fort Loudoun. These were distributed within the fort as follows: one in Structure 17, one east of the northern end of the Barracks, one in the slope deposits, two in a midden filled depression in the Southeast Bastion (Feature 178), one in a pit feature (Feature 179), one in a palisade trench and one to the southwest of Structure 6. As noted with the discussion of musket ball and shot, there were at least four squares where cartridge box buttons and either musket ball or shot were located together, possibly indicating the loss or discard of these items as a unit.

Scabbard Clips
Total: 8
Figure 175B-H

Five of the scabbard clips in the collection are of brass and the remaining three are of iron. Four of the brass ones are quite similar to other illustrated ones for the period, consisting of the clip and a backing plate. Photographs and drawings of one are shown in Figures 175B-D. These were attached to the scabbard by two rivets through the backing plate, the leather and another backing plate on the opposite side of the leather to retain the rivets. These are similar to illustrated ones from Fort Ligonier (Grimm 1970:115-116, Plate 40-1 and Plate 41-B-l and 127), Fort Stanwix (Hanson and Hsu, 1975:69, Figure 44-K and 71) and from Fort Michilimackinac (Stone 1974:279, Figure 170-K and 277). The remaining brass specimen is unique (Figure 175F-H), made of two pieces of rectangular brass riveted together at the base, with one plate having a small clip projecting from the outside piece. The composite back was then attached to a belt, strap or sheath by means of three rivets. The edge of the outside piece is decorated with two grooves paralleling the edges.

The iron scabbard clips are simply U-shaped, and all were attached to the scabbard with one rivet with a large head on the back of the leather (Figure 175E). Similar specimens are illustrated from Fort Michilimackinac (Stone 1974:279 and Figure 170-M).

The seven clips that can be plotted were recovered from the following proveniences: one is from Structure 10, one was from Feature 79 along the west curtain, and two were from squares in the Northwest Bastion east of the Powder Magazine and between Structures 12 and 17. One was in the midden deposits south of Structure 17 and east of the north end of the Barracks, one is from the slope deposits, and the last is from Feature 178, a midden deposit in the Southeast Bastion.

Musket Ball Worm
Total: 1
Figure 175I

One complete musket ball worm was recovered by the WPA project. It is made of iron, and the shaft of the worm is hollow for insertion of a wooden or metal rod. A small hole drilled through the rear part of the worm would have allowed the rod to be secured by a pin driven through the inserted shaft. A single prong gun worm is recorded but not illustrated from Fort Stanwix (Hanson and Hsu 1975:70).

Ramrod Ends
Total: 2
Figure 175J

The two ramrod ends recovered are two different varieties. One was made for attachment to a metal ramrod by means of a threaded end that would have screwed into the end of the actual ramrod. This specimen has a length of 8.75 cm (3.5 in.) and an end diameter of 0.59 in. The second ramrod end is made of brass. The cylindrical part of the piece is either rolled or cast brass, and the flat end piece was soldered on. It has a diameter of 0.60 in. This piece was made to fit over the end of a wooden ramrod. Both specimens were probably used with the British military musket. The brass one is similar to those illustrated by Darling (1970:20, Figure 5) and Grimm (1970:74, Plate 18-10 and 11).

Bayonet Socket
Total: 1
Figure 175K-M

One bayonet socket was recovered from Feature 3, a midden deposit in the base of the northwest fort ditch. The blade was broken off prior to deposition. The bayonet is of the Brown Bess type with a four-inch socket and a reinforcing collar at the base of the socket. It has a slot in the rear reinforcing collar to allow the passage of the socket over the rear mounting stud, and the S-shaped locking slot typical of this type of bayonet (McNutley 1973:56-57). The major difference between this bayonet and the ones described by McNutley is that the Fort Loudoun specimen has a ridge where the neck of the bayonet joined the socket. Neuman (1967:48) indicates that this is a characteristic of earlier or pre-1750 English bayonets. Ellsworth Brown (1955f) illustrates another similar socket and a portion of a bayonet blade from Fort Loudoun recovered by the WPA excavations, but this specimen was not relocated for this study.

Powder Flask Cap
Total: 1
Not Illustrated

A small brass cap which was made to fit over the end of a powder horn was recovered from Feature 178 in the Southeast Bastion. It had been decorated with an incised line around the outside and one along the inside edge. There is a series of notches or indentations along the edge where it was bent. A hole in the center of the top was for the brass or other tubular metal spout.

Touchhole Picks or Vent Picks and Chain Links
Total: 5
Not Illustrated

Two vent picks were recovered. Both are similar to illustrated examples from other contemporary sites (e.g., Grimm 1970:74, Plate 18-19). Both were constructed of brass wire, pointed on one end and bent into a loop at the other for attachment of a chain. The differential in size may indicate that one was utilized with the musket or pistol and the other with the cannon or other larger armament at the fort. In addition to the two picks, there are three brass chain links, figure-8 in shape, made of thin brass wire that may have been links from vent pick chains.

Bullet Molds
Total: 2
Not Illustrated

There are two bullet molds in the Fort Loudoun Museum collection that date to the period of the fort's occupation. They are both of the same mold diameter. One was recovered from the Guardhouse (Structure 13) by the Myers and Polhemus excavations in 1966-1967 (Myers and Polhemus N.D.). The other is without provenience.

Lead Cylinder (Rifling Guide)
Total: 1
Not Illustrated

One cylindrical piece of lead was recovered by the WPA excavations. It has a diameter of 1.7 cm (0.67 in.) and a length of 5.7 cm (2.25 in.). The use of this item is uncertain. It may have simply been a piece of stock. It is also possible that it may have been a rifling guide based on Grimm's (1970:94 and Plate 18-18) identification of a similar piece of lead from Fort Ligonier with nearly the same dimensions (2.0 in. by 0.64 in.). The Fort Loudoun specimen has several grooves running the length of the object, although they are not as clearly defined as might be expected if they had been made by rifling grooves.

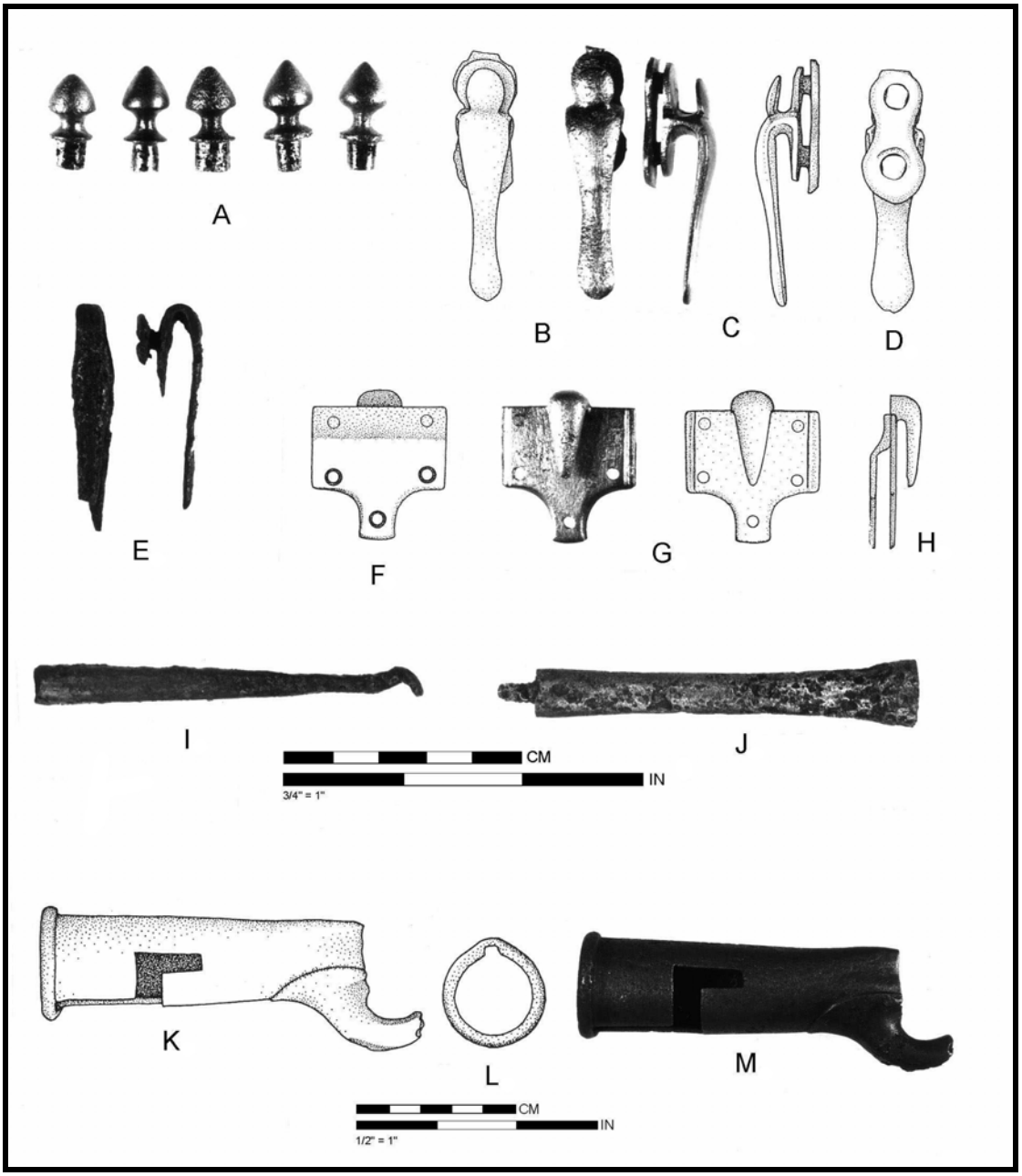

Figure 175. Accouterments.
A. Cartridge box buttons. **B-D**. Brass scabbard clip. **E**. Iron scabbard clip. **F-H**. Brass scabbard clip. **I**. Musket ball worm. **J**. Ramrod end. **K-M**. Bayonet socket.

Sword Hand Guards and Hilts
Total: 2
Figures 176A-D

Two fragmentary sword hand guards or hilts were recovered. One was recovered from a square within Structure 6 and the other was from a square within Structure 22. A brass hilt (Figure 176A), was recovered from a square within Structure 22, and is probably from a small sword (see Neuman 1967:300-308). It would have had a counterguard similar to the one described above. The knucklebow was broken off at the hilt, and the piece lacks the characteristic *pas-d'ane* but has the vestige of one on the upper part as a decorative item. A portion of a somewhat similar one is illustrated from Fort Michilimackinac (Stone 1974:279, Figure 170-D). The part of a counterguard (Figure 176B) recovered from Structure 6 was part of a hilt from an English military hanger, quite similar to those illustrated by Neuman (1967:218-223) for the mid-eighteenth century, or possibly a small sword of the same period (Neuman 1967:300-309 and Figure S.128).

Sword Blade
Total: 1
Figure 176E

One 15 cm section of a sword or hanger blade was recovered from the fort and is in the collections from the WPA work. It has a width of 2.5 cm and has a fuller along either side of the blade near the top.

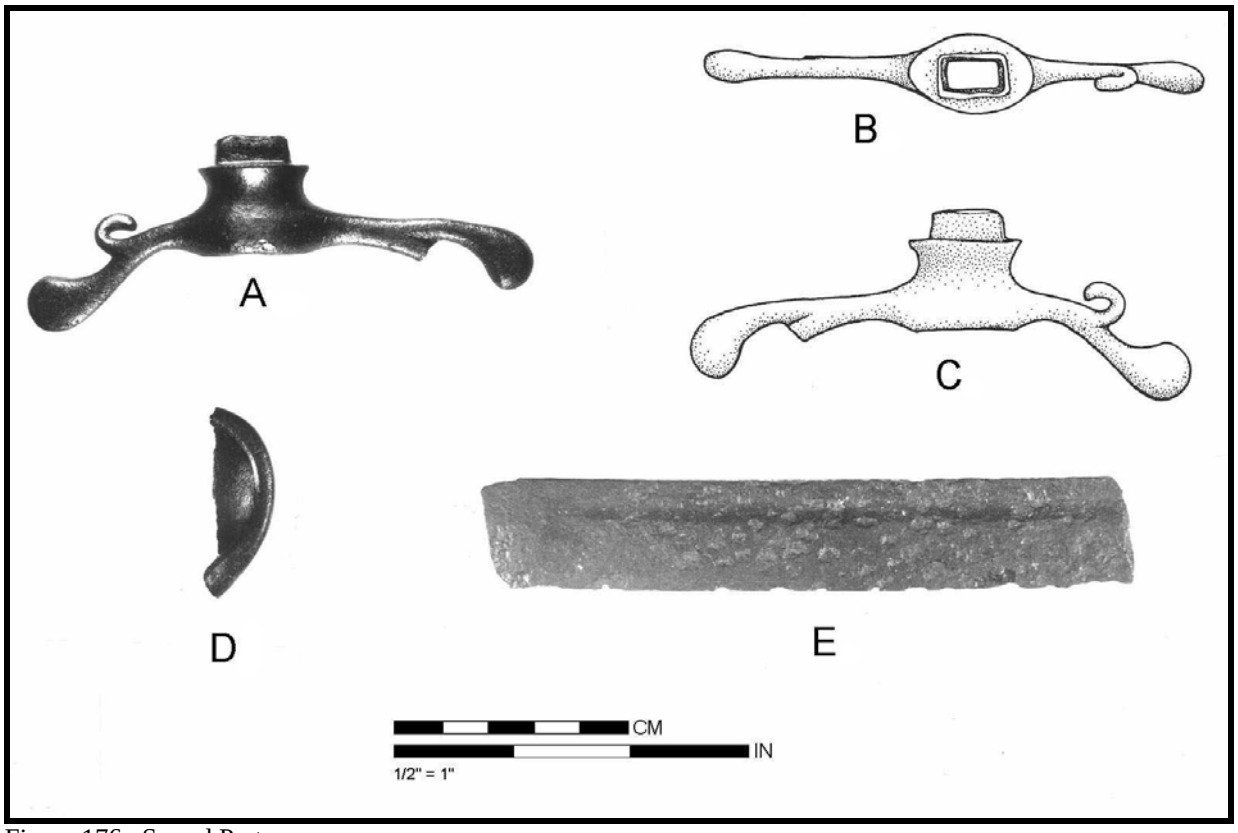

Figure 176. Sword Parts.
A-C. Hilt. **D**. Counterguard. **E**. Sword blade section.

Brass Projectile Point
Total: 1
Figure 177

One brass projectile point was recovered from within the fort. It had been cut out of a thin piece of sheet brass. It is triangular in form, side notched, and has the characteristic hole punched through the point between the notches. The point was recovered from the fill of Structure 8, which is believed to have been one of the early temporary buildings. The point possibly represents an item that had been collected from an Indian by one of the soldiers or Provincials as a souvenir. Demere at one point does mention sending a bundle of arrows and other items to Governor Lyttelton.

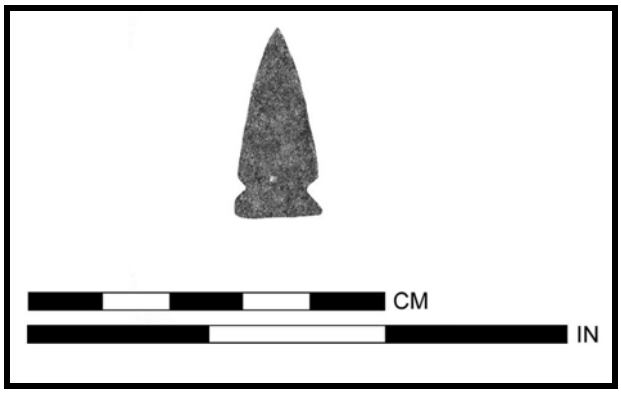

Figure 177. Brass projectile point.

Brass projectile points are quite common on contact period sites in East Tennessee and have been generally classified as Chota Triangular Points. The common form of these is more nearly an isosceles triangle with a perforation near the center of the point (Polhemus 1970:82-83 and Plates 82 and 83; Cornett 1976:17, Figure 8). Because the point from Fort Loudoun differed from the Chota Triangular points in shape and notching and since it was recovered from Structure 8, from which several Fatherland Incised Sherds were also recovered, it was thought that this point might possibly be a style associated with the Lower Mississippi Valley. Illustrated examples from that area do not bear this out (Good 1972:88-89 21 and 22 and Quimby 1957). A basally notched brass point is reported but not illustrated from Tomotley (Newman 1978a:174). Stemmed brass points are reported from the Guebert Site in Illinois (Good 1972:68-69 and Figure 14-C). Basal notched and stemmed points, as well as two side notched points are reported from the Fletcher Cemetery Site in Michigan (Mainfort 1979:359 and Figure 29). Examination of other studies of brass projectile points failed to locate a similarly shaped point (Perino 1968:Plate 5, 1971:Plate 8; Baker and Campbell 1959:Plate XV). Although Bell (1980:Figure 49) does illustrate some side notched projectile points from Oklahoma, they are not similar.

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
166/280																											1															1
170/280			1																																								1
172/280																											4	4															8
174/280																												1															1
176/280																											1																1
178/280	1		1																																								2
180/196																											1																1
180/240																											1																1
182/270			1																																								1
182/276																					1																						1
184/204																											1																1
184/270																												1															1
186/200(24)			1																																								1
186/236																											2																2
186/266(2)	1																																											1
186/268(2)														1																														1
188/234																											1																1
188/238																			1																									1
188/274 (1)																											1																1
188/278																											1	1															2
188/280																												1															1
188/282																												1															1
190/272																												1															1
190/280																		1										4															5
194/194			1																																								1
194/224															1																													1
194/226																				1																								1
194/228(15)	1																																											1
194/244													1																															1
194/256			2																																									2

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
196/254			1																																							1
196/258																			1																								1
196/264																		1																									1
198/210(B)		1																																									1
198/238								1																																			1
198/240																											1																1
198/256			1																																								1
200/202(B)			1																																								1
200/210																												1															1
200/214			1																																								1
200/244																													1														1
200/246			1																																								1
200/252(6)																						1																					1
200/262			1																																								1
200/298																											1																1
202/192	1																																										1
202/198	1		1																																								2
202/254(6)	1																																										1
202/258																											1																1
204/246(6)																											1																1
204/258			1																																								1
206/246(6)																												1															1	2
206/258(5)												1																																1
208/218																																			1									1
208/262(5)																											1																1
208/312			1																																									1
210/198										1																																		1
210/216																													1															1
210/224																											1																1
210/252(6)			2																								1																3

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
210/256																			1																								1
212/216							1				2																																3
212/224	1																																										1
214/184(8)																											1																1
214/196(7)																																	1										1
214/260																											2	8															10
214/306																											1																1
216/184(8)			1																																								1
216/186(8)	1																																										1
216/208	1																																										1
216/210			1																																								1
216/214			1																								1		1														3
216/216			1													1															1												3
216/178(11)																											1																1
218/210					1																																						1
218/212																											1	1															2
218/216	1																																											1
220/178(11)			1																																									1
220/182(11)			1																																									1
220/206			1																																									1
220/214			1																																									1
222/204(B)			1																																									1
222/216			1																																									1
222/222			1																																									1
224/174(9)			1																																									1
224/178(9/11)			1																																									1
224/216																														1													1
226/204	1																										1	12							1								15
226/206			2																									4		1													7
226/212			1																																									1

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
226/218			1																																							1
228/194			1																																							1
228/198(B)			1																																							1
228/204																												2														2
228/246(13)			1																																							1
230/192(19)			1																																							1
230/204			2																									1			1											4
230/206			1																																							1
230/220(4)																											1															1
230/224			1																1																							2
230/232			1																																							1
232/176			1																																							1
232/204																												1														1
232/208								1																			1															2
232/218(4)																												1														1
232/242																											1															1
232/246			1																																							1
234/138			2																																							2
234/198(17)			1																																							1
234/204(17)																1																											1
234/220(4)																											1															1
234/238			1																																							1
234/240																								1																			1
236/138																											1															1
236/184																													1													1
236/200(17)			1																																							1
236/202(17)			1																								1															2
236/206(17)																												1														1
236/234			1																																							1
236/240			1																																							1

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
238/136			1																																							1
238/138											1																															1
238/186			1																																							1
238/188			1																																							1
238/192			2																																							2
238/242			1																								1															2
240/150			1																																							1
240/180	1																																									1
240/186																															1											1
240/194(17)			1																																							1
240/232(16)	1																																									1
242/150	1																																									1
242/192			1																																							1
242/198																															1											1
244/172																												1														1
244/174(21)			1																																							1
244/192(12)																											1															1
246/186(22)							1																															1				2
248/184(22)	1																																									1
248/194(12)			1																																							1
248/244			1																																							1
F.3																																						1			1
F.25								1		1																																2
F.42																											2															2
F.44			1																								1	2						1								5
F.45	1		1					1																				9														12
F.50			1		1			1					1						1				1				1	4						1								12
F.58																												1							1							2
F.59			1																																							1
F.61E																											1			1												2

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
F.79			1									1																		1	1											4
F.85																											1															1
F.87	1		1																																							2
F.98																												1														1
F.104	1																																									1
F.109																											1															1
F.123			1																								1															2
F.144			1																																							1
F.146			1																										1													2
F.148																												1														1
F.150			1																															1								2
F.152			76																									3														79
F.158			2																									2														4
F.159																												2														2
F.178												1															1			2	1	1										6
F.185	1		1																								1															3
F.190																											1															1
F.212																											1															1
F.352																		1																									1
F.356	2		3																								2	19														26
F.357				1					1																			1														3
F.358	1									1														1																			3
F.361			1																																							1
F.375			1																								1															2
St.7			1																																							1
St.9			2																																							2
St.10	2		2																								5	3			1											13
St.13																																			1							1
St.16			2																									7														9
St.17	3		3			1		1							1										1		2	7		1												20

Table 145. Weaponry and Accouterments

Provenience	French Gunflints	English Gunflints	Dutch Gunflints	Musket Barrels	Breech Plug Tangs	Musket Noseband	Ram Pipes	Trigger Guards	Escutcheon Plates	Butt Plates	Swivels	Side Plates	Lock Parts	Cocks	Cock Jaw Screw	Cock Vise Jaw	Tumbler	Sears	Main Springs	Frizzen Springs	Sear Springs	Trigger	Bolt	Lock Parts	Pistol Barrels	Pistol Main Spring	Musket Balls	Shot	Mortar Shell	Cartridge Box Buttons	Scabbard Clips	Powder Flask Cap	Musket Ball Worn	Ramrod Ends	Touchhole Picks Chain Links	Bullet Molds	Sword Blade	Sword Handguards/Hilts	Bayonet Cocket	Cannon	Lead Cylinder	Totals
PM 197														1																												1
PM 446 & 447													1		1													1														3
PM 450	2																																									2
PM 453			1																																							1
PM 495																												1														1
Ditch		1							1																		2	2														6
Village Surface			2									1																														3
No Prov.	1		13	3			1	3	1		7	2	4	1				1	3	1			1		3	1	13	1	3		1		1			1	1			1	1	69
Totals	30	2	186	3	3	1	3	9	3	3	10	6	7	3	3	2	0	4	8	2	1	1	2	2	4	1	74	115	7	8	8	1	1	2	5	2	1	2	1	1	1	528

Note: Modern and brass projectile point and gunflint not included in table.

Equestrian Related Items

Harness Buckles

Total: 18
Figure 178

There are 15 iron buckle frames and three iron tongues that are believed to have been associated with harness gear. The frames fall into two categories on the basis of their overall shape. Most have nearly square corners, but several have more rounded corners. The range of sizes and shapes is shown in Figure 178. Twelve of the frames are square to rectangular and have a movable iron tongue attached to one side. All of the frames are rectangular in section. The three iron tongues in the collection are from this category of harness buckles.

The second category, consisting of three specimens, has trapezoid-shaped frames, which are square in cross section (Figure 178G and H). These frames probably did not ever have tongues, but probably served as end loops on pieces of harness or served to connect two pieces of harness leather. Attachment to the leather was probably accomplished by looping the strap through the buckle and sewing or riveting the leather together on itself. In the case of one in the collection (Figure 178G), this was accomplished by a piece of sheet metal that was looped over one side of the buckle and then riveted to the end of a leather strap. This was done similarly to a brass buckle illustrated by Noel Hume (1972a:85, Figure 20-10).

Similar buckles are illustrated from Fort Ligonier (Grimm 1970:56 and 117, Plate 42-5) and Fort Michilimackinac (Stone 1974:299, Figures 180-A and B). From the Little Tennessee River valley similar buckles are reported from the sites of Chota (Newman 1977:81-82 and Figure 8-C and Polhemus 1970:Plate 86), Tuskegee (Newman 1978b:54), and Tomotley (Newman 1978a:172 and Plate 28-C).

The 10 harness buckles that have provenience information were recovered from the following locations. Within the fort, three were associated with Structure 17, one came from Structure 13, and the other was from the midden deposits on the slope. Outside of the fort, one was from the south ditch, three were from Cherokee pits including two from Feature 356 and one from Feature 375, and another was from the village surface outside the fort.

Saddle or Harness Decoration

Total: 11
Figure 179A-F

A total of 11 brass specimens in the collections are decorative elements for either saddles, bridles, or other harness. There are four different styles represented. The first category of harness boss is represented by two similar specimens (Figure 179A and B). These are round and have a convex face. Diameters of both specimens are 2.8 cm. The attachment device for this type of boss consists of a raised post in the center of the back, which probably held an iron pin that was bent over the back of the leather after insertion through a hole in the leather. One of these bosses has a completely plain face and the other has an engraved decorative motif consisting of a single line around the edge of the face. A specimen similar to this is illustrated from Captain Jones' Wormslow in Georgia (Kelso 1979:140 and Figure 54-13).

The second category of boss are also circular with convex faces. All are 1.6 cm in diameter and have a stamped line around the edge of the face (Figure 179C and D). Two pointed tangs on the back and located on opposite sides of the disc are for attachment to the leather item. Presumably the tangs were pushed through the leather and bent over toward the center to secure the boss (Figure 179D). One of these specimens has a tin or silver plating remaining. What are probably similar specimens are reported from Chota (Newman 1977:81) and Citico (Ford 1979:84 and 88). The last group of bosses, consisting of two specimens, are foliate shaped (Figure 179E), vaguely similar to one illustrated by Noel Hume (1970:242, Figure 76-4). Two tangs on opposite ends of the boss served for attachment in the same manner as those described immediately above. The length of each is 2.0 cm.

Three of the bosses have flat faces and beveled edges. There are wide notches in the opposite sides of the edge on the back which would have accommodated a leather strap (Figure 179F). The boss would have been secured to the leather strap by iron pins on either side of the notch that were probably bent over the back of the leather. Diameters vary from 3.0 cm to 3.6 cm.

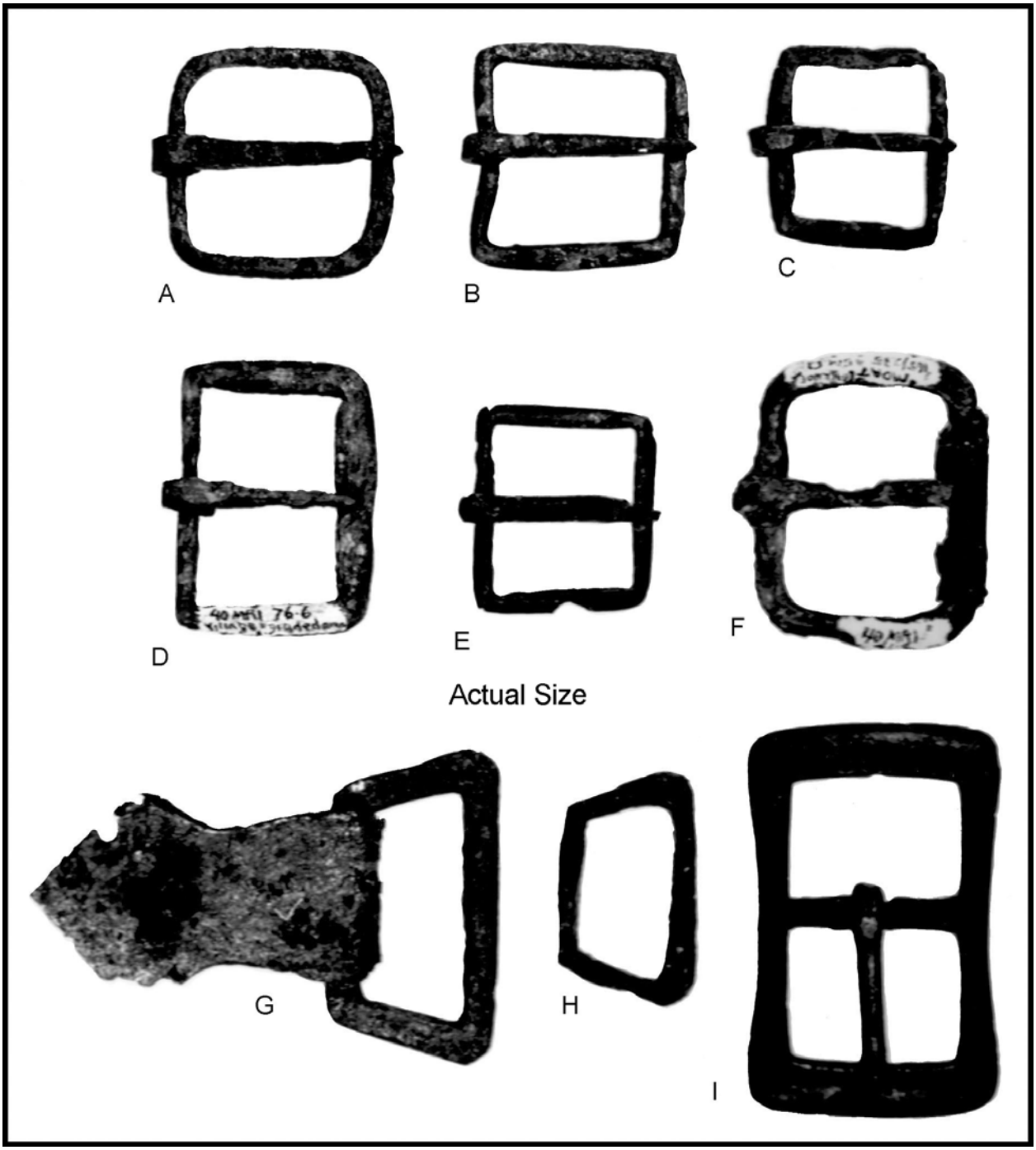

Figure 178. Harness buckles.
A-F and **I**. Square to rectangular harness buckles. **G-H**. Trapezoid shaped harness buckles.

Spurs
Total: 3
Figure 179G and H

Three fragmentary spurs were recovered. All were made of wrought iron. Two are similar and have a slot for a wheel that would have been held in place by a pin (Figure 179H). These are similar but not identical to one from Chota (Newman 1977:81 and 82, Figure 8a). The third is a wrought iron piece which was probably covered with leather that went around the back of the shoe. Instead of a spur or wheel, it probably had one or possibly two brass studs riveted to the back part of the spur (Figure 179G).

Saddle Braces
Total: 2
Figure 179I

There are two iron saddle braces in the collections and are comparable to Grimm's Type 9 brace from Fort Ligonier (1970:116-117, Plate 41-D and Plate 42-6). The one that was recovered from a Cherokee pit (Feature 356) outside the fort has nine rivets still in place (Figure 179I), and the one in the Fort Loudoun Museum collection has four rivets in place. A comparable brace and other fragments were recovered from the Cherokee towns of Chota (Newman 1977:83, 1986:438; Polhemus 1970:85 and Plate 87), Citico (Ford 1979:83) and Tomotley (Linda Carnes, Personal Communication, April 23, 1981; Carnes 1983:Figure II.1f).

Horseshoe
Total: 1
Figure 179J

One horseshoe was recovered just to the south of the Blacksmith Shop in Square N184/E266. It is U-shaped with converging heels. The foot side is flat and the ground surface slightly rounded. The branches are fullered and there are three nail holes along either side, with two nails still present. It has a length of 13.0 cm and is comparable in size to those described for Fort Ligonier (Grimm 1970:99) and Fort Stanwix (Hanson and Hsu 1975:109-111). The shoe was well used and probably represents some of the blacksmithing refuse in the area of that facility. It is also possible that this shoe postdates the occupation of the fort and derives from nineteenth or early twentieth century farming activities in the lower part of the fort area (see Noel Hume 1972:237-239 and Chappell 1973:Figure 6).

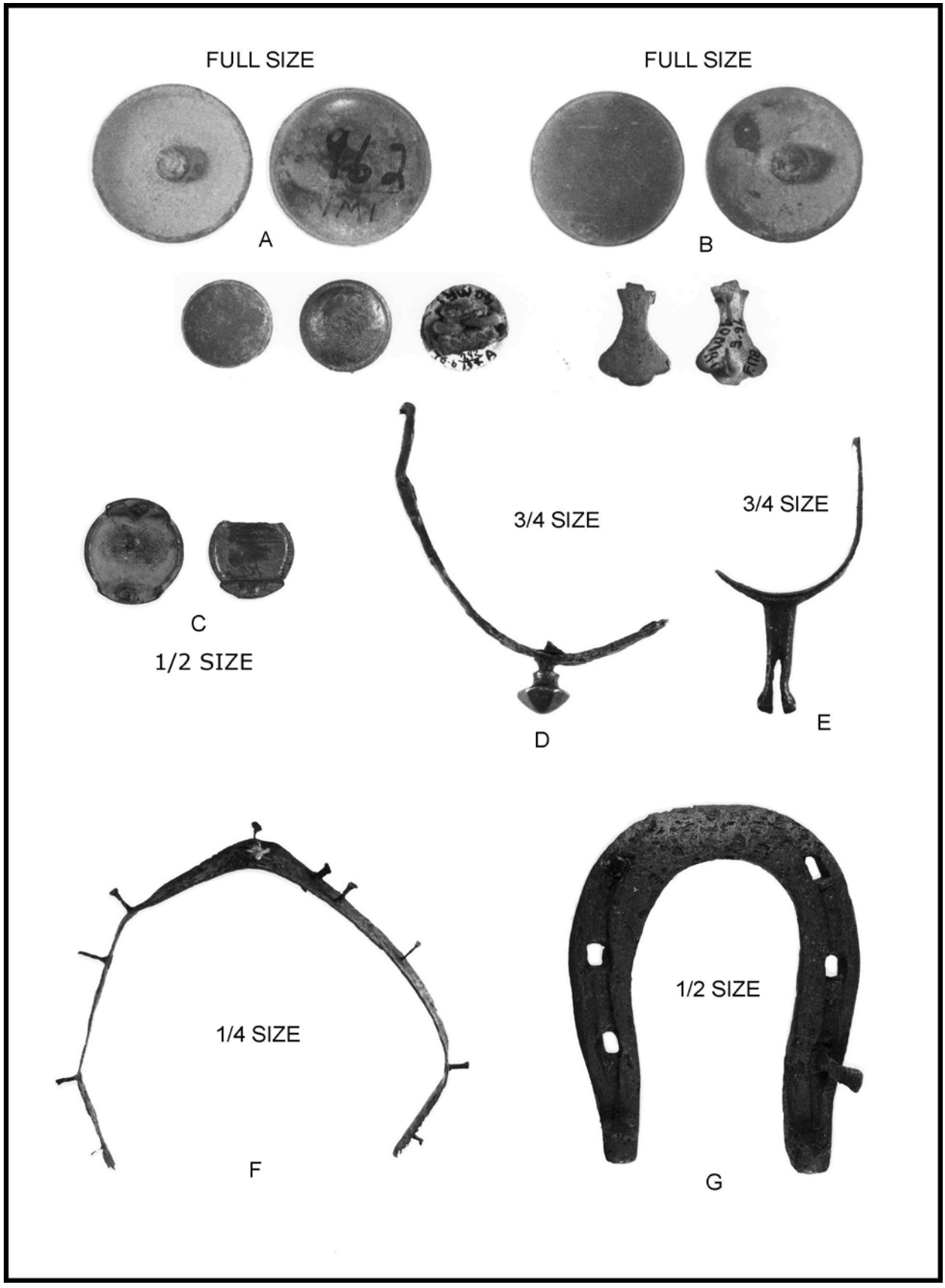

Figure 179. Saddle and Harness Decoration, Saddle Brace , Spurs, and Horseshoe.
A-F. Saddle and harness decorations. **G-H**. Spurs. **I**. Saddle brace. **J**. Horseshoe.

Bits
Total: 10
Figures 180A-D

There is a total of 10 iron bits in the various Fort Loudoun collections. Six of these are classified as curb bits and the remaining four are classed as snaffel bits. Five of the curb bits (Figure 180A and B) are very similar, if not identical to ones illustrated by Noel Hume (1972:240-241, Figure 75-5) which have holes in the side pieces for attachment of cheek piece bosses. The other curb bit in the collection is slightly different from the above, but quite similar to one from Chota (Fielder 1971:65 and Plate 27).

The snaffel bits that are in the collection (Figure 180C and D) are also quite similar to other contemporary ones that have been described and illustrated (Grimm 1970:51 and Plate 46-1; Noel Hume 1972:241, Figure 75-3). These all appear to be a linked type with side bars. Snaffel bits are recorded from the Cherokee sites of Chota (Newman 1977:81) and Citico (Ford 1979:83) in the Little Tennessee River valley.

Stirrup
Total: 1
Figure 180E

One wrought iron stirrup is in the Fort Loudoun Museum collection. The sides of the piece are curved outward and there is a flat, widened foot rest. At the top of the stirrup is a rectangular slot for holding a leather strap. Noel Hume indicates that this form was popular in the late seventeenth century and the early part of the eighteenth century, with the same basic shape continuing through the end of the eighteenth century (Noel Hume 1972:242-243). The Fort Loudoun specimen is virtually identical to one illustrated from Clay Bank, Virginia (Noel Hume 1968:22-23, Figure 14-5) and one from Fort Ligonier (Grimm 1970:117, Plate 42-9). In the area of Fort Loudoun a similar one has been recovered from the Cherokee town of Citico (Ford 1979:84).

Horseshoe Nails
Total: 76
Figure 156D

A total of 76 horseshoe nails are in the Fort Loudoun collections. They are similar in appearance to modern ones and vary in length from 30 to 40 mm. Of the total of 56 nails that had provenienc, 19, or about 34 percent, came from the Southeast Bastion area. This is an expected distribution which follows to some extent the distribution of Blacksmith Shop refuse in that area. Of the remainder, two were from the refuse in Structure 10, three from the fill of Structure 17, and two were from the Barracks area. Most of the rest of the horseshoe nails with known proveniences were recovered from the midden deposits on the slope within the fort, with the highest concentration located in the area south of Structure 17 and east of the northern part of the Barracks. Additionally, one was recovered from the fort ditch.

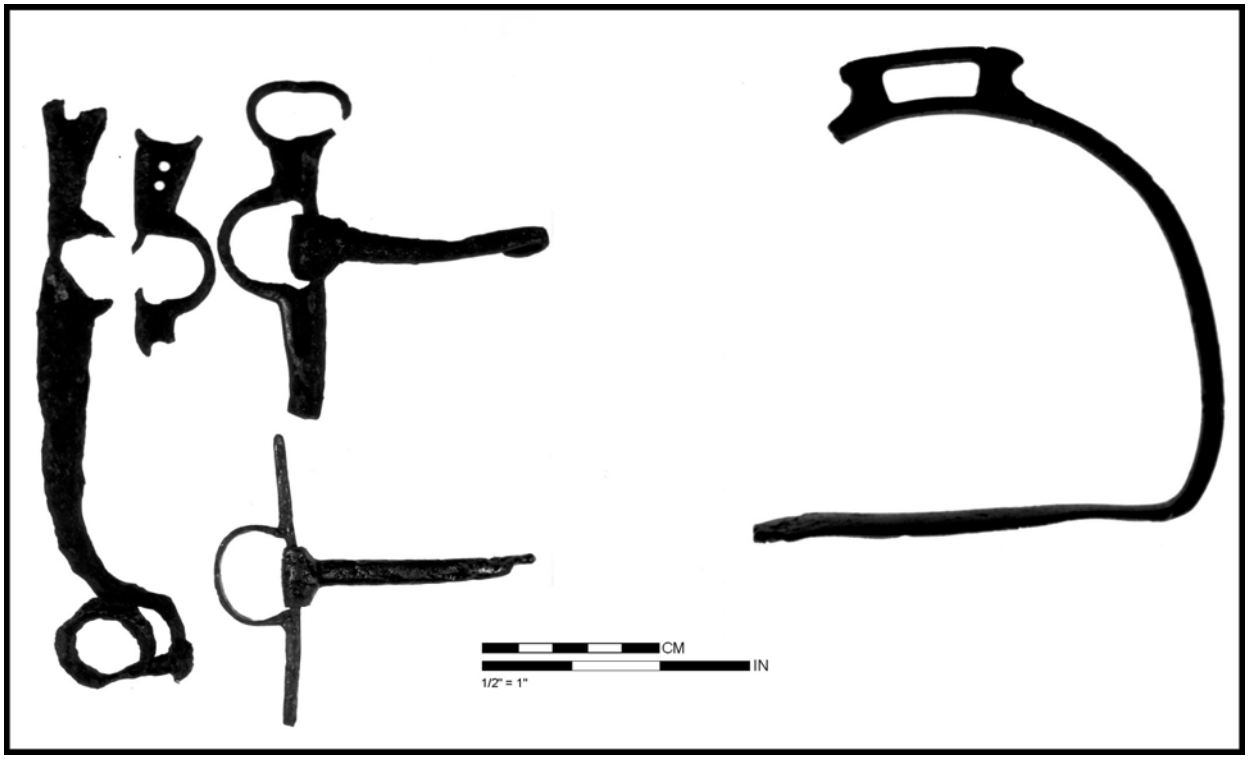

Figure 180. Bits and Stirrup.
A-B. Curb bits. **C-D**. Snaffel bits. **E**. Stirrup.

Table 146. Equestrian Related Items.

Provenience	HS	HN	BI	SB	ST	BO	HD	HB	SP	TOTAL
180/270		1								1
180/270		1								1
184/266	1									1
188/274(1)		1								1
190/272(1)		1								1
190/280		1								1
192/208(14/B)		1								1
192/266(2)		1								1
198/244		1								1
202/252(6)		1								1
206/244		1								1
206/260(5)		1								1
214/252		1								1
216/178							1			1
218/212		1								1
220/224			1							1
222/180(11)		1								1
222/220		1								1
224/232									1	1
226/204		2								2
226/226		1								1
226/228		2								2
228/206		1								1
228/208						1				1
228/226								1		1
228/248		1								1
230/204		1								1
230/206		1								1
230/220(4)		1								1

Table 146. Equestrian Related Items.

Provenience	HS	HN	BI	SB	ST	BO	HD	HB	SP	TOTAL
230/224		1								1
230/228						1				1
232/204		2								2
232/206		2								2
234/204(17)		7								7
234/206(17)		1								1
236/204(17)		1								1
236/232		1								1
236/240		1								1
238/198(l7)		1								1
238/204(17)		1								1
242/194						1				1
242/242		1								1
F. 44		1								1
F. 45		1							1	2
F. 50		3								3
F. 64		1								1
F. 76			1							1
F. 85						1				1
F. 91							1			1
F. 159		1								1
F. 178		1				2				3
F. 212		1								1
F. 356				1				2	1	4
F. 357			1							1
F. 375								1		1
ST. 10		2								2
ST. 13		1						1		2
ST. 17								3		3
Ditch		1						1		2
Village Surface								1		1
No Provenience.		19	7	1	1		3	8		39
TOTALS	**1**	**76**	**10**	**2**	**1**	**6**	**5**	**18**	**3**	**122**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: HS=Horseshoe, HN=Horseshoe Nails, BI=Bits, SB=Saddle Braces, ST=Stirrup, BO=Bosses, HD=Harness Decorations, HB=Harness Buckles, SP=Spurs.
(B) indicates the barracks building.

Clothing Articles

Buckles
Total: 232
Figures 181-187

As with many other historic archaeological sites of this period, buckles, as well as buttons, were some of the most prevalent artifacts of the clothing and personal adornment groups that were recovered. Because of the large number of buckles that were recovered from Fort Loudoun, and particularly the wide range of variation within that group of artifacts, a somewhat more formal classification of those items is presented here, as is also the case with the buttons from Fort Loudoun. This is done to systematically present these materials, while at the same time allowing for descriptions of individual buckle styles. As with many of the other classes of artifacts that are described in this report, an attempt is made to describe and illustrate the range of variation that exists in the collection, to facilitate comparisons by researchers dealing with materials from other contemporary sites. Additionally, similar or identical artifacts that have been described or illustrated from other sites are referenced for comparison.

The classification scheme that is presented here differs substantially from several that have been previously presented, notably by Grimm (1970:56-62), Stone(1974:25-44), Hanson and Hsu (1975:91-94), and Abbitt(1973:25-53). Table 147 summarizes the classification system used here. The buckles are discussed on three levels: Groups, Types, and Varieties, similarly to the classification for the buttons in the next section. The buckles are divided into five groups which are based on the shape and configuration of the frame, regardless of the materials. Types that are defined within each of the major groups are recognized on the basis of two factors. The first is the material from which the buckle is made, and the second is the presence or absence of some type of decoration. Varieties within each type are actually individual buckle styles or decorative motifs. Where possible, correlations between the categories (Groups, Types and Varieties) that are used here and those that have been presented elsewhere are indicated.

The buckle nomenclature that is used here is essentially the same as that used by Abbitt (1973:31 and 35, Figure 8), which follows Diderot's *Encyclopedia* (as cited in Abbitt 1973:31) for the major parts of the buckle. It is substantially the same terminology used by Grimm (1970:48, Plate 10) and less so that used by Stone (1974). Length measurements (side to side) were made by measuring the length of the complete buckle, including the curvature, or doubling the length between the side of the buckle and the pin terminal. Width measurements (top to bottom) were made at the widest part of the top and bottom of the frame. Face widths and thicknesses were not measured, since these are highly variable from one part of the frame to another. The illustrations that are presented in this section on buckles are full size, so accurate comparisons can be made directly from the illustrations. The distribution of buttons by provenience is given in Table 148.

Table 147. Buckle Summary by Group, Type, and Variety.

Type	No. Recovered	Subtotal	Total
Group 1 Rectangular Buckle			**119**
Type 1 Rectangular Brass Plain		**12**	
Variety A Rectangular Flat Brass	6		
Variety B Rectangular Convex Plain	6		
Type 2 Rectangular Brass Decorated		**78**	
Variety A	9		
Variety B	2		
Variety C	1		
Variety D	2		
Variety E	2		
Variety F	10		
Variety G	1		
Variety H	3		
Variety I	1		
Variety J	1		
Variety K	1		

Table 147. Buckle Summary by Group, Type, and Variety.

Type	No. Recovered	Subtotal	Total
Variety L	1		
Variety M	1		
Variety N	1		
Variety O	6		
Variety P	1		
Variety Q	2		
Variety R	1		
Variety S	2		
Variety T	2		
Variety U	15		
Variety V	4		
Variety W	5		
Variety X	3		
Variety Y	1		
Type 3 Rectangular Pewter Plain		**23**	
Variety A Square Section	2		
Variety B Convex Section	21		
Type 4 Rectangular Pewter Decorated		**1**	
Type 5 Rectangular Iron Plain		**5**	
Group 2 Rectangular Rounded Corner Buckle			**23**
Type 1 Brass Plain		**8**	
Variety A	2		
Variety B	6		
Type 2 Brass Decorated		**10**	
Variety A	2		
Variety B	1		
Variety C	1		
Variety D	1		
Variety E	1		
Variety F	1		
Variety G	2		
Variety H	1		
Type 3 Pewter Plain		**3**	
Type 4 Iron Plain		**2**	
Group 3 Openwork Frames			**9**
Type 1 Brass Openwork		**8**	
Variety A	2		
Variety B	1		
Variety C	3		
Variety D	1		
Variety E	1		
Type 2 Pewter Openwork		**1**	
Group 4 Commemorative Buckles			**1**
Group 5 D-Shaped Buckles			**1**
Group 6 Cast Central Bar Buckles			**12**
Type 1 Figure-8 Shaped		**2**	
Type 2 D-Shaped		**9**	

Table 147. Buckle Summary by Group, Type, and Variety.

Type	No. Recovered	Subtotal	Total
Type 3 Figure 8-Shaped Decorated		**1**	
Buckle Backpieces			**68**
Iron Buckle Backpieces		**43**	
Variety 1	9		
Variety 2	10		
Variety 3	1		
Variety 4	1		
Variety 5	3		
Variety 6	3		
Variety 7	1		
Indeterminate	12		
Indeterminate Tongues	3		
Brass Buckle Backpieces		**25**	
Variety 1	18		
Variety 2	2		
Variety 3	1		
Variety 4	1		
Variety 5	1		
Indeterminate	2		
Total Buckles and Backpieces			**233**

Group 1 (Rectangular Buckles)
Total: 118
Figures 181- 184

Group 1 buckles are distinguished by their rectangular form and the presence of square corners. Types within this group are first distinguished by the metal of which they are made and then the presence or absence of decoration on the face of the buckle. Types 1 and 2 are made of brass. The first is plain and the second is decorated. Type 3 consists of plain pewter buckles and Type 4 buckles are decorated pewter. Type 5 buckles are plain iron ones.

Group 1, Type 1 (Rectangular Brass Plain Buckles)
Total: 12
Figures 181A-F

The 12 fragmentary Type 1 buckles are made of brass and have a rectangular shape, with approximately square corners. Two varieties have been distinguished. Variety A has a flat face and Variety B has a convex face.

Group 1, Type 1 Variety A (Rectangular Brass Plain, Flat Section Buckles)
Total: 6
Figures 181A-C

These buckles are made of brass and have wide flat faces, and approximately square corners. The corner angles on the buckle fragments in the collection are slightly less than 90 degrees, so that the top and the bottom of the frames curve inward toward the center. One measurable length is 5.08 cm (2.0 in.). One slightly different frame in this variety is distinguished by the fact that the inside of the side expanded toward the inside of the buckle (Figure 181C). The complete length of this buckle would have been 2.67 cm (1.05 in.). The width was unmeasurable.

Group 1, Type 1, Variety B (Rectangular Brass Plain, Convex Section Buckles)
Total: 6
Figures 181D-F

These are rectangular buckles with square angular corners. They are made of brass and are distinguished from the Variety A buckles by the convex cross section of the buckle frame. The two measurable frames had lengths of 6.0 cm and 3.8 cm indicating matched pairs of shoe and knee buckles. These specimens are similar in form to a spur buckle (C1, SA, T2, Vrr) from Fort Michilimackinac illustrated by Stone (1974:Figure 22-V).

Group 1, Type 2 (Rectangular Brass Decorated Buckles)
Total: 77
Figures 181G-T, 182, and 183

These are rectangular brass buckles that have square, angular corners. They are distinguished from the Type 1 buckles of this group by the presence of molded relief decoration on the face of the buckle. The varieties of this type, discussed in the following sections, are in effect individual design motifs on the various buckle specimens.

Group 1, Type 2, Variety A
Total: 9
Figures 181G-H

The decoration on these buckles consist of two parallel grooves around the outside of the face of the buckle. The inside groove is somewhat wider than the one along the outside of the face. The two measurable specimens would have had original dimensions of 5.0 cm by 4.4 cm and 3.4 cm by 3.1 cm. The smaller one was probably a knee buckle and the larger one a shoe buckle. The remainder of the fragments in this category were similar and probably represent, minimally, one matched set of shoe and knee buckles.

Group 1, Type 2, Variety B
Total: 2
Figure 181J

These are similar to Variety A, except that the buckle width is greater, and the sides are bowed in and widened on the inside toward the pin terminal. Measurable dimensions indicate an original buckle size of 5.0 cm by 4.5 cm. Both specimens were from the same buckle.

Group 1, Type 2, Variety C
Total: 1
Figure 181I

This complete rectangular buckle has a flat face, a rectangular section, and is decorated with three concentric grooves and ridges around the face. They were done similarly to Variety A. Dimensions are 2.8 cm by 3.1 cm, indicating that it was probably a knee buckle.

Group 1, Type 2, Variety D
Total: 2
Figure 181K

The flat surface of this rectangular buckle is decorated with three parallel grooves and ridges on the face of all sides. These grooves and ridges terminate at the corners that are hollowed out or fluted. Both specimens are from the same buckle. The original dimensions were 5.8 cm by 4.6 cm. This buckle is similar to a knee buckle (C1, SA, T2, Vss) illustrated from Fort Michilimackinac (Stone 1974:Figure 22-W). The Fort Loudoun specimen was the size of a shoe buckle, so it also may have possibly been part of a matched set of shoe and knee buckles.

Group 1, Type 2, Variety E
Total: 10
Figures 181N and O

This flat rectangular buckle is characterized by a wide, shallow channel outlined with a narrow, deeper groove and ridges on all faces of the frame. The top, bottom, and sides of the frame decoration are

bisected diagonally by similar channels outlined by narrow, deeper grooves. Several different pairs of these buckles are represented by the fragments in the collections. Original dimensions of the buckles would have been 5.2 cm by 4.5 cm. All were shoe buckle size.

Group 1, Type 2, Variety F
Total: 1
Figure 181P

One rectangular buckle in the collection was characterized by a flat face with a central groove along the middle of each face. Four grooves and ridges run diagonally across each of the four corners, and short parallel grooves extend from the center of the face to the outside edge. This buckle had a top to bottom dimension of 5.0 cm. The side to side measurement was indeterminate.

Group 1, Type 2, Variety G
Total: 3
Figures 181Q and R

Variety G buckles have flat faces and are distinguished by fluted corners, with excised arches emanating from the corners in both directions. There is an incised line between the arches on all sides near the edge, and the space between the central groove and the outside edge is filled with shallow notches. The one measurable specimen would have had original overall dimensions of 5.5 cm by 4.8 cm.

Group 1, Type 2, Variety H
Total: 1
Figure 181L

This specimen was a knee buckle. The face was decorated with a wide central groove, and two narrow, parallel grooves and ridges on either side of the central groove. The corner terminated in a bifurcated point with two rounded ears. The original dimensions were indeterminate.

Group 1, Type 2, Variety I
Total: 1
Figure 181M

This buckle fragment had a flat face with two parallel grooves. The outside edge and corners are flared outward regularly, and the projections along the edge of the buckle have notches cut perpendicularly to the sides. Although it was probably a shoe buckle, the overall dimensions were indeterminate.

Group 1, Type 2, Variety J
Total: 1
Figure 181S

This buckle type is represented by one top or bottom fragment. It is characterized by a sinuous shape, and narrow grooves running parallel to either side of the face. Original dimensions were indeterminate, although it would have been of shoe buckle size. The shape of the side of this buckle is similar to two (C1, SA, T2, Vp and Vq) that are illustrated from Fort Michilimackinac (Stone 1974:Figures 21-Z and 21-CC). They differ from the Fort Loudoun specimen only in the decorative surface treatment.

Group 1, Type 2, Variety K
Total: 1
Figure 181T

This small fragment of a shoe buckle was characterized by a flat face that was decorated with squares and rectangles filled with parallel grooves. The pattern alternated between lines parallel to the edge of the buckle and ones perpendicular to the edge of the frame. This specimen was too fragmentary to estimate frame dimensions.

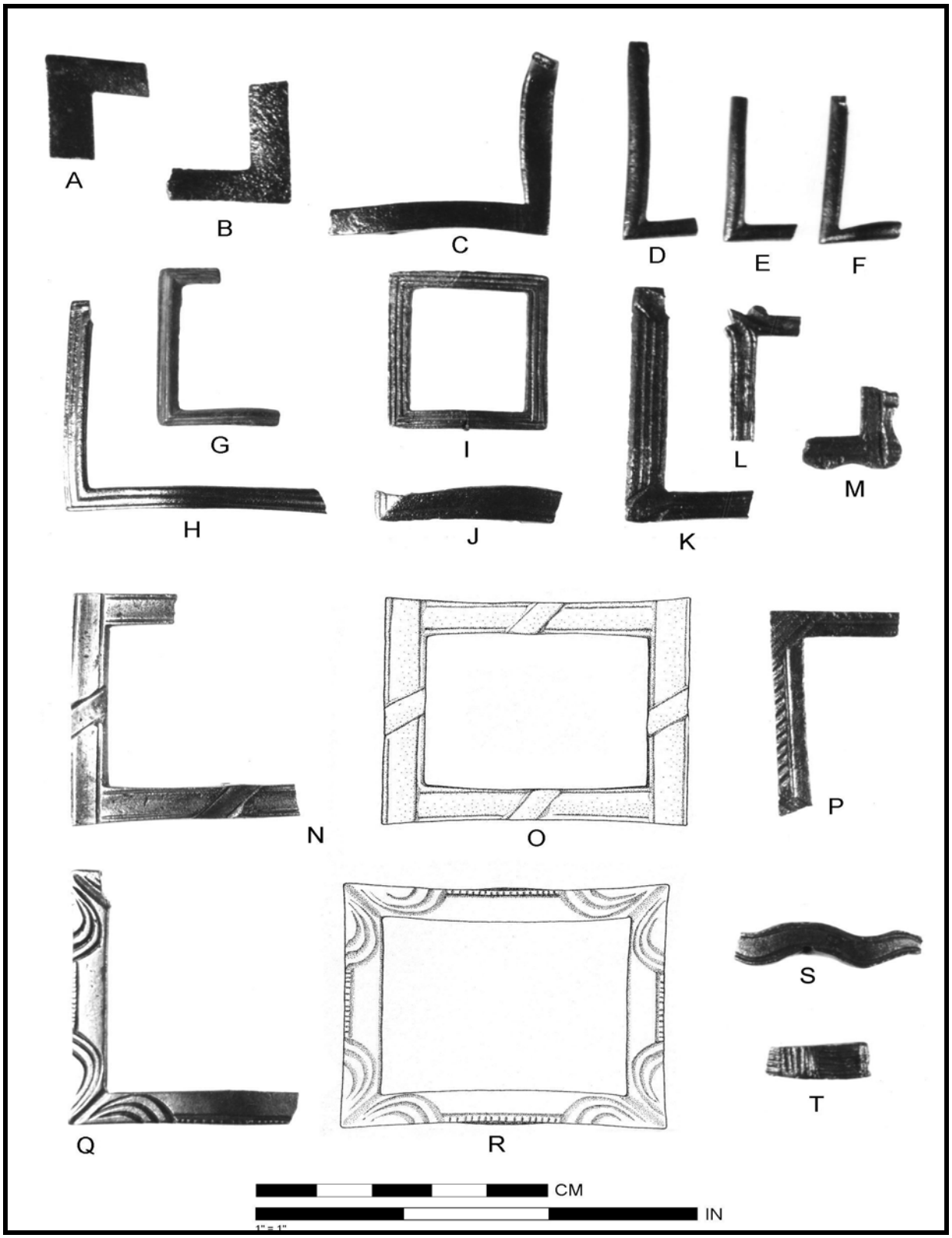

Figure 181. Group 1 Buckles.
A-F. Group 1, Type 1. **A-C**. Group 1, Type 1, Variety A. **D-F**. Group 1, Type 1, Variety B. **G-T**. Group 1, Type 2. **G-H**. Group 1, Type 2, Variety A. **I**. Group 1, Type 2, Variety C. **J**. Group 1, Type 2, Variety B. **K**. Group 1,Type 2, Variety D. **L**. Group 1, Type 2, Variety H. **M**. Group 1, Type 2, Variety I. **N-O**. Group 1, Type 2, Variety E. **P**. Group 1, Type 2, Variety F. **Q-R**. Group 1, Type 2, Variety G. **S**. Group 1, Type 2, Variety J. **T**. Group 1, Type 2, Variety K.

Group 1, Type 2, Variety L
Total: 1
Figure 182A

This shoe buckle has a narrow molded frame that is symmetrically decorated with a series of grooves, notches and lines on all portions of the frame. The corners of the frame are similar and are formed by several notches, leaving two motifs in relief, which arch from the corner toward the sides. The corner panels are separated from the remainder of the side and top and bottom decoration by perpendicular grooves across the face of the frame. The central portion of the side is decorated with a raised motif in the form of a **W** or **M** formed by a central excised area on the outside of the frame and two excised areas on the inside of the frame. The remaining triangular area between the central panel and the corner panels are filled with narrow grooves and ridges that are at a 45 degree angle to the side of the buckle. The center panels of the top and bottom consist of a wide central flute and a series of notches along the outside of the frame. The dimensions of the original frame would have been 5.6 cm by 4.5 cm.

Group 1, Type 2, Variety M
Total: 1
Figure 182B

This variety is another narrow frame shoe buckle. The decoration consists of a central flute at each corner and notches on the outside of the frame at the corners, so that the corner is slightly pointed. The remainder of the frame is decorated with a narrow groove parallel to the interior side of the faces and a series of wide flutes extending from the narrow groove to the outside of the frame, which fill the remainder of the faces. The top to bottom dimension of this buckle was 4.5 cm. The other dimension was indeterminate.

