ABSTRACT

This report details the 1989 and 1990 archaeological investigations in the eighteenth century town of New Ebenezer (9Ef28) located in Effingham County, Georgia. Excavations were conducted on three areas of the town containing evidence of colonial period settlement: the First and Eighth Tythings, East Ward, and the 1752 to 1775 silk filature. These were the first major excavations conducted within New Ebenezer. A total of 90m² was excavated in eight discrete block units resulting in the location of many domestic features. Most of the features are associated with the Schrempff family's occupation of Lot 1, Eighth Tything (dating from 1750-1774). A well dating between 1774 to before 1800 was examined on Lot 3, Eighth Tything, and attributed to the Kronberger family. Careful study of the artifact and feature layout on the Eighth Tything led to a refinement in modern day mapping of the original townsite. The search for the silk filature met with positive results and several features associated with this important industrial complex were located. Other industrial evidence included artifacts associated with Rupert Schrempff's first and second blacksmith shops, which operated from 1743-1747 and 1750-1753, respectively.

Additional survey was conducted on the southern and western portions of New Ebenezer including the orphanage lot. Survey in the southern areas of town identified limited areas of research potential, while survey in Ebenezer's West Ward identified artifacts probably associated with the orphanage.

An appendix to this volume provided by Karen G. Wood provides a glimpse of eighteenth century foodways in the Schrempff household. Faunal material recovered from the Schrempff's cellar (Feature 11) revealed a mixture of domestic and wild animal species.
ACKNOWLEDGEMENTS

Richard Kessler provided all funding for the project. Mr. Kessler also provided food and housing for the field crew. Additional food and refreshments were provided by Alice Rhoda Ferrell, Kathleen Hughes and Stewart Hughes, Lorene Riley and Peck Riley, and the Young Salzburgers and Pairs and Spares Social Group. Two private archaeology firms—Southeastern Archeological Services, Inc. and Garrow & Associates, Inc. also provided support during this research.


Phil Quirk and Jerald Ledbetter cleaned many of the metal artifacts. Glass beads were analyzed by Marvin T. Smith. Sid Waldhour conducted a chemical analysis of the contents of two vessels. Zooarchaeological analysis was conducted by Karen G. Wood and Gwyneth Duncan. All report graphics were prepared by Rita Folse Elliott. Photography was provided by Mark Williams and Marshall Woodson Williams.
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CHAPTER 1
INTRODUCTION

This report details the progress of two years of archaeological research in the colonial town of New Ebenezer, Georgia, conducted by the LAMAR Institute. (Hereafter referred to as Ebenezer.) The first archaeological survey of New Ebenezer was conducted by the Institute in the fall of 1987 (Elliott 1988). Test excavations and additional survey work conducted since then have added greatly to the initial work. The 1989 excavations were conducted on portions of three domestic lots in the Eighth Tything of Ebenezer's East Ward (See Figure 1, Area A). Our 1990 research included work in four areas of the town. First, additional excavation was conducted on the Eighth Tything. Second, excavations in search of the Silk Filature in the Public Square and on the First Tything, East Ward were undertaken (See Figure 1, Area B). The third phase included additional survey of Tythings 3, 4, 5, and 6, and other public lands in Ebenezer's East Ward (See Figure 1, Area C). Finally, the First and Second Tythings and Public Square in Ebenezer's West Ward were examined by survey (See Figure 1, Area D). This research is part of an ongoing effort to retell the story of Ebenezer through archaeological study.

The most extensive excavation and analysis was conducted on the Eighth Tything. A detailed historical summary of the lot owners of the three lots examined is provided in this section. This area has been sampled by a close-interval shovel test scheme (5 m intervals) and by the excavation of five block units. To date, 80 m² have been excavated in the Eighth Tything. The filled-in cellar attributed to the Schrempff family was found on Lot 1. This cellar yielded an abundance of mid-eighteenth century artifacts that tell us many things about the lifestyle of their family.

Our research on the silk filature was less extensive, but it succeeded in locating the ruins of this structure, as well as yielding other exciting findings in the First Tything. This area was sampled by a close-interval shovel test scheme (10 m intervals) and the excavation of three block units (totalling 10 m²).

The two other areas of the town under investigation were covered by shovel test survey only (10 m interval). Nevertheless, survey of these areas located several areas worthy of future research. Survey of Tythings 3, 4, 5 and 6, and the southern Public Square identified several concentrations of domestic refuse. Most of this portion of the town was lightly settled, and many of the house lots in these areas were never occupied. This is borne out both by archaeological survey and by archival research.

Survey of Ebenezer's West Ward in the First and Second Tythings and Public Square produced debris probably associated with Ebenezer's orphanage. Part of this section of the
town is located on a steep slope and has been eroded. This orphanage was, for a time, the pride of Ebenezer, and it was one of the earliest such facilities in North America. Location of the archaeological remains of the orphanage was high on our list of priorities. Unfortunately, this area had been disturbed greatly by the construction of Georgia Highway 275.

Following the presentation of the results of the excavations, this report presents a detailed discussion of several research topics beginning with a section on relocating boundaries in Ebenezer. The town has been "lost" for nearly two hundred years and finding it again has been no easy matter. Historical research and archaeology were brought to bear on this subject. Other subjects explored include a discussion of settlement in the Eighth Tything in Ebenezer's East Ward, a detailed analysis of ceramics from Schrempff's cellar, discussion of Ebenezer's blacksmithing and silk industries, architecture on the Schrempff lot, artifact dating and pattern analysis, and social status of the Schrempff and Kronberger families. Appendix 1, authored by Karen G. Wood, contains a zooarchaeological analysis of materials of Feature 11 recovered during 1989.

PROJECT ENVIRONMENT

The town of New Ebenezer is recorded in the Georgia Master Site Files at the University of Georgia as Effingham County Site 28. Although the Ebenezer townsite was placed on the National Register of Historic Places in 1974, formal archaeological investigations of the town did not begin until 1987.

The site is located near the eastern terminus of Georgia Highway 275 at the Savannah River bluff in Effingham County, Georgia. This area is within the Coastal Plain physiographic province. The townsite is elevated more than 40 feet above the river, and it would not have been directly affected by freshets, at least in historic times. The confluence of Ebenezer Creek is located a short distance north, and the town is located just below an L-shaped bend in the river. The river was navigable by sailing vessel to this point, and since the eighteenth century the Savannah River has been channelized to promote river vessel traffic. Artificial cut-offs have changed the face of the landscape and several sections of the river that formerly were important avenues now are obscure river swamps.

By the mid-nineteenth century most of Ebenezer was abandoned and used for either woodlands or agricultural fields. Use of portions of the town for agriculture continued until the mid-twentieth century when it was allowed to revert to forest (U.S.D.A. Agricultural Adjustment Administration 1938). The most readily observable historical feature of the town is the Jerusalem Lutheran Church. This brick church was completed in 1769 and is the oldest standing religious structure in Georgia. This building was
architecturally documented by the Historic American Buildings Survey in 1936 (HABS Georgia File 242).

Most of the once thriving town has rested mute beneath the soil awaiting the archaeologists' shovels and trowels. Our archaeological work was guided by a respect for these hallowed grounds.

GENERAL HISTORY

The historical role of Ebenezer in the development of colonial Georgia generally is established. A synopsis of events leading to colonization, development, and decline of Ebenezer is presented here, and readers are urged to examine additional sources for a more thorough background discussion on the development of the Ebenezer settlement. There are twelve volumes of translated diaries in the series *Detailed Reports on the Salzburger Emigrants who Settled in America...Edited by Samuel Utlrperger* edited by George Fenwick Jones. The daily diaries present a detailed account of life in colonial Georgia. Jones' (1984) *The Salzburger Saga* summarizes the historical documents for the period. Other histories include Jones (1878) *Dead Towns of Georgia* and Stroebel's (1855) *The Salzburgers and their Descendants*. Recent archaeological studies of the Salzburger colony include studies of the Ebenezer Mill District (Elliott and Smith 1985; Smith 1986) and research in New Ebenezer (Elliott 1988, 1990; Elliott and Elliott 1990a).

In 1731, European Protestants who refused to denounce their religious beliefs were expelled from Salzburg by Archbishop Count Leopold Anton Eleutherius von Firmian, a zealous Catholic. Many thousands of Salzburger refugees migrated throughout Europe in search of a homeland where they were free to practice their religion. While most remained in Europe, several hundred came to live in Georgia, which fortuitously was being formed at approximately the same time. The reigning British monarch, George II, himself of German stock and figurehead of the Anglican church, felt sympathy for the outcasts and allowed them to emigrate to Georgia.

A 20 year charter for the establishment of the colony was granted to a group of Trustees composed of prominent clergy, citizens, and philanthropists in London. The Trust was administered by General James Edward Oglethorpe who arrived with the first group of colonists in 1733. Oglethorpe, with the aid of South Carolina's governor, selected an area for the town of Savannah approximately eight miles upstream from the mouth of the Savannah River. Oglethorpe treated with the Indian spokesman Chief Tomochichi, a Yamacraw, for land on which to establish a settlement. The Indians ceded to Oglethorpe all lands within tidal influence, which placed the area that was to become Ebenezer on the northern-most fringe of Georgia.
The first boatload of Salzburgers arrived in Savannah in 1734, and they were led to the proposed townsite of Ebenezer by their secular leader Philipp Georg Frederick Von Reck, General Oglethorpe, and others. The initial townsite, Ebenezer (now referred to as Old Ebenezer), was situated six miles up Ebenezer Creek from its Savannah River confluence. Oglethorpe authorized the town plan, which was identical to the plan of Savannah, being rectangular with house lots placed in groups of ten divided by large open areas designated for market places, public squares, and community facilities. No town maps of Old Ebenezer are known, and we do not know how much of Oglethorpe's plan was implemented at the first townsite. The Salzburger settlers became dissatisfied with Ebenezer's location because it was in a remote setting that was difficult to access by boat and the because the soils were infertile. They petitioned to Oglethorpe for a more attractive site at Red Bluff near the mouth of Ebenezer Creek. Oglethorpe reluctantly granted them their requested townsite, but did not allow the Salzburgers to remove any structures that had been built by them at Old Ebenezer. Perhaps Oglethorpe wanted the settlers to start fresh at the new site, by building more permanent structures in lieu of the flimsy huts that had been constructed at the old town. The Salzburgers began development of New Ebenezer on Red Bluff during March, 1736 and within two years a bustling village had been established. The land immediately north of Ebenezer Creek officially remained Indian land until 1750, although the Indians had removed from the region by the mid-1740s.

The original plan for the Georgia colony called for the development of an agrarian society peopled by farmers who worked smaller acreage (fewer than 500 acres) than the plantations that had been established on colonies elsewhere in the Americas. Slavery and hard drink were forbidden, and each family initially was given land, food, and supplies with the expectation that they contribute to this utopian ideal. The Trustees hoped that Georgia would produce many lucrative and beneficial crops for the British Empire, particularly silk and wine. Each Salzburger male head of household was to be granted a town lot, a two acre garden plot, and a 48 acre outlying plantation. Georgia and Ebenezer were aided by generous donations from supporters throughout Europe. The Society for Promoting Christian Knowledge (SPCK) was a prominent benefactor of Ebenezer, and supported the religious mission underlying the town's establishment. Two Lutheran leaders trained at the Franke Foundation, Johann Martin Boltzius and Christian Israel Gronau, accompanied the Salzburgers to Georgia and lived the remainder of their lives there.

Life in colonial Georgia and in Ebenezer was harsh. Mortality rates were high, disease was rampant, and the hot and humid, swampy environment of southern Georgia was very different from the alpine region of Europe. Ebenezer began as a frontier settlement, with emphasis on agriculture, horticulture, and animal husbandry. Georgia was a social experiment that in the view of many, particularly those who held the purse strings, proved unsuccessful. The Trustee's charter was allowed to expire, and a Royal government was
created in 1751. With the new government came larger individual land holdings, slavery, and liquor.

From the onset, Georgia was considered a buffer zone between the British-controlled Carolinas and Spanish Florida. General Oglethorpe was well aware of this role. During the years of tension between Spain and England, residents of Georgia sat ready for military engagement. Because of their religious convictions, the Salzburgers were less eager to fight than many of Georgia's settlers, but they were prepared nonetheless. Ebenezer was a refuge for many settlers from Savannah and Frederica during the most tense period of the war, but it remained outside the arena of military action during this period. A small garrison of soldiers was maintained at Ebenezer during the 1740s.

In 1755, the threat of war included the French, and tension once again mounted at Ebenezer. In 1756, construction of a log fort was authorized for Ebenezer, as well as other towns in Georgia. The New Ebenezer fort was constructed and maintained for several years. The town, however, was spared any conflict during the Seven Years War, which had abated by 1762.

Life was shattered at Ebenezer, however, during the years of the American Revolution. Although no battles were recorded there, the effect of the war on the town was devastating. Guerrilla activity was rampant as those loyal to the crown burned the houses of the rebels and vice versa. Early in the war, Ebenezer was used as a storage site for munitions and food by the rebels, and a small garrison numbering approximately seventeen men was maintained from March, 1776 until November, 1778. The British militia occupied the town in January 1779, established Ebenezer as headquarters for 2,300 soldiers, including a permanent force of 700 men, and maintained control until late 1779. In October, 1779, the American forces camped at Ebenezer (Hough 1975:149-150). No military activity is recorded there during 1780 (SPCK 1785).

By May, 1781, the British had regained control of Ebenezer with an occupying force of 200 men, only to abandon the town again in December, 1781 (SPCK 1785:88-90). In April, 1782 the American forces re-established Ebenezer as its headquarters for over 2,500 men, including a resident force of 350 soldiers. The end of the war found Ebenezer in shambles. All British aid had been withdrawn, including that of the SPCK. The town was without not only a preacher and economic support, but the Salzburger congregation faced a severe identity crisis as their historic ties to Britain were severed. Most of Ebenezer was abandoned as a result of these problems, and of the physical destruction of the town resulting from the war.
CHAPTER 2  
METHODS

THEORETICAL ORIENTATION

A basic premise of this study is that archaeology at Ebenezer will allow questions to be asked in a scientific framework, and hopefully answered in a method not possible with any other line of inquiry. Archaeological techniques must be combined with other disciplines such as history and geography for greater accuracy. What questions should historical archaeologists attempt to answer? What types of questions can be answered only by using the tools of archaeology? Ebenezer has an extensive historical documentary record and daily life was recorded there for over two decades, so why is there a need to do historical archaeology at Ebenezer when so much already is documented? In short, the archaeological information combined with the existing historical information can be used to paint a more detailed picture of life in the colony. Archaeology can be used to identify biases in the writing style of Boltzius and Gronau, for example, and detail what didn't they tell us about life in Ebenezer.

One example that immediately springs to mind is the Salzburger's use of tobacco. Few, if any, references to tobacco smoking can be found in the Detailed Reports, either because Boltzius did not consider it noteworthy, or because he suppressed any mention of tobacco use among the Salzburgers. The archaeological record at Ebenezer contains abundant evidence of the use of tobacco, i.e. clay smoking-pipe fragments. A historian relying solely on historical documents would be unable to discuss tobacco use in Ebenezer with any degree of confidence. The subject can be addressed immediately through archaeology. The Ebenezer tobacco-pipe data can be compared with that recovered from excavations at domestic sites of other ethnic groups of the colonial period (e.g. British, French, Spanish, and Indian) to determine if tobacco consumption at Ebenezer was above or below average. It is not possible to make these determinations from historical documents alone. Data must be gathered and quantified in such a way that tobacco-pipe frequencies can be compared between sites. The examination of tobacco usage is just one example of the necessity of supplementing historical information with archaeological data. A host of other, even more significant questions can be addressed and answered through the medium of archaeology, as well.

Before the 1970s historical archaeology was not viewed by most scholars as a scientific pursuit. It was seen more as a handmaiden to history. Archaeology was used to confirm historical events and aid in historical reconstruction. Although artifacts were studied, these
studies were not performed in a way that permitted comparisons with other sites. This approach is typified by the work of Ivor Noel Hume and others working in the Chesapeake tidewater region (cf. Noel Hume 1962, 1967, 1983).

The Ebenezer study was predicated on newer concepts of historical archaeology that have evolved within the past few decades of its existence as a social science, primarily engendered by two schools of thought: Charles Fairbanks and the Florida school (cf. Fairbanks 1974; Otto 1975; Singleton 1980, 1985; Moore 1981, 1985; Honerkamp 1980); and Stanley South and the Carolina school (cf. South 1977). The development of historical archaeology in the southeastern United States owes much to these two influences, but until recently there has been little interchange between the two schools, and studies from the two areas are not directly comparable because of differing excavation and analysis strategies.

Since Georgia lies between the Carolinas and Florida, it seems proper that modern day research attempt in this State to bridge these two theoretical schools. Cultural Resource Management projects (CRM) have helped to bridge the gap between these two regions, and we approach the problem with strong backgrounds in CRM work. The Ebenezer project evolved out of a CRM study conducted from 1984 to 1986 by Garrow & Associates, Inc. and Law Environmental, Inc., for the Fort Howard Paper Company as part of the environmental permitting for the construction of a large paper mill along Mill Creek in Effingham County, Georgia. This study, summarized in Smith (1986), examined the Salzburger colonists' farmsteads and awakened archaeologists to the potential for eighteenth-century Salzburger research in Georgia. The town of New Ebenezer, the seat of power throughout the settlement (i.e. including the outlying plantations and Mill District), was a prime candidate for archaeological study, and such a study was begun in 1987. The current study is a continuation of the previous work. Salzburger archaeological research has value not only for Georgians and Salzburger descendants, but for the scholarly, regional, and international community in terms of settlement patterns, ethnicity, disease, colonial habitation, acculturation practices, colonial industries, agricultural experimentation, and socio-economic studies, to name just a few.

FIELDWORK

Survey Coverage of New Ebenezer

Most of the New Ebenezer town site has been examined archaeologically, although the level of effort in the investigations of different sections of the town has varied. Ten areas identified by a letter designation are described below. These designated areas are shown on a map that has been adapted from a 1987 plat drawn by Paul Wilder entitled Compiled Plat
of the Town of Ebenezer & Adjoining Properties (Figure 2).

Areas A, C, D, E, F, and J all appear to contain important archaeological components, and are considered archaeologically sensitive. The work conducted in each of these areas is briefly described below.

Area A was surveyed in 1990 using systematic shovel tests placed on a 10 m (meter) grid interval. This area has high potential for archaeological study.

Area C was surveyed in 1987 using a 20 m interval shovel test grid and it has a high potential for archaeological study. This area includes lands owned by the Jerusalem Lutheran Church and the Kessler New Ebenezer Trust. The property line that separates the two owners is shown on the map as the Seckinger Property Line (shown as a dotted line).

Area D first was surveyed in 1987 using a 20 m interval shovel test grid and was surveyed in 1989 using a 5 m interval grid. It has high potential for archaeological study as demonstrated by our large excavations conducted in this area in 1989 and 1990. The most significant finding was Rupert Schrempff's cellar—the majority of which has now been excavated. This is our first look at a mid-eighteenth century Ebenezer household. The location of this house represents an important benchmark in relocating the boundaries of other town lots with precision.

Area E was surveyed in 1987 by 20 m interval shovel tests and it was resurveyed in 1990 using a 10 m interval shovel test grid. It has high potential for archaeological study. Test excavations were conducted at three locations within this area during 1990. This work has resulted in the tentative relocation of the silk filature building.

Area F was surveyed in 1987 by 20 m interval shovel tests and it was resurveyed in 1990 using a 10 m interval shovel test grid. It has high potential for archaeological study. Several probable house sites are located within this area.

Area J has not been formally studied, but it has been casually reconnoitered during our various visits to Ebenezer from 1987 to 1990. It contains the New Ebenezer Family Retreat & Conference Center complex. The most obvious archaeological features are the two earthen redoubts that were positioned just outside the western boundary of the town. Both of these earthworks are remarkably intact and have great potential for archaeological studies of the Revolutionary war events at Ebenezer. The southernmost of these two military constructions appears on the British map of defenses surrounding Ebenezer. The function of the northern earthworks presently is not known.

We have avoided any archaeological excavations within this area of the town because our excavations might have damaged buried septic tanks or drain lines, water pipes, and buried electrical lines. The complex consists of over a dozen structures and a myriad of other in-ground objects such as a swimming pool and tennis court, all constructed prior to the beginning of archaeological investigations at Ebenezer.

Areas B, G, H, and Area I all appear to have minimal potential for archaeological research. While there may be some archaeological resources within these areas that were
Figure 2. Survey Coverage within Ebenezer.
not identified by our surveys, the existence of any large-scale archaeological components seems unlikely given the level of effort of the surveys.

Area B was surveyed in 1990 using a 10 m grid interval. This area has low potential for archaeological study. Land records for this tything of the town suggest that it never had been settled.

Area G was surveyed in 1987 by 20 m interval shovel tests and it was resurveyed in 1990 using a 10 m interval shovel test grid. It exhibited a low potential for archaeological study. Lot records for this portion of the town also suggest that this area contained no significant settlement.

Area H was surveyed in 1987 using a 20 m interval shovel test grid. It exhibited a low potential for archaeological study. Lot records for this portion of the town also suggest that this area contained no significant settlement.

Area I was reconnoitered in 1987 since the surface visibility was good due to clearing and grading activities. The area exhibited a low potential for archaeological study. During the colonial period this area was used by the Salzburgers for their two acre garden lots and there is no documentation of habitations or buildings in this area.

1989 Season

The 1989 season of fieldwork at Ebenezer began on June 1 and was completed on July 13. A field log, excavation forms, and photographic log were maintained throughout the project. All excavations were backfilled upon completion of our work.

The town lots selected for examination were determined through several factors. First and foremost, an area was desired that was settled during the earliest period of the town's history, but abandoned prior to the American Revolution. By choosing such a location it was hoped that examples of original colonial Salzburger households could be identified. Archaeological survey of the surface and subsurface in the East Ward, Eighth Tything exhibited considerable promise. This area contained artifacts primarily dating to the early eighteenth century. Historical records indicated this area was settled early, and possibly abandoned during the Revolutionary War. Secondly, an area was desired that was relatively intact and not significantly affected by erosion and modern human activity. The area selected consists of a gradual slope and is not severely eroded. This area has been logged and farmed during the past two centuries, as has most of the townsit. The area of excavation was farmed as late as the early 1940s, but was never tilled by tractor (Ralph Ziegler, personal communication 1989). Third, a household was desired that would allow for a calibration of the modern-day geographical landscape with that of the eighteenth century town map. By defining archaeologically the spatial position of a house ruin and its associated outbuildings, alleys, and streets, the overall orientation of the town might be
In 1977, former Effingham County Surveyor Paul Weitman juxtaposed the New Ebenezer town plan (as it was drawn on the 1822 Plat by Effingham County Surveyor Zara Powers) onto the modern day landscape so that structures associated with the New Ebenezer Retreat Center could be placed on former town lots. In 1986, Effingham County Surveyor Paul Wilder continued Weitman’s projection of the original town plan onto the Daniel Seckinger tract (Wilder 1985, 1987). Wilder placed concrete monuments at key locations within the townsite, and these markers were used as a point of reference for the archaeological project. Both the 1989 archaeological project as well as the 1987 archaeological survey were conducted on the assumption that this survey work was accurate. Wilder (personal communication 1989) readily admits, however, that he doesn’t know how the previous surveyor, since deceased, derived his information. A revision of Weitman’s placement may be needed judging from our archaeological findings. Weitman’s placement for the town is probably off on both axes. Wilder’s 1987 plat reveals a property line that bisects the town, but does not follow the town lot boundaries. The precise identification of the original town location will require additional fine tuning. This calibration is critical to future archaeological studies within the town.

The archaeological project commenced with the relocation of a concrete benchmark. This marker was located at the presumed northeastern corner of the Eighth Tything, East Ward. The area covered by archaeological testing includes portions of Lots 1, 2, and 3 in the Eighth Tything, East Ward. Lots 1, 2, and 3 were domestic house lots within the original town of New Ebenezer, and each lot measured 60 ft east-west x 90 ft north-south, or 1,646 m².

In keeping with the archaeological site grid established during the 1987 survey of Ebenezer (Elliott 1988), a grid point 1135N 1091E was established 89 cm North and 44 cm West of this benchmark and a series of grid points were marked at 5 m intervals covering what was initially thought to be all of Lot 1, a major portion of Lot 2, and the surrounding margins of Lot 1 (streets and alleys). The town grid was oriented approximately 35 degrees east of magnetic north based on the original town plan. Topographic elevation readings were taken at each point. These elevations were based relative to an arbitrary datum elevation of 100.00 m.

A total of 102 shovel tests was dug, each near one of these grid points. Each shovel test was placed within 25 cm of the grid point and measured approximately 30 cm in diameter. All tests were excavated to a minimum depth of 35 cm below ground surface and all contents were screened through 1/4 inch mesh hardware cloth. The soil stratigraphy for each shovel test was noted, as were any subsurface features. Artifact density distribution maps were prepared as an aid in selecting test unit locations.

A series of twenty-four test units measuring 2 m x 1 m were excavated within the site.
grid for a total excavated sample of 48 m². Most units were excavated in one natural plowzone stratum which averaged 22 cm in thickness. For many of the units, excavation was terminated at the base of plowzone when it became apparent that no historic subsurface features or midden were contained within or below them. Several units were excavated to a greater depth to examine cultural features, or to understand better the stratigraphic relationships. All excavated fill from these tests was screened through 1/4 inch mesh. Features extending into the subsoil were mapped, photographed, and excavated. Soil samples from each feature, excluding small postmolds, were taken for fine screening through window screen. Otherwise, the contents of each feature were screened consistent with the test units. Plan and profile drawings of each feature were prepared using Munsell soil color terminology. Lot 1 was examined by 20 m² consisting of Blocks A, B, and C. Lot 2 was examined by Block D. Lot 3 was examined by Block E.

Two very large historic features were encountered and these features required a more complex excavation strategy. Feature 8 was a late eighteenth-century well that had been completely filled-in. This feature, located in Block E, was examined by 10 m² of excavation. This feature contained three discrete fill episodes: (1) the initial construction pit was excavated and backfilled immediately upon completion of the well shaft construction; (2) the well shaft was filled-in to a point several feet below ground surface after it was no longer used; and (3) the slumped well depression later was filled intentionally with soil to create a level ground surface.

Feature II, located in Block A, was an extremely large trash-filled cellar depression that contained stratified layers and discontinuous lenses of early to mid eighteenth-century debris. Excavation strategy varied as the complexity of this feature became apparent. This feature was examined by 16 m² of excavation.

1990 Season

Fieldwork was conducted during 1990 in four areas of the town. Excavation methods were essentially the same as those employed during the previous season. The first areas examined the Eighth Tything. Block A in this Tything was expanded to expose more of Feature 11 and to locate other architectural features associated with this cellar. An additional 32 m² was excavated in this block. These were originally designated Test Units 25 through 40. Nearly all of Feature 11 was excavated, except for two areas where large trees and root disturbances inhibited excavation.

The second area of examination involved surveying one of Ebenezer's public squares in search for the silk filature. Investigations began with completion of a 10 m interval grid of shovel tests across the area that conceivably could contain the ruins. This was an area 50 m east-west x 90 m north-south. Test excavations were conducted in three sectors within this
grid. Block F examined the suspected silk filature proper, while Block G investigated a concentration of slag, and Block H was placed where previous map work by Weitman and Wilder located the Public Square containing the silk filature.

A third area of study included a survey of Tythings 3 through 6, Market Square, and Public Lot. Survey of this area was accomplished by excavation of a 10 m interval shovel test grid. The shovel tests that were excavated in this area during the 1987 survey were incorporated into this analysis. Our previous work in this area showed it to contain few artifacts, and the 1990 season survey was intended to define better any potential significant areas within these boundaries.

The fourth area examined consisted of a Survey of the First and Second Tything and Public Square in Ebenezer's West Ward west of Georgia Highway 275. This area had received no prior attention during the 1987 survey. It was covered by a 10 m interval shovel test grid composed of 71 shovel tests. Archival research indicated that the First Tything was well settled, while no activity is recorded for the Second Tything. By conducting this survey we hoped to ascertain if the Second Tything was ever settled. Early maps place the orphanage within this Public Square (Seutter and Lotter 1747), and we hoped to locate artifacts or features relating to the orphanage complex. Survey was complicated by Georgia Highway 275 which hindered complete shovel test coverage of this area.

LABORATORY ANALYSIS

1989 Season

All artifacts were taken to the field lab established at the New Ebenezer Retreat for cleaning and preliminary analysis. Laboratory analysis ran concurrent with field work by taking advantage of inclement weather days. At the end of field work, the artifacts were returned to Athens, Georgia where the cleaning and analysis process continued. Selected metal artifacts were conserved by Jerald Ledbetter and Phil Quirk at Southeastern Archeological Services, Inc., conservation facilities in Athens. Glass trade beads were analyzed by Marvin T. Smith, and faunal material was analyzed by Karen G. Wood and Gwyneth Duncan. Photographic expertise was provided by Marshall "Woody" Williams and Mark Williams.

The analytical strategy for the artifacts was based on South's Group-Class-Type taxonomy (South 1977). Primary references utilized during the analysis included Ivor Noël Hume's (1983) Artifacts of Colonial America, Stone's (1977) Fort Michilimackinac 1715-1781, and Stanley South's (1977) Method and Theory in Historical Archaeology. Other references used in artifact identification include Hamilton and Emery (1988),

Brick fragments and daub were collected in the field, returned to the lab where they were counted and then discarded. All complete bricks were saved for further study. Slag was counted and rebagged.

Tobacco pipes were subjected to additional analysis whereby the bore diameters were measured for each specimen, and these data were used to calculate pipestem dates according to the Binford method (Binford 1962; Noël Hume 1983). Pipe bowls were grouped according to the classification system used by Stone (1974). Potentially diagnostic decorated pipe bowls were illustrated.

A sample of iron items was selected for cleaning by electrolysis. Most of the iron at Ebenezer is badly deteriorated and coated with a thick layer of rust. Other metals such as copper, lead, and pewter were better preserved and required no special cleaning.

Gunflints were grouped by type (spall or blade), color (grey, honey-color, or light Coastal Plain cherts), origin (English, French, or local), and length, width, and thickness. Lead shot diameters were measured to the nearest caliber (hundreths of an inch).

Ceramics from all proveniences were grouped into the following categories: tin enameled earthenware, slip decorated earthenware, coarse earthenware, redware, refined earthenware, coarse agateware, salt glazed stoneware, refined stoneware, porcelain, colonoware, and aboriginal pottery. Whenever possible sherds were identified by specific type and place of manufacture. Mean ceramic dates were calculated for the datable ceramics following South (1977). The ceramics from Feature 11 were subjected to a more detailed study.

All ceramics from Feature 11, excluding coarse earthenware, were labeled by provenience and cross mending was conducted. A similar analysis then was conducted with the coarse earthenwares, except that only rims, bases, and other unusual sherds were pulled from the collection. Whenever possible morphological attributes such as vessel diameter, appendiges, or form were noted. A minimum number of vessels estimate (MNV) was calculated for all ceramics from this sample. Selected profiles of coarse earthenware rims and bases were drawn.