Group 1, Type 2, Variety N
Total: 1
Figure 182C

This specimen consists of the side of a shoe buckle. The relatively narrow frame is decorated with several panels. The central panel consists of a relief area formed by a large central flute on the outside of the face, and two smaller ones. This panel is separated from the corner decoration by a wide ridge flanked by two narrow grooves that are perpendicular to the side of the buckle. The corner decoration consists of a central flute and two wide flutes on the inside of the frame on either side of the corner. Presumably the top and bottom of the frame were decorated similarly. The dimension of the frame from top to bottom was 4.6 cm.

Group 1, Type 2, Variety O
Total: 6
Figure 182D

These six specimens were all from narrow framed shoe buckles. All were badly eroded, but the decoration consisted of indeterminate panels, separated by wide ridges and narrow grooves that are perpendicular to the sides, top and bottom of the frame. A complete buckle of this variety would have had dimensions of 4.4 cm from top to bottom and 5.8 cm from side to side.

Group 1, Type 2, Variety P
Total: 1
Figure 182E

This buckle variety was decorated with a pattern of three rectangular panels on each of the top, bottom, and sides. The panels were separated by grooves perpendicular to the edges of the buckle, and the rectangles were outlined with a rope-like motif. Dimensions of the complete buckle would have originally been 4.0 cm from top to bottom and 4.7 cm from side to side.

Group 1, Type 2, Variety Q
Total: 2
Figure 182F

This decorative variety is characterized by a series of equal sized diamonds separated by grooves containing a central raised rope-like motif. The triangular corner panels are filled with a foliate or floral-like motif. The dimensions of 3.7 cm from top to bottom and 2.8 cm from side to side indicate that this was probably a knee buckle.

Group 1, Type 2, Variety R
Total: 1
Figure 182G

This knee buckle fragment had a flat face that was decorated with a zig-zag pattern formed by two narrow grooves and a ridge between the grooves. The top to bottom dimension was 3.0 cm and the side to side measurement was indeterminate. This frame is similar, but not identical, to one illustrated from Fort Ligionier (Grimm 1970:Plate 12-12 and 13).

Group 1, Type 2, Variety S
Total: 2
Figure 182H

These shoe buckles fragments were characterized by a molded relief decoration consisting of regularly spaced and alternating ovals and Christmas tree-shaped motifs. A raised circular area was at the corner of the buckle. The two relief circles closest to the corners were approximately half the size of the other circles in the pattern. The original dimensions of this buckle were 4.8 cm from side to side and 4.2.cm from top to bottom.

Group 1, Type 2, Variety T
Total: 2
Figure 182I

The relief decoration on this buckle variety consists of several elements. The corner motifs have a raised circular pyramidal node surrounded by a foliate motif. The center of the sides and the center of the top and bottom portions of the frame have a similar motif, except the background area is ovoid rather than square as at the corners. The top and bottom portions of the frame are decorated with a figure-8 shape that further embellished with raised circular nodes. The area between the center and corner motifs on the sides of the buckle are ovoid in shape and consist of half of a figure-8. The decorative element on those bands is similar to those on the top and bottom. The overall dimensions of the complete buckle would have been 4.2 cm from top to bottom and 5.0 cm from side to side.

Group 1, Type 2, Variety U
Total: 15
Figures 182J and K

Both knee and shoe buckles are represented by the specimens of this variety. The molded relief decoration consists of a series of connected ovoid shapes circling the entire face of the buckle. The center of the ovoids are depressed, and the borders are decorated with a rope-like motif. Small pentagon shaped projections are at each of the corners. The shoe buckles would have had side to side dimensions of 5.8 cm and top to bottom dimensions of 5.8 cm. The knee buckles would have been 2.8 cm from top to bottom and 3.4 cm from side to side.

Group 1, Type 2, Variety V
Total: 4
Figures 182 L-N

The decorative motif of this buckle variety consists of a relief molded, floral like design over most of the face of the buckle. The corner motifs consist of plain raised diamond shaped areas. Similar but larger plain raised diamonds are centrally located above the pin terminals. The middle of each side is set off by a wide flute on the inside of the face. The sizes of these buckle fragments indicated matched pairs of shoe and knee buckles. The knee buckles would have had a dimension of 3.0 cm from top to bottom, however the side to side measurement was indeterminate. The overall dimensions for the shoe buckle would have been 4.4 cm from top to bottom and 5.2 cm from side to side. This variety is identical to a type that is illustrated from Fort Ligonier (Grimm 1970:Plate 12-29).

Group 1, Type 2, Variety W
Total: 5
Figure 182 O

This variety has an elaborate relief molded design on the face of the buckle. On each part of the frame there are two grooved S-shaped or scroll-like motifs. These terminate at the corners in a foliate element. The center of the sides and top and bottom, separating the scroll-like designs, consist of a molded design resembling an oval faceted stone in a setting. The edge of the "setting" is decorated with a rope like motif. These three specimens represent one or, at the most, three shoe buckles. The overall dimensions of a complete buckle would have been 4.7 cm from top to bottom and 5.4 cm from side to side.

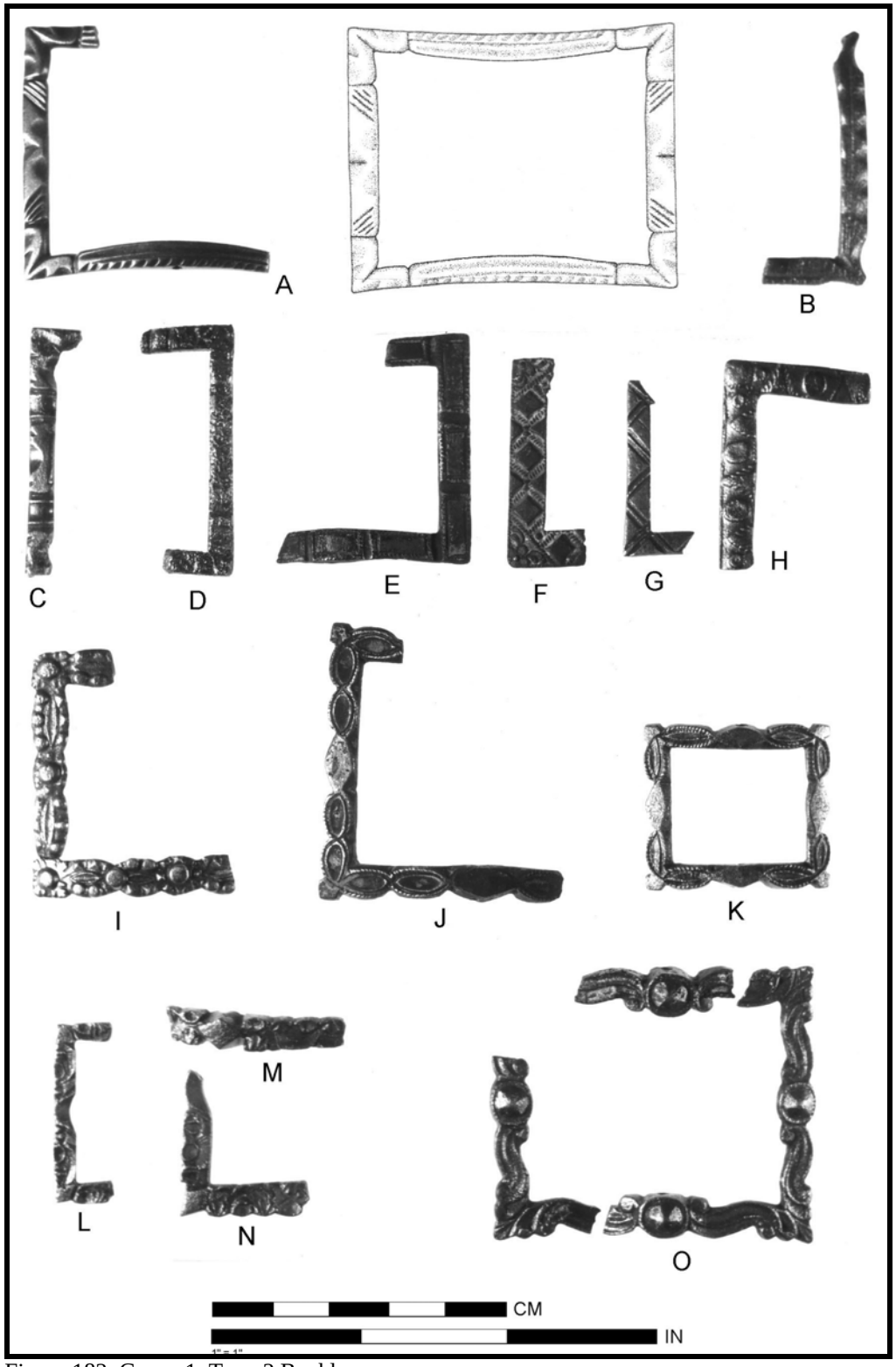

Figure 182. Group 1, Type 2 Buckles.
A. Group 1, Type 2, Variety L. **B**. Group 1, Type 2, Variety M. **C**. Group 1, Type 2, Variety N. **D:** Group 1, Type 2, Variety O. **E**. Group 1, Type 2, Variety P. **F**. Group 1, Type 2, Variety Q. **G**. Group 1, Type 2, Variety R. **H**. Group 1, Type 2, Variety S. **I**. Group 1, Type 2, Variety T. **J-K**. Group 1, Type 2, Variety U. **L-N** Group 1, Type 2, Variety V. **O**. Group 1, Type 2, Variety W.

Group 1, Type 2, Variety X
Total: 3
Figure 183A and B

The decorative elements on this buckle variety are similar to those of Variety W. They consist of a pair of relief molded S- or scroll-like motifs on each portion of the frame. Those motifs are separated at the center of the top by a circular rosette. The scroll-like elements join at the corners to a foliate- or leaf-like motif which provides the buckle with a pointed protruding corner. This is a shoe buckle size frame with top to bottom dimensions of 4.0 cm and side to side ones of 4.8 cm.

Group 1, Type 2, Variety Y
Total: 1
Figure 183C

This variety is an elaborately decorated relief molded buckle. The motifs consist of geometric and foliate elements arranged in a symmetrical pattern, with the top and bottom portions of the frame having the same pattern. The sides have a different pattern than the top, but are both probably the same. The overall dimensions of this shoe buckle would have been 5.5 cm from top to bottom and 6.0 cm from side to side. This buckle is identical to one from Fort Ligonier (Grimm 1970:Plate 12-5).

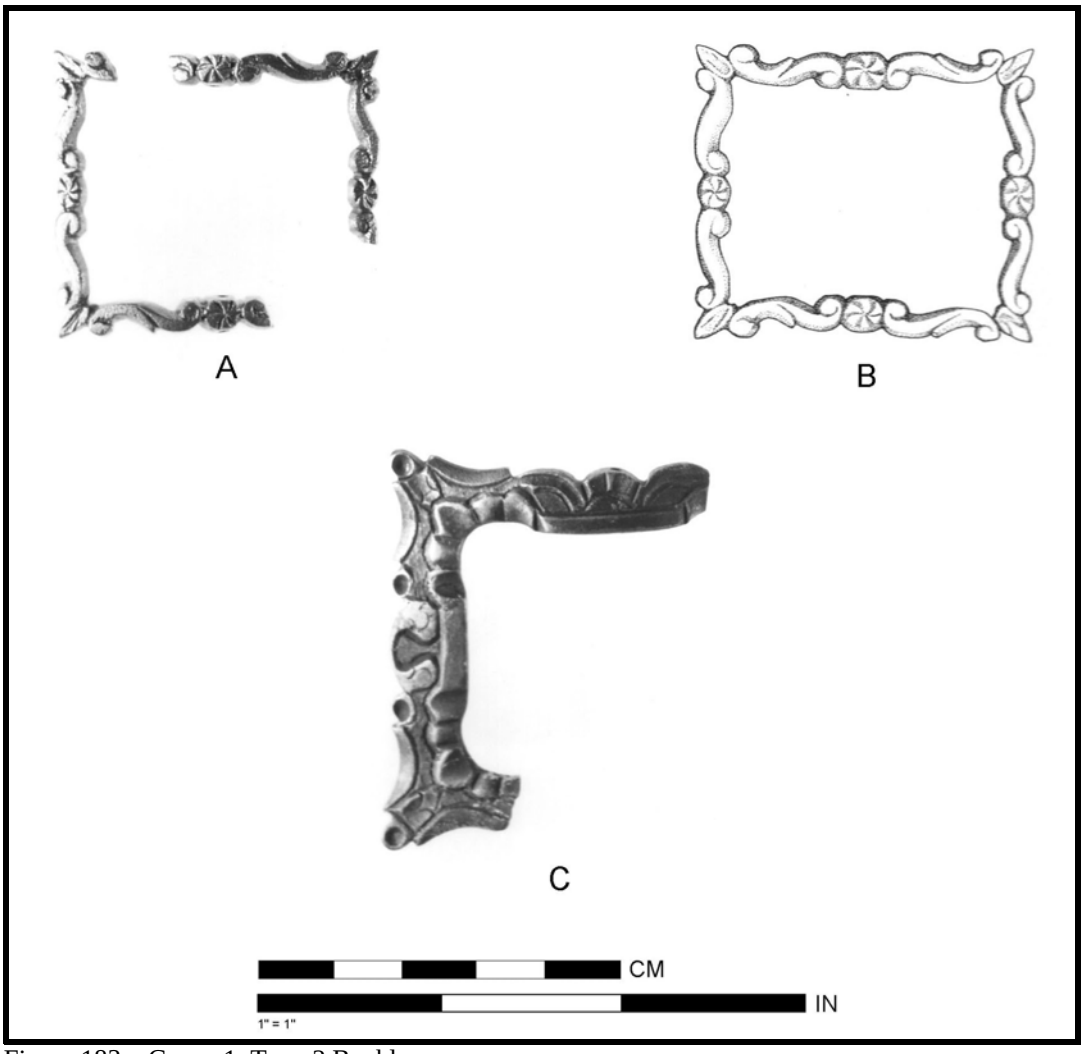

Figure 183. Group 1, Type 2 Buckles.
A-B. Group 1, Type 2, Variety X. **C**. Group 1, Type 2, Variety Y.

Group 1, Type 3 Buckles
Total: 23
Figures 184A-C

There are 23 Group 1, Type 3 buckles. These are distinguished as a separate because they were made of pewter. In other respects, they are comparable to the Group 1, Type 1 buckles described above. Two varieties are distinguished.

Group 1, Type 3, Variety A (Pewter)
Total: 2
Figure 184A

These two buckle fragments are from rectangular buckles and are square to rectangular in cross-section. This buckle variety is similar to the Group 1, Type 1, Variety A buckles described above, except that they were made of pewter. These specimens were too fragmentary to estimate the original size of the buckle.

Group 1, Type 3, Variety B (Rectangular Convex Pewter)
Total: 21
Figures 184B and C

These specimens represent both knee and shoe buckles. They are rectangular in form with square corners. They were made of pewter and are similar to Group 1, Type 1, Variety B in that they have a convex cross-section which gives the buckle a rounded face. The side to side measurements of the shoe buckles range between 5.4 cm and 5.6 cm, while the measurements from top to bottom are between 4.4 cm and 4.5 cm. Two of the specimens were knee buckle fragments. The side to side measurement was 2.5 cm and the top to bottom measurement was indeterminate. This buckle variety is similar in form to one from Fort Stanwix (Hanson and Hsu 1975:Figure 50e [center buckle]), as well as ones illustrated by Abbitt (1973:Figure 9-1 and 2), and Stone (1974:Figure 21-P). They vary from the cited specimens only in that they are made of pewter.

Group 1, Type 4 (Rectangular Convex Pewter - Decorated)
Total: 1
Not Illustrated

This buckle type consists of a rectangular pewter buckle with a convex cross-section. It is virtually the same as Group 1, Type 3, Variety A buckles described above. It is distinguished only by a narrow groove along the outside edge of the frame. The side to side dimension of the complete buckle would have been 5.6 cm, and the top to bottom dimension 5.0 cm. Except for the fact that this buckle is made of pewter, it is comparable to ones described and illustrated by Abbitt (1973:33 and Figures 9- 3 to 5) that are grouped as Type 1 buckles and which are believed to date to the mid-eighteenth century.

Group 1, Type 5 (Rectangular Plain Iron)
Total: 5
Figure 184D

This is a rectangular iron buckle with square corners. The cross section of the frame is convex, and the frame is generally much more narrow than those of the brass and pewter buckles. The side to side dimensions of these buckles varied from 4.0 cm to 4.4 cm. This buckle type is comparable to Abbitt's Type 1-A buckle (1973:32 and Figure 9-9). Hanson and Hsu group two similar buckles in their Type 1, Variety B category (1975:91). This type is also comparable to Stone's C1, SA, T1, Va buckle from Fort Michilimackinac (1974:Figure 21-A).

Group 2 Buckles (Rectangular Buckles with Rounded Corners)
Total: 23
Figures 184E-M and 185A-F

This group of buckles has been established to include all of the buckles that were generally rectangular in form, but which have distinctly rounded corners. The breakdown of types and varieties in this

group corresponds to that for the Group 1, Type 1 buckles described in preceding sections, since the only difference, other than the motifs of the decorated ones, is the rounded corners.

Group 2, Type 1 Buckles (Plain Brass)
Total: 8
Figure 184E-H

The Group 2, Type 1 buckles were made of brass and lacked any decoration. Both shoe and knee buckles are represented in the collections. Two varieties are distinguished based on shape of the cross-section of the frame.

Group 2, Type 1, Variety A
Total: 2
Figures 184E-F

This variety consists of a rectangular, plain brass frame with rounded corners and a frame that is rectangular in section. Two buckle sizes were represented. The larger has a top to bottom dimension of 4.6 cm with an indeterminate side to side dimension. The smaller one had top to bottom dimensions of 3.6 cm and side to side dimensions of 2.8 cm.

Group 2, Type 1, Variety B (Plain Rectangular Brass with Rounded Corners, Convex in Section)
Total: 6
Figures 184G and H

These specimens are also brass buckles, similar to Type 1, Variety A, except that the cross-section of the frame was oval to rounded. There was some variation in the width of the frame depending on the size of the buckle. On the specimens where the pin terminal was present, the frames were widened toward the center of the buckle at the pin terminal. The one measurable buckle of this variety, which still had the iron pin in place, was 5.0 cm from side to side and 3.7 cm from top to bottom. The other specimens appeared to be larger but were too incomplete for measurements. These are similar to one of Abbitt's Type III buckles (1973:Figure 11-2), and the Type 1, Variety E buckles from Fort Stanwix, except that the later were iron or pewter (Hanson and Hsu 1975:92 and Figure 50-h [right]). Ones similar in form are illustrated from Fort Michilimackinac (Stone 1974:Figures 19-K and 23-W), which are categorized respectively as Class I, SC, T2, Vb and C1, SB, T1, Vg.

Group 2, Type 2 Buckles (Decorated Brass with Rounded Corners)
Total: 10
Figures 184I-M and 185A-F

Group 2, Type 2 buckles are similar to the Group 2, Type 1 ones in that they have a rectangular brass frame with distinctly rounded corners. Type 2 buckles in this category are distinguished by the fact that they have some sort of decorative motif on the face of the frame. Eight varieties have been established to describe the individual decorative motifs on the buckles of this type.

Group 2, Type 2, Variety A
Total: 2
Figures 184I and J

This variety of the Type 2 buckles is similar in most respects to the Type 1, Variety B buckles described above, having rounded corners and an oval frame cross-section. The distinguishing feature is a single groove molded into the outside of all portions of the frame. Two buckle sizes are represented. The larger of the two is 6.8 cm from side to side and 5.8 cm from top to bottom. This frame is similar to Abbitt's Type III buckles (1973:Figures 11-1 and 11-7), and are comparable in form to Grimm's Type 2 buckles, specifically to his Type 2A buckles which have a similar incised line around the outside edge of the face (1970:57, Figures 11-5, 12 and 19). The smaller specimen in this variety is basically similar except the sides are straighter. The groove around the outside of the face is, again, the distinguishing decorative feature. Its dimensions are 3.6 cm from top to bottom and 2.7 cm from side to side.

Group 2, Type 2, Variety B
Total: 1
Figure 185A

This specimen is a complete large brass frame with relatively wide faces. It is similar in form to the Variety A buckles, but is distinguished by a molded groove around both the inside and outside of the face. Its dimensions are 5.3 cm from top to bottom and 6.2 cm from side to side. It is similar to one from Fort Michilimackinac (Stone 1974:Figure 23-T).

Group 2, Type 2, Variety C
Total: 1
Figures 184L

This is a complete frame that was recovered from Feature 171. The face of the buckle has a molded relief pattern arranged symmetrically on the face of the frame. The design consists of an alternating series of shell-like motifs, floral or rosette motifs and raised rectangles. The interior of the frame is bordered by a line of low relief scallops, and the outside edge of the face is lined with an alternating series of dots and U-shaped elements. The overall dimensions of this specimen are 5.2 cm from top to bottom and 7.0 cm side to side.

Group 2, Type 2, Variety D
Total: 1
Figures 184M

This variety consists of a large frame that has a molded relief decoration of a symmetrical pattern of foliate and floral-like elements that closely resemble the decorative elements on featheredge creamware. The area above the pin terminals have crab-like elements in low relief. The overall dimension of the original would have been 5.0 cm from top to bottom and 6.0 cm from side to side.

Group 2, Type 2, Variety E
Total: 1
Figure 184K

This buckle fragment is characterized by a decorative motif on the face consisting of a series of molded lines parallel to the edges of the buckle. These parallel lines ended in a pair of scroll-like motifs at each of the corners. The original top to bottom dimension of this buckle would have been 4.2 cm. The other dimension was indeterminate.

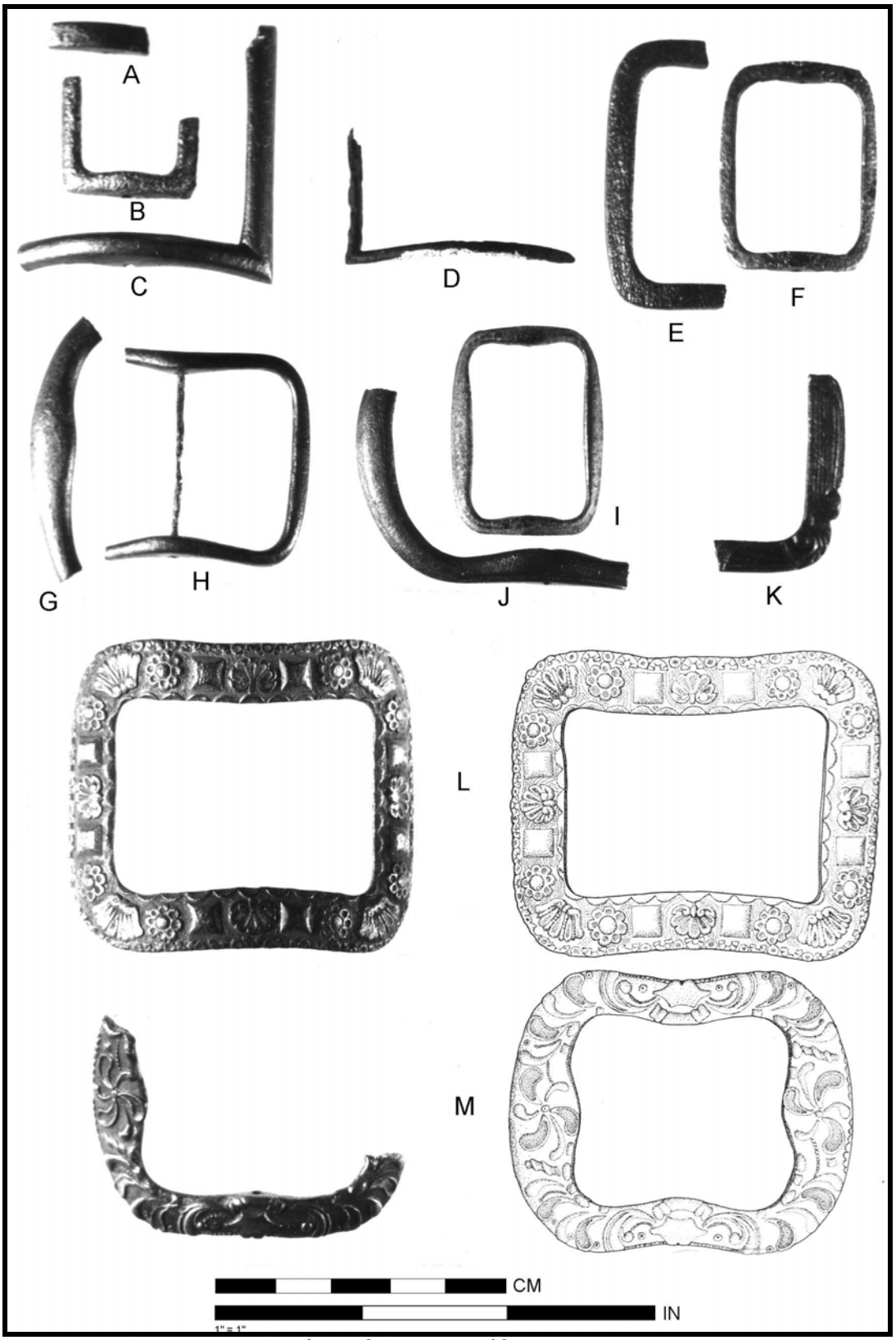

Figure 184. Group 1, Types 3 and 5, and Group 2 Buckles.
A-D. Group 1 Buckles. **A**. Group 1, Type 3, Variety A. **B-C**. Group 1,Type 3, Variety B. **D**. Group 1, Type 5. **E-M**. Group 2 Buckles. **E-F**. Group 2, Type 1, Variety A. **G-H**. Group 1, Type 1, Variety B. **I-J**. Group 2, Type 2, Variety A. **K**. Group 2, Type 2, Variety E. **L**. Group 2, Type 2, Variety C. **M**. Group 2, Type 2, Variety D.

Group 2, Type 2, Variety F
Total: 1
Figure 185D

This variety is represented by one shoe buckle fragment. The face of the frame was decorated with a molded series of notches and bevels forming a symmetrical geometric design. On the bottom portion of the frame was a small rectangular panel filled with two grooves and three ridges parallel to the edge of the frame. The sculpting of the frame gave the ends of the frame a scalloped appearance. The original dimensions were 5.6 cm from top to bottom and 4.2 cm from side to side.

Group 2, Type 2, Variety G
Total: 2
Figure 185C

These two identical knee buckle frames were decorated with a molded design. The sides of the buckle have a central panel consisting of a narrow groove parallel to the edge, and three deeply beveled areas on the inside of the frame. A wide beveled area was present at each of the corners, set off from the side and top and bottom panels by grooves across the face of the buckle at 45 degrees to the edges. The top and bottom panels consisted of a wide U-shaped element with an indeterminate element above each pin terminal. The overall dimensions of these two buckles are 3.4 cm by 3.4 cm.

Group 2, Type 2, Variety H
Total: 1
Figure 185B

This specimen was plain except for a wider decorative motif at the center of the sides and top and bottom of the frame. The frame was too eroded to determine the decorative pattern of the central bosses. The original dimensions of the buckle would have been 3.2 cm from top to bottom and 3.0 cm from side to side. In general form, this buckle is similar to a plain one from Fort Michilimackinac (Stone 1974:Figure 22-I).

Group 2, Type 3 (Pewter Buckles with Rounded Corners)
Total: 3
Figure 185E

This buckle type is similar to the rest of the Group 2 buckles with the specimens being rectangular with distinctly rounded corners. This type is distinguished from the other types by the fact that the buckles are constructed of pewter. This type is represented by three fragments from one large buckle. It had a brass pin and cast pewter chape and tongue. Although badly eroded, it was clear that the faces of the frame were originally plain. The major portion of the frame came from square N222/E214 within the fort, but the two other fragments, one of which pieced with the larger one, were recovered from a Cherokee pit feature (Feature 361) in the village area to the south of the fort, clearly demonstrating the general contemporaneity of the fort and village occupations. The estimated original dimensions of the buckle were 5.2 cm from top to bottom and 6.4 cm from side to side.

Group 2, Type 4 (Plain Iron Buckles)
Total: 2
Figure 185F

This category of buckles has been established to account for the two iron buckles that otherwise conform to the remainder of the buckles that are rectangular with rounded corners. The two specimens of this type have relatively narrow frames with convex cross-sections. The faces of the frames were not decorated. Both buckles were the same size with top to bottom dimensions of 3.7 cm and 4.6 cm from side to side.

Group 3 Buckles (Rectangular Buckles with Openwork Frames)
Total: 9
Figures 185G-N

This buckle group is distinguished from the others in that the decorative motif used to embellish these buckles has some openwork as part of the decoration. All of the specimens would have been cast, with the exception of Type 1, Variety A, and Type 1, Variety H, which may have been drilled after casting. The types in this group are based on the kind of metal used for the buckle, and the varieties described are, in effect, the individual decorative motifs of specific buckles or sets of buckles. Because of th small number of buckles in this group, those that have distinctly rounded corners rather than square ones are not separated as a different group, except at the variety level. This group of buckles is comparable to Abbitt's Type V buckles (1973:33). They also conform to Stone's C1 SA T2 Vvv-Vrrr (1974:Figures 22 Z-KK and 23 A-K), Hanson and Hsu's Type 1, Variety g (1975:92), and Grimm's Type 3 (1970:57).

Group 3, Type 1 (Rectangular Brass with Openwork)
Total: 8
Figures 185G-M

This type includes all of those buckles that had brass frames and an openwork decoration, and includes those frames which are rectangular with square corners as well as those that have rounded ones. Six varieties have been established to describe the individual decorative patterns.

Group 3, Type 1, Variety A
Total: 2
Figure 185G

These two specimens are parts of the same buckle found in two different features within the fort. The design consists of a symmetrical pattern of figure-8 elements separated by plain circular elements at each of the corners and at the center of all sides of the frame. The open areas in the figure-8s were probably drilled after the initial casting. The top to bottom dimension would have been 4.2 cm and the side to side measurement 4.8 cm.

Group 3, Type 1, Variety B
Total: 1
Figure 185H

This buckle fragment was decorated with a series of circular elements, with round open centers, separated by plain raised dots on either side of the frame. Small pyramidal elements were on either side of the circular motifs. This specimen was too fragmentary to estimate original dimensions, but the width of the frame indicates a shoe buckle size frame.

Group 3, Type 1, Variety C
Total: 3
Figures 185I-K

This variety consists of an openwork that has interwoven rope-like elements with leaf or foliate designs on the center of each of the sides of the frame. The area at the center of the top and bottom of the frame above the pin terminal has a plain circular element surrounded by four raised dots (Figure 185J and K). A knee buckle and a shoe buckle were represented. The larger one had an original top to bottom dimension of 5.0 cm, and the other was indeterminate. The smaller specimen had a 3.0 cm long side, but the side to side dimension was indeterminate. This buckle variety is similar, but not identical to one from Fort Stanwix (Hanson and Hsu 1975:Figure 50g, [left]), and to a buckle fragment from Fort Michilimackinac (Stone 1974:Figure 23-I).

Group 3, Type 1, Variety D
Total: 1
Figure 185L

This buckle variety has a rectangular frame with rounded corners. The decoration consists of a rope-like element arranged in a zig-zag around the face of the buckle. Four corner star-like elements are at each of the angles, and the intervening spaces are open. At the center of the top and bottom above the pin terminals there are circular rosettes or floral elements. The dimensions of the original buckle would have been 2.9 cm from top to bottom and 3.6 cm from side to side.

Group 3, Type 1, Variety E
Total: 1
Figure 185M

This specimen was from a knee buckle sized frame. The openwork decoration consists of an interwoven rope-like element forming figure-8 patterns. The centers of the figure-8s were open. The corners of the buckle were rounded, and had small half-rounded projections at each corner. The top to bottom dimension was 2.7 cm, and the original side to side measurement would have been 3.7 cm.

Group 3, Type 2 (Rectangular Pewter with Openwork)
Total: 1
Figure 185N

This type of openwork buckle is distinguished from the Type 1 openwork buckles because it was cast of pewter or other type of soft white metal. It was badly eroded, but the major elements of the design consisted of rosettes or floral elements at the corners and the center of the sides and top and bottom. The original dimensions of this buckle would have been 5.2 cm from top to bottom and 6.2 cm from side to side. This buckle, which was recovered from Structure 16, appears to be virtually the same, both in form and dimensions, to an iron one that was recovered at Jamestown. No archaeological dating was assigned to the latter buckle (Abbitt 1973:45 and Figure 14-3).

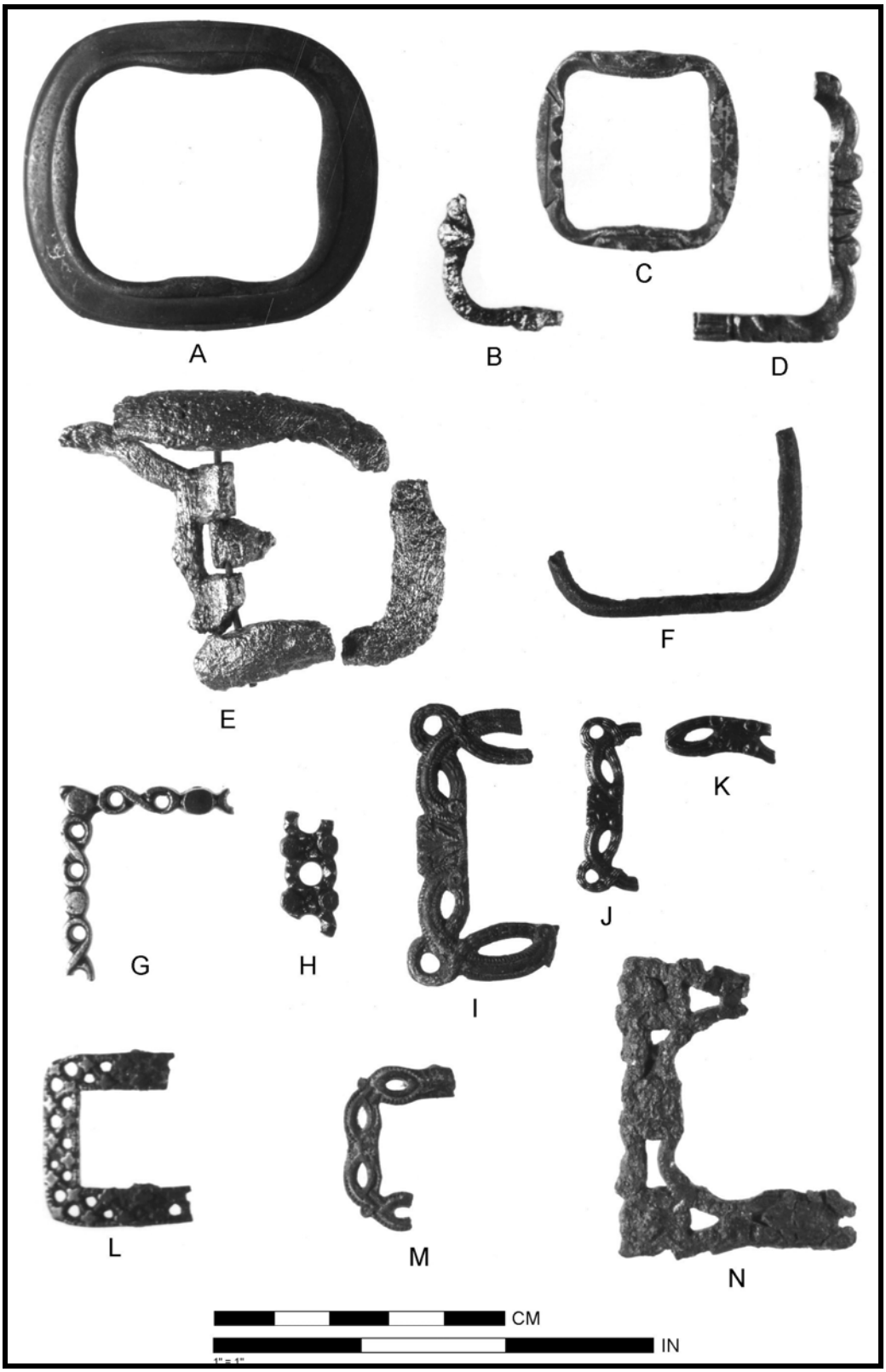

Figure 185. Group 2 and Group 3 Buckles.
A-F. Group 2 Buckles. **A**. Group 2, Type 2, Variety B. **B**. Group 2, Type 2, Variety H. **C**. Group 2, Type 2, Variety G. **D**. Group 2, Type 2, Variety F. **E**. Group 2, Type 3. **F**. Group 2, Type 4. **G-N**. Group 3 Buckles. **G**. Group 3, Type 1, Variety A. **H**. Group 3, Type 1, Variety B. **I-K**. Group 3, Type 1, Variety C. **L**. Group 3, Type 1, Variety D. **M**. Group 3, Type 1, Variety E. **N**. Group 3, Type 2.

Group 4 (Commemorative Buckles)
Total: 1
Figures 186A

One commemorative buckle was recovered from Fort Loudoun. This group is comparable to Type IV of Abbitt (1973:33). This specimen is from a brass buckle that was rectangular with square corners. The face of the top of the frame was molded with the inscription **P:W : O:B.** The one corner of the frame that is present is decorated with a leaf-like design. The length of the top of the buckle would have been 5.2 cm, while the other measurement was indeterminate. This buckle was recovered from square N226/E204 on the eastern side of the northern part of the Barracks building.

Group 5 (D-shaped Buckles)
Total: 1
Figure 186B

This category includes only one specimen of a cast brass D-shaped buckle. It is unique to this collection in that one end of the buckle served as an end as well as the bar for the attachment of a tongue. This buckle is essentially similar to the rectangular and trapezoidal ones that are described as harness buckles in another section of this chapter. It would have been attached to the end of a strap of some sort (see Noel Hume 1969:85 and Figure 20-10). The sides of the buckle curve inward toward the center, ending in pointed corners at the attachment bar end. At the other end of the buckle the corners are rounded and the center of that end has a raised oval element protruding from the end. This buckle has a length of 2.9 cm and a width of 2.6 cm.

Group 6 (Buckles with a Cast Central Bar)
Total: 12
Figures 186C-J

This group of brass buckles is distinguished from the others in that the central bar that divides the frame was cast as an integral part of the frame. Presumably this bar would have had an iron or brass tongue attached to it. Noel Hume indicates that these are generally belt buckles and refers to them as double buckles (1972:86). The larger types are probably belt buckles, while the smaller types are probably from spurs. The buckles of this group in the Fort Loudoun collection, for descriptive purposes, have been divided into three types, on the basis of the overall configuration of the buckle.

Group 6, Type 1
Total: 2
Figures 186C and D

The Type 1 buckles are represented by two specimens from Feature 190, a Cherokee pit outside the fort. They are both cast brass and have an integral central bar. Both are figure-8 shaped but differ in the shape of the frame. One has a rounded outline, and the other is angular in form. Small blips extended outward from the sides of the buckle at the ends of both central bars. The rounded buckle has dimensions of 4.7 cm by 3.3 cm. The angular one has dimensions of 4.8 cm by 3.2 cm.

Group 6, Type 2
Total: 9
Figures 186E-I

These Type 2 buckles are characterized by an overall elongated D-shape with a cast central bar. The sides are generally parallel; one end is straight and the other curves outward from the center of the buckle. One exception is one of the smaller buckles of this type which was rectangular. There were two sizes represented. The two larger specimens measured 3.8 cm by 3.0 cm and 3.4 cm by 2.6 cm. The smaller ones, represented by seven specimens, ranged in size from 1.9 cm by 1.4 cm to 2.5 cm by 2.0 cm. The larger variety was completely plain. The decoration on the smaller buckles consisted of only grooves on the face of either one or both ends of the buckle, and, in one case, a small triangular panel on the center of the face of the curved end of the buckle. The larger variety of this buckle was probably a belt buckle, while the smaller ones were spur buckles. One of Stone's Class II, SA, T1, Vb buckles that is illustrated is similar to

the ones that have been described here (1974:Figure 20-X). One from Fort Loudoun (Figure 186H) is identical to one illustrated from Chota-Tanassee (Newman 1986:Figure 8.4g).

Group 6, Type 3
Total: 1
Figure 186J

This type consists of a large figure-8 shaped buckle with a cast central bar. The overall dimensions would have been 5.0 cm by 6.3 cm. The frame is slightly oval in section and there are small decorative motifs at either end of the central bar. This type of buckle was probably for a wide belt, possibly a shoulder strap or was a baldric buckle (see Noel Hume 1972:Figure 20-11). Similar buckles are also illustrated from Fort Stanwix (Hanson and Hsu 1975:Figure 51-1) and from Fort Michilimackinac (Stone 1974:Figure 20-Y). A similar one is illustrated from the Trudeau Site in Louisiana (Brain 1979:190).

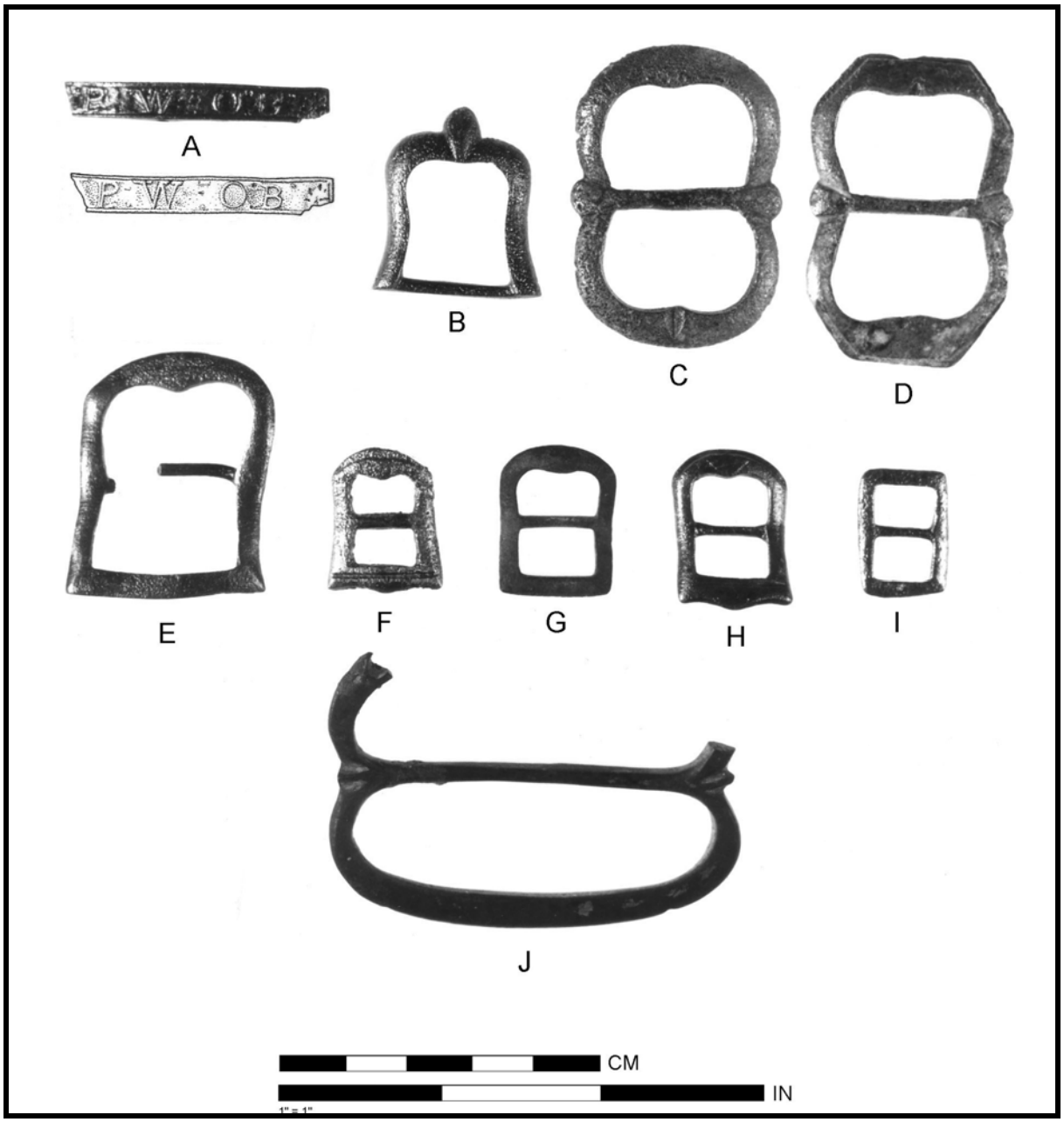

Figure 186. Group 4, Group 5, and Group 6 Buckles.
A. Group 4. **B:** Group 5. **C-J**. Group 6 Buckles. **C-D**. Group 6, Type 1. **E-I**. Group 6, Type 2. **J**. Group 6, Type 3.

Shoe Buckle Backpieces
Total: 68
Figures 187A-M

There is a total of 68 shoe buckle backpieces in the various collections from Fort Loudoun. Only one was still attached to a frame (Figure 187F) so they cannot be accurately correlated with the various frame types as has been done with some other sites, such as Fort Michilimackinac (Stone 1974:25-33). The sizes do, however, correspond to the range of sizes of the shoe and knee buckles that have been described in the preceding sections. The buckle backpieces are therefore described as a group, separate from the frames in the following sections. They have been divided into iron and brass backpieces. The several varieties of each of those are based on the shape of the backpiece. The ones from Fort Loudoun are generally comparable to ones that have been described from other contemporary sites. For descriptive purposes, the backpieces are grouped into two major categories on the basis of the type of metal from which they were made, either iron or brass. The varieties that are recognized are based on the shape and configuration of the backpiece.

Iron Buckle Backpieces
Total: 43
Figures 187A-G

The iron buckle backpieces are the most numerous in the collection. They are divided into seven varieties which are described in the sections below.

Variety 1
Total: 9
Figure 187A

This variety is characterized by a D-shaped lower attachment device or chape. The lower bar is straight and has two tangs projecting toward the center. The tongue or fork is two-pronged and has a narrow hinge attachment. This main characteristic of this variety is in that the bar at the top of the chape is convex toward the center of the chape instead of straight. The shape of the chape, tongue and lower bar are the same for Varieties 1 and 2. These are similar to ones from Fort Michilimackinac (Stone 1974:Figures 18-X and Y).

Variety 2
Total: 10
Figure 187B

This variety is also characterized by a D-shaped lower attachment device or chape and the lower bar is straight and has two tangs projecting toward the center. The upper part of the frame is straight below the part that is attached to the central pin that holds the backpiece to the frame. The tongue or fork is two-pronged and has a narrow hinge attachment. Similar ones are illustrated from Fort Ligonier (Grimm 1970:Plate 11-2) and Fort Michilimackinac (Stone 1974:Figure 18-W).

Variety 3
Total: 1
Figure 187C

This variety is known only from one lower bar that was recovered from a Cherokee pit (Feature 375), and is characterized by a curved lower bar with two tangs. Presumably the rest of the buckle would have been similar to Varieties 1 and 2. This specimen is similar to Stone's C1, SB, Cat 1, T5, Va backpieces (1974:Figures 18 Q-S), and one illustrated by Abbitt (1973:Figures 17-3 and 4).

Variety 4
Total: 1
Figure 187F

This variety and the following two vary substantially from Varieties 1 to 3 in that they are made to be inserted into a hole in a leather strap, rather than the leather strap being inserted through the lower loop and secured with two tangs. Instead of the two tangs, these were inserted through a hole in the leather and

held in place by two ears at the lower end of the backpiece. Variety 4 has a heart-shaped flat metal element attached to the hinge pin. The lower end has two curved ears that served to hold the leather strap. The tongue is a double-pronged fork similar to those noted on the above varieties. This tongue is attached to a square iron buckle.

Variety 5
Total: 3
Figure 187D

This variety is simply a wider version of Variety 4 and would have been used on a wider frame. It is the same as one illustrated from Fort Stanwix (Hanson and Hsu 1975:Figure 51e) and similar to ones from Fort Michilimackinac (Stone 1974:Figures 20-G and H).

Variety 6
Total: 3
Figure 187E

This variety is similar to Variety 4 except that a heart-shaped area is cut out from the wide area of the metal hook. The ears on the lower end are similar to those of Variety 4, except that there is a small pointed projection on the lower end where the sides of the two ears come together. The tongue would have been a two-tine fork. One specimen is attached to a fragmentary square iron frame. This variety is similar to one illustrated by Stone (1974:Figure 20-F).

Variety 7
Total: 1
Figure 187G

This variety is similar to Variety 6 except that the area cut out of the lower part of the backpiece is wedge-shaped. The tongue would have been a three-tine variety, similar to those on the brass specimens described as Varieties 4 below. There are two projections where the ears join.

Miscellaneous Iron Tongues and Backpiece Fragments
Total: 12
Not Illustrated

In addition to the backpieces that could be assigned to the specific varieties above, there are 12 fragments of iron backpieces, consisting of three tongues and nine lower bar fragments. All of these would have probably come from backpiece Varieties 1 or 2, but can not otherwise be specifically assigned.

Brass Buckle Backpieces
Total: 25
Figures 187H-M

The brass buckle backpieces are divided into five varieties which are described below. Illustrations of these varieties are shown in Figures 187H-M.

Variety 1
Total: 18
Figures 187H and I

This variety is characterized by curved upper and lower bars on the lower loop of the backpiece. The lower bar has two tines for attachment to a leather strap. The tongues are two-tine with rather wide mounting hinges (ca. 1.0 cm) that rotate on the central pin which holds the backpiece to the frame. There are six tongues of this variety, and 12 complete or fragmentary sections of the lower part of the backpiece.

Variety 2
Total: 2
Figure 187J

This variety is recognized as a variant only by the lower bar, which is straight and would have had two tines for attachment. It is the brass equivalent to the lower parts of the iron Varieties 1 or 2.

Variety 3
Total: 1
Figure 187L

This variety is an example of a brass backpiece that would have been attached to a leather strap or belt by means of three rivets along the lower bar. The configuration of the backpiece is similar to the other two varieties above, except that it has three prongs attached to the center bar rather than two. A similar backpiece is illustrated from Fort Ligonier (Grimm 1970:Plate 12-25).

Variety 4
Total: 1
Figure 187M

This variety, consisting of one specimen, is the hook element of a backpiece. It is similar to the iron ones (Variety 7), except for being made of brass. There are two small pointed projections at the base of the backpiece where the two ears come together.

Variety 5
Total: 1
Figure 187K

This one specimen is a brass, anchor-shaped backpiece. Construction of the backpiece is similar to related varieties (Varieties 4, 5, 6, and 7). It is the same as one from Fort Michilimackinac (Stone 1974:Figure 19-Z).

Miscellaneous Brass Backpiece Fragments
Total: 2
Not Illustrated

In addition to those specimens that can be assigned to the above two varieties, there are two fragments that came from either the Variety 1 or 2 brass backpieces, but are two fragmentary to assign definitely to either category.

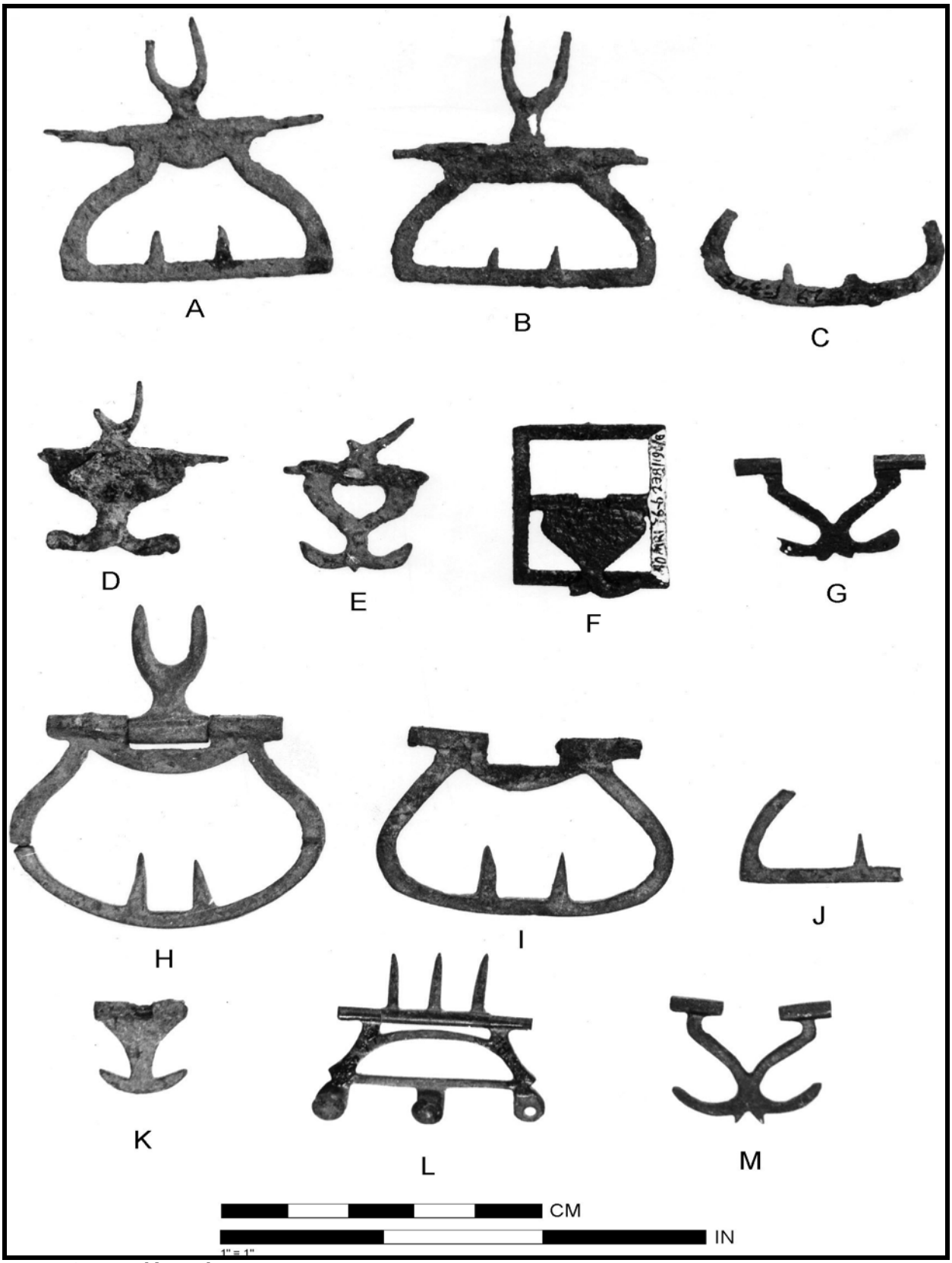

Figure 187. Buckle Backpieces.
A-G. Iron Backpieces. **A**. Iron, Variety 1. **B**. Iron, Variety 2. **C**. Iron, Variety 3. **D**. Iron, Variety 5. **E**. Iron, Variety 6. **F**. Iron, Variety 4. **G**. Iron, Variety 7. **H-M** Brass Backpieces. **H-I**. Brass, Variety 1. **J**. Brass, Variety 2. **K**. Brass, Variety 5. **L**. Brass, Variety 3. **M**. Brass, Variety 4.

Table 148. Buckle Summary

	GROUP 1					GROUP 2				G3		G4	G5	G6	BACK	
Provenience	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 5**	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 1**	**T. 2**					**TOT**
172/280															1	1
180/200		1														1
182/266						1										1
182/270		1														1
182/276		1														1
184/206		1														1
184/208		1														1
184/276		1					1									2
186/216		1														1
188/204(24)			1													1
188/250							1									1
188/256							1									1
188/270(l)		1														1
188/280							1									1
190/220			3													3
190/248		1														1
190/274(l)													1			1
190/280		1				1										2
194/254															1	1
196/192					1											1
198/200		1														1
200/214		1														1
202/192							1									1
202/266(5)	1															1
206/246(6)	1															1
210/260(5)															1	1
214/216			1													1
214/242		1														1
216/206																
216/262		1														1
218/178(11)		1														1
218/206			1													1
218/216		1	1													2
220/204(B)									4							4
220/206															1	1
220/214	2															2
220/216	1															1
222/186		1														1
222/214								1								1
222/216		1														1
222/222		1														1
224/200(B)		1														1

Table 148. Buckle Summary

	GROUP 1					GROUP 2				G3		G4	G5	G6	BACK	
Provenience	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 5**	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 1**	**T. 2**					**TOT**
224/204		1	2												1	4
224/218			1													1
224/224														1		1
226/204		3								2		1			6	12
226/206		1													1	2
226/210		1														1
226/232		1														1
228/202(B)	1															1
228/204		1														1
228/208															1	1
230/188															1	1
230/204		3													4	7
230/206															1	1
230/230		1													1	2
232/208														1		1
232/214															1	1
232/234															1	1
234/218(4)															1	1
234/220(4)		1														1
234/238									1							1
236/208(17)															1	1
236/240														1		1
238/190															1	1
238/202(17)	1															1
238/228(23)		1														1
238/238(16)		1														1
238/240															1	1
238/242		1														1
238/244															2	2
240/238(16)							1									1
242/244		1														1
246/242															1	1
248/186(22)						1									1	2
F. 3														1		1
F. 7														1		1
F. 44		1														1
F. 45			1													1
F.47(P)		1														1
F.50		1													1	2
F.58										1						1
F.61E		2													1	3

Table 148. Buckle Summary

	GROUP 1					GROUP 2				G3		G4	G5	G6	BACK	
Provenience	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 5**	**T. 1**	**T. 2**	**T. 3**	**T. 4**	**T. 1**	**T. 2**					**TOT**
F.61S		2														2
F.63	1	1													1	3
F.64															2	2
F.77			1													1
F.79		1								1						2
F.83						1									1	2
F.85		1														1
F.90			1													1
F.104		1														1
F.120			1													1
F.125															1	1
F.150		1														1
F158																0
F159		3													1	4
F171							1			1						2
F.190														2		2
F.199	1															1
F317		1														1
F358			1													1
F361		1						2								3
F375															3	3
ST.9		1														1
ST.10		3					1								3	7
ST.16	2	2	1			1					1					7
ST.17		3	1											1	2	7
No Prov.	3	16	7	1	4	3	2			3				4	21	64
TOTALS	**14**	**79**	**24**	**1**	**5**	**8**	**10**	**3**	**5**	**8**	**1**	**1**	**1**	**12**	**67**	**239**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: Group 1, Group 2=Group 1 Buckles, etc.; G3 - G6=Group 3 to Group 6 Buckles; Back=Buckle backpiece; T. 1, T. 2, T.3, etc.=Buckle types within each group (B) indicates the barracks building. Varieties within types are not listed on table.

Buttons

The buttons recovered from Fort Loudoun are classified similarly to the buckles in that they are divided into Groups, Types, and Varieties. The groups are based on the manner in which they are constructed. Types are based on type of metal or other materials of which they were made, and the varieties are individual design motifs. Table 149 shows the classification system of the buttons and the number of specimens in each Group, Type and Variety. The number and distribution of the buttons is presented in Table 151.

Table 149. Button Summary by Groups, Types and Varieties.

	Variety/Other Totals	Type Totals	Group Total
Group 1 One Piece Cast Buttons			**90**
Type 1 One Piece Cast Pewter		**42**	
Variety A Plain	12		
Variety B Plain with Raised Edge	1		
Variety C PN Backmarked	7		
Variety D Cruciform Decoration	4		
Variety E Starburst Decoration	1		
Variety F Heptagon with Line	1		
Variety G Convex Face	2		
Variety H Convex Rosette with Intaglio Spiral	11		
Variety I Tudor Rose Decoration	1		
Type 1 Eyes	2		
Type 2 One Piece Cast Brass		**2**	
Type 3 Brass Disc with Wire Eye		**45**	
Variety A Plain Spun Disc	42		
Variety B Tudor Rose Decoration	1		
Variety C Tudor Rose Decoration	1		
Variety D Plain Convex Disc	1		
Type 4 Plain Brass Disc with Wire Eye and Mold Seam on Back		**1**	
Group 2 Hollow Cast Buttons			**131**
Type 1		**87**	
Type 1 Eyes	44		
Group 3 Three Piece Button			**58**
Type 1 Bone Back with Four Holes		**3**	
Type 2 Wood Back with Four Holes		**9**	
Variety A Plain Face	1		
Variety B Decorated Face	2		
Type 2 Wood Backs	6		
Type 3 Bone Back with One Hole and Wire Eye		**3**	
Type 4 Stamped Brass with One Hole and Wire Eye		**3**	
Type 5 Cast Brass with One Hole and Wire Eye		**2**	
Type 6 Iron Back with One Hole and Wire Eye		**3**	
Embossed Faces for Group 3 Buttons		**35**	
Variety A Brass Plain	9		
Variety B Brass Decorated	24		
Variety C Silver Plain	2		
Group 4 Soldered Two-Piece Buttons			**95**
Type 1 Convex Cast Back with Cast Shank		**58**	
Variety A Plain Dome-Shaped Face	4		
Variety B Decorated Silverplate Face	1		
Variety C Plain Conical Face	11		
Variety D Decorated Conical Face	9		
Variety E Plain Silverplate Conical Face	1		
Type 1 Backs	32		
Type 2		**28**	
Variety A Dome Face with Wire Eyes	6		
Variety B Decorated Dome Face	2		
Type 2 Backs	20		
Group 4 Faces		**9**	

Table 149. Button Summary by Groups, Types and Varieties.

	Variety/Other Totals	Type Totals	Group Total
Group 5 Glass Buttons			**3**
Group 6 Late Brass Button			**1**
Group 7 Late Bone Button			**1**
Total Buttons			**379**

Group 1 Buttons
Total: 90
Figure 188

Group 1 buttons consist of 90 specimens that are all cast buttons of either pewter or white metal. The button eyes are either an integral part of the casting or are a wire loop that has been cast into the button face. The types are based on differences in on the type of materials of which they were made, and the varieties within the types are base on shape or design differences

Group 1, Type 1 (One Piece Cast Pewter Buttons)
Total: 42
Figures 188A-C

These are all one piece cast buttons of either pewter or white metal. They are round and flat with a mold seam running across the back and the neck and eye. This seam was trimmed from the sides and face of the button, but not the back. The cast eyes may be on a short neck (e.g., Figure 188G, H, and K). Three varieties are distinguished on the basis of decoration, backmarking or lack thereof. These buttons are comparable to South's Type 11 (1964:118), although several other varieties are included that he does not. Hanson and Hsu's Series A, Type 1 (1975:83-86), Stones Class I, Series A, Type 1 (1974:45-47 and Figure 26), and Type 2A from Fort Ligonier (Grimm 1970:59, Plate 13, and 63) are comparable button types.

Group 1, Type 1 Variety A (Plain)
Total: 12
Figure 188A-C

These buttons have plain faces and plain backs, except for the mold seam. Most of the eyes (6) seem to have had short necks (Figure 188B) with four of them being mounted directly against the back of the disk (Figure 188A). Edges are slightly rounded and several of the disks appear to be slightly convex, but this is probably a result of use rather than casting. Six are distinguished by a small teat or boss in the center of the face opposite the shank and eye, and one has a small indentation (Figure 188B). There are two size groupings of these buttons, with one ranging between 16.7 mm and 18.7 mm (10 specimens) and the other between 22.8 mm and 25.0 mm (two specimens), as shown in the figures.

Group 1, Type 1, Variety B (Plain with Raised Edge)
Total: 1
Figure 188D

This variety is similar to the plain variety above, but is distinguished by a raised rounded edge or with an edge with a lip on the front of the disk (Figure 188D). It has a raised central nipple on the center front. The eye is mounted directly on the back. Its diameter is 22.5 mm.

Group 1, Type 1, Variety C (Plain with PN Backmarks)
Total: 7
Figure 188E-G

This variety is made in the same way as the plain variety. It is distinguished by the presence of backmarks, in this case the Letters **P** and **N** cast into the back in raised letters on either side of the shank on a line perpendicular to the mold seam (Figure 188E-G). Two sizes are present. The smaller ones (4

specimens) range in diameter from 16.0 mm to 16.95 mm with an average of 16.53 mm. The larger size (3 specimens) range from 24.1 mm to 24.5 mm in diameter with an average of 24.3 mm. On all of the smaller size buttons the **N** is reversed, while the larger ones are all correctly done. All of the eyes appear to have been on short necks or shanks.

Similar types of buttons with the **PN** backmark are only reported from seven other sites (as of circa. 1990). Babits reports two of them from Fort Dobbs, North Carolina. They are plain, one-piece pewter buttons with diameters of 23 mm (Larry E. Babits, Personal Communications: Letters December 3, 1975; January 22, 1976; December 24, 1976; and February 20, 1977; and Babits 1976:68-72). At Fort Ligonier, Pennsylvania, four were recovered with **PN** backmarks. Three are hollow cast pewter (same form as Group 2, Type 1, this report) with diameters of 0.65 in. (16.5 mm) and the fourth is similar to the Fort Dobbs and Fort Loudoun ones with a diameter of 23 mm (Babits 1976 and Grimm 1970:63). At Fort Stanwix, New York, one small (17 mm) one-piece **PN** button was recovered, but it is not stated that the **N** is reversed as is the case with all the small Fort Loudoun **PN** buttons (Babits 1976:68 and Hanson and Hsu 1975:86). Another reported specimen with this backmark is from Brunswick Town and is 23 mm in diameter (Babits N.D.:68). Two other **PN** buttons have been reported. Both are the one-piece, cast eye buttons with diameters in the 21 mm range. One was recovered from a Revolutionary War (ca. 1775) context near Savannah, Georgia, and the other is from an aboriginal site in Jasper County, South Carolina (L. E. Babits, Personal Communication, February 1, 1982 and March 3, 1982). In the Little Tennessee River valley an additional **PN** button with a diameter of 21 mm was recovered from the Overhill Cherokee town of Mialoquo (Russ and Chapman 1983:111 and Figure 42b; Jefferson Chapman, Personal Communication, August 1,1984).

Babits has suggested that this distribution of buttons at Fort Dobbs, Fort Ligonier, Fort Stanwix, and Brunswick Town may represent the distribution of British military stores to colonial troops, possibly during the year 1758, at least for the North Carolina troops. Five of the locations (the four listed above and Fort Loudoun) from which these buttons are reported overlap for the years 1758 and 1759 and the first 7 months of 1760. But it is unlikely that many stores were brought into Fort Loudoun during the last six months of its occupation (see Chapter 2). The possible channels by which the Fort Loudoun specimens may be connected with the North Carolina finds and the two sites in New York and Pennsylvania have not been determined. Babits provides a discussion of the possible connection of the North Carolina troops with the more northern areas (1976:70-72). It does appear likely, however, that the years of 1758 and 1759 were the period when this distribution took place.

Dating of the buttons from Fort Loudoun associations is somewhat ambiguous. One was recovered from Feature 3, a midden deposit in the northwest ditch, outside the fort. No assignment can be made as to when during the occupation of the fort that this feature was deposited, although it may have been early, since that feature has been interpreted as a deposition of refuse in which to plant locust trees which was being done while the fort was being constructed. Another was recovered from Feature 104, a large filled pit just north of Structure 10. This feature is interpreted as a pit dug as part of a tree removal during the early stages of fort construction and probably contemporary with structures 10 and 7 (and others) which are thought to have been built as temporary dwelling in late 1756, and torn down and covered over by the fall of 1757. Another button was recovered from Feature 83, a trash filled depression located just west of the central chimney (Feature 194) on the Barracks. The deposits in which this button was recovered overlay Feature 88, the west wall of the innermost palisade line. This wall was removed in early 1757 and the deposits above would date to some time after that. Three buttons were recovered from squares N224/E202, N226/E204, and N228/E208, to the east of the northern end of the Barracks. Heavy midden in this general area, containing numerous other items of a personal type, is assumed to be related to deposits associated with the Barracks. The material from Feature 83 and this midden area are probably associated with the occupation of the Barracks. If that assumption is correct, then these deposits could be assumed to date after the fall of 1757, the time of completion and initial occupation of those quarters. The last PN button was found in square N180/E266, adjacent to the southeast corner of Structure 3. No probable dating can be assigned to this specimen.

Group 1, Type 1, Variety D (Cruciform Design)
Total: 4
Figure 188H

This variety of the one-piece cast pewter button is distinguished by a molded, high relief cruciform design on the front of the disk (Figure 188H). On one, the eye is mounted on the back, the others are indeterminate. Diameters average 16.7 mm with a range of 16.2 mm to 17.5 mm.

Group 1, Type 1, Variety E (Starburst Design)
Total: 1
Figure 188I

This variety of the solid cast pewter button was decorated with a raised lip and a starburst design on the face (Figure 188I). The eye was mounted directly on the back. The diameter is 14.8 mm and the thickness is 1.5 mm. This button was recovered from a square (N232/E218) within Structure 4.

Group 1, Type 1, Variety F (Heptagon Crown with Linear Design)
Total: 1
Figure 188J

This button is constructed in the same way as the foregoing ones, but varies in that it has a flat seven-sided crown or disk with an inscribed linear design on the face paralleling the edge (Figure 188J). The diameter is 30 mm and the thickness is 2.3 mm. The eye was mounted on a neck.

Group 1, Type 1, Variety G (Convex Disc)
Total: 2
Not Illustrated

These are single piece cast pewter buttons distinguished by a convex disk. The eye is mounted on a neck and the face is plain (similar to Figure 188K except lacking decoration). The diameter is 18.0 mm and the thickness is 3.0 mm. One was recovered from Feature 79, the probable latrine, and another came from Feature 178, and had a diameter of 4.9 mm and a thickness of 2.4 mm.

Group 1, Type 1, Variety H (Spiral Decorative Motif)
Total: 11
Figure 188K

This variety is distinguished by a convex crown with an intaglio spiral design emanating from a rosette-like device in the center on the face (Figures 188K). The eye is mounted on a neck. All of the specimens of this variety are from the WPA collection and without provenience. Because of the lack of this variety in the collection from the latest excavations, it is presumed that these were found together, and most probably from the Barracks area, as is suspected for several other artifact categories. Diameters are all 29 mm and thicknesses are consistently 1.45 mm.

Group 1, Type 1, Variety I (Tudor Rose Design)
Total: 1
Figure 188L

This is a single-piece cast pewter button with the cast eye on a neck. It is separated as a variety on the basis of a Tudor rose motif on the face of the button. The diameter of the button is 16 mm.

Group 1, Type 1 (Button Eyes)
Total: 2
Not Illustrated

Two pewter button eyes that were recovered probably derived from Type 1 buttons. They are probably from **PN** (Type 1, Variety C) buttons, since the size most closely matches those of the **PN** buttons. They were also recovered from the same general area as several of the **PN** buttons, namely east of the north end of the Barracks.

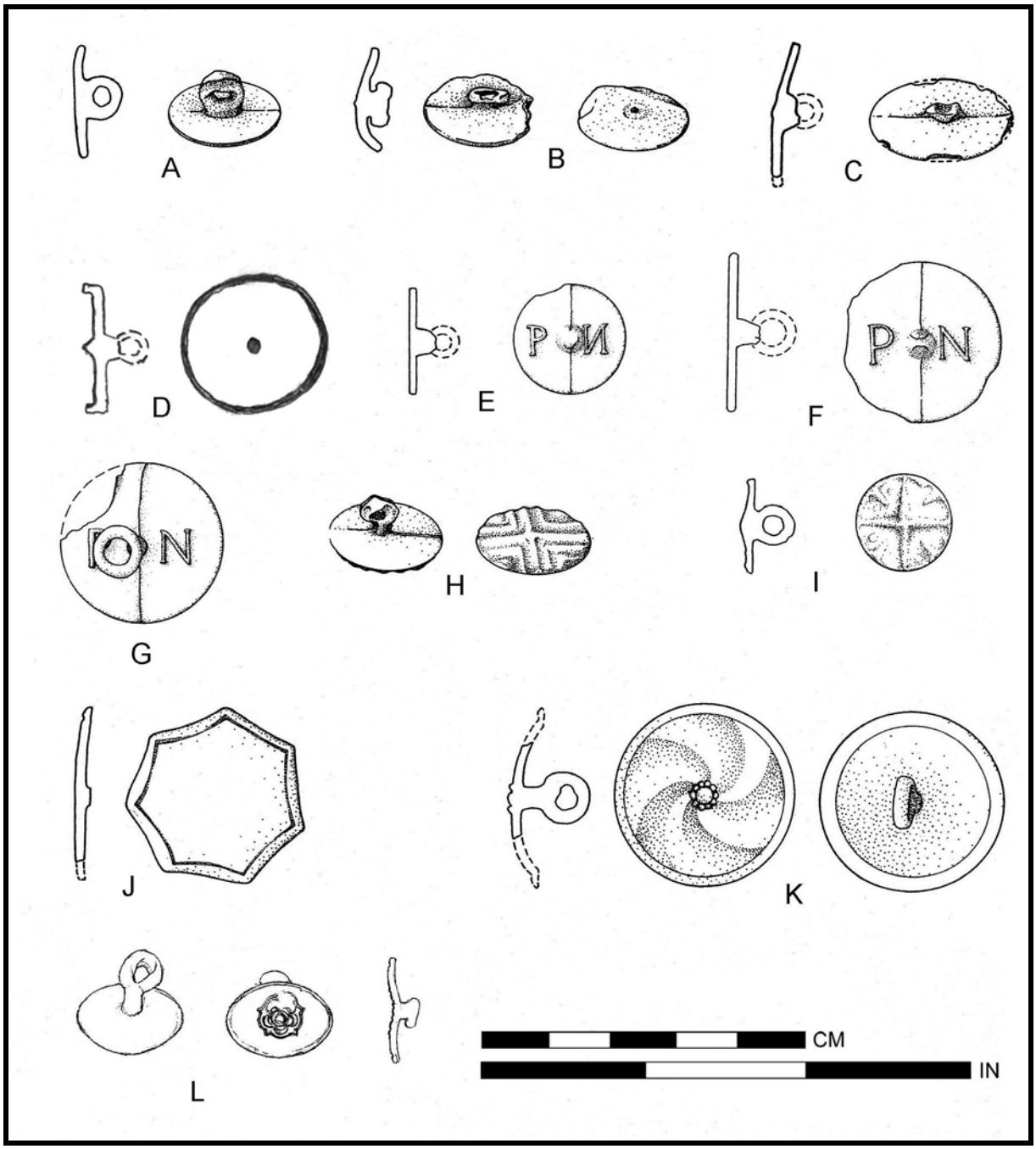

Figure 188. Group 1 One Piece Cast Buttons.
A-C. Group 1, Type 1, Variety A. **D**. Group 1, Type 1, Variety B. **E-G**. Group 1, Type 1, Variety C. **H**. Group 1, Type 1, Variety D. **I**. Group 1, Type 1, Variety E. **J**. Group 1, Type 1, Variety F. **K**. Group 1, Type 1, Variety H. **L**. Group 1, Type 1, Variety I.

Group 1, Type 2 Buttons
Total: 2
Figure 189A

Type 2 buttons are separated from the others because the are cast brass rather than another material. The shank and eye vary in that they are generally wedge-shaped, and the eye hole is drilled, rather than cast, into the shank.

Group 1, Type 2, Variety A (One Piece Cast Brass)
Total: 2
Figure 189A

These two specimens are one piece cast brass. A hole had been drilled through the flat wedge-shaped shank. The disk is round and plain on the face. Diameters are 22.0 mm and the thickness of the disks is 0.9 mm. These specimens are comparable to Stone's C1 SB T2 VA (Stone 1974:46 and 47, and Figure 26-k), to South's Type 31 (South 1964:124) except that it does not have the spun back, to Hanson and Hsu's Type 3, Variety A (1975:84, Figure 48q and 86), and they are constructed similarly to Grimm's Type 11 (Grimm 1970:66-67 and Plate 13).

Group 1, Type 3 (One-Piece Cast Buttons with Wire)
Total: 45
Figure 189B-F

These buttons are single piece brass or white brass disks, with a wire shank and eye set into the back during the casting process. There is a collar of metal around the wire shank, formed as part of the casting process. This type generally conforms to South's Type 7, (South 1964:117).

Group 1, Type 3, Variety A (Plain Spun)
Total: 42
Figure 189B

These are comparable in all respects to South's Type 7 mentioned above. They have flat cast brass disks, plain on the front and spun on the back for smoothing after casting. The backs generally taper from the foot or collar around the eye/shank piece to the edge. In one case, the disk back is slightly concave. Both variations are probably the result of the turning and trimming process. Five of the eyes are made of brass wire, nine are of iron wire, and the remainder were indeterminate. These buttons are grouped into two size ranges. The smaller ones (22 specimens) range between 14.6 mm and 18.9 mm, averaging 16.5 mm. The larger group (20 specimens) range between 21.6 mm and 25.7 mm, averaging 24.3 mm.

Group 1, Type 3, Variety B (Engraved Tudor Rose Design)
Total: 1
Figure 189C

This is a large white brass button constructed similarly to the Variety A, but decorated on the center of the face with an engraved, stylized Tudor rose (Figure 189C). The edge is beveled slightly to the front, and the spun back of the disk is concave. It has a brass eye, and a diameter of 28.7 mm.

Group 1, Type 3, Variety C (Engraved Design)
Total: 1
Figure 189D

This is a small button with a stylized Tudor rose on the front, in a similar, but simplified design from the above variety. This has been established as a separate variety because the back of the disk is not spun. It has a diameter of 18.0 mm and a thickness of 2.0 mm.

Group 1, Type 3, Variety D (Plain Convex Face)
Total: 1
Figure 189E

This large button is similar to the above categories, except that the plain disk is convex. It has an iron eye and the back is spun. The diameter is 28.6 mm.

Group 1, Type 4
Total: 1
Figure 189F

This one button is established as a separate type from the Type 3 buttons in that it has a mold seam across the back of the button and the back is not spun. This type compares to South's Type 8 (1964:117), and the Hanson and Hsu's Series E, Type 2 (1975:89 and Figure 49 L). The eye is of brass wire. The diameter is 29.4 mm and the thickness is 1.0 mm. A Tudor rose is engraved on the center front similarly to the Type 3 buttons with this design. South also describes a similar design on two of the Type 8 buttons from Brunswick Town (South 1964:117).

Group 2 (Hollow Cast Buttons)

Group 2 buttons are those cast as one piece but where the disk is hollow. The eye is of iron wire and is set into the back of the button during the casting process. Those specimens that are placed in this category consist of the pewter or white metal buttons and a number of iron and brass eyes that are separated from the buttons. Only one type and variety is recognized. There are a total of 131 buttons in this group.

Group 2, Type 1, Variety A (Hollow Cast)
Total: 87
Figure 189G and H

This type of button is characterized by having the back and front of the disk cast as one piece, but hollow and with a convex front and back. They are made of either pewter or white metal. Two are possibly white brass. The iron eye is cast into the back of the disk and there are generally vent holes on the back of the piece. Forty-eight specimens have two vent holes, and two only have one hole. On the latter ones, it appears that the second hole was closed in the process of casting. Twenty-nine of the specimens have iron wire loops cast into the back; no brass loops are in the collection. The remainder are missing the eye, but it is presumed the rest would have had iron eyes. All of the faces are plain, and one specimen has the remains of tin plating, possibly indicating that others would have had a similar coating. Close examination of cross sections of several specimens fails to reveal a seam line, so it is believed that these were cast as one piece.

These buttons have two size ranges with one varying from 14.7 mm to 17.9 mm (50 specimens, average: 16.0 mm), and the other from 18.8 mm to 21.7 mm (37 specimens, average: 20.5 mm). This group is probably similar to South's Type 12 button (South 1964:118-119); to Stone's CII SA T1 VA button (1974:53 and Figure 29 L); and to Type 1 buttons from Ligonier (Grimm 1970:62-63 and Plate 13). However, none is inscribed with **PN** or **TL** as are several of the specimens from Fort Ligonier, and Series B, Type 2 from Fort Stanwix (Hanson and Hsu 1975:86-87).

Button Eyes
Total: 44
Not Illustrated

Additionally, there were 44 button eyes recovered from the interior of the fort. Three are of copper and 41 are iron. These eyes would have came from Group 2, Type 1 cast pewter or white metal buttons. Sizes from large as well as small buttons are present with 28 large and 16 small ones. The location of 34 eyes in three adjacent squares, N226/E204 (29), N226/E206 (4), and N224/E204 (1), probably represents the deliberate disposal of these eyes after melting down the associated buttons. The melting is evident from the fact that six of these eyes were found grouped together with an irregular lump of melted pewter. The rest from the fort were scattered and probably represent loss or disposal after the eye pulled out of the button.

Group 3

This group of buttons was made by crimping a thin piece of stamped or plain convex metal over a filler and around the edge of a convex back. There were a total of 58 button in this category. All are characterized by a convex face that has been crimped over a filler, clay in the one specimen that is well enough preserved, and around a convex back piece. Types within Group 3 are based on the kind of material that the back was made of, and the number and configuration of the holes in the back, or in effect, the kind of device for attachment. Varieties are established on the basis of the presence or absence of decoration on the face of the button. Types 1 and 2 have four holes drilled for attachment near the center of the back; Types 3 and 4 have a centrally drilled hole for the insertion of a metal eye. All of the types have a rim groove around the back to hold the crimped edge of the face. The first two types are comparable to South's Type 3 (1964:115-116); Series D, Types 1 and 2 respectively from Fort Stanwix (Hanson and Hsu 1975:87), and Olsen's Type B (1963:552 and 553, Figure 1 B). Type 3 of this classification is comparable to South's Type 4 (1964:116 and Figure 1), Hanson and Hsu's Series D, Type 4 (1975:87), and Stone's CIV SB T5 (1974:57 and Figure 31). Type 4 is comparable to South's Type 26 (1964:122-123); Series D, Type 4 from Fort Stanwix (Hanson and Hsu 1975:87), and CIV SB T4 from Fort Michilimackinac (Stone 1974:57).

Group 3, Type 1, Variety A (Bone Back)
Total: 3
Figure 189I

This type is differentiated from Type 2 buttons because the back is made of bone rather than wood. These backs are much less convex than the Type 2 wooden buttons, probably the result of a technical possibility of working with bone rather than wood, where the latter needed to be much thicker to be turned. There are four holes drilled in the back, and there is an edge groove for holding the crimped edge of the face. The three specimens of this type are all identical and all were recovered from either the fill of Structure 8 or Feature 86 within that structure. The front disks are silver plated and are embossed with a floral design (Figure 189I). The filler consists of clay in the one specimen with filler remaining. Diameters are 14.6 mm.

Group 3, Type 2 (Wooden Back)
Total: 9
Not Illustrated

This type is distinguished by a wooden back, and two varieties are recognized on the basis of decoration of the face. No filler material remains. This type is comparable to Hanson and Hsu's Series D, Type 2 (1975:87).

Group 3, Type 2, Variety A
Total: 1
Not Illustrated

This variety has the general features of this type, but is distinguished by a plain copper face. The diameter of the one specimen is 12.8 mm. It is not illustrated but is similar to Stone's CIII SA T5, except that the back is highly convex (Stone 1974:55 and Figure 30).

Group 3, Type 2, Variety B
Total: 2
Not Illustrated

This variety is made similarly to Variety A, except that the crowns have a complicated embossed or stamped design. Although the designs are indeterminate due to the incompleteness of the specimens, one appears to be similar to, but not identical to an embossed face illustrated from Fort Michilimackinac (Stone 1974:56, Figure 30 E). The two specimens have diameters of 13.6 mm and 18.9 mm.

Group 3, Type 2 (Wooden Backs)
Total: 6
Not Illustrated

Additionally, there are six wooden backs that are made similarly, and would have come from Type 2 buttons. They are comparable in size and shape to those described above that have the metal face remaining. Sizes range from 12 mm to 19 mm.

Group 3, Type 3 (Bone Backs with Central Hole)
Total: 3
Figure 189J

These button backs are made of turned bone and are slightly convex with a central drilled hole for the eye. The eyes are of brass and have been inserted into the hole and twisted and bent outward to hold them in place. There is a groove around the outside edge of the back to hold the crimped metal front. Presumably the fronts would have been either plain or embossed stamped metal that was formed over a clay core. Diameters of the two measurable ones are 14.9 mm and 15.0 mm. These are the same as South's Type 4 (1964:116) and Stone's CIV SB T5 V_ (1974:57-59).

Group 3, Type 4 (Stamped Brass Back)
Total: 3
Figure 189K

This type consists of stamped dome brass button backs around which an embossed face would have been crimped. There is a central hole in which there is a brass eye that was flattened on the inside to hold it in place loosely, or in some cases they may have been soldered. The diameters of the two measurable specimens are 14.8 mm and 14.4 mm. The embossed, fragmentary face of one was recovered, but the design is indeterminate except that it is composed of rope like elements.

Group 3, Type 5 (Cast Brass Back)
Total: 2
Figure 189L

This group is similar to the above, except that the domed backs are cast instead of stamped. Both specimens are brass and one has a brass eye remaining. There is a collar cast on the inside, as well as four reinforcing ridges on the interior of the back. Both are similar to Stone's CIV SB T4 Va button (Stone 1974:57).

Group 3, Type 6 (Iron Backs)
Total: 3
Figure 189M

This group consists of slightly convex iron backs with metal loops inserted through one central hole. One has a brass eye and the other is iron. All would have been the backing pieces for a convex embossed face and clay fill. The face would have been crimped over the back. One complete specimen from N230/E206 has an iron back, with a brass eye and a pewter or white metal face with a highly complex, but indeterminate embossed face. This is similar to Stone's CIV SB T2 VA (1974:57). The complete specimen is 19.6 mm in diameter and the other two are a smaller size, 16.3 mm and 16.9 mm respectively. Type 6 is in general similar to South's Type 25 (South 1964:122) and Stone's CIV, Category 1, VB (1974:59).

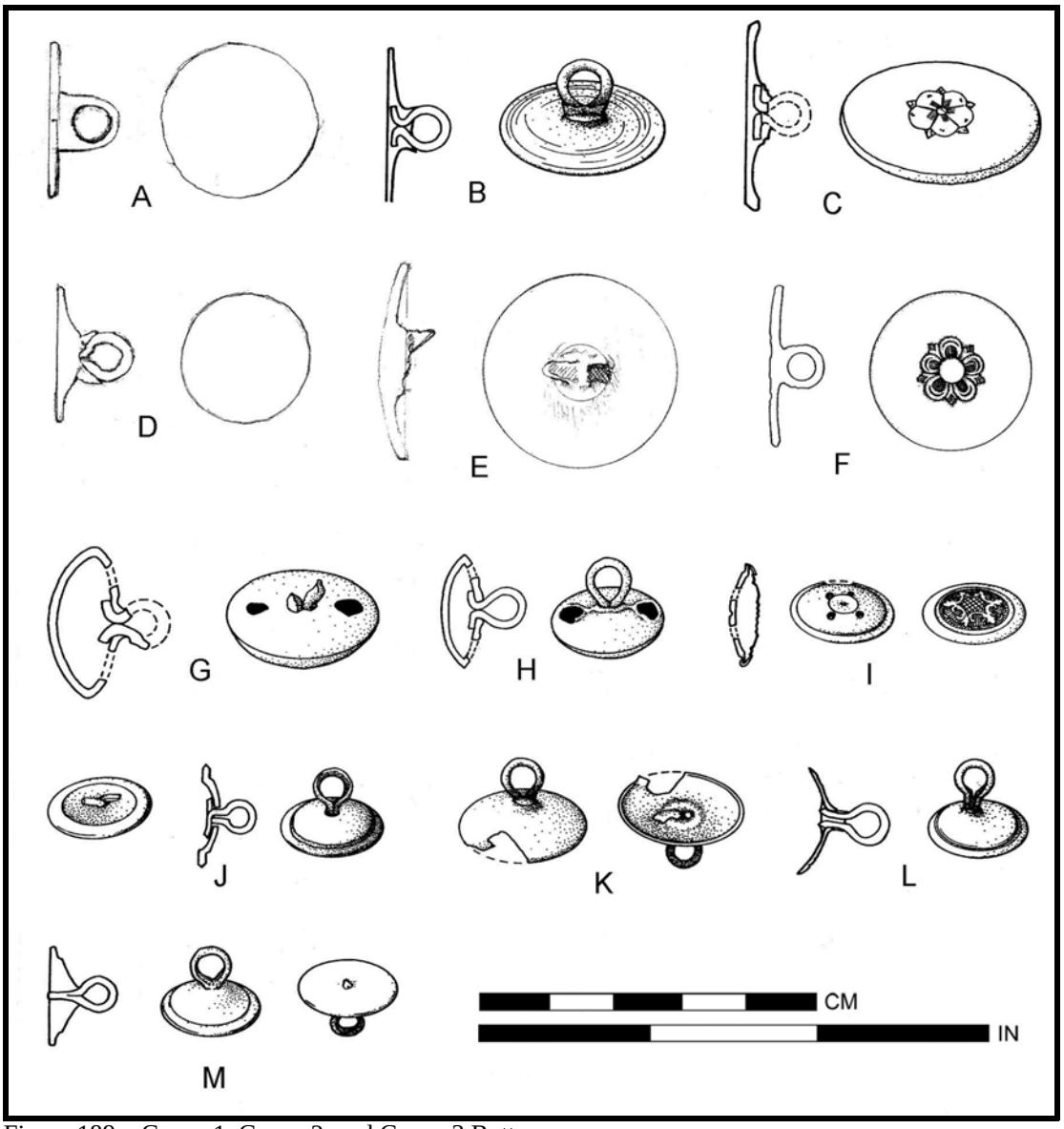

Figure 189. Group 1, Group 2, and Group 3 Buttons.
A. Group 1, Type 2, Variety A. **B**. Group 1, Type 3, Variety A. **C**. Group 1, Type 3, Variety B. **D**. Group 1, Type 3, Variety C. **E**. Group 1, Type 3, Variety D. **F**. Group 1, Type 4, Variety A. **G and H**. Group 2, Type 1, Variety A. **I**. Group 3, Type 1, Variety A. **J**. Group 3, Type 3. **K**. Group 3, Type 4. **L**. Group 3, Type 5. **M**. Group 3, Type 6.

Group 3, Embossed Metal Faces
Total: 35
Figure 190

These fronts are made of thin metal that has been stamped into form, and which are crimped around the back of the button. Shape varies from nearly flat to highly convex or dome-shaped. They would have been the fronts for the types and varieties that are described above as Group 3. Types of fronts here are based on the surface finish, either plain or embossed with a design. All would probably have had a clay filler to help retain the shape.

Group 3, Type 1, Variety A (Brass-Plain)
Total: 9
Not Illustrated

This variety has a plain surface that varies in shape from nearly flat to highly convex. All were originally crimped around a separate back piece and would have had a clay filler (remaining in one specimen). Two specimens have a gold gilt remaining, and presumably the others could have had the same also. Although the specimens, in many cases, are badly crushed, measurable or estimated diameters range between 16 mm and 20 mm.

Group 3, Type 1, Variety B (Brass-Decorated)
Total: 24
Figure 190A-M

These specimens are similar in all respects to Variety A, except they are stamped or embossed with an elaborate floral or geometric design. All are convex. Figure 190A-M show the range of design and profiles of those that were present in the collection. Several others which are embossed, but which are too fragmentary to illustrate or determine the design, are omitted from the illustrations.

Group 3, Type 2, Variety C (Silver-Plain)
Total: 2
Not Illustrated

These are thin, convex silver crowns that are crimped over a separate back similar to the types and varieties indicated above. The one measurable diameter is 20.0 mm, and the other would have probably been similar.

Group 4
Total: 58
Figures 190A-B

This group of buttons is characterized by having the face and back cast separately and soldered or brazed together around the outer edge. All are cast of brass. This group is divided into two types depending on the treatment of the eye element, i.e., whether it is an integral part of the back casting, or whether it is a wire eye that has been cast into the back.

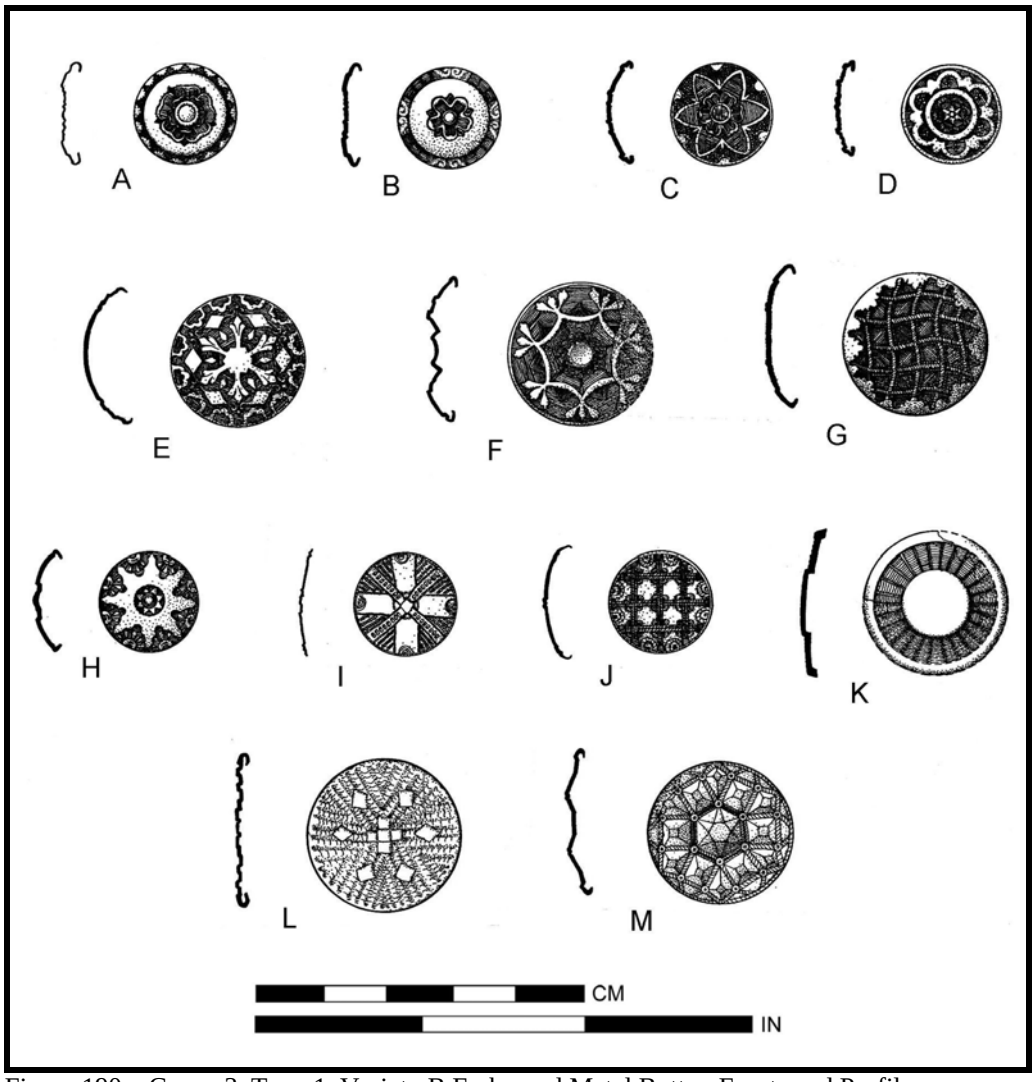

Figure 190. Group 3, Type 1, Variety B Embossed Metal Button Fronts and Profiles.

Group 4, Type 1
Total: 58
Figure 191A and B

The Group 4, Type 1 buttons, consisting of 16 complete specimens, 10 fronts and 32 backs, are characterized by a slightly convex cast back with a shank cast as part of the back. Eyes were drilled through the shanks. The faces of these buttons are either dome shaped or conical and were brazed or soldered to the back. The varieties that are distinguished below are based on the shape of the face and the decorative treatment of that face. This type of button generally falls into two size ranges: 10.1 mm to 11.6 mm (average 10.6 mm), and 12.2 mm to 14.4 mm (average 13.1 mm). Twenty-four of the backs were spun to smooth the surface after casting, and the remainder were left as they were cast. This type is roughly the same as South's Type 1 buttons (1964:115), Hanson and Hsu's Series C, Type 1 (1975:87 and Figure 49 B), and Stone's Series C, Type 1, Variety A (Stone 1974:53 and Figure 28-0).

Group 4, Type 1, Variety A
Total: 4
Figure 191A

This variety has a plain, low, dome-shaped face. Diameters range from 10.5 mm to 10.8 mm with an average of 10.65 mm. All are brass, and three of the specimens have spun backs.

Group 4, Type 1, Variety B
Total: 1
Not Illustrated

This variety is similar to Variety A in that it has a dome-shaped front that has a symmetrical, but indeterminate geometric design cast into the face which was then plated with silver. Diameter is 13.8 mm.

Group 4, Type 1, Variety C
Total: 11
Figure 191B

This variety is characterized by a convex back and a high, plain conical face. Also included in this variety, along with the six complete specimens, are five additional faces without backs. This is done on the assumption that these conical faces are not associated with the Type 2 backs. Diameters range between 12.6 mm and 13.5 mm with an average of 12.9 mm. Five of the six backs are spun.

Group 4, Type 1, Variety D
Total: 9
Not Illustrated

This variety is distinguished by the decoration that is present on the face of the buttons. Eight of the specimens are decorated with two concentric incised circles on the face of the button. On one of them, the face is filled with a fine, regular cross-hatching. Another button is decorated with a raised, but indeterminate design, probably some sort of floral motif. There are five complete specimens. An additional four faces without backs are included, since this type of face does not appear to be associated with Type 2 buttons in this series. All are of brass. Diameters range from 13.1 mm to 14.0 mm, with an average of 13.3 mm. Four of the backs are spun.

Group 4, Type 1, Variety E
Total: 1
Not Illustrated

This variety is represented by one conical brass button face that is distinguished by having a silver plating on an otherwise plain surface. This face is included in the Type 1 buttons because conical faces are not present in the collection on Type 2 backs. Diameter is 13.6 mm.

Group 4, Type 2
Total: 27
Figure 191C

This type is distinguished from the Type 1 buttons in that the eye is made of a separate piece of brass or iron wire that was cast into the back. Otherwise the construction of the buttons is the same as the others in this group. This type is represented by eight complete buttons and 20 backs. There are no individual face parts that can be assigned solely to this category. Twelve of the backs have been spun to remove the rough casting surface. As with the Type 1 buttons of this group, they fall into three size categories. Thirteen buttons are between 8.6mm and 11.5mm (average 10.5mm) in diameter; six are between 14.0mm and 15.0mm (average 14.5mm); and eight range between 17.9mm and 21.1mm (average 19.5mm) in diameter. The larger size group tends to range somewhat larger than the comparable grouping in the Type 1 category. Varieties are again distinguished on the basis of the shape and treatment of the face of the button.

This type is comparable to Stone's CII SE T1 VA classification (1974:54 and Figure 29 A), similar to Grimm's Type 5 (1970:64 and Plate 13-5), South's Type 6 (1964:116) and Hanson and Hsu's Series B, Type 3 (1975:87 and Figure 49 A).

Group 4, Type 2, Variety A
Total: 6
Figure 191C

These are plain dome-shaped brass buttons similar in all respects to the Type 1, Variety A, except for the use of the wire eye. Diameters range from 10.4 mm to 18.0 mm with an average of 12.5 mm. There are six complete specimens, five of which have brass wire eyes, and one of which is iron. Four of the backs are spun.

Group 4, Type 2, Variety B
Total: 2
Not Illustrated

Two specimens have low convex faces with a geometric design cast into the face. Diameters are 14.4 mm and 14.5 mm. Both backs are spun, and one has an iron wire eye. The other eye is missing.

Faces for Group 4, Type 1 or Type 2 Buttons
Total: 9
Not Illustrated

These are dome-shaped cast button faces from either Type 1 or Type 2 buttons. All are plain-faced and would have been soldered or brazed to the back piece. Sizes range between 10.1 mm and 21.5 mm, or comparable to the size ranges for the types of buttons noted above. Eight are of brass, and one other is brass with a silver plate.

Group 5
Total: 3
Figure 191D

This group consists of three buttons and is characterized by molded glass buttons that have a wire eye with a washer embedded in the back. The three specimens recovered all have dome-shaped faceted faces and slightly convex backs. Eyes remaining in two buttons are made of copper wire. Two specimens are black opaque glass and the third is clear glass. Diameters are 14.4 mm, 14.7 mm, and 15.4 mm. This group is comparable to Series I, Type 1 from Fort Stanwix (1975:90 and Figure 49 T), South's Type 13 (1964:119), and Grimm's Type 12 from Fort Ligonier (1970:67 and Plate 13-12).

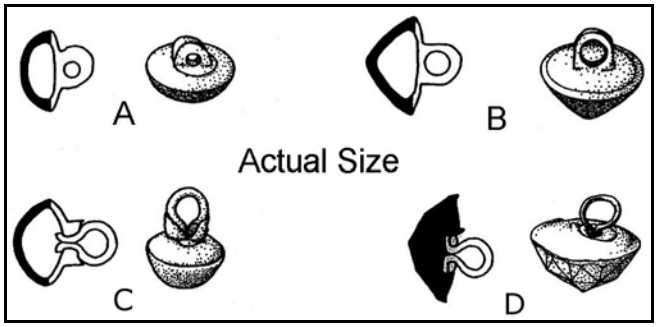

Figure 191. Group 4 and Group 5 Buttons.
A. Group 4, Type 1, Variety A. **B**. Group 4, Type 1, Variety C. **C**. Group 4, Type 2, Variety A. **D**. Group 5 button.

Group 6
Total: 1
Not Illustrated

This group has been established to cover one later button that was recovered from the fort. It consists of a flat stamped brass face and back with a brass eye brazed to the back. The edge is rounded and the eye is brazed to the back. The diameter is 18.9 mm. The back is stamped with two concentric circles within which is stamped **EXTRA BEST COLOUR**. This type is comparable to South's Type 18 (1964:120-121) and probably dates to the early part of the nineteenth century. Comparable buttons, but with varying and different inscriptions are reported from the Hermitage as Type 21 (Smith 1976:199). This button was recovered from square N208/E254 in the Southeast Bastion. Although no identical buttons are reported from the Tellico Blockhouse (Polhemus 1979:227 and 231, Figure 48), this one from Fort Loudoun was quite possibly deposited as a result of Tellico Blockhouse activities.

Group 7
Type 1 (One Piece Solid Bone Button)

Total: 1
Not Illustrated

This one element button of bone has a raised shank on the back through which the eye has been drilled. The crown is convex with a depressed circular area in the center of the face, with a raised dot in that depression. It has a beveled edge and a raised rim around the outside edge of the face. The diameter is 18.6 mm. This specimen is similar to South's Type 14 (1964:119).

Sleeve Links

There is a total of 47 sleeve links in the collections. For descriptive purposes they have been divided into four types, and into varieties within the types. These categories and sleeve link counts are summarized in Table 150. The distribution by provenience is shown in Table 151.

Table 150. Sleeve Links Summary.

	No. Recovered	Total
Type 1 Single Piece Cast		**15**
Variety A Flat	4	
Variety B Convex Face	4	
Variety C Flat Face with Black Rim	7	
Type 2 Cast with Separate Eye		**1**
Type 3 Glass Set Sleeve Links		**30**
Variety A Convex Back	3	
Variety B Conical Back	3	
Variety C Bell-Shaped Back	1	
Variety D Edges Crimped Around Glass	13	
Variety E Glass Decorated Metal Ring	3	
Glass Sets for Type 3	7	
Type 4 Openwork Brass		**1**
Total Sleeve Links		**47**

Type 1 (Single Piece Cast)
Total: 15
Figure 192A-J

This grouping includes all those sleeve link elements that were made by casting the front, back, and eye as one piece. In all cases, the eye consists of a wedge-shaped extension on the center of the back with a drilled hole for the wire link joining the two button elements. Varieties are established on the basis of the shape of the profile section of the button.

Type 1, Variety A
Total: 4
Figure 192A-C

These are plain single piece buttons that are flat (straight) in section. Three are made of brass and one is of pewter or white metal. The pewter or white metal specimen is octagonal in shape and is 13.1 mm across between the flats (Figure 192A). Two of the brass specimens are round with diameters of 12.6 mm and 14.0 mm (Figure 192B). A third brass one is square with beveled corners (Figure 192C) and has a maximum width of 12.4 mm. The eye on this specimen is somewhat longer and thinner than the rest of the Type 1 specimens. None of these was recovered with the wire loop, so they may possibly be buttons.

Type 1, Variety B
Total: 4
Figure 192D-G

This variety is a single cast element, distinguished by a concave or convex section. All have a complex decoration molded into the face of the button. Two are distinguished by having an additional collar cast at the base of the eye, possibly for additional reinforcement (Figure 192D and F). Two pair are connected by an oval link of brass wire that has been soldered together (Figure 192E and F) and another pair is connected by an oval link that has been crimped in two places to form a more complex type link, that served to keep the buttons separated (Figure 192G). Two of the designs on the face are geometric (Figure 192D and F), another is curvilinear (Figure 192D), and the fourth is indeterminate, but probably a floral motif (Figure 192G).

Type 1, Variety C
Total: 7
Figure 192H-J

These are single piece cast construction, but distinguished from other varieties by a flat face and a distinctive beveled rim that makes the back concave. All are either cast or embossed with a complex pattern, either geometric or floral. The designs that could be determined or reconstructed are shown in Figure 192H-J . One pair is connected with a piece of iron wire bent in a figure-8 and welded. Two others are connected with flattened oval brass links. Five of the buttons represent two pairs of cuff links. One pair is from squares N220/E214 and N234/E238 (2 buttons) and the other pair, represented by three buttons is from Feature 187, and squares N190/E280 and N238/E186. These are octagonal (Figure 192I and J) and measure 12.1 mm and 13.1 mm respectively. Three others are round (Figure 192H) with diameters of 11.7 mm and 14.0 mm. The first pair probably has the same design as a pair from Fort Stanwix (Hanson and Hsu 1975:88, Figure 49 V).

Type 2 (Two-Piece Sleeve Links)
Total: 1
Figure 192K

This type is similar to Type 1, except that the eye is a separate element made of brass wire that has been formed and cast with the disk. This pair of links is round, with a diameter of 14.1 mm, and has a very slightly convex, plain face (Figure 192K). These are similar to one found at Fort Michilimackinac (Stone 1974:68, Figure 35 K).

Type 3 (Glass Set Sleeve Links)
Total: 30
Figure 192L-V

Included in the Type 3 cuff links are three links that have glass sets mounted in a single piece cast back and eye. All are brass and have wedge shaped eyes with drilled holes. All also seem to have been cast so that the piece adjacent to the glass set could be crimped after placing the set in the back. Varieties are distinguished here on the basis of the form of the cast mounting, which also varies with the shape of the glass set.

Type 3, Variety A
Total: 3
Figure 192L and M

This variety has a slightly convex back, a definite ring around the edge of the button, and a high part that is crimped around the glass set. Two sets of sleeve links are represented. One (Figure 192L) has a black glass setting that is flat on the face and has the edges beveled and lightly faceted (represented by one button); the other (represented by one pair and one single button) has a convex rounded glass set that is painted on the back with brown swirls (Figure 192M). Diameters are 12.8 mm and 12.2 mm respectively. One pair is connected with a flattened oval link.

Type 3, Variety B
Total 3
Figures 192N and P

This variety is similar to Variety A, except that the back is conical-shaped in order to accommodate a pointed glass set. Three sets of cuff links are represented, two by one button each and the other by a pair of buttons joined by a flattened oval copper link. Two sets had clear faceted glass sets (Figures 192N and O), and the third had a set of opaque green glass with green swirls (Figure 192P). Diameters were 11.5 mm, 12.1 mm and 11.0 mm.

Type 3, Variety C
Total: 1
Figure 192Q

This variety is distinguished by a high dome-shaped or bell-shaped back (Figure 192Q). The one specimen that represents this variety has a flat-topped, blue glass set with notches cut into the four quadrants in groups of three. The diameter is 11.7 mm.

Type 3, Variety D
Total: 13
Figure 192R-T

This variety is constructed similarly to the above varieties, except that the cast back is only slightly convex, and the edges are crimped around the edge of the glass set to hold it in place. There is no outer lip or rim. Four have crimped copper wire links and the other had a flattened oval link.

Five different sets of cufflinks are represented in this sample. What would constitute two pair of cufflinks sets is represented by five buttons in one instance. These have a dome-shaped clear glass set with a starburst pattern cut into the glass. The flat back of the glass is painted with red, brown, and blue speckles (Figure 192R). The buttons are connected by a crimped link and diameters are 12.0 mm. Three backs and three glass sets were recovered from Structure 16 and two backs and one glass set were recovered from Structure 17.

Another set of cufflinks recovered from the north wall of Structure 3 has a solid black curved face glass set (Figure 192S) with a diameter of 12.6 mm. The third set in this variety consists of a pair of links with a clear glass convex-shaped set that had a floral pattern etched into the back and filled with white pigment (Figure 192T). The diameter of the button is 11.0 mm. This pair was recovered from Structure 14. Another set in this grouping consists of one link that has a set with a flat face and beveled edge of black glass. The diameter is also 11.0 mm. The final set consists of a white set with red backing.

Type 3, Variety E
Total: 3
Figure 192U and V

This variety is made similarly to others, with a glass set in a cast back. The distinguishing feature is a decorated metal ring which extends out from the edge of the button. As with the others, there is a ring that is crimped around the edge of the glass to hold the set in place. The backs of these are cone-shaped to hold a convex set. The three buttons in this variety represent three different sets of links. The outer band of one button is decorated with a geometric motif, two of them have a plain solid band to hold the set in place, while the third has a series of 12 triangular pointed tangs that are crimped over the edge of the set (Figure 192U). Only one set is in place, and that is a white opaque glass with blue swirls. Outside dimensions were 14.7 mm, 13.8 mm, and 12.6 mm. The one associated wire link is crimped in two places and made of brass.

Type 3 (Glass Sets)
Total: 7
Not Illustrated

In addition to the cufflinks noted above, seven glass sets were recovered, or are in the collections and would have come from varieties of Type 3 cuff links. Two are clear glass and faceted, two had convex faces, one is a light blue glass and the other is black. Two additional ones have flat faces with beveled edges. One is black and the other clear with an indeterminate brown design painted on the back. The last is opaque white with light (royal) blue swirls.

Type 4
Total: 1
Figure 192W

This one specimen is distinctive in that it has an openwork concave back and front. The back and front were apparently cast of brass in one piece, and a brass wire shank was cast into the back. It has a gilt surface. Diameter is 10.4 mm. This specimen is somewhat smaller, but the pattern is identical to one illustrated from Fort Michilimackinac (Stone 1974:Figure 35 J).

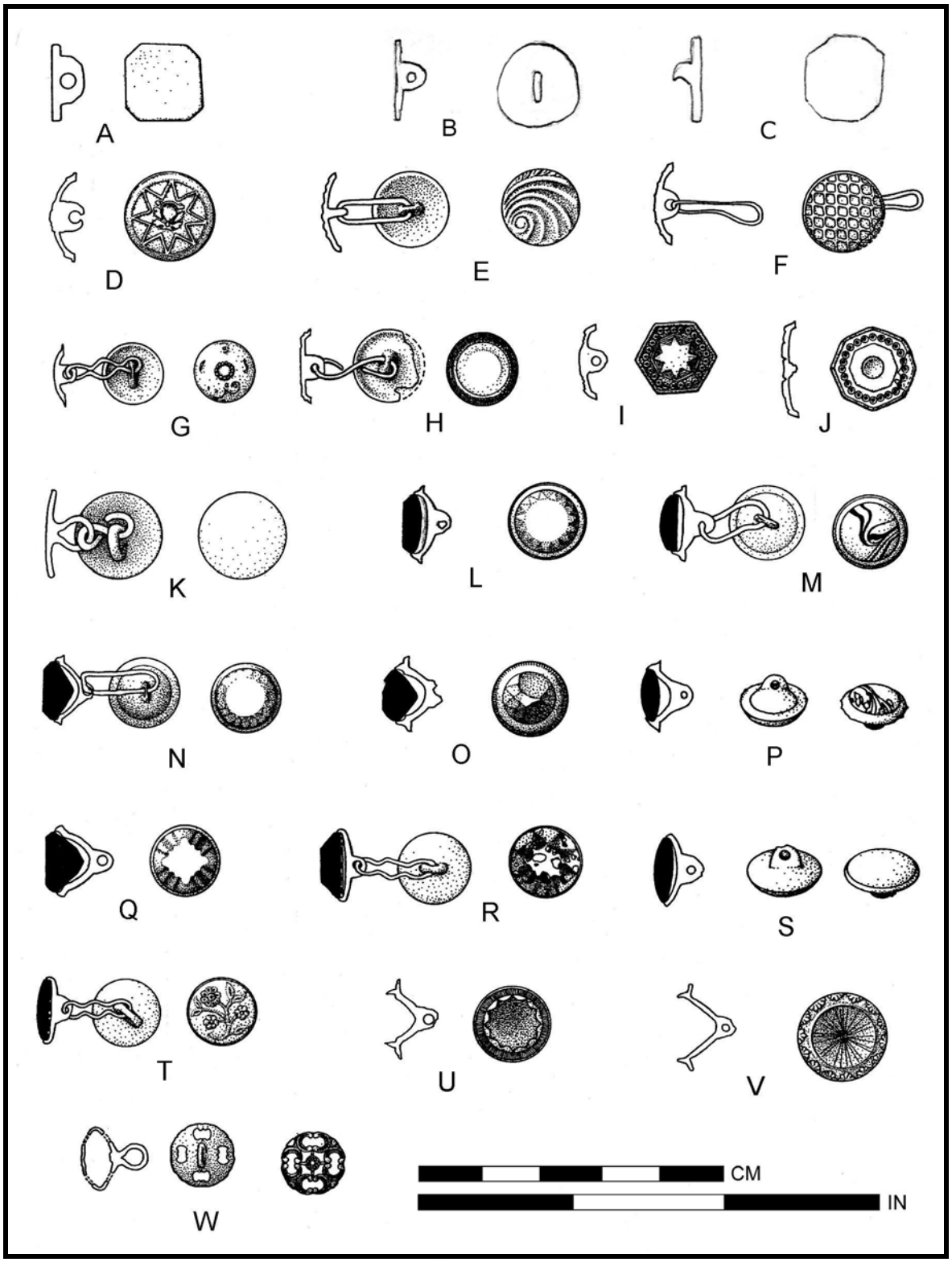

Figure 192. Sleeve Links.
A-C. Type 1, Variety A. **D-G**. Type 1, Variety B. **H-J**. Type 1, Variety C. **K**. Type 2. **L and M**. Type 3, Variety A. **N-P**. Type 3, Variety B. **Q**. Type 3, Variety C. **R-T**. Type 3, Variety D. **U and V**. Type 3, Variety E. **W**. Type 4.

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T 1	T 2	T 3	T 4	B	E	T 1	T 2	T 3	T 4	T 5	T 6	F	T 1	T 2	F				T 1	T 2	T 3	T 4	
172/280			1										1											2
178/200																1								1
180/194																1								1
180/266	1																							1
180/278																1								1
182/264(3)					1																			1
182/268														1										1
182/276			1																					1
184/276					2																			2
186/256													1											1
188/214(14)			1																					1
188/256															1									1
188/280													1											1
190/220	1																							1
190/258	1																							1
190/280			1												1						1			3
192/202																1								1
192/210(B/14)													1											1
192/224			1																					1
194/206(B)															1									1
194/208(B)										1														1
194/220																					1			1
196/192	1																							1
196/266(l)	1													1										2
198/244														1										1
202/198					1																			1
202/264(5)																					1			1
204/202(B)															1									1

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T1	T2	T3	T4	B	E	T1	T2	T3	T4	T5	T6	F	T1	T2	F				T1	T2	T3	T4	
204/246(6)														1										1
206/218					1																			1
206/250(6)															1									1
208 /254(6)																						1		1
210/216														2										2
210/252(6)	1																					1		2
210/256								1					1											2
212 /184(8)															1									1
212/232													1											1
214/180(8)							2							1										3
214/216					1																			1
216/182(8)				1																				1
216/212													1											1
216/216					1								1											2
216/220													1				1							2
216/252								1																1
218/182(11)			1																					1
1218/184					1																			1
218/206														1										1
218/214					1	1							1							1				4
218/216					1	1								1										3
218/226																				1				1
220/204(B)														1										1
220/214											1			1						1				3
220/216					1																			1
222/206			1																					1
224/200(B)			1										1											2
224/202(B)	1													1										2

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T1	T2	T3	T4	B	E	T1	T2	T3	T4	T5	T6	F	T1	T2	F				T1	T2	T3	T4	
224/204	1				1	1						1		1										5
224/222	1																							1
224/224													1											1
224/226						1																		1
224/228														1										1
226/194(10)					1																			1
226/196(B)																						1		1
226/204	1		1		4	29							3	5	2							1		46
226/206	3				3	4						1		1	2							1		15
226/212					1																			1
226/220			1																					1
226/224			1																					1
226/226			1											1						1				3
228/194															1									1
228/202(B)														1										1
228/204														2										2
228/208	1																		1					2
228/254													1											1
230/174								1					1											2
230/204			2		1	1										1								5
230/206												1									1			2
230/226						1																		1
230/234																1								1
230/244(13)													1											1
232/192(19)														1										1
232/206																							1	1
232/218(4)	1												1	1										3
234/188													2											2

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T1	T2	T3	T4	B	E	T1	T2	T3	T4	T5	T6	F	T1	T2	F				T1	T2	T3	T4	
234/204(17)					1																			1
234/206(17)													1											1
234/220(4)					1									1										2
234/238																				1				1
236/188													1				1							2
236/200(17)					1																			1
236/202(17)			1																					1
236/210														1										1
238/186																				1				1
238/192			1		1										1									3
238/210			1																					1
238/240					1																			1
238/242													1											1
238/244					1																			1
240/180															1									1
240/188		1																						1
240/190					1									1										2
242/192														1										1
242/236(16)			1												1									2
242/244					1																			1
F. 3	1																							1
F. 44					1		1						1											3
F. 45			1		1																			2
F. 50	1		2		3				1				1	1	1									10
F. 58	1		1		6																	1		9
F. 63					1	1																		2
F. 77																				1				1
F. 78					1																			1

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T1	T2	T3	T4	B	E	T1	T2	T3	T4	T5	T6	F	T1	T2	F				T1	T2	T3	T4	
F. 79	1		1																	1				3
F. 82					1			1																2
F. 83	1		1					1					1	1						1				6
F. 85															1									1
F. 86					1		1																	2
F.104	1		1											1										3
F.107					1																			1
F.109										1														1
F.120	1																							1
F.123																1	1							2
F.159					1					1				4										6
F.171					2															2	1			5
F.178	1		2		1										1						1			6
F.179																				1				1
F.184															2									2
F.185														1										1
F.187																				1				1
F. 208																					1			1
F.212								1					1											2
F.353(P)			1																					1
F.358	1													1	1	1								4
ST. 3																					1			1
ST. 7			2		1								1											4
ST. 9	1		1																					2
ST. 10	1		1		2	1		1						8	1					1	1			17
ST. 13			1																					1
ST. 14																					1			1
ST. 16			1		3						1	1		1	1						6			14

Table 151. Button and Sleeve Links Summary

Provenience	Group 1				G2		Group 3							Group 4			G5	G6	G7	Sleeve Links				TOT
	T1	T2	T3	T4	B	E	T1	T2	T3	T4	T5	T6	F	T1	T2	F				T1	T2	T3	T4	
ST. 17	1		1		3								1	2	1							5		14
PM. 508					1																			1
Vill. Surf.					1																			1
Ditch					1																			1
No. Prov.	15	1	11		28			1	2				4	8	5	1						4		80
Total	**42**	**2**	**46**	**1**	**87**	**44**	**3**	**9**	**3**	**3**	**2**	**3**	**35**	**58**	**28**	**9**	**3**		**1**	**14**	**2**	**29**	**1**	**425**

Note: Column headings are as follows: Group 1, Group 3=Group 1 Buttons, Group 3 Buttons, etc.; G2, G5, etc.=Group 2 Buttons, Group 5 Buttons. Back=Buckle back; E=Button Eye; F=Button Face T1, T2, T3, etc.=Buckle types within each group.

Textiles
By Jenna Tedrick Kuttruff

Cherokee Period Textiles (1756-1760)
Total: 24
Figure 193A and B

The Cherokee period artifacts include pottery with mat impressions which has been previously classified as Plaited Cane Impressed (King 1970:56, 1972:35). The term plaited in that pottery classification is incorrectly used as a general term for woven structures and does not correspond to Emery's (1966:61) definition for plaiting. The clay was tempered with moderate to generous amounts of coarsely crushed mussel shell. All of the sherds are relatively flat, which indicates that they are from the bottoms of flat pans or flat-bottomed bowls; no rim sherds were found. This fact along with the mat impressions suggests that the vessels were either made on or allowed to dry on cane mats (King 1977:163) and were not deliberately impressed for decoration.

Twenty-four sherds of this type were recovered from the Fort Loudoun site, and two different weave structures have been identified.