Table glassware rim and base fragments from Feature 11 were analyzed by the same methods described for the ceramics. Representative artifacts from each artifact category were pulled from the collection for illustration.
1990 Season

Laboratory methods used during the 1990 season were consistent with those used during the previous year. Data from the 1990 season was integrated with the 1989 season and these combined results provided the subject matter of this report.

CURATION

All maps, notes, artifacts, photographs, field analysis forms, artifact analysis sheets, and other field records of the project are temporarily housed in the office of the Georgia Salzburger Society pending the creation of a more appropriate curatorial facility, which is planned for Ebenezer. The collections from the 1987 survey of Ebenezer also are housed in the Society’s office. A cataloguing system was created for labeling the artifacts from the 1987, 1989, and 1990 seasons. Under this system artifacts from the 1987 initial survey were designated by a 1. followed by the bag number, artifacts from the 1989 season were designated by a 2.#, and artifacts from the 1990 season were designated by a 7.#. (Catalog numbers 3-6 were allotted to various LAMAR Institute projects in the area and concurrent with the ongoing Ebenezer project.)
CHAPTER 3
RESULTS

EIGHTH TYTHING, EAST WARD

Historical Review of Lot 1

Three very different families were associated with Lot 1, East Ward, Eighth Tything in Ebenezer. Background sketches of the owners of Lot 1 are presented in the following section. The first settlers, the Riedelspergers, were of Salzburger stock, but their occupation of the lot was short-lived. The Riedelspergers were responsible for the initial house construction, so there should be archaeological evidence of an original Salzburger-style house on this lot. The Bichler, and later the Schrempff households were not strictly Salzburger, but had a mixture of Salzburger and Palatine cultural traditions. There is no record that either the Riedelsperger, Bichler, or Schrempff families had indentured servants or negro slaves.

Many of the Mill District plantations, including Bichler's, were in operation by 1738, and Bichler's town lot may have been occupied only part-time for a few years. By 1744, however, Bichler's job as constable and tavernkeeper of Ebenezer would have required his nearly constant presence in town (Candler's, Colonial Records of Georgia hereafter cited as CRG 6:99). By October, 1749, however, George Bruckner replaced Thomas Bichler as constable because Bichler had: "lately settled at too great a Distance from that Town" (CRG 6:292).

Rupen Schrempff purchased Lot 1 from Thomas Bichler, but there is no documentary record of this transaction. We estimate a date of 1749 or 1750 for the transfer from information available in the Detailed Reports. Rupen Schrempff died in 1753, and the lot later was claimed by Rupen Schrempff's widow and later was granted to her son Frederick (Hemperly 1974; Bryant 1975). There is no evidence, either documentary or archaeological, that this lot was occupied into the nineteenth century. Further, no written record indicates that Rupen Schrempff passed his skilled trade as a blacksmith and locksmith to either of his sons, although passing such skills from father to son was common practice at that time. At the time Rupen died, however, both of his sons would probably have been too young to learn many of the skills necessary to blacksmithing.

Adam Riedelsperger

The first owner associated with Lot 1 was Adam Riedelsperger as recorded in the
Adam Riedelsperger was a Salzburger farmhand from the jurisdiction of Lichtenstein-Salzfeld where he was born in 1701. He was described in 1734 by a European Protestant minister, T. M. Bonavendura Resch, as having: "good knowledge and is very able in worldly matters and has an excellent mind." Adam arrived in Georgia aboard the Prince of Wales in December 1734. He was married to Barbara (maiden name unknown) until his death in 1736. They were described by Boltzius as "a truly pious couple" (Jones 1968:194-195; 1969:57). There is no record of any offspring from their marriage. Apparently, Adam Riedelsperger had constructed a hut, kitchen, stables, and a garden fence on his lot during his short period of ownership from March to December, 1736. He was considered by Boltzius as "a good Christian" and "a blessing for the whole community." Riedelsperger also was a planter, and his harvest from crops in 1736 included five and one-half bushels of corn and six bushels of potatoes (Jones and Hahn 1972:266, 270).

Riedelsperger took the widow Margaret Schweighoffer and her children into his home, which was reported by Boltzius to be completely finished by May 12, 1736. Apparently, Mrs. Schweighoffer was ill, for she was unable to wash herself or her children (Jones and Hahn 1972:133). The children of Margaret and Paul Schweighoffer included: Maria, Thomas, and Ursula (Jones 1984: Appendix 2:184; Jones and Wilson 1981: Appendix III:325). Margaret Schweighoffer, or her children, probably lived with the Riedelsperger family for only a brief time.

Riedelsperger was quite sick in April, 1735, but recuperated. He also had a violent fever during November, 1736. This was cause for alarm in Ebenezer for he was the only remaining Salzburger who knew how to make wooden shoes as Boltzius reported: "Since Schweighoffer died, he has been the only man among us who can make wooden shoes, and therefore all the people in the congregation are waiting for his recovery, because almost nobody is in a position to pay for a pair of leather shoes." Adam remained very sick until his death on December 26, 1736 (Jones 1969:70-86; Jones and Hahn 1972:244, 265). According to Boltzius, the widow Riedelsperger gave her husband's town lot to Thomas Bichler when she remarried and moved to George Kogler's house in March, 1737 (Jones 1984: Appendix 2:179; Jones and Wilson 1976:36, 38).

Thomas Bichler

Thomas Bichler arrived in Georgia with his first wife Maria aboard the Prince of Wales in December, 1734. Bichler was a Salzburger from Memminger. The family originally settled at Old Ebenezer and relocated to New Ebenezer during 1736. Thomas Bichler's birthdate is unknown, but his wife was born in 1708. Thomas died in 1751 and Maria died in 1738, approximately two years after moving to New Ebenezer. A child named Maria is known from this marriage. Her birthdate is not recorded, but she was
reported as present in the colony in 1741. Following his first wife's death, Thomas married Margaret Kieffer in 1738. The Kieffer family originally had settled in Purysburg, and Margaret was of Palatine descent. She was the daughter of Theobald Kieffer, but little else is recorded concerning her. No record of her death was located, but she probably died before 1742, because in that year Thomas Bichler married Maria Bacher. Maria, a Salzburger, was Maria Schweiger before marriage. Bichler had two children including his daughter, Maria and a son, Johann Gottfried, and both were reported as present in Ebenezer in 1741. Their son died in 1749 (Jones in press 167-168). There is, however, no later record of Maria, and it is likely that she died prior to adulthood (Jones 1984: Appendix 2:148-149; Jones and Wilson 1976:321; Jones 1984: Appendix 2:148-149).

The Detailed Reports contain an entry during August, 1736, in which Bichler [Pichler] complained of the location of his original lot [location unknown]. Boltzius wrote:

To the right side and into the city runs a deep and unusually dry ditch into which the back part of Pichler's house extends. The surveyor put the house lots of several people in this ditch, but he also gave them others because they did not please them. This Pichler let himself, however, be persuaded to take his lot here. But now it is bad for both him and his cattle here, because every rain inconveniences him, and the vapors that linger in this ditch and on the other side in the high reeds and mud obviously damage his and his family's health; and therefore he is compelled to change this house lot even though he as already expended much work on the hut and the garden fence. (Jones and Hahn 1972:197-198).

Sometime after March, 1737, Bichler acquired the Riedelsperger's lot:

Mrs. Riedelsperger will move into Kogler's house and thus give up the hut and the site held by her deceased husband, Pichler has agreed with him to move here instead. He will make a small payment for the garden fence, the hut, the stables, and kitchen. Until now he has had his lot in a deep valley where much water accumulates during the rainy season and which at all times is muddy and unhealthy. If we had not been able to effect this change, he and his wife and child might have suffered grievously as to their health (Jones and Wilson 1976:39).

The Bichlers had a child by October, 1736, when it was recorded that their whole family was sick with fever. In April, 1740, his sick daughter Maria reportedly ate "dirt and ashes", had a "deathly pallor and bloated belly", and developed a "fever-clot" which Boltzius described as "the hard thing in the left side of several people who are always sick with it and have recurrent fever. We do not hear of these symptoms in Savannah; and once the people there are cured of their fever, they know nothing more about it. But here the people often contract it again, and some of them drag themselves around with quartran fever for a year and a day." (Jones and Savelle 1972:225; 1983:84, 127).
affliction was treated by internal and external application of cortex Peruviana, which Jones and Savelle (1983:292) identify as Cinchona bark.

Thomas Bichler took in the Haberfehner's oldest girl, who was approximately sixteen in November 1736. By May, 1737, however, the orphan was removed from Bichler's care at his own request (Jones and Hahn 1972:243; Jones and Wilson 1976:71).

Boltzius reported that Bichler and his wife sinned against him during June, 1737

Not only his wife but he too had sold something to the English at a price far in excess of that demanded by the rules of common decency. But that was not all; he received flour instead of money in Savannah and has sold it here to our poor people for a higher price than that for which he received it; and this has caused much ill with those who knew of this matter. Furthermore, this Pichler is willing to accompany the Swiss to Savannah-Town [New Windsor], and he is making the poor people pay him for this service at the same high rates as the English demand, if not higher. (Jones and Wilson 1976:88)

This event apparently forged an apparent disdain by Boltzius for the Bichlers. This is reflected in his diary entry of November 27, 1737: "N [Mrs. Bichler] has been ill for a long time, and her affliction has worsened since the time she sinned against the Lord by her grievous offences" (Jones and Wilson 1976:204). Again in December, 1737, Boltzius wrote: "N. [Mrs. Bichler] has again fallen ill and must keep to her bed, nor is the condition of her soul according to my hopes....I earnestly admonished her to guard her soul, for Satan was surely to be found close by and would try to ensnare her into perdition with the very bonds of which she had just made mention" (Jones and Wilson 1976:220).

In December, 1737, Mrs. Bichler urged her husband to move to Pennsylvania, but according to Boltzius, Thomas Bichler was reluctant to go and he told his wife that: "she should drop all thought of leaving; for he would not follow her, since that would be against the will and the glory of the Lord" (Jones and Wilson 1976:223). Mrs. Bichler was ill and remained so until her death in February, 1738 (Jones and Wilson 1976:44). Thomas Bichler had a renewed desire to go to Pennsylvania following his wife's death (Jones and Wilson 1976:44-46, 48, 52-53). He became sick, had a relapse, and was near death, but then he recovered from his illness, only to become ill again all during 1738 (Jones and Wilson 1976:93, 95, 123, 125, 126, 131, 235). He married Margaret Kieffer sometime after June of that same year (Jones and Wilson 1976:139). By December, 1739, she was reportedly in childbed at the orphanage (Jones and Wilson 1981:316).

In November, 1739, Boltzius notes that he went to Bichler's plantation in the Mill District (Jones and Wilson 1981:292). This suggests that Pichler was a part-time resident of the Mill District and no longer a full-time resident of Ebenezer proper by November, 1739. In August, 1740, Boltzius wrote that: "divine services were held on Pichler's
plantation, where the mill is being built." By December, 1740, Bichler was reportedly running the mill (Jones and Savelle 1983:223, 276). By January, 1741, Boltzius wrote glowingly of Bichler: "Pichler, a reasonable and skilled Salzburger, whose plantation and household are situated near the mill, has been appointed as miller" (Jones 1985:19). Bichler was replaced later as miller by David Eischperger.

Thomas Bichler also was a planter and was producing crops in Ebenezer by 1736. His combined crop yield for 1736, 1739, 1741, and 1742 totalled 163.5 bushels of corn, 17.5 bushels of beans, 78 bushels of potatoes, 26 bushels of rice, 3.5 bushels of wheat, and 0.5 bushel of rye (Jones and Hahn 1972: 270; Jones and Wilson 1981: Appendix V:335; Jones 1985:497; Jones 1988:220).

Bichler, his wife Margaret, and their two little children received a share of supplies in January, 1742, which Boltzius itemized in his Detailed Reports including: "mattress w. pillow, shirts and cotton nightcaps, twine for the children, 2 mill hammers and cloth for a bag" (Jones 1988:7).

In 1743, Boltzius describes Bichler's role as tavernkeeper in Ebenezer.

Some time ago, with the approval of the community, the Salzburger Stichler [F. F. Jones concludes this must be Bichler, since no Stichlers resided at Ebenezer] began to establish a tavern in an orderly and Christian manner (not for the harm, but for the use and convenience of his neighbors). For this he recently received, in my presence and at my recommendation, a written permission or licentia, which the English call a "licence". In it is written his duty, namely, not to allow any disorder, gambling, or suchlikes and that he will appear at Easter again before the council with two witnesses, from whose mouths they wish to hear about his conduct. The license serves primarily to prevent any barroom from arising in that it forbids any and every person at our place to sell or serve strong drinks to guests. We greatly need an orderly host among us not only for the sake of the local inhabitants but also for the sake of strangers, for otherwise the people come to our houses as if they were taverns and demand everything for money or gratis; and, if they are refused, they grumble. (Jones 1988:109)

Bichler was appointed Tythingman by General Oglethorpe during the war with the Spanish in May, 1742. This non-commissioned officer status gave him rank over six rangers. Bichler and the rangers were provided a monthly pay and "good horses, good flintlocks, saddles, trappings, powder, and lead" (Jones 1988:109). This troop of rangers monitored the lands between Frederica and Ebenezer and maintained a lookout for Spanish, hostile Indians, and runaway black slaves during the period of tension between the settlers of Georgia and Florida.

In March, 1744, Thomas Bichler was appointed constable and was charged with care of Militia arms in Ebenezer (CRG 6:99). Bichler retained this position at least until 1748 as
recorded in the *Detailed Reports*. The rangers under Bichler's command were disbanded in January, 1750 (Jones in press).

In 1748, his yearly salary as constable was £5 Sterling (Jones 1989b:101). Obtaining his salary and pay for his rangers, or town dragoons, required Bichler to travel to Frederica (Jones 1989a:1). Delays in payment were apparently taken in stride as Boltzius noted in January, 1747: "The constable of our rangers, Bichler, has returned from Frederica, where he had to stay for almost two months in order to get the money for himself and his men, which he properly received" (Jones 1989a:1). And on February 7, 1747, Boltzius continued: "Today our rangers started to receive their backpay. They were paid for two years, which amounts to 132 pounds Sterling. Their constable, Thomas Bichler, obtained the money from Frederica for one year, seven months, and twenty-four days; and in the very near future the rangers are to be paid" (Jones 1989a:8-9). A swindler made short work of Bichler's earnings as Boltzius noted two days later: "Because of him [the swindler] my dear colleague, Constable Bichler, had to spend a considerable sum of money in Charleston as well as on his trip there and back" (Jones 1989a:9).

In addition to his other duties, Bichler was a saddler, as Boltzius noted in 1748: "[Bichler] has started to make Salzburg-type saddles and harnesses from treated sheepskins sent to us, works as a saddler in some fashion. He has done very well" (Jones 1989b:12).

In January, 1750, Boltzius noted that Bichler: "*has a consumptive fever in a high degree, seems to be going nearer and nearer to his end*" (Jones in press: 13). By October, 1750, Bichler's condition worsened as Boltzius described in detail:

The Salzburger Thomas Bichler is not making any progress either in his Christianity or in the running of his household. His body is growing weaker; and he lacks sufficient supplies from time to time; it is his own fault. At first, he had been our miller; after that, General Oglethorpe, upon my recommendation, made him the commanding officer of the rangers. In addition to that, he kept an inn in town, raised cattle, and farmed. After the rangers had been dismissed, he was no longer interested in being either an inn-keeper or a farmer, and he asked to be installed as the foreman at our cowpen. In this position he received annually the sum of sixteen pounds Sterling, and his field-hand got ten pounds Sterling; in addition to that, he had ample opportunity for raising crops, as well as certain other advantages. He quit this job, too, and moved in with his mother-in-law.

Now, he has more troubles; he has a horse, which was the source of overweening pride in his days as an officer; his overbearing, sinful manner had been giving offense in our community. Due to his own fault, the horse kicked his only son, a good child, and injured him so severely that he died miserably the next day. This accident happened a little more than a year ago, in the presence of the father, on a Sunday during our afternoon services. At that time, both I and Mr. Meyer were unaware of an English law which applies in such sad cases; this law is called
deodand (quasi Deo dandum). Therefore, nothing more could be done but to grieve, and to humiliate ourselves before God, asking him to have mercy on our community by not burdening it with this child's blood. A good while after that, when Mr. Meyer had relinquished his offices as our justice of the peace and our trading agent, I had to read through the English laws in order to familiarize myself with them to an extent which seemed fitting for a justice of the peace. I made an excerpt for the purpose of reading it aloud to our people, and I came across the law deodand, which prescribes that a horse or other animal which kills a human being becomes the property of God and has to be given to Him or, by the authorities, to a community's poor.

Bichler was not present when I read the English laws to our people; but he heard about it from others and, in particular, of the law which pertained to him and his horse. He is determined, and calls it a matter of conscience, to keep this horse for his own use, and he has told me to obtain a judgement in this case from the authorities in Savannah. Since then, his good luck had been waning constantly; in this manner God intends to punish him. On the other hand, he is a capable, talented man, and a productive member of our community; he could be even more valuable to us if he were converted and in the process gave up his pride, short-temper, stubbornness, and belligerent attitude towards people in authority and if he could quit his self-righteousness. Almost everybody prefers to avoid dealing with him because of his character.

His bad luck in the past he blamed not on himself, but on his superiors and on other people. At all times, I had sought to influence him towards his own best interest in spiritual and physical matters, and I still attempt to do this, against all odds. Secretly, he speaks ill of me, and in Savannah, in my presence, he was told that he was the worst enemy of me and our community (Jones in press 167-168).

By December, 1750, Bichler's condition had not improved:

The Salzburger Bichler is being humbled by God in may ways. He has tried all sorts of ways to support himself better than others. He has always aimed upwards and tried to get ahead of other people, but by this he has come into temptation, loss and debts. He has good understanding and other natural gifts but is now one of the poorest in the community; indeed, I believe there is no one so poor as he....In his great poverty he is also consumptive and incapable of work. Oh, if only God could achieve His purpose in him! (Jones in press 209).

Thomas Bichler died in 1751. There is no record of the Bichler family name continuing in Ebenezer after his death.

Rupert and Frederick Schrempff

The earliest official reference for Lot 1, Eighth Tything, East Ward is found in a land claim by Rupert Shrempff's widow dating around 1755 (Bryant 1975:45). In her claim,
Mrs. Shrempff stated that the lot had been purchased from Thomas Bichler, then deceased. No official record of the transaction between Bichler and Shrempff has been found, and no date of the transfer between Bichler and Schrempff was recorded. Her claim also states that the lot was located near that of John Casper Wertsch. Schrempff's widow remarried in 1756, and probably moved off the lot shortly thereafter.

Lot 1 was granted by the Crown to her son, Frederick Schrempf in 1759 (Colonial Deed Book B:293). This grant stated that the lot joined "on the West to lot of John Gasper Wertsch." An undated document on file at the Georgia Historical Society in Savannah (tentatively dated to circa 1793) lists no owner for Lot 1 during this time. The document lists the Grantee as the "Heirs of Rupert Schein". There are no other records of a Rupert Schein in Ebenezer, and it is probable that Schein is a gross misspelling of Schrempff.

Rupert Schrempff, born in 1722, arrived in Georgia with the fourth Salzburger transport aboard the Loyal Judith in December, 1741. He was listed by Boltzius as the stepson of the locksmith Veit Lechner (Jones 1988:14). In March, 1742 the young locksmith, Schrempff married Barbara Brickl who arrived in the colony aboard the same transport, but Barbara died during May that same year (Jones 1988:78).

In August, 1742, Schrempff fell ill and the approved treatment for his illness, based on the book Poor Man's Apothecary, included frequent blood letting and drinking a mixture of saltpeter or spirits of vitriol and water. This treatment was administered to Schrempff as described:

At first we tapped a vein in his head and, because the blood would not run, after that a vein in his arm, which last, fortunately, proved very successful. We had several men at hand who were holding him...The tailor Christ was also there and had the courage to hold Schrempff's hands so that he could not thrash around and hinder the bloodletting; but thereby or in some other way he must have become very fevered, because directly thereupon he had a severe hemorrhage which lasted from six to eleven o'clock. I as well as my dear colleague were called to him in the night--when we indeed administered two powders to him; but because they showed no sign of calming his blood, we undertook a sympathetic cure for him, by which his blood was also calmed. He lay as if dead on the bare ground, and things would not have turned out well for him if we had not had some men bring him to a warm bed (Jones 1988:167).

Schrempff was reportedly in a constant delirium into September, 1742 (Jones 1988:192). During that same year, he produced only 9 bushels of corn (Jones 1988:222). The following year Rupert apparently recovered and married Ottilie Kieffer. As noted previously, the Kieffers were Palatine immigrants who settled in Purysburg, South Carolina. The Kieffers were among the original Georgia colonists that arrived in Savannah (Coulter and Saye 1949).

The Detailed Reports contain several insightful comments on Schrempff's role as a
smithy, as well as other locksmiths and blacksmiths in Ebenezer. In September and December, 1743, Boltzius wrote:

Now that Leitner has properly established himself, our congregation is provided with a good smithy. He burns his charcoal on his own plantation, even though he had never learned to; and now that I have helped him get inexpensive iron in Charleston, I hope he can give his services cheaper than in Savannah; and then he will have no lack of work. His stepson [Peter] Arnsdorf is learning blacksmithing from him. He is a skillful inventive type, and with time he will be able to do his stepfather good service. In addition to this smithy we also have two locksmiths in the community, who have set up their shops. One of them is Brückner and the other is Schrempf, who has bought all his tools from his stepfather Lackner at a fair price and under certain conditions...The young locksmith Schrempf is a skillful and industrious worker; and because he can make all sorts of things, there is always enough work for him. It is a great obstacle in his profession that he can get no black sheet iron in either Savannah or Charleston and that he is required to disassemble old hoes and pans and hammer the plate when he needs it. He would also make wind stoves at a cheap price for our people in their rooms if only he could get sheet metal; and this would be a great benefaction for many, especially for those who are sick or have small children. He has asked me to help him acquire a hundredweight of sheet metal from London, for which he will gladly pay (Jones 1988:104, 125-126).

By September, 1747, however, Schrempff was dissatisfied with life at Ebenezer and he moved to South Carolina, but by November, 1747, he regretted leaving.

Leckner asked his stepson, N. [Schrempf] why he wanted to move to Carolina when his earnings were quite good here. The answer he got was that there he could eat meat three times a day....He has also forgotten that God sent him a disease which made him rant and rave during the time of the Spanish Invasion....He has been doing various work and received from me two pounds and 8 shillings Sterling in cash for it. He charges a high price for his work. ...Schrempf, the locksmith who moved to Carolina with his wife and family a few weeks ago came to visit us for a little while; and today he attended our service at church. He told me that he was full of remorse for moving; that he did not find the new place the way he expected it to be, and that he wishes now that he had not sold his house and various other things. He is obligated for the next three years; after that, he wants to return to us if we will have him back and provide him with another lot to build a house, which I will be glad to do (Jones 1989a:108, 123).

Again, in December, 1748, Boltzius wrote concerning Schrempff:

The locksmith Schrempf and Bischoff, who moved to Carolina some time ago, came to see us
today to attend our church services over the holidays and to take the Holy Sacrament. They are planning to take land here again and eventually move here. Since they left, they have suffered more harm than benefit with regard to their physical well being; Schrempff had made room for our locksmith Brückner, who then took up his trade and, with God's blessing prospered and did well in his household affairs (Jones 1989b:113).

Rupert Schrempff probably returned to live in Ebenezer around 1750 because we know that he was granted a lot in Bethany in that year. He died shortly thereafter in 1753 leaving behind his two sons, John Frederick and Solomon. Schrempff’s widow Ottillie Mariabel Schrempff married Hugh Kennedy, a non-Salzburger and non-resident of Ebenezer, in September, 1756 (Voight 1929:71).

Frederick Schrempff received a grant for Lot 1, Eighth Tything in Ebenezer in 1759 and one in Bethany in 1769. In 1770, he married Sarah Dixon and in 1772 he married Christina Elizabeth (maiden name unknown). There is no record of Frederick Schrempff’s death, but he apparently was no longer a resident of Ebenezer following the Revolutionary War. The Ebenzer lot owned by the Schrempffs may not have been occupied following the settlement of Bethany wherein both Rupert and Frederick received grants. This can best be determined through archaeological methods, since the historical record is mute during the period. Frederick and Christina Schrempff had a son Solomon (born in 1773), and a son William (born in 1777), and a daughter Christina (born in 1778).

Little is known of Solomon Schrempff (Rupert’s other son). He received a grant in 1768, he was listed as an Elder of the Ebenezer Congregation in 1778, and he died in 1780 (Jones 1984: Appendix 2:183; Voight 1929:111). The Schrempff lineage continued in Effingham County after 1780, although the surname was anglicized during the early nineteenth century into the name Shrimph (Effingham County, Ordinary, Miscellaneous Records, Book B:374). A 1799 deed lists William Shrimph as the son and only heir of John Frederick Shrimph (Effingham County Deed Book C-D:109). William Shrimph also is listed on an 1818 Effingham County document (Wilson 1983). No court records from the post-Revolutionary War period, however, were found for Schrempff’s Ebenezer town lot.

Rupert Schrempff had previously owned another lot in Ebenezer (East Ward, First Tything, Lot 6, but no formal grant for his ownership was recorded. In 1755, this lot was claimed by Christoph Cramer who stated that it was bought of Rupert Schrempff, deceased (Bryant 1975:81). This lot was Rupert Schrempff’s original town lot, which he sold prior to leaving Ebenezer for his ill-fated three year residence in Carolina.
Historical Review of Lot 2

Considerably less is known about the record of ownership of Lot 2, Eighth Tything, East Ward. No record of ownership from the period 1736 to 1755 was located, and there is an unclear title to the town lot after 1781. It is most likely that the lot was occupied during the period 1736-1748, but the owners left no record of their presence. We found two official Colonial records of lot ownership for Lot 2. John Casper Wertsch filed a 1755 land claim, and was granted the same lot, one of two original lots claimed by Wertsch, by the Crown in 1756. An undated document on file at the Georgia Historical Society in Savannah (probably dating about 1793) lists this lot as granted to the Estate of Wertsch with no contemporary owner listed. There were no subsequent references to this specific lot (Bryant 1975:49; Colonial Deed Book A:261; CRG 8:158).

John Wertsch

John Casper Wertsch was a Palatine who arrived aboard the Charles Town Galley in 1749 as an indentured servant to Carl Flerl. Wertsch was a baker's apprentice. In 1758, he married Hannah Elizabeth Gronau, one of two daughters of Reverend Christian Gronau. By this marriage there were two sons, Christian Israel (born 1759, died 1759) and Benjamin (born 1761, died 1762), and one daughter, Catherine (born 1763, died 1763). Hannah Elizabeth died in June, 1769. John Casper Wensch remarried in October that same year to Elizabeth Kogler, daughter of George Kogler, a Salzburger, and from this marriage they had two daughters, Hannah (Born 1770) and Elizabeth (born 1777) (Jones 1984:Appendix 2:189; Voigt 1929:21, 26, 46, 60, 78, 90, 92, 94, 101).

In July, 1750, Wensch was the schoolmaster on the plantations of whom Boltzius commented: "Almost the only good thing that has resulted from the arrival of the transport of servants here seems to be that we acquired a clever and hard-working schoolmaster, who also conducts himself properly. We also take good care of him" (Jones in press:104).

During his 30 year residence at Ebenezer, before his death in 1779, Wertsch rose to become one of the key citizens in the town. He served as a deacon under Reverend Christian Triebner during the 1770s and led the loyalist faction at Ebenezer. The townspeople were sharply divided over this political issue, but the division within the community had its roots even earlier during a dispute between Reverends Rabenhorst and Triebner concerning church finances. This antagonism was partially settled by the interdiction of Reverend Henry M. Muhlenberg. Muhlenberg conducted an inventory of Church property during his visits in 1774 and 1775 listed Wertsch as holding £300 in operating funds for the store (Stroebel 1953:190).

Wertsch went on to become a prominent merchant, and had the most extensive land holdings within the town of Ebenezer totalling seven lots, as well as owning large areas of
outlying real estate in the Bethany settlement and elsewhere in the colony. Since he had several town lots, one cannot be sure which lot contained his actual residence. Wertsch died in June 1779, prior to the British invasion of Ebenezer, and his family left Ebenezer in December 1781 along with the British forces. Although Wertsch was a Tory, his lands were not among the Loyalist lands confiscated after the American Revolution. The estate of John Casper Wertsch was listed as possessing town lots as late as 1806 when two lots were sold by a Sheriff's sale (Colonial Conveyences S:514; Colonial Conveyences X-1:514; Colonial Deed Book A:261, 262; B:286; Anonymous 1793; Effingham County Deed Book E-F:216, 217).

Wertsch was a strong supporter of Ebenezer's silk industry and was responsible for silk shipments to London in 1770, 1771, and 1772. In 1765, Wertsch, along with John Adam Treutlen, obtained a license to be a retailer in Ebenezer and renewed the license the following year (Davies 1972:408, 1973:151; Georgia Gazette January 19, 1764, February 7, 1765:3).

Wertsch's daughter Hannah (a.k.a. Joanna) "married Ernst, and had one son Gotlieb Ernst, and 2nd to Herman Herson [Herson], who left no child" (Wilson 1983:21). Herman Herson was appointed administrator of the will of Mrs. Caspar Wertsch, nee Elizabeth Koegler in 1791. In August, 1791, he gave 25 guineas to Christian Dasher for the legacy left by the will of Elizabeth Wertsch to Hannah Gugle wife of Christian Dasher of Goshen, planter. Herson apparently died shortly thereafter, and the estate of Wertsch experienced a legal tangle lasting until 1815 (Wilson 1983:62-63).

Effingham County Miscellaneous Records Book B:15 contains a return showing receipts and disbursements of the John Casper Wertch estate for the period February 17, 1789 to 1792 under the administration of John Wisenbaker. A later entry dated March 2, 1792 in the same book (B:17) states that Hergen [Herman] Herson [second husband to Wertsch's daughter] was appointed Administrator of the Wertch estate.

The will of Herman Herson, ship carpenter, was probated in 1793. His will was first administered by his wife Joannah Christiana, John Wisenbaker and John Herb. Mrs. Hannah Herson [Wertsch's daughter] was appointed administrator June 5, 1797. She was also appointed administrator de bonis non (with the will annexed) for Wertsch's estate on May 3, 1797. The legatees listed in the will of Herman Herson were: the children of John Wisenbaker; Mathias Wisenbaker, and Jacob Wisenbaker; children of brother Henry Herson in Oldenburg Germany; half brother Claus Jacobs, and sister Margareta Dershon.

The children of John Wisenbaker, who died in 1803, were John and Christian who were held under guardianship by Chris Dasher. Jacob Wisenbaker had two daughters, Ann Mary and Margaret. Mrs. Hannah Wisenbaker was appointed Administrator for the estate of Jacob Wisenbaker on February 15, 1797 (Effingham County Miscellaneous Records, Book B:66).
Mathias Wisenbaker had eight children. In 1804 Mathias Wisenbaker appointed Christopher F. Triebner his attorney for his children's part of Herman Herson's estate. In April 1819, Lucy Wisenbaker appointed an attorney to secure her part of this legacy (Wilson 1983:62-63).