Nineteen woven mat impressed sherds were excavated from one Cherokee pit (Feature 315) and are probably all from the same vessel (Figure 193A). All would fit into the category of complicated float weaves as described by Sandra Scholtz (1975:78): "The defining characteristic utilized in descriptively grouping this basketry is that the two sets of elements are employed differently, i.e., the warp and weft require different numerical notations." Only one set of elements is visible in the impressions on the sherds and all elements of that set interlace over four, under three. The other set of elements which is not visible in the impression interlaces over one, under one, over one, under one, over one, under two. The notation used for such a weave structure would be 4/3 & 1/1-1/1-1/2. The elements making up the visible impressions on the sherds were 5.0 mm in width and were single flattened strips. Calculations of the spaces between the impressions indicate that the width of the nonvisible elements was probably 4.0 cm.. The angle of crossing of the sets was 90 degrees.

The second weave structure (Figure 193B) is an even regular 3/3 twill in which both elements are equally visible in the impressions. Five sherds with impressions of this structure are present, and in each example the elements were single flattened strips which could have been split cane. However, from the impressions alone it would be difficult to make a definite statement as to the materials used. The strips employed were 4.0 mm to 4.5 mm in width, and in all but one example the angles of crossing of the sets of elements were 90 degrees. On one specimen the angle of crossing was 72 degrees.

Within the Tellico Valley, Plaited Cane Impressed sherds have been recovered and reported from Chota, Citico, and the Starnes Site (King 1969, 1970:56). Weave structures were not reported and cannot be directly compared to the two varieties that are described above.

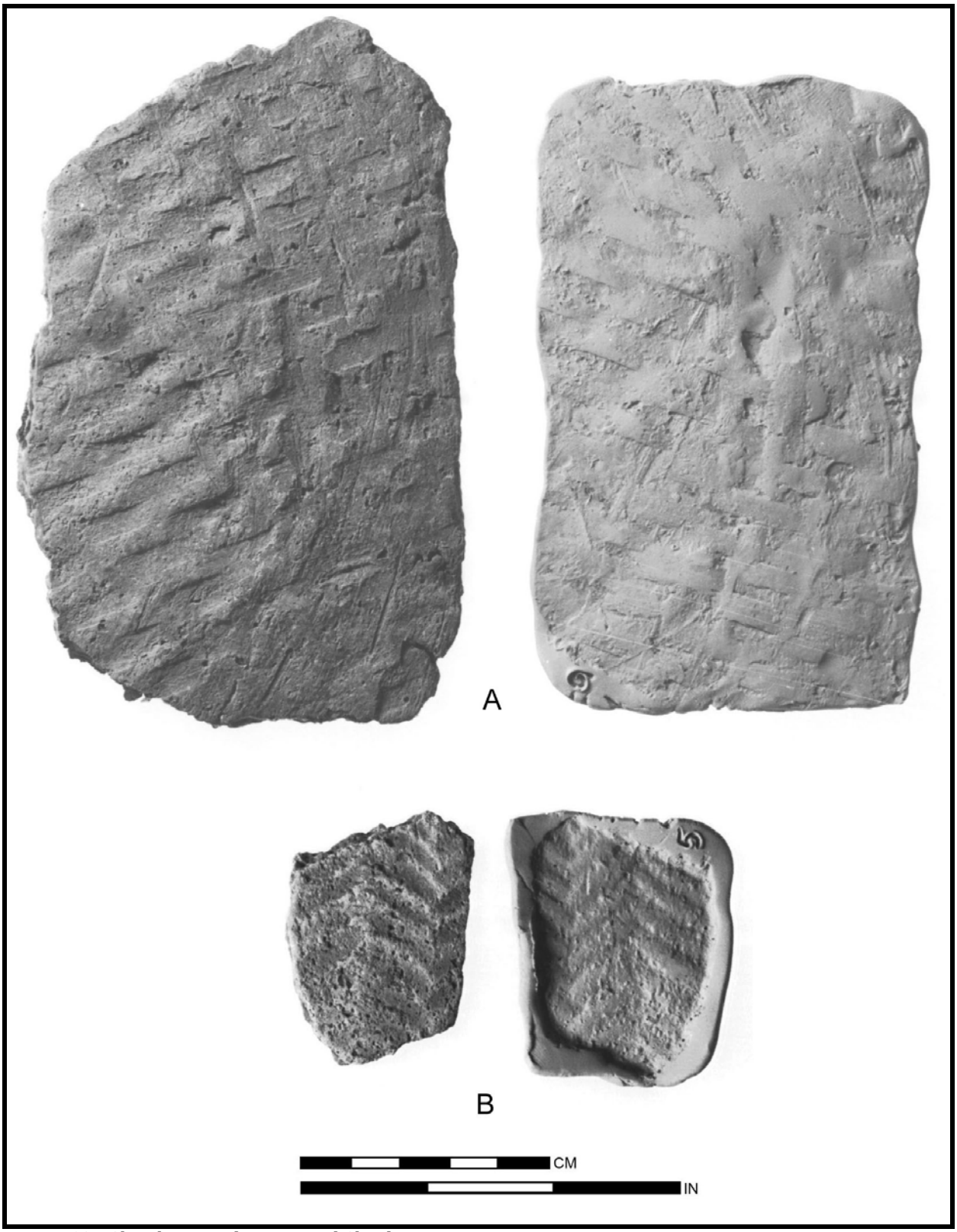

Figure 193. Cherokee Textile Impressed Sherds.
A. Woven mat impressed. **B**. Twill weave mat impressed. Positive casts are on the right.

British Textiles (1756-1769)
Total: 2
Figures 194-198

The British textile remains from Fort Loudoun consist of one preserved fragment of metallic ribbon and a single piece of Cherokee pottery with both mat and textile impressions (Figures 194 and 197). The ceramic specimen was characterized by using stereo light microscopy. The metallic braid was subjected to technical, physical and chemical characterization using stereo light microscopy, scanning electron microscopy (SEM), and x-ray microanalysis of the metallic yarns in the form of energy dispersive spectroscopy (EDS). The reported measurements of textile elements are averages of measurements taken under the stereo microscope. Terminology used in the description of technical fabrication of both yarns and fabric are those suggested by Irene Emory (1966) in her classification system presented in *The Primary Structures of Fabrics*. The results of the fabric characterization are considered in light of published reports of archaeological textile remains from other early historic sites in eastern North America as well as existing eighteenth century documentation.

The only preserved textile excavated from Fort Loudoun during the 1975-1976 excavations, was a small woven piece of metallic ribbon (Figure 194). It had been preserved by the presence of copper oxides which have a tendency to arrest decay. It was recovered from an excavation unit (N214/E260A) just north of Structure 5, a Barracks building. The specimen measured 4.8 cm long and 1.5 cm wide. The weft yarns were formed by wrapping thin strips of copper foil around a bast fiber thread core which was most likely made of flax. The copper strips were S-wrapped very precisely at approximately a 65 degree angle with 24 wraps per centimeter and did not appear to have originally overlapped or left gaps (Figure 195A). The fiber core is a Z-spun single yarn with a light twist less than 25 degrees. The SEM photomicrographs of the core fibers indicate a bast fiber (Figure 195B) as nodes are evident in the longitudinal view and lumen are present in the cross-section. The weft yarns are 0.55 mm in diameter. The bast fiber warp yarns are two ply, Z-spun, S-plied with a light twist and measured 0.80 mm in diameter.

Figure 194. British Metallic Ribbon.

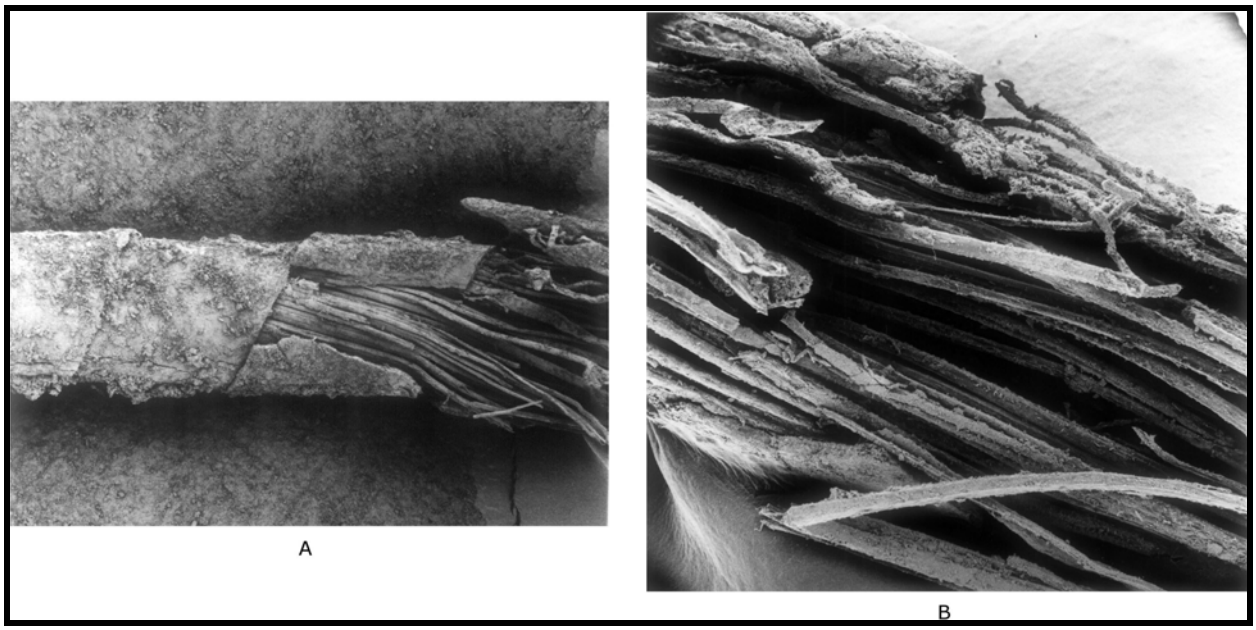

Figure 195. Scanning Electron Microscope Photos of British Metallic Braid.
A. Single yarn showing metallic wrapping. **B**. Single yarn showing yarn fibers.

The results of longitudinal x-ray microanalysis of both the weft core and weft foil indicate a high presence of copper; aluminum is also present. The high presence of silicon is thought to be derived from the soil in which the ribbon was buried. The foil did not visually appear under SEM to be gilded or laminated. However, cross-sectional mapping of the elemental distribution using EDS would be necessary in order to determine conclusively if the foil was solid, gilded, or laminated.

The woven ribbon is weft faced. Only two warp yarns remain, one at each selvage, but the impressions of additional warps are evident in the metallic yarns. Based on the bends in the weft yarns, there would have been an additional single warp thread in a shed next to either selvage and then an indeterminate number of warps in a shed in the center portion of the ribbon. Figure 196 shows a reconstruction cross section drawing of the fabric structure. The two outer yarns which remain are held apart by the stiffness of the metallic weft yarns. There are approximately 40 wefts per cm in the recovered fragment. However, this count was probably higher in the original textile as there appears to have been yarn slippage of the weft yarns along the two remaining warp yarns.

An impression of a balanced plain weave fabric of probable European origin was recovered from N208/E258 within the fort palisade (Figure 197). It was superimposed upon the impression of an even, regular 3/3 twill mat impression on a piece of Cherokee pottery. The yarn count was approximately 16 ends per cm (40 ends per inch) in both directions. Fiber content and yarn structure is indeterminable. The impressions were probably made by placing the wet clay vessel on the fabric which covered a twilled mat. Similarly impressed sherds have been reported from at least one other Cherokee site, Citico, in the Little Tennessee River valley, [Ford 1979]. Lists of trade goods (Appendix 9) which were ordered from England during the British occupation of the fort indicate that textiles were important gifts of items of trade with the Indians.

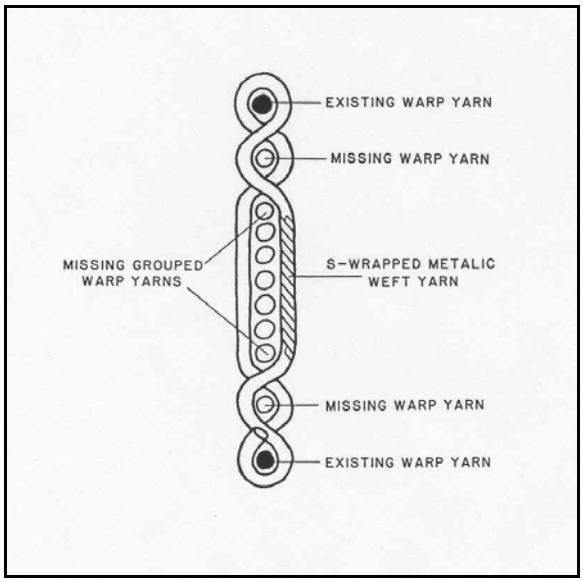

Figure 196. Reconstruction Cross Section Drawing of the Metallic Ribbon.

Textile remains have been recovered from several sites that were contemporary with Fort Loudoun for at least part of their occupation. These include Fort Michilimackinac, in Michigan; Fort Stanwix, New York, and the Trudeau Site in Louisiana. All but 12 of the 89 of the fabric fragments recovered at Fort Michilimackinac, a frontier fort in Michigan which was occupied from 1715 to 1781, were manufactured from metal-wrapped yarns and most were attached to clothing as decorative elements. According to Stone (1974:76-81), most appear to have been associated with the British military contexts and were used after 1750. Few fabric specimens were attributable to the earlier French periods of occupation. Emery's (1966) descriptive classification of fabric structure was used in the analysis. The metal-wrapped yarns were either of copper or silver wrapped around a silk core with one exception which had a flax core. Fabric structures of the metallic fabrics varied and included examples of plain weave, pattern weave, oblique interlacing, and bobbin lace. Of the nonmetallic fabric remains, eight were plain weave silk, three were twill weave wool, and one was an open weave of unidentifiable fiber content.

Nine fabric fragments were recovered from pre-1781 contexts at Fort Stanwix which was originally a British fort and later became an American Revolutionary War period fort in New York (Hanson and Hsu 1975:82). All of the specimens were classed as coarse cloth in plain weave. Where discernable, the yarns had a Z-twist, but no fibers were identified. The fragments had been preserved by charring or contact with metal. One example retained a "hem-stitch seam." Five fragments of braid were also found, but the descriptions and illustrations are not clear enough to be sure of their structure. One consisted of three tassels joined together; two strips of silver braid and two of brass were recovered. One of the pieces of silver braid was stitched to a garment by a single thread down the center and was 9 mm wide and over 18 cm long.

Three strips of metallic braid were found rolled together among the artifacts from a mid-eighteenth century European and Indian artifact collection from the Trudeau Site, a Tunica Indian Village in Louisiana. The braids averaged three centimeters wide and were described as follows, "a simple twined weave, fibers twisted in the Z-direction, weft threads 3mm, warp threads 1mm, identical fibers in both warp and weft, and the presence of selvages" (Brain 1979:218). A pattern of alternating diamonds and Xs were formed by weft floats. Based upon the illustration of the braid, it appears to this author to have been of woven construction rather than twined. The fibers were identified as silk. One piece of fabric was preserved by contact with a brass ladle and was completely mineralized. The fabric was identified as probably being "an inexpensive grade of Limbourg cloth" (Brain 1979:217-219).

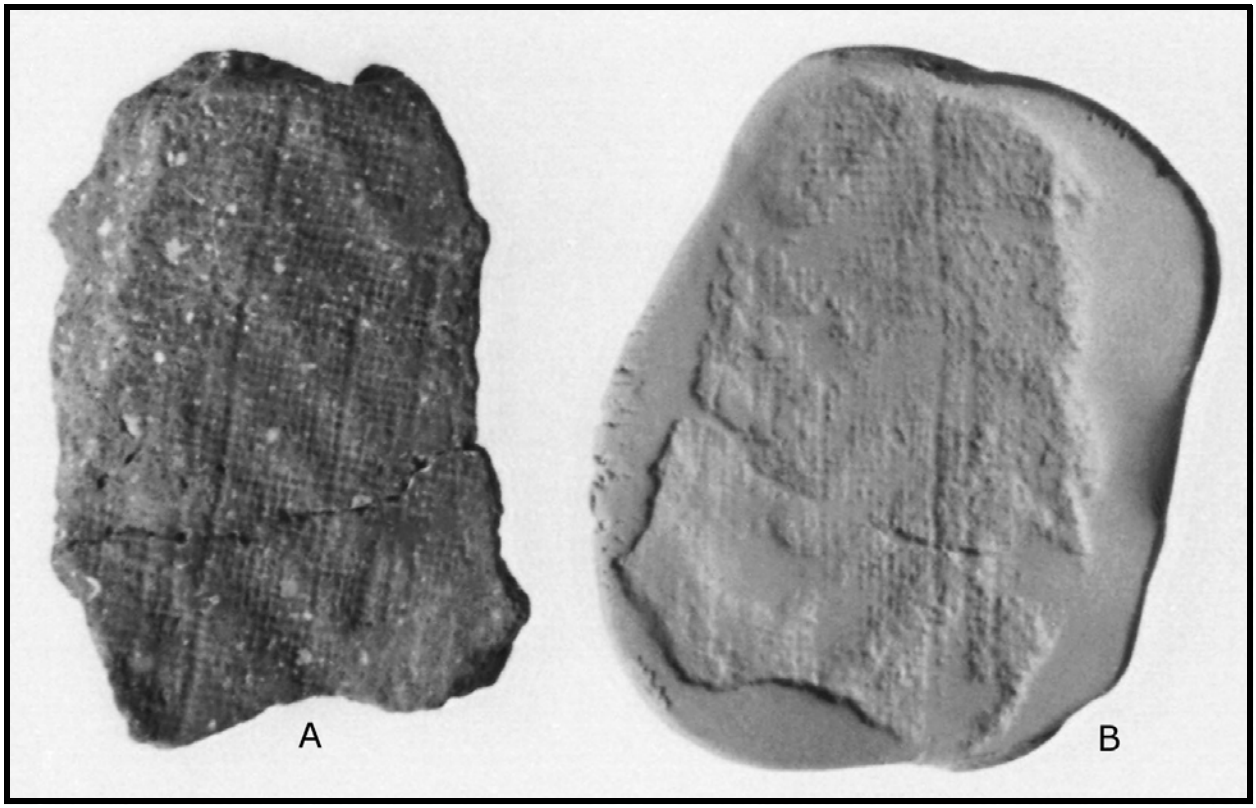

Figure 197. European Fabric Impression on Cherokee Sherd.

Archaeological textiles have also been reported from sites that are earlier than the mid-eighteenth century. The remains of what was probably a piece of plaited silver braid was recovered from Fort Albany which had been established by the Hudson's Bay Company between 1674 and 1679 (Kenyon 1986:40, Plates 84 and 85). The core was "probably silk" and was Z-wrapped with silver. Other pieces of tinsel braid were made of copper-wound linen thread; some of these had thin strips of copper woven through them as well. There were also several small pieces of cloth that were from wearing apparel. All except two of these pieces were of wool with both weaving and felting represented. One piece of silk netting and one piece of tabby with a linen warp and a silk weft were identified.

All but two of the 73 fragments from Burr's Hill, a seventeenth century Wampanog Indian burial ground in Rhode Island, were of wool (Dillon 1980). Dillon divided the wool fabrics into four basic categories. The first (33 fragments) is composed of fabrics woven in plain weave, brown or red in color and medium-heavy in weight and is believed to correspond to the "trucking cloth" or "duffels" mentioned in period writings (see Appendices 9 and 10). The second category of wool fabrics consists of 23 blanket fragments which all appear to have been from the same textile. The weave is a 2/2 twill with a Z-spun warp and an S-spun weft, and napping is apparent on both sides. The background color is white with stripes of red, blue-green, and brown. The third category may have been of Colonial or Indian manufacture. It includes nine fragments all woven in a 2/1 twill and tan or brown in color. The yarns are loosely twisted (Z) and are about 5 mm in diameter. The final category contains seven pieces of one fabric which is a finely woven brown 2/2 twill. There is evidence of rolled edges and stitching with a vegetable fiber. These fragments were most likely a part of a small tailored garment. A single fragment of line was recovered and it was a fine linen fabric or the "Holland" type. A narrow, tightly woven trimming, or galloon, was recovered in a long roll and was made of yellow covered silk and silver colored thread which was wrapped in an S direction. The structure is a compound weave with supplementary warp of the silver wrapped threads woven with yellow silk in warp and weft. The pattern produced is a chevron design.

Remains of metal braid were found in two "clumps" at Santa Rosa Pensacola (H. Smith 1965:71). The yarns were composed of a central core thread which was Z-wrapped with metal foil with 70 to 72 turns per inch. "The weave of the braid appears to be four strands over and four strands under, being either braided or plaited." According to Emery's (1966:63) classification this would be described as plain oblique interlacing with quadrupled elements. The probable function of the braid was stated to be the decoration on the recoil pad of a pistol.

Textile remains from late eighteenth century contexts have also been reported. Textile remains were recovered from two excavations at Fort Southwest Point, which was an American Federal period military outpost in East Tennessee, built and occupied from 1792 until 1807. Thomas (1977) presented a cursory description of two small pieces of cloth. These textiles were re-examined by this author and included with the data from the analysis of textile remains recovered during later excavations (Kuttruff 1988, 1993). Fifteen fragments were recovered which probably represented six different fabrics. These include balanced plain weaves (three of Z-spun single yarns and one of S-spun single cotton Yarns), balanced 2/2 twill weave with Z-spun single yarns, and metallic ribbon made of gold wrapping on silk. This metallic ribbon has the identical fabric structure of the ribbon recovered from Fort Loudoun (described above) but was only 5.9 mm wide

A few studies have been made of metallic yarns. Schreier and Bresee (1979) wrote a history of decorative metallic yarns and describe the changes in materials and technology in the production of metallic yarns. The use of flattened metal strips spiraled around a silk or linen core produced an improved and more flexible yarn than the earlier strips or wires of solid metal. Gold, silver, copper, brass, and other metal alloys were used to produce metallic yarns prior to the twentieth century. Hardin and Duffield (1986) characterize by microanalysis the metallic yarns in historic Persian textiles in an effort to establish the era and provenance of the textiles. They discuss the methodology used in the characterization of the yarns which included stereo light microscopy, scanning electron microscopy (SEM), and energy dispersive spectroscopy (EDS). Stodulski et al. (1985) analyzed 124 metallic thread specimens taken from 54 individual objects in the textile collection of the Indianapolis Museum of Art. Their analysis included a combination of optical microscopic, atomic emission spectrographic and scanning electron microscopic-x-ray analytical methods. The analysis of 62 thread samples from 18 European textiles which date from the sixteenth to the nineteenth century revealed many gilded silver and silver specimens which contained minor amounts of copper and some with traces of lead.

Contemporary documents that list British trade goods and rewards for the Indians from the period of 1756 to 1760 have survived (see Appendix 9) and include lists of a variety of types of items. The textiles listed include cottons, duffil, flannel, garlix, gimp, gartering, halfthicks, bay, broad cloth, caddis, calimancoes, callico, checks, ribbon, lace, lawn, lincey, muslin, ratten, serge, and stroud. Clothing items listed include hose, stockings, gloves, handkerchiefs, sashes, leggings, breech cloths, shirts, hats, belts, shoes, coats, jackets, pants, blankets, and feathers. A list of definitions for the textile and clothing terms included in these eighteenth century documents is presented in Appendix 10.

Nearly all of the historic textile remains recovered in the eastern United States from archaeological contexts have been preserved either as the result of charring or as the result of contact with various metals. Narrow fabrics which incorporate metallic yarns are the most frequently recovered class of textile. A comparison of the two examples of metallic ribbon recovered from Fort Loudoun and Fort Southwest Point shows the same fabric and metallic yarn structures but there are differences in the composition of the yarns. No other metallic fabrics have been reported with this fabric structure; however, the yarn structure appears to be fairly common. Gold wrapped yarns have not been reported, although not all of the metals in the yarns have been identified, and the basis for the identifications of those which were made was not specified.

The soldiers stationed at Fort Loudoun were members of one of the three Independent South Carolina Companies. "Poppinger green" (Parrot green) was the facing color of their red uniforms (Figure 198). The illustration in Katcher's (1975:42) *Armies of the American Wars 1753-1815* of a private from this company does not indicate use of metallic trim. The tricorne hat is trimmed with white wool worsted tape. The coat is made of wool and is lined with linen. Metallic trim was most likely to have been used for officer's uniforms and for civilian wear. The metallic ribbon recovered from Fort Loudoun may have been what was termed "tinsel lace," a cheap metallic trim which was often traded to the Indians. Plain weaves and twill weaves were the most commonly used fabric structures along the 18th century frontier and were most often woven of wool, cotton, or flax, but silk fabrics were also used.

Figure 198. Uniform of the Independent South Carolina Companies at Fort Loudoun worn and sewn by the late Jim Lyles who dyed the fabrics with natural dyes. Photograph by Jeff Wells, Fort Loudoun State Historic Area.

Bale Seals
Total: 3
Not Illustrated

Three thin discs of lead are in the Fort Loudoun collection and are without provenience. These may have possibly been bale seals, coming into the fort with various shipments of clothing for the garrison or fabrics and clothing for the Indians, but there are no markings that can be discerned. While these types of items are generally common on other mid-eighteenth century sites, this does not seem to be the case at Fort Loudoun. Similarly, only three were recovered from the town of Chota (Newman 1977:46 and Figure 6-G). As mentioned for Chota by Newman, it might be possible that these items, if they were coming into the fort in any numbers, may have been remelted for bullets.

Ornamentation/Personal Adornment

Glass Beads and Wampum
Total: 338
Not Illustrated

A total of 338 glass beads and wampum was recovered from Fort Loudoun and the Cherokee features outside of the fort. Three hundred and ten (92 percent) were from fort associations, and the remaining 28 (8 percent) were recovered from Cherokee pit features to the south of the fort. The bead descriptions that are presented here generally follow the typology of Kidd and Kidd (1970). Difficulties in strictly following other typologies is apparent, and certain modifications have had to be made. Problems with the system devised by Kidd and Kidd, and that of Stone (1974:88-114) have been discussed in the literature by Spector (1976) and Brain (1979:98). Both Brain and Spector have provided alternative typologies, which in many respects incorporate much of the Kidd and Kidd system, but which also have certain advantages. For descriptive purposes here, the Kidd and Kidd typology has been followed insofar as possible. The primary divergence is where the Kidd and Kidd system does not contain a bead type of similar color and shape. No effort has been made to extend their typology to cover a particular bead variety that they do not illustrate. Instead, their typology is used as far as it goes for a given variety. For example the bead type IIb- on Table 152 indicates that the Fort Loudoun bead corresponded with one in the Kidd and Kidd classification as far as the class, and being rounded. It also corresponds in that there were colored insets, but differed in the color of the bead and the number of stripes that were inset. To aid in the identification of a particular category of beads, the Brain classification is given in parentheses after the Kidd and Kidd type designation.

The bead shape designations that are given also correspond to those of the previous typologies for the most part. The tubular and faceted beads correspond to the shapes of Kidd and Kidd. The square beads that are in the Fort Loudoun collection are short tubular beads that are square in section, essentially the same as Kidd and Kidd's Type Ic2, except for the color. The oval beads are round in section and oval in shape from the side, similar to Kidd and Kidd's designation and to that of Spector (1976:Figure 1-B). The round beads are spherical and correspond exactly to the round designation of Kidd and Kidd and that of Spector. The beads that are described here as circular range in shape from the circular or ring shape of Kidd and Kidd (1970:66), and the donut shape of Spector (1976:Figure 1-E), to beads which are essentially tubular with rounded ends where the length of the bead does not exceed the diameter.

The bead colors that are given were made by comparison with those of Kidd and Kidd and used whenever they were comparable. Brain's color designations, much more reasonable, given the variation in bead colors from the original color due to many possible factors, are given in parentheses (see Newman's [1986:427] discussion of bead color). Those in brackets are colors designated by this writer. Munsel color designation as suggested by Spector is probably a reasonable alternative for standardization, but was not done here. The standard glass types of clear, translucent and opaque have been continued in this study.

Most, or 307 (91 percent) of the beads from Fort Loudoun fall within the 2 - 4 mm size category; 21 (6 Percent) are in the 4 - 6 mm group; eight (2 percent) are between 6 mm and 10 mm, and only two beads (1 percent) are larger than 10 mm. On the whole, the majority of the beads were either white (161, or 48 percent) or black (141, or 42 percent). Other colors were represented in smaller quantities: blues (8), grays (2), clear (1), yellows (2), green (1), reds (6), composite brown or black with white stripes (13), white with blue insets (1), and purple (2). The black/white distinction in beads and wampum was quite important. This can be seen in the trade good listing of beads where the black and white beads are more often specified that the other colors (see Appendix 9).

Comparable varieties of beads have been recovered from most of the Cherokee villages in the Fort Loudoun area. These sites include Chota with the largest collection (Newman 1977 and 1986:427 and Table 8.8), Mialoquo (Russ and Chapman 1983:113-118), Tomotley (Newman 1978a:171-172 and Table 43, Carnes 1983:202-207), Tuskegee (Newman 1978b:52, 1978c:113-114), Citico (Ford 1979), and Toqua (Polhemus 1987 Volume II:939-947). The majority of the beads from these sites are white and black, with generally minor percentages of the other color beads represented. The primary exception is at Tuskegee where the Robin's egg blue beads comprise the majority of the beads.

To facilitate comparison of the beads with others, and to help insure their clear description, references to other beads illustrated in color plates have been referenced insofar as possible. For other sites with similar beads Brain (1979:100-113) provides the best available (as of circa 1990) compilation.

Table 152. Glass Beads and Wampum.

Type[1]	Shape[2]	Color[3]	Glass[4]	No.	2-4 mm	4-6 mm	6-10 mm	References
Ia5(IAl)	T	White	O	1	1	-	-	Kidd and Kidd 1970:Colour plate I-Ia5, Brain 1979:Plate I-IAl.
Ial7(IA2)	T	Dk. Shadow Blue (blue grey)	O	3	3	-	-	Kidd and Kidd 1970:Colour plate I-Ial7, Brain 1979:Plate I-IA2
Ic-	SQ	Oyster White	O	5	5	-	-	Kidd and Kidd 1970:Colour plate I-Ic-.
If-	F	Clear	C	1	-	-	1	Kidd and Kidd 1970:Colour plate I-If-.
IIa7 (IIA5)	C	Black (dark burgundy)	O	123	121	2	-	Kidd and Kidd 1970:Colour plate II-IIa7, Brain 1979:Plate I-IIA5, Good 1972:Color plate 6-169, Stone 1974:Figure 51-A.
IIa10 (IIA3)	0	Lt. Gray (clear)	T	1	1	-	-	Kidd and Kidd 1970:Colour plate II-IIa10, Brain 1979:Plate I-IIA3.
IIal4 (IIAl)	C	White	O	74	71	3	-	Kidd and Kidd 1970:Colour plate II-IIal4, Brain 1979:Plate I-IIA1, Stone 1974:Figure 51-Y.
IIal7	C	Lt. Gold	T	1	1	-	-	Kidd and Kidd 1970:Colour plate II-IIal7.
IIal9 (IIA2)	C	Amber (yellow)	O	1	-	1	-	Kidd and Kidd 1970:Colour plate II-IIal9, Brain 1979:Plate I-IIA2.
IIa27 (IIA15)	C	Emerald Green (dark green)	T	1	1	-	-	Kidd and Kidd 1970:Colour plate II-Ila27, Brain 1979:Plate I-IIA15, Good 1972:Color plate 3-33, Stone 1974:Figure 51-B.
IIa4l (IIA7)	C	Robin's Egg Blue (turquoise blue)	T	1	1	-	-	Kidd and Kidd 1970:Colour plate II-IIa4l, Brain 1979:Plate I-IIA7, Good 1972:Color Plate 5-92, Stone Figure 51-F.
IIa56 (IIA6)	C	Brite Navy (dark blue)	T	2	2	-	-	Kidd and Kidd 1970:Colour plate II-IIa56. Brain 1979:Plate I-IIA6, Good 1972:Color plate 4-59.
IIb-	C	Dk. Rosewood Brown w/ 6 White Stripes	O	1	-	1		Kidd and Kidd 1970:Colour plate II-IIb-.
IIb-(IIBl)	C	Black w/ 5 White Stripes (Dark Burgundy with White)	O	1	1	-	-	Kidd and Kidd 1970:Colour plate II-IIb-, Brain 1979:Plate II-IIBI, Stone 1974:Figure 48-CCC.
Iib- (IIB1)	C	Black w/6 White Stripes (Dark Burgundy with White)	O	11	-	8	3	Kidd and Kidd 1970:Colour plate II-IIb- Brain 1979:Plate II-IIB1, Good 1972:Color Plate 6-161, Stone 1974:Figure 48-DDD.
IVa6 (IVA2)	C	Redwood over Apple Green (Brick Red over Light Green)	O	4	4	-	-	Kidd and Kidd 1970:Colour plate IV-IVa6, Brain 1979:Plate II-IVA2, Good 1972:Color plate 5-127.
IVal3 (IVAl)	C	Oyster White over Lt. Gray (White over White or Clear)	O	43	43	-	-	Kidd and Kidd 1970:Colour plate IV-IVal3, Brain 1979:Plate II-IVA1, Good 1972:Color plate 5-107, Stone 1974:Figure 51-GG.
WIb (WIA7)	R	Light Gray (Clear)	T	1	-	-	12 mm	Kidd and Kidd 1970:Colour plate V-WIbl, Brain 1979:Plate III-WIA7, Good 1972:Color plate 4-53.

Table 152. Glass Beads and Wampum.

Type[1]	Shape[2]	Color[3]	Glass[4]	No.	2-4 mm	4-6 mm	6-10 mm	References
WIb- (WIA6)	R	(Black)	O	4	1	3		Kidd and Kidd 1970:Colour plate V-WIb-, Brain 1979:Plate III-WIA6.
WIb-	R	Rosewood	O	2	-	2		Kidd and Kidd 1970:Colour plate V-WIb-.
WIcl(WID1)	0	White	O	35	35	-		Kidd and Kidd 1970:Colour plate V-WIcl, Brain 1979:Plate III-WID1, Good 1972:Color plate 3-39, Stone 1974:Figure 51-NN.
WIC11	0	Ultramarine	C	1	-		>10mm[5]	Kidd and Kidd 1970:Colour plate V-WIcll.
WIc-	0	Black	O	13	10	-	3	Kidd and Kidd 1970:Colour plate V-Wlc-, Good 1972:color plate 3-38.
WIc-	0	Turquoise	O	1	1	-	-	Kidd and Kidd 1970:Colour plate V-WIc-.
WIe-	0	[Black]	O	1			1	Similar in form and size to Kidd and Kidd 1970:Colour plate V-WIc- and Brain 1979:Plate III-WIc2.
WIII-	0	[White with Blue Insets]	O	1	-	1	-	Stone 1974:Figure 50 P, similar except for color of insets to Brain 1979:Plate IV-WIIIB2.
Wampum	T	White	O	3	3	-	-	Good 1972:Color plate 5-134.
Wampum	T	Purple	O	2	2	-	-	
Total Glass Beads and Wampum				**338**	**307**	**21**	**10**	

Notes: 1. The first type designation follows Kidd and Kidd 1970; the designation in parentheses follows Brain 1979. A - following the Kidd and Kidd type indicates the bead from Fort Loudoun was comparable in shape, but that Kidd and Kidd did not illustrate one of that shape in a comparable color.
2. Bead Shapes: C = Circular, F = Faceted, O = Oval, R = Round, SQ = Square, T = Tubular.
3. Color designations in capitals follow Kidd and Kidd 1979; colors in parentheses follow those of Brain 1979. Colors in brackets are by this writer.
4. The glass type designations used are comparable to both Kidd and Kidd 1970 and Brain 1979. C = Clear, O = Opaque, T = Translucent.
5.This bead was fragmentary so that full dimensions were indeterminate.

Bracelets
Total: 5
Figures 199A-C

Five bracelets are in the collections; one is silver and the remainder are brass. The silver bracelet was found on the left wrist of a Cherokee burial (Feature 216, Figure 117) located just to the southeast of the fort. It has a width of 3.1 cm and a length of 13.6 cm. Three decorative lines are rouletted along each edge and there is a **S C** stamped on the outside center of the bracelet (Figure 199A). Holes were punched through each end for a thong or ribbon to tie the ends together. A comparable bracelet was recovered from the Citico site (40MR7), also from the left wrist of an individual. The decorative motif is different on that specimen, but the letters **S C** in script are centrally located on the bracelet (Rice 1975:115-117 and Figure 82).

Another flat metal bracelet section is sheet brass with a width of 2.0 cm. It is decorated with three parallel lines along each side, and there is some hatching along each edge (Figure 199B). The ends were broken off so it cannot be determined how the ends were finished. This bracelet is quite similar to one from Chota illustrated by Newman (1977:49 and 41, Figure 6-J; 1986 Figure 8.5-i), except for the difference in materials. This type of bracelet was quite common as a trade item and appears regularly in historic Indian contexts, as well as on contemporary lists of goods for the Indians (see Appendix 9). This type of wrist band with lines about the edges was mentioned by Little Carpenter in a letter to Lyttelton:

> The Little Carpenter also desired that the Bearer would carry a Pattern of a Brass Plate, also one Arm Band desiring that the Governor would have 80 of each sort made, also 80 wrist Bands with lines about the Edge" (Little Carpenter to Lyttelton, March 27, 1758, SCIA:445).

The remaining three bracelet fragments are made of brass wire and bent into an oval shape. One (Figure 199C) and a fragment of another were made from a piece of brass wire 2.0 mm in diameter. The third one is made from a piece of brass wire 1.0 mm in diameter.

Silver Ferrule
Total: 1
Figure 199D-G

One small silver ferrule shown in Figure 199D was recovered from Structure 8. It is decorated with two stamped bands around each end of the object, and was probably originally crimped around some round object, possibly some decorative cordage, such as the bugle fillets that are mentioned in the trade good lists (Appendix 9). This specimen had a length of 9.0 mm.

Silver Cross
Total: 1
Figure 199I

This specimen is a Maltese cross 4.0 cm in height that had been cut out of a piece of sheet silver. A hole was punched through the top for suspension. It was recovered from Feature 356, a Cherokee pit in the village area south of the fort. While it is obviously of a religious nature because of its form, it is considered to be an object of personal adornment. This assignment is based on the fact that it comes from a Cherokee context, and the fact that the accounts of Reverend John Martin, a missionary in the area during the period of the fort's occupation (quoted in Chapter 2), present rather discouraging reports on his attempts to convert the Indians to Christianity (Williams 1937:207-224). Similar reports were made by Abraham Steiner and Frederick C. DeSchweinitz, missionaries in the area at the end of the eighteenth century (Williams 1928:445). No exactly comparable specimens have been noted in the literature, but silver crosses have been reported in numerous instances from aboriginal contexts (Quimbey 1942, 1966; Stone 1974:117-121, Figures 53 and 54; Mainfort 1979:392-394, Figures 60 and 61).

Silver Stud
Total: 1
Figure 199H

This specimen, recovered from square N240/E196 just north of Structure 2, is a stud or boss with a diameter of 1.3 cm (Figure 199F). There is a post in the center of the back which had been flattened, or served as a rivet to hold it to a piece of cloth or leather. Presumably this was some type of decorative device on an article of clothing.

Silver and Brass Pendants
Total: 3
Figures 199K-M

Three locally made silver and brass pendants or bangles were recovered from the excavations. One from Feature 79, a pit or latrine along the west curtain to the fort, consists of a small piece of silver sheet that was cut to shape from a silver bracelet (Figure 199G). This piece of bracelet has several original embossed lines along the sides, parallel to the length. This specimen has four holes punched through it and filed off smooth. These holes were presumably for suspension or attachment to a garment or other object of clothing.

Another silver pendant recovered from Feature 3, a midden deposit in the northwest ditch, consists of a rectangular piece of sheet silver 2.0 cm by 1.0 cm in size (Figure 199H). Two holes for suspension or attachment had been punched in either end. This object and the other pendant described above were cut either from the same bracelet, or two similar bracelets.

One brass pendant 2.0 cm by 0.9 cm with two rounded corners (Figure 199I) was recovered from the parapet fill on the east side of the Southeast Bastion. Two holes for suspension or attachment had been punched symmetrically along one side. Although it is uncertain, this could be the end of a brass bracelet that was altered. Its recovery in the upper deposits of the parapet fill probably indicates that this specimen was originally deposited along the eastern side of the Southeast Bastion and redeposited on the parapet by the WPA project.

Brass Hawk Bell
Total: 1
Not Illustrated

One fragment of the crown of the brass hawk bell was recovered from Feature 45 located in Structure 1. It is slotted with round holes at either end of the slot, as is typical of this type of bell. Some solder still remains where it was attached to the back. Decoration consists of two engraved or stamped lines around the circumference, parallel to the solder line. This type of bell was quite common as a trade item during this period (see Appendix 9), and numerous specimens have been recovered from other contemporary sites, for example Fort Michilimackinac (Stone 1974:135 and 138, Figure 69-G), Trudeau (Brown 1979:197-207), Hiwassee Island (Lewis and Kneberg 1946:133 and Plates 86-B and 87-B), the Fletcher Site (Mainfort 1979:354, Figure 21-B and C), Burr's Hill (Brown 1980:93-95), and others (see Brown 1977, Quimbey 1966, and Noel Hume 1970:58-59). Cherokee sites in the vicinity of Fort Loudoun where they have been recovered include Chota (Fielder 1971:68 and Plate 28; Newman 1977:83, 1986:439 and Figure 8.8-a), and Tomotley (Linda Carnes, Personal Communication 1981).

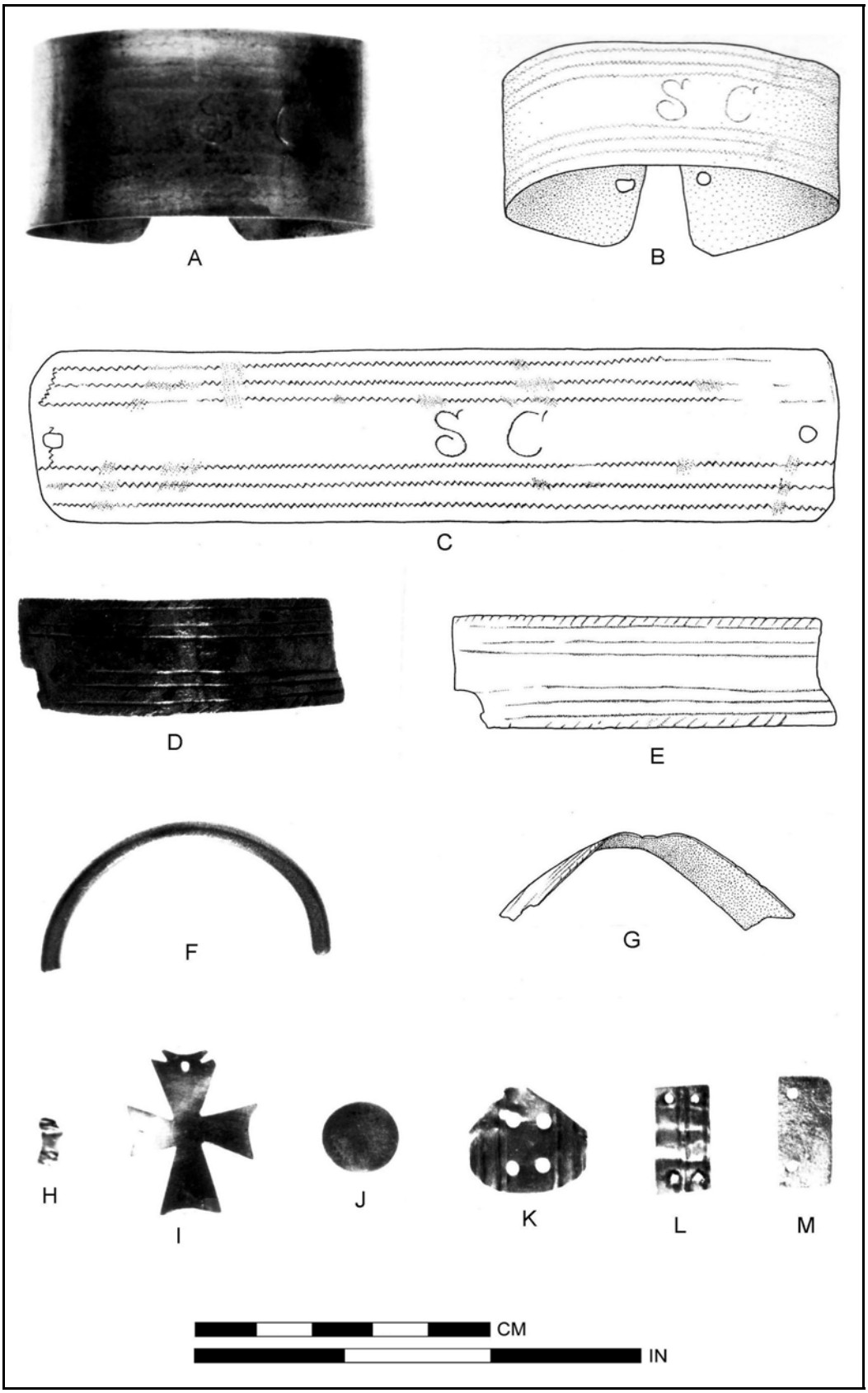

Figure 199. Bracelets, Silver Ferrule, Silver Cross, Silver Stud, Silver and Brass Pendants. **A**. Silver bracelet. **B**. Brass bracelet. **C**. Brass wire bracelet. **D-G**. Silver ferrule. **I**. Silver Maltese cross. **H**. Silver stud. **G-H**. Silver pendants. **I**. Brass pendant.

Cut Pieces of Silver
Total: 3
Figure 200A-B

These objects of silver are included here as part of ornamentation since they were either intended for some type of decorative purpose, or because they were cut from another decorative device which can be identified, in this case a silver bracelet. One from Feature 50 is simply a piece of flat silver residue that remained after cutting another object out of a larger piece of silver, probability a bracelet. The feature from which it was recovered, near the east end of Structure 3 and south of the Blacksmith Shop, also produced 15 pieces of cut brass which were the residue from cutting up a bucket or other similar brass container to fabricate other undetermined artifacts.

The second piece of silver is a trapezoidal piece (Figure 200A) decorated with a rouletted or rocker stamped design impressed along the outside edge. This piece is believed to have come from along the edge of what was a bracelet or armband. This piece of silver has been bent into a partial cylinder and may have been an incomplete attempt to construct a tinkling cone. This specimen was recovered from square N198/E256, to the west of Structure 5 and southeast of Structure 6.

The third silver artifact (Figure 200B) is a small triangular piece that had been cut from the end of a silver bracelet which had an original width of 2.2 cm, and which has the characteristic hole punched in the end for attachment of a ribbon or thong. This item was recovered from Feature 59, another pit adjacent to Feature 50 and east of Structure 3.

Brooches
Total: 8
Figure 200C-F

This grouping of eight specimens consists of complete or partial brooches that are either heart shaped or circular, and which are made of silver, and in some cases, of brass. With one exception, the frames are all cast. The exception is made of a piece of flat silver that was bent into a heart shape and soldered at the point. The movable tongues were either cut or filed out of silver or brass sheet stock, pointed on one end and attached to the brooch frame by bending one end of the tongue around a groove in the side of the brooch. The three circular brooches range in diameter from 2.2 cm to 2.7 cm. Thicknesses vary between 0.5 mm and 2.1 mm The three heart-shaped brooches have maximum dimensions of 3.8 cm by 3.0 cm and a range of thickness from 1.0 mm to 2.0 mm The only specimen that was located within the fort is a brass tongue from square N198/E198 to the west of the southern part of the Barracks. The remainder were recovered from areas outside the fort and can probably be attributed to the Cherokee occupations. All three heart-shaped specimens and two of the round ones were associated with Burial 2 (Feature 216), where they were apparently attached to a ribbon or a band of cloth down the front of the shirt or other garment in which the individual was interred (Figure 117). The third round specimen was found in the Fort Glen area, and the tongue of a brass one was located in Feature 361, a Cherokee pit south of the fort.

These items are quite common on Indian trade goods lists (see Appendix 9 and Newman 1986:Table 8.1), and at contact period sites throughout the eastern part of the United States. The distribution at Fort Loudoun seems to emphasize their association with the Indians rather than with the garrison of the fort. These types of brooches are quite common on other contemporary sites such as Fort Michilimackinac (Stone 1974:134-135 and Figure 63 A-C), and at other Cherokee sites in the Little Tennessee River valley such as Chota (Newman 1977:41, Figure 6 and 50; 1986:426 and Figure 8.5-a and b), and Tomotley (Linda Carnes, Personal Communication, April 23, 1981).

Earrings
Total: 7
Figure 200G-I

Seven complete or partial earrings were recovered. All were constructed similarly and consist of a fine wire loop attached to a hollow ball, from which hangs a cone-shaped bangle or, in one instance, two cone-shaped bangles. Of the seven specimens that are represented, five are silver, and the remaining two are brass. Two were recovered from Burial 2 (Feature 216), one from Feature 34, the ditch along the east side of the Southeast Bastion, a ball came from Structure 10, and one specimen each came from Feature 45 and

Feature 50, both located in the apex of the Southeast Bastion. The former feature was associated with Structure 1, and the latter was located to the east of Structure 3. The remaining specimen was recovered from Feature 356 in village area.

These items are also quite common as Indian trade goods, and regularly appear on the various lists of goods that were destined for the Indians (see Appendix 9), and had a widespread distribution. It would be expected that these items would have been associated more with the Cherokee than with the garrison, but unlike the brooches, there is a heavier concentration within the fort than in the areas outside. These items are known from at least Chota (Newman 1977:41, Figure 6 K-M and 50), and from other military outposts that had a great deal of contact with indigenous tribes, for example, Fort Michilimackinac (Stone 1974:135-137, Figures 65-A and 67-B and C), and Fort Ouiatenon (Tordoff 1976).

Finger Rings
Total: 3
Figure 200J-M

Three finger rings are present in the collections. These are brass rings that have glass settings of various sorts on the top of the ring. One was recovered from Feature 50, a pit to the east of Structure 3. It is a size 8 (18 mm +). The brass band is flat on the inside and convex on the exterior. The single large set is faceted green glass (Figure 200J). The ring has a rope-like decoration around the edge of the set. Another similar one in the WPA collection is a size 8 or 9 (18 mm +). It has a brass band, and the set consists of a central large yellow (amber) stone surrounded on each side by three small blue stones (Figure 200K). All of the stones are faceted. The third ring is also brass and was recovered from Feature 356, a Cherokee pit to the south of the fort. It is a size 3 (14.0 mm), and has settings on the top for two small stones which are missing (Figure 200L and M). These items are mentioned in the trade goods lists and are quite common on period sites. In most respects these are similar to ones from Fort Michilimackinac illustrated by Stone (1974:126, Figure 57 A-J), and those reported from Chota (Newman 1977:49-50, 1986:425 and Figure 8.5-e and f).

Tinkling Cones
Total: 21
Figure 200N

The tinkling cones that were recovered from Fort Loudoun were made of both brass and sheet iron. They were generally constructed by bending a triangular piece of metal into a cone. One tinkling cone contained the remains of a string tie, so presumably they were attached to a garment by a string or thong passed through the top of the cone and knotted to hold it in place. This was probably done similarly to the manner in which the thimbles (described below) were attached. Of the 21 cones that were recovered, 15 were made of sheet brass and the remaining six of sheet iron, one of which still had some tin plating remaining. Lengths range between 1.3 cm and 3.5 cm. Figure 200N shows the range of sizes present in the collection. Two were recovered from the northwest ditch, and the remainder are from within the fort. While the correlation is not very concise, there does appear to be some tendency for these objects to be distributed within or near structures. One was associated with Structure 4, one was recovered just to the east of the Barracks, two were within and two were outside Structure 6, three were associated with Structure 3, and two were within Structure 17. Interestingly, none were recovered from any of the Cherokee features outside the fort.

Comparable examples are quite common and are recorded for most contact period sites of this era, for example: Trudeau (Brain 1979:195), Fort Michilimackinac (Stone 1974:131-133 and Figure 61), Fletcher Site (Mainfort 1979:363), Hiwassee Island (Lewis and Kneberg 1946:Plate 85-C and 87-B), and numerous others. Within the Little Tennessee River valley they have been recovered minimally from the sites of Tomotley (Carnes 1983:208 and Figure II.13-f; Newman 1978a:174 and plate 27b;), Citico (Ford 1979:94), and Chota (Fielder 1971:70; Newman 1977; 1986:441-442 and Figure 8.11-b; Polhemus 1970:91).

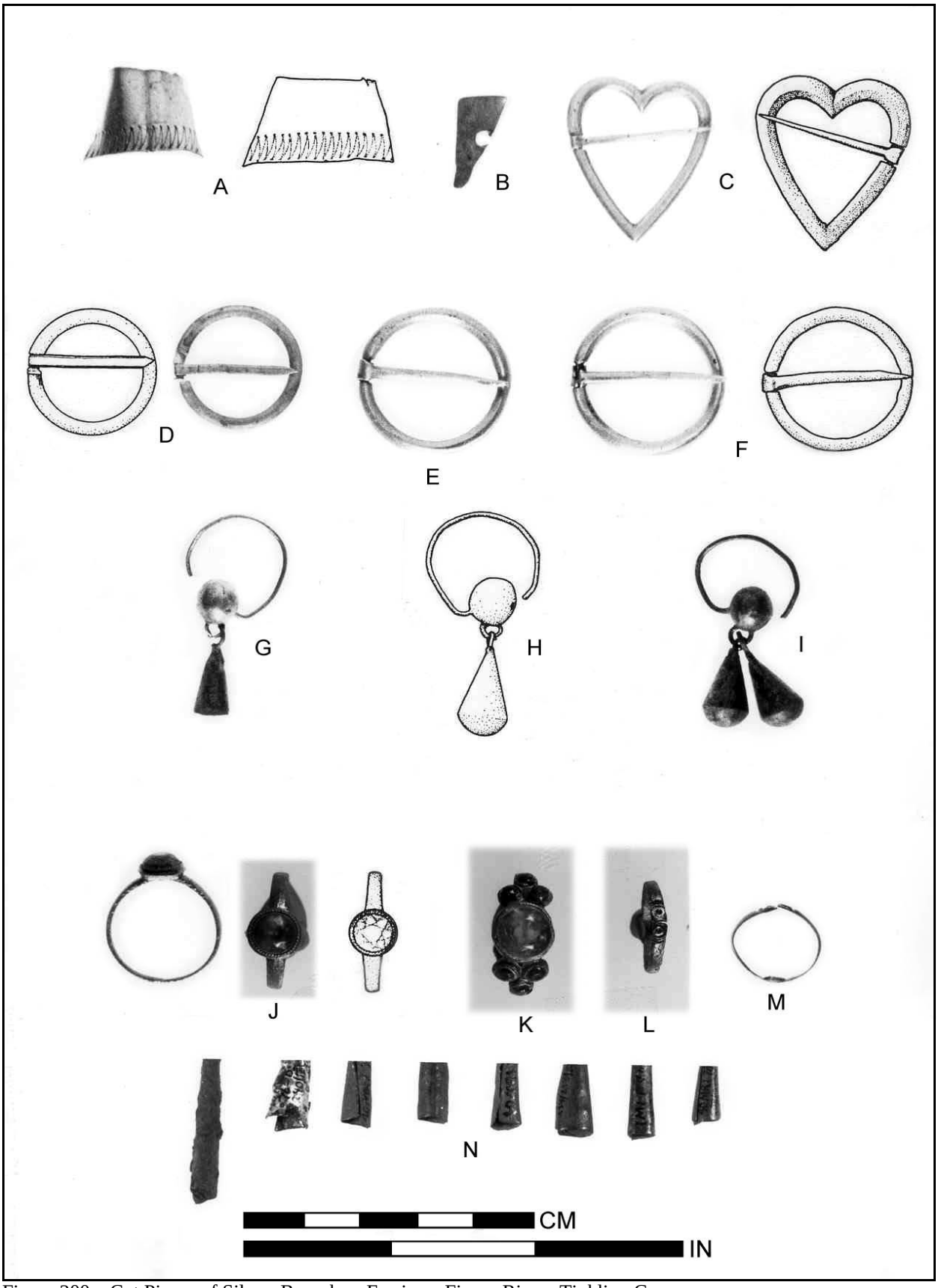

Figure 200. Cut Pieces of Silver, Brooches, Earrings, Finger Rings, Tinkling Cones.
A and **B**. Cut pieces of silver. **C**-**F**. Brooches. **G**-**H**. Earrings. **J**-**M**. Finger rings. **N**. Tinkling cones.

Table 153. Personal Adornment.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Totals
172/280													1					1
180/200													1					1
184/210														1				1
184/216														1				1
184/266													1					1
186/268(2)													1					1
188/278													1					1
188/280						1												1
190/208(14)													1					1
190/280													1					1
192/202														1				1
194/216		1																1
198/198							1											1
198/256		1										1						2
200/192														1				1
200/246													1					1
200/256													1					1
204/232														1				1
204/240													1					1
204/248(6)														9				9
204/254(6)														1				1
206/250(6)														1				1
206/256													1					1
208/310							1											1
210/258(5)														1				1
210/260(5)										1								1
212/256													1					1
214/260																	1	1
216/178													1					1
216/208													1					1
218/178(11)													1					1
218/182(11)													1					1
218/214														1				1
218/252													1					1
224/204		1												1				2
224/224										1								1
226/204														5				5
226/206														2				2
226/226		2																2
228/204													2					2
228/226													1					1
228 /254		1																1
230/192(19)													1					1
232/196(B)													4					4
234/206(17)													1					1
234/218(4)		1																1
234/224		1																1
234/238													1					1
234/246													1					1
236/134														2				2
236/192													1					1
238/192													2					2
238/204(17)	1																	1
242/236(16)														1				1

Table 153. Personal Adornment.

Provenience[1]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Totals
244/196(12)														1				1
245/148														1				1
F. 3		2				1							1					4
F. 7													1					1
F. 44													1	97				98
F. 45				1				1						22				24
F. 49											1							1
F.50		3						1	1	1		1	1	8				16
F.54														2				2
F.58													1	5				6
F.59												1	1					2
F.68														2				2
F.79		1				1												2
F.86														1				1
F.90													1					1
F.91										1								1
F.103														1				1
F.104														1				1
F.148		1																1
F.150		1																1
F.158														1				1
F.159													1	3				4
F.168													1					1
F.176														1				1
F.177		1																1
F.178	1													9				10
F.179		1												7				8
F.187													1					1
F.190														1				1
F.204														1				1
F.208														1				1
F.209													3	18				21
F.216	1						5	2						1				9
F.308(P)														1				1
F.356					1			1	1				3	23	1			30
F.357													7	2				9
F.361							1											1
F.364														1				1
ST. 7													1					1
ST. 8			1															1
ST.10								1						12				13
ST.16										7				5				12
ST.17	1	2											1	77				81
PM 450		1												2				3
Moa t								1						2				3
No Prov.	1								1				5	1		3		11
TOTALS	**5**	**21**	**1**	**1**	**1**	**3**	**8**	**7**	**3**	**11**	**1**	**3**	**61**	**339**	**1**	**3**	**1**	**470**

Notes: Numbers in parentheses indicate structure associations; Column headings are as follows: 1=Bracelets, 2=Tinklers, 3=Silver Ferrule, 4=Brass Hawk Bill, 5=Silver Stud, 6=Silver Pendant, 7=Brooches, 8=Earrings, 9=Finger Rings, 10=Bone Combs, 11=Decorated Bone, 12=Cut silver, 13=Mirrors, 14=Beads, 15=Silver Cross, 16=Bale Seals, 17=Ribbon

(B) indicates the barracks building;

(P) indicates a prehistoric feature with intrusive historic material.

Sewing, Tailoring, and Grooming

Scissors
Total: 20
Figure 201A-G

Twenty complete scissors, or parts of scissors, were recovered from Fort Loudoun. All were made of steel and generally fall into two size groupings. The one complete pair shown in Figure 201A has oval finger eyes of the same size and is comparable to a pair from Fort Michilimackinac (Stone 1974:Figure 86-H). There are two more or less complete or small scissors (Figure 201B and F), and seven other parts from small scissors consisting of either blade fragments, or handles and eyes (Figure 201C-F). Some of the handles have some ornamentation, and the finger eyes are oval in shape. These are comparable to those illustrated by Hume (1972:268, Figure 87-8) and Stone (1974:160, Figure 86-B), an example of which is shown in Figure 201C). Eight fragments and one complete pair are large, undecorated scissors.

The nine scissors or fragments that have provenience information and can be plotted were for the most part in general association with several of the structures. Four were from the midden deposits on the slope immediately east of the Barracks, and one was located two meters downslope from the southeast corner of Structure 16. One was located in a square which fell across the southeast corner of the Barracks and the northeast corner of Structure 14, and another one was two meters east of the same corner of the Barracks. Two additional scissor fragments were recovered from the parapet along the east side of the Southeast Bastion. These were probably removed from the area of Structure 1 and redeposited by the WPA work. As with several other artifact categories, it is interesting that 10 specimens, or 50 percent of the sample, were recovered by the WPA excavations. Here again, it is assumed that the large WPA excavated area around the Barracks, and the probable build-up of material in the area of the Barracks during its three years of occupation, is the explanation for this locally high recovery of this particular type of artifact, which based on this association, can be primarily associated with living quarters or domestic areas.

Straight Pins
Total: 18
Figure 201H

A total of 18 straight pins or fragments was recovered by the 1975-1976 excavations. All are brass and have round wire-wound heads soldered to one end. None showed evidence of either silver or tin plating, but this is probably a result of poor preservation. The lengths range between 1.3 cm and 5.1 cm, and the thickness of the wire is commensurate with the length of the pin. The distribution of these artifacts is relatively interesting in that all were recovered either within structures, or in close proximity of a structure. The majority (16) came from the structures located on the slope areas or top part of the fort, or in deposits closely associated with those structures. One came from Structure 10, two from Structure 9, six from Structure 16, and one from the hearth area of Structure 17. Three were recovered from Feature 208, a small trash pit or trash-filled depression immediately south of Structure 12, and three were found in the midden deposits south of Structure 17 and east of the Barracks. The two pins that came from the lower part of the fort were associated with the peripheral deposits of Structure 1 and Structure 6. One was located just to the southeast of Structure 1, and the other to the northeast of Structure 6.

Sad Iron
Total: 1
Figure 201I

One sad iron with a length of 13.5 cm and a maximum width of 9.0 cm and a weight of 1.125 kg (2.47 lbs.) was recovered from Feature 155, one of the wall trenches of Structure 18. The handle had been broken off prior to deposition. It is similar to ones illustrated from Fort Stanwix (Hanson and Hsu 1975:146, Figure 75-b) and Wormslow (Kelso 1979:141 and Figure 55-10).

Needles
Total: 11
Not Illustrated

Eleven fragments of steel needles were recovered. Several have the pointed ends remaining, but none have the eye intact. One was recovered from Structure 10, one from the midden deposit just east of the northern part of the Barracks, three fragments were recovered from Feature 50, a pit just to the east of Structure 3, and six fragments were located in Square N226/E204 in the slope midden deposits, just east of the Barracks.

Table 154. Sewing and Tailoring Objects.

Provenience	Scissors	Thimbles	Straight Pins	Needles	Sad Iron	Total
186/276			1			1
190/280	2					2
192/210(14/B)	1					1
194/214	1					1
214/252			1			1
218/206	1					1
218/214				1		1
220/214	1					1
222/232		1				1
226/204		1	2	6		9
230/204	2					2
232/208			1			1
234/224		2				2
236/240	1					1
F. 50				3		3
F. 155					1	1
F. 208			3			3
F. 216		5				5
F. 361		1				1
ST. 9			2			2
ST. 10			1	1		2
ST. 16			6			6
ST. 17			1			1
No Prov.	11					11
TOTAL	**20**	**10**	**18**	**11**	**1**	**60**

Note: Number in parentheses indicates structure association; (B) indicates barracks building.

Thimbles
Total: 10
Figure 202A-G

Ten thimbles were recovered. One came from the midden deposits on the slope within the fort, two were from the same deposits but located just east of Structure 4, and one was from the northern end of the Barracks. Five were recovered from Feature 216 (the Cherokee burial) and one was from Feature 361, a Cherokee pit in the village area outside the fort. Diameters at the opening range from 1.61 cm to 1.88 cm and heights range from 1.58 cm to 1.94 cm. All were made of brass, and the outside surfaces, except for a band around the base, which is often thickened or curled for reinforcement, were roughened with small round or square indentations. While this category of items is listed as part of sewing paraphernalia, it is obvious from the sample that the majority of those that were recovered were used for ornamentation. Of the 10 thimbles that were recovered, six were in Cherokee context, and seven of the thimbles had a hole punched in the end for hanging as a pendant (Figure 202A-F). Five of these were recovered from the right shoulder of Burial 2, where they had been attached to small leather thongs that had been passed through the hole in the end and tied in an overhand knot to prevent it from slipping out (Figure 202G). The other ones with holes in the ends were presumably hung the same way. Thimbles are quite commonly listed on trade lists; but on the basis of this sample, their actual usage might need to be reevaluated, in that a Cherokee context they may more often have been utilized for ornamentation than for sewing. A similar use of thimbles is reported from the Fletcher Site Cemetery in Michigan (Mainfort 1979:363).

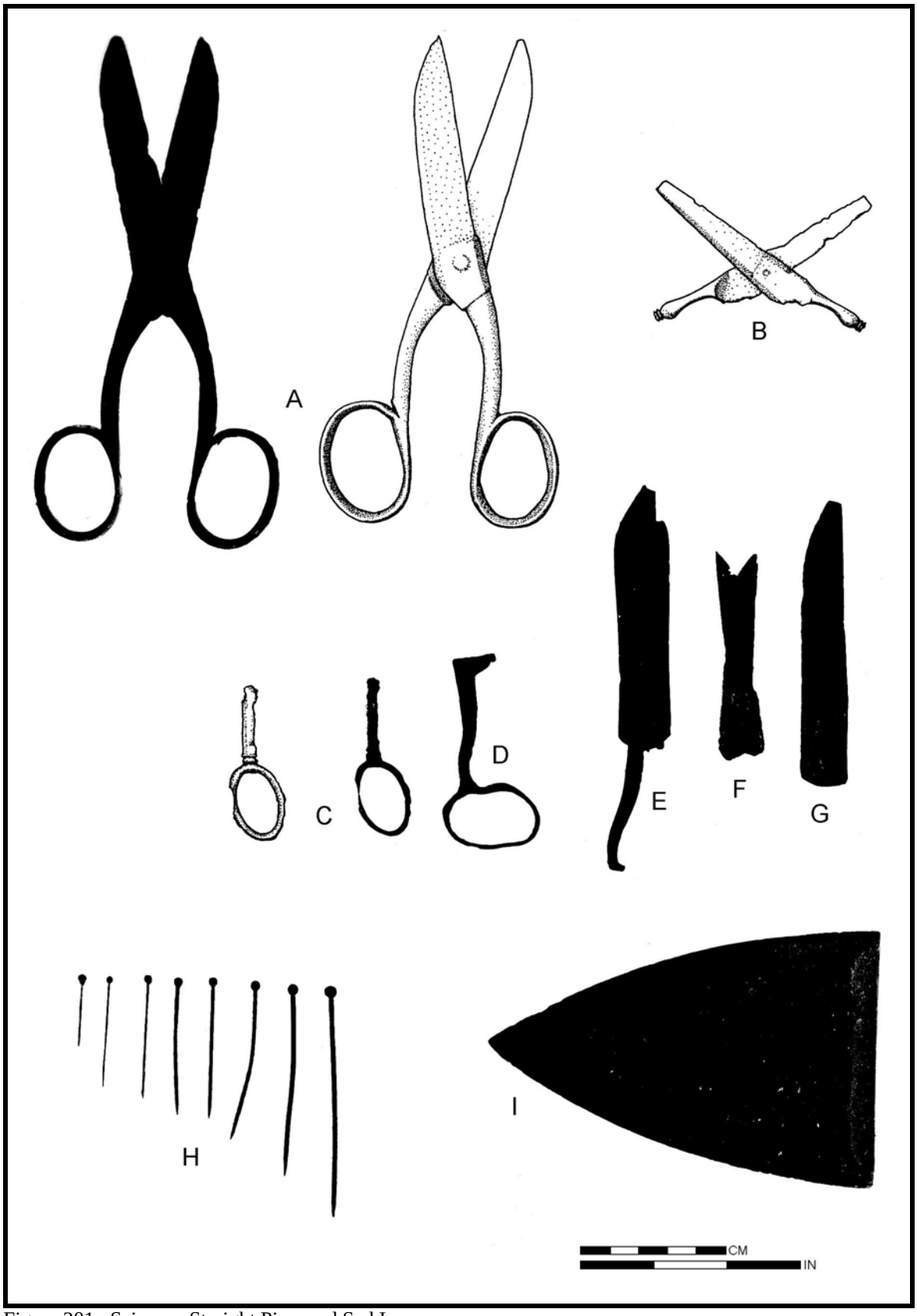

Figure 201. Scissors, Straight Pins, and Sad Iron.

Combs
Total: 11
Figure 202H and I

Fragments of at least seven hair combs that are typical of the eighteenth century were recovered. All were made of bone except one, which is probably ivory and was recovered from Square N210/E260. All have larger teeth on one side than the other, which is the typical configuration of these combs. Seven of the fragments, representing at least three combs, were from Structure 16, one was from Feature 91 associated within Structure 8, one (ivory) with Structure 5, one with Feature 50 associated with Structure 3, and one came from the midden deposits in the slope area. This represents a good correlation of these items with several of the structures used for quarters for the personnel. Similar combs are illustrated from contemporary sites (Noel Hume 1969a:46, Figure 47; and 1972:174-175; Grimm 1970:97, Plate 31-6; and Stone 1974:141 and 139, Figure 72). They have also been reported from the site of Tomotley in the Little Tennessee River valley (Carnes 1983:Figure II.12e).

Mirrors
Total: 62
Not Illustrated

Sixty-two pieces of flat glass are in the collections. These were divided into two groupings partly on the thickness of the glass, and partly on the color of the glass. Twenty-two are clear glass and are generally the thickest, with a range of 2.0 mm and 5.6 mm.. The other group is thinner, has a light green tint, and thicknesses ranging from 1.1 mm to 1.8 mm Because of weathering it is difficult to determine for certain whether any of the actual edges of the mirrors are represented. If, in fact, some of the curved edges of the pieces do represent the actual edges of the mirrors, then at least some of the mirrors appear to have been oval in shape. Fifteen of the specimens have a white oxide remaining on one surface but not on the other.

Although it is possible that some of these pieces could have been window glazing, the presence of any glazing at Fort Loudoun is questionable. The distribution of these specimens is ambiguous in regard to their function. The majority of these pieces from inside the fort were located within, or in the near vicinity of structures used for habitation. It would be reasonable to expect both window and mirror glass to occur in the remains from habitation structures. Those ten fragments that were recovered from Features 356 and 357, associated with Cherokee occupations outside the fort, are thought to certainly be mirror fragments, however.

Straight Razor Blades
Total: 4
Figure 146R

There are fragments of four straight razor blades in the collection. These blades are characterized by a wedge-shaped blade, tapering from a thick back to the edge. The blade end is either square or slightly rounded. The only specimen with a provenience came from Square N230/E208, in the midden deposits midway between Structures 4 and 17, and the northern end of the Barracks.

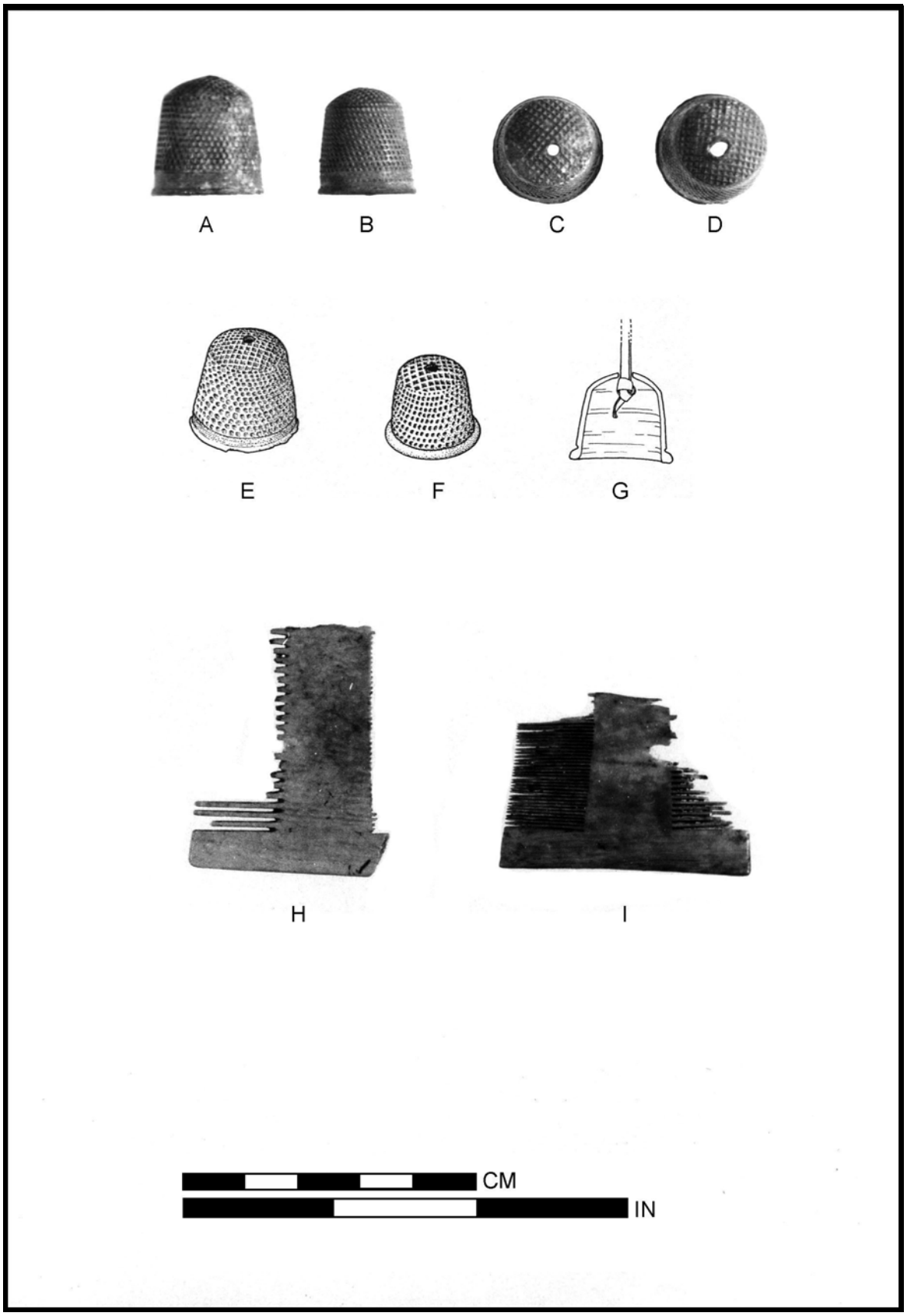

Figure 202. Thimbles and Combs.
A-F. Thimbles. **G**. Diagram showing thimble attachment to a leather thong. **H** and **I**. Bone combs.

Tobacco Group

White Clay Pipes
Total: 586
Figures 203, 204, and 205

There are 586 fragments of white clay pipes in the collections from Fort Loudoun. Sixty-six are bowl fragments, 392 are stem sections, and 128 are stem-bowl junctions. The 128 stem-bowl sections effectively represent the minimum number of pipes in the collection. With the exception of one fragment of a pipe from a Cherokee pit feature outside the fort (Feature 375), the pipes are of the footless variety of the form illustrated by Noel Hume as an English pipe made within the period 1720-1820 (Noel Hume 1972:303, Figure 97-18). Although the footed pipe is fragmentary, it would have been comparable to the footed ones that are associated with the mid-eighteenth century (Noel Hume 1972:Figures 97-15, 16 and 17).

There is a total of 88 bowl fragments which were from plain bowl pipes without any decoration or marking, representing a minimum number of 48 pipes (Figure 204A and B). Six otherwise plain pipes are marked with a **TD** on the back of the bowl. In all cases the **TD** is within a rouletted circle. However, there are at least four variations of other markings within the rouletted circle in addition to the **TD** as shown in Figure 204C-F. As was the case at Fort Ligonier, where eight bowls had **TD** markings, there are no other marked pipes in the collection from that site (Grimm 1970:112-121). Three distinct variations of **TD** marks are present in the pipe sample from the Citico site in the Little Tennessee Valley. At least one of those and possibly another are identical to one at Fort Loudoun (Ford 1979:79-80 and Figure 6). Because of their apparent popularity and the utilization of the **TD** mark over a long period of time by pipe makers, aside from those whose initials are actually represented, the source of the initialed pipes is difficult to determine. Omwake (1970) and Walker (1966) provide thorough discussions of this problem. The fact that there are four varieties of this mark at Fort Loudoun, and that all are attributable to the period 1756-1760, does not help the issue, except to possibly help limit certain varieties in time. Additionally, there are few adequate illustrations in the literature to allow for many accurate comparisons at this time (circa 1990). Minimally, other **TD** pipes have been recovered from Fort Michilimackinac (Peterson 1963; Stone 1974) and Fort Stanwix (Hanson and Hsu 1975:142), in addition to the ones already mentioned from Fort Ligonier. Walker (1966) provides a relatively complete listing of the sites at which **TD** pipes had been located through the date of publication of that article. He also illustrates two **TD** motifs that were recovered from Fort Ligonier, which are quite different from those at Fort Loudoun. The Fort Loudoun specimens are also different from those recovered at Fort Stanwix.

Oswald (1951:68) lists a Thomas Dennis as practicing as a pipe manufacturer in Bristol, England, in 1734, but Walker does not seem to think that he was responsible for these types of pipes, since he does not report any **TD** pipes from contexts in the 1730s and 1740s. From his Fort Louisburg pipe data, he suggests that the **TD** pipes cannot be dated earlier than 1755 (Walker 1966:94-98). Omwake (1970) attributes the Fort Ligonier specimens to Thomas Dormer, who was producing pipes in London in 1763, and Walker suggests that Dormer may have been producing the **TD** pipes before that time, in the 1750s, which is consistent with the archaeological data (Walker 1966:98). He also points out that the **TD** mark was registered in Gouda, Netherlands, in 1747 (Walker 1966:96). However, the configuration and placement of the letters on the Gouda pipes is different from that on the Fort Loudoun specimens.

In addition to the **TD** pipes, there are 36 decorated bowl fragments or complete bowls in the collections. These are grouped into four different categories based on the relief design that is on the bowl. One is a floral pattern, another is a tobacco leaf pattern, and there are two variations of armorial pipes. There is a minimum number of six pipe bowls represented by six fragments of bowls that have a molded relief design that was basically floral in nature. The back of the floral bowl has a spray of leaves, while the side has a motif that probably represents a necked vase or urn that had an arrangement of leaves or greenery and flowers in it. No front bowl portion for one of these pipes was recovered, so the pattern for that area of the pipe is unknown. Both sides of the most complete specimen of this type, and an expanded view of the design are shown in Figure 204G and H. The six fragments of this type of pipe are consistent in that there does not appear to have been any variation in the design represented, indicating possibly a group of these type pipes from the same mold and maker. Floral-decorated pipes are also reported from Chota but are not illustrated (Newman 1977:74).

The second type of relief-molded pattern is present on pipe bowls or fragments from Fort Loudoun, representing a minimum of five pipes. The design is that of a tobacco leaf pattern (Figure 203A and B). The front of the bowl has a tobacco leaf molded in relief along its vertical axis, and the back of the bowl has a floral pattern. This latter design is of a long-stemmed plant with spaced branching leaves, and at least two bell-shaped flowers, one on either side of the stem, most probably representing the tobacco plant.

Two varieties of armorial pipes were recovered from the excavations. While they both carry the Royal Arms of Great Britain, the major distinction between the two varieties is made on the basis of the floral motif on the front of the pipe. The first pattern, represented by seven fragments (minimum number of four pipes), is distinguished by a large long-leaf plant, much like an iris, beginning at the lower part of the front and spreading upward and outward (Figure 203D). Also characteristic is a daisy- or sunflower-like relief device on the lower side of the bowl between the unicorn and the plant on the front. Figure 203C-G shows several views of this variety. The coat of arms is on the back of the bowl. The second variety, represented by 14 specimens (minimum number of seven pipes), is quite similar to the first, particularly with respect to the coat of arms, but the design along the mold line along the front of the pipe is quite different. It consists of a narrow design composed of a single stem that follows the mold line, and ovate leaves that are paired symmetrically along the length of the stem. Also significant is the fact that the second variety (Figure 203 H-J) has the crown above the shield of the arms. Additionally, there are two other specimens of the armorial type which can not be assigned to one or the other varieties because of their fragmentary nature.

There is not enough detail on any of the recovered specimens to determine exactly which coat of arms is being depicted. One possibility is that the coat of arms is characteristic of the time between the Union with Scotland and the Death of Queen Anne (ca. 1707-1714) where:

> ...the three leopards of England shared the 1st and 4th quarters with the lion of Scotland, while the fleur-de-lis occupied the 2nd quarter and the Irish harp retained the 3rd (Noel Hume 1969:306).

The other possibility is the coat of arms that was used from 1714 to 1801 where "...quarters 1 to 3 remained the same as that described above, but the fourth was divided into four elements to accommodate the arms of the Electorate of Hanover" (Noel Hume 1969:306).

A pipe which has a design similar to the second amorial pattern described above was recovered from Louisburg and illustrated by Walker (1966:90, Figure 3 A-C). It has the royal arms for the period 1714-1801. A pipe bearing the earlier arms of the period 1707-1714 was excavated from a British encampment in New York dating to the Revolutionary War period (Calver and Bolton 1950:283, Plate 111). In all probability, the armorial pipes at Fort Loudoun bore the arms for the period 1714-1801, and although the context and dating of these types of pipes has remained somewhat uncertain (see Walker 1966:91-94), the context of these specimens from Fort Loudoun clearly dates their use there during the latter half of the 1750s.

In addition to the pipes that had been decorated with molded relief designs, there is one bit end of a pipe that had been painted red, or had been covered with some type of red slip that was recovered from Post Mold 453. The clay body of the pipe is similar to that of the remainder of the clay pipes.

One quite different bowl fragment (Figure 205A) was recovered from Feature 115 outside the Rivergate. It is a molded pipe with an orange clay body, and has a definite outflaring lip around the top of the bowl. In terms of form and clay body, it is much more closely related to some of the pipes of the latter part of the eighteenth century and the early part of the nineteenth century. It is quite likely that this specimen dates from a much later occupation of the area, most likely the time of occupation of the Tellico Blockhouse.

Probably as a result of the ease with which these clay pipes broke, and considering the supply distances that were involved in supplying the fort and the need for other supplies usually much worse than pipes, especially food, there are a number of specimens that had been reworked after breakage of the stems to make the bowls serviceable. In the collections, there is a total of nine stem fragments that had been reworked or generally tapered (Figure 205B and C). Additionally, there are 17 stems that are still attached to bowls or the junction of the bowl that had been tapered to allow insertion of the stem into a hollow reed so that the bowl would remain serviceable. Several of these are shown in Figures 204A and B and 205D-I. One bowl from Feature 81 had the stem tapered and the lip of the bowl had been roughly flattened out, to make it more even, apparently after a piece was broken out of the bowl.

The white clay pipes were distributed over large areas of the fort, particularly within most of the structures, and the associated midden deposits. Large numbers are found in the deposits of primary refuse, such as the slope deposits, and several of the pit features that contained large quantities of refuse that had been disposed within the fort. The apex of the Northwest Bastion was notably free of any of these items, as were Structures 8, 9, and 18 along the west wall of that area. The area that has been defined as the Barracks area was relatively free of any pipe remains, although the midden deposits east of that structure did contain numbers of these items. This may either reflect the WPA disturbance of the Barracks area, or a more conscious attempt to clean those Barracks and deposit the trash outside. Those other structures that are believed to have been relatively temporary did contain large numbers of these pipe fragments, for example, Structures 4, 7, 9, 16, and 17. In the Southeast Bastion there were numerous pipe fragments in and around Structure 6, and to the north of Structure 5, but very few within the latter structure. Several were in and about Structure 2 (Blacksmith Shop), and several within pits either in, or just east of Structure 3. The Parade Ground area was relatively free of these materials. Ten additional clay pipe stems were recovered from four Cherokee pit features outside the fort.

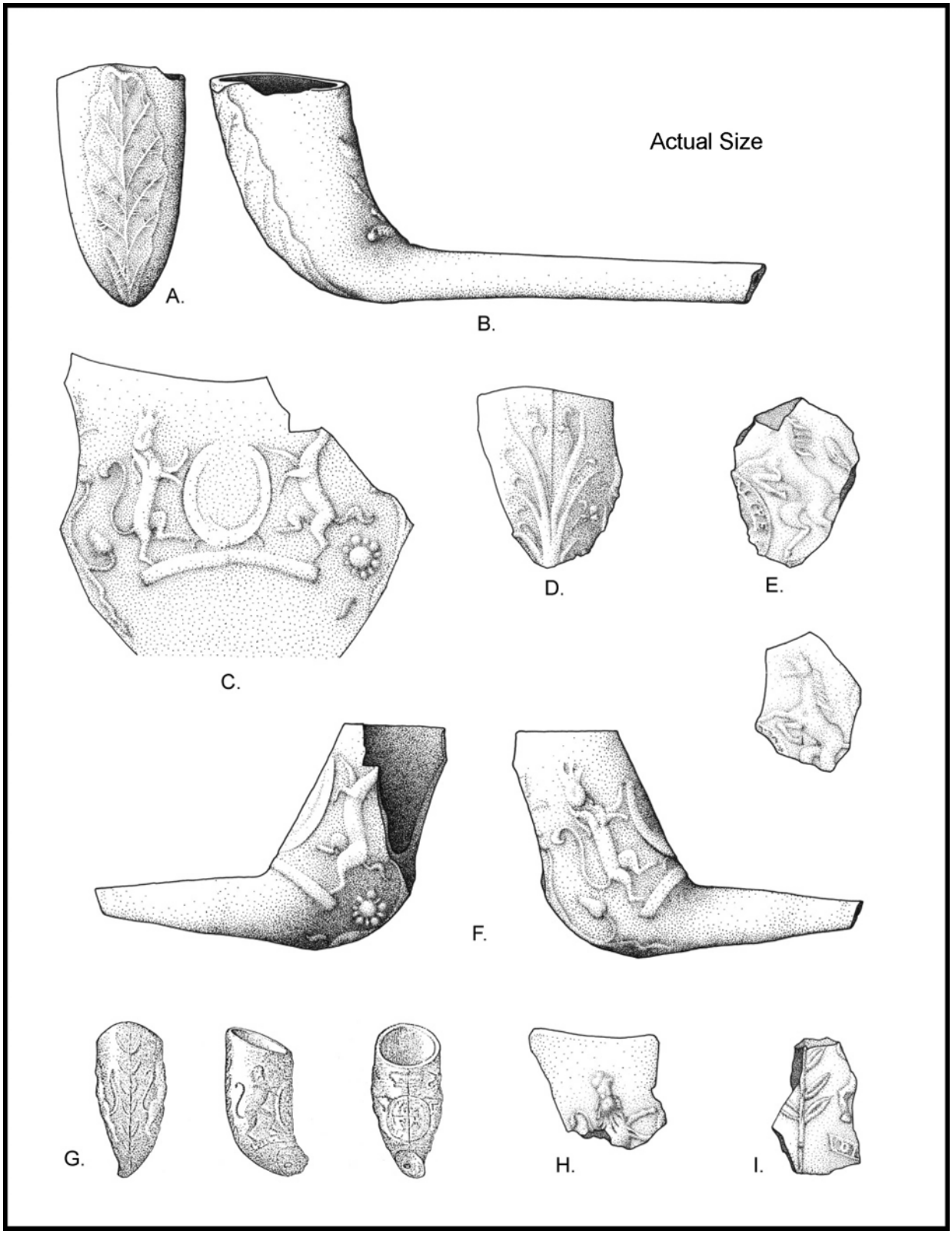

Figure 203. White Clay Pipes - Tobacco Leaf and Amorial Patterns.
A and **B**. Tobacco Leaf Pattern. **C-J**. Amorial Patterns.

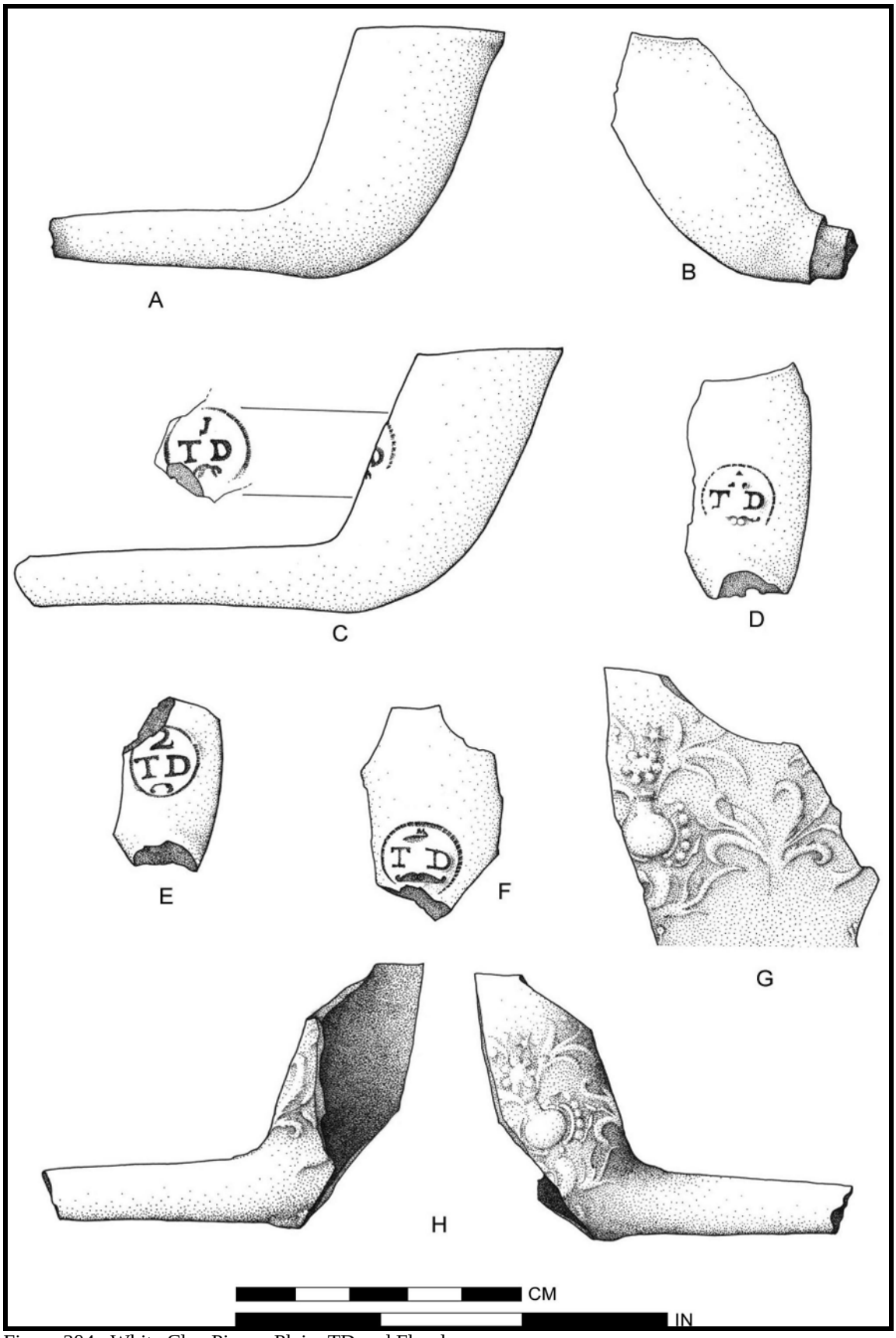

Figure 204. White Clay Pipes - Plain, TD and Floral.
A and **B**. Plain pipes. Note reworked stems. **C**-**F**. TD pipes. **G** and **H**. Floral pattern pipes.

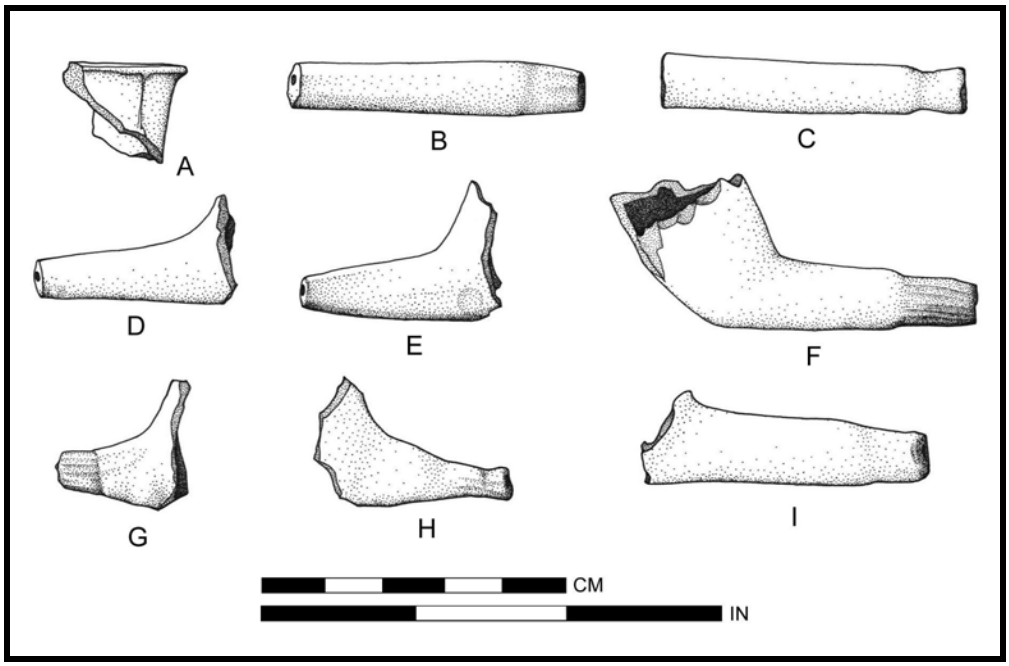

Figure 205. White Clay Pipes - Modified Pipes and Stems.
A. Late eighteenth century pipe bowl. **B-I**. Reworked pipes and pipe stems.

Steatite and Stone Pipes
Total: 85
Figure 206

In addition to the white clay pipes that were recovered, there were an additional 85 complete or fragmentary specimens of stone pipes recovered from within the fort. Although certainly of aboriginal manufacture and of the same forms that are common to the contemporary Cherokee ones and other aboriginal pipes (see for example, Whitthoft 1949 and Willey and Sears 1952:16), these are clearly associated with and were used by the Fort Loudoun garrison. Many of them (see Table 155) were recovered from unquestionably fort-period features, and from the same deposits as the English clay pipes. These were probably procured from the local Cherokee, possibly as curiosities, but more probably to supplement the probable short supply of white clay pipes that were available to the garrison. Many of the ones recovered from Fort Loudoun are comparable to others that have been excavated at Cherokee and other historic sites the valley such as the Tellico Blockhouse (Polhemus 1980:255) and Chota (Gleeson 1970:75 76 and Plate 79).

The collection of these stone pipes contains 41 bowls, 36 stems and mouthpieces, and 8 complete specimens. The range of variation in the pipes that are present is shown in Figure 206. That figure and the list of proveniences show that the distribution of these pipes coincides to a large extent with that of the white clay pipes. Only one was recovered from a Cherokee feature outside the fort (Feature 375). The same feature also produced five white clay pipe fragments. Within the fort, they were, again, generally associated with several of the habitation structures or the closely related midden deposits.

One of the pipes recovered (Figures 206 and 207A) from inside the fort has an **I H** or **H I** scratched into one side of the stem. These initials, if that is what they are, unfortunately do not match with any of the names of individuals known to have been at the fort (see Appendix 2).

Snuff Box
Total: 1
Figure 207B

One iron snuff box was recovered from the waist area of the Cherokee female burial (Feature 216, Burial 2) which was located outside the ditch to the southeast of the fort. The burial probably dates to the period of the fort occupation or some period shortly thereafter. Snuff boxes appear regularly on trade good

lists for the Indians (see Appendix 9) and are reported from other Cherokee sites in the area such as Chota (Polhemus 1970:92 and Plate 88) and Tomotley (Linda Carnes, personal communication, April 23, 1981). The specimen from Fort Loudoun is oval shaped with a convex top and bottom. Dimensions are 7.3 cm by 6.0 cm by 2.5 cm high. The top is hinged at the back. The bottom is crimped around the side piece and soldered or brazed. There is a single decorative line around the middle of the side.

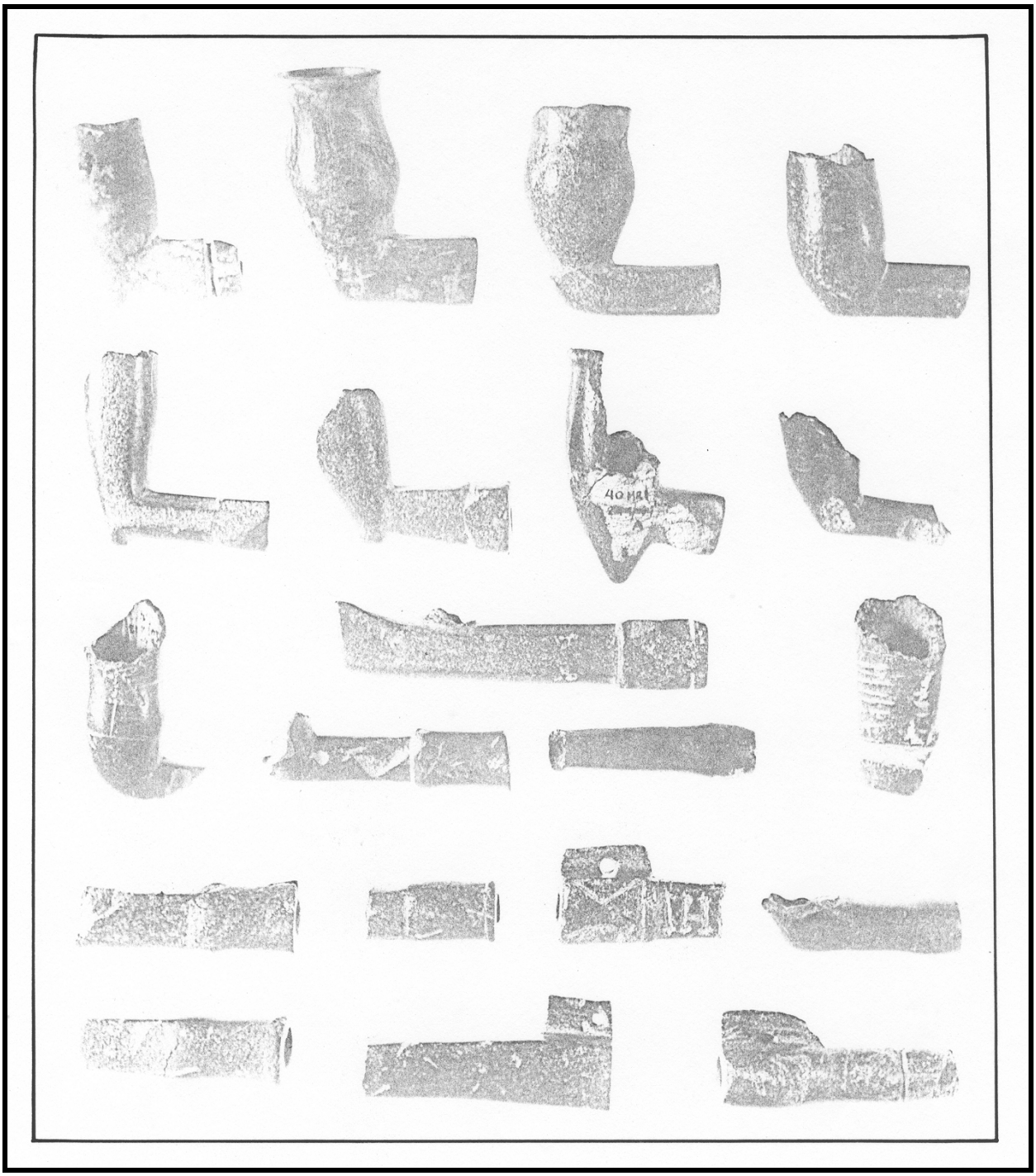

Figure 206. Steatite Pipes.

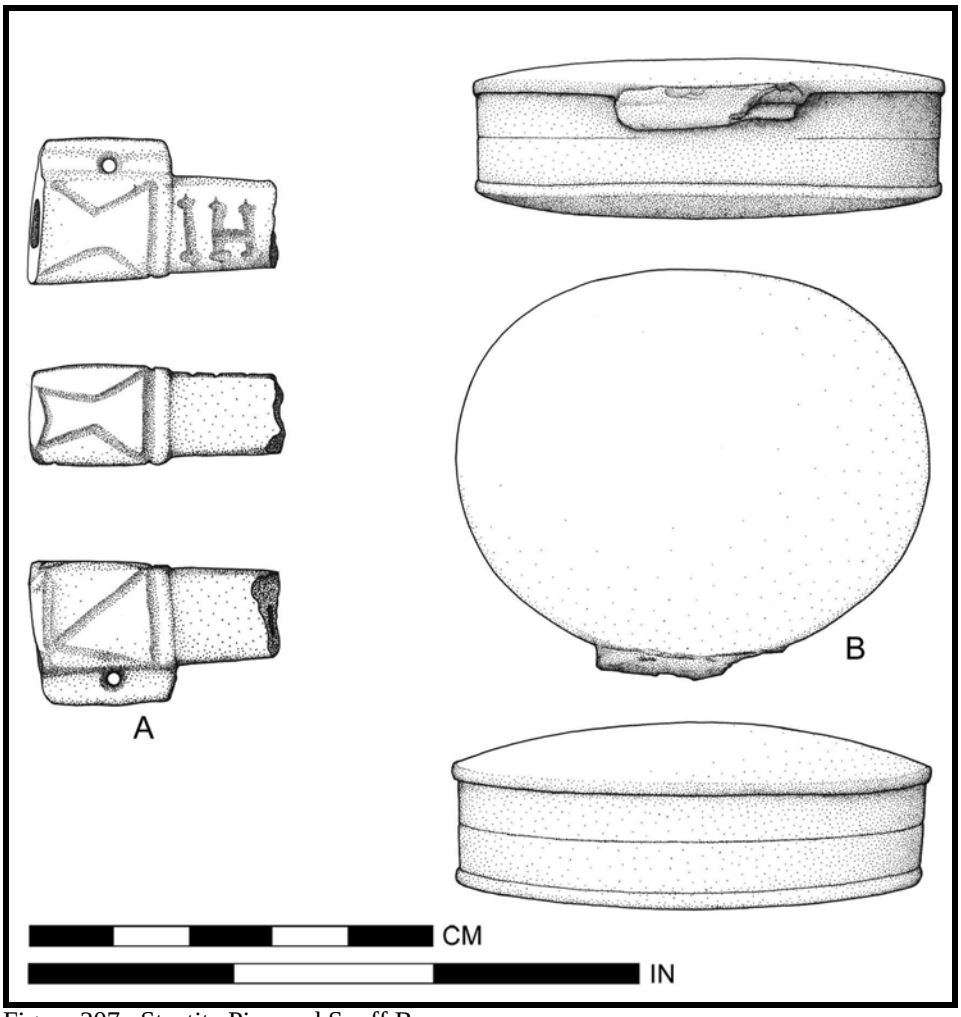

Figure 207. Steatite Pipe and Snuff Box.
A. Initialed steatite pipe. **B**. Snuff box.

Table 155. Tobacco Group.

Provenience	Clay Pipes	Stone Pipes	Provenience	Clay Pipes	Stone Pipes
170/280		1	194/266 (1)	1	
178/196	1		196/228 (15)	1	
178/280	1		196/246	1	
180/194		1	196/256	1	
180/202	1		196/262	2	
182/194	1		198/212	1	
182/268	1		198/216	1	
182/270		1	198/234	1	
182/274		1	198/238	1	
182/276	2(1 F)[1]		198/250	1	
184/198	1		198/252	1	
184/238	1		198/264 (5)	1	
184/256	1		198/266 (5)		1
184/264 (3)	1		200/192	1	
184/266	1		200/216		1
184/268	1		200/240	1	
186/196	1		200/246	1	
186/210	1		200/248 (6)	1	
186/252	1		200/250 (6)	2	

Table 155. Tobacco Group.

Provenience	Clay Pipes	Stone Pipes	Provenience	Clay Pipes	Stone Pipes
186/260	1		200/252 (6)	1	
186/262 (2)		1	200/254 (6)	1	
188/196	1		200/256	1	1
188/198	1		202/190		1
188/202 (24)	1		202/198		1
188/210 (14)	1		202/234	1	
188/238		1	202/238	1	
188/266 (2)	1		202/244	2	
188/280	1		202/248 (6)	1 (1 A)	
190/264 (2)	1		202/254 (6)	1	
190/266 (2)	2		202/258		1
190/268 (2)	2	1	204/264 (5)	2	
190/274 (1)	1		204/266 (5)	1	
190/280	2		206/218	1	
192/214	2		206/228	2	
192/228 (15)	1		206/254 (6)	1	
192/248	1		206/256	2	
192/262 (2)	2		206/266	1	
192/266 (2)	1 (1 A)		208/188	1	
192/268(1)	1		208/202 (B)	1	
194/196	1		208/246	1 (1 A)	1
194/208(B)	1		208/248 (6)	2	
194/212	1		208/250 (6)	1	
194/214	1		208/256	2	
194/224	1		210/198	1	
194/242	1		210/240	1	
194/258	1		210/256	1 (1 TD)	
194/262 (2)	1		210/258 (5)		1
210/260 (5)	1		224/222	2 (1 D)	
210/262(5)	1		224/224	2 (1 F)	
212/208	1		224/232	1	
212/214	1		226/186	1 (1 TD)	
212/216	2		226/204	9	2
212/240	1		226/206	2	
212/254		1	226/220	2	
212/258	2		226/224	2	
212/260	1		226/226	7 (1 D)	1
214/188	1		226/228	1 (1A)	
214/208	1		226/232	1	
214/254	1		226/246 (13)	1	
214/256	1 (1 A)		228/192	1	
214/258	1		228/194	6	
216/198(B)	1 (1F)		228/200(B)	1	
216/202(B)	1		228/204	4	
216/210	1		228/208	1	
216/212	3 (1 TD)		228/222	1	
216/214	2		228/224	2	
216/216	1		228/232	2 (1 F)	
216/226	2		228/254	5	
216/252	1		230/190(19)	1	
216/256	1		230/192(19)	1	
218/206	2		230/204	1	1
218/208	1		230/206	3	
218/210		2	230/224	1	

Table 155. Tobacco Group.

Provenience	Clay Pipes	Stone Pipes	Provenience	Clay Pipes	Stone Pipes
218/212	6	1	230/226	1	
218/214	1		230/228	1 (1 T)	
218/216		1	230/230	1	
218/222	1 (I T)		230/232	3 (1 T)	
218/224	2		232/186	1	
218/252	1		232/194 (19)	2	
220/188	1		232/200 (B)		1
220/210	1		232/218 (4)	2	
220/214	3		232/238	1	
220/218		1	232/242		
220/224	2	1	234/198 (17)	1	
222/186	1		234/202 (17)	1	
222/194(10)	1		234/218 (4)	1 (1 A)	
222/218	1		234/238	7	
222/220	1		234/248	1	
222/230	1		236/186	1	
224/204	1		236/198 (17)	1	
224/206	1		236/200 (17)	1	
224/208	1		236/206 (17)	3	
224/216	1		236/208 (17)	2	
224/218	1		236/222	1	
236/238	1		F.87	3	
236/240	2		F.88	1	
238/184	2		F.96N	1	
238/194 (17)	1		F.104	1	
238/196 (17)	1 (1 TD)		F.109	3	
238/200 (17)	2		F.133	3	
238/208 (17)	2 (1A)		F.143	1	
238/232(16)	1		F.146	1	
238/234 (16)	1		F.148	4	
238/238 (16)	1		F.150	2	1
238/240	2		F.152	1	
240/188	2		F.158	2	
240/190	1		F.159	4 (1 D)	2
240/192	1	1	F.168		1
240/194 (17)		1	F.171	4	
240/208 (17)	1		F.177	1	
240/236 (16)	7 (2 A, 1 T)		F.178	1	1
240/238 (16)	4		F.179	1	
240/240	1		F.185	4	
240/242	2		F.190	1	
242/150		1	F.208	1	
242/236 (16)	3 (1 T)		F.212	4	
242/242	1		F.216 (B.2)	1 (1 S^2)	
242/246	1		F.356	1	
244/192 (12)	1		F/358	3	
244/238	1	1	F.375	5	1
244/248	1		ST. 7	16 (1 D)	2
246/244	3		ST. 10	20 (1 T)	1
F.44	3 (1 D, 1 TD)		ST. 13	2 (1 A)	1
F.45	1		ST. 16	10 (1A, 1 TD)	3
F.50	6 (2 A)	1	ST. 17	21 (1 D)	6
F.52		1	PM 66		1
F.56	2 (1 A)		PM 162	1	

Table 155. Tobacco Group.

Provenience	Clay Pipes	Stone Pipes	Provenience	Clay Pipes	Stone Pipes
F.58	3		PM 448	1	
F.61E	3		PM 449	1	
F.70 (P)	1 (1 A)		PM 453	1	
F.73	2	1	PM 480	1	
F.76	2		Ditch		1
F.78	2		Village Surface		1
F.79	6 (1 A)	1	No. Prov.	135 (7 A, 2 F, 2T)	25
			TOTALS	**588**[3]	**82**

Notes: Number in parentheses indicates the structure association, (B) indicates the barracks building, (P) indicates a prehistoric feature with intrusive historic materials, and (B. 2) indicates Burial 2.
1. (A) Armorial design, (D) Indeterminate design, (F) Floral design, (T) Tobacco leaf design, (TD) TD marked bowl. All others are plain bowl or stem fragments.
2. Snuff Box.
3. This total does not include the one snuff box.

Entertainment Items

Jews Harps

Total: 9
Figure 208A and B

Nine Jews harps or fragments were recovered from Fort Loudoun. Three of these were made of brass (Figure 208A) and six were of iron (Figure 208B). In general those of brass are smaller than those of iron, with the brass ones averaging 6.3 cm in length and the iron ones 6.6 cm in length. Both varieties are notched on the upper part of the bow to hold an iron vibrator, none of which remain on the specimens. The brass models were probably cast and then filed to final shape, while the iron ones were probably forged (Stone 1974:141). All the ones present in this collection have a rounded frame head, and the frames are four-sided with a diamond-shaped cross-section. Only three can be plotted by provenience, with the remainder of them coming from the WPA collection. Of the three with proveniences, one was located in the northern part of the Barracks area, another was in an adjacent square just outside the Barracks, and the third came from Feature 79, a pit and possibly a latrine along the west curtain of the fort. Given this association with the Barracks, it may be assumed that the ones in the WPA collection may have also come from the Barracks. In addition to appearing on trade good lists (see Appendix 9), these items are regularly found in association with contact period Indian sites in the area, such as Chota (Newman 1977:78), Citico (Ford 1979:82), Tallassee (Cornett 1976), Tellico Blockhouse (Polhemus 1980:254), and others.

Marble

Total: 1
Not Illustrated

One hard-baked clay marble with a diameter of 1.5 cm was recovered from the basal fill of Structure 10, one of the temporary structures on the west side of the fort. Clay marbles are quite commonly found on eighteenth century sites and are presumably associated with leisure time entertainment (Stone 1974:154; Watkins 1968:155; and Noel Hume 1962:198).

Gaming Pieces

Total: 4
Not Illustrated

Four specimens were recovered that are tentatively classified as gaming pieces. All are made of metal and are circular and flat. One is made of pewter and has a diameter of 2.4 cm with a thickness of 1.2 mm.. The remaining three are made of lead. Diameters range from 2.6 cm to 3.2 cm, and thicknesses are all about 3.0 mm. One of the lead pieces has one side cut off so that it is roughly D-shaped.

Table 156. Entertainment Items.

Provenience	Jews Harps	Marble	Gaming Pieces	Total
224/202 (B)	1			1
226/204	1			1
230/224			1	1
F. 79	1			1
ST. 10		1		1
Ditch			1	1
No Prov.	6		2	8
TOTAL	**9**	**1**	**4**	**14**

(B) indicates association with barracks building.

Writing

Lead Pencils
Total: 3
Figure 208C

Three lead pencils are in the WPA collections. All are rectangular in section and vary in length from 4.2 cm to 5.7 cm. Two are pointed and one was well rounded from use. The used one has a hole in the larger end, presumably for attaching a string or thong. Similar items are illustrated or described from Fort Ligonier (Grimm 1970:104 and Plate 31-1) and Fort Michilimackinac (Stone 1974:154 and Figure 81), as well as the Tellico Blockhouse (Polhemus 1980:248).

Fishing Gear

Fishhooks
Total: 11
Figure 208E

The 11 fishhooks that were recovered from within the fort are made of iron, have a flattened end on the shank, and all appear to have been of the barbed variety. The shafts are all round and the lengths vary from 2.8 cm to 9.5 cm. Fishing is not mentioned in the documents as one of the food procurement activities that was taking place at the fort, but the presence of these fishhooks and the presence of abundant fish bones in the refuse certainly attest to the fact that this must have been a rather common activity. Additionally, the fort was ideally situated for fishing. Seven were recovered either within or immediately adjacent to seven different structures. The remaining four were recovered from the midden deposits on the slope (3) and the Southwest Bastion (1). Iron and brass fishhooks are reported from the Cherokee town of Chota (Newman 1977:80) and ones similar to those from Fort Loudoun are described from Fort Michilimackinac (Stone 1974:244-245 and Figure 151).

Lead Sinker
Total: 1
Figure 208D

One bell-shaped lead object with a central hole is in the WPA collections. It has a height of 4.0 cm and a maximum diameter at the base of 2.6 cm. This object is tentatively identified as a lead sinker for a fishing line or net.

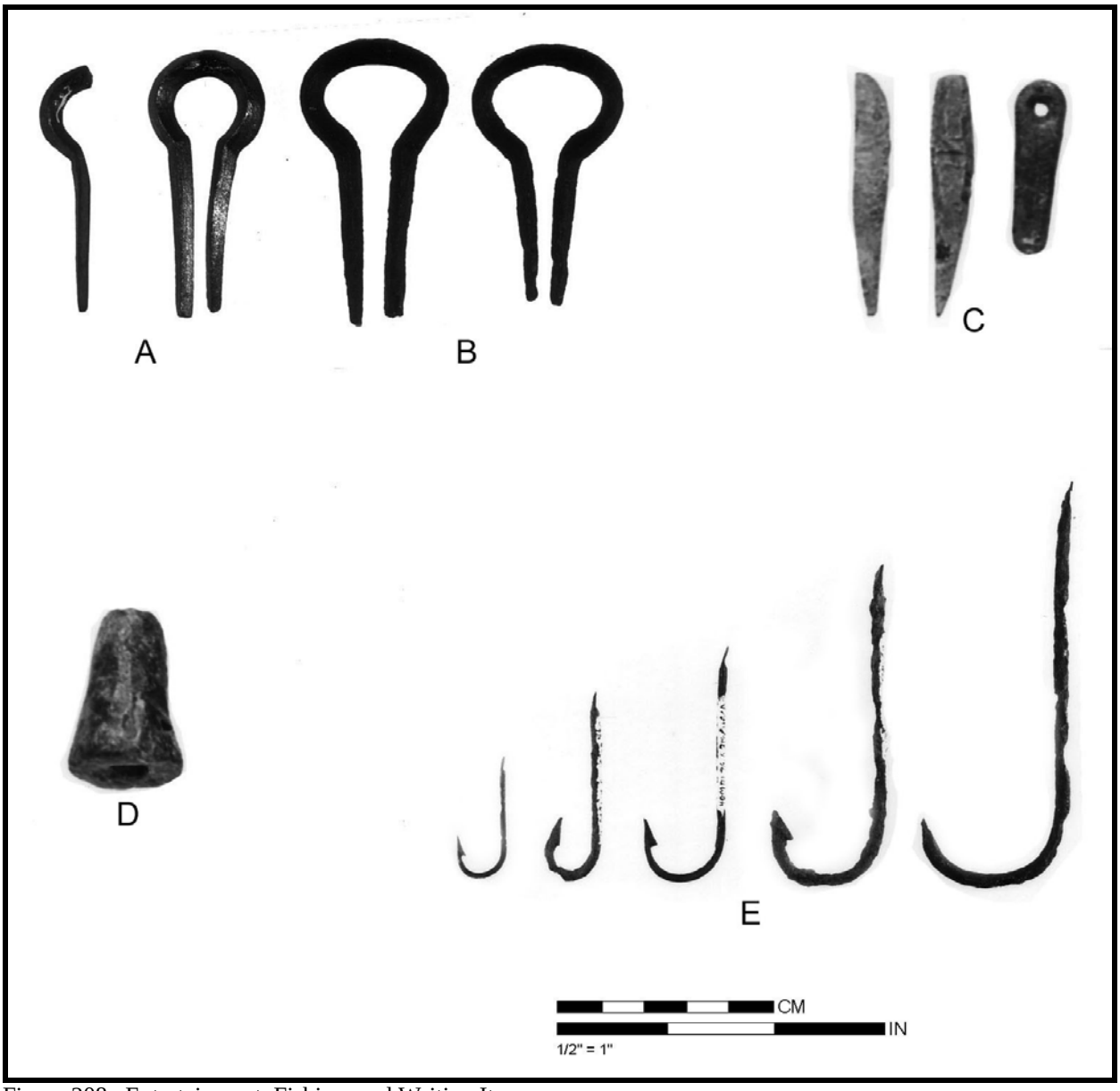

Figure 208. Entertainment, Fishing, and Writing Items.
A. Brass Jews harps. **B** Iron Jews harps. **C**. Lead pencils. **D**. Lead sinker. **E**. Fishhooks.

Coins
Total: 2
Not Illustrated

Two British half-penny coins were recovered at the site by the WPA project. One is a half-penny minted during the reign of William III. The obverse has a royal portrait facing the right and is surrounded on the left by **GVLIEMVS**. The expected **TERTIVS** to the right is missing from wear. The reverse has a barely distinguishable Britannia. All inscription is worn away. The date would have been below the figure, although the date is also worn away. This specimen probably dates to the period 1695-1698 since the date was below the figure, and the hand of Britannia appears to be in an upright position. The diameter of the specimen varies between 27 mm and 28 mm in diameter (Heldman 1980:97-98 and Noel Hume 1972:Figure 59-10).

The other specimen is a half-penny minted in either 1751 or 1757. The portrait of George II on the obverse faces to the left and is surrounded by **GEORGVIS *II* REX**. The reverse has Britannia with a raised arm surrounded by **BRITAN*NlA** and the date below the figure. Dating would make this coin a George II old head half-penny. One 1743 British half-penny was recovered at the nearby Cherokee village of Tomotley (Carnes 1983:199), and a 1738 George II half-penny was found at Chota-Tanassee (Newman 1986:425).

Table 157. Fishing, Writing, and Coins.

Provenience	Fishooks	Sinker	Lead Pencil	Coins	Total
182/196	1				1
204/266 (5)	1				1
208/254 (6)	1				1
212/224	1				1
214/216	1				1
220/214	1				1
224/204	1				1
230/190 (19)	1				1
232/218 (4)	1				1
ST. 16	1				1
ST. 17	1				1
No Prov.		1	3	2	6
TOTAL	**11**	**1**	**3**	**2**	**17**

Note: Numbers in parentheses indicate structure associations.

CHAPTER 9

SUMMARY OF HISTORY, ARCHAEOLOGICAL INVESTIGATIONS AND OVERVIEW OF INTERPRETATION AT FORT LOUDOUN STATE HISTORIC AREA

To conclude this report, this chapter provides a concise history of Fort Loudoun, and an overview of the archaeological work that was carried out there. Additionally, it provides something of the history of the fort since the conclusion of the archaeological investigations by way of a presentation of the current physical features of the Fort Loudoun State Historic Area, and the manner in which the interpretations of the eighteenth century Fort Loudoun are presented to the public.

Fort Loudoun is the site of an eighteenth century British fortification in East Tennessee. It is located in the lower Little Tennessee River valley near the present-day town of Vonore, Tennessee. This site is only one of several archaeological and historic sites that have been acquired by the Tennessee Department of Conservation for both preservation and interpretation of the state's prehistoric and historic past. It is administered by State Parks Division of the Department of Conservation. With the need for preservation and the need for public education about history and archaeology, it has been argued that archaeological sites, if properly interpreted, provide an excellent opportunity for public education (see for example Kwas 1985).