A Fi Fas ruling in 1806 against Hannah and John Dasher, Jr., who were listed as administrators of Casper Wertsch deceased allowed the sale of a lot in Ebenezer to Hannah Dasher for 30 dollars. This lot was formerly: *"property of Merchant Graft conveyed by him to Casper Wertsch by Rev. Rabenhorst administrator of Graft estate"* (Effingham County Deed Book E-F:195). Unfortunately, the precise location of this lot is not given. The identity of Merchant Graft is somewhat of an enigma. Jones (1984:Appendix 2:158) records no Grafts in the Ebenezer community, but he does list one Graeff who was a former soldier from Frederica. This Graeff and his wife Catherine were listed as present in Ebenezer in 1752, but are otherwise not referenced.

That Wertsch's land was not confiscated after the war may reflect the degree of respect that citizens of Ebenezer felt for Wertsch (Taylor 1981). In 1772, Wertsch donated 500 pounds for the support of the missionaries at Ebenezer. This generous donation nearly paid for the newly constructed brick church which was built at a cost of 700 pounds. Wertsch had served as a church leader in Ebenezer as early as 1751 and as late as 1771 (SPCK 1772:82-85; SPCK 1771; Colonial Deed Book H:56; Colonial Conveyences C-2:1032). There was no such loyalty shown for Reverend Triebner, however, whose lands were totally confiscated.

Muhlenberg described Wertsch's house as a two-story dwelling located near the Jerusalem church (Tappert and Doberstein 1942-1958). Since by the 1750s, Wertsch had been granted two town lots, we do not know on which lot he resided. Both lots are between the church and the Savannah River, and both lots are nearly equal distance from the church lot, so each fits the location described by Muhlenberg. If Wertsch resided on Lot 2, Eighth Tything, East Ward, then the lot should contain the ruins of a substantial dwelling house, as well as higher status domestic refuse. Wertsch apparently died a wealthy gentleman by Ebenezer standards.

**Historical Review of Lot 3**

No owners for Lot 3, Eighth Tything, East Ward were identified prior to 1755, but it is very likely that the lot was occupied during the period 1736 to 1750. The earliest reference to Lot 3 was in 1755, when the lot was claimed by Nicholas Chronburgh [various spellings, but Kronberger is preferred by Jones (1984)]. The lot was granted in 1757 to Nicholas Cronenberger (Bryant 1975:206; Colonial Deed Book A:451).
Nicholas Kronberger

Nicholas Kronberger was born in 1717 and died in January, 1776. He was married to Elizabeth Margaret Kieffer. Nicholas moved to Ebenezer from Purysburg during the 1750s. Nicholas had received a grant in Georgia as early as 1750 (Jones 1984:Appendix 2:168). The couple apparently had three children mentioned in 1757, although we only identified two sons from available records. Their son, John Christopher, was born in 1757, and was present in Ebenezer as late as 1774, when he was among the signers of a church document (Jones 1984: Appendix 2, 168; Voight 1929:6). An older son named Jacob, was granted a town lot next to his father in 1759 (CRG 8:92).

Nicholas Kronberger had his negro slave Susannah baptized in 1774 (Voight 1929:53). Records suggest that he owned at least two slaves—Susannah and her mother whose name was not recorded. Little else is presently known about Nicholas Kronberger, or other members of his family. He was probably a farmer by trade, and he owned extensive areas of river swamp in the Ebenezer vicinity. There are no records linking the Kronbergers with Lot 3 after the American Revolution.

Thomas Wylly

By 1793, the lot was regranted to Thomas Wylly, a non-German who also received other abandoned or unclaimed lots in the town. A church document from that period lists no previous owner for the lot and this suggests that the Kronberger family laid no claim to the land. Wylly maintained a large plantation in the Bethany community and probably did not reside on the lot, but merely held the property in speculation, and it is likely that the lot was abandoned following the American Revolution. We found no subsequent references to Lot 3.
Archaeological Investigations

A total of 80 m² has been excavated on the Eighth Tything, East Ward of New Ebenezer. This includes 48 m² excavated during the 1989 season and an additional 32 m² excavated on Block A during the 1990 season. The 1989 season focused exclusively on the Eighth Tything. The excavations were comprised of five block units that were identified by a letter designation (A through E). While the precise location of the lot boundaries has not been determined, Blocks A and B probably are located on Lot 1; Block C and D probably are located on Lot 2; and Block E probably is located on Lot 3. The location of each block unit is shown in Figure 3.

Shovel Tests

One hundred and two shovel tests were excavated on a 5 m interval grid within a portion of the Eighth Tything, East Ward extending from 1100 to 1145 N and 1056 to 1106 E. Ten of these tests contained no cultural artifacts, while 92 contained either historic or prehistoric artifacts. Historic artifacts, excluding daub, which also could be associated with the aboriginal occupation, were found in 72 tests. Most artifacts in the shovel tests were found in the upper 35 cm of soil, although 35 tests contained artifacts below 35 cm. The shovel test collection includes: 159 kitchen group artifacts; 336 architecture group artifacts (including 290 daub fragments); 1 arms group artifact; 3 clothing group artifacts; nine tobacco group artifacts; and 21 activities group artifacts.

Features, or suspected features, were found in the following six locations:

1115N 1101E, Feature 11
1115N 1066E, Feature 8
1120N 1066E, unconfirmed feature
1125N 1066E, unconfirmed feature
1105N 1101E, unconfirmed feature
1120N 1101E, unconfirmed feature

The shovel test data provided insight into the archaeological potential of this portion of the town. The most startling observation was that the front part of town (that nearest to the Savannah River) had very few historic artifacts. Historic artifacts decreased considerably north of the 1125 N line, yet previous land surveys showed this area to be part of the town. This spatial pattern is illustrated by three computer generated artifact density maps of the shovel tested area (Figures 4 through 6).

The most intriguing map shows the density distribution of historic artifact diversity
Figure 4. Computer-generated density map of artifact diversity, Eighth Tything.
Figure 5. Computer-generated density map of kitchen artifacts, Eighth Tything.
Figure 6. Computer-generated density map of architecture artifacts, Eighth Tything.
(number of different artifact categories). This map shows two main artifact clusters—one centered at 1115 N 1096 E and a second at 1115 N 1071 E. These two clusters are approximately 82 ft apart and probably represent debris from two neighboring households. The western cluster appears to be surrounded by a rectangular band of higher artifact density. On the east-west axis this rectangle is approximately 40 m wide, or 131 ft. Since the town lots were 60 ft wide this band may represent trash deposited against a fenceline that enclosed Lot 2 and 3. None of the block excavations intersected this rectangle. Future excavations should be undertaken in this area to look for evidence of a fence line.

The second map shows the distribution of kitchen group artifacts. A concentration of artifacts is apparent in the vicinity of Block A. The center of this concentration is at 1115 N 1101 E where 12 kitchen group artifacts were found in one shovel test.

The third map shows the distribution of architectural group artifacts. This map shows two major concentrations of artifacts—an eastern cluster with its center located at 1110 N 1091 E where 22 architecture group artifacts were found in a shovel test and a western cluster centered at 1120 N 1066 E where 21 architecture group artifacts were found in a shovel test.

All three maps show a near absence of historic artifacts north of the 1125 N line. This fact, along with the discovery of Feature 11, led to our rethinking the town's layout. The northern boundary of the lots appears to be near 1125 N or approximately 9 m or 30 ft south of its location identified by the Effingham County Surveyor Weitman. We suspect the east-west error to be approximately 13 m or 42 ft.

**Block Excavations**

Five separate blocks were excavated in the Eighth Tything. Each of these blocks began as a 2 m x 1 m test unit which was expanded upon revealing any research potential. These 2 m x 1 m tests originally were treated as distinct excavation units, and later were assigned block designations during the analysis phase. After the removal of the plow disturbed soil zone, each unit was excavated in 10 cm vertical increments to the base of the historic period stratum.

Block A consisted of an irregularly shaped area totalling 52 m². This was the largest of the blocks, and Feature 11 filled most of it. The block extended from 1110 to 1118 N and from 1096 to 1107 E. Features 10, 12, 13, 14, 17, 19, 20, 21, 23, and 24 also were contained within this block. Most of these features are associated with Schrempf's house. The block was dug to an average of 35 cm B.S. (below surface). This block probably extended slightly beyond the limits of Lot 1 into the adjacent public street and alley.

Block B was rectangular and totalled 12 m². Four features (Features 4, 5, 6, and 7) were located within this block. The block extended from 1111 to 1114 N and from 1089 to
1093 E. This block was dug to a depth of 22 cm B.S. Block C was rectangular and measured 2 m². It extended from 1115 to 1116 N and from 1087 to 1089 E. This block contained three small features (Features 1, 2, and 3), and was dug to a depth of 30 cm B.S. Blocks A, B, and C probably were within Lot 1 and are associated with the Riedelberger, Bichler, and Schrempf families during the period 1736 to 1776.

Block D was rectangular, measured 4 m², and was dug to a depth of 20 cm B.S. This block extended from 1115 to 1117 N and from 1081 to 1083 E. No features were identified within this block. This block probably lies within Lot 2 which was owned by John Casper Wetsch during the mid 1700s. The earlier owners of the lot are unknown. Wetsch probably resided on one of his other town lots, and Lot 2 may have been unoccupied during most of the town’s existence.

Block E consisted of an irregularly shaped area totalling 10 m². This block probably lies within Lot 3. This unit extended from 1115 to 1118 N and from 1070 to 1074 E. Feature 8 filled most of the block. The portion of the block not containing Feature 8 was excavated to 55 cm B.S. Excavation of this block was hampered by roots from a large sweetgum tree that grew from the center of Feature 8. Groundwater forced termination of the excavation of Feature 8 at 140 cm B.S. Most of the artifacts from this block probably are associated with the Kronberger family.

Block A contained: 5,903 kitchen group artifacts; 8,895 architecture group artifacts; 52 arms group artifacts; 82 clothing group artifacts; nine personal group artifacts; 999 tobacco group artifacts; and 2,555 activities group artifacts. Most of the artifacts were associated with Feature 11. Ceramics recovered from this block yielded a mean ceramic date of 1733.9 and a terminus post quem of 1774. Pipestems recovered from the 1989 excavation block yielded a date estimate of 1749.7. The 1990 excavation sample of 241 pipestems yielded a date of 1765.6 for the block.

Block B contained: 616 kitchen group artifacts; 824 architecture group artifacts (including 677 daub, 1 brick, and 1 slate fragments); 7 arms group artifacts; 2 clothing group artifacts; 78 tobacco group artifacts; and 75 activities group artifacts. Ceramics recovered from this block yielded a mean ceramic date of 1761.6 and a terminus post quem of 1762. Pipestems recovered from the block yielded a date estimate of 1754.9.

Block C contained: 101 kitchen group artifacts; 159 architecture group artifacts (including 140 daub fragments); 2 arms group artifacts; 7 tobacco group artifacts; and 6 activities group artifacts. Ceramics recovered from this block yielded a mean ceramic date of 1756.7 and a terminus post quem of 1762. Too few pipestems were recovered from this block to allow an accurate date estimate.

The material culture data from Blocks A, B, and C suggests that the peak periods of refuse disposal on the lot were during the Schrempf’s tenure. Riedelsberger’s use of the lot lasted less than one year and although the diaries state that he constructed a dwelling on
the lot, there may be very few artifacts from the first period of residence. Bichler owned
the lot for a longer period of time and he probably lived on it for most of that period. The
artifacts associated with Bichler's residence may be difficult to distinguish from those
discarded by the Schrempffs.

Block D contained: 77 kitchen group artifacts; 109 architecture group artifacts
(including 97 daub fragments); 1 arms group artifact; 2 tobacco group artifacts; and 5
activities group artifacts. Ceramics recovered from this block yielded a mean ceramic date
of 1770.6 and a terminus post quem of 1774. Too few pipestems were recovered from this
block to allow an accurate date estimate. The artifact density in this block was very low,
possibly indicating that this lot was never developed as a residence. This lot is in a prime
location however, and it seems odd that it does not contain evidence of dense settlement.
The fact that the lot was owned by Wertsch may account for its inactivity. Wertsch may
have held the lot as an investment, and following his death, the lot was "tied-up" for the
rest of the eighteenth century by the contesting of Wertsch's estate.

Block E contained: 773 kitchen group artifacts; 3,784 architecture group artifacts
(including 3,086 daub, 144 brick, and three slate fragments); 2 arms group artifacts; 3
clothing group artifacts; 1 personal group artifact; 30 tobacco group artifacts; and 250
activities group artifacts. Ceramics recovered from this block yielded a mean ceramic date
of 1757.3 and a terminus post quem of 1774. Pipestems recovered from the block yielded
a date estimate of 1752.2. Most of the artifacts from Block E were associated with Feature
8 which was a large well. This well probably was constructed and filled while this lot was
occupied by the Kronberger family.

Artifacts

Approximately 25,413 artifacts were recovered from the plow disturbed zone, as well
as from many features including a cellar, a well, pits, and post construction pits in the
Eighth Tything. The artifacts, features, and spatial patterning observed are described as
follows. The artifacts were organized into analytical groups (kitchen, architecture,
clothing, personal, tobacco, arms, and activities) following South (1977). Table 1 contains
a summary of the types of artifacts that were recovered from the shovel tests and block
excavations. Summaries of artifacts recovered from Features 8 and 11 also are shown on
this table. Tables 2 through 7 list the results of the ceramic tabulations for the shovel tests
and each block unit. Ceramic summaries of Features 8 and 11 are provided in Tables 8 and
9.

Feature 11, identified as a cellar containing the artifacts of Rupert Schrempff's family,
contained the greatest quantity of artifacts. The finds from this feature received the primary
attention during the analysis phase. The artifacts are described in more detail in the
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<th>Artifact Group-Type</th>
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Table 1. Artifact Summary, Eighth Tything, East Ward (continued).
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<th>BK B</th>
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*Shovel Test

Table 1. Artifact Summary, Eighth Tything, East Ward (continued).
Ceramics From Shovel Tests—Eighth Tything

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<th>PRODUCT</th>
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<td>1700</td>
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<td>Delft without glaze</td>
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<td>Plain yellow slipware</td>
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<td>1670</td>
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Sum of Products = 45598
Total used in calculating MCD = 26
Total ceramics = 114

Mean Ceramic Date is 1753.8
Terminus Post Quem is 1763

Table 2. Ceramic Summary, Shovel Tests, Eighth Ward.
### Ceramics Block A *

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#### Calculations

- Total used in calculating MCD: 702
- Sum of Products: 1218293.5
- Total ceramics: 1864
- Divided by: 702
- Equals: 1735.460826

#### Mean Ceramic Date

* Mean Ceramic Date is 1735.5
* Terminus Post Quem is 1774

* Excludes Feature 11

---

**Table 3. Ceramic Summary, Block A.**
Ceramics Block B

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<td>Delft without glaze</td>
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<td>Scratch blue refined stoneware</td>
<td>6</td>
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<tr>
<td>Blue painted porcelain</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
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Sum of Products 204297

Total used in calculating MCD 116 Divided by 116
Total ceramics 490 Equals 1761.181034

Mean Ceramic Date is 1761.2
Terminus Post Quem is 1762

Table 4. Ceramic Summary, Block B.
Ceramics Block C

<table>
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<th>MEDIAN DATE</th>
<th>TPQ</th>
<th>PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
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<td>5</td>
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<td>1700</td>
<td>8750</td>
</tr>
<tr>
<td>Blue painted delft</td>
<td>5</td>
<td>1750</td>
<td>1700</td>
<td>8750</td>
</tr>
<tr>
<td>Delft without glaze</td>
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<td>3466</td>
</tr>
<tr>
<td>Coarse earthenware</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refined agateware</td>
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<td>1791</td>
<td>1762</td>
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</tr>
<tr>
<td>Plain creamware</td>
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<td>1755</td>
<td>1740</td>
<td>1755</td>
</tr>
<tr>
<td>Whieldon ware</td>
<td>1</td>
<td>1737.5</td>
<td>1690</td>
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<td>Brown lead glazed stoneware</td>
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<td>1650</td>
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<td>Gray salt glazed stoneware</td>
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<td>1759.5</td>
<td>1744</td>
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<tr>
<td>Refined white salt glazed stoneware</td>
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<td>1737.5</td>
<td>1690</td>
<td>1737.5</td>
</tr>
<tr>
<td>Scratch blue refined stoneware</td>
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Sum of Products: 28094.5

Total used in calculating MCD: 16
Total ceramics: 72

Mean Ceramic Date is 1755.9
Terminus Post Quem is 1762

Table 5. Ceramic Summary, Block C.
### Ceramics Block D

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<td>Blue painted delft</td>
<td>1</td>
<td>1733</td>
<td>1670</td>
<td>1733</td>
</tr>
<tr>
<td>Plain yellow slipware</td>
<td>1</td>
<td>1733</td>
<td>1670</td>
<td>1733</td>
</tr>
<tr>
<td>Coarse earthenware</td>
<td>25</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Refined agateware</td>
<td>1</td>
<td>1758</td>
<td>1740</td>
<td>1758</td>
</tr>
<tr>
<td>Plain creamware</td>
<td>1</td>
<td>1791</td>
<td>1762</td>
<td>1791</td>
</tr>
<tr>
<td>Brown salt glazed stoneware</td>
<td>1</td>
<td>1733</td>
<td>1690</td>
<td>1733</td>
</tr>
<tr>
<td>Rhenish stoneware</td>
<td>1</td>
<td>1738</td>
<td>1650</td>
<td>1738</td>
</tr>
<tr>
<td>Refined white salt glazed stoneware</td>
<td>2</td>
<td>1757.5</td>
<td>1720</td>
<td>3515</td>
</tr>
<tr>
<td>Scratch blue refined stoneware</td>
<td>1</td>
<td>1759.5</td>
<td>1744</td>
<td>1759.5</td>
</tr>
<tr>
<td>Underglaze blue painted pearlware</td>
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<td>1774</td>
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<tr>
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<td>Sum of Products</td>
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Total used in calculating MCD 15 Divided by 15
Total ceramics 41 Equals 1770.63

Mean Ceramic Date is 1770.6
Terminus Post Quem is 1774

**Table 6. Ceramic Summary, Block D**
Ceramics Block E

<table>
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<th>COUNT</th>
<th>MEDIAN DATE</th>
<th>TPQ</th>
<th>PRODUCT</th>
</tr>
</thead>
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<td>1750</td>
<td>1700</td>
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<td>Blue painted delft</td>
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<td>Polychrome painted delft</td>
<td>1</td>
<td>1750</td>
<td>1700</td>
<td>1750</td>
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<td>Plain yellow slipware</td>
<td>10</td>
<td>1733</td>
<td>1670</td>
<td>17330</td>
</tr>
<tr>
<td>Trailed yellow slipware</td>
<td>1</td>
<td>1733</td>
<td>1670</td>
<td>1733</td>
</tr>
<tr>
<td>Dotted yellow slipware</td>
<td>4</td>
<td>1733</td>
<td>1670</td>
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</tr>
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<td>Combed yellow slipware</td>
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<td>1670</td>
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<tr>
<td>Unrefined redware</td>
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<td>Coarse earthenware</td>
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<td>1740</td>
<td>1758</td>
</tr>
<tr>
<td>Jackfield</td>
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<td>1740</td>
<td>1760</td>
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<td>1762</td>
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<td>Plain creamware</td>
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<td>1670</td>
<td>1733</td>
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<td>Molded white salt glazed stoneware plate</td>
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<td>1740</td>
<td>1753</td>
</tr>
<tr>
<td>Thick white salt glazed stoneware</td>
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<td>1720</td>
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</tr>
<tr>
<td>Burslem stoneware</td>
<td>1</td>
<td>1738</td>
<td>1700</td>
<td>1738</td>
</tr>
<tr>
<td>British brown stoneware</td>
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<td>1732.5</td>
<td>1690</td>
<td>5197.5</td>
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<td>1720</td>
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<td>1759.5</td>
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<tr>
<td>Scratched blue refined stoneware</td>
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<td>1797</td>
<td>1774</td>
<td>3594</td>
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<tr>
<td>Blue painted porcelain</td>
<td>1</td>
<td>1757.5</td>
<td>1720</td>
<td>15817.5</td>
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<tr>
<td>Underglaze blue painted pearlware</td>
<td>2</td>
<td>1797</td>
<td>1774</td>
<td>3594</td>
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</table>

Sum of Products: 91152

Total used in calculating MCD: 52
Divided by 52
Total ceramics: 173
Equals 1752.92

Mean Ceramic Date is 1752.9
Terminus Post Quem is 1774

* Excludes Feature 8

Table 7—Ceramic Summary, Block E.
### Ceramics Feature 8

<table>
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<th>COUNT</th>
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</tr>
</thead>
<tbody>
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<td>1750</td>
<td>1700</td>
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</tr>
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<td>Blue painted delft</td>
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<td>1750</td>
<td>1700</td>
<td>3500</td>
</tr>
<tr>
<td>Polychrome painted delft</td>
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<td>1750</td>
<td>1700</td>
<td>3500</td>
</tr>
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<td>Plain yellow slipware</td>
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<td>20796</td>
</tr>
<tr>
<td>Trailed yellow slipware</td>
<td>1</td>
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<td>1670</td>
<td>1733</td>
</tr>
<tr>
<td>Combed yellow slipware</td>
<td>2</td>
<td>1733</td>
<td>1670</td>
<td>3466</td>
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<tr>
<td>Dotted yellow slipware</td>
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<td>1733</td>
<td>1670</td>
<td>3466</td>
</tr>
<tr>
<td>Unrefined redware</td>
<td>6</td>
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<td></td>
</tr>
<tr>
<td>Coarse earthenware</td>
<td>133</td>
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<td></td>
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<tr>
<td>Jackfield</td>
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<td>Refined redware</td>
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<td>1762</td>
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</tr>
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<td>1744</td>
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<td>Blue painted porcelain</td>
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<tr>
<td>Unidentified ceramic</td>
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</table>

Total used in calculating MCD 73  Sum of Products 128501

Mean Ceramic Date is 1760.3
Terminus Post Quem is 1774

### Table 8. Ceramic Summary, Feature 8.
## Ceramics Feature 11

<table>
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Sum of Products: 1446862.5
Divided by 828
Equals 1747.418478

Mean Ceramic Date is 1747.4
Terminus Post Quem is 1774

Table 9. Ceramic Summary, Feature 11.
following section. A thorough analysis was performed on the ceramics and table glassware from Feature 11 during the 1989 season included cross-mending, recording vessel form, diameter, and appendages, and a minimum number of vessels estimation. Most of the illustrated items in this report came from Feature 11 and surrounding areas of Block A.

Kitchen Group

Ceramics

A total of 7,469 Kitchen Group artifacts was recovered from the Eighth Tything. The majority of these were ceramics (N=5,208), followed by glass (N=2,251), and minor amounts of metal artifacts (N=11). The ceramics recovered from the Eighth Tything reflect the social status, subsistence activities, and trade relationships of the residents of these lots. Most of the ceramics were cheap, common wares that probably were locally produced and likely served a utilitarian function. A wide variety of imported wares also were represented in the assemblage, however. The imported ceramics show strong trade connections with England, as would be expected since Ebenezer was supported by Great Britain and loyal to the crown. The vessel assemblage includes containers used for storage, food preparation, and food service. In addition to the imported European wares, there are nearly twice as many oriental ceramics (porcelain) than has been observed in previous studies of the Ebenezer colony. This suggests that at least some of the residents of this tything were among the elite in town. By Charleston standards, however, the Ebenezer elite paled in comparison to those of that city.

Ceramics also provide important information about the period of site occupation. Because the periods of production of many English wares is documented historically, this allows the archaeological deposits to be dated with more precision. Ceramic dating, in combination with other techniques, is important for monitoring changes that occurred within Ebenezer through the course of the eighteenth and nineteenth centuries.

Coarse earthenware

Coarse earthenware was the most common ceramic encountered in the Ebenezer excavations. It also was the most common type encountered during earlier survey and test excavations on the Ebenezer Mill District (Elliott 1988; Smith 1986). This category includes soft-paste earthenwares that were fired at a low temperature. The vessels include both glazed and unglazed types, but glazing was usually confined to the interior and mouth of the vessel. Paste varied from buff to red-orange, although the vast majority is buff-colored. Glazing was nearly always lead based, although salt glazes sometimes appeared, and light yellow clay slips were sometimes added to the vessel interiors. Decorative elements such as that evidenced by Moravian wares from Pennsylvania and North Carolina
were absent (Bivens 1972; Whatley 1980). These ceramics were plain and simple, and in many ways, they may reflect the personality of the Ebenezer colony which was committed to hard work and few frills. The source of manufacture of these ceramics is not known, but a local source is suspected given the quantities found at Ebenezer. These were the utilitarian wares of the Salzburgers, although among the poorer people coarse earthenwares were probably the only type of pottery that they owned. Similar low-fired earthenwares were produced early in the eighteenth century in the Chesapeake tidewater region (Watkins 1968).

A minimum vessel estimate of coarse earthenware was calculated from the Feature 11 ceramics recovered from the 1989 field season. This sample contained a minimum of 52 distinct coarse earthenware vessels including: 21 creampans; 16 bowls or cups; 13 pots or jars; 1 pitcher; and 1 brazier. All the vessels were undecorated. Most contained glaze on the interior, but glazed exteriors and completely unglazed specimens were not uncommon. Analysis of the vessel fragments resulted in the complete profile reconstruction of two creampans, and partial reconstruction on many other vessels. Selected examples of coarse earthenware vessel profiles are illustrated in Figures 7 through 12. Several of these vessels are described below.

Cream pans were the most common coarse earthenware vessel type. The designation, creampan, is not meant to construe that these vessels were used exclusively for the processing of dairy products. The size and shape probably made these vessels useful for a variety of purposes in the kitchen. Basal diameters were measured for six creampans yielding the following measurements: 16, 20, 20, 20, 22, and 28 cm. Rim diameters were measured for 12 creampans yielding the following measurements: 24; 24; 24; 25; 26; 28; 28; 29; 30; 32; and 40 cm.

The smallest creampan had a rim diameter of 24 cm, a basal diameter of 20 cm, and measured 9 cm in height. This vessel had a brown lead-glazed interior and a plain unglazed exterior. The rim of this vessel was folded with a rounded lip, and was slightly incurvate. The next largest creampan had a rim diameter of 26 cm and was 8.5 cm in height. This vessel had a brown lead-glazed interior, and a plain unglazed exterior. The rim of this vessel was folded with rounded lip, and was slightly excursive. One creampan had a rim diameter of 30 cm, a basal diameter of 20 cm, and was 8 cm in height. This vessel had a brown lead-glazed interior and a plain unglazed exterior. Another creampan had a rim diameter of 40 cm, basal diameter of 28 cm, and was 8 cm in height. This vessel had a yellow slip interior and an unglazed exterior.

One coarse earthenware pitcher found in Feature 11 had a light brown salt-glazed interior and an unglazed, plain exterior with a hollow loop handle. The aperture of this vessel measured 15 cm in diameter and it was spouted.

Coarse earthenware lids, probably used on small pots, representing a minimum of nine
Figure 7. Coarse earthenware cremation profiles.
Figure 8. Coarse earthenware base profiles.
Figure 9. Coarse earthenware rim profiles.
Figure 10. Coarse earthenware rim profiles.
Figure 11. Coarse earthenware rim profiles.
Figure 12. Coarse earthenware & colono-ware (B) rim profiles.
vessels were identified. Diameter estimates of 10, 12, and 13 cm were obtained for three of these lids. All of the lids were unglazed, and two had lift knobs near the dome of the lid. Several of these lids were blackened by soot, indicating that they may have been used over fire.

Basal diameter estimates for 10 pots yielded the following measurements: 6; 7; 8; 8; 9; 10; 10; 11; and 21 cm. Rim diameter estimates for four bowls yielded the following measurements: 12; 18; 22; and 40 cm. The wide range in pot size suggests that pots and bowls were used for a variety of purposes including individual and group food service. It was difficult to distinguish between pots and bowls when dealing with incomplete vessels.

Rim diameter estimates for two large storage jars were 20 cm and 36 cm. The larger of the two rims had a ledge on the interior to retain a lid. The diameter of this lid was much larger than any of the ceramic lid fragments that were recovered, and it is likely that the lid for this vessel was wooden. The rim of this vessel was folded, with a rounded lip and excursive form. The other example had an excursive rim with a collared applique strip on the exterior.

A large jug had a yellow brown interior lead glaze with haphazard spots of glaze on the exterior. This vessel had a flattened loop handle. Other handle fragments included: four elongated lugs which probably had been on medium to large pots or braziers, two small loop handles from small pots or bowls, and two other unidentified handle fragments.

The sample of coarse earthenwares recovered during the 1990 excavations included more of the same found from the 1989 work including many fragments that can be mended with previously excavated materials. Future study should include cross mending of coarse earthenware and other artifacts from the two field seasons. Examples of unusual coarse earthenware sherds are shown in Figure 13. Other examples of ceramics recovered from Feature 11 are shown on figures 14 through 19.

**Tin enameled earthenware**

A minimum of 15 tin enameled earthenware vessels were identified in Feature 11 during the 1989 season, and all of these are probably English Delftware (Noël Hume 1977). The sample includes chamber pots, small and medium-sized bowls, and a saucer. This type of pottery was most popular prior to the American Revolution. Survey and testing on sites in Effingham County dating after the Revolution reveal that Delft is generally absent. The glaze on Delftware cups and bowls was prone to chipping, and refined earthenwares replaced Delftware as serving vessels. Delftware retained its popularity for use as a chamber pot well into the nineteenth century.

A minimum of six undecorated English Delftware chamber pots were identified in Feature 11 during the 1989 season including:
Figure 13. Coarse earthenware.

Figure 14. English delftware.
Figure 15. Refined agateware, dry-bodied stoneware, & Ralph Shaw ware.

Figure 16. Burslem brown salt-glazed stoneware.
Figure 17. Rhenish stoneware.

Figure 18. Refined white salt-glazed stoneware, scratch-blue stoneware, & creamware.
Figure 19. Porcelain & pearlware.

Figure 20. Table glassware.
(1) one with a rolled rim having a white tint and 20 cm rim diameter.
(2) one with rolled rim having a blue tint and 24 cm rim diameter.
(3) one with flared rim having a blue tint.
(4) one with straight rim having a white tint.
(5) one with straight rim having a blue tint.
(6) one with rolled rim with thick lug handle having a blue tint.

Plain Delftware vessels were produced over a long time period from 1660-1800, and are of little use for dating eighteenth century deposits. Decorated Delftware was produced from 1600-1802, and South recommends using 1750 for a mean date for these wares on eighteenth century sites (South 1977:211-213). One blue and white mimosa pattern English Delftware saucer was found in Feature II. A similar polychrome variety of this type was produced between 1710 and 1740 (Noël Hume 1983:131, Figure 31(1)). This pattern was produced in Bristol, England. A minimum of five blue and white hand painted English Delftware bowls were identified in Feature II during the 1989 season including:

(1) one with banded exterior and a blue decorated interior and having a 12 cm rim diameter.
(2) one with with banded interior and exterior with a 12 cm rim diameter.
(3) one with floral motif exterior and a plain interior.
(4) one with blue decorated exterior and a plain interior.
(5) one with banded interior and banded exterior.

Three polychrome hand painted English Delftware bowls were found in Feature II including:

(1) one with green exterior and a plain interior.
(2) one with blue band and floral motif exterior and brownish red band on top of the exterior rim having a 12 cm rim diameter.
(3) one with blue decorated interior and a blue decorated exterior with brownish red band below the rim.

Yellow and brown slip decorated unrefined earthenware

Yellow and brown slip decorated lead glaze earthenware was produced from 1670 to 1796 and it has a mean manufacture date of 1733 (South 1977:211). Three decorative styles of yellow slipware were recognized at Ebenezer: dotted, trailed, and combed. Cups
dominated this pottery type, most of these cups probably had loop handles. Combed style yellow slipware was not found in Feature 11, but was present elsewhere on the site.

A minimum of four plain yellow slipware cups was identified in Feature 11 during the 1989 season including:

1. one with greenish yellow interior and exterior.
2. one with a straight rim.
3. one with a flared rim having an 11 cm rim diameter.
4. one with a slightly flared rim having a 10 cm rim diameter.

Two dotted yellow slipware cups were identified; both had a rim diameter of 10 cm. Two trailed yellow slipware cups were identified, including one with a 9 cm rim diameter.

**Cream colored refined earthenware (Whieldon ware)**

An unusual decorated cream-colored ware was found in the upper levels of Feature 11 and elsewhere on Lot 1. These sherds have a brown rouletted triangle motif overlain with splotches of green and yellow glaze. This pottery type is similar to Whieldon ware which has a mean manufacture date of 1755 and a Terminus Post Quem of 1740. Fragments of this pottery recovered during 1990 included a teapot form decorated with molded applique foliage.

**Creamware**

Creamware was produced from 1762 to 1820, and has a mean manufacture date of 1791. The deep-yellow creamware was produced from 1762 to 1780, and it has a mean manufacture date of 1771. Most of the Ebenezer creamware is probably the deep-yellow variety, but it was difficult to classify some sherds into either group (Figure 18). Neither variety was available during Rupert Schrempff's lifetime. This pottery type was most common in the plowzone above Feature 11, but also was present in the lower levels of the feature in one area. Their presence is explained by recent pits that intrude into the cellar strata. Because of similarity in fill types, we were unable during excavation to differentiate between the fill of the intrusive pit and the adjacent matrix of Feature 11.

A minimum of one undecorated creamware bowl was identified in Feature 11 during the 1989 season. A minimum of three molded creamware vessels also were identified including:

1. a bowl or cup with molded beaded rim.
2. a cup with molded beaded rim.
3. a bowl with molded rim.
Pearlware

One underglaze hand-painted saucer with blue band interior and a plain exterior was identified in the plowzone above Feature 11 (Figure 19). This pottery type was produced sometime before 1774 until 1820 and we used a mean manufacture date of 1797 for our ceramic date calculations. The presence of this ware on Lot 1 suggests that the lot was still being used after 1774, but its absence in Feature 11 indicates that the feature was filled prior to the 1780s. Underglaze blue handpainted pearlware is the most recent artifact type found thus far in the Eighth Tything.

Other refined earthenwares and stonewares

A minimum of one Jackfield-like refined stoneware tea cup was identified in Feature 11 from the 1989 excavations. This cup had a plain black interior and exterior, and it also had a handle. Jackfield ware was produced in England from 1740 to 1780 and it has a mean manufacture date of 1760 (South 1977:211).

A minimum of two refined red bodied vessels similar to those produced in England by Ralph Shaw and Thomas Astbury was identified (Figure 15g). Ralph Shaw produced a brown-slip decorated stoneware from 1732 to 1750 and it has a mean manufacture date of 1741. Astbury ware, a white sprigged and trailed refined ware, was produced from 1725 to 1750, with a mean manufacture date of 1738 (South 1977:211). The examples include:

(1) a cup with glazed plain body with a white pipe clay band on the rim.
(2) a cup or mug with white pipe clay bands on glazed red brown body and a red brown interior having a 9 cm rim diameter.

A minimum of two refined agateware vessels were identified in Feature 11 from the 1989 excavation, and these vessels probably were produced in England (Figure 15). This pottery type was produced from 1740 to 1775 and has a mean manufacture date of 1758 (South 1977:211). The sample includes:

(1) a teapot with lid and a plain loop handle made of a brown and black paste having a 6 cm rim diameter (Figure 15 a, b, c, & f)
(2) a bowl with a brown exterior and metallic brown interior having a 13 cm rim diameter.

White salt glazed stoneware

White salt-glazed stoneware was produced in England from 1720 to 1805. Molded white salt-glazed stoneware was produced from 1740 to 1765 and has a mean manufacture date of 1753 (South 1977:210). Examples of refined white salt-glazed sherds are shown on Figure 18. A minimum of 12 refined white salt-glazed stoneware vessels were
identified in Feature 11 during the 1989 season including:

(1) a cup or bowl with plain reeded rim.
(2) teapot with plain ribbed rim.
(3) a mug with plain ribbed rim.
(4-6) three bowls with plain rims.
(7) a bowl with a ribbed rim.
(8-12) five cups with plain rims.

**Scratch blue salt glazed stoneware**

Scratch blue ware was produced from 1744 to 1775 and it has a mean manufacture date of 1759.5 (South 1977:210). Examples of scratch blue stoneware sherds are shown in Figure 18. A minimum of four scratch blue white salt glazed stoneware handleless cups were identified in Feature 11 during the 1989 season. The sample includes:

(1) one with geometric and floral interior incised and plain exterior.
(2) one with floral incised and chevron roulette stamped exterior and plain interior.
(3) one with a chevron roulette stamped exterior and plain interior.
(4) one with floral incised and chevron roulette exterior and geometric incised interior.

**Brown salt-glazed stoneware**

A minimum of seven brown salt-glazed stoneware vessels were identified in Feature 11 during 1989. All of these probably were produced in England. British brown stoneware was produced from 1690 to 1775 and has a mean manufacture date of 1733. One undecorated British brown salt-glazed stoneware mug was identified. One brown stoneware bowl was found in Feature 11 that probably was produced in Burslem, England. This was a bowl with roulette design exterior and plain interior (Figure 16). This vessel had a 16 cm rim diameter. Burslem stoneware was exported from 1700 to 1775 and it has a mean manufacture date of 1738 (South 1977:210).

A minimum of five brown salt glazed stoneware vessels, of unidentified origin were found in Feature 11 during 1989. These also probably are of English manufacture and they include:

(1) a vessel with molded zig-zag lines reminiscent of a bellarmine jar design.
(2) a bowl with molded reeded and gravel applied exterior and a plain interior.
(3) an undecorated mug.
(4) a bowl with plain glazed exterior and an unglazed interior.
(5) a plain tankard with a loop handle.
**Rhenish or Westerwald stoneware**

A minimum of two Rhenish stoneware vessels were identified in Feature 11 during the 1989 excavation, and both were probably produced in Germany. One purple, blue, and gray Rhenish ware tankard was found in the lower levels of Feature 11 (Figure 17). This vessel has multiple ribbed lines at the cylindrical rim, bird and floral motif on a bulbous body, and a gray interior. This particular style of Rhenish ware generally was made between 1720 and 1725 (Noël Hume 1967:351; South 1977:210). One blue and gray Rhenish ware tankard also was found in Feature 11 during 1989. This vessel was too fragmented for further identification.

**Engine turned stoneware**

One engine turned dry-bodied stoneware teapot was identified in Feature 11 during the 1989 excavation (Figure 15d). This vessel was undecorated. While the paste of this vessel is purplish brown, it is similar to engine turned unglazed red-bodied stonewares that were produced in England, and it is probably a variant of this type. Engine turned dry-bodied stonewares were produced in England from 1763 to 1775 and they have a mean manufacture date of 1769. This pottery type was not produced until after Rupert Schrempff's death, and it probably represents debris left by Frederick Schrempff’s family.

**Unidentified stoneware**

Several stoneware types were found that could not be identified. Production dates for these pottery types are not known, but their context at Ebenezer suggests a mid-eighteenth century usage. One brown lead-glazed stoneware jug with lead-glaze interior and exterior was identified in Feature 11. A mid-eighteenth century date also is inferred from the context of this pottery type at Ebenezer.

A minimum of three green to greenish brown salt-glazed stoneware vessels were identified in Feature 11 during the 1989 excavation including:

1. a plain mug with a single embossed band below the rim.
2. an undecorated jar.
3. an undecorated water bottle.

**Coarse agateware**

A minimum of two large coarse agateware jars with brown salt and lead-glazed exterior and interior were identified in Feature 11 during the 1989 excavation. Both jars are utility vessels probably used for storage. One of the jars had a basal diameter of 18 cm. These vessels are probably Buckley ware which was produced in England between 1720 and 1775 and has a mean manufacture date of 1748 (South 1977:211).
Unrefined redware

A minimum of three unrefined redware vessels were identified in Feature 11 during the 1989 season including:

(1) a bowl with yellow and brown clouded interior, exterior brown glaze.
(2) a bowl with brown lead glazed interior and exterior.
(3) a water bottle with dark brown lead glazed interior and exterior.

The origin of this pottery type is unknown. Redware was being produced in the colonies and in England during this period. It also may have been produced locally.

Slave ceramics

Colonoware, a low-fired earthenware usually having an unglazed surface, is not commonly found in Georgia, but it is common on eighteenth century sites in the Carolinas and Virginia. There is debate as to which ethnic groups produced these wares—both African slaves and Indians are suspected. Several fragments from the same colonoware vessel were recovered from Feature 11 during the 1989 season. This was a plain jar with a slightly constricted rim. The partial profile of this vessel is shown in Figure 12. The pot was slightly sand tempered and contained ash. Colonoware was not common on the Mill District, and its presence as a minority ware in Feature 11 can be interpreted as resulting from trade. Schrempf had business dealings in South Carolina and may have acquired the pot during his stay there.

Aboriginal ceramics

A small quantity of plain shell-tempered pottery representing at least one vessel also was found in Feature 11 during the 1989 season. This shell tempered pottery is similar to types found in Tennessee. Similar pottery has been found associated with the Yuchi village at Mount Pleasant. The Yuchi were originally from the lower Appalachian Mountains, but had settled at Mount Pleasant by 1735. The shell tempered pottery at Ebenezer is probably of Indian manufacture and it was probably a medium-sized jar with a flaring rim that was slightly constricted at the neck. Schrempf may have acquired the pot through trade with Indians or Indian traders. Although the Indians almost completely had vacated the Ebenezer vicinity prior to 1750, the land north of Ebenezer Creek was not officially ceded to Georgia until 1763. White settlement of this area, however, began in the early 1750s with the creation of the Bethany colony. The Salzburgers were specifically prohibited from trading with the Indians. Trade was permitted only by licensed traders, and no licensed traders were known from Ebenezer. Aboriginal ceramics were not found in historic context on the Mill District, and this pottery type is uncommon elsewhere at Ebenezer.
Schrempff's blacksmithing trade probably brought him in contact with the Indian material culture to a greater extent than was the case with other Salzburgers.

Porcelain

Eleven distinct porcelain vessels were identified in Feature 11 during 1989 including ten cups and one bowl. These ceramics are considered to be of Chinese origin, although European varieties also may be represented. Porcelain was produced over a long timespan, and it is not useful for dating historic sites. Porcelain did, however, become increasingly available during the eighteenth century, and by the nineteenth century it was fairly commonplace on historic sites.

One plain porcelain cup was found in Feature 11. Eight blue and white hand-painted porcelain vessels were found including:

(1) a cup with blue band and floral motif interior, plain exterior.
(2) a cup with blue band interior, plain exterior.
(3) a cup with blue band interior, blue design exterior.
(4) a cup with blue band interior, plain exterior.
(5) a cup with blue band interior, blue band and floral motif exterior.
(6) a cup with blue band interior, blue band and floral motif exterior.
(7) a bowl with blue band interior, plain exterior, 14 cm rim diameter.
(8) a cup with blue band interior, plain exterior.

Two polychrome hand-painted cups were found, and both had a blue band interior, brown band on edge of rim, and a plain exterior. These appeared to be from the same tea service set. None of the cups showed any evidence of handles.

Metal cookware

Feature 11 contained fragments of one copper teapot. It was a spout constructed of 0.5 millimeter (mm) gauge sheet copper that measured 70 mm in length. Fragments of cast iron cook pots also were found at Ebenezer, but none were found in Feature 11. Feature 8 contained several fragments of a large cast-iron pot.

Glassware

A total of 155 fragments of table glassware was recovered from the Eighth Tything. Three distinct goblets, one glass tumbler, and one clear glass decanter were identified in Feature 11 during the 1989 season. Two noteworthy drinking vessels that were found during the 1990 season include a nearly complete drinking tumbler and a small fragment of a hand painted (enamel paint with a floral design) glass tumbler. This assemblage of
glassware is in sharp contrast with that observed on Ebenezer's Mill District where clear table glassware was extremely uncommon. Examples of table glassware recovered from Schrempff's cellar are shown in Figure 20.

Three wine goblet stem fragments were found in the excavations on the Eighth Tything—all are eighteenth century types. A goblet stem containing a large air bubble similar to Noël Hume's (1985:191) Type 13 and Type 14 which date from 1710 to 1725 and 1710 to 1740, respectively. This specimen is illustrated in Figure 20. This example came from Block B. A second stem was found in Feature 11 in Block A. This solid, plain specimen is similar to Noël Hume's Type 18 (1985:191) which he dates from 1730 to 1760 (Figure 20). A third stem (not illustrated) was found in Block A and it was an air twist variety that had been melted. This style was produced from around 1735 to 1775 (Noël Hume 1985:190).

Several wine goblet base fragments were found and two were partially reconstructed. Both had a basal diameter of 8 cm. One of these is illustrated in Figure 20. A partially reconstructed wine goblet rim is shown in Figure 20. This example had a rim diameter of 7 cm.

A molded bottle or tableware basal fragment found in Block A is illustrated in Figure 20. This clear/amethyst tinged glass vessel measured 5 cm in diameter. A pontil scar was visible on the base.

A clear glass handle fragment of a decanter or pitcher also was recovered from Block A. An unusual glass vessel fragment was found in Block A during the 1990 season. This was an opaque white glass teapot or other unidentified container that had been painted brown on the exterior. Opaque white glass, or milk glass, is not common on colonial sites but it is not unknown. It was produced in Bristol, England beginning around 1750, and was also made elsewhere in England and Germany during the two decades preceding the American Revolution (Noël Hume 1976:30). The circular footing base had a diameter of 43 mm. The edges of this artifact had been modified after breakage, suggesting secondary use as a tool.

Wine bottles

No intact wine bottles were recovered from the excavation at Ebenezer. A total of 1,615 dark green wine bottle glass fragments was recovered from the Eighth Tything. These include round and case type bottles.

A sample of bottle glass from Feature 11, 1989 excavations was studied in detail. This study of vessel rims and bases revealed a minimum of seven wine bottles. Five separate bases were identified including:

- round bottle base 13 cm diameter—3 specimens.
- round bottle base 11 cm diameter—1 specimen.
round bottle base 10 cm diameter-- 1 specimen.

Seven distinct wine bottle rims were identified including:

- applied lip, 2 cm diameter-- 1 specimen.
- applied lip, 2.5 cm diameter-- 2 specimens.
- applied lip, 3 cm diameter-- 4 specimens.

Two wine bottle fragments were found bearing peck marks made by Rupert Schrempff (Figures 21 & 22). This crude type of bottle identification has been documented elsewhere in the colonies, but this is the first case of marked bottles at Ebenezer. Wealthier individuals had custom blown bottles bearing the family seal, but this type of high status identifier has not been seen at Ebenezer.

Both marked bottle fragments were found in the lower levels of Feature 11, beneath layers of blacksmithing debris. One bears the initials R.S., while the other bears an illustration of a key. These artifacts were important in identifying Rupert Schrempff as the owner of the cellar.

Another wine bottle had been used to store small lead shot as evidenced by several shot that were wedged in the edges of the kick up of that bottle. [see Figure 30 in the Arms Group artifact description]. The personal engraving and decoration of wine bottles, and their use for other purposes than holding beverages shows that bottles were valuable containers at Ebenezer. They probably were used repeatedly, and usually were not discarded until they were broken.

A large portion of a rectangular dark green case bottle was recovered from Feature 8. Small portions of case bottles also were observed in the dark green glass assemblage from Feature 11, but no large sections were found.

**Pharmaceutical bottles**

Pharmaceutical, or medicinal bottles were found second in frequency to wine bottles. A total of 182 fragments was found in the Eighth Tything. The 1989 sample of Feature 11 yielded at least five distinct pharmaceutical bottles including four square varieties and one round variety. Three of the square bottles had identical measurements (2 cm x 2 cm). The round bottle variety also measured 2 cm in diameter. All of the bottles were light green hand blown glass, and several exhibited pontil scars. No complete specimens were recovered.

Several fragments of a square bottle contained remnants of a dried red substance. None of these bottles had any identifying markings. Two fragments containing the red substance were submitted to Sid Waldhour (chemist, Rincon, Georgia) for X-ray fluorescence and
Figure 21. Rupert Schrempff's bottle.

Figure 22. Rupert Schrempff's bottle.
atomic absorption analysis. Waldhour concluded that the vials probably contained an oil based compound, such as red paint.

Rupert Schrempff had a history of medical problems dating from his earliest arrival in Georgia. His symptoms, as mentioned in the Detailed Reports, resemble those associated with malaria. Treatment of Rupert's malady including bleeding. He experienced months in a delirious state, and he finally died at the young age of thirty after a lingering illness. The pharmaceutical bottles in Feature 11 probably were used to treat Rupert, or others in his family. It is likely that these drugs were produced in Europe, and administered by the town's physician Christian E. Thilo.

Feature 8 also contained pharmaceutical bottles indicating that medical problems were commonly treated with European medicines. No complete, or nearly complete specimens were recovered from this feature. None of the bottles excavated in the Eighth Tything had any identifying marks.

Food remains

A total of 1,036 bone fragments was recovered from Feature 11 during the 1989 season. This sample was submitted to Karen Wood for zooarchaeological analysis and a report of her analysis is provided in Appendix 1. Small quantities of unidentifiable bone also was recovered from other areas of excavation, but were not submitted for analysis. One hundred bone or teeth fragments were recovered during the 1990 season, but these were not thoroughly analyzed. The 1989 Feature 11 sample contained 828 unidentified mammal bones. Identified species include cow, pig, deer, sheep/goat, raccoon, and turtle (box or water turtle). No fish remains were identified in the sample.

The 1990 excavations also yielded several eggshells from the basal levels of Feature 11. These shells had been stacked within each other at the time of discard. Although these shells were not submitted for detailed analysis, they appear to be chicken egg fragments.

Architecture Group

Artifacts from the architecture group included brick, daub, mortar, slate, nails, spikes, window glass, and door lock parts. A total of 13,771 architectural artifacts was recovered from the Eighth Tything. The quantity of daub, nails, and window glass strongly indicate that a substantial structure, and probably a domestic residence, formerly had been positioned above Feature 11.
Building materials

Daub was the most common architectural artifact in Ebenezer. It probably was used for chinking in chimneys and walls. Some fragments of daub also may represent poorly fired bricks. Excavations in the Eighth Tything recovered 10,372 pieces of daub. Feature 11 contained 2,503 pieces of daub. Most of the daub pieces were small. None of the brick or daub was found in situ, but were incorporated as secondary refuse in features and in the plow-disturbed midden. A total of 339 brick fragments was recovered from the Eighth Tything and 175 brick fragments were recovered from Feature 11. Whole bricks were extremely rare on the site, only three complete specimens were recovered during the 1989 season, and only one whole brick was found during 1990. At least one fragment was a flooring brick. The bricks were poorly manufactured, and may have been produced locally. Twenty three pieces of slate, possibly representing building debris, were found on the Eighth Tything. Fifteen pieces of slate were recovered from Feature 11.

Window glass

Excavation in the Eighth Tything produced 1,400 pieces of window glass. Feature 11 yielded 748 fragments of window glass, or slightly more than half of the collection. All were light green in color, and were hand blown crown glass. A few edges were observed, but none of the fragments were large enough to permit the reconstruction of the window frame shapes.

Nails and spikes

A total of 1,626 nails or spikes was recovered from the Eighth Tything. Of these, 681 were recovered from Feature 11. At least three types of wrought nails were identified: rosehead, L-head, and T-head. No machine cut square nails or wire nails were found. This suggests that all construction on these three lots had ceased prior to 1800. Three large rosehead spikes were found. Machine cut nails generally are uncommon throughout Ebenezer further supporting that most construction within the town had been completed by 1800.

Lock parts

Two iron door-lock parts were found in Feature 11. These included a dead bolt of common English type (Moxon cited in Streeter 1984:11), and a steel lock spring (length 34 mm, height 14 mm, thickness 3 mm).

A barrel style padlock was found in Feature 11. This is a complete specimen composed of iron. It is 99 mm in length with a housing diameter of 29 mm. The lock clasp extends 42 mm above the barrel housing and the strap is 49 mm wide. This lock is shown in Figure 40. It is similar to a specimen excavated at Round Hill, Clavendon Parish, Jamaica
where it was found in mid-eighteenth century context (Noël Hume 1983:Figure 78(2)).

**Hinges**

Other architectural artifacts recovered from the Eighth Tything include two iron hinges. Both were recovered from Block A. One of these is illustrated in Figure 38a.

**Clothing Group**

A total of 87 clothing related artifacts was recovered from the Eighth Tything. This assemblage was dominated by buttons followed by buckles, and hook and eyes. Lesser amounts of beads, sewing apparatus, and other items were found.

**Buckles**

Fifteen buckles or buckle fragments were recovered from the Eighth Tything, and most were found on Lot 1. Examples are shown on Figures 22 and 23. All of the specimens date to the eighteenth century, and reflect a middle-class lifestyle of that period. The buckles were grouped into types defined by Abbit (1972).

Three buckles were found that conform to Abbit's Type 2 which date from 1760 to 1780. One was a brass, molded rectangular shoebuckle. The length and width of this specimen could not be determined. It measured 3 mm in thickness and the metal width was 9 mm. Another example was a rectangular, engraved brass shoebuckle fragment. The length of this buckle is unknown, but it is 48 mm wide, 2 mm thick, and has a thickness of 7 mm. A third example was a brass buckle that had a tinned surface and an ornate molded floral motif. This specimen had a metal width of 6 mm.

Five buckles similar to Abbit's Type 3 which dates from 1750 to 1780 were found. One brass shoe buckle is missing the backpiece and it has a single engraved line around the outer edge. This buckle measures 44 mm long, 34 mm wide, and 3 mm in thickness. The metal varies in width from 4 to 7 mm. Another brass buckle with a cast linear design had a width of 8 mm. Another brass buckle had a tinned surface and an engraved line around outer edge. This buckle had a metal width of 10 mm. A brass/iron buckle was found that had a plain brass frame and single tongue iron hook with the following dimensions: length 32 mm; 25 mm width; and 6 mm metal width. A white metal shoebuckle fragment was found that had a simple grooved exterior, and its surface probably was tinned. The length of this buckle is unknown, but it is 31 mm wide, 2 mm thick, and has a metal width varying from 6 to 9 mm.

Feature 8 contained a rectangular white metal shoebuckle fragment that conforms to Abbit's Type 5 which dates from 1760 to 1780. This buckle is decorated with molded open work and may have been tinned or silvered. This specimen is 2 mm thick and has a metal width of 8 mm.
Figure 23. Buckles.
Figure 24. Buckles, military insignia, & buttons.  A-Brass & Iron Buckle; B & C-Brass Buckles; D-Buckle Hook; E-Brass Insignia; F, G, & H-Brass Buttons.
Two plain iron rectangular buckles also were recovered from Test Unit 1. One measured 28 mm long, 26 mm wide, 4 mm thick, with a metal width of 5 mm. The other measured 30 mm long, 39 mm wide, 6 mm thick, with a metal width of 6 mm.

One brass buckle backpiece bore the stamped mark D G. The identity of the maker was not determined. The style of this buckle is similar to previously reported mid-eighteenth century forms (Abbit 1972:Figure 16:7; Stone 1974:Figure 18i& e). Another smaller buckle backpiece composed of brass and iron was found during the 1990 season. This specimen measured 17 mm in length and 14 mm in width. It bore no maker's mark.

**Buttons**

Forty buttons or button fragments were found during the excavation at the Eighth Tything. Examples are shown in Figures 24 and 25. Some of these specimens may be from cuff links rather than buttons, but no intact cuff link sets were found. A summary of the buttons is presented in Table 10. Four classes of metal buttons were found: brass, brass and iron, white metal, and brass with glass insets. Most were found within Feature 11. The buttons were classified according to types established by South (1964:113-133) and Olsen (1963:551-554). This analysis resulted in the identification of the following South button types:

- Type 1, two-piece button with one piece cast back with drilled shank-six specimens.
- Type 2, two-piece button with a soldered eye and holes for expanding gases-six specimens.
- Type 7, button cast with eye in place and spun back-three specimens.
- Type 9, one-piece button with flat brass disc and well soldered eye-two specimens.
- Type 10, cast domed disc button with soldered "U" eye-one specimen.
- Type 11, one-piece cast soft whitemetal button with mold seam-one specimen.
- Type 13, two-piece button with cast back, faceted glass face, and brass eye pressed into back-one specimen.
- Type 23, four-hole porcelain button-one specimen.

Nine buttons are Olsen's type A which date from 1700-1765, and three are Olsen's Type D which dates from 1760-1785. Olsen's Type A buttons are one-piece buttons that have a drilled shank and a rough cast brass face. Olsen's Type D buttons are similar to South's Type 7. This sample of buttons supports the contention that occupation of Lots 1, 2, and 3 in Ebenezer's East Ward, Eighth Tything did not extend into the nineteenth century. All of these, with the exception of Type 23, are tightly dated eighteenth century button types. The Type 23 button was found in plowzone context.

Several matched sets of buttons were identified including four identical specimens with
Figure 25. Buttons, hooks, & eyes.
<table>
<thead>
<tr>
<th>COUNT</th>
<th>TYPE</th>
<th>MATERIAL</th>
<th>DIAMETER</th>
<th>OTHER CHARACTERISTICS</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>South 1</td>
<td>Brass</td>
<td>11</td>
<td></td>
</tr>
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<td>1</td>
<td>South 1</td>
<td>Brass</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>South 1</td>
<td>Brass, blue glass</td>
<td>12</td>
<td>Plain, convex</td>
</tr>
<tr>
<td>1</td>
<td>South 1</td>
<td>Brass, green glass</td>
<td>11</td>
<td>Faceted inset</td>
</tr>
<tr>
<td>1</td>
<td>South 1</td>
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<td>14</td>
<td>Plain, acorn shaped</td>
</tr>
<tr>
<td>1</td>
<td>South 1</td>
<td>Brass</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>South 2</td>
<td>Brass</td>
<td>25</td>
<td>Plain, convex</td>
</tr>
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<td>1</td>
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<td>Brass</td>
<td>18</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>4</td>
<td>South 2</td>
<td>Brass</td>
<td>20</td>
<td>Geometric snowflake, cast, convex</td>
</tr>
<tr>
<td>1</td>
<td>South 7</td>
<td>Brass, iron</td>
<td>17</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>South 7</td>
<td>Brass, iron</td>
<td>25</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>South 7</td>
<td>Brass, tinned brass</td>
<td>17</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>South 9</td>
<td>Brass</td>
<td>16</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>South 9</td>
<td>Brass</td>
<td>17</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>South 10</td>
<td>Brass</td>
<td>16</td>
<td>Stamped geometric, convex</td>
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<td>1</td>
<td>South 11</td>
<td>Pewter</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>South 12</td>
<td>Brass</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>South 13</td>
<td>Black glass</td>
<td>15</td>
<td>Faceted inset</td>
</tr>
<tr>
<td>1</td>
<td>South 23</td>
<td>Milk glass</td>
<td>15</td>
<td>4-hole plain</td>
</tr>
<tr>
<td>1</td>
<td>Olsen D</td>
<td>Brass, iron</td>
<td>17</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Olsen D</td>
<td>Brass, iron</td>
<td>17</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Olsen D</td>
<td>Pewter</td>
<td>20</td>
<td>Single line around edge</td>
</tr>
<tr>
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<td>Olsen A</td>
<td>Brass, iron</td>
<td>13</td>
<td>Plain</td>
</tr>
<tr>
<td>1</td>
<td>Olsen A</td>
<td>Brass</td>
<td>13</td>
<td>Octagonal, geometric stamped, flat</td>
</tr>
<tr>
<td>2</td>
<td>Olsen A</td>
<td>Brass</td>
<td>14</td>
<td>Cast eagle, banner &amp; floral, convex</td>
</tr>
<tr>
<td>2</td>
<td>Olsen A</td>
<td>Brass</td>
<td>14</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Olsen A</td>
<td>Brass</td>
<td>14</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Olsen A</td>
<td>Brass</td>
<td>14</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Brass</td>
<td>20</td>
<td>Plain, flat</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Brass</td>
<td></td>
<td>Plain, convex</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Brass, gold gilt</td>
<td>18</td>
<td>Plain, convex</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Brass, tinned brass</td>
<td>18</td>
<td>Plain, convex</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Brass</td>
<td>23</td>
<td>Plain, convex</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Green glass</td>
<td>11</td>
<td>Faceted inset, similar to South Type 1</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Clear glass</td>
<td>12</td>
<td>Molded, geometric, flat, inset</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Clear glass</td>
<td>10</td>
<td>Molded, geometric, flat, inset</td>
</tr>
<tr>
<td>1</td>
<td>Unknown</td>
<td>Clear glass</td>
<td>12</td>
<td>Molded, coat-of-arms, convex, inset</td>
</tr>
</tbody>
</table>

**TOTAL**

42

Table 10. Buttons, Eighth Tythlen.
a stamped snowflake design and two cast white metal buttons with a cast eagle, banner, and floral design that probably is military. Details of this apparent military button are shown in an enlarged drawing on Figure 24h. This button conforms to Olsen’s Type A and therefore should date from 1700 to 1765.

Several glass button insets were recovered from Block A. The most noteworthy was a small oval clear glass cabochon. This item was crazed from burning and it measured 12 mm long, 10 mm wide, and 4 mm thick. An enlarged drawing of the design on this button is shown in Figure 26. Scars along the edge of this object indicate that it probably had been mounted within a metal fitting such as a ring, brooch, button, or cuff-link. This piece of glass bears an intaglio family crest design consisting of two castles over one separated by a single inverted chevron. This crest was brandished by seventeen families in Europe (Rietstap 1967). These include: Ctes de Bouville, Amonville, Brion de la Tour, Castelverdun, Cellard du Sordet, Chateau Verdun, Doeser, van Eversdyck, Bans Glauburg, Grossin Cte de Bouville, Knesovich, Mabille du Chene, Rubnich, Potier de la terrase, Bouzitat de Seline, and van den Steene. The jewelry item originally could have belonged to any one of these families. Although it could have been a family heirloom, none of these are Salzburger names or names familiar to Colonial Georgia, and it is reasonable to conclude that this item was included in a donation of clothing from supporters in either France, Holland, Serbia, or Belgium. Since Ebenezer was perceived in Europe as a charitable mission, it is reasonable to expect similar oddities during future excavations in the town.