The latter part of this chapter describes the various aspects of the Fort Loudoun Project as an illustration of how the archaeological and historical information has been presented to the public. This writer had the unique opportunity to have been directly involved with, and had, for the most part, the responsibility for directing large parts of this project, and providing the historical, archaeological, technical, and architectural information for virtually all aspects of this project, for nearly a decade. This writer was responsible as the principal investigator for the 1975-1976 archaeological excavations, the subsequent analysis of the materials, and the preparation of this final report. Responsibilities and participation included the accumulation of all relevant documentation; the planning of the reconstructions and the necessary historical and architectural research to insure their authenticity (Kuttruff 1978); the formulation of the interpretive plan for the visitor's center and reconstructions (Kuttruff 1981a and 1981b); and the provision of documentation, artifactual materials and sources of information for the exhibits in the interpretive center. Participation in the exhibits aspect of the project included some of the physical construction of portions of the exhibits. Working closely with this author, the Exhibits Section of the Department of Conservation researched, designed, constructed, and installed the exhibits, created the two audio-visual programs that are an integral part of the interpretive program, and produced the outdoor informational signs that are placed at specified locations between the visitor's center and the fort, and within the reconstructed fort. Additionally this writer has continued to provide information as requested by Fort Loudoun personnel since leaving the Department of Conservation.

Portions of the reconstruction were the responsibility of the Tennessee Valley Authority as part of their mitigation program and included the placement of the 250,000 cubic yard landfill over the original site, construction of the palisade, ditch and parapet, the powder magazine, and several stone features within the fort. The remainder of the structures and other features that were planned for the interior of the fort have been built, or as of this writing, being built under the direction of the Fort Loudoun State Historic Area personnel.

The purpose of the foregoing is only to emphasize the continuity that this project had from the beginning of the mitigation planning through the archaeological excavations and the construction of the exhibits and reconstructions. This was accomplished not only through the participation of this writer, but also through long-term efforts by other individuals and organizations in the Department of Conservation. It is this writer's belief that the success of this project has been a direct result both of the enthusiasm of numerous individuals and their long-term coordination and continuity of effort.

The detailed history of Fort Loudoun and the results of the archaeological investigations have been presented in the earlier portions of this report. A summary of the history is presented in the next section. The final portion of this chapter discusses the various aspects of the interpretive program at Fort Loudoun. That section includes a summary of the materials and information that has been presented to the public, the problems involved with some of the presentations, and the rationale for the manner in which some things were interpreted.

History

Fort Loudoun was the westernmost fort of a series of colonial fortifications that extended westward from Charleston, South Carolina, and included Fort Ninety-Six and Fort Prince George (see Figure 9). After nearly 10 years of consideration and debate by the government of South Carolina and the Board of Trade in England, construction of Fort Loudoun began on October 5, 1756, and was essentially complete by July 30, 1757. The Overhill Cherokee Indians (that portion of the Cherokee located west of the Appalachian Mountains) living in the Little Tennessee River valley wanted the fort constructed as a refuge for their women and children while the warriors were away fighting with British expeditions against the French, and as a constant source of supply for trade goods upon which the Cherokee were becoming more and more dependent. The English needed the fort in that area to deter any possible French encroachment from the south from Fort Toulouse (Heldman 1973; Thomas 1929, 1959, 1960a, 1960b; Waselkov 1984; Waselkov et al. 1982), near present-day Montgomery, Alabama, and from Fort Massac (Bailey1966; Fortier 1969; Babson 1968; Rackerby 1971) on the Ohio River in what is now southern Illinois. The permanent British installation in the Overhill Cherokee area was to have also solidified their sometimes tenuous alliance with the Cherokee.

Two companies of South Carolina provincial militia and one company of British regulars, commanded by Captain Raymond Demere, were engaged in the construction of the fort. John William Gerard DeBrahm, an engineer in the service of South Carolina, was responsible for the final selection of the location of the fort, and the supervision of the construction (De Vorsey 1971). The site chosen for the fort was a narrow ridge adjacent to the Little Tennessee River. A portion of the fort was situated on the ridge and the rest on the low ground south of the ridge (see Figures 2-5). The construction was done by the provincial militia, with the regular troops providing garrison duty. DeBrahm, after a number of disagreements with Demere, abandoned the project in December 1756, after leaving instructions with Demere for the completion of the fort. Raymond Demere then completed the fort with some modifications and additions to the original plans as they had been set forth by DeBrahm. Two contemporary plans of the fort are in existence and are shown in Figures 7 and 8.

The fort was to have an outer work of a ditch or dry ditch and an earthen parapet. Within those works, the original plans called for a square enclosed with a log palisade, with diamond-shaped bastions in the opposing corners. This concept was quickly abandoned by Demere after DeBrahm's departure. The interior palisade line was taken down and placed against the interior of the earthen parapet. The original plans called for the construction of a hornwork on the river side of the fort, and, although these works were begun in the fall of 1756, further work on their construction was halted in January of 1757 (Hamer 1925b; Kelley 1961a; McDowell 1970). Other constructions within the fort, known by the contemporary documentation, and now the archaeology, included gun platforms in the four bastions, houses and barracks for the officers and men, store houses, a blacksmith shop, a powder magazine, and a guardhouse and Officer of the Day's quarters. The documentation also implied, and the archaeology demonstrated, that there were other related structures and features within the fort.

Captain Paul Demere replaced Raymond Demere as commanding officer of the fort in August 1757. With the construction essentially completed by this time, the two companies of provincial militia were disbanded. The fort was then manned by only one company of British regulars, which was occasionally reinforced, for the rest of its occupation. Relations with the Cherokee remained relatively friendly and mutually beneficial through the fall of 1759. After this time, and due to a deterioration of relations with the British, the Cherokee began to pressure the garrisons at Fort Loudoun and Fort Prince George. During the winter of 1760 this pressure was gradually increased, and throughout the spring and summer of that year the siege of Fort Loudoun was tightened to the point where the garrison was facing starvation. Demere was forced to surrender to the Cherokee in early August of 1760 (Hamer 1925b; Kelley 1961a; McDowell 1970). The garrison abandoned the fort the morning of August 9, 1760, and began their march back to South Carolina, being ambushed by the Cherokee the following morning about 15 miles from the fort. Paul Demere and all the officers with the exception of John Stuart, and between 20 and 30 of the other men, were killed in the conflict. A few of the troops escaped, but the rest of the garrison was captured and taken to the various Cherokee towns. Some were subsequently sent to French Fort Toulouse in Alabama, and a few were apparently taken as far as New Orleans by way of Fort Massac. In November of 1760, about 10 of the captives were ransomed in Virginia. Thereafter, the return of the captives continued over a period of about nine months, with most of the captives being delivered to Fort Prince George in South Carolina (Alden 1944; Brown 1965; Kelley 1961a).

The disposition of the fort after the British surrender is not as well documented as is the period of its occupation. To date, no documents have been located that describe the condition of the fort when it was abandoned, or during the period immediately following the take-over by the Cherokee. It was apparently occupied to some extent by the Cherokee immediately after the surrender, and it is clear that all supplies and the like that were abandoned by the garrison were removed to the nearby Cherokee towns. In 1762, Lieutenant Henry Timberlake traveled through the valley and visited the fort (Williams 1948). He showed the location of the fort in relation to the Cherokee towns in the valley on his map (see Figure 11), but did not provide any description of the fort other than that it was in ruins at that time. The Federal period Tellico Blockhouse was constructed in 1794 on the opposite side of the river from Fort Loudoun (Polhemus 1979), and descriptions provided by visitors to the Tellico Blockhouse indicate that the fort was in ruins and overgrown at that time (e.g., Louis-Philippe 1977).

Archaeological Investigations

Extensive archaeological excavations and other more limited test excavations have been carried out at Fort Loudoun since the 1930s. Those excavations began with the Federal Works Progress Administration clearings and excavations in 1936 (Cooper N.D.a and N.D.b). The focus of that work was to determine the location of the outer palisade line of the fort, to attempt to locate several of the interior structures, particularly the barracks and the powder magazine, and to mark those features. The site was administered by the Fort Loudoun Association under trust from the State of Tennessee, and opened to the public with a minimum of interpretation. During the 1940s and early 1950s interest and activities at the fort waned to the extent that the fort again became overgrown with trees and brush. In the middle 1950s a renewed interest by the Fort Loudoun Association began (Kelley 1961b). Limited excavations were carried out to provide information on specific features for reconstruction and interpretive purposes (Brown 1955a, 1955b, 1955c, 1955d, 1955e, 1958; Myers & Polhemus N.D.).

In the early 1960s, a more comprehensive excavation program was sponsored by the Fort Loudoun Association to provide further information on the site plan and on certain structural features (Kunkel 1960, N.D.). Again those excavations served to provide artifactual materials for display in a small visitor's center/museum, and to provide information for interpretation of the site to the public. Reconstruction of the outer palisade line was begun at this time and was completed by the end of the decade. The interpretive program consisted of a display of artifacts and other historical information in the visitor's center, and a brochure providing a limited history of the site, and key to a self-guided walking tour of the fort with numbered stations leading up to and within the fort area. To its credit, the Fort Loudoun Association carried out a great deal of documentary research during this period of time and published an excellent, concise history of Fort Loudoun (Kelley 1961a; Black 1961; Brown 1971, N.D.a and N.D.b).

The final and most extensive excavations at Fort Loudoun, the subject of this volume, were undertaken by the Tennessee Division of Archaeology under supervision of this writer, and were funded by the Tennessee Valley Authority. This work was necessitated by Federal law requiring the mitigation of cultural resources particularly since the site had been granted National Landmark status in 1965. The destruction of the fort site was caused by the construction of the Tellico Dam and the proposed, and subsequent, flooding in 1979 of the lower 30 miles of the Little Tennessee River valley.

The final excavations began in May 1975, and continued through August 1976. The objective of those excavations was to recover as much information and material as possible from the interior of the fort and the surrounding areas. The extent of those excavations is shown in Figures 6, 6A and 6B. The excavated areas included the hand excavation in two-meter square units of an area totaling approximately 8,000 square meters, or approximately 93 percent of the interior of the fort. The total contents of all features and structures were processed through one-quarter inch water screens. Hand excavated trenches were extended across the ditch and parapet on the outside of the fort to determine their extent and configuration. A series of profile trenches was excavated with a backhoe with a three-foot wide toothless bucket to further verify the configuration of the ditch and the parapet. The remainder of the ditch was then cleared by machine and hand excavations on the east, south, and west sides of the fort. Similar excavations were also carried out in the area of the hornwork between the east ditch and the river.

In addition to the work that was specifically related to the fortification, an area adjacent to the southeast corner of the ditch was cleared with a backhoe to expose the subsurface features and structures in

that area. Because of the need for earth to create a landfill over the area of the original fort, it was possible to examine a large area to the south of the fort for cultural features. Including the area adjacent to the southeast ditch, cultural features were present over some 8,000 square meters. One hundred sixty-two pit features, 12 structures, and hundreds of post molds were defined and mapped; the pit features were then hand excavated. The occupations represented by these features and structures spanned most of the prehistoric continuum and included the Archaic period (8000-1000 B.C.); Middle and Late Woodland periods (1000 B.C. - A.D. 900); and the late prehistoric Mississippian period (A.D. 900-1600). Of particular importance was the location and excavation of three house structures, 19 pit features, one burial, and numerous artifactual materials from the Cherokee Indian village of Tuskegee (see Chapter 7), which began to be settled in about 1757 in direct response to the situation of Fort Loudoun, and lasted until 1776, when it was probably destroyed by a military expedition led by Colonel William Christian in retribution for Cherokee attacks on the Watauga settlements in what is now northeast Tennessee.

For the discussion of the interpretation that has been done at Fort Loudoun, it is necessary to know that the archaeological work at Fort Loudoun was only one part of the overall mitigation program in the lower 30 miles of the Little Tennessee River valley. The Tennessee Valley Authority had funded a 15-year program of survey and excavations by the University of Tennessee, which located hundreds of archaeological sites and carried out large scale excavations at numerous sites representing the prehistoric sequence (Chapman 1973, 1977, 1981; Milligan 1969b; Salo 1969; Schroedl 1978). Large scale excavations were also carried out at the seven historic Cherokee Indian towns (see Figure 1) that were located in this portion of the valley, and which figured prominently in the history of Fort Loudoun (Chapman 1979; Cornett 1976; Guthe 1977, 1979; Guthe and Bistline 1978; Milligan 1969a; Newman 1977; Polhemus 1970; Russ 1984).

Interpretive Program

Against that brief background of the project, the history, and archaeology of Fort Loudoun, it is possible to turn to a summary of that portion of the project that dealt with the presentation of the material to the public sector. Although no detailed development plan or interpretive guide was formulated prior to the latest excavations and mitigation effort, it was known that there would at least be a partial reconstruction of the fort, and that a new interpretive center facility would be built. It was further realized that the presence of the latter implied exhibits and an interpretive program. Knowing this prior to beginning of the archaeological and historical research, it was possible to orient that research in such ways as to be advantageous for the future development of the site. In fact, much additional historical and other types of research were carried out specifically for the expected reconstructions and interpretations.

After completion of the excavations, 250,000 cubic yards of fill was placed over the original fort site to raise it above the proposed lake pool level and provide a surface duplicating the original for reconstructions. There, the palisade line, powder magazine, and some other stonework were put in place (Figure 208), and an interpretive center (Figure 209) was built. An interpretive proposal was then formulated and presented to the Interpretive Committee of the Department of Conservation (Kuttruff 1981a). This was subsequently expanded into the approved Interpretive Development Guide, which set forth the overall interpretive objectives and the interpretive themes for the Fort Loudoun State Historic Area (Kuttruff 1981b). The interpretations were developed around several major themes that are discussed in the following sections of this report. Those themes included the following topics: the natural environment of the valley; the culture history of the valley; the history and occupation of Fort Loudoun; the archaeology; and the fort reconstructions.

Minimally, the goal of the interpretation was to insure that the following information would be conveyed to even the casual visitor: (a) why was Fort Loudoun built and what was happening in eighteenth century North America to require an English fort in this location; (b) what was the Cherokee-British relationship and what were the main political and economic factors in that relationship; (c) what was garrison life like and what was it like to have lived at Fort Loudoun; and (d) what was the environment of the Little Tennessee River valley and what changes have taken place since then.

There were several problems that merited serious consideration throughout the planning and development of the interpretive program. First was the nature of the expected visitation and the need to provide information for several different sectors of the public. It was assumed that the site would be visited by at least the following types of visitors: school groups; laymen interested in the history of the area;

professionals interested in eighteenth century history and Cherokee culture; and others conducting research on the above and other aspects of the history and prehistory of the area. It was therefore necessary to provide several different levels of information within the interpretive program. In addition to the information presented in the interpretive program, and although incomplete at the present time, copies of all documentary materials, and relevant literature will be available. A brief brochure describing the site has been prepared and a concise history of the occupation is available (Kelley 1961a). Upon completion, the detailed archaeological report will be available, and ideally, a publicly oriented popular volume on the archaeology and history will be prepared for distribution.

The second major problem was the fact that the site of the reconstruction was completely artificial, albeit only about eight meters above the original fort site, and the original surroundings of the area were completely altered (compare Figures 4 and 208). The third consideration was that of funding and personnel that could be allocated to the project, particularly for the reconstructions. The final problem concerned the great amount of information that was available for interpretation, and the need to reduce this to a manageable amount, while still adequately presenting the necessary information to the public. The following sections, then, detail the various interpretive themes and present the solutions that were arrived at for their presentation.

Figure 209. Fort Landfill and Palisade Reconstruction. Compare with Figure 4.

Figure 210. Fort Loudoun Interpretive Center.

Natural Environment

The purpose of this portion of the interpretation was to provide a description of the natural setting within which the prehistoric and historic occupation of the valley took place. This was to present a description of the Little Tennessee River valley, insofar as possible, as it was during the eighteenth century and prior to the changes that were brought about by nineteenth century European/Anglo settlement and land use, and the more recent destruction of the valley by the impoundment of the Little Tennessee River. It was also believed that it was absolutely essential that this portion of the interpretation was understood by the public. Consequently it was accomplished by the production of a short slide tape program that could be started by the visitor. This included photographs of scenery taken in the surrounding area that were thought to be representative of "pristine" situations, and photographs showing the various developments and changes in the valley in more recent times. Descriptions of the valley by eighteenth century travelers were quoted (Bartram 1980; Williams 1928) and explanations of the changes in the valley were presented.

Another aspect of this portion of the presentation was to place the fort site and the Little Tennessee River valley into the larger perspective of the eastern United States. This was to show the major geographic features that affected such things as travel, trade, and communications throughout the area. This was important as background information since the various broad boundaries such as the Appalachian Mountains, or the available routes of communication, were important in the development of the prehistoric cultures that occupied the valley for some 10,000 years and the late prehistoric and historic Cherokee Indian occupation of the valley and surrounding regions. During the historic period, these geographical features either directly or indirectly affected the need for Fort Loudoun, and in the case of Fort Loudoun were a serious factor in its eventual surrender. This information was presented graphically through the use of a composite photograph of the eastern United States, which had been made from satellite imagery, and through text. This graphic was also used to present the theater of the French and Indian War in which Fort Loudoun participated, as well as many of the English and French forts and towns that were in existence in the mid-eighteenth century.

Culture History

This section of the interpretive exhibit was originally to have presented an outline of the culture history of the valley from the time of the earliest inhabitants through the demise of the historic Cherokee

Indian occupations near the end of the eighteenth century. The various stages of the prehistoric cultures from the Paleo-Indian, through the Archaic, Woodland, and Mississippian periods were to be emphasized and illustrated with typical artifact assemblages and text discussing settlement and subsistence patterns, and relationships to similar cultures of the eastern United States. A more expanded section was to have dealt with the Cherokee Indian occupations and their geographic and cultural affiliations. This section was planned to take advantage of the great deal of prehistoric information that was available primarily from the University of Tennessee excavations in the Little Tennessee River valley. Because of space limitations and the realization that it would necessarily have to be a cursory presentation, this portion of the interpretation was not included. The lack of this information is offset by the availability of at least one popular summary of Tennessee prehistory which tends to emphasize the East Tennessee area (Chapman 1983).

It was decided, therefore, to emphasize the Cherokee Indian occupations primarily because of their close association with the fort and the resulting events of that association and conflict. As with the prehistoric occupations, there were a great deal of information and materials available. These took the form of written accounts (Adair 1775), a few graphics from the eighteenth century, ethnographic accounts, and a wealth of archaeological data and artifacts from the excavations at the Cherokee villages in the Lower Little Tennessee River valley.

Of particular importance in this presentation was showing the relationship between the Cherokee and the English. This subject was presented in several different aspects of the exhibit. This included one exhibit section that presented trade between the Cherokee and the Fort Loudoun garrison as well as the Anglo traders that were in several of the Cherokee villages. This was accomplished through graphics such as trade goods lists and text, and a display designed to show many of the trade goods that had been recovered archaeologically. Text discussed the Cherokee occupations in the valley, and the audio-visual program on the natural environment presented a description of how the valley may have appeared to the Cherokee. The relationship between the British and the Cherokee was discussed primarily in another audio-visual program on the history of Fort Loudoun (discussed below). Because of the complicated nature of the British-Cherokee relations, the Cherokee participation in the French and Indian War on the side of the British, and day-to-day associations, it was thought most advantageous to do this in a narrative manner to reduce the amount of printed text that would have been necessary for its explanation. The nearby Sequoyah Birthplace Museum provides a comprehensive overview of Cherokee history and culture in east Tennessee. The focus of that museum is to promote understanding and appreciation of the history and culture of the Cherokee Indians in Eastern Tennessee, and particularly the life and contributions of Sequoyah.

History and Occupation

This was the dominant portion of the interpretation. Since accuracy was essential, all available primary historical documentation was examined. Much of this material has been published or is available on microfilm (De Vorsey 1971; McDermott 1965). Unpublished sources include the South Carolina Gazette, letters, and other materials in the Lyttelton collection at the Clements Library, University of Michigan, the Loudoun papers at the Huntington Library and Art Gallery, and documents in the British Library. There were numerous secondary sources. Many were authoritative (Brown 1971, N.D.a, and N.D.b; Hamer 1925b; Kelley 1961a; King and Evans 1977; Sirmans 1966; Stone 1969; Williams 1937). One eighteenth century description is available (Hewatt 1979) and two nineteenth century historical works provide accounts of Fort Loudoun (Haywood 1973; Ramsey 1926). Near the end of the nineteenth century and the early part of the twentieth century several articles and popular accounts were published (Cook 1921; De Witt 1917; Henderson 1917; Radford 1897). There are even two novels (Craddock 1899 and Guy 2001). There were considerable inaccuracies in many of these earlier accounts and particularly the popular accounts. All of this material was evaluated, both to aid in the interpretation of the archaeological evidence, and to insure the accuracy of the interpretive presentation.

In general, this section of the interpretation was designed to provide the visitor with a summary of the history of Fort Loudoun and an understanding of the lifestyle of the garrison. This part of the interpretation was to take advantage of presentations within the interpretive center, as well as in the reconstructed fort. The topics that were to be illustrated were: (a) the background of the French and Indian War, with an explanation of the theater of this war in America and the chronology of the events of that conflict, with the primary purpose of that presentation being to show the relationship of Fort Loudoun to that war in America; (b) an explanation of frontier fortifications, to show the principles of fortifications and the

range of variation that was evident in the forts that were constructed in the eastern part of North America; (c) the various aspects of garrison life at frontier fortifications, directed specifically to that existence at Fort Loudoun as evident from the historical and archaeological documentation; (d) the presentation of the weaponry that was used by the garrison; and (e) insight into the day-to-day relations with the Indians, as well as the other more general aspects of diplomacy and the recruiting of Indians for military campaigns against the French.

The several topics that were considered important about the history and occupation of the fort are relatively straightforward, but their complexity required several different approaches for their proper and adequate presentation. Central to the presentation of the background of the French and Indian War and the history of the fort was the production of a 20 minute audio-visual program of slides of artists' renderings of various events, eighteenth century illustrations of certain personalities, shots of the reconstructed fort and reenactment groups, and an artist's drawing of the fort (Figure 211), with an accompanying taped narrative. The narrative portion of this presentation was considered to be the most effective way in which tot present not only the necessary political and military background information and historical events, but also other fort related activities. The latter included such things as building construction, subsistence, interpersonal relationships as evident in the documentation, and various craft activities. It was also an effective means of portraying garrison-Cherokee interactions. Possible in this type of medium and difficult in others except for living history or reenactments is the presentation of sounds that may have been a constant part of the background of a person's existence at Fort Loudoun.

Figure 211. Reconstruction Drawing of Fort Loudoun. Drawn by the late Doug Henry of the Exhibits Section, Tennessee Department of Conservation.

Parenthetically, there are two things that are most difficult, if not impossible, to replicate for interpretive purposes. The first is the fore and background sound levels produced by the presence of a great number of living things within a relatively small area, which included soldiers, cattle, horses, pigs, chickens, dogs, officers, and Indians in the case of Fort Loudoun. The other is a correlate and consists of the density of human and animal life that probably existed within and about a frontier fortification. Although there have been efforts to do this at certain sites, such as Plymouth Plantation in Massachusetts, and at others on a short-term or small-scale basis with reenactments or living history exhibits, most publicly presented historical and archaeological sites with their silence and their solitude stand in stark contrast to what they once were.

Since there was to be a reconstructed fort as part of the site, it was believed that a discussion of eighteenth century fortifications was necessary. Research for this included an examination of certain primary sources on fortifications and military principles (Muller 1958, 1764; Mahan 1836; Scott 1864), and general studies of fortifications (Robinson 1977; Hunter 1960). Maps and plans and archaeological and other reports were reviewed. Minimally, these included ones for Fort Frederica, Georgia (Honerkamp 1980; Manucy 1962; Reese 1969); Fort Prince George, South Carolina (Appendix 1); Fort Loudoun, Pennsylvania (Denton 1980; Kent 1978; Kent and Douts N.D.; Warfel 1980); Fort Ligonier, Pennsylvania (Grimm 1970; Stotz 1974); Fort Michilimackinac, Michigan (Gerin-Lajoie 1976; Stone 1974); and Fort Stanwix, New York (Hanson and Hsu 1975). All of these, with the exception of Fort Prince George and Fort Stanwix, were visited and the reconstructions of Fort Ligonier and Fort Michilimackinac were carefully examined and photographed. Numerous other museums were visited and considered for presentation ideas.

In the Fort Loudoun interpretive center this information was presented with a series of graphics. One showed a diagram of Fort Loudoun with the parts of the fort such as bastions, curtains, and palisades appropriately labeled. Accompanying this was text providing definitions and purposes of the several parts. The remainder of this display consisted of graphics showing several eighteenth century fort plans, and archaeological plans, providing an illustration of the range of sizes, shapes, and complexity of frontier forts. A model of Fort Loudoun in the visitor's center, is an integral part of this presentation. Showing the numerous buildings and other constructions known to have been within the fort, it provides the visitor with a view of the complexity of the installation to compare with the reconstruction.

Because of the presence of the reconstruction, it was important to present information on housing and barracks life. Because of certain restraints and security reasons, the reconstructed buildings generally lack a complement of typical furnishings and accouterments to provide a lived-in look. A compromise solution was to construct a full-scale cut-away barracks room in the exhibit hall. This can be seen in the left background of Figure 211. It was furnished with reproductions of typical furniture and other items of a household nature, and also served as a place to display household items and building hardware that had been recovered from the original fort site.

Figure 212. View of the Interior of the Interpretive Center. Barracks display is on the left and the armaments section of the exhibit is on the right.

Other things chosen to present under garrison life included subsistence, craft activities, clothing, and weapons and armaments. Subsistence information was presented in the audio-visual program and in a display of faunal remains and culinary artifacts, graphics and explanatory text. The clothing presentation consisted of a life-like mannequin with a replicated British military uniform and a display of buttons and buckles recovered from the fort (Figure 212). Various craft activities were illustrated through artists' renderings and displays of related artifacts. One portion of the exhibit was used to display an original cannon from the fort and parts of military muskets and Indian trade guns recovered from the fort. One of the original Fort Loudoun cannons is mounted on a carriage in this display. Additionally, reproductions of a Brown Bess musket and a cohorn are displayed, and graphics and explanatory text round out the presentation. In the fort, reproductions of cannon are mounted on a gun platform in one or more of the bastions to show their defensive placement and are fired during garrison days. Various living history activities, such as a working blacksmith, and military reenactments and encampments on an occasional basis effectively supplement the exhibited information on costume, subsistence, weaponry and craft activities.

Figure 213. Exhibit Showing the Uniform of the South Carolina Independent Companies. At left is a reenactor with the same uniform. The case on the right displays various clothing related artifacts.

Archaeology

A small, but integral part of the interpretation is a presentation of the archaeological work that was carried out at the fort. To some extent this was used to illustrate the methods of archaeological investigations, and the nature and limitations of the evidence that can be recovered archaeologically. More specifically, this was done to present the archaeological evidence that was directly related to the reconstructions within the fort and to other portions of the interpretation. The portion of the exhibit presenting the archaeology at the site was accomplished through the use of a series of photographs illustrating the several excavations. These were arranged chronologically and appropriately labeled. In this order the changing archaeological excavation techniques since the 1930s are quite evident, and the changes that have taken place at the site over the same period of time are also discernable. Illustrations of archaeologically recorded information consist of copies of the archaeological plan of the site showing all features and structures (see Figures 6, 6A, and 6B), and detail plans of structure examples (such as those that are illustrated in Chapter 5). Selections of artifacts recovered from the site are displayed in appropriate sections of the interpretation throughout the exhibit area.

The contribution of archaeology to the reconstructed buildings, as well as the historical architectural information, was presented through a series of graphics that included the sequence of an archaeological plan for a given structure, architectural drawings of similar standing structures; the architectural drawing for the reconstructed building (Figure 213); and progress and completion photographs of the reconstruction (such as Figures 218 and 219 of the Blacksmith Shop). By illustrating the above sequence, it was also believed that the visitor would gain the understanding that the buildings in the fort were, in fact, only reconstructions, but possibly gain an insight into the creative processes behind their construction.

Fort Reconstruction

The other major part of the interpretation of this site is the fort reconstruction. Several important factors had to be taken into consideration, including the artificiality of the site and the alteration of its surroundings. At the beginning, because of fiscal and manpower limitations only a few structures and other features could be built. The original solution was to build six structures in addition to the palisade and powder magazine that had been completed by the Tennessee Valley Authority. Structures were selected to illustrate the range of functionally different buildings, and included the blacksmith shop, two temporary troop quarters, a barracks building, an officer's quarters and a storehouse. One gun platform in one of the bastions was to be constructed. Locations of the several buildings to be built were based on the archaeological information, and were in part chosen so that buildings would be constructed in different parts of the fort. The model to be in the visitor's center was intended to be complementary to this selection and to show a 'complete reconstruction.' Since the original of this chapter was written, those structures and others, including a Cherokee house structure, have been completed under the direction of first Joe Distretti, and now Jeff Wells, the successive Area Managers of the Fort Loudoun State Historic Area. A view of the interior of the fort with a number of the reconstruction is shown in Figure 214. A selection of the individual buildings are shown in Figures 214-220. The large Barracks that was in the fort is now nearing completion as of this writing (Figure 219).

Another important facet of this part of the interpretation was to present the several different methods of construction that were available during this time. This information was based on research that included examination of other reconstructions, examination of eighteenth century building manuals (for example, Neve 1969), and more recent studies of eighteenth century building techniques (Church 1978; Harris 1978; Historic American Building Survey 1976; Kniffen and Glassie 1966; Richardson 1973). The use of a combination of historical, archaeological, and historical architectural information to develop the reconstructions is presented in the visitor's center and has been discussed in the archaeology section. The range of construction possibilities were to be shown in the new constructions.

It was necessary to compromise in the selection of building materials, because of the prohibitive cost of exact authenticity of such things as hand hewn timbers, and hand split clapboards and shingles, and the need for a relatively long life for these structures. Preservative treated logs for the palisade were considered absolutely necessary, for example. But, all reasonable efforts were made to insure that the constructions were sympathetic to the originals. For example, band sawn timbers were recommended to give an appearance closely resembling that of pit sawn wood and efforts have been made to obscure other features that would be offensive and not in keeping with the intent of the constructions. All together, given the compromises that had to be made, these efforts have provided an appearance of authenticity, consistent with the documentation and the archaeology. Efforts have been made to insure that the visitor is aware of these constraints, and that the effect is to show the range of available construction techniques, and that the reconstructions are not necessarily replicas.

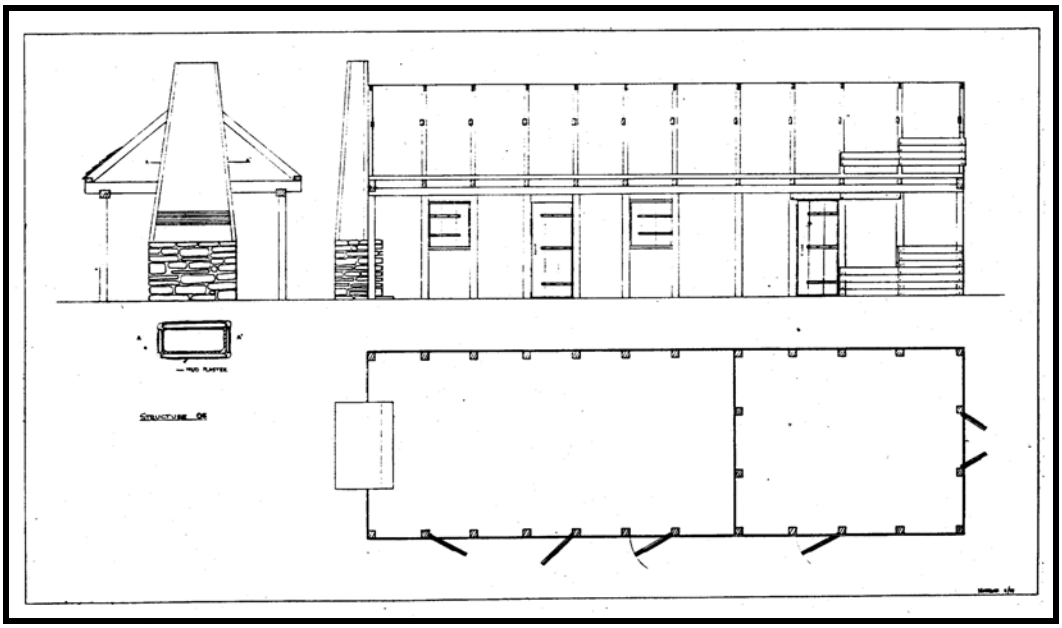

Figure 214. Architectural Plan for Structure 5 Reconstruction. Compare with Figures 68 and 216.

Figure 215. Fort Loudoun Reconstruction. View is to the southeast. The Powder Magazine is in the foreground and the Barracks chimney bases are to the right and below the Powder Magazine. The Storehouse is along the south curtain, and the Blacksmith Shop, Barracks, and the Guardhouse are in the background in the Southeast Bastion.

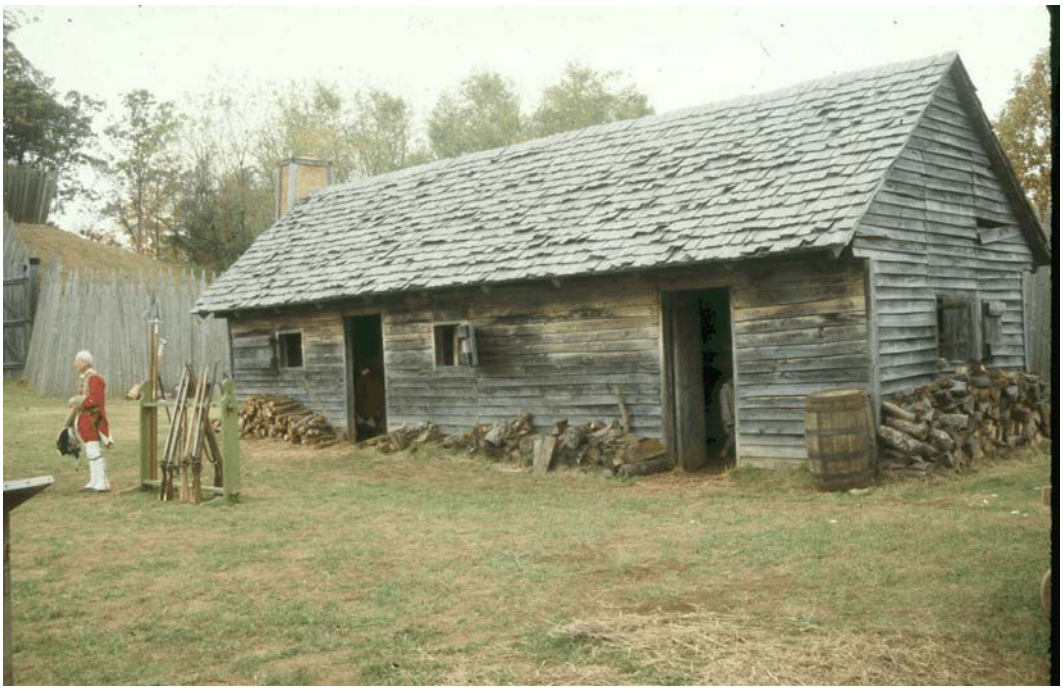

Figure 216. Structure 5 (Early) Barracks Reconstruction. Compare with Figures 68 and 214.

Figure 217. Guardhouse and Officer's of the Day Quarters and Officer's Quarters Reconstructions. The Guardhouse and Officer's of the Day Quarters are in the middle ground, and an Officer's Quarters is in he background.

Figure 218. Storehouse Reconstruction.

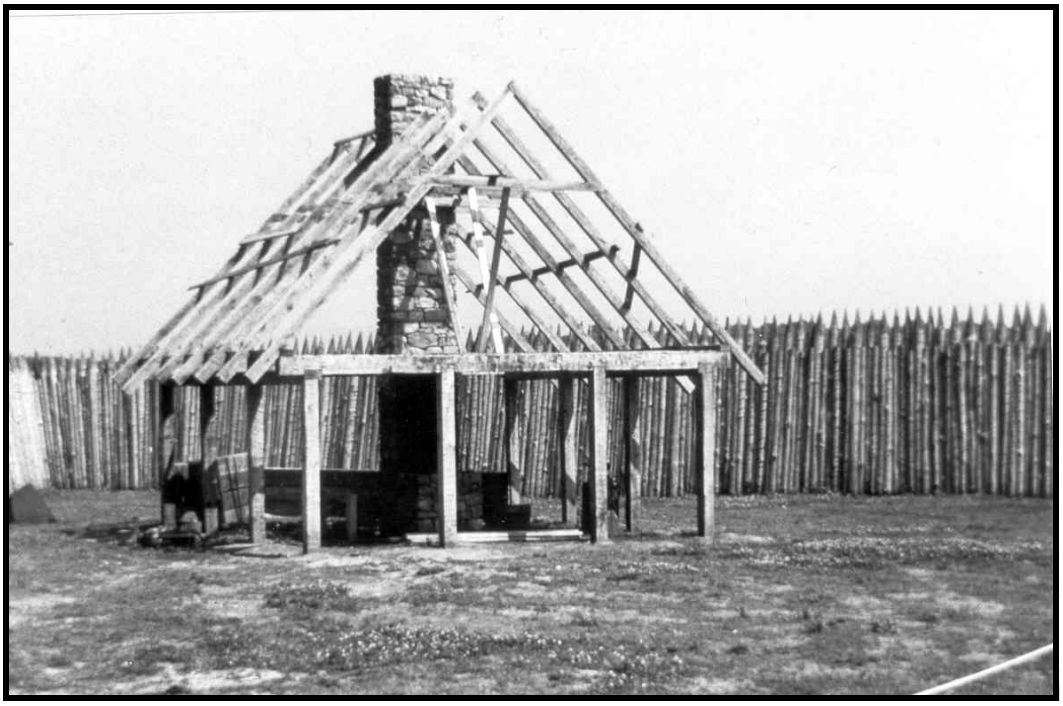

Figure 219. Blacksmith Shop Under Construction. This view shows the completed chimney and timber framing for the structure.

Figure 220. Barracks Building Under Construction. Photo courtesy of Fort Loudoun State Historic Area.

Figure 221. Blacksmith Shop Reconstruction.

Living History

An important part of the interpretive program at Fort Loudoun is the number of living history programs. Replicating some of the original ambiances of the eighteenth century fort on a short-term and small-scale basis with historical recreations or living history exhibits is an important part of the interpretive program at Fort Loudoun. Throughout the year, a number of garrison weekends are held. During those times, the fort and its reconstructed buildings are occupied by a company of historians, including park personnel and volunteers. The buildings come to life with activities that were typical of the fort period. The fort and the buildings have a used and lived-in look, where the visitors can see the range of furnishings and accouterments. Some of the demonstrations, such as parades, musket and cannon drill, and other activities maintain the historical interpretation such as the one shown in Figure 221. The goal of the reenactors, is however, education of the public about Fort Loudoun and its eighteenth century occupation. To this end, the historical interpretation (historic present) is compromised to the benefit of explanations and answers to questions by the interested visitors. Through its reconstructions and costumed garrison days, the site becomes more than just a static display of buildings and grounds. The living history programs engage the senses, bringing to life the fort environment and the daily garrison life.

Figure 222. Garrison Day Musket Drill. Photograph by Jeff Wells, Fort Loudoun State Historic Area.

Parenthetically, since the reconstructed Fort Loudoun is a "new" site, there are no constraints on activities, such as fires and excavations, that have to be imposed on the garrison during the reenactments. There is not the necessity of having to protect the archaeological site from present-day activities that would otherwise be detrimental to a more pristine or *in situ* site.

Conclusions

The foregoing sections have presented the history of Fort Loudoun, a summary of the archaeology, the special problems that were involved in the public presentation of the historical and archaeological information, the types of information that were to be presented to the public, and the solutions and rationale for the various aspects of the interpretive program. To generalize from this experience several conclusions should be emphasized:

(a) It is essential that there be a long-term continuity of organization and associated personnel who are familiar with the various aspects of a given project, in this case from the archaeological excavations through the exhibit construction and reconstructions.

(b) That there be cooperation and coordination of (preferably a limited) number of individuals with expertise in one or more aspects of the project, such as archaeologists, historians, architectural historians, exhibit and interpretive specialists and the like.

(c) The nature of the constituency towards which the interpretations are directed needs to be known in order to adequately address their needs. The expected differences in the interests and needs of the viewing public must be accurately understood so that the interpretations can be designed to adequately provide for those interests and needs. This further implies that several different levels of information need to be available to accommodate the various public interests.

(d) Information needs to be presented in several different ways, and with various media. But, in doing this, efforts must be made to insure that the several presentations are consistent, and are complementary.

(e) The rationale and basis for parts of the interpretation must be clearly understood by the viewing public. This is particularly true in the case of reconstructions or replications, where the basis for those exhibits, be it historical, archaeological, or architectural, needs to be explained to show the manner in which the interpretations were arrived at, or what information the exhibit is attempting to present.

(f) There should be a continual evaluation or reevaluation of the accuracy, effectiveness, and variety of the interpretive program. There should be mechanisms for providing alterations in the exhibits or presentations, alternative presentations, and some ongoing variety in the programming. This is particularly important for insuring the accuracy of the information presented, and insuring some variety, particularly where there is a large repeat visitation.

The final argument to be made is that the public interpretation of historic and prehistoric archaeological sites, such as the one presented in this paper, is a viable means of presenting the results of archaeological research directly to the public sector. Traditionally the results of archaeological research (such as this report) were only available to the public sector by means of strictly scientific archaeological reports, often in very limited numbers and available only in a limited number of repositories such as university libraries and large public libraries, which for numerous reasons are not, or cannot be used by the vast majority of the populace. Even less satisfying to the professional audience, and certainly to the public at large, are the great numbers of technical archaeological reports generated by publicly financed archaeological research projects which have a very limited distribution and are even more difficult to locate, even if one knows of their existence. While satisfying in general to professionals, technical archaeological reports often fail to present the type of information that the public at large may want to know about a given site, or a particular region. Limited numbers of popularized summaries of the results of archaeological research, either site specific or for regions or states, do help ameliorate the situation, but in and of themselves are not completely sufficient. Somewhat more indirectly, the results of archaeological research are presented to the public sector through courses in schools and universities, but it must be argued that this still does not reach the public sector as it should. To the credit of the medium of television, and particularly now the internet, inroads have been made in presenting or making available archaeology to the public on a mass scale.

Nevertheless, regional and site specific interpretations such as Fort Loudoun are believed to still be very important in the interpretation of archaeological and historical materials and information. The possibility of having on-site interpretations allows the visitor to relate the information to the site more readily than in some abstract manner if done off-site. Sites like this one and many others provide an educational

resource for local school groups and the like studying local or regional history, and, in a somewhat more abstract sense, commemorate the culture history of an area and provide an awareness of the historical past.

Note 1. The above summary of the history, archaeological research, and interpretive programing of Fort Loudoun State Historic Area was first presented in 1986 at the First World Archaeological Congress and was published in the proceedings of the Congress (Kuttruff 1986) An edited version of this paper was published in *The Politics of the Past* (Gathercole and Lowenthal 1990). Another version entitled "Reconstruction, Interpretation and Education at Fort Loudoun" was subsequently published in *The Reconstructed Past* (Distretti and Kuttruff 2004). This chapter presents a somewhat updated and edited version of the original paper.

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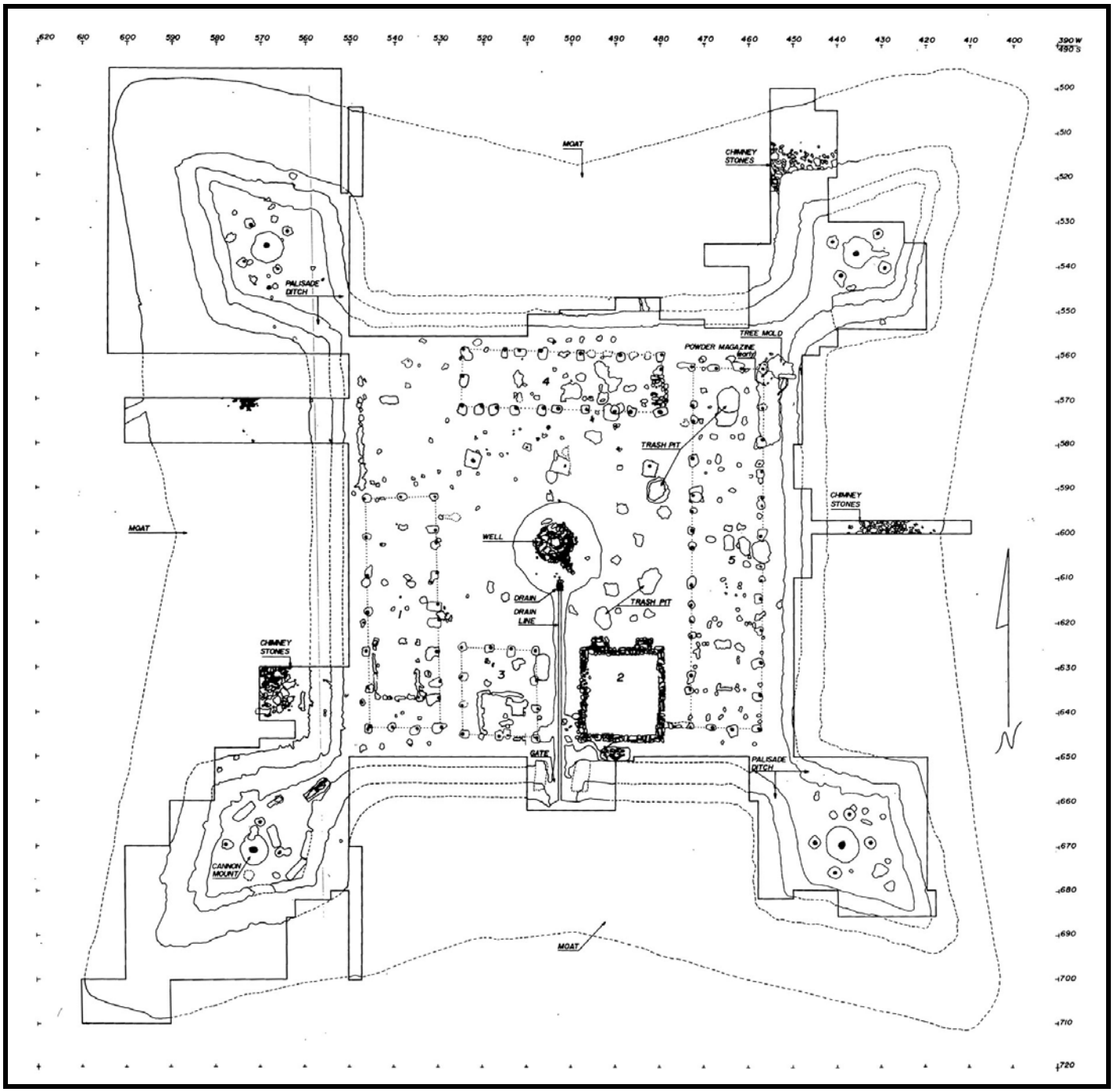
APPENDIX 1: ARCHAEOLOGICAL PLAN OF FORT PRINCE GEORGE, SOUTH CAROLINA



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APPENDIX 2: MUSTER ROLLS OF THE COMPANIES SERVING AT FORT LOUDOUN AND OTHER INDIVIDUALS KNOWN TO HAVE BEEN AT FORT LOUDOUN

Independent Company Under Command of Raymond and Paul Demere

Paul Demere	Captain
Raymond Demere	Captain
John Addison	Sergeant
William Gibbs	Sergeant
John Gray	Lieutenant
Probart Howorth	Lieutenant
James Hill	Corporal
John McGriger	Sergeant
Richard Nutcher, Sr.	Sergeant
Richard Coytmore	Ensign/Lieutenant
John Creighton	Sergeant Major
John Boggs (Bogges)[1]	Ensign
Henry Bacon	Corporal

John Bell
John Brown
Joseph Callaway
George Collis
James Coppock
Luke Croft
Ephraim Ellis
Philemon Goodin
Thomas Hayes
Lawrence Hays
John Hamilton
Robert Holmes
Josiah Horton
John Johnston
John Josser
Francis Layton
Benjamin Matthisen
Frederick Mooney
Timothy Rarden
George Nicholson
John Shaw
Samuel Simmons
Thomas Thompson
Benedict Thoms
Dominick Troell
Abraham Walker
Robert Wright

John Stuart's Provincial Company

John Stuart	Captain
James Andamson	Lieutenant
Michael Brannan (Brannon)	Sergeant
John Golden	Sergeant
John Gotsen	Sergeant
John Miller	Corporal/Sergeant

John Roberts	Corporal/Sergeant
Maurice Anderson	Ensign/Surgeon
Archibald Watson, Jr.	Drummer

Thomas Abrahood (Abrahord)
Dennis Agan
Jacob Bigley (Pigley, Piggly)
John Bower
Edward Broody (Brandy)
John Butler
William Butler (Buttler)
Michael Calfield (Calfskin, Calfskins)
Patrick Campbell
William Campbell
Roger Cannon
Hanry Christie (Christee)
Thomas Coyle (Coyll)
Gosper Dickinson (Gasper Dickeson, Dickenson)
William Durgan (Durgen)
Thomas Foster
James Frasier (Frazier)
Jacob Glaughenburg (Glaughenbury, Glaughenberg)
John Harris
Thomas Healy (Haley)
Tobias Holmes (Tobeas Home)
Martin Herter
George Hessee (Hesse)
Andrew Hogstaller (Hoastead, Hogstaten)
Robert Jones
Adam Kellar (Keller)
Thomas Kelly
Thomas Keylar
Milcher Locker (Milchar Laugher)
William Martin
Michael McEnfoot (McInsack, Mucklefoot, McInfoot)
Daniel McCloughlan (McClouklan, McLechlin, McLachlin)
Laurance Masterson (Laurence Mastersen)
Henry Maxwell
Martin Miller
Michael Miller
Thomas Mills
Edward Monnahan (Mannahan, Manahan)
George Moon
James Moon
James Murphy
Perregrine Murphy (Perregin)
John Purcell (Purcoll)
Jacob Rough
Bryan Rourk (Roark, Rourke)
Andrew Rumney (Rumley)
John Shults (Shults)
Henry Senceller (Tinceller, Sencellor)
Michael Shecklin (Sheklin)
John Simms
Bartholomew Smith (Barthy)
George Spencer
George Swaggert (Swaggart, Swaggers)
Stephen Terry (Terrey)
Joseph Vert (Verts)

Joseph Velts
Joseph Vinnegan (Vennegan, Vinnegam)
Henry Volk
Archibald Watson, Sr.
John Wood
James Road

John Postell's Provincial Company

John Postell	Captain
Robert Wall	Lietenant
Anthony Holzendorf	Sergeant
George Ulrick	Sergeant
Thomas Turner	Corporal
Solomomn Witham	Corporal
Andrew Black	Drummer
Joseph Lloyd	Ensign

Jacob Bowly (Bowley)
William Busby
Leonard Campbell
Joseph Colson
Lewis Colson (Coleson)
Lewis Commiller
Jacob Conner (Cannor)
Valentine Cronick
Peter Designer
Frederick Doore (Dore)
John Evans
Nicholas Fritts
George Hainner (Henner, Hammer)
Jacob Hairlong
Henry Hammond
Jacob Hannerbiller (Hammerbiller)
Thomas Hartshog
Thomas Hill
Thomas Hodge
Soloman Holmes
John George Holsinger
Frederick Hoof
John Hover
Frederick House (Hous)
John Huber
Samuel Jackson
Robert Jefferson
Joseph Lambert
William McFall
Emanuel Miller
Gosper Oth
George Poole
John Harman Rash
Daniel Ringall
Jacob Rode
Henry Rowe
Peter Sandwell
John Adam Shotts (Adem)
John Simmonds (Simonds)
Bartholomew Spring
Gosper Starky
William Starky
George Stein
George Strawders (Strawthers)
William Strawders (Strawthers)
Elias Tague (Tage)
Bushrod Thomas
Nicholas Thorne
George Tickle
Henry Titmore (Tilmore)
Frederick Ulmore
Lewis Ulmore
George Weaver
Edward Williams
John Wolf
Joannes Wolf

Other Garrison Troops

___ Anderson Lieutenant
___ Beadon Corporal
___ Bell Ensign
Edward Braddice (Capt. John Stuart's Co.)
James Holmes
James Hosfield
___ Hughes
W. Lloyd (AWOL officer)
Will. Lewing (John Stuart's Co.)
John Plakett (deserter held at fort)
Timothy Rarden Sergeant
___ Sargent N.N.
Frederick MouncyStephenson (carpenters of the regulars)
___ White Ensign

Traders

James Baldridge (Settico)
Walter Bateman
Samuel Benn (Tennessey)
Cornelius Cokely (Ninety-six, Tellico, Choutougee)
Cornelius Doharty (Highwassey)
John Elliot (W. John Elliot store near Keowee)
Henry Gallman (Congarees)
Goudy (at Tellico prior to July 1757)
Cpt. Peter Grim
John Kelley (Motley, Tellico)
___ Langley
Thomas Leaper (Tellico)
McGunninghill (Settaco)
Mcjntoche (Keowee)
Maximillian Moore (Highwassey)
___ Pickney
___ Price
___ Stead
Samuel Terron
George Turner (Keowee)
William Veal (Chittowee)

Interpreters

Joseph Axson
Thomas Beamer
Capt. Ceaser
Ambrose Davis
William Showery
Richard Smith
William Storey
John Watts

Messengers

___ Allen William Woodwareth
John Archy
George Duckard
Patrick Galahorn
James Holmes
Thomas Leopard
___ Macknamar
___ Macklemore
___ Mall

Missionaries
John Martin
William Richardson

Others
Dorothy Bacon wife of Henry Bacon
Mr. Beamer's son
Mr. Doharty's wife
Frances Duquene
Patrick Gallahan (Packhorseman)
William Harris
John Hatton of Theowee
Mary Hughes and Boy (Wife of ___ Hughes)
___ Macknamar
Charles McCunningham
Charles McGunninghill
Fedor O'Neal (Employed to drive cattle from Keowee)
Thomas Smith ("Packhorsemen come from Tellico")
Patrick Troy (Packhorseman)
John Charles Vian
Woman at Fort

Indians
Small Pox Conjurur (Settico)
Standing Turkey (Settico)
Man Killer (Tellico)
Little Carpenter (Chota)
Old Hopp (Chota)
Amahatoy
Outasutee (Chota)
Willanawa
Head Man of Natatee
Slave Catcher of Tomatley
Thick leg Warrior (Tellico)
Corn tasel (Indian informant)
Buffalo Skin (Indian Woman)
Seed of Settico
Judge's Friend (Tomatley)
Old Warrior of Tomately
Old Capt. Ceasar (Chatuga)
Kenoteta (Tellico)
Nancy Butler (Indian Woman)
Blind Slave Catcher of Chatuga
Onconostoto Great Warrior of Chota
Black Dog (Tomately)
Moytoy (Highwassey)
Killaquee (Little Carpenter's Brother)
Oxinaa "The Cherokee Wench"
The Lame Arm "the Head Man of Tellico"
Sower Hominiy (Chota)
Thick Legg Warrior of Chotuga
"...two Chickasaw Indians came to see us from Tellico..."

Note 1: The names given in parentheses are different spellings noted in the documents.
Compiled from: Brown (1965); Muster Roll of Captain John Stuart's Company Aug. 12 to Sept. 15, 1756 (SCIA: 207); Muster Roll of Captain John Stuart's Company July 15, 1756 to March 25, 1757 (Clements Library); An Effective Roll of Captain Stuart's Company Working at Fort Loudoun July 11, 1757 (Clements Library); Muster Roll of Captain John Postell's Company July 16, 1756 to March 25, 1757 (Clements Library); *South Carolina Gazette*.