Military insignia

One unusual cast brass clothing artifact was recovered from Block A. This artifact is illustrated in Figure 24E. The item includes draped flags, a sword, and other unidentified design elements. It probably was mounted as a pin, possibly a hat pin, but that portion where the pin would be is broken off.

Hook and eyes

Fourteen hook and eye parts were recovered from Lot 1, Eighth Tything. These include 6 brass hooks, 7 brass eyes, and 1 white metal eye. The hooks range in length from 16 mm to 52 mm, and in width from 9 mm to 16 mm. The eyes range in length from 14 mm to 17 mm, and in width from 9 mm to 13 mm. Examples of these clothing artifacts are shown in Figure 25.

Glass jewelry

Nine glass beads were recovered from Block A. All were produced by the wire wound technique. Four complete beads were found including:
Figure 26. Glass jewelry inset with intaglio coat-of-arms.

Figure 27. Lead bale seal.
one light blue/white bead, tumbled- 12 mm in diameter, 9 mm in width, bore diameter 4 mm.
one light blue/white bead, faceted, tumbled- 13 mm in diameter, 8 mm in width, bore diameter 4 mm.
one light blue/white faceted, tumbled- 11 mm in diameter, 9 mm in width, bore diameter 4 mm.
one dark blue, faceted, tumbled- 13 mm in diameter, 10 mm in width; and bore diameter 6 mm.

A light blue/white bead fragment, measured 11 mm in diameter, 9 mm in width, and had a bore diameter of 6 mm. Another specimen was dark blue faceted bead fragment 12 mm in diameter. Another light blue/white faceted, tumbled bead fragment was found, but no other measurements could be taken. This small bead assemblage contains common eighteenth century bead types (Marvin Smith, 1989 personal communication).

**Lead Bale Seals**

Three lead bale seals were found in Block A including two from Feature 11. Cloth and other items shipped from Europe often were secured with lead seals by the dealer to keep the unscrupulous who might come into contact with it from helping themselves to lengths of cloth off of the bolt. The seals often were decorated with symbols of the merchant. One example from Ebenezer bears a stamped Star-of-David design (Figure 27). The numerals 29 scratched on the reverse side probably indicate the length or amount of merchandise that was sealed (Adams 1989). This seal measures 36 mm long, 25 mm wide, and 4 mm thick. The other bale seal is a folded loop with no identifying marks. A single bale seal was recovered from Block A during the 1990 excavation. This specimen had no identifying marks.

**Brad**

A single undecorated brass brad was found in Feature 11. This object measured 14 mm in diameter and had been secured with two prongs.

**Other sewing items**

A midsection of a pair of iron scissors was recovered from Feature 11, Block A. This artifact was badly corroded. While scissors shapes can be temporally diagnostic, this specimen was too small and corroded to be identified. Two brass thimbles were recovered from Block A. A small brass clasp, possibly from a necklace, also was found in Block A (Figure 37b).
Arms Group

A total of 64 arms group artifacts was recovered from the Eighth Tything. This assemblage is dominated by gunflints followed by lead shot, and a minority of other metal items.

*Gunflints*

Thirty-two complete gunflints were found on Rupert Schrempff's lot and one gunflint was found in Feature 8 on Lot 3 (Figure 28). Attributes of these flints are provided on Table II. Gunflints are a common artifact on eighteenth century historic sites and they have been the focus of several studies (c.f. Hamilton and Emery 1988). Hamilton and Emery's study is the most detailed and was the primary reference used in this analysis. The sample of gunflints from Ebenezer was grouped into four types based on method of manufacture and raw material. Gunflint dimensions of length (heel to toe), width (side to side), and height were recorded in millimeters for each complete specimen following methods outlined by Hamilton and Emery (1988).

Type 1- Nineteen flints were made from gray colored chert spalls, which are presumed to be English. Type 1 gunflints exhibit the following range: length, 12-25 mm, width 20-35 mm, and thickness 4-12 mm.

Type 2- Nine flints were made from a light brown (honey) colored chert blade, or flake, of French origin. One Type 2 flint was made from dark gray chert, presumably English. Type 2 gunflints exhibit the following range: length, 19-26 mm, width 21-39 mm, and thickness, 7-8 mm.

Type 3- One flint was made from a French honey colored chert spall. The one Type 3 gunflint exhibited these dimensions: length 14 mm, width 24 mm, and thickness 9 mm.

Type 4- Three bifacially worked crude types made of local Coastal Plain chert were found and these are thought to be of Indian manufacture. Type 4 gunflints exhibited the following range: length 18-22 mm, width 22-31 mm, and thickness 6-16 mm.

Hamilton and Emery cite a 1740 French document establishing standard dimensions ranges that were acceptable for gunflints as follows: length 31.6 mm, width 33.8-36.0 mm, and thickness 9-11.8 mm. The Ebenezer Type 2 gunflints all fall below these specifications in length, while they are more in line in width. These differences may reflect the heavy use that the Ebenezer specimens experienced during their use lives. French blade gunflints were highly prized for their uniformity, quality, and reliability. British used them whenever they could get them, and they were preferred over the English spall type gunflint. Unfortunately, no British gunflint specifications have been identified for the eighteenth
Figure 28. Spall & blade gunflints.
<table>
<thead>
<tr>
<th>Gunflint Type</th>
<th>Flint Material</th>
<th>Measurements (mm)</th>
<th>Suspected Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Length</td>
<td>Width</td>
</tr>
<tr>
<td>SPALL</td>
<td>English</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>19</td>
<td>29</td>
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<td></td>
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<td>21</td>
<td>22</td>
</tr>
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<td></td>
<td>English</td>
<td>16</td>
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</tr>
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<td></td>
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<tr>
<td></td>
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<td>French</td>
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<td>24</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>19.1</td>
<td>26.4</td>
</tr>
</tbody>
</table>

| BLADE        | French         | 26     | 38    | 7         | Musket        |
|              | French         | 24     | 39    | 8         | Musket        |
|              | French         | 19     | 30    | 8         | Carbine       |
|              | French         | 19     | 28    | 7         | Carbine       |
|              | French         | 17     | 23    | 8         | Tradegun      |
|              | French         | 19     | 21    | 7         | Tradegun      |
|              | French         | 16     | 20    | 7         | Tradegun      |
|              | French         | 21     | 23    | 7         | Tradegun      |
|              | French         | 18     | 19    | 7         | Pistol        |
| Average      |                | 19.9   | 26.8  | 7.3       |               |

| BIFACIAL     | Local          | 18     | 31    | 7         | Carbine       |
|              | Local          | 22     | 22    | 16        | Tradegun      |
|              | Local          | 18     | 27    | 6         | Tradegun      |
| Average      |                | 19.3   | 26.7  | 9.7       |               |

Table 11. Gunflints, Eighth Tything.
century.

Hamilton and Emery also provide width range estimates for gunflints and their associated weapon type which is based on the size and arrangement of the firing mechanisms on eighteenth century flintlocks. Musket flints are usually greater than 34 mm wide, carbine (or fowler) flints range from 28-34 mm, tradeguns range from 20-28 mm, and pistols (or small tradegun) flints are usually less than 20 mm wide.

Applying these gunflint ranges to the sample from Schrempff's cellar shows the following types of weapons: 4 muskets, 9 carbines, 17 tradeguns, and 1 pistol flint. Muskets were primarily used by the military and are not frequently found on domestic sites. The presence of musket gunflints in this assemblage suggests that military weapons were being serviced by Schrempff. Some of these gunflints may be debris left by Thomas Bichler who commanded the rangers at Ebenezer. British tradeguns primarily were intended for the Indian trade, although many of the poorer Salzburgers may have used them as well. Carbines were the weapon that usually were possessed by most private colonists in the colonies. The low frequency of pistol flints suggests that pistols were not common in Ebenezer during the 1750s.

Previous excavations on the Mill District indicate that Salzburgers had gunflints, although they were present in low frequencies averaging less than one gunflint per household. A total sample of 13 gunflints was recovered from the Mill District including nine Type 1 spalls and four Type 2 blades. The John Maurer, Sr. farmstead (9Ef137) had the most gunflints on the Mill District, and it yielded only six gunflints. Gunflint dimensions were not recorded during the Mill District study (Smith 1986).

Rupert Schrempff had from 4 to 25 times the number of gunflints compared with others in his community. This suggests that Schrempff was involved in the traffic of gunflints, either as a producer, distributor, consumer, or repairman. European chert flakes of both English and French chert were found in quantities that indicate that a light industry of lithic manufacture was conducted on his lot. This is further substantiated by the finding of unfinished spall type gunflints made of English flint. Examples of aborted gunflint manufacture attempts and heavily altered gunflints are shown in Figure 29. A quartz pebble hammerstone also is shown with these flint artifacts, and we suspect that this hammerstone was used to knap the gunflints. Gunflint manufacture by the colonists was uncommon and previously has been observed archaeologically at only one site in North America, Fort Frederica (Hamilton and Emery 1988). To this short list should be added Ebenezer. The Detailed Reports contain no mention of gunflint manufacture at Ebenezer, and information about this industry probably is limited to the archaeological record.

Lead items

A total of 37 lead shot, 3 pieces of lead sprue, and 1 lead patch was found in the Eighth
Figure 29. Gunflint production failures & pebble hammerstone.
Tything. Lead shot, 1 lead sprue, and 1 lead patch probably used to secure a gunflint were recovered from Feature 11. One .69 caliber was found—probably intended for use with an American or French musket. One .58 caliber ball was found. This specimen exhibited a mold seam. Two were .55 caliber and probably was intended for use with a pistol or small American musket (Newmann 1967:37). One of the .55 caliber balls had been cut into quarters. This specimen exhibited a mold seam. One ball, probably a .50 caliber, had been deformed by impact. The other specimens were scatter shot measuring .14, .18, .20, .25, and .30 caliber. Approximately 20 lead shot were found wedged inside the kick-up crevice in a wine bottle fragment (Figure 30). These were of uniform size (approximately .20 caliber), but they could not be precisely measured without removal from the bottle.

Brass gun hardware

One fragment of an engraved brass sideplate was recovered from Block A in the Eighth Tything (Figure 36c). This type of metalwork was used to adorn Indian trade guns.

Brass arrowhead

One cut piece of sheet brass was found in Feature 11 that had a beveled edge and was triangular in outline (Figure 36g). This specimen is similar to examples of brass arrowheads found at Fort Michilimackinac illustrated by Stone (1974). While this may be simply a piece of scrap brass that resembles an arrowhead by coincidence, we classified it as an arrowhead based on similarity to Stone's examples.

Knife parts

Three knife parts were found in Block A, and while these items can be used as weapons, they are classified otherwise in keeping with South's functional categories. Two of these were clasp knife parts (a brass handle plate and an iron blade) and are discussed as personal group artifacts, while the other is a large socketed iron knife blade which is discussed as an activities group artifact. The knife parts are shown in Figures 31 and 36d. The smaller clasp knife blade measured 66 mm in length, 17 mm in width, and 2 mm in thickness. The larger knife had a blade length of 135 mm, a blade width of 20 mm, a blade thickness of 2 mm, and a haft length of 48 mm.

Tobacco Group

There were 1,116 clay tobacco pipe fragments recovered from the Eighth Tything and of these, 999 were found in Block A. These include Dutch, English, and American examples. The range of variation of pipes is illustrated in Figures 32 and 33.

The most unusual pipe found in Feature 11 was probably made in America, and
Figure 30. Wine bottle base with lead shot in crevice.

Figure 31. Iron knife blades.
Figure 32. English, Dutch and American clay tobacco pipes.
Figure 33. English clay tobacco pipes.
possibly produced by a Moravian potter. This pipe was an elbow type decorated with a reeded molded design. Pipes that are similar were being produced by the Moravian potter Gottfried Aust in North Carolina no earlier than 1756. Aust probably got his molds for these pipes from a Moravian potter in Pennsylvania (South 1965, 1972, 1977; Bivens 1972:256-257).

The long stem clay tobacco pipes were classified according to Stone's (1975) typology. English clay tobacco pipes were, by far, the most common type at Ebenezer. There were many varieties of these English pipes. Several pipes bore the initials T D, and one specimen bore the initials T H D. Similar pipes also were reported from Fort Michilimacincac (Stone 1974) and this type has been described by Walker (1966). Stone (1974) places the date of the T D pipes between 1750 and 1760, and their context in Feature 11 supports his date placement. Stone's type Class I, Series B, Type 1 (after 1750, but before 1760) & Type 1, Variety A (after 1750), and Class 1, Series C, Type 2 (1730-1760) were identified in the Ebenezer collection. Plain pipes with and without flattened heels corresponding to Stone's Class 2 (c. 1730-1760) also were found at Ebenezer. The Ebenezer collection also includes molded floral tobacco pipes similar to Stone's Class 1, Series A, Types 6 & 7 which he places after 1770. At Ebenezer, this pipe style dates slightly earlier, based on its context.

One Dutch style tobacco pipe corresponding to Stone's Class 1 Series B, Type 6 was found in Feature 11. This pipe was distinguished from the English pipes by a more burnished surface and delicate appearance.

Personal Group

A total of ten personal group artifacts was recovered from the Eighth Tything including coins, mirror glass, clasp knife parts, and a slate pencil. All except the slate pencil were associated with Lot 1. The slate pencil was recovered from Lot 3.

Coins

Four coins were recovered from Block A. One silver coin was found in Feature 11. This small coin shown enlarged in Figure 34 is of the pillar variety which was minted in Mexico City during the reign of Phillip V of Spain, between 1700 and 1732 (Sedwick 1987). This cob coin measured 14 mm in length, 13 mm in width, and 1 mm in thickness. Its original diameter is estimated at 18 mm. The coin was in poor condition and it had been clipped on two sides. Spanish money was legal tender in Ebenezer during the colonial period.

An Irish copper halfpenny was found in Feature 10. It is shown in Figure 35. This coin was extremely worn and the date was illegible, but this coin was minted during the
Figure 34. Enlargement of Spanish one-half real silver coin.

Figure 35. Coins.
reign of George II sometime between 1727 and 1760. This coin measured 27 mm in diameter and 2 mm in thickness. Feature 10 had a terminus post quem of 1762 which indicates the coin was discarded after the death of George II.

A British copper halfpenny was found in the plow-disturbed zone directly above Feature 11 (Figure 35). This coin was extremely worn and the date was illegible, but also was minted during the reign of George II sometime between 1727 and 1760 (Seaby and Purvey 1980:225).

A worn copper planchet with no features also was found in Block A above Feature 11 (not illustrated). This farthing-sized coin could not be identified. It measured 21 mm in diameter and 1 mm in thickness.

*Mirror glass*

Fragments of at least one mirror was found in Feature 11. This flat glass was thicker than window glass and had traces of an opaque surface painted on it. Four fragments of mirror glass also were found in the plow disturbed zone above Feature 11.

*Clasp knife*

Two clasp knife parts were found in Block A. One was a brass handle plate while the other was an iron blade (Figure 36d & 31).

*Slate pencil*

A slate pencil was found in Feature 8. This cylindrical fragment measured 21 mm in length and 6 mm in diameter. It is illustrated in Figure 37i.

**Furniture Group**

Seven furniture group artifacts were recovered from the Eighth Tything. These include three brass tacks, a small decorative brass drawer pull (Figure 36h), lamp globe glass, and a cast iron stove part.

**Activities Group**

A total of 2,889 activities group artifacts was recovered from the Eighth Tything. The vast majority of these were metal scrap and slag associated with Rupert Schrempff's blacksmith shop.

*Fishing*

Fishing was evidenced by a brass fishhook and a lead weight in Feature 11. The
Figure 36. Miscellaneous iron and brass artifacts.

A-Brass Rivet; B-Brass Pot Handle Rivet; C-Engraved Brass Gun Sideplate; D- Brass Clasp-Knife Handle; E-Iron Animal Shoe; F-Brass Tuning Peg; G-Brass Arrowhead; H-Brass Drawer Pull.
Figure 37. Miscellaneous artifacts.
fishhook measured 43 mm in length and had a barb that extended out 6 mm from the shaft (Figure 37f). A loop in the wire perpendicular to the barb was fashioned at the top of the hook. The lead weight consisted of a folded flat lead piece 23 mm in length and 12 mm in thickness (Figure 37c). The presence of these two items suggest that the Schrempffs ate fish, although no fish bones were recovered from the excavation. This probably was the result of poor bone preservation.

Making and repairing gunflints

Manufacture or repair of gunflints was evidenced by unfinished gunflints and 97 pieces of European chert debitage (Figures 28 & 29). Most of the debitage pieces were small thinning flakes, but at least three dark-gray chert cores, probably English, were recovered from Block A. Schrempff probably was reworking both English and French flints, but most of the initial production involved English flint. This flint apparently was acquired from ballast stone discarded in Savannah or Charleston. Several fragments of the flint exhibited a chalky cortex. Many gunflint and gunflint fragments were recovered from Block A and some of these may have been produced by Schrempff [see discussion of Gunflints in Arms Group artifact descriptions] The gunflint knapping technology at Ebenezer should prove to be an important research topic.

Blacksmithing and other metalsmithing

Debris from blacksmithing was well represented in Feature 11 and on the surrounding areas of Lot 1. It is difficult to distinguish which metal artifacts were related to Rupert Schrempff's blacksmithing activity and which were metal possessions unrelated to his trade. Examples of metal artifacts that Rupert Schrempff may have produced are shown in Figures 36 through 40. Iron items that were found include animal shoes (Figure 36e), knives (Figure 31, 36d), hinges, gouges (Figure 38b), a hoe (Figure 39), locks and lock parts (Figure 40), chisels, a gear, a cow bell, nails, and spikes. Many pieces of scrap iron also were discarded in Feature 11, as were minor amounts of scrap brass, lead, and pewter.

Three brass rivets were recovered from Block A and two of these are illustrated in Figure 36 (a & b). Both are probably from a bucket. Brass buckets were important Indian trade items during the eighteenth century and they frequently were cut into sheet brass pieces for making ornaments, arrowheads, and other items.

A small irregularly-shaped hematite pencil was probably used by Schrempff to mark on metal (Figure 37h). This pencil measured 21 mm in length, 11 mm in width, and 11 mm in thickness.

A decorated brass knob (function unknown) also was found in Block A (Figure 37d). This object was stamped on both sides with a design. It measured 13 mm in width and 9
Figure 39. Iron hoe.

Figure 40. Iron barrel padlock.
Another decorated item from Block A was a piece of sheet brass (0.5 mm thickness) that had been engraved on one side with a design. This piece had been broken and was folded over. Its original function is unknown.

A cast pewter mount, possibly a mounting for a small hand-held mirror, was found in Block A (Figure 37a). This object was 6 mm thick.

The most abundant evidence for Schrempff’s metal smithing was found within the Feature 11 cellar. Feature 11 contained abundant evidence of his metal working activity in the form of slag, metal scrap, burned clay, and wood charcoal. Stratigraphic evidence indicates that this metal smithing debris was dumped intentionally into the cellar during several different episodes. This served two purposes: it provided bulk for rapidly filling the cellar hole and it removed the unwanted trash from public view. Artifacts linking the metal smithing debris in Feature 11 with Schrempff were evidenced by identifying marks on two wine bottle glass fragments. Slag and scrap metal were recovered throughout Block A. A total of 1,616 pieces of scrap iron, 23 lead scrap, 42 brass scrap, eight pewter scrap, and 1,083 slag chunks was recovered from the Eighth Tything excavations.

The iron hoe shown in Figure 39 is a typical eighteenth century tool type. This badly corroded specimen measured 126 mm in length and 78 mm in width. The outer diameter at the haft is 35 mm, while the inner diameter is 24 mm. The hoe blade thickness is 2 mm and the blade length is 93 mm. There was no visible maker’s mark.

The iron gear was either unfinished or it had broken at the weld. This gear had a diameter of 111 mm, band width of 20 mm, and a thickness of 2 mm. It had teeth spaced 8 mm apart and the grooves between the teeth were recessed 5 mm. Machinery in the home that may have used a gear of this type include fireplace apparatus. It also may have been made for a reeling machine in Ebenezer’s silk filature.

Two animal shoes were found in Block A. One had the following dimensions: maximum width, 22 mm, minimum width, 16 mm, thickness, 9 mm. This shoe had four perforations for nails (Figure 36e). An unfinished iron animal shoe fragment had a maximum width of 23 mm, minimum width of 16 mm, and a thickness of 5 mm. This artifact was not perforated.

A squared lead chunk was found in Block E. This odd piece measured 21 mm by 17 mm and it was 6 mm thick. The function of this item is not known.

Another item that initially defied identification was excavated from Feature 11 during the 1989 season. It was a brass cup-like object that had engraved bands around it (Figure 37g). After much discussion we concluded that it was part of a spirits decanter lid. It may have been fitted with a cork but no evidence of the cork remained. To our surprise an identical specimen was recovered from Feature 11 during the 1990 season. For our analysis these objects were classified as kitchen group artifacts.
**Musical Instruments**

One brass artifact recovered from Feature 11 was from a stringed musical instrument such as a zither. This item is illustrated in Figure 36f. Evidence for musical instruments in colonial Ebenezer have been rare thus far. Only one other musical instrument part has been recovered from a farmstead on the Mill District (Smith 1986). The Detailed Reports contain many references to the importance of song in the community. The scarcity of musical instrument paraphernalia in Ebenezer probably reflects the high cost of these items rather than an aversion for using musical instruments.

**Other activities group artifacts**

Other artifacts that are included in the activities group recovered from the Eighth Tything include a stone grinding mortar and six iron barrel straps recovered from Feature 8 and two whetstones and two tin box fragments recovered from Feature 11.

**Features**

Many features were identified within the Eighth Tything. The location, dimensions, depth, shape, and interpreted function of each feature is summarized in Table 12. All except for Feature 8 are associated with Lot 1. Many of the features were associated with Schrempff’s cellar (Figure 41). Feature 8 is associated with Lot 3. No features were found on Lot 2.

Features 1, 2, 3, 4, 6, and 7 were shallow features that had been destroyed partially by farming. Most of these problematic features contained no artifacts. Feature 6 contained two artifacts including a wine bottle glass fragment and one daub fragment. Feature 7 contained one small lead shot. Feature 9 later was identified as part of Feature 8. Features 15, 16, 18, 21, and 22 were natural tree disturbances. The significant features are discussed in the following section.

**Feature 5**

Feature 5 was a small pit containing a postmold. The pit fill consisted of grayish-brown sand (Munsell Soil designation 10YR4/2) with some charcoal flecks. This basin shaped feature was well defined (Figure 42). The feature yielded a terminus post quem of 1720 based on the presence of white salt glazed stoneware. It contained the following artifacts:

**Kitchen Group**

1 refined white salt glazed stoneware
6 lead glazed coarse earthenware
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<th>Depth</th>
<th>Outline</th>
<th>Interpretation</th>
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Table 12. Feature Summary, Eighth Tything.
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* MCD -- Mean Ceramic Date
* TPQ -- Terminus Post Quem

Table 12. Feature Summary, Eighth Tything (continued).
Figure 41. Schrempff's Cellar.
Block A.
FEATURE 5  South Profile
A  10YR4/2 Dark Grayish Brown Sand

FEATURE 10  South Profile
A  10YR4/3 Brown Sand

FEATURE 12  West Profile
A  10YR5/4 Yellowish Brown Sand
B  CHARCOAL

Figure 42. Profiles of Features 5, 10, & 12.
1 oyster shell
1 unidentified bone

Architecture Group
6 nails
11 daub fragments

Tobacco Group
2 pipe fragments

Activities Group
1 small iron wood chisel blade

Feature 8

Feature 8 was a well and its associated construction pit located on Lot 3. This was the only feature found in the Eighth Tything that was not associated with Lot 1. The plan view of this feature is shown in Figure 43. The well was both constructed and filled during the eighteenth century based on the analysis of temporally sensitive artifacts found in the well construction pit fill and well shaft. A large upright beam was located shortly before excavation was terminated and this suggests that the well shaft was lined with a wooden box framework. Brick rubble was encountered near the mouth of the well shaft, but these bricks appeared to have been discarded in the well rather than being a part of the well architecture. Several fragments of iron barrel hoops also were found in the feature fill, and possibly may represent the remains of barrels that were used as lining in the upper levels of the well shaft.

A sample of 73 ceramics from Feature 8 yielded a date of 1760.3. Based on the presence of blue handpainted pearlware in both the well shaft and construction pit, we conclude that this well was constructed and filled shortly after 1774. Nicholas Kronberger was the owner of this lot from 1750 until his death in 1776. He was a farmer with numerous land holdings and owned at least two slaves. After Nicholas died the lot probably went to one of his two sons Jacob or John Christopher, but land records for any such transaction are nonexistent. The absence of later artifact types common to the early nineteenth century supports the interpretation that the well was filled quickly around the time of the American Revolution. In 1793 the lot containing this well was regranted to Thomas Wylly, a non-German. Wylly's primary residence was on a plantation south of Bethany (Elliott 1990). The artifacts from Feature 8 most likely predate Wylly's period of ownership. It is doubtful that Wylly occupied the lot.

The artifacts from Feature 8 are summarized in Table 1. These include 437 kitchen, 2,885 architecture, 1 furniture, 2 arms, 2 clothing, 1 personal, 21 tobacco, and 212 activity group artifacts. A breakdown of the ceramic types recovered from the feature is presented in Table 8. Coarse earthenware comprised 59.1 percent of the ceramic assemblage, while
porcelain comprised less than 1 percent. Goblet glass comprised 1.1 percent of the kitchen group artifacts.

The well had been excavated into a very pale brown sandy clay subsoil (10YR7/3). A construction pit slightly more than 3 m in diameter had been dug to approximately 95 cm below datum. The stratigraphy of the upper levels of Feature 8 is illustrated in Figure 44. These zones are described from the lowest to the highest as follows. Zone F was composed of a mixture of yellow brown sand and clay (10YR5/4). This was overlain by Zone E—a zone of brown sand containing minor mottling of clay (10YR5/3). Above Zone E was Zone D—composed of dark gray sand (10YR4/1) and charcoal. Overlying these intentional fill zones was a waterlain deposit of mottled soil including light grayish brown sand (10YR6/2), brown sand (10YR5/3), and charcoal. This zone apparently washed into the exposed depression. Zone C was capped by a zone of compact brown sand (10YR5/3) and charcoal. This zone was intentionally packed into the depression to level the ground resulting in a very slight mounding. The uppermost soil zone above Feature 8 consisted of a plow disturbed brown sand (10YR5/3). The ground surface above Feature 8 exhibited a pronounced rise.

Once the well shaft was identified (at approximately 95 cm below datum—B.D.) our excavations were confined to the shaft. The shaft contained many large pieces of brick and other artifacts. The well shaft proper was only partially excavated and it was approximately 60 cm in diameter when it was defined at 85 cm below datum. At 151 cm below datum, the diameter of the well shaft was reduced to 50 cm. This feature was excavated to a depth of 151 cm B.D. (140 cm B.S.) whereupon extensive groundwater was encountered. The project was not equipped with pumps or well points, and therefore excavation on this feature was terminated. A metal probe was used to ascertain the contents deeper down. Artifacts were hit with the probe at a depth of 230 cm B.D. The probe extended a maximum depth of 250 cm B.D. The Detailed Reports contain references to wells extending 25 feet at New Ebenezer, and Feature 8 may extend that deep. Obviously this is a very deep, and potentially important feature, and its excavation will require a larger crew and the appropriate equipment.

Feature 10

Feature 10 was a postmold located outside Feature 11 (Figures 41 & 42). The feature fill consisted of brown sand (10YR4/3) and was capped with a large brick fragment. This feature had a mean ceramic date of 1753.5, based on a small sample of 4 sherds. The feature had a Terminus Post Quem of 1762. This feature probably is associated with Frederick Schrempff's period of ownership of Lot 1. It may be associated with the structure that covered Feature 11. Artifacts recovered from Feature 10 include the following:
LEGEND

10YR5/3 Brown Sand Plowzone
10YR5/3 Compact Brown Sand with Charcoal
Mottled Waterlain Sand 10YR6/2 Light Brownish Gray Sand with 10YR5/3 Brown Sand & Charcoal
10YR4/1 Dark Gray Sand & Charcoal
10YR5/3 Brown Sand with Clay Mottling
10YR5/4 Yellowish Brown Sand & Clay Mottling

A Brick

Figure 44. Profile of Feature 8.
**Kitchen Group**
15 lead glazed coarse earthenware
1 yellow slipware
1 plain creamware
1 refined white salt glazed stoneware
1 British brown stoneware
12 unrefined redware
2 dark green wine bottle glass
1 pharmaceutical light green bottle glass

**Architecture Group**
3 brick fragments
23 daub fragments
10 nails
1 window glass
1 frosted flat glass

**Clothing Group**
1 brass hook (hook & eye)

**Tobacco Group**
2 pipe bowl fragments

**Personal Group**
1 Irish halfpenny, copper

**Activities Group**
1 French flint debris
5 unidentified flat iron fragments

**Faunal Material**
3 unidentified bones

**Feature 11**
Feature 11 was a large cellar depression that had been filled with mid-eighteenth century refuse (Figures 41, 45, & 46). The orientation of this cellar appears to be approximately in line with the town grid (35 degrees east of north). This cellar is large enough to be associated with a house, but could also have been associated with an outbuilding. The feature contained both domestic and industrial debris. Primary filling of the cellar occurred during Rupert Schrempff’s ownership of the lot which spanned a period of less than five years (1750-1753). The feature may have been dug originally prior to 1749 for the previous owners Bichler or Riedelsperger, but no substantial amount of debris from their occupations was identified. Schrempff probably began using the cellar as a trash
Figure 45. Schrempf's Cellar.
Profile of Features 11, 33, 34, & 35.

LEGEND

A1 Compact Yellow Brown Sandy Clay Floor (10YR5/8)
A2 Dark Brown Sandy Loam (10YR3/3)
A3 FEATURE 33 Dark Yellowish Brown Sand (10YR4/4)
B Decomposed Wood & Nails
C1 Dense Pink Clay
C2 Light Yellow Brown Sand (10YR6/4) Yellow Brown Clay (10YR6/4)
D Yellowish Brown Sand (10YR5/3 & 10YR5/4)
E Yellowish Brown Sand (10YR5/2)
G Dark Grayish Brown Sand (10YR4/2)
Monolithic with Yellow Brown Sandy Clay (10YR5/4) & Charcoal
F Yellowish Brown Sand (10YR5/4) with Charcoal
H Monolithic Pink Clay with Brownish Yellow Sandy Clay (10YR6/8) Light Yellowish Brown Sandy Clay (10YR6/4)
I Dark Yellow Brown Sand (10YR4/4)
J Very Dark Gray Sand (10YR3/1) & Charcoal
K Yellow Brown Sandy Clay (10YR5/4) Monolithic with Charcoal & Yellow Brown Sandy Clay (10YR3/3)
L Dark Yellow Brown Sand (10YR4/4) with Red Clay & Charcoal
M Dark Brown Sandy Clay (10YR3/3) with Charcoal
N Red Clay, Charcoal, Slag, & Brick
O Brown to Dark Brown Sand (10YR5/3)
P Dark Brown Sand (10YR3/3)
Q Dark Brown Sand (10YR3/3)
R Very Dark Brown Sand (10YR3/2) Monolithic with Dark Yellow Brown Sand (10YR4/8)
S Brown Sand (10YR5/3) Monolithic with Yellow Brown Sand (10YR6/2) & Yellowish Brown Clay (10YR3/2)
T Dark Brown Sand (10YR3/3)
U Very Dark Gray Brown Sandy Humus (10YR3/2)
F34 FEATURE
F35 FEATURE

BOARDS

0-20
dump soon after settling on the lot. Although numerous distinct strata were identified in the cellar fill, many cross mends between these soil zones suggest that the cellar was filled rapidly and intentionally. Filling of the cellar continued as late as 1774, based on the presence of pearlware sherds in the uppermost fill zone. Most of the later period sherds (creamware, dry bodied stoneware, pearlware) probably represent intrusions into the cellar fill after most of the filling had occurred [See description of Features 34 & 35]. The presence of these later ceramics proves that the lot was not abandoned until sometime after 1774. No post-Revolutionary War period ceramics were found within Feature 11 or elsewhere on the Eighth Tything.