APPENDIX 3: FEATURE ASSIGNMENTS

Feature	Description[1]	Text[2]	Locations[3]
1	Historic Pit	Chapter 6	N228-230/E136-138
2	Natural Feature		N234/E138
3	Ditch Midden Deposit	Chapters 4 and 6	Ditch (See Figures 6-A and 37)
4	Recent Fire Pit		N238/E320
5	Postmold		N234/E138
6	Natural Feature		N234/E138
7	Historic Pit	Chapter 6	N234/E136
8	Pre-Fort Humus		N212/E312
9	Recent Fire Pit		N216-218/E308-310
10	Recent Feature		N218/E310
11	Number not assigned		
12	Charred Logs	Chapters 4 and 6	N210-214/E312-316
13	Tree Root		N216/E308
14	Locust Hedge Midden	Chapters 4 and 6	Ditch
15	South Ditch Fill		Ditch
16	South Ditch Fill		Ditch
17	Prehistoric Postmolds		N174/E280
18	South Ditch Fill		South Ditch
19	Prehistoric Pit		N162/E280
20	Prehistoric Pit		N162/E280
21	Burned Root		N162/E280
22	Prehistoric Postmolds		N162/E280
23	Prehistoric Postmold		N162/E280
24	Prehistoric Pit		N162/E280
25	Midden Lens	Chapters 4 and 6	N238-240/F282
26	Prehistoric Postmolds		N176/E280
27	Prehistoric Pit		N166/E282
28	Prehistoric Pit		N162/E280
29	Southeast Ditch Fill		Southeast Ditch
30	Prehistoric Postmolds		N176-178/E280
31	Ravelin Fill		N238/E282
32	Root Molds		N232/E284
33	Prehistoric Pit		N168/E280
34	East Ditch Fill		East Ditch
35	Prehistoric Postmolds		N188-190/E278-280
36	South Ditch Fill		South Ditch
37	WPA Trench		N186-188/E292
38	WPA Stone Wall		
39	1960s Palisade Reconstruction Trench		N188/E276-278 and N188/E276-278 40
40	WPA Trench		N188-190/E288-290
41	Same as Feature 188		Ditch
42	Midden Lens	Chapters 4 and 6	N186-190/E288-290
43	Sill Mold	Chapters 5 and 6	N188/E270
44	Historic Pit	Chapter 6	N184-186/E274-276
45	Historic Pit	Chapters 5 and 6	N186-188/E272-274
46	Historic Pit	Chapter 6	N186/E274
47	Prehistoric Pit		N188-190/E274
48	Prehistoric Pit		N198/E262-264
49	Southeast Gun Platform	Chapter 4	N180-186/E274-280
50	Historic Pit	Chapter 6	N184/E266-268
51	Prehistoric Postmolds		N180-182/E276-278
52	Hearth	Chapters 5 and 6	N230-232/E216
53	Fire Basin	Chapter 6	N234/E246
54	Historic Pit	Chapters 5 and 6	N188-190/E264

Feature	Description[1]	Text[2]	Locations[3]
55	Prehistoric Pit		N188/E264
56	Filled Crevice	Chapters 5 and 6	N234/E218-220
57	WPA Intrusion		N184/E274
58	Historic Pit	Chapters 5 and 6	N182-184/E262-264
59	Historic Pit	Chapter 6	N182/E268
60	Historic Pit	Chapter 6	N180-182/E272
61	Inner Palisade Line	Chapter 4	See Figure 6A
62	Historic Pit	Chapter 6	Nl88/F276
63	Historic Pit	Chapter 6	N186-188/E266-268
64	Historic Pit	Chapter 6	N180-182/E270-272
65	Chimney Base	Chapters 5 and 6	N208-210/E258-260
66	Prehistoric Pit		Nl80/E262-264
67	Fire Basin	Chapter 6	N204/E266
68	Midden Lens	Chapters 5 and 6	N202-204/E262-264
69	Prehistoric Pit		N186/E260
70	Prehistoric Pit		N192/E260
71	Hearth	Chapters 5 and 6	N192/E270
72	Chimney Base	Chapters 5 and 6	N210-212/E248
73	Midden Filled Depression	Chapters 5 and 6	N206-208/E248-250
74	Sill Mold or Wall Trench	Chapters 5 and 6	N194-196/E262-264
75	Fire Basin	Chapter 6	N190/E232
76	Drain	Chapter 6	See Figure 84
77	Fire Basin	Chapter 6	N218/El78
78	Midden Filled Depression	Chapter 6	N214-216/E178-180
79	Trench Latrine	Chapter 6	N206-210/E188-190
80	Rock Cluster	Chapter 6	N210-212/E194-196
81	Number Initially Used for Structure 7		Structure 7
82	Historic Pit	Chapter 6	N196/E206
83	Midden Filled Depression	Chapter 6	N210/E198
84	Midden Lens	Chapters 5 and 6	N212-214/E192-194
85	Midden Filled Depression	Chapter 6	N200-204/E190-194
86	Historic Pit	Chapters 5 and 6	N214-216/E182-184
87	Historic Pit	Chapter 6	N218-220/E190-l94
88	Innermost Palisade	Chapter 4	See Figure 6A
89	Hearth	Chapter 6	N208-210/E200
90	Palisade Trench	Chapter 4	See Figure 6A
91	Historic Pit	Chapters 5 and 6	N212-214/E182-184
92	Number Initially Used for Structure 8		Structure 8
93	Historic Pit	Chapter 6	N216/E196-198
94	Filled Depression	Chapter 6	N208/E190-192
95	Fire Basin	Chapter 6	N200-202/E200
96	Inner Palisade Trench	Chapter 4	See Figure 6A
97	Historic Pit	Chapter 6	N218/E182
98	Historic Pit	Chapter 6	N212/E180
99	WPA Trench		N220-222/E176
100	Sill Mold	Chapters 5 and 6	N218-220/E178-180
101	Number initially used for Structure 10		Structure 10
102	Number initially used for Structure 9		Structure 9
103	Historic Pit	Chapters 5 and 6	N214/E182
104	Historic Pit	Chapter 6	N226-230/E190-192
105	Recent Feature		N230/E180-182
106	Historic Pit	Chapter 6	N226-228/E172-174
107	Midden Filled Depression	Chapter 6	N232/E190-192
108	Recent Feature		N230-232/E182-184
109	Midden Filled Depression	Chapter 6	N216-226/E184-188
110	Fire Basin	Chapters 5 and 6	N4224/E180
111	WPA Trench		East Ditch
112	WPA Trench		N230-232/E182

Feature	Description[1]	Text[2]	Locations[3]
113	Rock Cluster	Chapter 6	N226-228/E194
114	WPA Trench		N232/E182
115	WPA Backdirt		N226-228/E252-254
116	Clay Lens	Chapter 6	N228/E192-194
117	Hearth	Chapters 5 and 6	N230-232/E192-194
118	WPA Trench		N232-234/E178
119	Filled Depression	Chapter 6	N228-230/E194
120	Fire Basin	Chapter 6	N230-232/E196-198
121	Terrace Cut	Chapter 6	N214-216/E178-182
122	Palisade Trench	Chapter 4	N230-232/E184-186
123	Palisade Trench	Chapter 4	N228/E196-198
124	Palisade Trench	Chapter 4	N232-236/E184-188
125	Historic Pit	Chapters 5 and 6	N222/E180
126	Filled Depression	Chapters 5 and 6	N220-222/E176-178
127	Sill Mold	Chapters 5 and 6	N220/E176-178
128	Fired Area	Chapter 6	N234/E276
129	Palisade Trench	Chapter 4	N234-238/E184
130	WPA Trench		N234-236/E186
131	WPA Trench		N214/E178-180
132	Palisade Trench	Chapter 4	N216/E178
133	Palisade Trench	Chapter 4	N228/E194-196
134	Palisade Trench	Chapter 4	N212-216/E176-180
135	Sill Mold	Chapters 5 and 6	N232/E190-192
136	Palisade Trenches	Chapter 4	See Figure 57
137	Recent Pit		N228-230/E174-176
138	Terrace Cut	Chapter 6	N230-234/E170-l74
139	Historic Pit	Chapter 6	N222-226/E196-200
140	WPA Trench		N238/E184-186
141	WPA Trench		N236-238/E190
142	WPA Trench		N242-246/E176
143	Palisade Trench	Chapter 4	See Figure 6A
144	Clay Lens	Chapter 6	N238-240/E188-190
145	WPA Tree Removal		N226-230/E244-246
146	Historic Pit	Chapter 6	N212/E238
147	Historic Pit	Chapter 6	N214-216/E238-240
148	Palisade Trench	Chapter 4	See Figure 85
149	Same as Feature 140		N238-240/E182-184
150	Drain	Chapter 6	See Figure 85
151	Structure 6 Postmolds	Chapter 5	N210/E246
152	Midden Filled Depression	Chapters 5 and 6	N208-210/E248-252
153	Recent Feature		N238-240/E188-192
154	Clay Lens	Chapters 5 and 6	N204-206/E248-250
155	Sill Mold	Chapters 5 and 6	N236-240/E166-168
156	Sill Mold	Chapters 5 and 6	N234-236/E168-172
157	WPA Trench		N234/E246-248
158	Palisade Trench	Chapter 4	See Figure 6A
159	Drain	Chapter 6	See Figure 84
160	Sill Mold or Palisade Trench	Chapters 4 and 6	N190-192/E198-204
161	Prehistoric Pit		N190/E252
162	WPA Excavation		N184-186/E216-218
163	Fire Basin	Chapter 6	N182/E252-254
164	WPA Excavation		N184/E214
165	WPA Excavation		N186-188/E232-236
166	Chimney Base	Chapters 5 and 6	N214-216/E198-200
167	Drain Sluice Gate	Chapter 6	N190/E240
168	Palisade Trench	Chapter 4	N190-198/E242
169	Filled Depression	Chapter 6	N210/E216
170	Historic Pit	Chapter 6	N206/E222-224

Feature	Description[1]	Text[2]	Locations[3]
171	Quarry Pit	Chapter 6	N212-214/E214-218
172	WPA Trench		N208-210/E216-218
173	Palisade Trench	Chapter 4	N180-186/E238-240
174	WPA Trench		N182-184/F196-198
175	Palisade Trench	Chapter 4	N174-180/E192-196
176	Historic Pit	Chapter 6	N184-186/E256-258
177	Historic Pit	Chapter 6	N190/E254
178	Midden Filled Depression	Chapter 6	N186-190/E250-258
179	Historic Pit	Chapter 6	N244/E232-234
180	WPA Trench		N242-248/E244-246
181	Recent Pit		N242-246/E238-242
182	Midden Lens	Chapter 6	N182-184/E194
183	Hearth	Chapter 6	N234/E212-214
184	Hearth	Chapters 5 and 6	N236-238/E206-208
185	Ditch Midden Deposit	Chapters 4 and 6	N164-174/E202-220
186	Ash Lens	Chapter 6	N188/E196
187	Ditch Midden Deposit	Chapters 4 and 6	N220-226/E270-276
188	Ditch Drain	Chapters 4 and 6	Ditch (See Figure 6A)
189	Palisade Trench	Chapter 4	Ditch (See Figure 47)
190	Cherokee Pit	Chapter 7	N178-180/E318-322
191	Chimney Base	Chapters 5 and 6	N192-194/E204-206
192	Chimney Base	Chapters 5 and 6	N196-198/E204
193	Chimney Base	Chapters 5 and 6	N202-204/E202
194	Chimney Base	Chapters 5 and 6	N208-210/E200-202
195	Chimney Base	Chapters 5 and 6	N206/E198-200
196	Number initially assigned to Structure 17		Structure 17
197	Recent Pit		N240/E192-194
198	Sill Molds	Chapter 6	N238-240/El90-l92
199	Clay Lens	Chapter 6	N238-240/E192-194
200	Sill Mold	Chapter 5	N238/E202
201	Historic Pit	Chapter 6	N240/E194
202	Hearth	Chapters 5 and 6	N248/E192-194
203	Historic Pit	Chapter 6	N240-242/E186-188
204	Historic Pit	Chapter 6	N244/E186
205	Burned Wood	Chapter 6	N248/E184
206	Rock Cluster	Chapter 6	N244-246/E192-194
207	Recent Pit		N244/E194
208	Historic Pit	Chapters 5 and 6	N242-244/E194-196
209	Historic Pit	Chapters 5 and 6	N244/E192
210	Historic Pit	Chapters 5 and 6	N244/E190
211	Historic Pit	Chapters 5 and 6	N244/E196
212	Midden Deposit	Chapter 6	N224-226/E232
213	Palisade Trench	Chapter 4	N224-228/E282-288
214	Number not assigned		
215	Number not assigned		
216	Cherokee Burial	Chapter 7	N161.00/E311.40
217	Prehistoric Pit		N160.50/F309.90
218	Cherokee Hearth	Chapter 7	N165.00/E310.70
219	Prehistoric Pit		N164.40/E310.10
220	Prehistoric Pit		N159.20/E311.90
221	Prehistoric Pit		N163.90/E314.30
222	Prehistoric Pit		N156.30/E301.30
223	Prehistoric Pit		N155.20/E302/50
224	Prehistoric Pit		N154.60/E304.50
225	Prehistoric Pit		N157.80/E309.10
226	Prehistoric Pit		N159.60/E310.50
227	Prehistoric Pit		N159.80/E309.50
228	Prehistoric Pit		N159.80/E305.80

Feature	Description[1]	Text[2]	Locations[3]
229	Prehistoric Pit		N162.20/E304.50
230	Prehistoric Pit		N164.00/E301.70
231	Prehistoric Pit		N163.10/E303.70
232	Prehistoric Pit		N164.40/E304.60
233	Prehistoric Pit		N177.30/E304.10
234	Prehistoric Pit		N172.10/E306.20
235	Prehistoric Pit		N163.50/E322.60
236	Prehistoric Pit		
237	Prehistoric Pit		
238	Prehistoric Pit		N170.60/E307.30
239	Prehistoric Pit		N169.70/E304.90
240	Prehistoric Pit		N170.90/E313.90
241	Prehistoric Pit		N176.10/E303.60
242	Prehistoric Pit		N177.50/E306.50
243	Prehistoric Pit		N167.50/E318.00
244	Prehistoric Pit		N168.30/E318.70
245	Prehistoric Pit		N169.30/E311.40
246	Prehistoric Pit		N168.00/E310.00
247	Prehistoric Pit		N176.30/E311.40
248	Prehistoric Pit		N175.70/E313.60
249	Prehistoric Pit		N169.30/E313.00
250	Prehistoric Pit		N152.00/E301.00
251	Prehistoric Pit		N151.10/E298.20
252	Cherokee Hearth	Chapter 7	N151.60/E301.00
253	Prehistoric Pit		N151.50/E299.90
254	Prehistoric Pit		N150.40/E299.90
255	Prehistoric Pit		
256	Prehistoric Pit		N153.70/E300.20
257	Prehistoric Pit		N150.00/E304.70
258	Prehistoric Pit		N149.20/E299.40
259	Prehistoric Pit		N150.30/E307.40
260	Cherokee Pit	Chapter 7	N154.60/E3l0.50
261	Prehistoric Pit		N154.10/E311.30
262	Prehistoric Pit		N153.00/E313.30
263	Prehistoric Pit		N154.10/E314.00
264	Prehistoric Pit		N155.90/E313.80
265	Prehistoric Pit		N153.10/E305.40
266	Prehistoric Pit		N156.10/E317.10
267	Prehistoric Pit		N154.80/E318.70
268	Prehistoric Pit		
269	Prehistoric Pit		N157.30/E321.90
270	Cherokee Pit	Chapter 7	N158.00/E320.70
271	Prehistoric Pit	Chapter 7	N156.70/E320.80
272	Prehistoric Pit		N158.70/E319.40
273	Prehistoric Pit		N161.10/E317.10
274	Prehistoric Pit		N161.10/E313.10
275	Prehistoric Pit		
276	Prehistoric Pit		
277	Prehistoric Pit		N165.50/E320.20
278	Prehistoric Pit		
279	Prehistoric Pit		N161.00/E264.10
280	Prehistoric Pit		N170.30/E273.80
281	Prehistoric Pit		N162.20/E239.60
282	Prehistoric Pit		N154.60/E239.70
283	Prehistoric Pit		
284	Prehistoric Pit		N88.90/E279.80
285	Prehistoric Pit		N83.90/E276.80
286	Prehistoric Pit		N90.00/E265.00

Feature	Description[1]	Text[2]	Locations[3]
287	Prehistoric Pit		N92.10/E276.60
288	Prehistoric Pit		N94.20/E271.30
289	Prehistoric Pit		N92.20/E265.90
290	Prehistoric Pit		N83.5O/F273.30
291	Prehistoric Pit		N81.80/F269.20
292	Prehistoric Pit		N94.80/E268.80
293	Prehistoric Pit		N76.30/E248.40
294	Prehistoric Pit		N78.10/E249.10
295	Prehistoric Pit		N74.60/E256.80
296	Prehistoric Pit		N72.80/E256.10
297	Prehistoric Pit		N86.60/E239.20
298	Prehistoric Pit		N89.80/E242.70
299	Prehistoric Pit		N90.30/E267.10
300	Prehistoric Pit		N91.60/E252.50
301	Prehistoric Pit		N100.60/E272.30
302	Prehistoric Pit		N91.20/E248.70
303	Prehistoric Pit		N120.60/E344.20
304	Prehistoric Pit		N119.60/E347.00
305	Prehistoric Pit		N113.70/E352.60
306	Prehistoric Pit		N101.00/E324.70
307	Prehistoric Pit		N109.10/E338.20
308	Prehistoric Pit		N98.30/E322.40
309	Prehistoric Pit		N97.90/E323.30
310	Prehistoric Pit		N102.40/E324.10
311	Cherokee Pit	Chapter 7	N111.60/E318.40
312	Prehistoric Pit	Chapter 7	N100.90/E321.00
313	Prehistoric Pit		N120.00/E350.30
314	Prehistoric Pit		N123.4/E344.20
314-A	Cherokee Hearth	Chapter 7	N123.40/E344.20
315	Cherokee Pit	Chapter 7	N117.00/E322.00
316	Prehistoric Pit		N126.00/E345.80
317	Cherokee Pit	Chapter 7	N107.00/E333.60
318	Cherokee Hearth	Chapter 7	N107.00/E333.60
319	Prehistoric Pit		N74.40/E287.50
320	Prehistoric Pit		N91.10/E337.50
321	Prehistoric Pit		N93.30/E340.30
322	Prehistoric Pit		N114.30/E339.30
323	Prehistoric Pit		N119.50/E330.30
324	Prehistoric Pit		N123.00/E326.60
325	Prehistoric Pit		N109.90/E331.20
326	Prehistoric Pit		N110.70/E328.40
327	Prehistoric Pit		N128.10/E344.50
328	Prehistoric Pit		N127.70/E342.90
329	Prehistoric Pit		N124.40/E340.80
330	Prehistoric Pit		N106.60/E322.50
331	Prehistoric Pit		N64.60/E268.90
332	Prehistoric Pit		N62.20/E271.90
333	Prehistoric Pit		N65.30/E274.30
334	Prehistoric Pit		N62.00/E276.40
335	Prehistoric Pit		N60.80/E277.50
336	Prehistoric Pit		N62.20/E279.30
337	Prehistoric Pit		N60.70/E279.90
338	Prehistoric Pit		N64.30/E282.60
339	Prehistoric Pit		N68.00/E280.30
340	Prehistoric Pit		N68.00/E289.90
341	Prehistoric Pit		N68.40/E290.10
342	Prehistoric Pit		N71.30/E287.50
343	Prehistoric Pit		N68.30/E295.10

Feature	Description[1]	Text[2]	Locations[3]
344	Prehistoric Pit		N68.40/E297.10
345	Prehistoric Pit		N86.70/E362.50
346	Prehistoric Pit		
347	Prehistoric Pit		
348	Prehistoric Pit		N60.50/E285.50
349	Prehistoric Pit		N93.80/E353.30
350	Prehistoric Pit		N68.50/E300.30
351	Prehistoric Pit		N69.00/E318.10
352	Cherokee Pit	Chapter 7	N78.60/E350.40
353	Prehistoric Pit		N77.50/E349.40
354	Prehistoric Pit		N85.80/E347.80
355	Prehistoric Pit		N89.10/E343.00
356	Cherokee Pit	Chapter 7	N71.00/E355.00
357	Cherokee Pit	Chapter 7	N71.60/E353.40
358	Cherokee Pit	Chapter 7	N86.00/E375.80
359	Prehistoric Pit		N90.50/E384.20
360	Prehistoric Pit		N88.90/E382.00
361	Cherokee Pit	Chapter 7	N89.20/E379.40
362	Prehistoric Pit		N83.90/E372.60
363	Prehistoric Pit		N82.30/E374.80
364	Cherokee Pit	Chapter 7	N90.80/E380.80
365	Prehistoric Pit		N75.10/E359.50
366	Prehistoric Pit		N78.30/E359.00
367	Prehistoric Pit		N84.40/E365.30
368	Prehistoric Pit		
369	Prehistoric Pit		N82.20/E366.80
370	Prehistoric Pit		N83.00/E362.80
371	Prehistoric Pit		N85.60/E369.70
372	Prehistoric Pit		
373	Prehistoric Pit		N88.70/E371.70
374	Prehistoric Pit		N78.00/E294.90
375	Cherokee Pit	Chapter 7	N101.50/E348.50
376	Cherokee Pit	Chapter 7	N68.40/E366.60
377	Prehistoric Pit		N162.40/E315.40
378	Prehistoric Pit		
379			N94.40/E384.70

Notes:
1. Type of feature.
2. Location of description in text.
3. Squares in which the feature is located or the center point of the feature.

APPENDIX 4: DEFINITIONS OF FORTIFICATION TERMS

Banquette. A continuous step or ledge at the base of a parapet on which defenders stood to fire over the top of the wall.

Bastion. A projection in the enceinte, made up of two faces and two flanks, which enabled the garrison to defend the ground adjacent to the enceinte.

Berm. A narrow, level space between the exterior slope and the scarp which functioned to prevent earth of the rampart from sliding into the ditch.

Command. The height of the parapet top (interior crest) above ground level.

Counterguard. A work made up of two faces forming a salient angle and placed before bastions or ravelins, but separated from them, to protect their faces from cannon fire.

Counterscarp. The exterior side of the ditch. The side away from the body of the place.

Covered Way. A road around a fortification between the ditch and the glacis. It was protected from enemy fire by a parapet, at the foot of which was generally a banquette enabling the coverage of the glacis with musketry. In addition to its function as an outer line of defense, it served as a place for sorties to assemble.

Cunette. A furrow located in the bottom of a dry ditch for the purpose of drainage.

Curtain. A section of a bastioned fortification that lies between two bastions.

Curtain Angle. In plan, the angle formed between the curtain and the flank.

Ditch. A wide, deep trench around a defensive work, the material from the excavation of which was used to form the ramparts. When filled with water, it was termed a moat or wet moat; otherwise it was called a ditch or dry moat.

Embrasure. An opening in a wall or parapet through which cannons were fired. The sides, generally splayed outward, were termed cheeks; the bottom was called the sole; the narrow part of the opening, the throat; and the widening, the splay.

Enceinte. The works of fortification-walls, ramparts, and parapets-that enclose a castle, fort, or fortress.

Enfilade Fire. Fire directed along the length of a ditch, parapet, wall, or the like.

Exterior Slope. A steep earth incline on the exterior side of a rampart which connects the superior slope with the ground, scarp, or berm.

Face of the Bastion. The section of any bastion between the flanked angle and the shoulder angle. In a regular bastion it was one of the two sides of the bastion which formed a salient angle pointing outwards and which was situated on the lines of defense.

Fascine. A long bundle of sticks bound together for use in revetments, in stabilizing earthworks, in filling ditches, and so on.

Flank of the Bastion. The section of the bastion lying between the face and the curtain from which the ditch in front of the adjacent curtain and the flank and face of the opposite bastion were defended.

Fort. A work established for the defense of a land or maritime frontier, of an approach to a town, or of a pass or river. Although the term originally denoted a small fortification garrisoned by troops, in North America it was used to designate virtually any establishment - civil or military - associated with protection from adversaries, regardless of whether any actual fortifications were included.

Fortification. The art of building works for defense or attack which, through their form and construction, enabled their occupants to resist assaults by superior forces for a considerable length of time.

Fraise. A row of palisades planted horizontally or obliquely in the ground at the edge of a ditch or other earthwork.

Front of a Fortification. The works - flanks, faces, curtains, and so on - associated with a single side of the polygon of fortification. Thus, one front of a bastioned fort consisted of two half bastions, a curtain, and related outworks.

Gambion. A hollow cylindrical wickerwork. Open at both ends, it was set into place and then filled with earth to form parapets, embrasure cheeks, and the like, in field works.

Gate. A main entrance in the enceinte of a castle, fort, or fortress.

Glacis. A broad, gently sloped earthwork built up outside the covered way. At the covered way it terminated against a parapet, and in the direction of the field it sloped downward until it generally blended into the natural level of the ground.

Gorge. In a bastion, the interval or space between the two curtain angles. In other works that were open at the rear it denoted the opening. In some five-sided forts the designation applied to the rear section of the enceinte.

Guardhouse. The headquarters for the daily guard; also a structure containing a guardroom for prisoners.

Guardroom. A space near the entrance of a fort where guards were stationed. Also, a room for prisoners.

Hornwork. A work made up of a bastioned front - two half bastions and a curtain - and two long sides termed branches. It functioned to enclose an area adjacent to, but not contained within, a fort or fortress.

Interior Slope. The inner side of a parapet, generally connecting, the superior slope with the banquette.

Line of Defense. The line extending from an angle in the exterior polygon of fortification, or flanked angle of the bastion, to the opposite flank. It determined the position of the face of the bastion relative to the flank which would defend it.

Loophole. A small opening in a wall or stockade through which small arms were fired.

Magazine. A place for the storage of gunpowder, arms, provisions, or goods.

Outwork. A work inside the glacis but outside the body of the place.

Palisade. A high fence, for defensive enclosure, made of poles or palings planted in the ground from six to nine inches apart.

Parade. An area, usually centrally located, where troops were assembled for drill and inspection.

Parapet. In fortification, a work of earth or masonry forming a protective wall over which defenders fired their weapons.

Picket. A pointed pole planted vertically in the ground.

Plane of the Site. The natural level or incline of the ground on which a fortification is constructed.

Postern. A passage leading from the interior of a fortification to the ditch.

Profile. The outline of a vertical section of work.

Rampart. A mass of earth formed with material excavated from the ditch to protect the enclosed area from artillery fire and to elevate defenders to a commanding position overlooking the approaches to a fort or fortress.

Ravelin. A work consisting of two faces forming a salient angle which was closed at the gorge. Ravelins were separated from the main body of the place by ditches and functioned to protect curtains.

Revetment. The facing of the sides of a ditch or parapet.

Sallyport. A passage, either open or covered, from the covered way to the country; or a passage under the rampart, usually vaulted, from the interior of a fort to the exterior, primarily to provide for sorties.

Scarp. The interior side of the ditch. It was also sometimes termed escarp.

Square Bastioned Fort. A bastioned work developed on a polygon of fortification in the form of a square.

Stockade. A defensive work-usually eight or more feet high-composed of timbers planted tightly together in the ground. Stockades were generally provided with loopholes, and since these openings were often in the upper part of the fence, banquettes or elevated walks were often necessary parts of the wall.

Superior Slope. The top surface of an earth parapet which slants downward toward the country, the slope of which is inclined sufficiently to allow defenders to cover all the ground outside the ditch.

System of Fortification. A formalized arrangement and proportioning of various elements of fortification, usually identified with the inventor of the system or with the country in which it was extensively used.

Talus. A slope the function of which is to establish equilibrium in earthworks.

Trace. The outlines of the horizontal configurations of a fortification.

Traverse. A Parapet of earth or palisades thrown across a covered way, a terreplein, or other locations of a work to prevent enfilade or reverse fire along a work.

From Robinson (1977); see also Babits and Pecoraro (2006); Mahan (1968); and Scott (1864).

APPENDIX 5: AREAS OF SELECTED FORTS

Fort		Sq. Meters[1]	Sq. Feet
Fort Michilimackinac, Michigan	Interior[2]	9,425	101,325
Fort Loudoun, Tennessee	Interior[3]	5,822	62,586
	Total[4]	10,989	118,131
Fort Stanwix, New York	Interior[4]	4,358	46,848
	Total[5]	14,372	154,496
Fort Toulouse, Alabama	Interior[6]	4,176	44,893
	Totals[6]	8,178	87,920
Fort Ligonier, Pennsylvania	Interior[7]	2,018	21,701
	Total[8]	13,613	146,348
Fort Loudoun, Pennsylvania	Interior[9]	1,518	16,318
Fort Prince George, South Carolina	Interior[10]	1,124	12,083
	Total[11]	3,443	37,018

Notes:
1. 1.0 square meter 10.75 square feet.
2. Scaled from Fort Michilimackinac Master Map by John Shimnin. Map provided by Donald P. Heldman, Mackinac Island State Park Commission.
3. Scaled from Figure 6A, this volume. Exterior areas include the west, south and east ditchs and parapets, the parapet on the north side of the fort, and ravelins Lyttelton. It also does not include the southeast ditch extension or Fort Glen.
4. Scaled from Hanson and Hsu (1975:Figure 10). Scaled along the interior of the rampart.
5. Scaled from Hanson and Hsu (1975:Figure 10). Scaled along line between covered way and parapet and includes redout and ravelin.
6. Scaled from Heldman (1973: Map 4).
7. Scaled from Grimm (1970:Plate 2).
8. Scaled frotn Stotz (1974:Figure 12). Scaled along retrenchment line, and includes east and west batteries, but not the detached batteries to the east of the retrenchment.
9. Scaled from The Archaeological Plan of Fort Loudoun, Pennsylvania, by Mark H. Denton. Map provided by Steven G. Warfel, Pennsylvania Historical and Museums Commission.
10. Scaled from The Archaeological Plan of Fort Prince George, South Carolina, Appendix 1, this volume. Scaled around interior of palisade. Map provided by Robert L. Stevenson, Institute of Archaeology and Anthropology, University of South Carolina.
11. Scaled from The Archaeological Plan of Fort Prince George, South Carolina. Appendix 1, this volume. Scaled around outer edge of ditch.

APPENDIX 6: SQUARES USED FOR DEFENSIVE WORKS ARTIFACT TABULATIONS

Ravelins

N232/E266
N232/E272
N232/E278
N232/E282
N232/E284
N232/E290
N234/E282
N238/E282
N240/E282

West Ditch

N236/El52
N236/El54
N238/El52
N240/E148
N240/El50
N240/El52
N242/El48
N242/El50
N245/E148
N254/El47

West Parapet

N240/El56
N240/E162

North Ditch

N258/E212

Northeast Parapet

N258/E254

East Ditch

N186/E288
N186/E290
N186/E292
N188/E288
N188/E290
N188/E292
N190/E286
N190/E288

East Ditch (cont'd)

N190/E290
N190/E292

East Parapet

N186/E286
N188/E278
N188/E280
N188/E282
N188/E284
N188/E286
N190/E280
N190/E282
N190/E284

South Ditch

N164/E280
N164/E282
N165/E294
N166/E278
N166/E280
N166/E282
N167/E273
N167/E294
N168/E274
N168/E278
N168/E280
N168/E282
N170/E273
N170/E278
N170/E280

South Parapet

N172/E280
N174/E280
N176/E280
N178/E280

Fort Glen Squares

N188/E296
N188/E298
N198/E298
N198/E300
N200/E296
N200/E298
N200/E300
N200/E306
N202/E306
N204/E306
N208/E308
N208/E310
N208/E312
N210/E310
N210/E312
N210/E314
N210/E316
N212/E308
N212/E310
N212/E312
N212/E314
N212/E316
N214/E306
N214/E308
N214/E310
N214/E312
N214/E314
N214/E316
N216/E206
N216/E208
N216/E210
N218/E308
N218/E310

Note: Ft. Glen squares do not include those excavated in the slough.

APPENDIX 7: SQUARES USED FOR STRUCTURE ARTIFACT TABULATIONS

Structure 1
N186/E272
N186/E274
N188/E270
N188/E272
N188/E274
N188/E276
Nl90/E270
Nl90/E272
Nl90/E274
N192/E268
N192/E270
N192/E272
N194/E266
N194/E268
N194/E270
N194/E272
N196/E266
N196/E268
N196/E270

Structure 2

N186/E262
N186/E264
N186/E266
N186/E268
N186/E270
N188/E260
N188/E262
N188/E264
N188/E266
N188/E268
Nl90/E260
Nl90/E262
Nl90/E264
Nl90/E266
Nl90/E268
N192/E262
N192/E264
N192/E266
N194/E262
N194/E264

Structure 3
N180/E260
N180/E262
N180/E264
N182/E260
N182/E262
N182/E264
N184/E260
N184/E262
N184/E264

Structure 4

N230/E218
N230/E220
N232/E216
N232/E218
N232/E220
N232/E222
N234/E216
N234/E218
N234/E220
N234/E222

Structure 5

N198/E262
N198/E264
N198/E266
N198/E268
N200/E262
N200/E264
N200/E266
N200/E268
N202/E260
N202/E262
N202/E264
N202/E266
N202/E268
N204/E260
N204/E262
N204/E264
N204/E266
N206/E258

Structure 5 (Cont'd)
N206/E260
N206/E262
N206/E264
N208/E258
N208/E260
N208/E262
N208/E264
N210/E258
N210/E260
N210/E262

Structure 6

N200/E248
N200/E250
N200/E252
N200/E254
N202/E248
N202/E250
N202/E252
N202/E254
N204/E246
N204/E248
N204/E250
N204/E252
N204/E254
N206/E246
N206/E248
N206/E250
N206/E252
N206/E254
N208/E248
N208/E250
N208/E252
N208/E254
N210/E248
N210/E250
N210/E252
N212/E248
N212/E250
N212/E252

Structure 7

N214/E192
N214/E194
N214/E196
N216/E192
N216/E194
N216/E196
N218/E192
N218/E194
N218/E196

Structure 8

N212/E180
N212/E182
N212/E184
N212/E186
N214/E180
N214/E182
N214/E184
N214/E186
N216/E180
N216/E182
N216/E184
N216/E186

Structure 9

N224/E174
N224/E176
N224/E178[1]
N226/E174
N226/E176
N226/E178
N228/E176
N228/E178

Structure 10

N222/E190
N222/E192
N222/E194
N224/E190

Structure 10 (cont'd)

N224/E192
N224/E194
N226/El90
N226/E192
N226/E194

Structure 11

N218/E182

N220/E178
N220/E180
N220/E182
N222/E176
N222/E178
N222/E180
N224/E178[2]
N224/E180

Structure 12

N244/E194

N246/El90
N246/E192
N246/E194
N246/E196
N248/El90
N248/E192
N248/E194
N248/E196

Structure 13

N222/E234
N222/E236
N222/E238
N222/E240

Structure 13 (Cont'd)

N224/E238
N224/E240
N224/E242
N224/E244
N224/E246
N226/E234
N226/E236
N226/E238
N226/E240
N218/E178N226/E242
N218/E180N226/E244
N226/E246
N220/E176N228/E238
N228/E240
N228/E242
N228/E244
N228/E246
N230/E240
N230/E242
N230/E244
N230/E246

Structure 14

N244/El90N186/E206[3]
N244/E192N186/E208
N188/E206[3]
N244/E196N188/E208
N188/E210
N188/E212
N188/E214
Nl90/E206[3]
Nl90/E208
Nl90/E210
Nl90/E212
Nl90/E214
N192/E208[4]
N192/E210[4]
N192/E212

Structure 15

Nl90/E228
N224/E234Nl90/E230
N224/E236

Structure 15 (cont'd)

N192/E228
N192/E230
N192/E232
N192/E234
N192/E236
N192/E238
N194/E228
N194/E230
N194/E232
N194/E234
N194/E236
N194/E238
N196/E228
N196/E230
N196/E232
N196/E234
N196/E236
N196/E238

Structure 16

N238/E230
N238/E232
N238/E234
N238/E236
N238/E238
N240/E230
N240/E232
N240/E234
N240/E236
N240/E238
N242/E230
N242/E232
N242/E234
N242/E236
N242/E238

Structure 17

N234/E194
N234/E196
N234/E198

Structure 17 (cont'd)

N234/E200
N234/E202
N234/E204
N234/E206
N236/E194
N236/E196
N236/E198
N236/E200
N236/E202
N236/E204
N236/E206
N236/E208
N238/E194
N238/E196
N238/E198
N238/E200
N238/E202
N238/E204

N240/E194

N240/E198
N240/E200
N240/E202
N240/E204
N240/E206
N240/E208

Structure 18

N234/E168
N234/E170
N234/E172
N236/E168
N236/E170

N238/E168

N238/E172
N240/E166
N240/E168(NE)

Structure 19

N230/E190
N230/E192
N230/E194
N232/E190
N232/E192
N232/E194

Structure 20

Not excavated

Structure 21

N244/E174
N244/E176
N244/E178
N238/E206N244/E180
N238/E208N246/E174
N246/E176
N240/E196N246/E178
N246/E180
N248/E174
N248/E176
N248/E178
N248/E180

Structure 22

N244/E182
N244/E184
N244/E186
N244/E188
N246/E182
N246/E184
N236/E172N246/E186
N238/E166N246/E188
N248/E182
N238/E170N248/E184
N248/E186
N248/E188

N240/E170

Structure 23

N238/E218
N238/E220
N238/E222
N238/E224
N238/E226
N238/E228
N240/E218
N240/E220
N240/E222
N240/E224
N240/E226
N240/E228
N242/E222
N242/E224
N242/E226
N242/E228

Structure 24

N186/E200
N186/E202
N186/E204
N186/E206[5]
N188/E200
N188/E202
N188/E204
N188/E206[5]
Nl90/E200
Nl90/E202
Nl90/E204
Nl90/E206[5]

Structure

N192/E204
N192/E206
N192/E208[6]

Structure (Cont'd)

N192/E2106
N194/E204
N194/E206
N194/E208
N194/E210
N196/E204
N196/E206
N196/E208
N196/E210
N198/E204
N198/E206
N198/E208
N198/E210
N200/E202
N200/E204
N200/E206
N200/E208
N220/E202
N202/E204
N202/E206
N202/E208
N204/E202
N204/E204
N204/E206
N204/E208
N206/E202
N206/E204
N206/E206
N206/E208(NE)
N208/E200
N208/E202
N208/E204
N208/E206
N210/E200
N210/E202
N210/E204
N210/E206
N212/E200
N212/E202

Structure (Cont'd)

N212/E204
N212/E206
N214/E200
N214/E202
N214/E204
N214/E206
N216/E198
N216/E200
N216/E202
N216/E204
N218/E198
N218/E200
N218/E202
N218/E204
N220/E198
N220/E200
N220/E202
N220/E204
N222/E198
N222/E200
N222/E202
N222/E204
N224/E198
N224/E200
N224/E202
N226/E196
N226/E198
N226/E200
N226/E202
N228/E196
N228/E198
N228/E200
N228/E202
N230/E196
N230/E198
N230/E200
N230/E202
N232/E196
N232/E198
N232/E200

Notes:

1. Also used for Structure 11
2. Also used for Structure 9
3. Also used for Structure 24
4. Also used for Barracks
5. Also used for Structure 14
6. Also used for Structure 14

NE Square not excavated

APPENDIX 8: POST MOLD DATA

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
3						No post
6	184.45/277.80	SQ	60x50	57	244.11	YC mot. w. loam and
7	182.20/276.40	SQ	35x35	32	244.20	Brn. loam
8	183.77/274.78	SQ	24x19	6	244.56	Brn. loam
9	186.63/273.35	SQ	23x17	9	244.53	Brn. loam
10	185.30/273.30	SQ	40x30	34	244.22	Brn. loam
13	187.31/275.60	SQ	20x15	19	244.51	Brn. loam
14	191.35/275.35	SQ	30x20	12	244.48	Brn. loam w. char.
15	190.25/275.85	SQ	18x15	9	244.51	Brn. loam
27	184.20/275.25	SQ	68x40	32	244.10	Mot. brn loam
28	185.60/275.35	SQ	50x27	28	244.21	Mot. brn. loam
30	183.70/275.50	SQ	35x25	40	244.21	Mot. brn. loam
33	197.50/245.65	SQ	33x30	37	244.01	Brn. loam
36	190.40/273.27	R	20	11	244.46	Brn. loam
37	188.70/272.73	SQ	25x14	5	244.56	Brn. loam mot. w. YC
39	187.30/272.23	R	17	38	244.20	Brn. loam
40	187.75/272.17	R	22	17	244.53	Brn. loam
42	188.15/272.58	R	15	5	244.55	Brn. loam
43	187.35/272.22	R	15	5	244.55	Brn. loam mot. w. YC
44	189.95/272.17	SQ	26x23	5	244.56	Brn. loam mot. w. YC
45	186.45/273.15	R	11	5	244.56	Brn. loam
46						No post
58	188.55/271.63	R	12	7	244.53	Brn. loam
59	188.56/271.80	R	15	9	244.51	Brn. loam mot. w. YC
60	189.10/272.15	R	15	5	244.57	Brn. loam
62	190.15/272.90	R	14	12	244.48	Brn. loam
65	197.65/267.70	OV	37x25	16	244.36	Brn. loam
66	197.37/267.45	SQ	35x33	40	244.14	Brn. loam
68	189.15/275.75	R	13	17	244.50	Brn. loam
71	183.80/273.25	R	12	15	244.30	Brn. loam mot. w. YC and char.
72	183.85/273.50	SQ	30x30	40	244.12	Brn. loam mot w. YC and char.
73	185.25/273.70	R	15	40	244.21	Brn. loam w. char.
74	184.10/273.45	R	15	6	244.45	Brn. loam w. char. and daub
75	184.05/273.70	R	10	13	244.45	Brn. loam w. char. and daub
76	183.55/273.40	R	10	4	244.48	Brn. loam w. char
77	183.20/273.50	R	12	25	244.26	Brn. loam w. char and daub

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
78	183.45/273.87	R	11	9	244.46	Brn. loam
79	183.18/273.85	R	13	12	244.39	Brn. loam
80	183.93/274.50	R	12	13	244.43	Brn. loam w. char.
81	184.72/274.20	R	21	33	244.29	Brn. loam mot. w. CC and char.
82	185.90/273.84	R	17	40	244.27	Brn. loam w. char.
83	185.18/274.43	R	11	23	244.33	Brn. loam mot. w. CC and char.
84	185.68/272.87	R	29	22	244.39	Previously excavated
85	187.70/276.50	SQ	20x20	20	244.48	Brn. loam w. char. and daub
87	186.40/268.30	R	20	26	244.33	Brn. loam mot. w. YC
92	185.22/266.40	OV	30x22	25	244.36	YC mot. w. brn. loam
93	186.20/264/90	R	16	7	244.43	Brn. loam w. char.
94	186.00/264.95	R	13	10	244.48	Brn. loam
99	185.80/266.70	R	18	20	244.39	Brn. loam
100	186.50/266.85	R	14	7	244.47	YC mot. w. brn. loam
101	187.60/271.43	SQ	20x17	10	244.50	Brn. loam mot. w. YC
102	186.95/271.70	SQ	29x26	24	244.39	Brn. loam mot. w. YC
103	185.95/265.95	SQ	39x30	22	244.37	Grey loam
105	186.30/277.50	SQ	24x15	35	244.31	Brn. loam
106	187.65/277.45	SQ	34x25	22	244.28	Brn. loam mot. w. YC and char.
107	186.10/175.75	R	20	5	244.19	Brn. loam mot. w. YC and char.
109	184.50/274.65	R	13	ND	ND	ND
110						No post
111	185.60/271.50	R	27x20	8	244.54	Brn. loam
112	184.50/274.65	R	15	ND	ND	ND
113	183.37/277.75	R	18	10	244.36	Brn. loam and clay w. char.
114	183.07/278.21	R	17	35	244.12	Brn. loam and clay w. char.
115	182.55/279.36	SQ	28x20	7	244.34	Brn. loam mot w. YC and char
116	182.20/279.15	SQ	57x35	30	244.30	Brn. Loam
117	182.24/279.69	R	18	32	244.12	Brn. Loam mot. w. YC and char
118	181.90/280.09	R	17	7	244.40	Brn. Loam and clay w. char
119	181.86/280.49	R	38	35	244.30	Brn. Loam
120	182 05/279.50	R	15	ND	ND	ND
121	182.15/279.60	R	7	ND	ND	ND

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
122	183.20/279.45	R	20	17	244.52	Brn. Loam
123	181.50/278.15	R	30	17	244.47	Blk. Loam
124	184.90/278.00	SQ	30x20	42	244.10	Brn. Loam
125	184.75/277.65	R	22	23	244.30	Brn. Loam
126	185.32/277.76	R	15	ND	ND	ND
127	185.50/277.90	R	10	ND	ND	Not excavated
128	185.75/277.75	R	11	ND	ND	Not excavated
129	185.65/277.95	R	10	ND	ND	Not excavated
130	181.35/276.30	R	15	30	244.21	Brn. loam
131	181.30/275.55	R	13	5	244.52	Brn. Loam
133						No post
135	181.80/266.76	SQ	28x23	11	244.50	RC w. char.
137	181.65/267.20	OV	48x27	8	244.53	Brn. Loam mot. w. YC
140	184.23/274.10	R	10	3	244.45	Brn. Loam
146	186.05/267.65	SQ	50x45	ND	ND	Not excavated
147						No post
148						No post
149	189.90/276.00	SQ	25x18	8	244.59	Brn. mot. Loam
150	183.68/276.64	R	22	4	244.39	Brn. Loam and clay
151	185.45/266.70	R	15	ND	244.50	ND
152	181.25/273.10	R	17	ND	ND	Brn. Loam
153	181.25/272.55	R	20	ND	ND	Not excavated
154	181.15/271.20	R	17	ND	ND	Not excavated
155	181.15/271.30	R	18	ND	ND	Not excavated
156	181.35/269.86	R	13	ND	ND	Not excavated
157	181.85/269.40	R	13	ND	ND	Not excavated
158	181.35/269.50	R	26	ND	ND	Not excavated
159	181.37/269.00	R	17	ND	ND	Not excavated
160	181.35/268.45	R	20	ND	ND	Not excavated
161						No post
162	185.36/271.69	SQ	19x17	17	244.32	Brn. Loam w. char.
163						No post
164	181.97/268.87	OV	25x15	5	244.52	Blk. Loam w. char. and daub
165	182.75/276.00	SQ	40x30	14	244.34	Brn. Loam
169	182.35/273.10	R	10	15	244.32	Brn. Loam mot. w. char. and daub
170	194.35/257.25	R	25	ND	ND	Not excavated
171	202.70/258.90	SQ	55x40	ND	ND	Not excavated
175	187.70/276.50	SQ	23x15	5	244.63	Brn. Loam mot. w. YC
176	189.50/276.37	R	20	10	244.54	Brn. Loam
177	188.80/276.83	R	20	7	244.59	Brn. Loam
178						No post

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
180	188.80/276.18	SQ	18x18	8	244.63	Blk. Loam
181	188.50/276.17	R	37	14	244.50	Blk. Loam mot. w. YC
182	187.50/275.50	R	16	ND	ND	Not excavated
183	187.65/275.93	R	13	ND	ND	Not excavated
184	187.65/275.80	R	19	ND	ND	Not excavated
185	193.25/267.45	R	32	37	243.90	Brn. Loam w. RC and
194						No post
195	186.45/272.70	R	12	3	244.57	Brn. Loam
207	186.88/265.10	R	19	2	244.22	Brn. Loam mot. w. YC
221	186.70/267.46	SQ	47x42	27	244.22	Brn. Loam w. LS rocks
224						No post
225	198.82/269.20	SQ	40x30	35	244.01	Blk. loam mot. w. YC
226						Modern post
227						Modern post
228	198.85/210.63	R	25	ND	ND	Not excavated
229						Modern post
230	213.45/244.25	SQ	27x20	ND	ND	Not excavated
231	212.40/244.35	SQ	25x25	ND	ND	Not excavated
232	212.80/250.50	SQ	25x23	ND	ND	Not excavated
233	210.50/250.30	R	25	ND	ND	Not excavated
234						No post
235	196.70/203.95	R	25	ND	ND	Not excavated
251	196.45/201.75	SQ	20x19	6	244.88	ND
254						Modern post
255	188.60/196.10	R	20	8	244.39	Brn. mot. clay
268						No post
280						No post
281						No post
284						No post
286	204.70/195.30	SQ	20x15	ND	ND	Not excavated
287						No post
289						No post
292	216.49/190.72	SQ	14x7	17	246.23	Brn. loam
293	216.75/190.70	SQ	40x32	17	246.27	Brn. loam w. char. and ash
294	215.70/188.90	OV	15x13	7	246.26	Brn. Loam mot. w. clay and rock
295	214.91/191.80	SQ	15x20	33	246.03	Brn. Loam mot. w. RC
296	215.35/191.25	R	10	6	246.32	Brn. clay w. char.
297						No post
298	213.35/197.65	SQ	17x17	13	246.44	Brn. Loam
299						No post
300	208.00/201.48	R	24	18	245.78	Brn. Loam

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
301	219.35/191.65	SQ	35x22	6	246.73	Brn. sandy clay
302	202.40/204.30	R	10	23	245.31	Brn. Loam and RC w. char.
303	207.51/200.10	OV	30x20	18	245.72	Brn. clay w. char.
304	206.90/200.78	SQ	40x25	40	245.47	Brn. clay w. char. and daub
305						No post
306						No post
310						No post
311	214.77/199.34	SQ	18x13	8	246.77	Brn. Loam
312						No post
313	215.65/199.40	SQ	25x20	14	246.82	Brn. Loam mot. w. RC and char.
314	215.74/198.21	SQ	16x13	10	246.80	Brn. sandy loam
315	219.67/197.78	SQ	18x18	12	247.29	Brn. Loam mot. w. RC
316	200.42/194.70	R	18	20	244.73	Brn. loam
317						No post
318	213.07/199.98	R	22	10	246.52	Tan sandy loam and RC w. char.
319	216.65/191.20	1	25x20	ND	ND	ND
322					ND	No post
323	200.41/201.52	R	16	23	245.14	Brn. loam mot. w. CC
331	221.01/184.60	R	21	9	247.21	Sandy loam w. rock
332						No post
333	202.50/201.38	R	12	3	245.41	Brn. Loam
334	202.55/200.80	R	7	15	245.18	Brn. loam w. char.
335						No post
336	218.35/183.05	SQ	30x23	9	247.18	Brn. loam
337	221.82/179.47	OV	28x12	6	248.16	Brn. sandy clay mot. w. CC
339	223.74/183.36	R	20	20	247.69	Brn. loam
345	222.45/176.30	SQ	24x20	10	248.75	Mot. CC and BRNC w. char
346	219.75/177.40	SQ	23x20	10	248.08	Mot. CC and BRNC w. rocks
347	219.08/177.75	SQ	22x20	10	247.87	Mot. CC
348						No post
349						No post
350	222.12/175.90	SQ	25x23	12	248.67	Mot. CC and BRNC
352	222.54/192.25	R	12	4	247.40	Mot. CC and BRNC
353	225.95/184.48	R	30	51	247.60	CC mot. w. brn. loam
354	222.50/197.17	SQ	24x23	10	247.74	Yellow clay
355	222.26/196.34	SQ	13x12	14	247.64	Brn. clay

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
356						No post
357	225.66/189.76	R	26	14	247.08	Brn. sandy loam and YC
358	231.10/188.10	R	25	ND	ND	ND
359						No post
360	231.20/182.40	R	10	ND	ND	Not excavated
361	231.20/182.35	R	10	8	248.93	Brn. Loam
362	231.45/182.45	R	12	6	248.98	Brn. Loam
363	232.90/180.60	OV	35x30	ND	ND	Not excavated
364						No post
365	230.26/179.35	R	14	38	249.20	Brn. Loam
366	222.55/192.30	R	30	8	247.37	Brn. Loam
369						No post
370						No post
371	226.35/180.55	R	18	10	248.74	Brn. Loam w. char.
372	246.15/163.30	SQ	60x40	ND	ND	Not excavated
373	231.85/172.53	SQ	22x21	3	251.26	CC w. rocks and tan
383	228.60/180.10	SQ	20x15	10	249.13	Brn. Loam w. char.
384						No post
388	248.40/168.70	R	55x49	30	252.59	PM: CC
		SQ	20x20			P: Brn. Loam w.
389	242.75/164.95	OV	53x40	40	253.11	PM: Brn. mot. clay
		SQ	15x15			P: Brn. clay w. char.
392						No post
393						No post
394	223.90/195.25	SQ	20x17	16	247.59	Brn. loam w. char.
395	216.20/180.15	R	33	13	246.54	Mot. RC
396	248.05/171.30	SQ	20x25	20	252.32	RC mot. w. brn. loam
397	248.05/171.95	SQ	25x25	7	252.33	RC mot. w. grey loam
400						No post
401						No post
402						No post
403	225.25/177.00	SQ	8x8	13	249.14	Brn. loam
406	215.10/179.15	R	25	20	246.37	Orange gravelly clay
408	234.25/188.25	R	17	ND	ND	Not excavated
409	234.75/187.30	SQ	22x12	ND	ND	Not excavated
413	248.90/176.45	SQ	25x23	15	251.53	Grey loam mot. w. OC
415						No post
418						No post
419						No post
420	231.61/172.81	OV	20x17	7	251.13	RC w. LS
421	236.44/193.30	OV	22x18	14	250.05	Brn. sandy loam w. char.
422	222.20/199.50	SQ	45x30	ND	ND	Not excavated

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
423	232.33/172.87	R	14	27	251.01	Blk. loam mot. w. tan sandy clay
424						No post
425	230.78/172.07	R	10	14	251.05	Brn. sandy loam
426						No post
427	231.73/171.57	R	8	15	251.26	Brn. sandy loam mot. w. tan sandy clay
428	249.35/161.10	SQ	76x72	40	253.71	RC mot. w. brn. Loam
429						No post
430	235.25/171.80	R	15	16	251.67	RC w. LS
431	244.67/168.25	SQ	30x20	22	252.81	OC mot. w. tan clay
432						No post
434	216.40/248.35	R	25	ND	ND	Not excavated
435	214.95/250.90	R	40	ND	ND	Not excavated
438	212.50/242.05	SQ	25x20	ND	ND	Not excavated
439	205.60/245.95	SQ	24x28	28	244.13	YC mot. w. brn. loam
440	239.25/187.40	OV	35x40	ND	ND	Not excavated
441	239.70/186.90	OV	35x25	ND	ND	Not excavated
442						No post
443	218.45/181.50	SQ	35x18	13	247.16	CC and brn. sand clay
444						No post
455						No post
458						No post
462	239.90/193.00	SQ	15x12	6	250.43	OC mot. w. grey clay and char.
465						No post
466						No post
468	197.75/214.65	R	30	ND	ND	Not excavated
469						No post
474	199.25/243.10	R	28	18	244.05	Brn. Loam
475						No post
476						No post
477	189.10/228.50	SQ	20x15	ND	ND	Not excavated
478	189.30/229.75	SQ	35x10	ND	ND	Not excavated
479	187.90/228.90	SQ	20x8	ND	ND	Not excavated
480	188.00/230.15	SQ	30x25	ND	ND	Not excavated
481	188.00/231.45	R	35	ND	ND	Not excavated
482	189.60/230.80	R	20	ND	ND	Not excavated
483						No post
484	191.70/251.65	R	25	ND	ND	Not excavated
485	191.40/251.85	SQ	35x30	ND	ND	Not excavated
486						No post
488	191.10/237.20	R	20	ND	ND	Not excavated

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
489	184.65/253.50	SQ	20x17	9	244.29	Red clay
490	187.50/216.40	R	30	ND	ND	Not excavated
491						No post
492	185.15/251.75	SQ	30x30	ND	ND	Not excavated
493	184.25/250.50	SQ	25x20	ND	ND	Not excavated
496	197.50/239.30	SQ	30x30	15	244.06	OC, brn. Loam and char
497	196.38/239.80	R	20	ND	ND	Not excavated
498						No post
499						No post
500	186.04/224.20	SQ	23x10	7	243.80	Brn. Loam
501	185.40/221.35	SQ	24x9	8	243.73	Brn. Loam
502	185.25/221.55	SQ	21x8	5	243.72	Brn. Loam and char.
504						No post
505	207.70/221.85	SQ	32x20	21	245.00	Brn. Loam mot. w. RC and char
506	210.40/223.30	SQ	30x30	ND	ND	Not excavated
507	210.60/222.50	SQ	40x35	ND	ND	Brn. Loam
508	207.15/220.98	SQ	45x30	14	245.05	Brn. Loam mot. w. OC and char.
511	209.60/220.80	SQ	39x29	18	245.25	Brn. Loam w. char.
513	198.70/242.47	SQ	33x22	23	244.01	Brn. sandy loam w. char.
514	195.33/242.55	R	28	10	243.99	Brn. Loam
516	198.35/242.50	R	45	21	243.47	Blk. sandy loam
518	209.77/218.19	SQ	15x15	6	245.53	Grey-brn. loam
519						No post
520	210.47/219.80	SQ	32x20	6	245.53	Brn. loam
521						No post
522						No post
523	196.90/232.70	SQ	25x12	18	244.05	Brn. loam w. char.
524						No post
525	187.50/241.35	SQ	35x25	16	243.98	Mot. sandy clay w. char.
526						No post
527						No post
528						No post
529	187.50/240.00	SQ	21x20	13	244.01	Blk. loam w. char.
530	187.15/239.75	SQ	26x21	30	243.87	Brn. loam
531						No post
532	185.15/240.15	SQ	20x20	10	244.13	Grey loam w. char.
533	183.15/242.00	SQ	43x38	28	243.99	Brn. loam mot. w. YC
534						No post
535	183.25/240.50	SQ	45x30	40	243.86	PM: Brn. loam mot. w. BRNC
		R	20			P: Brn. sandy loam

No.	Location	Shape	Size (cm.)	Depth (cm.)	Base Elev. (MAMSL)	Fill/Note
536						No post
537						No post
538						No post
539	182./238.	R	15	ND	ND	No post
540						No post
541	254.15/246.45	R	20	ND	ND	Not excavated
542						No post
543						Modern post
546	176.20/194.00	SQ	47x44	13	243.11	Mot. brn. loam
547	176.65/195.15	SQ	35x33	150	243.19	Brn. loam mot. w. YC
548	178.35/195.10	I	35x20	ND	ND	Not excavated
549	208.75/259.10	SQ	43x36	42	243.99	Brn. loam, yellow and red sandy clay
550	188.75/227.40	SQ	37x32	ND	243.49	No post
551	188.20/227.55	R	50	18	243.37	Brn. loam
552						No post
553	240.45/192.25	SQ	12x7	7	250.44	Brn. loam mot. w. clay
554	240.40/192.45	SQ	lOx9	6	250.45	Brn. loam mot. w. clay
555	240.40/192.70	SQ	16x15	8	250.43	Brn. loam mot. w. clay
556	241.93/193.07	SQ	13x13	30	251.50	Brn. sandy clay mot. w. CC
559	240.45/186.00	R	12	ND	ND	Not excavated
560	240.25/187.80	R	10	ND	ND	Not excavated
561						No post
562	243.85/186.20	R	15	ND	ND	Not excavated
563						No post
568						No post
575						No post
579						No post
580						No post
581						No post
582	248.85/193.80	SQ	23x23	13	251.01	OC mot. w. brn. loam
583	248.86/184.80	R	10	8	250.79	CC mot. w. grey loam
607	245.26/190.24	OV	11x10	8	250.84	Brn. loam w. RC and char.
608	246.75/190.60	OV	35x14	15	251.12	RC and rock
609						No post
610						No post

Abbreviations: Blk.=Black; Brn.=Brown; BRNC=Brown Clay; Char.=Charcoal; Def.=Defined; Elev.=Elevation; I=Irregular; LS=Limestone; MAMSL=Meters above mean sea level; Mot.=Mottled; ND=No Data; CC=Orange Clay; OV=Oval; P=Post; PM=Postmold; R=Round; RC=Red Clay; SQ=Square; YC=Yellow Clay

APPENDIX 9: INDIAN TRADE GOODS LIST

Kitchen and Culinary Items[1]	**Source**
Brass Kettles, different assortments	5, 8, 10
Brass Kettles, of all sizes	13
Brass Kettles, or various sizes from 2 quarts to 4 gallons	10
Brass Kettle wt. 4 - 1/2	17
Small Brass Kettles (not above 3 lb. weight each, or 2 gallons) (light___and large wire bales	1, 2
Light Brass Kettles without handles	11
Egg Boxes	13
Glass Tumblers - with figures of flowers, vines, etc. 2 sizes	7
Runlets, 3 gallon, 2 gallon, 3 quart, 2 quart	13
Barrel Boxes	13
Spoons	13
Food Items and Spirits	
Salt	12, 17
Sugar, Brown (Kegs of)	13
Brandy, English	13
Waters, White or Red	13
Rum (Kegs of 4 Gallons), (Gallon of)	14, 17
Knives	
Knives	13-17
Clasp Knives	1
Clasp Knives Buckhorn Handles (cost 3/6 per doz. in England)	2
Buckhandle Clasp Knives	7
Large Knives	14
Spotted Horn Spring Knives	5, 8
Large Spotted Horn Spring Knives	5, 8, 11
Small Spotted Horn Spring Knives	8
Box handled long fish knives, sharp pointed	7
Large Slope Point Knives	5, 8
Large Slope Point Knives in Sheath	5, 8
Split Bone Handle Indian Knives	3
Pen Knives	7
Scalping or Dutch Knives (to be had in New York, cost 6/3 per doz.)	2
Cutteau Knives	17
Axes and Hatchets	
Axes (to pattern)	6
Pipe Hatchets	4, 15
Pipe Hatchets (to pattern and neat)	6
Helved Pipe Hatchets	4
Hatchet with a brass pipe at the top	14
Hatchets	13, 14, 15, 17
Helved Hatchets	4, 8
Hatchets (common pattern for the Indians)	7
Oval Eyed Hatchet	11
Hatchet - common small size - larger as in size	12
War Hatchets	14
Common Tomahawks	1
Plain Tomahawks (of such as are made by Baker at Winchester of pattern he makes them at 10/- currency cost 4/6 in England)	2
Pipe Tomahawks	1

Agricultural Tools

Broad Hoes	11, 12

Miscellaneous Tools

Awls	15
Awl Blades	7, 13
Indian Awl Blades	6
Common Steel to strike fire with	7
Common Steel Tongs for striking fire	7
Fire Steels	13
Fire Flints	13
Burning Glasses	13
Burning Glasses for kindling fire	7
Ice Chisels	13
Files, Large Flat	13
Scrapers	13
Padlocks	14

Measuring Instruments

Small brass scales and metal weights sufficient for weighing a buckskin, etc.	7

Raw Manufacturing Materials

Brass Wire - sorted	7, 11
Bar Lead	4
Small Bars of Lead	5
Brass Wire (of different sizes none very small)	6

Weaponry

Guns	15, 16, 17
Guns, 4 foot	13
Guns, 3-1/2 foot	13
Guns, 3 foot	13
Trading Guns, Indian Trading Guns	14, 17
Indian Small Arms (cost 15/ or 16/Shg in England	2
Neat Indian Guns	5
Indian Guns of a Neater Sort	5
Neat Fowling Pieces	5
Neat Fowling Pieces of a better sort for the Chiefs	5, 8
Neat Fowling Pieces in list cases	8
Arms better than the Trading ones (4 ft. long at 14/- or 15/)	7
Arms of a better sort (at about 20/-)	7
Arms of a better sort (at about 35/ or 40/) same bore and good stocks	7
Arms of the common sort (3 ft. long for boys at 10/-) The above four groups of guns are to be: All light, the barrel blue, and to have a mark of distinction on both the barrel and the lock viz. Hand-in-Hand. Wilson best maker	7
Pistols	13
Guns and Pistols made by Wilson	6
Pairs of Pistols (with ramrods) same bore in the best Arms and same mark. Low price about 20/-	7
Gun Hammers	4, 8, 10
Bayonets	13
Gunworms	13
Flints (gun) (small bags of)	1, 4, 14-17
Gunflint	8
Bullet Molds (for the best sorts of arms)	7
Bullets	1, 14-17
Trading Bullets	17

Casks of bullets	10
Lead	17
Casks of Lead	10
Black Lead	13
Shot	13, 14
Shot (both duck and goose)	6
Goose or Turkey Shot	7
Duck or Turkey Shot	7
Powder	13, 14, 15
Gunpowder	1, 15, 16, 17
Barrels of Gunpowder (100 wt/each probably)	10
Whole Barrels of Gunpowder	8
Half Barrels of Gunpowder	8
Quarter Barrels of Gunpowder	8
Powder Horns	13
Cutlasses	15
Hangers or Cutlasses (with strong Lymonater blades)	7
Red Handle Cutlasses	11
Sword	14
Sword Blades	13

Equestrian Items

Saddles with bridles and girths (at about 20/-)	7
Bridle	12
Ordinary Hunting Saddles	11
Women's Saddles	11
Large Horse Scissors	11

Clothing Items

Leather Belts	11, 1 2
Buckles	15
Sleeve Buckles	11
Silver Buckles	15
Buttons, Coat	13
Buttons, Waistcoat	13
Trimmings and buttons	11
Breech Cloths (made of blue stroud cloth)	2
Blue stroud breech cloths 3/8 yd. each	1
Red Leather Girdles	7
Stockings (Stockens)	4, 13, 15
Stockings, Different assortments	8
Worsted hose (3 girls, 3 boys, 4 women, 5 men)	10
May ? thread hose (3 girls, 3 boys, 4 women, 5 men)	10
Women and Children Yarn Hose (different in color and clocks)	6
Worsted Hose (Clocket Scarlet, deep blue and green)	6
Frock coats of cheap Scarlet cloth (except 10 of Complet) with blue close cuff and collars to be laced with cheap lace one half gold with yellow buttons and the other half silver with white buttons - not scanty	7
Frock coats of cheap blue cloth (except 10 of Complet) with scarlet close cuffs and collars (without lace). 1/2 yellow and 1/2 white buttons - not scanty	7
Waistcoats of cheap Scarlet blue and green. Laced with cheap gaudy lace	7