Two coins were found within Feature 11 that support a pre-1760 age for the deposit. One was a Mexican coin minted between 1700 and 1732, while the other was a British coin minted between 1740 and 1754. We know from historical documents that Rupert Schrempff's widow remarried in 1756, but it is not known how long she continued to reside on her lot. More likely she moved away to live with her new husband. Rupert's son Frederick probably lived on the lot after his mother remarried, and many of the later artifacts were deposited during his residence.

The estimated age of Feature 11 was calculated by two independent methods—South's (1977) mean ceramic date formula and Binford's tobacco pipestem date formula (Noël Hume 1985:299). Large samples were available for both techniques—705 ceramic sherds and 319 tobacco pipestems. The combined pipestem sample from both seasons for Feature 11 yielded a date of 1756.9, while the combined ceramic sample from both seasons yielded a date of 1747.4.

The ceramic sample recovered from the 1989 season yielded a mean ceramic date of 1747.4 while the pipestems from the 1989 season yielded a date of 1749.7—a difference of only two years. The upper portion of the feature yielded a mean ceramic date of 1750, while the lower portion yielded a date of 1744, but attempts to fine tune the mean ceramic dating within stratigraphic levels of the feature proved unsuccessful. For example, upper zones of two test units yielded a mean ceramic date of 1748.0, while lower zones yielded a date of 1743.8. Zones below this, however, yielded a more recent date of 1745.2. The intermediate zones contained artifacts linked to Rupert Schrempff that could not have been deposited in the cellar until after 1749. The presence of older ceramics in this level is probably due to discard left by earlier inhabitants of the lot and then redeposited in the cellar by Schrempff's family. Attempts to fine tune the pipestem dates within the feature also met with little success. For this reason, the contents of the feature were combined for analysis.

During the 1990 excavation of the remainder of the cellar, we excavated and analyzed the artifacts by natural strata, but once again this was not fruitful for dividing the feature for temporal analysis and the artifacts are combined for this discussion. Interestingly, the larger sample of artifacts provided by the 1990 excavation significantly altered the mean date.
ceramic date estimate for the feature. Pipestem dates from the 1990 sample were later than those from the previous season. An additional sample of 122 pipestems from Feature 11 yielded a date of 1766.3.

The stratigraphy of Feature 11 was extremely complex. A composite profile viewed along the 1115 N line is shown in Figure 46. Each of the zones labeled on this profile drawing are described below. Slag and other blacksmithing debris were present in many of the fill zones. This suggests that most, if not all of the fill was deposited after Rupert Schrempf bought the lot around 1750. The scarcity of artifacts from the 1760s suggests that most of the cellar had been filled by the late 1750s. The feature probably contains less than one decade of trash. Although several of the clay fill lenses were intentionally placed, other sandy strata may have accumulated naturally during that period.

Zone A$_1$ is the compact sandy clay subsoil (10YR5/8) that forms the floor of the cellar. Directly above the subsoil in the central floor of the cellar is a thin zone of dark brown sandy loam (A$_2$). This zone is 8 cm thick at its maximum. Above this zone is a thin layer of decomposed wood, nails and dark gray sand (Zone B) that represents the remnants of a wooden platform. The maximum thickness of this zone is 4 cm.

Next is Zone C$_1$ which is a lens of reddish orange sandy clay that was deposited from the eastern side of the cellar. This zone does not extend across the entire cellar. At its maximum this zone is 24 cm thick. It is debris associated with Schrempf's blacksmithing activity.

Zone C$_2$, is a discontinuous lens located at approximately the same depth as Zone C$_1$ and consists of a mixture of light yellow brown sand (10YR6/4) and yellow brown clay (10YR6/4). This zone has a maximum thickness of 6 cm.

Zone D consists of a yellowish brown sand (10YR5/3 & 10YR5/4) and is a continuous zone across the cellar. This zone has a maximum thickness of 24 cm. It is essentially the same fill as Zone E, although the sand in Zone E is slightly darker (10YR5/3). Zone E has a maximum thickness of 12 cm. Zone E is nearly continuous across the cellar floor.

At approximately the same depth as Zone E, Zone F occurs on the eastern end of the cellar. This lens consists of yellow brown sand with charcoal (10YR5/4). It is essentially the same as Zone E except for the higher charcoal content.

Zone G is a thin lens of mottled soil including dark gray brown sand (10YR4/2) and yellow brown sandy clay (10YR5/4) and charcoal. This lens was deposited in the center of the cellar. This lens has a maximum thickness of 7 cm.

Zone H consists of a thin lens of mottled soil including reddish orange clay, brownish yellow sandy clay (10YR6/8), and yellow brown sandy clay (10YR6/4). This zone was deposited from the eastern side of the cellar. It contains debris from Schrempf's blacksmith shop. This lens has a maximum thickness of 12 cm.

Zone I was a continuous zone of dark yellow brown sand (10YR4/4). This zone had a
maximum thickness of 22 cm.

Zone J was a thin lens of very dark gray sand and charcoal (10YR3/1). This lens had a maximum thickness of 9 cm. This lens was deposited from the eastern side of the cellar and it contains debris from Schrempff's blacksmith shop.

Zone K was a large soil lens that was almost continuous across the cellar floor. It was composed of yellow brown sandy clay (10YR5/4) mottled with slightly lighter yellow brown sandy clay (10YR5/6) and charcoal. This lens had a maximum thickness of 13 cm. This lens was located in the center of the cellar.

Zone L was a lens composed of dark yellow brown sand with mottles of reddish orange clay and charcoal. At its maximum thickness it measured 11 cm. This lens was deposited from the east and it contains debris from Schrempff's blacksmith shop.

Zone M was a continuous soil zone composed of dark brown sandy clay with scattered fragments of charcoal. This zone had a maximum thickness of 14 cm.

Zone N consisted of a thin lens which was deposited at approximately the same time as Zone M. Zone N was composed of reddish orange clay, charcoal, slag and brick. This blacksmithing debris was deposited from the eastern side of the cellar. This lens had a maximum thickness of 6 cm.

Zone O was a thin zone that was nearly continuous across the cellar floor. It was composed of a brown to dark brown sand which had a maximum thickness of 8 cm.

Zone P was a zone of dark brown sand (10YR3/3) that was continuous across the feature except where it had been cut through by Features 34 and 35. Most of this zone had been disturbed by plowing and probably contained artifacts from beyond Feature 11. At its maximum thickness, this zone measured 18 cm. The final zone above Feature 11 was Zone U composed of humus and very dark gray brown sand (10YR3/2). This zone had a maximum thickness of 12 cm. Zones Q and R were associated with Feature 34, while Zones S and T were associated with Feature 35. Both of these features intruded into the Feature 11 fill.

**Feature 12**

Feature 12 was a postmold that contained no artifacts and was only recognized near its base because it was located within Feature 11 (Figures 41 & 42). The fill consisted of dark brown sand (10YR3/3) and the feature contained large pieces of wood charcoal that may be fragments of a decomposed post. Feature 12 probably was intrusive into the Feature 11 cellar fill. It may be associated with an alteration to the structure made after the cellar was filled. No date estimate could be calculated for this feature.
**Feature 13**

Feature 13 was an irregular shaped pit that contained a variety of historic artifacts (Figures 41 & 47). It was cone shaped in profile with a flat bottom. It probably served as a postmold for a large post. The presence of creamware in the fill provides a terminus post quem of 1762 for the feature. It contained:

**Kitchen Group**
- 1 plain creamware
- 4 lead glazed coarse earthenware
- 1 yellow slipware
- 1 Rhenish stoneware
- 1 British brown stoneware
- 1 blue decorated delftware
- 1 Whieldonware (brown roulette decorated)
- 2 light green pharmaceutical glass
- 7 dark green wine bottle glass

**Architecture Group**
- 3 daub
- 1 nail
- 1 window glass

**Feature 14**

Feature 14 was a small, oval, basin-shaped pit containing brown sandy loam, clay lumps and a small piece of daub (Figures 41 & 47). The feature has a terminus post quem of 1720 based on the presence of refined white salt glazed stoneware. The presence of slag in the fill, however, suggests that the feature dates to Rupert Schrempff’s occupation or later (after 1750). The feature contained:

**Kitchen Group**
- 1 refined white salt glazed stoneware

**Architecture Group**
- 1 daub
- 1 window glass

**Activities Group**
- 1 slag
- 1 large iron fragment
FEATURE 13 South Profile

10YR3/3 Dark Brown Sand

Mottled 10YR3/2 Very Dark Gray Brown Sandy Loam with 10Yr6/8 Brownish Yellow Sandy Clay

10YR3/2 Very Dark Grayish Brown Sand with 10YR8/2 Pale Brown Sand

10YR4/3 Brown Sandy Loam

FEATURE 14 North Profile

10YR5/3 Brown Sand with 10YR6/8 Brownish Yellow Sandy Clay

Figure 47. Profiles of Features 13 & 14.
Feature 17

Feature 17 was a well defined post stain (Figures 41 & 48). The decayed post does not have surrounding pit fill and this suggests that the post was driven into the subsoil. This feature probably was associated with the structure that covered Feature 11. The feature yielded a terminus post quem of 1720 based on refined white salt glazed stoneware. The presence of slag in the fill indicates that the feature dates after 1750. Artifacts recovered from this feature include:

*Kitchen Group*
1 brown salt glazed stoneware
1 refined white salt glazed stoneware
1 combed yellow slipware

*Architecture Group*
5 daub fragments

*Activities Group*
1 slag

Feature 19

Feature 19 was a post stain and postmold for a small, long post (Figures 41 & 48). This feature probably was associated with the structure that covered Feature 11. It has a Terminus Post Quem of 1720 based on presence of refined white salt glazed stoneware. This feature contained the following artifacts:

*Kitchen Group*
1 refined white salt glazed stoneware
2 lead glazed coarse earthenware
2 dark green wine bottle glass

*Architecture Group*
15 daub fragments
2 nails

*Tobacco Group*
1 pipestem (4/64 inch)

Feature 20

This was a square postmold for a small post that may have been associated with the structure surrounding Feature 11 (Figures 41 & 48). It contained no datable artifacts, but the presence of slag suggests that this feature dates after 1750. The presence of coarse earthenware suggests a colonial context. Artifacts recovered from the feature include:
Figure 48. Profiles of Features 17, 19, 20 & 21.
Feature 23

This feature consisted of two overlapping post molds (Feature 23a & 23b) which were located in the southeastern corner of the cellar (Figures 41 & 49). Feature 23b was apparently intrusive into Feature 23a and it probably replaced the earlier post. Unlike Feature 24, there were no wooden remnants of the post in this feature. This may indicate that the post was removed and the hole refilled. This feature contained no datable artifacts, but the presence of coarse earthenware strongly suggests a colonial context. The fill of Feature 23a and 23b was not separated during excavation. Artifacts recovered from the feature include:

**Kitchen Group**
- 1 lead glazed coarse earthenware (perforated, possible brazier)
- 1 dark green wine bottle glass

**Architecture Group**
- 37 daub
- 3 window glass

Feature 24

Feature 24 was located in the northeastern corner of the cellar (Figures 41 & 50). It consisted of a partially rotted pine post and the surrounding post hole fill. This feature has a terminus post quem of 1720 based on presence of refined white salt glazed stoneware. The presence of slag and scrap iron in the pit fill suggests that the post was erected after 1750. The post was sunk into the lowest levels of the cellar and it rested above the wooden platform that was constructed on the cellar floor. The wood at the base of the post was too badly decomposed to show any evidence of a mortise joint between this post and the cellar floor sills. The post was removed from the hole and it is conserved with other artifacts from Block A. The fill around the post contained the following artifacts:

**Kitchen Group**
- 1 lead glazed coarse earthenware
Figure 49. Profiles of Feature 23a & 23b.
FEATURE 24 North Profile

- 10YR4/2 Dark Gray Brown Sand
- 10YR4/3 Dark Brown Sand with Red Clay & Charcoal

FEATURE 25 West Profile

- 10YR3/3 Dark Brown Sand & Charcoal

Figure 50. Profiles of Features 24 & 25.
2 refined white salt glazed stoneware
1 blue decorated delftware
1 plain delftware

Architecture Group
3 daub fragments
1 window glass
1 nail

Tobacco Group
1 plain pipe bowl fragment

Arms Group
1 French blade gunflint

Activities Group
1 slag
5 iron fragments

Feature 33
Feature 33 was a post feature that was not recognized during excavation. It was interpreted as a post feature based on subsequent study of the Feature 11 profile. This post is associated with the earliest building stage of the structure containing Feature 11. Any artifacts from Feature 33 were combined with the fill of Feature 11. This feature is shown in profile on Figure 45. The fill of the feature is dark yellow brown sand (10YR4/4).

Feature 34
Feature 34 was a pit that intruded into Feature 11 (Figures 41 & 45). This feature was not recognized as distinct from Feature 11 during the 1989 excavation but was interpreted as a pit feature based on study of the Feature 11 profile. This probably was a refuse disposal feature that was created after the majority of the cellar had been filled. Feature 34 was composed of two strata. The northern profile of this feature is shown on the Feature 11 profile. The lower zone (Q) is composed of dark brown sand (10YR3/3). This zone had a maximum thickness of 16 cm. The upper zone (R) is composed of very dark brown sand (10YR3/2) mottled with dark yellow brown sand (10YR4/4). This zone had a maximum thickness of 30 cm.

Feature 35
Feature 35 was a large refuse pit that intruded into Feature 11. This feature probably postdated Feature 34 (Figure 41). As shown in the north profile of Feature 11, Feature 35 exhibits two stratigraphic zones (Figure 45). The lower zone (S) consists of a mottling of
yellow brown sand (10YR5/3), sand (10YR6/2), and clay (10YR6/6). This zone has a maximum thickness of 8 cm. The upper zone of this feature (T) is composed of dark brown sand (10YR3/3) which has a maximum thickness of 16 cm.

SILK FILATURE AND FIRST TYTHING, EAST WARD

Historical Background

The incredible amount of time, patience, and manual labor involved in successful silk production is difficult to imagine in today's technologically advanced, mechanized world. The German-Protestant, eighteenth-century settlement of New Ebenezer (hereafter referred to as Ebenezer) was one of the few places in the entire North American colonies where success was achieved. The industrious Salzburger settlers of Ebenezer produced silk for a longer period of time, and under less initial guidance and financial assistance from the Trustees, than even the silk makers in Savannah. The silk industry functioned on an economic, industrial, and social level in the town of Ebenezer and in the colony as a whole. These functions can be examined by exploring the history of silk and by conducting archaeological excavations on the silk filature at Ebenezer.

Man's esteem for silk transgresses both time and culture. Silk originated in China and was produced as early as 2200 B.C. The Chinese intentionally kept the mysteries of sericulture to themselves until Chinese immigrants settled in Korea and started producing silk. The knowledge then spread to Japan and later to Tibet, India, Persia, and Constantinople (Food and Agriculture Organization of the United Nations 1973; Hereafter cited as FAO). Legend describes the introduction of silk in Tibet as occurring when a Chinese princess married a Tibetan king, and presented him with a bundle of silkworm eggs and mulberry seeds she had smuggled out of her country by way of her headress. Eventually the silk industry migrated to India and Persia. Ancient Sanskrit literature indicates that some types of wild silk were produced in India long before the spread of Chinese silk (FAO.)

By the sixth century A.D., Roman monks discovered the method of sericulture and brought the secret back to Constantinople. Silk manufacture slowly moved from the eastern area of the Roman Empire to the Venetian Republic. Sometime around 1340 France obtained mulberry seeds and silkworm eggs from Italy and built a booming industry by the eighteenth century.

India introduced the British to the art of silk making during the English empire's occupation of that country. The East India Company of Britain took advantage of this already successful industry and exported large amounts of silk to England, reaping huge
profits by providing for an insatiable British demand for silk. In 1836 the company lost its monopoly and the silk industry became the domain of private enterprise. Throughout its history the British Crown made numerous attempts at producing its own silk in order to eliminate the necessity of importing the costly commodity, but failed. The English climate was not suitable for the raising of silkworms, therefore, both King James I and King George attempted to establish a successful silk industry in Virginia and Georgia, respectively (FAO 1973.)

Settlers in Virginia contemplated the idea of producing silk as early as the 1600s. Several treatises were circulated during this time offering instructions and encouraging colonists to take up the silk industry, including: *To All the Virginia Merchants, Adventurers, and Planters...The Discovery of Silke-Wormes; With Their Benefit, and Implanting of Mulberry Trees* (Williams n.d.), *A Discourse of Trade from England Into the East Indies* (T.M. 1621), and *The Reformed Virginian Silk-Worm, or a Rare and New Discovery...for the Feeding of Silk-Worms in the Woods, on the Mulberry-Tree-Leaves in Virginia* (Hartlib 1655). The latter discourse tried to persuade settlers of the value and ease of sericulture and even hoped to convince American Indians to labor in production of silk (Hartlib 1655). Apparently such impassioned pleas fell upon the deaf ears of colonist and Indian alike, and the British transferred its hopes for a silk industry to the fledgling colony of Georgia.

The Trustees of Georgia and the British Crown hoped the Georgia silk industry would provide England with enough silk to eliminate the need for costly imports, and also create jobs for the colonists. French and Italian prohibition of silk exports to England increased the Crown's determination to provide its own source of silk. In 1747 Parliament passed an "Act for Encouraging the Growth and Culture of Raw Silk in His Majesty's Colonies or Plantation in America" allowing the duty-free importation of American silk to England (Baskett 1750). By 1750 England was ready to infuse Georgia with money for the construction and operation of silk filatures in Savannah and Ebenezer, which would produce larger quantities of silk than were being produced in the colonial cottage industry at that time.

The Salzburgers diligently answered Britain's call for silk long before they received money to build a filature. In 1733 an Italian silk maker, Nicolas Amatis, was persuaded to settle in Ebenezer for purposes of instructing the Salzburgers in the art of raising silkworms and producing silk (Strobel 1953). The Salzburgers began planting mulberry trees as early as 1736. Each family received a tree given to the town by Governor Oglethorpe (Jones 1972). The Salzburgers planted 500 white mulberry trees in 1742. Widows received trees before the rest of the populace, in an effort to help them earn a living.

By 1742 shipments of silk were being sent from Ebenezer to Savannah, and the town's pastor, Reverend Boltzius, reported that the orphanage was raising so many worms that
there was neither space nor mulberry leaves enough for all of them. Many of the worms in
the orphanage attic were malnourished because they were fed native red mulberry leaves
and died. Boltzius reported that the heat and insects in the attic harmed the worms, and
"We have an indisputable need for a special house to accommodate the worms, but at this
time we have not been able to build it, because we lack money and people to do the work"
(Jones 1988). In spite of these difficulties, the Salzburgers shipped 14 pounds, 14 ounces
of silk to Savannah in May of 1742. During this time the colonists erected a "machine for
preparing the silk". This was probably a reeling machine similar to the Piedmont reel,
invented in Italy.

In 1745 and 1746 the Salzburgers sent samples of their silk to England. All the silk
from Georgia was examined, with two parcels being proclaimed, "clear, even fine, and
good...", while the third parcel was "...much worse, and made four ounces waste in the
winding" (Thoresby 1748). The first two parcels were produced by a professional Italian
silk maker, while the latter was a Salzburger product. A letter from the buyer Samuel
Lloyd stated that the parcel was..."the first essay of one of the Saltzburgher
women...considering hers was the first attempt without Instruction, from any abler Person,
it may be justly called a judicious Performance, and shews how capable [she is] with a little
more Practice...of becoming a good hand, and therefore deserves all the encouragement;
especially as said Saltzburghers are a very industrious People..." (Thoresby 1748).

Apparently the Salzburgers did merit the encouragement and became successful silk
producers. Between 1748 and 1750 more than 146 pounds of silk were shipped from
Ebenezer. Optimistic projections by James Habersham estimated that one woman working
a fifty-day season could reel 11 pounds of cocoons or 22.5 ounces of silk per day or 70
pounds 5 ounces of silk in a year (CRG 31). He estimated that the average silk worker
could earn from £50 to 90 Sterling in a year. He saw silk production as a potentially
profitable enterprise in Georgia if only the colony received the proper backing.

In 1744 the Trustees sent Ebenezer a machine for winding silk and copper for putting
the silk balls in. Another machine was sent the following year. In 1746, the Salzburgers
were sent an instruction book on how to reel silk as well as a ¼ scale model of a reeling
machine so that they could make their own. The Trustees also sent heath wood that was
intended for brushes to use to find the end of the cocoon. The machine was described as a
fixed model which had a hollow iron part "through the holes of which the silk goes" and
brass wires that "support conveyance of the silk to the reel". They also sent a quantity of
brass wire "of a proper size to fix in the machines" (CRG 31). Each machine had two
reels- one was used while the silk was drying on the other.

In 1746, the Trustees authorized a bounty for producing healthy cocoons that allowed:

2 shillings/pound for cocoons containing one worm in good condition
1 shilling/pound for cocoons with one worm in poor condition
8 pence/pound for cocoons containing two worms
(CRG 31: 380)

The Trustees authorized an additional bounty in 1749 when they realized that many of the colonists required a stronger incentive to plant and maintain the mulberry trees so necessary for feeding the silkworms. The new bounty was accompanied by a reprimand that "...the food of worms is still scarce (which would have been otherwise, had the repeated orders of the Trustees, and the conditions of their grants been complied with, not only to plant, as some have practised, but also to preserve and keep up as ought to have been, the 500 mulberry trees upon every fifty acres stipulated)..." (CRG 31: 379-380).

The new and larger bounty allowed:

14 shillings/pound for silk consisting of 5 or 6 threads
12 shillings/pound for silk of 8 threads
14 shillings/pound for good silk drawn from 15 to 20 threads
6 shillings/pound for the worst silk
(CRG 31:378)

This bounty increased was reflected beneficially at Ebenezer in 1752, when silk made there brought a price of 1 shilling 3 pence/ounce or 20 shillings 4 pence/pound.

In 1748, Ebenezer's Reverend Boltzius petitioned the Trustees for a chimney for furnaces used in preparing the cocoons for reeling. Boltzius declared that the lack of a furnace chimney resulted in soot-blackened silk (CRG 31:240). Boltzius' request was met with Trustee support in 1749, when they authorized the construction of 10 wooden sheds containing clay furnaces or stoves, and 10 additional winding machines, as well as 10 copper basins for the silk industry at Ebenezer. They expected these 10 machines to be made at Ebenezer for the sum of 30 shillings each, and upon their completion to employ 20 families (CRG 31). By 1771, however, one reel served five or six families (CRG 37) This indicates that the Salzburgers were working hard to establish the silk industry despite a lack of constant support from England.

In 1751 the Salzburgers were finally provided money to build a filature, complete with chimneys, ovens, and a well (CRG 31). During this time James Habersham was constructing a filature in Savannah, and relied on many of the Salzburgers to replenish his Savannah's supply of silkworm eggs. In the same year the Salzburgers are recorded as having shipped one thousand pounds of cocoons and over seventy-four pounds of raw silk. That same year the filature at Savannah produced only 270 pounds of silk. It is of little surprise that the Salzburgers at Ebenezer were the only people in Georgia to persevere through more than three decades of tedious and difficult silk manufacture.
In 1771 British subsidies had been terminated, resulting in the decrease and eventual end of colonial silk manufacture. Subsidies had been the only factor allowing the labor-intensive industry to be economically viable. As late as 1771, however, Ebenezer produced 438 pounds of silk (CRG 37). Georgians struggled to maintain the industry as late as 1775, when a quantity of silk valued at £8 Sterling (much of it probably from Ebenezer) was recorded. The struggle was not successful, and by the time British troops arrived in 1779 the filature at Ebenezer was in disuse. There is no indication that it ever was reactivated.

The Silk Production Process

Silk production is a time consuming process incumbent upon specific environmental conditions. By examining the delicacy of the process, one can understand the Salzburgers' desire to construct a filature designed for the sole purpose of raising silkworms and making silk.

Silk manufacture is a matter of timing; proper temperature, air, and humidity control; and above all, patience. Historical descriptions from the seventeenth through the twentieth centuries illustrate the timeless methods of the profession practiced by the Salzburgers in Ebenezer (T.M. 1621; Hartlib 1655; Boreman 1732; d'Homergue 1839; Kendrick 1844; Minns 1929.) An instructional book was published around the time of Ebenezer's founding entitled, *A Compendious Account of the Whole Art of Breeding, Nursing, and the Right Ordering of the Silk-Worm* (Boreman 1732) and even may have been consulted by the Salzburgers, as described in their silk making techniques below.

The Salzburger orphans and widows worked tirelessly in the filature to achieve success. Their work at the beginning of the silk-making season began by building a fire in the filature morning, noon, and night, for three days until the air reached about 77°. The room required two large dishes of water to keep the air the proper humidity. The Salzburgers then retrieved their batch of healthy silkworms eggs that had been lying dormant in some dark, cool place and hatched them simultaneously in a slightly warm oven. At Ebenezer, the eggs were forced to hatch in April. The eggs then were removed from the oven and placed in one-ounce piles on a white, paper-covered table. Meanwhile, the silkworkers increased the temperature of the room 2 degrees daily until a maximum of 92-93 degrees was obtained on the seventh day. By the sixth day, the eggs had to be turned every four to five hours until they began hatching the following day.

The hatching of the eggs marked the beginning of a busy and tedious time for the workers. They removed the worms individually from the table and placed them on wicker hurdles, or baskets, and covered them lightly with mulberry leaves. Only leaves from the non-native, White Mulberry *Morus Alba*, could be used. Had the silkworms been able to
thrive on the local Red Mulberry leaf, there would have been no shortage of fodder and the Salzburgers would not have had to import and nurture mulberry trees from Europe. Unfortunately, worms that ate native mulberry leaves soon sickened and died. The silkworms received four meals on the first day, consisting of tender, young, dry mulberry leaves finely chopped. The Salzburgers increased the amount of leaves during the first three days and then decreased it on the fifth day when the first dormant state was achieved.

The next four stages involved constant work, which included transferring the worms to clean hurdles after each dormancy, feeding the worms increasingly larger amounts of leaves, watching them molt, and cleaning up after them. By the end of the second stage the filature room would have developed a definite stench and required a periodic airing out, while maintaining a temperature of 73 degrees. By the fifth stage, the worms no longer required their food to be chopped. The fact that they could finally chew their own food must have been a relief to the harried silkworm workers, who would have had to supply over a thousand pounds of mulberry leaves for every ounce of eggs being raised during that time. Proper feeding at this stage was essential to ensure good quality silk. As always, the leaves could contain no surface moisture which would have encouraged mold and sickness among the worms. Workers arranged damp leaves on the brick hearth area in front of the filature fires. In the fifth stage, the hurdles needed cleaning every two days.

The final task of caring for the silkworms was to prepare small, arched arbors for them out of twigs, bean stalks, or straw. These arbors were arched across each shelf and allowed the worms to crawl up on them prior to spinning their cocoons. Worms were discouraged from sitting too close to each other, lest they spin a double cocoon which was difficult to unwind and less valuable. Following the spinning, the widows and orphans placed cocoons selectively into five baskets based on their quality. Some cocoons were left to hatch and provide eggs for the next season. The moths from 16 ounces of cocoons produced one ounce of eggs, which resulted in 112 to 127 pounds of cocoons the following spring. The Salzburgers took great care in storing the eggs in a cool, dark, dry place until that time.

The process of unwinding the silk from the cocoon is called reeling. If reeling was not done immediately, the chrysalis had to be killed to prevent the moth from emerging through the cocoon and destroying the silk. Reeling utilized a simple mechanism called naturally, a reel, to take the thread from two or more cocoons and wind them together. The reeling process began by sorting cocoons and stripping off the floss, or loose filaments around the outside. Basins of water were heated to a temperature of approximately 180 degrees, kept constant by a fire, oven or furnace system. Several cocoons were immersed in the basin and held underwater with a brush until the threads began to unravel. The threads were then carried up through the hasps on the reel and wound upon the wheel-like device that was turned by a hand crank. This produces raw silk, whose value was determined by quality and the amount of wastage in its content.
The silk reeling machine appears to have evolved from a simple crank mechanism with a one-to-one gear ratio (i.e. one turn of the handle rotates the spindle one revolution) to a geared-down ratio whereby one turn of the handle resulted in less than a complete revolution of the spindle. While seemingly less efficient, the latter version did not require the long arms of adults to manipulate, paving the way for the use of small children in the labor pool. The changes in the gear ratio of the reeling machines are evident in archival drawings and appear at the onset of the Industrial Revolution, when very young children initially were employed.

One such illustration of a silk machine depicts an apparently useless bell attached to the machine. The gear ratio makes the bell ring only after a specific number of rotations of the hand crank. Following a certain number of rotations of the hand crank, the spindle would be full and the bell would ring. The bell would have provided a dual function at Ebenezer, where orphans and widows plied the silk trade. The chiming of bells at regular intervals would act as a Pavlovian reward to very young children employed in the drudgery of turning a handle for hours on end. In addition, the bells would allow a busy widow to continue her silk work while constantly monitoring the work of several children at once. Perhaps the Salzburger children even were taught a German version of "Pop Goes the Weasel", a nursery rhyme based on silk production. The rhyme incorporates the terms, "monkey" and "weasel", which are names of gears in the reeling machine, and the phrase "all around the mulberry bush", indicative of the rotation of the crank handle and the silkworm diet of mulberry leaves. Interestingly enough, the number of rotations of the crank on at least one illustration of this machine matches the number of musical bars in the song, making a perfect correlation (Mark Williams, personal communication 1990).

The Filature at Ebenezer

By the 1750s the cottage silk industry at Ebenezer had reached its limit. The attics in the orphanage and individual houses were too small to expand silk production. The inability to control attic temperatures also led to fluctuating production rates. Salzburger concerns were answered finally in 1752, with the completion of a filature designed solely for the making of silk. This building was used for silk production for approximately 25 years. On July 12, 1752 Reverend Boltzius happily recorded in his diary the following description of the filature in Ebenezer:

It stands on a large market place across from the parsonage on the other side of the street. The entire lot belonging to this house is 196 feet long and 98 feet wide, it is entirely level, dry, and fertile. A rather large number of mulberry trees are already standing on it...The house itself is 42 feet long, 22 feet wide,
and 26 feet 3 inches high. It is built of durable pine wood and neatly covered on the walls with boards from our mill instead of with stones or clay (according to the building method of this country); and it is provided with an imposing and firm roof of cypress shingles. It has two floors and two stairs...The lower chamber is 9 feet high, has twelve windows (each 4 feet 6 inches high and 2 feet 6 inches wide) and two high and broad doors opposite each other right in the middle of the long walls of the house. In the walls on both sides of this lower chamber are embedded four kettles and two chimneys, and therefore all together eight kettles with eight machines that are built in such a way that the spinners have enough light and air from the doors and windows. Every window is provided with a window frame covered with canvas so that the too strong wind and sunlight can be held off.

The floor is made of boards; but where the kettles stand there is masonry from one wall to the other. The house itself stands on a stone foundation. Above this chamber there is another one of the same size, but one foot lower, which consists partly of a second floor and partly of an attic. The light and air enter through four large roof windows and two gable windows. On both sides of this lower chamber there are four cauldrons set in the walls and two chimneys; and there are all together eight cauldrons with eight machines that are so built that the spinners receive enough light and air from the doors and windows. Every window is provided with a canvas-covered window frame...

Along both the long walls and one of the short wall in this room there have been built nothing but stands and containers from the floor almost to the ceiling for storing silkballs of all kinds and keeping them cool. For this purpose on the second story above the first floor and along both the short and the long walls and between some attached boards some hidden airholes have been left, through which neither rain nor moisture but only air can penetrate.

The chimneys have been built outside of the house; thus both floors can remain...cooler. For every two cauldrons there is an ovenhole, which must be tended from within. All eight cauldrons and ovenholes are opposite each other. Through the second staircase, which stands along the left short wall above the first one, one goes to the uppermost floor under the roof, which is well protected by the good roof, is provided with two gabled windows...

Before the house, immediately opposite the door yet several feet from it, a well has been dug, which is twenty-one feet deep and six feet in diameter and has been lined and protected from the bottom to the top with thickly sawed and durable cypress wood like a large barrel. The builder has set a pretty little house over it, which is ten feet high and seven feet on each side and well protected by walls as high as a man's chest; and a little vane of sheet metal that shows the direction of the wind has been set on it as a decoration. The bucket hangs on a thirty-three foot chain, which is firmly fastened to a windlass and
easily descends into the well of its own accord. For drawing the water up easily, a wooden wheel like a little millwheel has been made, which can easily be jammed with a wooden peg when the bucket full of water is up. The water wells up abundantly from several holes...

In order that nothing necessary be lacking in this house, behind it a baking oven nine and a half feet long and nine feet wide has been set, under a good roof and side walls, in which the silkballs, or rather the worms still living in them, must be killed if the balls cannot be spun off in time; and for this purpose certain little chests of thin boards with holes in them have been prepared. The house, with the well, ovens, trees, and the 196 by 98 foot lot belonging to it, are enclosed by a strong fence of cypress posts and narrow split cypress boards and provided with a front and back door. (Jones 1990)

The construction of the filature allowed the alpine Salzburgers to master not only silk production, but the hot, humid elements of south Georgia.

Archaeological Investigations

The search for the silk factory, or filature, at Ebenezer began with a review of existing town maps, deeds and grants, followed by an archaeological survey. DeBrahm's map of the town drawn in 1757 identifies the location of the filature. He shows it on a 196 ft x 98 ft lot on public land south of the First Tything. The building's dimensions, however, 42 ft x 22 ft, or approximately 13 m x 7 m mean that the building could have been anywhere within a 30 m x 60 m area. A 10 m shovel test sampling strategy covering the entire lot was implemented. This area measured 90 m north-south x 50 m east-west. Selecting the area to survey was not quite as simple as it sounds, because the exact location of the market lot was unknown. Although the layout of the town had been re-established by two county surveyors, the 1989 archaeological excavations on the Rupert Schrempff house cellar revealed that the town lot relocation was incorrect. Excavations found the surveyors to be in error approximately 9 m too far north and 13 m too far west. This inaccuracy seems relatively small but it provided a challenge when trying to relocate specific lot boundaries and individual building sites. Our sampling universe, therefore, had to be made large enough to insure that the market lot was within it.

The shovel testing yielded interesting results. In the vicinity where the county surveyor had predicted the filature lot, we found almost nothing. A 2 m x 1 m test unit placed in this area was nearly devoid of artifacts--clearly confirming that this was not the site of the silk factory. In the vicinity where we expected the silk factory, shovel tests revealed something different altogether--an abundance of slag and scrap metal indicative of a blacksmith shop. This area was investigated by a 4 m x 1 m excavation. Documentary research indicated that
Lot 6 was owned by Rupert Schrempff—a locksmith and blacksmith. This debris is probably associated with his first shop in Ebenezer. [Not to be confused with Rupert Schrempff's second town lot.] While the area discovered to be Schrempff's first shop was too far north to be the silk factory, shovel testing narrowed the search.

The search was shifted farther south and east where shovel tests reflected a slight increase in artifacts along the southernmost line of the grid. One large brick fragment was found on the ground surface even further south of the line and a very slight elongated rise was observed. The area around this surface find and slight rise was searched with a metal probe and resulted in the location of several buried objects thought to be bricks. The metal probe was then used to check out the area 13 m to the east where the other end of the building was suspected to be and this also resulted in several positive hits. The western area was examined by a 4 m x 1 m excavation revealing five historic features and abundant daub, or brick fragments.

Additional work at a later date extended the shovel tests to the south so that this area was surrounded with tests and any structures further south could be identified. None were found. The search for the silk factory has been narrowed sufficiently so that excavation of its remains can begin in earnest. Artifacts recovered from the factory vicinity included architectural and domestic artifacts. The small sample of temporally diagnostic ceramics yielded a terminus post quem of 1762, well within the time range of suspected use of the factory (1752 to 1775). An earlier mean ceramic date of 1742 was obtained suggesting that the domestic refuse was deposited prior to construction of the filature. This early date may result from the low sample size of 16 sherds.

The sparsity of domestic trash compared with excavations from domestic sections of town strengthens the interpretation of this structure as an industrial site. The low frequency of window glass (3 pieces) corresponds to the historical description that noted the building was without glass windows. Brick, daub, mortar and nails indicate that a substantial building was once present in this area. The site is not in pristine condition and has been affected by years of farming and at least one episode of timbering. Many of the bricks may have been salvaged in the years following the abandonment of this building. One of the features may be the result of this salvage activity. Other elements within the building, such as the kettles, cauldrons, reeling machinery, and wooden parts also may have been salvaged after the silk industry failed. Despite these drawbacks, the filature site appears to have significant potential for archaeological research.

Shovel Testing

During the 1990 season shovel testing on a 10 meter interval grid was conducted in the entire area of the town market lot in an effort to pinpoint the exact location of the filature within the lot. A total of 60 shovel tests were excavated, of which 47 contained historic
artifacts. Shovel tests indicated two distinct areas of relatively high artifact density and variability divided by an obvious boundary of low density, low variability (one artifact and/or one artifact type) shovel tests. This is illustrated on the computer generated artifact density map of artifact diversity (Figure 51). The recovery of slag along the northwestern concentration is indicative of blacksmithing activity. Historical deed research shows this to be the first lot of the blacksmith Rupert Schrempff. According to these data, the silk filature would have to be located south of Schrempff's lot. The second artifact cluster does, in fact, begin south of this area. This new information led to the placement of a small block excavation test unit in the southern concentration of artifacts.

**Block Excavations**

**BLOCK F**

A 4 m x 1 m unit, Block F, (1017-1018N; 1161-1165E) was excavated for a total area of 4 square meters (Figures 52 & 53). This block was placed within the suspected filature artifact cluster identified by shovel tests. A summary of the artifacts recovered from Block F is provided in Table 1. The block was divided into two separate units designated T.U. 44 and T.U. 45 during excavation to maintain horizontal and vertical controls.

A 2 m x 1 m unit designated Test Unit 44 (1017-1018N; 1163-1165E) was excavated to 45 cm below surface. Level 1 (0-35 cm) consisted of a dark yellow brown sandy loam (10YR4/4) plow-disturbed zone with roots and humus. An area extending out 48 cm from the west wall of the unit, and across the width of it, contained a high concentration of brick fragments beginning at 24 cm B.S. This area was designated Feature 29 and pedestalled for special attention. (See Feature descriptions in latter section of this chapter.) Level 2 (35-45 cm) soil was a dark brown sand (10YR3/3) containing only small daub fragments. This unit contained the following artifacts:

**Level 1**

**Kitchen Group**

2 dark green bottle glass  
1 clear pharmaceutical glass  
1 trailed yellow slipware  
1 gray saltglazed stoneware  
8 coarse earthenware lead glazed  
1 coarse earthenware unglazed

**Architecture Group**

1402 daub
Figure 51. Computer-generated density map of artifact diversity, First Tything & Silk Filature.
FEATURE 30
10YR4/4 Dark Yellowish Brown Sand

FEATURE 31
A 10YR5/6 Yellowish Brown Sand & Brick Rubble
B 10YR8/4 Very Pale Brown Sand with 10YR5/4 Yellowish Brown Sand

FEATURE 32
10YR5/4 Yellowish Brown Sand

Figure 52. Plan of Block F, Silk Filature.
3 brick fragments
4 wrought nails
2 window glass
1 iron chain-2 small links
1 unidentified iron fragment

Tobacco Group
1 plain pipe bowl
2 pipe stems (4/64 inch bore diameter)

Faunal Materials
7 bone fragments-(small burned)

Level 2

Architecture Group
13 daub

Test Unit 45, a 2 m x 1 m unit, was excavated immediately adjacent to the west wall of T.U. 44 (1017-1018N; 1163-1165E). Level 1 (0-25 cm) soils consisted of dark yellow brown sandy loam (10YR4/4) with roots and humus. Several features were exposed at the base of Level 1, including a portion of the top of Feature 29, which extended into the unit from the west wall of T.U. 44. Other features included Features 30, 31, and 32. Level 2 (25-45 cm) was originally designated Feature 30, but later determined to be the base of the plowzone grading into a different soil strata recorded as light yellowish-brown sand (10YR6/4). This unit contained the following artifacts:

Level 1

Kitchen Group
4 dark green bottle glass
1 molded clear glass
2 refined white saltglazed stoneware
1 dotted yellow slipware
1 combed yellow slipware
1 Jackfield stoneware
1 British Brown saltglazed stoneware
1 molded plain creamware
13 lead glazed coarse earthenware

Architecture Group
556 daub
1 T-head nail
2 wrought nails
1 window glass

_Tobacco Group_
1 pipe bowl, plain
1 pipe stem (4/64 inch bore diameter)

_Activities Group_
2 slag

_Faunal Material_
2 bone, turtle

Level 2 (Same as Feature 30)

_Kitchen Group_
1 combed yellow slipware

_Architecture Group_
47 daub

**Features**

**Feature 29**
Excavation of the brick rubble in the western one-third of the unit revealed the transformation of Feature 29 from an amorphous rubble layer to a well-defined post hole. The post hole, located at 1017.6 N-1163.2 E, was clearly exposed at 37 cm, mapped, bisected, profiled and excavated (Figure 54). Feature 29 appeared oval in plan view, with dimensions of 45 cm NE-SW and 30 cm NW-SE. Its rounded base extended to a depth of 62 cm in profile. Feature fill consisted of mostly brick rubble, with some yellow brown sand (10YR5/4) included. Feature 29 appears to be a rubble-filled posthole, possibly filled in completely after removal of the wooden post. The matrix surrounding the feature at 37 cm below surface consisted of yellowish brown sand (10YR5/4) and brown sand (10YR5/3). This feature contained the following artifacts:

_Kitchen Group_
1 coarse earthenware lead glazed

_Architecture Group_
1 brick fragment (flooting brick)
1 unidentified iron fragment
38 daub

**Feature 30**
Feature 30 appeared to be a large, linear stain occupying one-half of the unit and consisting of dark yellowish brown sand (10YR4/4). The amount and complexity of the
Figure 54. Profiles of Features 29, 30, & 31.
soil stains exposed at this level of the test unit resulted in the designation of this stain as a
feature. In reality, however, test unit wall profiles drawn following excavation proved
Feature 30 to have been merely a continuation of the plowzone strata of Level 1, with a
gradual gradation into a second soil strata defined as light yellowish brown sand
(10YR6/4). Excavation of this level was terminated at 45 cm below surface. (For the
Artifact Inventory see Test Unit 45, Level 2 above.)

**Feature 31**

This feature was located at 1107.65 N-1162.02 E, within Test Unit 45. It was clearly
defined at 25 cm and extended to 48 cm below surface. Feature 31 was a well-defined post
hole and post mold. Almost circular in plan view, its dimensions were 25 cm north-south
by 22 cm east-west. Munsell colors and soil types for the post hole were mottled tan and
yellow brown sand (10YR 8/4 and10YR5/4), while the post mold consisted of yellow
brown sand (10YR5/6) with brick fragments. The feature had a pointed bottom. It was
drawn, bisected, profiled, and excavated. The post from Feature 31, unlike Feature 29,
apparently was never removed or replaced. This is evident from the existence of the post
mold stain and the undisturbed nature of the post hole. The feature contained the following
artifacts:

**Architecture Group**
- 4 brick fragments
- 1 mortar fragment
- 299 daub

**Feature 32**

This feature was a linear stain evident at 25 cm below surface in Test Unit 45,
extending 35 cm north from the south wall of the unit. Feature dimensions were 1.82 m
east-west x 35 cm north-south. Soils consisted of a light yellowish brown sand (10YR6/4)
mottled with a brown sand (10YR5/3). The feature was mapped, bisected, profiled, and
excavated to a base depth of 68 cm. The test unit was not expanded to include the section
of the feature continuing into the south wall. The function of the feature is not obvious at
this time. It appears to have been a large pit, but any further determination of function will
have to rely on future excavations. This feature contained the following artifacts:

**Kitchen Group**
- 1 coarse earthenware unglazed pothandle fragment
- 1 combed and dotted yellow slipware
- 1 combed yellow slipware
Feature 29 was a post hole with the post removed and filled in with brick rubble. Feature 31 was a post hole and post mold combination. The post in this feature had never been replaced. These two posts may have been associated with the same structure, although the removal and possible replacement of the post in Feature 29 suggests an older date for it than for Feature 31. This is just speculation, however, since a post in one area may have been in an environment more subject to rotting than a post elsewhere (i.e. in a constant puddle, exposed to outside elements vs. an interior post, etc.) The limited number of artifacts and the lack of significant temporal artifacts does not allow for a date on either of these features. Additional information requires further excavation, as is the case with Feature 32. This feature, a large linear pit of unknown function produced artifacts dating prior to 1760. While the sparse number of artifacts may not allow for definitive dating of the feature, they do seem to indicate that the feature was made and/or filled in during the time the silk filature was in use. Finally, Feature 30, as already stated, was not a feature in reality.

BLOCK G

Block G consisted of two 2 m x 1 m test units (Test Units 41 & 42) forming a one meter wide trench four meters in length. It includes the area from 1055-1059 N and from 1155-1156 E. While this area did not contain evidence related to the silk filature, it did contain interesting industrial debris that probably is associated with Rupert Schrempff’s first locksmith and blacksmith shop in the town of Ebenezer. [See Eighth Tything, East Ward, Historical Review of Lot 1 for an historical summary of Rupert Schrempff’s blacksmithing activities.] According to later records, Rupert Schrempff had been granted Lot 6, First Tything, East Ward.

Shovel testing identified a cluster of slag and metal that extended from 1045 N to 1085 N and from 1140 E to 1180 E. This deposit has been scattered by subsequent cultivation. Block G was placed within the center of this metalsmithing scatter. This block contained historic and aboriginal artifacts and four cultural features (2 historic, 1 aboriginal, and 1 undetermined) (Figure 55).

Artifacts from the block are summarized in Table 1. The block contained a limited array
FEATURE 25 10YR3/3 Dark Brown Sand, Charcoal, & Red Clay

FEATURE 26
A 10YR5/3 Brown Sand
B 10YR6/4 Light Yellowish Brown Sand

FEATURE 27 10YR5/3 Brown Sand

FEATURE 28 10YR5/3 Brown Sand

Figure 55. Plan of Block G.
of domestic refuse but had a large quantity of industrial debris. Ceramics included 38 coarse earthenware sherds and one porcelain sherd, so no mean ceramic dates could be calculated for the block. The absence of any tobacco pipestems negated attempts to date the assemblage. The absence of any machine cut nails indicates that this deposit dates to the eighteenth century.

**Feature 25**

Feature 25 was an historic postmold or small pit that extended into the west profile of the block (Figure 50). The feature was irregular to oval in plan and basin-shaped in profile. It measured 53 cm north-south by a minimum of 23 cm east-west, and it extended to 62 cm below ground surface. The fill contained the following artifacts:

**Architecture Group**
1 wrought nail

**Activities Group**
1 unidentified iron fragment

**Feature 26**

Feature 26 was an historic postmold that measured 42 cm north-south by at least 29 cm east-west, and it extended to 98 cm below ground surface (Figure 56). The feature contained one slag fragment.

**Feature 27**

Feature 27 was a small pit and postmold that extended into the west profile of the block (Figure 56). It measured 50 cm north-south by at least 29 cm east-west, and it extended 76 cm below ground surface. It contained one fossilized shark tooth.

**Feature 28**

Feature 28 was a large shallow basin that contained only aboriginal artifacts. This nearly circular pit measured 70 cm north-south by at least 65 cm east-west, and it extended 58 cm below ground surface (Figure 57). It contained one light chert thinning flake.

**BLOCK H**

Block H consisted of a single 2 m x 1 m test unit (Test Unit 43) which was excavated in one natural level to a depth of 40 cm below ground surface. This unit extended from 1041 to 1043 N and from 1184 to 1185 E. This area contained few to no artifacts during the shovel tests. The immediate vicinity of this block has very low potential for historical
Figure 56. Profiles of Features 26 & 27.
research. While this block contained no cultural features it uncovered the following artifacts:

Architecture Group
1 wrought nail
1 window glass
8 daub

TYTHINGS 3, 4, 5, & 6 7 PUBLIC SQUARE, EAST WARD

Tything 3

Of the lower tythings in Ebenezer's East Ward, The Third Tything was the best represented in the archaeological record. This is clearly illustrated in a computer generated artifact density map of artifact diversity where this tything appears as a relatively dense artifact cluster (Figure 58).

Previous owners for Lots 1, 6 and 7 were identified, but there are no records of ownership for the other seven lots. Lot 1 was originally granted to Carl Sigismund Ott, although there is no official record of this grant. Ott sold the lot to Christian E. Thilo the physician of Ebenezer. Thilo probably lived elsewhere in town. No further record of this lot was found. Lot 6 was granted to Daniel Shubdrein in 1757. From him it passed to his son Christian Shubdrein in 1793, and later to Christian's son Gotlieb Shubdrein (exact date unknown). There is no further record of this lot. Lot 7 was owned by Peter Schubtrein in 1793, but there are no other records for this lot (Jones 1984:Appendix).

A small sample of 11 sherds from this area yielded a mean ceramic date of 1781.1. The presence of delftware, white salt glazed stoneware, yellow slipware, and coarse earthenware suggests that this tything was in use before the American Revolution. Included in this assemblage is whiteware, a ceramic type not produced until the nineteenth century. Therefore, it is likely that one or more lots on this tything was occupied during the very early years of the nineteenth century.

A summary of the artifacts recovered from shovel tests on Tything 3 is presented below. This includes the area extending from 800 N to 880 N and 1110 E to 1190 E:

Kitchen Group
1 delftware
2 yellow slipware
1 unrefined redware
Figure 58. Computer-generated density map of artifact diversity, Tythings 3 through 6 & Public Square.
<table>
<thead>
<tr>
<th>Item</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>refined redware</td>
<td>1</td>
</tr>
<tr>
<td>refined white salt glazed stoneware</td>
<td>1</td>
</tr>
<tr>
<td>plain creamware</td>
<td>5</td>
</tr>
<tr>
<td>pearlware</td>
<td>1</td>
</tr>
<tr>
<td>plain whiteware</td>
<td>1</td>
</tr>
<tr>
<td>coarse earthenware</td>
<td>9</td>
</tr>
<tr>
<td>dark green wine bottle glass</td>
<td>8</td>
</tr>
<tr>
<td>medium green bottle glass</td>
<td>1</td>
</tr>
<tr>
<td>clear glass</td>
<td>2</td>
</tr>
<tr>
<td>Architecture Group</td>
<td></td>
</tr>
<tr>
<td>machine cut square nail</td>
<td>1</td>
</tr>
<tr>
<td>unidentified square nails</td>
<td>8</td>
</tr>
<tr>
<td>window glass</td>
<td>8</td>
</tr>
<tr>
<td>daub</td>
<td>163</td>
</tr>
<tr>
<td>Clothing Group</td>
<td></td>
</tr>
<tr>
<td>pewter button</td>
<td>1</td>
</tr>
<tr>
<td>Tobacco Group</td>
<td></td>
</tr>
<tr>
<td>pipe fragments</td>
<td>4</td>
</tr>
<tr>
<td>Activities Group</td>
<td></td>
</tr>
<tr>
<td>unidentified iron fragments</td>
<td>9</td>
</tr>
<tr>
<td>slag</td>
<td>1</td>
</tr>
<tr>
<td>Faunal Material</td>
<td></td>
</tr>
<tr>
<td>bone</td>
<td>2</td>
</tr>
</tbody>
</table>

**Tything 6**

A slight cluster of artifacts was found on this tything during the survey as shown in the artifact density map (Figure 58). We suspect that this cluster is associated with Lots 1, 2, 6 and 7. Of these four lots, we were able to identify previous owners for all except Lot 7. Lot 1 was claimed by Christian Cramer in 1755 and his name continued to be associated with the lot in 1793. There is no later record of ownership for this lot. Lot 2 was claimed by Michael Haberer in 1755 and his name continued to be associated with the lot in 1793. No further record of this lot was found. Lot 6 was deeded to Christian Shubdrein in 1792. No further record for this lot was found.

A summary of the artifacts recovered from shovel tests on Tything 6 is presented below. It includes eighteenth and early nineteenth century artifacts. This includes the area from 800 N to 880 N and from 1080 E to 1100 E:
Kitchen Group

1 blue and white Delftware
4 pearlware
1 plain whiteware
3 lead glazed coarse earthenware
1 cast iron pot fragment
1 dark green wine bottle glass
1 light green bottle glass

Architecture Group

1 window glass
20 daub

Activities Group

1 brass wire fragment

Faunal Material

1 oyster shell

Public Square and Market Place

The Public Square and Market Place in the lower part of Ebenezer's East Ward appears to have had a minimal role in Ebenezer's history. DeBrahm's 1757 map of the town suggests that this area was not developed, although earlier and later maps both show this area to be part of the town (DeVorsey 1990). The archaeological evidence would tend to bear out DeBrahm's version since very few artifacts were found in this section of the town (see Figure 58). The artifacts that were found point to a very late eighteenth and early nineteenth century use of this area. Some of these artifacts may be associated with the military occupation of the town during the American Revolution. Artifacts recovered from shovel tests in this area are listed below. This includes the area from 740 N to 790 N and from 1080 E to 1150 E:

Kitchen Group

1 whiteware
1 creamware
2 unrefined redware
1 pearlware
1 lead glazed coarse earthenware
1 clear bottle glass

Architecture Group

1 window glass
Fourth Tything

The Fourth Tything was nearly devoid of historic artifacts as is shown on Figure 58. Archival research located the name of only one owner associated with two of the lots in the Fourth Tything. A shovel test summary of the artifacts from this area (680 N to 730 N and from 1110 E to 1150 E) reveals the following:

*Architecture Group*

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daub</td>
<td>6</td>
</tr>
</tbody>
</table>

*Activities Group*

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unidentified iron fragment</td>
<td>1</td>
</tr>
</tbody>
</table>

Fifth Tything

The Fifth Tything is even more barren than the Fourth Tything in terms of historic artifacts as is shown in Figure 58. A shovel test summary of artifacts from this area (680 N to 730 N and from 1080 E to 1100 E) reveals only 14 daub fragments.

Although archival research identified several names of lot owners for the Fifth Tything, we are doubtful that this section of the town ever developed. The names associated with these lots are non-German (Foy, McCall, Moore) and these individuals probably bought the lots in speculation of a resurgence of growth in the town during the last decade of the eighteenth century. Such a revitalization never materialized.

FIRST & SECOND TYTHING, AND PUBLIC SQUARE, WEST WARD

Seventy-one shovel tests were placed at 10 m intervals covering an area from 960 N to 1080 N and from 780 E to 860 E. This includes a very small portion of the First Tything (Lot 10), approximately two thirds of the Second Tything, and approximately three fourths of the northwestern Public Square in Ebenezer's West Ward. A computer generated artifact density map shows this area (Figure 59). This map contains two obvious artifact clusters. The lower cluster is centered near 1010 N 840 E and is located on the Public Square. The upper cluster is located near the eastern boundary of the public on the Market Place. These two clusters are divided by Georgia Highway 275 which appears as a barren linear zone on this map. A summary of shovel tests on the west side of Georgia Highway 275 is listed below:
Figure 59. Computer-generated density map of artifact diversity, First & Second Tythings & Orphanage.
Kitchen Group
2 refined white salt glazed stoneware
1 plain creamware
8 lead glazed coarse earthenware
16 dark green bottle glass
1 medium green bottle glass
1 light green bottle glass
2 clear bottle glass

Architecture Group
2 wrought nails
14 unidentified square nails
1 machine cut square nail
10 window glass

Tobacco group
3 clay pipe stems
2 clay pipe bowls

Activities Group
6 unidentified iron fragments

This square contained the Ebenezer orphanage and most of the artifacts listed above probably are associated with the activities of the orphanage. The orphanage complex contained a courtyard for cattle, at least two storehouses for provisions such as the grinding mill made of iron, wash cauldrons, an orphanage building, a spacious kitchen with attached pantry, a spacious "toilette" outbuilding, a large well (7 ft in diameter and 25 ft deep), a garden, a barn (36 ft x 36 ft), stalls for poultry, cattle and swine, and a ditch for ducks. Construction of this complex began in the spring of 1737. The orphanage proper was a two story structure complete with a fireplace and oven. It consisted of three sitting rooms and three bedrooms. This building also had glass windows- a scarce commodity in the early years of the town. The building had separate areas for the manager and his family and for the boys and girls. The attic of the orphanage was used for threshing rice, raising silk worms, and it also doubled as a sickhouse. The building was completed by 1740. A fire in 1740 destroyed a cowshed, pig sty, chicken coop, and a small building.

The time of abandonment of the orphanage is not known, but all funding for this type of humanitarian endeavor was cut during the American Revolution. It is likely that the orphanage had ceased altogether by that time.

Although Boltzius notes in the Detailed Reports that a portion of the church yard was used as a cemetery prior to 1742, his diary makes no mention of a cemetery located on the
orphanage lot (Jones 1988:53). An alignment of four suspected grave depressions was observed in this area during the survey. Possibly these graves are associated with the orphanage, but escaped mention by Boltizius. These suspected grave depressions are aligned with the town grid and not along magnetic north and this suggests that they are associated with the occupation of the town.

Our survey of the Public Square indicates it has considerable research potential. Although one quarter of the lot has been destroyed by modern road construction, the remaining three-fourths appear to be relatively undisturbed. Unfortunately, the portion of the lot that was destroyed may have contained part of the orphanage building. The remains of associated structures and debris have not been destroyed. Some features, such as the 25 ft deep well, may have survived the road construction and may be sealed beneath the asphalt. Investigation of these features will require removal of the roadway.
CHAPTER 4
DISCUSSION

RELOCATING EBENEZER

Before we began the 1989 excavation, we thought we knew exactly where the town was located, but after two years of field research we know that this assumption was false. We began our dig in reference to a control point that was re-established in 1985 by the Effingham County Surveyor as the northeastern corner of the Eighth Tything. We gave this concrete monument the grid designation 1134.11 N 1091.44 E. Our shovel test grid then was laid out to cover three lots from this reference point. It became apparent during the shovel testing phase, and even more apparent during the excavation of Feature 11, that this control point, unfortunately, was in error.

During the shovel test phase, only 34 historic artifacts were found north of the 1125 N line. According to this scheme the area where the houses should have been (near the 1134 N line) was nearly devoid of historic artifacts. Based on the shovel test data, the houses appear to have been located south of the 1125 N line. The shovel test data suggest an error in mapping on the north-south axis of approximately 9 m and on the east-west axis of approximately 13 m. This would place the northeastern corner of the Eighth Tything more likely near 1125 N 1105 E.

If one assumes that the existing concrete markers are correct, Feature 11, thought to be a cellar associated with Rupert Schrempff whose occupation of the area is bracketed between 1749 and 1753, would have been situated in the center of a main city street. While it is possible that a building was built in that location, an alternative explanation would be that the lot boundary was located further to the east than previously thought. Since Feature 11 was within the confines of Lot 1, then this suggests a mapping error on the east-west axis of almost exactly 13 m. This would place the eastern wall of the Schrempff house on the eastern edge of the lot.

With these findings, our subsequent research in other portions of the town hoped to clarify this location problem. Our suspicions were confirmed in the search for the silk filature. The area where the Surveyor's work would place the silk filature was nearly devoid of historic artifacts (Block H) south and west of this location. Archaeological survey elsewhere in the town shed little light on this matter.

A surveying error of this magnitude is completely understandable given the situation. Former Effingham County Surveyor Paul Weitman made the first attempt to reestablish the streets of Ebenezer during the 1950s, and with more precision during the 1970s.
Assuming Weitman to have been correct, the town plan was extended eastward by the present Effingham County Surveyor Paul Wilder in 1985.

Surveyor Weitman had very few reference points to work from in conducting his original survey. The cemetery boundaries were vague, and had undoubtedly shifted since the mid-eighteenth century. The roads had changed, and even the church, which was the second church to be built on its lot, was of little help in mapping the town precisely. None of the original town lots retained their boundaries, but had long been devoured into larger land holdings. There are gaps that occur during the nineteenth century in the chain of title for the town land, that became apparent during our deed research. During the nineteenth century residents of the county forgot about the town plan and the former lot boundaries became of little concern. By the mid-twentieth century, Ebenezer was truly lost.

While the County Surveyors succeeded in relocating the general boundaries of the town, additional historical research may provide clues that will enable us to relocate it with more precision. A distinctive jog in a property line provided additional clues to the layout of the town. This jog is shown as a dotted line and labeled the Seckinger Property Line on Figure 2. According to the Wilder plat of New Ebenezer, this land line cross-cuts several of the original town lots. If the town plan is shifted so that this jog is lined up with ancient lot boundaries, several observations become apparent. One corner of the jog lines up with the center of town and the northernmost property line follows the western edge of the town's East Ward. The southernmost property line corresponds to an ancient lot boundary. The east-west portion of the jog follows the main cross street of town. The degree of shifting necessary to achieve this is nearly identical to the suspected mapping error identified during our excavations. This map discrepancy varies from 4 m to 8 m on the north-south axis and from 8 m to 15 m on the east-west axis. This closely corresponds to the archaeologically observed error of 9 m and 13 m, respectively.