Laced coat	14
Coats laced and Embroidered	11
Match coat	14, 17
Match Coats (of blue Stroud cloth)	10, 2
Blue Stroud Match coats	1
(match coats robed with bed lace)	2
Blue Cloth Coats with red Lining and Mettle Buttons laced with cheap Lace	6
Wrapper (to be made from striped Linsey, Colored bay, red bay, white bay)	8, 3
Yarn Gloves	13
Handkerchiefs	13
Silk handkerchief	12
Romat or Linen Handkerchief	12
Hats	15
Felt Hats	8, 10
Men's Trimmed Hats	5, 8
Hats, Laced	13
Men's hats laced with tinsel	5, 8
Men's hats laced with broad gold lace	5, 8
Hat - common felt	12
Hats gold tinsel	10
Hats silver tinsel	10
Hats at about 8/- to be laced with a gaudy broad tinsel lace 1/2 gold and 1/2 silver	7
Hats for boys about 4/- to be laced with narrow tinsel lace	7
Castor hats (different sizes laced with broad scalloped and some plain cheap lace)	6
Legging of halfthicks	1
Blue stroud leggings 5/8 yd. each	1, 2
Leggings (made of blue, brown, or purple, but rather brown or Ash color, 1-1/4 yd. each)	2
Breeches	15
Cargo Breeches	13
Flannel Petticoat	15
Women's Petticoat	15
Worsted sashes	13
Shirts	13-17
Ruffled Shirts	5, 11, 15
Shirts, plain	15
Shirts, plain of 3/4 garlix	1
White Shirts	8, 11, 14, 15
White shirts ruffled	8, 12
Check and Striped shirts	11, 15, 17
Super fine shirts	11
Shirts of Irish linen (not to be made up but del. 3-1/2 yards each)	1
White shirts of Scotch or Irish linen at 15/- per dozen ruffled)	7
White shirts of common garlix linen at 9/- or 10/- per dozen plain)	7
White shirts of common garlix linen for boys	7
Shoes	13, 15

Pair of shoes 12
pair of boots 14, 15

Blankets

Blankets 1, 13-17
Blankets (striped duffel twilled) 5
Common Indian blankets 6
Red striped common Indian blankets 6
Blanket of stroud cloth 2 yards 12
Blanket of striped duffel 12
Blanket of shag duffel 12
Blankets (French twilled 20 in a piece all white except a black list at each end much preferred to the Dutch 15 in a piece being light for summer use and cheaper) 2
Blankets: London striped duffels 15/- each 7
French blankets (so called being such as Alderman Baker used to send to New York) 7

Cloth

Bays, red or blue 13
Red bay for wrapper 3
Colored bay for wrapper 3
White bay for wrapper 3
Twilled bays 3

Broad cloth, red, white, or blue 13
Broad cloth, fine blue 13
Super fine scarlet broad cloth 11

Caddis 12, 17
3/4 Gross red caddis 9
14 Gross best scarlet caddis 10
Caddis, red (for their women) 1
Caddis bow dye 7

Calimancoes, Callimanco 6, 15, 17

Calicos 6, 12, 15
Calico (for a jacket and petticoat) 1
Calico 5/18 5/12 of different colors for jackets and petticoats 1/6 in England 2
Calicoes coarse - red and white gaudy flowers 7

Check [checks] 17
Check linen (7/8 or a yard wide, red and white) 7
Check with red stripes 1

Cottons 13
Welsh cottons 6
Printed cotton 11
Cottons small stripes for women's petticoats 2
Striped cotton 17
Duffels, duffells 15, 16, 17
Duffels, red, white, or blue 13
Striped duffel 5
Striped duffel twilled (for blankets) 5
Best striped duffel 8

(16 p- striped duffel for 220 blankets) 10
5 (pieces) best striped duffel twilled - 20 blankets in the piece 8

Flannel 13
Striped flannel (for a squaws petticoat) 1, 17
Striped flannel or cottons small stripes for women's petticoats 2

Garlix (or garlise) (for a shirt for his wife) (yard wide, 3/4 yard wide) 1, 6, 17
Garlin 14
Gartering 12-17
Silk gartering (by the gross) 9
Star ? Gartering (by the gross) 10
Gartering and Gimp 6
Gartering (gaudy to lace jackets) 7

Gimp 6
Yellow halfthicks or plaids ? 6
Halfthicks (blue, brown, or purple, but rather brown ar ash color for leggings 1-1/4 yd. each) 2

Ribbon 17
Ribbons of different kinds 6
3/4 inch yellow and green ribbon for binding 1
3/4 inch plain ribbon (yellow and green for binding leggings) 2
Plain single ribbon- red, blue 7
worsted binding 13
Red tape 16

Lace, broad Orris 13
Bod lace (for robing) 1
Bed lace (different colors for robing match coats) 2
Tinsel gold lace - narrow 7
Tinsel silver lace - narrow 7
Tinsel lace (Broad and narrow, white and yellow) 6
Broad scalloped gold and silver lace 6

Coarse flowered lawn 6
Striped linsey for wrapper (linsey) 5, 8
Irish linen (cost 1/6 per yard in England - for shirts at 3-1/2 yards each but not made up) 2

Striped muslin 6

Ozanabrigs [Ozanaberg] (for Shott Baggs)(yards, bolt) 17

Yard of white plains 12

Purple color rattan 6
Embroidered Serge 5, 8, 11
Embossed serges 10
Flowered Sharges 4

Strouds (pieces, yards) 15, 16, 17
Strouds: 1/5 red 4/5 blue with a worm stripe and stars on each side. Mr. Boswicke in London to be consulted whether the Indians still prefer that stripe 7

Red stroud	5, 6
Blue stroud	5, 6, 8
Black stroud	5, 6, 8
Blue strouds with white cord	6
White stroud	8
12 piece blue stroud cloth (144 match coats)	10
Blue stroud cloth (for matchcoats, leggings)	2
Fine blue strouds (also red and black)	1, 2
Fine embroidered ___ (of many colors and large figures)	3

Skins

Skins (75 skins weigh 161 Lb)	17
Deer leather for moccasins	1
Deer skin (or calves leather which will do and be as cheap for moccasins)	2

Ornamentation and Personal Adornment

Strings aggas beads	9
Bunches black and white beads	11
Strands of Barley Corn beads	12, 17
Strands of Common Beads	12, 16
Small Beads	17
White small beads	6
Beads - Mr. Boswicke in London to be consulted for the sort	7
Large milk beads of colors	13
Large milk beads of all sorts	13
Wampum (4/5 black, 1/5 white)	1
Wampum (White beads & white w. black beads)	14
Hawk bell (different sizes)	6, 7, 12, 13
Looking glasses (8/- to 10/ per doz.)	4-8, 15,16
Larger looking glasses	5,8
Looking glasses of different Kinds	6
Small Looking Glassses	11
Necklaces:	
Single strings of mock garnets two sizes not above 6/- 8/ doz. and of wax beads 4/- 6/- doz.	7
Several rows of different colored beads and of bugles upon ribbon - not above 1/- each	7
Earrings:	
Colored paste red and blue, single tops and drops set strong in pinchlock double gilt about 2/6 pair	7
Glass stuffed with silk, several Tops and drops 8/ to 1/- per pair	7
Ear bobs	17
Pr. silver earbobs	12
Silver broaches (for their women)	1
Gorgets (small half moon shape)	2
Silver Gorgets	1
Gorgets (Neat brass gilt with the King's arms)	6, 7
Brass plate	15
Arm bands	1, 15
Arm bands (thin)	2
Arm plates	14, 17
Wrist bands	1
Wrist bands with line about the edge	15
Wrist bands (thin)	2
Wrist plates	14
Hair plates	17
Enameled oval copper plates to be hung by small chains about the neck	

upon men's breast like Gorgets or battle labels, one half having the king's picture full length leaning on a cannon. etc., the other half a man of war complete under sail, with men, etc.	7
Enameled oval copper pieces to be worn like a picture on the wrist of men and fastened with a ribbon, having a Hand-in-Hand, vis. an Indians copper color in a white mans. The former naked arm the latter with a close cuff, blue sleeve and plain shirt upon the wrist.	7
Enameled copper oval pieces (for men and women having the King's, Prince of Wales Face)	7
For enameled pieces: Wilson and sons common street said to be the fittest persons for the enameled and other Birmingham ware.	7
Paint Boxes with enameled devices on the tops viz. Trees, Birds, Beasts, Fishes, Forests, etc. Looking glasses on the inside the cover hinged and the bottom divided into 3 and some 2 partitions for different paints.	7
Paint	14, 15
Box of Paint	14, 17
Pound of paint	14
Verdigreaco (whole or in lumps)	6
Vermilion Paint (measured in ounces)	1
Prussian blue	7
Vermillion	13-17
Fine Vermillion	8
Rings, plain	13
Birth stone rings	4
Rings, seal or stone	13
Rings - Metal with stones	5, 8
Rings - silver with stones of different colors - not above 8/- doz. of pinchlock with mens heads or red stones for seals set strong	7
Hair cockades, large	6
Bugle fillets for women's heads	7
Feathers, red	13
Feathers - large maybe dyed red and blue	7
Ostrich - white	7
Grooming	
Common razors	6
Combs	4, 10
Horn combs	5, 8, 15
Combs - large teeth - smaller teeth	7
Buckling combs	6
Tailoring and Sewing	
Scissors	13, 15
Scissors (for their women), cost 3/1 shg per doz. in England	1, 2, 10
Women's scissors	4
Women's pocket scissors	5, 8
Small scissors	6
Scissors - 2 sizes neater than the common sort	7
Needles	13
Brass thimbles	13
Needles (for their women)	1, 6, 12
Thread	13
6-1/2 Thread (for making the shirts, shifts, jackets and peticoats)	1
Thread (1 ounce each for making them the shirts, jackets and petticoats)	1
Thread (white and colored)	6
Thread - red, blue, white	7
Oznabrig thread (lb)	17
Twine	13

Tobacco	
Tobacco	17
Cut tobacco	4
Manufactured tobacco	5, 8
Tobacco, Brazil (leaf and roll)	13
Best Virginia cut tobacco in papers	7
Pipes	4
Boxes of pipes 12 gross each	8
Boxes of pipes 7 gross each	8
Grace pipes	4
Pipes of a better sort long, commonly called Quality Pipes (no common sort of Bristol short pipes having enough at present)	7
Pipe hatchets (without handles)	7
Pipe Hatchets	4
Helved Pipe Hatchets	4
Pipe Hatchets (to pattern and neat)	6
Pipe Tomahawks	1
Tobacco boxes	4, 13
Steel tobacco boxes	10
Single spring tobacco boxes	8
Tobacco boxes of Birmingham with enameled devices on the top of landscapes, Sea prospects, Ships, Forts, House, etc.	7
Tobacco stoppers with Men's heads at top and with inside silver tips for the stems or shanks of the long pipes - and 20 of them to have thereof an artificial loadstone.	7
Tobacco tongs	13
Entertainment Items	
Jews Harps	4
Large Jews Harps	5, 8
Jews harps - smallest brass Dutch	7
Small Jews harp of brass	6
Toys for Children of the Chiefs	
Small brass cannon 5 or 6 inches long on field carriages balance figures of men on one foot of pedestals with___ to give motion.	7
Pantines	7
Mock guns to shoot people, etc.	7
Fishing Gear	
Fish Hooks	13
Fish hooks - Kirby's. Flat heads for wire from 1 inch to 1/4 inch wide at the bent, but the greater part from 1/2 inch to 3/4 inch.	7
Net lines	13
Other	
Stillards	4, 14, 15
Hand still cards	5
Hand stillards	9
Small suits of English colors or St. George's Jacks being only a red cross and White Quarter	7
Jacks or small colors for the Indians	6
Trunks	
Red leather trunks	13

Note 1. Trade good items are arranged in approximately the same order as the artifact descriptions in Chapter 8. The original spelling, capitalization, and punctuation has been retained. Definitions for the various types of cloth are given in Appendix 10.

Sources for Trade Goods List

1. March 1757 Rewards from Virginia to Cherokees and Catawbas.

   Reward proposed to be provided at any time by the government of Virginia, and promised by his Majesty's Agent and Superintendent of Indian affairs in the Southern District of North America to one hundred Cherokees, Catawbas, or other friendly Indians coming to its assistance under his passports and conductors, to go to war at least three months (Huntington Library LO 4640).

2. October 1757 Atkin, Edmond. List of goods to be provided for one hundred Indians.

   Cover of envelope: Virginia reward and list of goods promised by Mr. Atkin to be provided by the government of Virginia for Indian Parties coming to its assistance (Huntington Library LO 4723).

3. May 20 1756 Invoice of goods for presents to the Indians in alliance with his Majesty in America shipped on board the Earl of Halifax Captain Terry for New York and Conveigned to the Earl of Loudoun Commander in Chief of his Majesty's forces in America by John Pownall (Huntington Library LO 1166).

4. November 1756 Indian goods for William Johnson for the northern and southern Indians (Huntington Library LO 1389 [A]).

5. August 1756 Indian goods at Albany Invoice of goods for Indian presents brought from England the 5th of June 1755 by Charles Hardy and now at store in Albany (Huntington Library LO 1081).

6. August 1756 William Johnson. Memorandum of Sundry Articles necessary for Indians (Huntington Library LO 1389 [A]).

7. 1757 Edmond Atkins. A list of goods proper to be sent from England to Charleston South Carolina to be given as presents from his Majesty to the Indians in the southern District, for the service of the year 1757 (Huntington Library LO 2514 [B]).

8. An invoice of goods for presents to the five nations of Indians shipped on board the Irene, Nicholas Garrison, the 8th of June by John Pownall (Huntington Library LO 1210 [B]).

9. March 1760 Miscellaneous Cherokee Supplies (Clements Library, Lyttelton Papers).

10. King's present for Indians (Clements Library, Lyttelton Papers).

11. November 1758 Invoice on General Acct. of goods shipped on board the Marietta, John Raines Master _____ to his excellency William Henry Lyttelton Esq. (Clements Library, Lyttelton Papers).

12. Standard of Trade at the several Factories of the Hudson's Bay Company subsisting this present year 1748. Report from the Committee appointed to enquire into the state and condition of the countries adjoining Hudson's Bay and the trade carried on there (Woodward 1970:116).

13. Lyttelton Papers, Clements Library.

14. South Carolina Indian Affairs Volume (McDowell 1970).

15. Account of presents to the Chickasaws of Breed Camp (McDowell 1970:445).

16. Goods supplied to Indians by Colonel Byrd (McDowell 1970:456-458).

17. Return of Indian Presents Received by Lieutenant Coytmore (McDowell 1970:483).
18. Return of Indian Presents Received by Lieutenant Coytmore (McDowell 1970:483).

APPENDIX 10: DEFINITIONS OF TEXTILE TERMS

Compiled by Jenna Tedrick Kuttruff

Bay (Baye, Baize).[1] A kind of coarse open cloth stuff (see 'stuff' below), having a long nap; sometimes friezed on one side, and sometimes not friezed, according to the uses it is intended for. This stuff is without wale, being wrought on a loom with two treddles, like flannel. Bay yarn: a denomination sometimes used promiscuously with woolen yarn (8).

Woven in England from the sixteenth century of worsted warp and woolen weft in plain weave . . .. Clothing bays were used chiefly for habits of monks and nuns and for lining soldiers' uniforms (9).

A course woolen stuff, having a long nap, now chiefly used for linings, coverings, curtains, etc., in warmer countries for articles of clothing, e.g., shirts, petticoats, ponchos; it was formerly, when made of finer and lighter texture, used as a clothing material in Britain also (4).

Originally a fabric of a finer and lighter texture than now, the manufacture of which was introduced into England in the 16th century by fugitives from France and the Netherlands (4).

An obsolete English fabric woven with a worsted warp and woolen filling, often mixed with silk (1).

A loosely woven cotton or wool fabric in a plain weave made with soft twist filling yarns and closely napped to imitate felt (1).

Plain-weave cloth of woolen yarns, piece-dyed and given a long hairy, napped finish (3).

Blanket. A white woolen cloth used for bed covers, petticoats, and heavy outer garments. Some were twilled and some were plain weave (9).

A woolen cover, soft and loosely woven, spread commonly upon a bed, over the linen sheet, for the procurement of warmth (8).

A white or undyed woolen stuff used for clothing. A large oblong sheet of soft loose woolen cloth, used for the purpose of retaining heat, chiefly as one of the principle coverings of a bed, also for throwing over a horse, and by savages or destitute persons for clothing (4).

Cloth named in honor of the man who first used it as a covering for warmth and sleeping purposes, Thomas Blanket (Blanquette). ...the cloth is made of wool, worsted, or cotton, or by combining these fibers in varying percentages in the construction.

Bed Lace (Bod Lace). Bed lace: a British term for white cotton binding which was made with a twill weave or figured (1).

Bod: this term is found in the Old Testament of the Bible and refers to fine or bleached linen fabric (3).

Bod: A Hebrew term used in the Bible for fine or white linen (1).

Caddis (Caddice, Caddiz, Cadis). In France several grades of worsted cloth were called by this name, but in England and America it generally denoted a cheap worsted tape or ribbon (9).

A kind of tape or ribbon (8).

Cotton, wool, floss silk, or the like used in padding. Worsted yarn, crewel. Caddis ribbon: A worsted tape or binding, used for garters, etc. (1751). A kind of stuff; perhaps of worsted (or silk). A course cheap serge (4).

A worsted lace, ribbon or tape. A coarse, twill weave wool, or worsted fabrics used by the Scotch Highlanders (1).

Lace, ribbon, or tape made of worsted yarns. Twill-woven woolen or worsted fabrics used by Scotch Highlanders (3).

Calimancoes (calamanco). A worsted stuff with a fine gloss on it (9).

A kind of woolen stuff (8).

A woolen stuff of Flanders, glossy on the surface, and woven with a satin twill and chequered in the warp, so that the checks are seen on one side only; much used in the 18th century (4).

16th century. A woolen textile, plain, striped or checked, and glazed. 18th century. Of single worsted, glazed (6).

Callico (Calico, callicutt). Cotton cloth of many grades and varieties first made in India and later in the West (9).

A general name for cotton cloth of all kinds imported for the east; an Indian stuff made of cotton, sometimes stained with gay and beautiful colors; subsequently, also various cotton fabrics of European manufacture (sometimes also with a linen warp). 1740: "Dressed in white cotton or calicoe." 1753: "Callicoes are of divers kinds, plain, printed, painted, stained, dyed, chints, muslins, and the like" (4).

A term for an inexpensive, brightly printed cotton cloth woven with carded yarns in a plain weave (1).

From 16th century. Originally of Indian cotton but from c. 1600 to 1773 the weft of cotton with warp of linen; since then entirely of cotton. Named from the town of Calicut on the coast of Malabar; hence sometimes known as Calicut cloth (6).

Castor (Hats). A fine hat made of the fur of a beaver (8).

A hat, originally either of beaver fur, intended to be taken as such; in the end of the 17th and the beginning of the 18th century, distinguished from 'beaver' and said to be of rabbit's fur; at that time also usually spelled 'caster.' 1750: "The manufacturers of this shire (Derby) are ...some felt, castor, and beaver hats" (4).

Castor: a heavily fulled, smoothed-finished broadcloth which gives excellent wear because of the high-quality yarn used in warp and filling. An overcoating of the formal, dressy type. Hair, sheepskin, or goatskin leather that has been suede-finished on the grain side (3).

17th century (male and female). A beaver hat, but toward the end of the century the castor was often made of other materials. "The Castor ...is made of Coney wooll and mixt with Polony wooll" (6).

Castorine: A dress fabric of wool and beaver fur made for winter wear (9).

Checks (checque, cheque). A fabric made of any fibers in plain weave with colored warp and weft stripes intersecting at right angles to form squares (9).

A pattern of cross lines forming small squares. A fabric woven or printed with such a pattern (4).

Clocks (On hose). The clock of a stocking; the flowers or inverted work about the ankle (8).

Clocked: embroidered with clocks. Clock: an ornamental pattern in silk thread worked on the side of a stocking (4).

An embroidered or knitted decoration at the ankles of hosiery (1).

16th century. A gore or triangular insertion into a garment to widen it at that point, as with collars, stockings, etc. Since the seams forming the triangular insertion began to be embroidered, the term 'clock' was transformed to this kind of embroidery, and the clocks of stockings came to means embroidery at the ankles, whether gored or not (6).

Cord. Decorative woven fabric or braid used in the home, on epaulets worn by military officers, and for regimental and other citations (3).

Duffil (Duffel, duffle). Heavy, napped woolen cloth. Duffels arriving in Boston in 1643 were probably those made in England, dyed and finished in Flanders or Holland, and transshipped to the colony (9).

A coarse woolen cloth having a thick nap of frieze. 1769: "Whitney ...They likewise make here the Duffield Stuffs, a yard and three-quarters wide, which are carried to New England and Virginia, and much worn even here in the winter" (4).

British blankets of low quality, made from low-grade woolen yarn; napped on both sides (3).

18th century: a coarse, woolen. 19th century: a stout milled flannel often friezed. Later, cloth with a thick shaggy nap, used for overcoats (6).

Flannel. Made of woolen yarn "slightly twisted in the spinning, and of open texture, the object in view of being to have the cloth soft and spongy, without regard to strength. . . . All the sorts are occasionally dyed though more usually sold white. Flannels are bleached by the steam of burning sulphur, in order to improve their whiteness" (Beck) (9).

A soft nappy stuff of wool (8).

An open woolen stuff, of various degrees of fineness, usually without a nap (4).

A light or medium weight woolen fabric of plain or twill weave with a slightly napped surface (1).

A cotton cloth, originating in Wales, that is napped on one or both sides to imitate wool flannel (3).

Popular light weight, slightly napped, plain or twill weave fabric of wool or combinations of fibers with wool (5).

Medieval and on. Originally a welsh-made woolen material though called in 16th century Welsh 'cottons.' Made of woolen yarns slightly twisted, with open texture. Of plain or twill weave (6).

Frock coat. A kind of coat for men (8).

Frock: an upper garment worn chiefly by men; a long coat, tunic, or mantle. A coat of a similar 'cut' used as a military uniform (4).

Frock coat: A double-breasted coat extending almost to the knees, which is not cut away but of the same length in front as behind (1800s) (4).

Frock: from c. 1730 an 'undress' coat (except for the French frock) following the changing styles of the body coat but always with a turned-down collar (6).

Frock coat: (male) end of the 18th century to c. 1815. The term 'frock coat' was seldom used in the 18th century. During this period it was a coat with tails and a turned down collar (6).

Frock coat: a fitted garment with body and skirts separately. skirts can be wide or long. Coat can be single or double breasted (7).

Garlix, Garlise, Garlix. A linen cloth first imported from Goerlitz, Silesia. It could be fully or partially bleached (9).

1795 Garliz (in commerce), a kind of linen cloth imported from Germany (4).

A staple linen cloth originally made in Gorlitz, Silesia, Germany (1).

17th century. A linen from Gorlitz, Prussian Silesia (6).

Gartering. Tape or braid tied around the calf of the leg to support stockings. Similar to coach lace and furniture braids and tapes (9).

Garter: a string or ribbon by which the stocking is held upon the leg (8).

The material of which garters are made. A band worn around the leg, either above or below the knee, to keep stockings from falling down. A similar band, worn as a belt or sash (4).

Garter: medieval on (male and female). A tie or band to keep the stockings in place on the leg, and placed above or below the knee. Male. In the 17th and 18th centuries some were like small decorative scarves, with fringed ends and tied in a bow on the outer side of the knee. Others were decorative bands with ornamental buckles, always placed below the knee. Garters might be of wool, worsted, crewel, list, or ribbon, cypress and net (6).

Gimp (Gymp). An open work trimming, used on both dress and furniture, and in coach lace making. It is made of silk, worsted, or cotton twist, having a cord, or a wire running through it. The strands are plaited or twisted, so as to form a pattern (9).

A kind of silk twist or lace (8).

Silk, worsted, or cotton twist with a cord or wire running through it. Now chiefly applied to a kind of trimming made of this; sometimes covered with beads or spangles. In lace-making: the coarser thread which forms the outline of the design (1).

A narrow fabric made of various materials, often with a wire or sometimes a coarse cord running through it (1).

17th century on. A coarse lace formed by twisting threads around a foundation of wire or twine. Made in various qualities of silk, wool, or cotton (6).

Girdle. Anything drawn round the waist, and tied or buckled (8).

(Male and female) a cord or band, tied or buckled, encircled the waist or hips (6).

Half Thicks (Half-ticks). Coarse woolen cloth (9).

A kind of cloth. 1745: "Kerseys, cottons, half-thicks, duffields... in Lancanshire and Westmoreland." 1748: "Rochdale... very considerable for a Sort of coarse Goods, called Half-thicks and Kersies" (4).

A term applied to a fabric similar to wash whites, being white in color, but thinner and lighter in weight (1).

An American fabric of the 17th century classed with Penistones, Linsey-woolseys, among others, for the purpose of taxation (3).

Hose (Yarn and worsted hose). Stockings; covering for the legs (8).

An article of clothing for the leg, sometimes reaching down only to the ankles as a legging or garter, sometimes also covering the foot like a long stocking (4).

A leg covering for men, women and children Hosiery knitted socks and stockings (3).

From c. 1660 on. Hose meant stockings (6).

Irish Linen. Linens, apparel, handkerchief, and domestic linens which come from Ireland (1).

Jack. The colours or ensign of a ship (8).

Said of and applied to things of smaller than the normal size; as if short for 'jack-flag,' e.g., small flag (so called in contradestination to the ensign). In British use the jack has been since the 17th century a small sized 'union flag' of the period (union jack), which has also been, since 1707, inserted in the upper canton of the ensign (4).

Lace. Ornaments of fine thread curiously woven. Textures (see 'stuff' below) of thread, with gold or silver (8).

Ornamental braid used for trimming men's coats, etc.; a trimming of this. Now only in gold lace, silver lace, a braid formerly made of gold or silver wire, now of silk or thread with a thin wrapping of gold or silver. A slender open-work fabric of linen, cotton, wool, or metal threads, usually ornamented with inwrought or applied patterns (4).

A tie for fastening or pulling together opposite edges, as for boots, stays, etc. Braid used for trimming. An openwork trimming of many patterns; both handmade and machine-made (6).
A cord, usually of closely woven thread or silk and commonly with aiglets at the ends; used for drawing together two edges; e.g., shoe lace, stay-lace. A narrow braid woven on the loom. Braid lace as an edging to a garment, not appearing until the second quarter of 15th century often of metal thread from 16th century. After 1660 a distinction was made between 'bobbin' or 'bone lace' made on a pillow by threads attached to bobbins, and needlework, known as 'point lace' (6).

A flat braid for trimming lapels, cuffs, and other portions of the uniform. The basic British lace was white; officers lace was gold or silver, matching the color of their buttons (7).

Lawn. A delicate linen used for shirts, handkerchiefs, ruffles, and aprons (9).

A kind of fine linen, resembling cambric; pieces of sorts of this linen (4).

A fine, plain weave, relatively sheer cotton fabric made in close constructions. The term lawn originally was used for fine, plain weave linen fabric with an open texture (1).

...popular staple cotton cloth ...Lawn is light in weight, sheer, soft, washable, and is made with plain weave... Fine, high counts of yarn, usually 60s or better, are used to make the cloth (3).

From 14th century on. A very fine semi-transparent linen cloth (6).

17th century lawns commonly called 'french lawns, being a very fine quality of Chambric. The name was originally derived from the French town of Laon, where the fabric was said to have been first made. Identical with Cloth of Reheims and similar to Chambric (first made at Chambray), three neighboring cities famous for the quality of their linens (6).

Legging (Leggin). 19th century (male). An extra covering for the leg from ankle to knee and sometimes higher; the term 'leggings' was not used in earlier centuries (6).

Linsey (Lincey). A coarse cloth made of linen warp and woolen weft (9).

In early use, perhaps some coarse linen fabric. In later use Linsey-Woolsey: originally a textile material, woven from a mixture of wool and flax, now a dress material of coarse inferior wool, woven upon a cotton warp (4).

Original name for linsey-woolsey... A coarse, loosely woven fabric made of linen warp and wool filling; cotton was sometimes substituted for linen (1).

Linsey-Woolsey - 16th century. A cloth of linen and wool, said to have originally been made at Linsey, Suffolk. The warp of thread, the weft of worsted (6).

Muslin. A fine cotton textile first made in India (9).

A fine stuff made of cotton (8).

The general name for the most delicately woven cotton fabrics, including many varieties, used for ladies' dresses, curtains, hangings, etc. (4).

A term applied to a large firm, plain weave cotton fabrics in a wide range of quality and weight... (1).

Implies cotton cloth of good quality in the finest state. ...warp yarns average 30s, and the filling yarns range from 38s to 40s (3).

17th century: a fine cotton fabric having a downy nap on its surface. 'The flimsy muslins from India' began to be imported c. 1670, displacing the flaxen lines and chambrics in the fashionable world. Manufactured in England and Scotland c. 1780 (6).

Petticoat. The lower part of a woman's dress (8).

(Female) 16th century on. An undergarment and as such often called an underpetticoat until the 19th century when the term always meant an under-garment... In the 18th century of cambric or flannel and narrow, worn under the hoop and sometimes called a 'dickey.' The term 'petticoat' before the 19th century was also applied to the skirt of a dress, being part of the gown and not an undergarment (6).

Piece. A standard length of woven fabric varying from 24 to 100 yards according to the type of fabric (1).

Ratten (Ratteen). A thick woolen stuff, twill woven . . .. Ratteens were chiefly manufactured in France, Holland, and Italy; and mostly used in linings (9).

A thick twilled woolen cloth, usually friezed or with a curled nap, but sometimes dressed; a frieze or drugget (4).

An old term for wool or fabric similar to frieze (1).

Frieze: A heavy, coarse, worsted, or mohair pile overcoating with a rough, wiry surface and a somewhat hard feel (1).

Woolen goods popular in the British Isles about two centuries ago. Twill-woven, very heavy and coarse (3).
Rateen: 17th century: a thick twilled cloth usually friezed. 18th century: the generic name of a class of coarse woolens (6).

Ribbon. A narrow woven band of some fine material, as silk or satin, used to ornament clothing or headgear, or utilized for other purposes (4).

A narrow woven fabric... (1)

A fillet or narrow woven fabric of varying widths, commonly 1/4 in. to 3 in., having selvage edges, ...and used for braiding, decorations, trimming, etc. (3).

16th century on: a narrow band of silk or decorative material (6).

Robings. 18th and 19th centuries: (female) broad flat trimmings decorating a gown round the neck and down the front of the bodice, and sometimes continued down the borders of an open overskirt to the hem (6).

Scotch Linen. Scots Cloth. 17th century. Linen woven of nettle fibers (6).

Serge (Sierge, Sharge, Sarge, Surge, Searge). A twilled cloth with worsted warp and woolen weft woven on a four-treadle loom. Developed with other New Draperies, it was lighter and narrower than broadcloth and of better quality than kersey. It was distinguished in the seventeenth century as being middleweight, cheap, and hard wearing (9).

A woolen fabric, the nature of which has probably differed considerably at different periods. After 16th century it is often referred to as worn by the poorer classes (both men and women, perhaps rather on account of its durability than its price, which seems to have been extremely low. The name now denotes a very durable twill cloth of worsted, or with the warp of worsted and the woof of wool, extensively used for clothing and for other purposes. 1728: "...a woolen crossed Stuff, manufactured on a loom with four treddles after the manner of serge, used for linings of coats, and formerly for mantles" (4).

Serge is a clear finished fabric characterized by the flat, diagonal whale that crosses from the lower left to the upper right selvage on the right side of the fabric, made with a two up, two down twill, in which two warp yarns pass over one filling yarn, and the next two warp yarns pass under the same filling yarn (1).

Popular staple, diagonal worsted cloth... a 2-up and 2-down right-hand twill is used in constructing the cloth, 45-degree angle (3).

A loosely woven twilled worsted, becoming commonly used from 17th century on. Many varieties were imported with names of origin distorted, e.g., serge of Chalon (1649) became Shallon; Serge de Nimes became Denim. 17th century on: a loosely woven twilled flannel, the warp of worsted, the weft of wool (6).

Stockings. A close fitting garment covering the foot, the leg and often the knee, now usually made of knitted or woven wool, silk, or cotton (4).

A close-fitting knitted covering for the leg and foot, a full length hosiery (3).

2nd half 16th century on. (Male and female). A close-fitting covering for the foot and leg. 'Stockings' for men and women might be knitted from 2nd half of 16th century. The materials and colors varied: wool, cotton, thread, or silk, plain or embroidered (6).

Strowd (Stroud). A woolen cloth woven and dyed, especially red, on the River Stroud in Gloucestershire (9).

A blanket manufactured for barter or sale in trading with the North American Indians. Also stroud blanket. The material of which these blankets were made. 1884: "a kind of cheap cloth, called 'stroud' made from woolen rags, was exported to North American Indians" (4).

A coarse blanketing formerly used in trading with North American Indians (1).

A coarse woolen cloth, much used in bartering with the Indians; used for blankets and rough clothing (7).

Stuff. A general term for worsted cloths (9).

Cloth or texture of any kind. Texture: the act of weaving. A web:; a thing woven. Manner of weaving with respect either to form or matter (8).

Thread. A fine cord composed of the fibers of filaments of flax, cotton, wool, silk, etc., spun to a considerable length; specifically a cord composed of two or more yarns, especially of flax, twisted together (4).
Any fine cord made from one of the major textile fibers (3).

Tinsel Lace. A kind of shining cloth. Anything shining with a false luster; anything shewey and of little value (8).

Of satin, etc.: made to sparkle or glitter by the interweaving of gold or silver thread, by braiding with such a thread, or by overlaying with a thin coating of gold or silver. Very thin plates or sheets, spangles, strips or threads originally of gold or silver, later of copper, brass, or some gold- or silver- colored alloy, used chiefly for ornament; now especially for cheap and showy ornamentation. (1732): "a piece of Sheet-Brass, commonly called tinsel." (1782): "The man of integrity and benevolence is like solid gold, the man of pleasure or fashion is like tinsel" (4).

Tinsel Yarn: narrow, flat strips of gold, silver, copper, aluminum or other metals used alone or twisted around a core (1).

Tinsel: known also as lame or metallic thread... The thread is made of fine wire, usually copper, twisted with cotton or silk threads of the final effect (3).

Waistcoats. A garment forming part of ordinary male attire, worn under an outer garment (a doublet, later a coat, jacket or the like) and intended to be partly exposed to view when in wear. Applied to a plainer and less costly garment, usually of knitted wool, worn chiefly for additional warmth (4).

A garment which may or may not be sleeveless that buttons in the front and extends below the waistline. It is worn under the jacket or coat and is also known as a vest (3).

(Male) 1668 on. An under-coat, at first cut on similar lines to the coat, but without hip-buttons and pleats, the sleeves being discarded from c.1750, though occasionally worn by the elderly until c. 1800. Constructed single breasted until 1730s the double breasted form becoming common in 1780s and usual in 1790s. (Female) 2nd half of 18th century. Cut on same lines as male garment and worn with the riding habit, or as a fill-in for an open bodice, when the waistcoat was sometimes shown having sewn-in front panels only (6).

The garment worn under the coat. Also known as a vest. Generally the waistcoat had no sleeves, although several varieties are known (7).

Wrapper. That in which anything is wrapped. "My arms and legs were pressed to my sides, and my legs so close together by so many wrappers, that I looked like an Egyptian mummy" (8).

1840s: a name applied to various forms of loose overcoat, both single and double breasted (6).

Wraprascal: c. 1738-1850 (male). A loose form of overcoat. Generally made of heavy materials (6).

Note: 1. Additional spellings are in parentheses.

From Wingate (1967); American Fabrics Magazine (1972); Linton (1973); Anonymous (1933); Ordonez (1978); Cunningham (1960); Maples and Gero (1981); Johnson (1755); Montgomery (1984).

APPENDIX 11: CHEROKEE CERAMICS SUMMARY

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
160/320	2																				2							4
160/322	1																											1
162/280	3																											3
166/278	1																											1
166/280	6	1														1												8
166/282	1																											1
167/273	1	1																										2
168/282	1																											1
170/280	3																											3
174/280											1																	1
176/280	4													1														5
178/198	4																											4
178/200	1																											1
178/280	7																											7
180/192	1																											1
180/194	1																											1
180/196	1																											1
180/198											1																	1
180/252	4																											4
180/264(3)	4																											4
180/266	2																											2
180/268	1																											1
180/270	5																											5
180/274	2	1																										3
182/194		1		2																								3
182/196	17																											17
182/204	17																											17
182/240													7															7
182/242	5																											5

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
182/252	1																											1
182/266	3																											3
182/272	2	1			1																							4
182/274	3																											3
182/276	6	3																										9
184/198	1																											1
184/206	1																											1
184/208	9																											9
184/210	2																											2
184/216	7																											7
184/236	1																											1
184/242	2																											2
184/256	1													1														2
184/262(3)	1																											1
184/264(3)	3	2																										5
184/266	55										1																	56
184/270	5	1		1													1											8
184/272	3																											3
184/274	7																											7
186/198	1																											1
186/204(24)	11																											11
186/206(14/24)	1																											1
186/210	7																											7
186/224	1																											1
186/234	10																											10
186/252	7																											7
186/256	4																											4
186/258		1																										1
186/262(2)	1																											1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
186/264(2)	1																											1
186/266(2)	5																											5
186/268(2)	4	1																										5
186/270(2)	2															1												3
186/272(1)	18	1	2													1												22
186/276	1				1																							2
188/196	8																											8
188/198	46		1																									47
188/204(24)	2																											2
188/206(14/24)	1																											1
188/208(14)	3																											3
188/210(14)	7	1										1																9
188/212(14)	1																											1
188/214(14)	1																											1
188/220	1																											1
188/230	1																											1
188/240	2																											2
188/244	1																											1
188/248																	1											1
188/250	3																											3
188/252	4																											4
188/256		1																										1
188/258		2																										2
188/266(2)	1																											1
188/270(1)											1																	1
188/272(1)	21	2		1																								24
188/274(1)	4			1																								5
188/278	8																											8
188/280	52	3		2																								57

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
188/282	8																											8
188/290	1																											1
190/198	1																											1
190/208(14)	1																											1
190/210(14)	2																											2
190/220	1																											1
190/236	2																											2
190/238	2																											2
190/240	3																											3
190/256	1																											1
190/258	1	1																										2
190/260(2)	2																											2
190/264(2)	2																											2
190/266(2)	9			1																								10
190/268(2)	12	6																										18
190/272(1)	4																											4
190/274(1)	1																											1
190/280	156	42	1		1											3												203
190/282	1																											1
190/290	1																											1
192/202	2																											2
192/204(B)	1																											1
192/206(B)	3																											3
192/212(14)	2																											2
192/214	1										2	1																4
192/220	6																											6
192/222	2																											2
192/236(15)	1																											1
192/242	3																											3

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
192/246	1																											1
192/252	2																											2
192/254	43	2																										45
192/262(2)	2																											2
192/266(2)	13															1												14
192/268(1)	1			1							1																	3
192/270(1)	1												1															2
194/192	1																											1
194/196	1											1																2
194/202	3																											3
194/204(B)	1																											1
194/206(B)	1	1																										2
194/208(B)	46										1	3		2														52
194/210(B)	12																											12
194/212	9																											9
194/214	6																											6
194/220	1																											1
194/224	3																											3
194/238(15)	6																											6
194/248	1	1										1																3
194/250	1																											1
194/252													1															1
194/266(1)	4																											4
194/268(1)	2																											2
194/270(1)		1																										1
194/274	1																											1
196/192	7																											7
196/194	4													1														5
196/196	1																											1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
196/198																		1										1
196/200	1																											1
196/202	8																											8
196/206(B)	12	1									1																	14
196/214	8																											8
196/220	1																											1
196/236(15)	1																											1
196/240	3	1																										4
196/242	1																											1
196/248	4																											4
196/250	4																											4
196/254	1			1																								2
196/256		1																										1
196/258		1																										1
196/262	1	1																										2
196/264	1																1											2
196/266(1)	5	7	1		3						1																	17
196/272	1																											1
198/194	2																											2
198/202	1																											1
198/204(B)	2																											2
198/206(B)		1																										1
198/212	11											1																12
198/214	2										1	1																4
198/220	2																											2
198/236	3																											3
198/238	1	1												1														3
198/240	2																											2
198/244		2																										2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
198/246	2																											2
198/248	2	1																										3
198/250	6																											6
198/252	1																											1
198/256		1																										1
198/260	2																											2
198/262(5)		2																										2
198/264(5)	7	1		1							2	1		1														13
198/266(5)		27		3		1										2	2		1									36
198/268(5)	1																											1
198/270	1																											1
198/272	2	3																										5
200/190	2																											2
200/192	1																											1
200/194	1																											1
200/200	2																											2
200/204(B)	1																											1
200/206(B)	1																											1
200/212	1																											1
200/214	1																											1
200/236	1																											1
200/242	2																											2
200/244	1	1																										2
200/246	3	1																										4
200/248(6)	2																											2
200/250(6)	3																											3
200/254(6)	2																											2
200/256	3	3																										6
200/258	2	1															1											4

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
200/260	1																											1
200/262(5)	1	2																										3
200/266(5)	1				1																							2
200/270		1																										1
202/192	2	1																										3
202/194	3		1																									4
202/196	2																											2
202/198	2																											2
202/204(B)	2																											2
202/244	4												1															5
202/246	5																											5
202/250(6)	1																											1
202/252(6)	2																											2
202/254(6)		1		1																								2
202/256	1	1																										2
202/258	5	1											1															7
202/264(5)	2																1			1								4
204/192	3																											3
204/194	1																											1
204/196	1																											1
204/198	3																											3
204/200	3																											3
204/218	1																											1
204/220	1																											1
204/226	1																											1
204/228	4																											4
204/242		1																										1
204/244		1																										1
204/246(6)	1																											1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
204/250(6)	4																											4
204/252(6)	2	1																										3
204/254(6)	16				1	1										2												20
204/256	6																											6
204/262(5)																	2											2
204/264(5)	1																											1
206/190	6																											6
206/198	3			1																								4
206/204(B)	3																											3
206/216	14																											14
206/244	2																											2
206/246(6)	16																											16
206/250(6)	1																											1
206/252(6)	4																1											5
206/254(6)	1																											1
206/256	14	1																										15
206/258(5)		9		3																								12
206/260(5)		1																										1
206/266	2																											2
208/190	3																											3
208/192	3																											3
208/196	7		3																									10
208/198	7				2						1						3	2										15
208/200(B)	7										1																	8
208/202(B)	3																			1								4
208/204(B)	4																											4
208/216	6																											6
208/220	2																											2
208/226											1																	1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
208/228	3																											3
208/236	1																											1
208/238	3																											3
208/242	1																			1								2
208/246	9	9												1														19
208/248(6)	3	1			1								1															6
208/252(6)	1	1																										2
208/254(6)	19	3		1																								23
208/256	30	3												1														34
208/258(5)	47	3								1																		51
208/260(5)	3	4										2																9
208/262(5)	1																											1
208/308	4																											4
208/310	1																											1
210/187	7																											7
210/190	11														1	1												13
210/196	1																											1
210/198	61				2										2													65
210/200(B)	2																											2
210/218	1																											1
210/220	1																											1
210/222	1																			1								2
210/228	1																											1
210/236	1																											1
210/238	1										1																	2
210/244	2																											2
210/250(6)	9	1												1														11
210/254	2												1															3
210/256	103	9				1												1										114

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
210/258(5)	83	37	1																									121
210/260(5)	18	9										2								8								37
210/262(5)	2												1															3
210/264	3																											3
212/180(8)	33																	3									27	63
212/182(8)	16	1																		1							15	33
212/186(8)	9																											9
212/188	1																											1
212/190	2																											2
212/194	1																											1
212/214	2																											2
212/216	8																	1										9
212/220	1																											1
212/222	7																											7
212/224	5	1																										6
212/234	1																											1
212/242	3																											3
212/250(6)	8																											8
212/252(6)	2	1																										3
212/254	4																											4
212/256	1	4																										5
212/258	29	2											1			1	2		1									36
212/260	7	1															1											9
212/262	11													1														12
212/316																1												1
214/178	6		2										1															9
214/180(8)	1	1																1										3
214/182(8)	1																											1
214/184(8)	23	1		1																							2	27

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
214/186(8)	4	1																1										6
214/188	4																											4
214/192(7)	2																											2
214/194(7)	14										1																	15
214/196(7)	1																											1
214/202(B)	1																											1
214/204(B)	1																											1
214/208	1										1																	2
214/216	13																											13
214/236	1																											1
214/250	1																											1
214/252	3	32																										35
214/254	7	30																										37
214/256	8	1		1																								10
214/258	8	1		1								2					1											13
214/260	6																1											7
214/262				1																								1
214/310	1																											1
216/178	8		1										1															10
216/184(8)	9																											9
216/186(8)	4																											4
216/190	1																											1
216/192(7)	105																											105
216/194(7)	11																											11
216/196(7)	224																											224
216/198(B)	10																											10
216/202(B)																1												1
216/208	3																											3
216/210	16																											16

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
216/212	2																											2
216/214	9																											9
216/216	40																											40
216/220																1												1
216/222	2																											2
216/224	3														1													4
216/226	2						1																					3
216/228	1																											1
216/250	3																											3
216/252	2																											2
216/254		1														1												2
216/256	2															1	1			1								5
216/258	2																											2
216/260	1																1											2
218/178(11)	15	29	1										6															51
218/180(11)	5	3											1															9
218/184	6	1											1															8
218/186	5																											5
218/188	3																											3
218/190	3	2												1														6
218/192(7)	8	2																										10
218/194(7)	18	1																										19
218/196(7)	6																											6
218/200(B)	2																											2
218/206	4																											4
218/210	1																											1
218/212	25															1												26
218/214	9																											9
218/216	34																											34

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
218/224	2	1																										3
218/252	1																											1
220/174	2																											2
220/178(11)	7																											7
220/180(11)	3												1	1														5
220/188	22				1																							23
220/204(B)	4	2										1																7
220/206	2																											2
220/212	5																											5
220/214	78																											78
220/216	1																											1
220/218	30	1																										31
220/220	1																											1
220/222	2																											2
220/226	2																											2
220/228	1													1														2
222/176(11)	6			3																								9
222/178(11)	5			2									1	1														9
222/180(11)	7																											7
222/182	2																											2
222/186	5																											5
222/188	1													1														2
222/190(10)	72	2		1																								75
222/192(10)	20																											20
222/196	13																											13
222/198(B)	5																1											6
222/200(B)	5																											5
222/202(B)	3											1																4
222/204(B)		1												1														2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
222/208	10																											10
222/210	7																										1	8
222/212	1																											1
222/214	11																											11
222/216	17																											17
222/218	22	37	10																									69
222/220	1																											1
222/222	6																											6
222/224	1																											1
222/226	6	1															1											8
222/228	23	1		2																								26
222/230	12																											12
222/232	4																											4
224/174(9)	2																											2
224/180(11)	4											3																7
224/182	1																											1
224/184	2																											2
224/188	10			1												1												12
224/190(10)	307	6		1									1															315
224/192(10)	54																											54
224/194(10)	2																											2
224/196	2	1																										3
224/198(B)	10										2																	12
224/200(B)	6																											6
224/202(B)	6																1											7
224/204	14	2																										16
224/206	9																											9
224/208	3																											3
224/216	2																											2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
224/218	4			1																								5
224/222	1																											1
224/224	12															1												13
224/228	24																1											25
224/230	8																											8
224/232	2		1														1											4
224/246(13)	1																											1
226/176(9)	2																		1									3
226/178(9)	18													1														19
226/184	3																											3
226/186	5	2																										7
226/188	3																											3
226/190(10)	2	1													1													4
226/192(10)	1																											1
226/194(10)	6	1																										7
226/196(B)	3																											3
226/198(B)	3																											3
226/204	113	9																										122
226/206	27	1																										28
226/208	5																											5
226/212	3																											3
226/218	1																											1
226/224	82																											82
226/226	137	11										1					1											150
226/228	6																											6
226/230	5	1															2											8
226/232	2	1																										3
226/246(13)	2																											2
226/248	1																											1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
228/178(9)	8												1															8
228/180	9	1													2													11
228/182	4																											6
228/184	3	1																										4
228/186	2																											2
228/192	7	2																										9
228/194	16											1		2														19
228/196(B)	3																											3
228/198(B)	1	2																										3
228/200(B)	5																				1							6
228/202(B)	4																											4
228/204	19	4	1														1											25
228/206	10																											10
228/208	2																											2
228/210	3																											3
228/214		2																										2
228/216	1	1																										2
228/218	4																											4
228/220	2																											2
228/224	3											1																4
228/226	8																											8
228/228	6	2																										8
228/230	4	1																										5
228/232	2																											2
228/234																	1											1
228/246(13)	2																											2
228/248	3																											3
228/254	71	19		4																								94
230/174	4																											4

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
230/176	2																											2
230/178	3													1														4
230/180	8										1																	9
230/184	8	2											1	2		1		1										15
230/186	5	1																										6
230/188	15																											15
230/190(19)	3	2																										5
230/192(19)	97	7	3													2												109
230/196(B)	3																											3
230/200(B)	4	1																										5
230/202(B)	3	3																										6
230/204	44	4				1	1				1	1																52
230/206	55	2										3			1													61
230/208	6	3																										9
230/212	2																											2
230/214	3		2																									5
230/216	1																											1
230/218(4)	1																											1
230/220(4)	2																											2
230/224	5																											5
230/228	1																											1
230/230	1			1																								2
230/232	11																											11
230/234	2																											2
230/244(13)	1																											1
230/248	4																											4
232/137	5																											5
232/138	2																											2
232/176	2																											2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
232/178	4																											4
232/180	1																											1
232/184	15	1																										16
232/186	43	10																										53
232/188	10	4									6		5		1													26
232/190(19)	2	1																										3
232/192(19)	6	2																										8
232/194(19)	5																											5
232/196(B)	2	1									1			1														5
232/198(B)	6																											6
232/200(B)	1																											1
232/202	2																											2
232/204	22	2																										24
232/206	16	2																										18
232/208	23	2																										25
232/212	4	1																										5
232/214	11																											11
232/216(4)	42																											42
232/218(4)	16	1																										17
232/220(4)		2																										2
232/232	1																											1
232/238	4													1														5
232/240	10																											10
232/242	10											3					2											15
232/248	7																											7
232/278	2																											2
233/138	7			1																								8
233/140	1																											1
234/136	2																											2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
234/138	16																											16
234/184	10	2															1											13
234/186	6	4											1															11
234/188	23	4											9															36
234/194(17)	1																											1
234/196(17)	4																											4
234/200(17)		1										1																2
234/202(17)	3																											3
234/204(17)	20				1																3							24
234/206(17)	16	1									1				1													19
234/208	5																											5
234/210	4																											4
234/214	1																											1
234/216(4)	2																											2
234/218(4)	4																											4
234/220(4)	11																											11
234/222(4)	1																											1
234/238	17													1		1												19
234/240	18																											18
236/122	1																											1
236/128	17																											17
236/130	37	3																										40
236/132	23	3									1					1												28
236/134	25	4																		1								30
236/136	1																											1
236/140	16																											16
236/152	40	1															1											42
236/154	3																											3
236/156	1	1																										2

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
236/168(18)														1														1
236/174	3																											3
236/178	1																											1
236/184	22	3				1					1																	27
236/186	29	6											2															37
236/188	9	6		1													1											17
236/190	52	7	1	1		2							1				6			1								71
236/192	6	2		1							1						6											16
236/194(17)	2																											2
236/196(17)	7	2																										9
236/198(17)	13	3																		3								19
236/200(17)	47	16									3									4								70
236/202(17)	5	1									1						1				1							9
236/204(17)	5																				1							6
236/206(17)	15																			1								16
236/208(17)	11																											11
236/210	1																											1
236/222	5																											5
236/224	1																											1
236/226	4	1																										5
236/228	2																											2
236/230	1																											1
236/232	1			1										2														4
236/234	6													1														7
236/236	2													2														4
236/238	3																											3
236/240	9	2														1												12
236/246	2																											2
238/130	9										1																	10

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
238/134	12																											12
238/136	15																											15
238/142	6																											6
238/144	1	3																										4
238/152	3	2																										5
238/170(18)	1																											1
238/174																	2											2
238/184	10	1													1													12
238/186	26	2																										28
238/190	35	2															5			1								43
238/192	165	21	1	3	2						5	1	14	6	1	22	43				5							289
238/194(17)	82	28		2	1						3	1	1										9	1	1			129
238/196(17)	562	204		14	1							3				2			4	7	5				1			803
238/198(17)	282	36	4	15	2						6	2				5				2		1			34			389
238/200(17)	15	1			1							3			1					1								22
238/202(17)	22	16																		4								42
238/204(17)	2			1	1												1			1								6
238/206(17)	6	1												1	1						1							10
238/208(17)	3																											3
238/210	5	2																										7
238/228(23)	1																											1
238/230(16)	3			2																								5
238/232(16)	3																											3
238/234(16)	16	2																										18
238/236(16)																	1											1
238/238(16)	2																2											4
238/240	18																											18
238/242	6																1											7
238/244	20											1		1	1													23

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
238/246	7																											7
240/144	4																											4
240/148	1																											1
240/150	9																											9
240/180	27												3															30
240/186	16	1																										17
240/188	34	14		2	1						1	3	10	1	18	2												86
240/190	23	2		1								12			8	3	4											53
240/192	57			1							7		8		3	9	1											86
240/194(17)	25	6				11						1			1		3											47
240/196(17)	4	4																		1								9
240/198(17)	39	1																		2			1					43
240/200(17)	6			2	1																							9
240/202(17)	2				1																							3
240/204(17)	24	1																										25
240/206(17)	6																						1					7
240/208(17)	5																											5
240/210	4											1																5
240/220(23)	1																											1
240/230(16)	1																											1
240/232(16)	38																											38
240/234(16)	113			1															1									115
240/236(16)	25	6															12			12								55
240/238(16)	4																											4
240/242	11																1											12
240/244	3																											3
240/246	3																											3
240/282	3																											3
242/148	4																											4

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
242/150	66	1									1							4		1								67
242/168	1																1											1
242/170	1																											1
242/176	2																											2
242/178	3																											3
242/184	1																											1
242/186	1																											1
242/192	98	14									1							4		1								118
242/194	12	8															1											21
242/196	1																											1
242/198	2																											2
242/204		1																										1
242/230(16)	1																											1
242/232(16)	6	1																										7
242/234(16)	27	63		3															1									94
242/236(16)	18	57														2	1		2									80
242/238(16)	3															1				1								5
242/240	1																											1
242/244	1																											1
242/248	1																											1
244/172	2																											2
244/180(21)	1																											1
244/182(22)		3																										3
244/184(22)	7																											7
244/186(22)	41			2																								43
244/188(22)	4																											4
244/190(12)	2																											2
244/192(12)	34																											34
244/194(12)	45	4		1							10		10	1	1													72

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
244/200	5																											5
244/206	3																											3
244/234	3																											3
244/238	14																2											16
244/244	1													1														2
244/246	1																											1
245/148	26	2																										28
246/176(21)	1																											1
246/182(22)	23	13																										36
246/186(22)	4																											4
246/188(22)	1																											1
246/190(12)	2																											2
246/192(12)	3			1																								4
246/194(12)	1	2		6																								9
246/196(12)	12												1															13
246/246	1																											1
248/166	1																											1
248/172	1																											1
248/178(21)	1																											1
248/180(21)	1	2																										3
248/182(22)	7	3																										10
248/184(22)	12																											12
248/186(22)	2																											2
248/188(22)	2																											2
248/194(12)	29																											29
F. 1	1																											1
F. 3	1094	48		7	4											3			1									1157
F. 7	36																											36
F. 42	40	12		1	2																							55

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
F. 44	78	1																										79
F. 45	237	100		8											3				1	1								350
F. 46	52																											52
F. 50	256		1		1						33	6														1		298
F. 52	6																											6
F. 53	2																											2
F. 56	9																											9
F. 58	65	7			2																							74
F. 59	1																											1
F. 61E	10	3		2											1													16
F. 61S	4																											4
F. 63	1																											1
F. 65.	1	1																										2
F. 67	14																											14
F. 73.	43	12		1	2																1							59
F. 76	15											1																16
F. 77	48																											48
F. 79	304	50	2	10		1					6	17																390
F. 83	40										1																	41
F. 84	6																											6
F. 85	11	2		1																								14
F. 86	13	5	4																									22
F. 87	14																											14
F. 88	48	1																										49
F. 90	2																											2
F. 91	115																											115
F. 94.	5	1																										6
F. 95.	12																											12
F. 96W	9																											9

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
F. 96N	31	8		1		1							1			1	17											60
F. 103	255																											255
F. 104	24	5	2		1																							32
F. 106	12	1											2	1														16
F. 107	3			1																								4
F. 109	45	7			1						1																	54
F. 110	4																											4
F. 116	46	1																										47
F. 120	8											1																9
F. 123	41	5										2	1		1				1		1							52
F. 133	8	1														1												10
F. 134			2		1																							3
F. 139	6																											6
F. 143	6	2																										8
F. 144.	3	1																										4
F. 146.	28	19										4		1														52
F. 147	1																											1
F. 148	3	2																										5
F. 150	9																											9
F. 152	1	2																										3
F. 158	6	1																										7
F. 159	182	12		1										6	1	5	1											208
F. 170	1																											1
F. 171	26				1										2		1											30
F. 176		2																										2
F. 177	2	1																										3
F. 178	919	71			76						5	1			2	5	10	1		25								1115
F. 179	41	4		5							1																	51
F. 182	1																											1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
F. 184	1														1													2
F. 185	16	1	4	5																								26
F. 187	5	6																										11
F. 190	614	18		114							1			5														752
F. 198	6															1												7
F. 199	1										3																	4
F. 200	1																											1
F. 203	6												1															7
F. 204	42			2									11				1											56
F. 208	15	1										2																18
F. 209	17	3		1																								21
F. 212	17	4		69		3										1												94
F. 216		4					1																					5
F. 252	2																											2
F. 260	1																											1
F. 311.	153	11																										164
F. 315							18																					18
F. 317	131	26																										157
F. 318 .	2																											2
F. 334(P)	1																											1
F. 352	5																											5
F. 356	286	4																										290
F. 357	255	3																										258
F. 358	1																											1
F. 361	168	154																										322
F. 375	43	1																										44
F. 376	25																											25
ST. 7	16																											16
ST. 8	5																											5

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
ST. 9	69	3	1	1								1		12														87
ST. 10	18	2	1																									21
ST. 13	17	2										10							1									30
ST. 17	31	10									1																	42
PM 10	5																											5
PM 20	1																											1
PM 22	1																											1
PM 48	2																											2
PM 65	1																											1
PM 143					1																							1
PM 167	1																											1
PM 216								1																				1
PM 271	1																											1
PM 277	1																											1
PM 288	1																											1
PM 295	1																											1
PM 301	1																											1
PM 342	1																											1
PM 354	2																											2
PM 398	1																											1
PM 449	2	1													1					1								5
PM 451	2	1																		2								5
PM 453 & 454	21																											21
PM 455	7	1																										8
PM 462	2																											2
PM 465	1																											1
PM 487																				1								1
PM 509	1																											1
PM 512															1													1

Appendix 11, Table 1 Cherokee Ceramics Summary

Provenience	OH Plain	OH Check St	OH Cord Mk	OH Rec St	OH Curv St	OH Net Imp	OH Mmat Imp	OH Inc	OH Cob Imp	OH Euro FM	Qualla Pl	Qualla Check St	Qualla Cord Mk	Qualla Rec St	Qualla Curv St	Grit Temp Pl	Grit Temp Check St	Grit Temp Cord Mk	Grit Temp Rec St	Grit Temp Curv St	Grit Temp Net Imp	Sand Temp Plain	Sand Temp Check St	Sand Temp. Cord Mk	Sand Temp Curv St	Sand Temp Net Imp	Fatherland Inc	TOTAL
PM 518	3														1													3
PM 549	1														1													2
PM 556	1														1													2
PM 569		1																										1
PM 571		1																										1
PM 575															1													1
PM 590	1																											1
PM 592															1													1
PM 1116				1																								1
Moat	117	35		25	3												1											181
No Prov.	525	140					2		2		2	2	2			3	6	2			1							687
TOTALS	14535	1946	54	358	121	23	23	1	2	1	126	107	113	68	63	93	165	18	15	87	22	1	11	1	36	1	45	18036