Through documentary research, we attempted to learn the origin of this land division, but we were only partially successful in achieving this goal. The northern property line was created when an 8 3/5 acre tract was laid out for the Jerusalem Lutheran Church by the Trustees of the Lutheran Congregation of Effingham County in October, 1874 (Effingham County Deed Book W:267-268; Effingham County Plat Book E:169). It is not clear if this line dated back to the colonial period. The lower portion of the jog is the boundary of a 3 acre tract deeded by the Trustees of the Lutheran Congregation of Effingham County to Christopher Gnann in 1874 (Effingham County Deed Book W:247-248). This tract is shown as 3.25 acres on a 1953 plat drawn by Surveyor Weitman for the Jerusalem Lutheran Church (Effingham County Deed Book W:267-268; Effingham County Plat Book G:171). This tract was created after 67 acres belonging to Christopher Gnann were laid out in September 1874 (Effingham County Plat Book E:168). In December, 1874, Christopher Gnann deeded his town lands (64 acres) to the Church, but he reserved 3 acres
of the original 67 acres which the Trustees deeded back to him (Deed Book W:272-273). No record was located during this study as to how Christopher Gnann originally acquired the town lands. Many of the land transactions in Ebenezer during this period were conducted by the Church and there are no official records in the Effingham County courthouse.

In summary, there is general agreement between the archaeological data and archival information concerning the town's precise location. Both argue against the location of the town as relocated by the Effingham County Surveyors. The documentary record of Ebenezer town lots becomes extremely vague by the nineteenth century, and refinement of our version depends heavily on archaeological data. Gathering this data will be one of the goals of future research. Once the precise locations of each lot is determined, archaeological and historical data can operate in unison to better reconstruct the history of Ebenezer.

EIGHTH TYTHING

Lots 1, 2, and 3 of the East Ward, Eighth Tything of New Ebenezer were sampled during the 1989 field season. Based on our tentative reconstruction of the town, Lot 1 was sampled by Blocks A, B, and C. Lot 1 contains debris from five households: Adam Riedelsperger, Thomas Bichler, Rupert Schrempff, his Widow Ottillie Schrempff, and their son Frederick Schrempff. Since Frederick was younger than 11 when his father died in 1753 and younger than 14 when his mother remarried in 1756, the lot probably was abandoned for a period after 1756 until the lot was claimed by Frederick in 1759.

Adam Riedelsperger's use of the lot was brief, lasting less than one year. Riedelsperger was not idle during that period however, and he constructed a hut, kitchen, stables, and a fence on the lot. These constructions probably left archaeological remains that await future research. Adam was a sickly shoemaker and farmer when he moved to the lot in 1736. The Riedelspergers had no children, although they did take in the Widow Margaret Schweighoffer and her three children for a time. Adam's widow gave the lot to Thomas Bichler less than four months after her husband's death.

Thomas Bichler was a farmer, military leader, constable, saddler, innkeeper, and miller. His birthdate is unknown and he died in 1751. He had a household on the Ebenezer Mill District by 1741, and had established a tavern and inn by 1743. Bichler had three wives successively, and fathered two children-neither of whom reached adulthood. He also took an orphan girl into his household for a brief time. While the historical record testifies that Bichler was a useful citizen in Ebenezer, his later years were spent in poverty and low social standing.

In 1749 or 1750, Bichler sold Lot 1 to Rupert Schrempff. Rupert had been born in
Salzburg in 1722, and he arrived in Georgia in 1741. Over the next few years Schrempff established a thriving metalworking industry at Ebenezer. He moved from Ebenezer to South Carolina in 1747 after selling his original town lot (Lot 6, 1st Tything, East Ward) to Christopher Cramer. He probably returned to Ebenezer in 1750.

Schrempff established his second residence on Lot 1, as well as a blacksmith and locksmith shop including a bloomery for making small quantities of wrought iron. Rupert lived on the lot with his wife and two sons, until his death in 1753. His widow Ottillie probably continued to live there until 1756, when she married a wealthy resident of Mount Pleasant, Georgia.

In 1759, Rupert's son Frederick filed a claim for the lot. He was no older than 17 at the time. Frederick Schrempff also had other lands in the Ebenezer settlement. He continued to reside in Ebenezer during the 1760s and early 1770s, but his history during and after the American Revolution is unknown.

Lot 2 was sampled by Block D. Lot 2 contained much less debris than did Lots 1 or 3. No features were found on this lot. Preliminary research on Lot 2 indicates that it has limited research value. The earliest occupant of this lot was not identified by historical research. John Casper Wertsch is associated with the lot after 1749. Wertsch also had other lots in Ebenezer, and he probably did not live on Lot 2. Since he rose to become one of the more wealthy residents of town and would have been expected to have many material possessions, the absence of artifacts on this lot is interpreted as negative evidence, indicating that Wertsch lived elsewhere. Wertsch died in 1779, and his land holdings were tied up in a legal dispute that lasted into the nineteenth century. His wife left town with the British in 1782, never to return. Because the Wertsch lands were in dispute, they probably remained unoccupied after his death. This lot appears to have limited research potential.

Lot 3 was sampled by Block E which resulted in the identification and partial excavation of Feature 8- the well. No historical documentation was found for the residents of this lot prior to 1750, although it probably was occupied during that period. Nicholas Kronberger was associated with the lot from 1750 until his death in 1776. Nicholas was a farmer who owned at least two slaves. He had landholdings elsewhere in the Ebenezer District. Following his death, the lot probably went to one of his two sons John Christopher or Jacob, but no formal record of this transfer has been located.

No records concerning Lot 3 were found until 1793 when Thomas Wyly was listed as the owner of this lot. Wyly also owned other lots in the town, as well as a large plantation near Bethany and probably did not live on Lot 3.

The well (Feature 8) contained pearlware ceramics dating after 1774 in the construction pit and shaft, but there were no artifacts manufactured exclusively during the nineteenth century. This indicates that the well was constructed and abandoned sometime after 1774. The absence of artifacts common to the early nineteenth century suggests that filling of the
well was completed prior to 1800. The well was intentionally filled and all traces of a depression had been eliminated. The well appeared on the ground surface as a slightly mounded area at the time of excavation. The careful filling of the well depression suggests that the lot was used following the well's abandonment. The feature fill also included many eighteenth century artifacts that date to Nicholas Kronberger's occupancy or even earlier.

CERAMIC STUDY

Feature 11 yielded a large sample of ceramics that was well suited for detailed ceramic analysis. A study was conducted on the ceramics recovered from the 1989 excavation, which covered approximately half of the entire cellar feature. This study began with the cross-mending of sherds and a determination of the minimum number of vessels represented in the assemblage. Table 13 shows the results of this study. A total of 161 distinct vessels were identified. A mean ceramic date estimate based on 52 of these vessels is presented in Table 14. These vessels were grouped into two functional categories - vessels used for individual food service and those used to service groups. The individual category included cups, mugs, tankards, bowls, plates, and saucers. The group category included pots, jars, jugs, teapots, pitchers, bottles, creampans, and braziers. Four vessels did not fall into either category, and could not be classified.

Individual service vessels dominated the assemblage and were represented by 102 distinct vessels, or 63.4 percent of the collection. Most of these were small bowls (N=55) followed by cups (N=21).

Group service vessels comprised 34.2 percent of the assemblage representing 55 distinct vessels. Most of these were creampans (N=21), followed in frequency by pots and jars (N=14).

Porcelains were exclusively individual service containers either cups or small bowls. These containers undoubtedly were accoutrements in a status-related tea ritual. Refined stonewares also were primarily individual service containers, or were part of the tea service (teapots). Thicker stonewares were predominated by vessels used for individual service (N=13), although nine group service vessels were identified.

The sample of 52 coarse earthenware containers was dominated by group service vessels (N=36). Most of these were cream pans. The cream pan vessel form is ubiquitous in all eighteenth century Effingham County Salzburger assemblages. If one assumes that all cream pans were used to process dairy products, milk dominated the Salzburger diet. The cream pan vessel form probably was used for a variety of needs. Smaller versions of this form may even have been used occasionally as serving containers for individuals.
<table>
<thead>
<tr>
<th>Type</th>
<th>Individual Service</th>
<th>Group Service</th>
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<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Blue painted delfware</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Polychrome painted delfware</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Yellow slipware</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Unrefined redware</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Coarse earthenware</td>
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<td>13</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mouse Creek ware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Colono-Indian ware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ralph Shaw-like ware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Refined agateware</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Jackfield ware</td>
<td>1</td>
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<tr>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Astbury ware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Plain creamware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Green creamware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Brown salt glazed stoneware</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>British brown stoneware</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Brown lead/salt glazed stoneware</td>
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<td>2</td>
</tr>
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</tr>
<tr>
<td>Engine turned unglazed stoneware</td>
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<td>1</td>
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<td>Rhenish stoneware</td>
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<tr>
<td>White salt glazed stoneware</td>
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<td>22</td>
</tr>
<tr>
<td>Scratch blue stoneware</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Porcelain</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>21 7 6 55 11 1 1 7 1 0 3 14 6 2 21 1 4 161</strong></td>
<td></td>
</tr>
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</table>

Table 13. Minimum Vessel Estimate (MNV), Feature 11, 1989 Season.
Feature 11 Minimum Vessel Estimate

<table>
<thead>
<tr>
<th>TYPE</th>
<th>COUNT</th>
<th>MEDIAN DATE</th>
<th>TPQ</th>
<th>QUOTIENT</th>
</tr>
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<tbody>
<tr>
<td>Plain delft</td>
<td>6</td>
<td>1750</td>
<td>1700</td>
<td>12250</td>
</tr>
<tr>
<td>Blue painted delft</td>
<td>7</td>
<td>1750</td>
<td>1700</td>
<td>5250</td>
</tr>
<tr>
<td>Polychrome painted delft</td>
<td>3</td>
<td>1750</td>
<td>1700</td>
<td>5250</td>
</tr>
<tr>
<td>Yellow slipware</td>
<td>8</td>
<td>1733</td>
<td>1670</td>
<td>13864</td>
</tr>
<tr>
<td>Unrefined redware</td>
<td>3</td>
<td>1750</td>
<td>1700</td>
<td>13864</td>
</tr>
<tr>
<td>Coarse earthenware</td>
<td>52</td>
<td>1780</td>
<td>1750</td>
<td>1780</td>
</tr>
<tr>
<td>Coarse agate ware</td>
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<td>1741</td>
<td>1732</td>
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<td>Mouse Creek plain</td>
<td>1</td>
<td>1758</td>
<td>1740</td>
<td>5274</td>
</tr>
<tr>
<td>Colono-Indian ware</td>
<td>1</td>
<td>1760</td>
<td>1740</td>
<td>1760</td>
</tr>
<tr>
<td>Ralph Shaw-like ware</td>
<td>1</td>
<td>1732.5</td>
<td>1690</td>
<td>5197.5</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>1690</td>
<td>5212.5</td>
</tr>
<tr>
<td>Astbury ware</td>
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<td>1738</td>
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<td>1738</td>
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<td>Plain creamware</td>
<td>6</td>
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<td>Whieldon ware</td>
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<td>8665</td>
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<td>Burslem stoneware</td>
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<td>1738</td>
<td>1700</td>
<td>1738</td>
</tr>
<tr>
<td>British brown stoneware</td>
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<td>1690</td>
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<tr>
<td>Brown salt/lead glazed stoneware</td>
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<td>Refined white salt glazed stoneware</td>
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<tr>
<td>Scratch blue refined stoneware</td>
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<td>1744</td>
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</tr>
<tr>
<td>Porcelain</td>
<td>14</td>
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</tr>
</tbody>
</table>

Sum of Quotients 129678.5
Total used in calculating MCD 74
Total MNV 161

Mean Ceramic Date is 1752.4
Terminus Post Quem is 1762

Table 94. Mean Ceramic Date based on MNV, Feature 11.
Flatware vessels such as plates, saucers, or platters were extremely rare in this assemblage. One delftware saucer and one creamware plate were identified and no platters were found. Rupert Schrempff probably owned pewter plates, but there is no evidence of them in the archaeological or archival record. The near absence of ceramic flatware probably signifies that most of the Schrempff's meals were more liquid soups, stews, and gruels than solid foods.

METALSMITHS AT EBENEZER

Metallurgy was a skill and an art that was essential to the growth and survival of the Ebenezer colony. Several examples of colonial blacksmithing in North America have been identified by archaeological research (c.f. Bining 1938; Heite 1983), but none have been described from colonial Georgia. During the eighteenth century there were many different types of metalsmiths including blacksmiths (iron and steel), whitesmiths (tin, which was tin platted sheet iron), pewtersmiths (an amalgam of tin, lead, antimony, and copper), coppersmiths, silversmiths, goldsmiths, plumbers (lead), braziers (brass—an amalgam of copper, tin, and bronze), and locksmiths (Tunis 1965; Bealer 1969).

In the earliest years of the colony the people of Ebenezer relied on smiths in Abercorn, Purrysburg, Savannah, and Charleston for their metal needs. This was a less than satisfactory arrangement and Boltzius recognized the need for a local smithy both for reasons of economics and convenience. He encouraged the development of this industry in Ebenezer. In 1738, Boltzius purchased blacksmithing equipment from Purrysburg. This equipment apparently went unused until four years later when Veit Lachner established a smithy in Ebenezer. Although trained in Europe as a locksmith, Lachner shifted his skills towards blacksmithing since this was what the townspeople needed most. His blacksmith shop was located near his town house which was probably in the West Ward, 6th Tything, Lot 10.

Lachner trained his stepson, Rupert Schrempff, as an apprentice, and Rupert gained the skills to become, perhaps, the most skillful blacksmith in town. By 1743, Lachner had retired from the physically demanding trade and had given his tools to his stepson. Rupert operated a blacksmith shop at two separate locations within Ebenezer. The first was probably located on Lot 6, First Tything, East Ward. Evidence for this blacksmith shop was found during our search for the silk factory [See discussion of Block G in Chapter 3]. Rupert Schrempff relinquished his claim to this lot to Christopher Cramer when he moved his family to Purrysburg in 1747. Before leaving he turned his business over to his contemporary George Bruckner. Almost immediately Rupert regretted the move and he
requested that he be allowed to return to Ebenezer. By 1750, Schrempff had returned to Ebenezer and resumed his blacksmith trade. He operated a forge on, or near, Lot 1, Eighth Tything, East Ward from about 1750 until his death in 1753. Although the actual site of this blacksmith shop has not been found, we have found many artifacts that indicate it is very near the Block A excavations.

Slag is a waste by-product specifically associated with metal working and is most abundant during the reduction of ore to cast iron (Bealer 1969). Slag "forms from iron oxides (hammer scale, cinders, slag inclusions in wrought iron) and other components such as sand, earth, melted parts of the hearth lining, or from ashes and charcoal remains" (Unglick 1984:123).

Slag was not common at Ebenezer, and is probably specific to metalsmithing. Slag was very common on Rupert Schrempff’s two blacksmith shops at Ebenezer. There were at least six blacksmiths operating in Ebenezer over the course of the town’s history. Other smiths in Ebenezer include Joseph Leitner, Paul Lemenhoffer, George Bruckner, Lucas Ziegler, Jonathan Seckinger, and possibly Peter Arnsdorff. We have found archaeological evidence of three blacksmiths from our excavations based on the distribution of slag artifacts. These areas all bear further study.

During the 1987 survey, slag clustered in three areas: (1) 1100N, 1080-1100E; (2) 1060N 1140-1160E; and (3) 920N 1180E. Of these three clusters, the first is at Schrempff’s second lot (East Ward, 8th Tything, Lot 1); the second cluster is located at Schrempff’s first lot (East Ward, 1st Tything, Lot 6), and the third cluster is located at Joseph Leitner’s lot (East Ward, 2nd Tything, Lot 8). All of these slag concentrations can be linked with historically documented blacksmiths in the town. No slag was found during the 1987 survey in the vicinity of blacksmith Jonathan Seckinger’s lot (West Ward, 8th Tything, Lot 9). The house lots belonging to blacksmiths Lucas Ziegler (West Ward, 1st Tything, Lot 10 and West Ward, 6th Tything, Lot 5) and George Bruckner (West Ward, 7th Tything, Lot 2) probably were destroyed during construction of Georgia Highway 275. Veit Lackner’s lot (West Ward, 6th Tything, Lot 10) has not been examined archaeologically.

The discovery of Rupert Schrempff’s first locksmith and blacksmith shop near Block G is an exciting find and it is of significant research value. Archaeological examination of both of his shops will allow us to track his progress and development as a skilled craftsman. The first shop was used from 1743 until 1747 while the second shop was used from 1750 until his death in 1753. Examination of both areas will allow us to monitor changes in his economic status before and after his three year sojourn to Purrysburg. It will also provide a reference point for studying other individuals within the town, by offering a relative value of wealth at Ebenezer.

The eighteenth-century blacksmith was a more highly skilled and respected craftsman...
than his nineteenth-century counterpart. The eighteenth-century blacksmith made knives, axes, adzes, hammers, sickles, scythes, augers, files, chisels, planes, and carving tools. He also made nails, spikes, hinges, latches, fire dogs, iron pot hooks, pokers, shovels, tongs, ladles, spoons, forks, strainers, spits, and trivets (Lindsay 1964; Bealer 1969). He also probably served as an amateur gunsmith in making minor repairs on broken weapons.

A smith needed the following items in order to function: fuel, raw materials (metal or ore) the necessary tools, and a workplace. The fuel consisted of charcoal made locally by a laborious process in which logs were arranged and covered with earth and then set on fire to smolder. The resultant charcoal could be fired to a much higher temperature than in a regular wood fire. The temperature of charcoal also was more easily controlled than regular wood, and this control was important for dependable craftsmanship.

There were five forms of iron familiar to the eighteenth-century blacksmith: iron ore, cast iron, pig iron, wrought iron, and steel. Iron ore, or unmodified raw material included hematite, limonite, magnetite, or other iron rich deposits. In this form, iron was not useful, but when heated in a furnace the ore was reduced to lumps of iron, or cast iron. It was necessary to burn out the carbon and other impurities before the cast iron could be made useful. Cast iron, which contains more than 2.2 percent carbon, was then remelted in a blast furnace and filtered through slag and fuel where it was collected in a basin and cast into pig iron ingots. The pig iron was then reheated in a separate forge to a white heat and refined by hammering and heating to drive out the remaining carbon and other impurities. The result was wrought iron which contains less than 0.3 percent carbon. The wrought iron then was formed into bars, rods, and sheets, which was used for manufacturing tools, nails, horseshoes, and other utility items which did not require additional hardness. It was through the medium of wrought iron that the blacksmith was most familiar.

The wrought iron was carburized (had carbon reintroduced into the refined iron) to produce steel which is iron containing 0.3 to 2.2 percent carbon. The addition of pure carbon to wrought iron resulted in a metal that could be tempered or hardened by heating it red hot and quenching it in water or other liquid. Carbon steel was used for tool edges, weapons, and springs. Since steel was difficult to produce, steel parts were frequently welded to wrought iron items. Wrought iron was easily welded to wrought iron, but welding wrought iron to steel required the use of a fluxing agent (Bealer 1969:31-33). Steel produced by this method varied in quality, and there were many trade secrets for making high quality steel.

The necessary tools of the blacksmith included the forge and bellows, anvil, slake or slack, tub, hammer, tongs, swage, cutter, chisel, punch, file, and drill. Since the blacksmith was able to make his own tools, he had most of the necessary equipment at his disposal (Bealer 1969:47). Even the forge, made of stone, brick, or a wood box lined with clay could be made by the blacksmith. Forges were generally 30 inches high, 24-40 inches
in diameter, and as deep as they were wide (Bealer 1969:47-48).

Cast iron has a melting point of 1950°F and wrought iron has a melting point of 2800°F. Schrempff was able to achieve the melting point for cast iron, but it is unlikely that his operation produced sufficient heat to melt wrought iron. A blast furnace would have been necessary to achieve such high temperatures.

Based on the quantities of slag found on his lot, it is most likely that Schrempff was operating a "bloomery" to convert iron ore into wrought iron. For this operation he would have needed a slightly oversized forge and a source of iron ore. The ore first was roasted in a pit to be converted into cast iron. The forge probably contained a V-shaped trough with the fire fed from the the side. The cast iron was pushed slowly through the trough until it became a pasty glob (or "bloom"). As the roasted ore was fed through the trough, two to three men beat the iron repeatedly with a sledgehammer to drive out the slag as the iron exited the forge. This action produced large quantities of hot slag and protective clothing had to be worn by the workers. This protective clothing included a board worn on the forehead to prevent the slag from injuring the face. The product of the bloomery was bar iron. The quality of this iron was probably low grade, and likely a poor substitute for iron produced in a blast furnace. Schrempff's source of iron ore was probably bog iron, which would have been available in nearby swamps or ponds, and along the Savannah River. The entire bloomery operation would have required three to five workers (Harry Moss, blacksmith, Whitmire, South Carolina, personal communication 1990).

Although we believe we have found refuse from two of Rupert Schrempff's shops, the actual remains of the shops themselves have yet to be identified. Perhaps the shops were little more than open sheds, designed to keep the rain off while allowing air to circulate. They probably were small buildings, perhaps less than 6 m in diameter each (Light and Unglik 1984; DeVore 1990). A 5 m interval shovel test grid would result in no more than two hits on a structure this size. Finding such a target in a town the size of Ebenezer is no easy task. We feel, however that after these two seasons of archaeology, we are much closer to accomplishing this goal.

THE SECRETS OF SILK

Through the use of systematic shovel testing, the search for the silk filature has been narrowed to an area no more than 20 m x 40 m for a building that measured less than 13 m x 7 m. The distribution of positive tests within the Public Square lot, the types of artifacts recovered, and the use of a probe to determine areas of buried brick concentration all contributed to narrowing the field of possible locations for the filature. The excavation of a small block unit provided additional information and confirmed the presence of features in
the area. The density of architectural artifacts such as brick and daub indicate the past location of a substantial structure that was likely to have been industrial, given the lack of brick (particularly flooring brick) used in domestic architecture in the town of Ebenezer. Negative evidence also supports this area as the filature location. The discovery of no more than three window glass fragments fits the filature's description of containing windows with only canvas shades (Jones 1990). A domestic structure should contain hundreds of window glass fragments. This was true of the cellar to Rupert Schrempff's house. These convincing arguments, however, do not begin to answer the many questions concerning the filature. The 1990 excavations sampled less than 4 percent of the structure, while 96 percent remains to be studied. Future large-scale excavations will undoubtedly produce a much larger number of artifacts and features, offering a better view of the role of the silk filature at Ebenezer.

Additional archaeological excavation could reveal the remains of both chimneys and the masonry piers which supported the cauldrons. The well should still be present, as would its construction pit and the post holes dug for the well-house supports. Artifacts expected to be recovered in and around the filature, and in the well include items associated with silk making. Artifacts from the filature, itself, might include large, industrial type hardware such as iron hinges, oven parts, door-bar parts, spikes, hooks, and nails. Other artifacts that might be found with the filature remains include knife parts used for chopping mulberry leaves, metal cogs and gear parts from the reeling machines, copper basin fragments, cauldron handles, iron-oven parts, ventilator parts, and assorted metal hand tools. Wooden items such as silkworm trays, wicker hurdles, or brushes might be found in environments of reduced oxygen, such as the bottom of the well. Some artifacts may have been discarded in trash pits outside the filature building. In addition to industrial related artifacts, a small amount of personal items used, lost, or broken during work also can be expected.

Archaeological excavation is revealing the accuracy of the filature's description, providing visible proof of its existence, and revealing its precise location within the market lot. Further excavation can furnish fine details the historical description fails to mention. What types of silk making tools were used at Ebenezer? How did silk making at Ebenezer compare to silk making in Savannah and in Europe? Did the Salzburgers receive enough continual support from the Trustees to conduct silk making operations in the prescribed manner of the day, or were they forced to improvise due to lack of proper supplies and equipment? Was the building used for other purposes during the off season? What length of time was the filature actually used? Who used it? When was it abandoned? How was it built? Did the building burn down? Did the Salzburgers salvage the equipment or building materials after its abandonment? Was the structure used for other purposes after the termination of silk production? If so, for what purposes and by whom? Undoubtedly,
ARCHITECTURE OF THE SCHREMPFF STRUCTURE

When construction began at New Ebenezer, each colonist was required to build "one House of Brick, or framed, square timber work on their respective Town Lotts, containing at least Twenty-four feet in length, upon Sixteen in breadth, and eight feet in height." (Oliver and Oliver 1985:6). General Oglethorpe dictated that each house be located on the front and center of each lot. This layout plan was adhered to as shown on Von Reck's sketch of Ebenezer made during the 1730s (Hvidt 1980:66). If our reconstruction of the town lots is correct, this plan was no longer strictly adhered to by the 1750s. By that time the Trustees were powerless to control much that went on in Georgia and changes in housing patterns may reflect their impotence in enforcing housing codes at Ebenezer.

The Salzburger house style in Effingham County is a great mystery. No intact examples are known from the eighteenth century (Jordan 1980; Oliver and Oliver 1985). The one surviving example, the Gugel House (now owned by the Georgia Salzburger Society) has been moved from its original location and has undergone an unknown amount of alteration. This building was originally built in the mid-eighteenth century (Charles LeBey personal communication 1990). The foundation is completely reconstructed and is based on speculation. At least one Salzburger house was photographed during the late nineteenth century. Two perspectives of this structure have survived. A rear three-quarter view showing construction details is published in Jones (1984:Plate 21). A corner, frontal view is shown in Figure 60. The specific location of this building is unknown other than it was located in Effingham County.

The house shown in Figure 60 is a modest single-story log structure, rectangular in plan. It has a single chimney constructed of small logs and daub centered on the end of the house. This chimney is partially protected from the elements by wide roof projection. The structure has a full porch on the front and partial porch on the rear. A portion of the rear porch may have been enclosed. The porches and main floor of the house sits approximately 2 feet above ground level. The house is accessed by single doors in the front and rear, slightly offset from the center of the building. The three logs that support the front porch appear to rest on top of the ground and are not sunk in. The lower exterior of the walls consists of rough dressed notched timbers, while the eaves are sided with clapboard lumber. The windows are small and are covered by wooden shutters.

The presence of a large cellar, associated post features, and sheet midden zone on Lot 1 have allowed us to define partially the architecture of the Schrempff house. At this juncture our identification of this structure as the main house is not definite. It may yet prove to be
the remains of a support building. While we do not know when this building was first constructed, we do know that it was used and renovated during the Schrempf's occupation (ca. 1750 to 1776). There may have been more than one primary dwelling built on this lot. The first dwelling was constructed on the lot in 1736 by Adam Riedelsperger. Shortly afterwards this dwelling was used by Thomas Bichler. By the time Rupert Schrempf purchased the lot fourteen years later, the first house may have been in ruin. Boltzius notes that most of the original houses had rotten supports by 1741. The moist ground soil conditions and active insect population forced modifications in Salzburger architecture. In the Detailed Reports, Boltzius describes many of their innovations in construction technique. By the 1750s their house styles had undergone significant evolution.

The Schrempf structure had a rectangular cellar approximately 5 m east-west x 3 m north south (16 ft x 10 ft). The walls of the lower section of the cellar were nearly vertical and had been carved out of the compact sandy-clay subsoil. The walls of the upper part of the cellar had slumped through the years and were sloped. An entrance to the cellar was identified on the south-central wall of the cellar. This sloped entry way was approximately 3 m wide and 2 m long. The cellar extended approximately 150 cm or almost 5 ft below present-day ground surface. Within a short time after Rupert Schrempf moved in the house, he experienced problems with his cellar. The archaeologists also had problems with the cellar in the form of heavy rains and collecting groundwater. A quick review of present day Effingham County shows that cellars in this region are virtually unknown. The soils are not well suited for this type of architecture. The Schrempffs tried to cope with the groundwater problem by building a frame of boards directly on the floor of the cellar to keep their feet out of the mud. From what we were able to tell from the 1990 excavations, this frame consisted of east-west sills spaced approximately 75 cm (2.5 ft) apart. These sills were overlain by scrap pine boards which were secured by nails haphazardly to the underlying sills. A sill also ran along the eastern boundary of the cellar base. This probably was not satisfactory since the moist conditions would have promoted wet rot, not to mention the spread of termites to upper parts of the structure. Within a few short years other methods were attempted to cope with the cellar problem. A layer of sand and clay fill was dumped in the cellar. This probably relieved the groundwater problems, but it created new problems for now the head clearance in the cellar was greatly reduced. This probably reduced the usefulness of the cellar. At some point, the family decided to abandon the cellar altogether and it served as a trash receptacle until it was filled completely.

We have identified at least nine posts that are associated with the structure. Three of these are located at the two eastern corners of the cellar (Feature 23a, 23b, & 24). Feature 24 was located in the northeastern corner and it contained the preserved remains of a large support post. The center and both ends of this pine post were badly decomposed and all evidence of workmanship had deteriorated.
The two posts in the southeastern corner (Feature 23a and 23b) represent a replacement of one post by another slightly offset to the inside of the cellar. By the time this post had been replaced the cellar was nearly filled with trash. We were unable to locate corresponding posts on the western side of the cellar because large trees in the area inhibited further excavation. Features 23 and 24 indicate that large posts sunk as deep as five feet into the ground were used to support the superstructure.

Feature 12 appeared to have been a post located along the outer wall of the cellar. The exact dimensions of this feature are somewhat speculative since the feature was difficult to distinguish from the surrounding cellar fill. The post hole was approximately 30 cm in diameter.

Feature 33 was located at the base of Feature 11 immediately east of the east wall of the cellar. This was a small post that may date to the early construction period of this structure. Unfortunately the feature could not be dated.

A faint linear stain was noticed along the western wall of the structure. This stain was interpreted as a drip line which resulted from water dripping from the roof of a building. This dripline suggests that the roof ended slightly more than 1 meter out from the interior (steep) wall of the cellar.

Feature 10, a substantial postmold that dates to Frederick Schrempff's occupation, was located west of this dripline. If Feature 10 was part of the Schrempff house, it suggests that the roof of the building was enlarged during his period of ownership. No trace of a drip line was found on the northern, southern, or eastern sides of the dwelling. A cluster of small posts (Features 17, 19 & 20) were located outside the southeastern corner of the cellar. No corresponding features were found on the northeastern corner. These small posts were either minor support posts for the house, or more likely, they were associated with a fence or attached outbuilding.

Features 23b may date to Frederick Schrempff's era, and hence may relate to the suspected rebuilding episode with which Feature 10 is associated. The extent of this enlargement is not known. At least two refuse pits were dug through the filled-in cellar during Frederick Schrempff's time.

Despite the recovery of 6,825 brick or daub fragments, Schrempff's structure had no intact evidence of a chimney, or other brick architectural features. Most of the brick and daub was redeposited in the cellar fill and much of it may represent debris from dismantled features. Since the daub could not be reused, it was discarded. Discarded whole bricks were extremely rare. Throughout the town of Ebenezer, daub is the most common artifact type, but the fragments usually are too small to interpret their architectural function. We know from ethnographic information that daub was one component in chimney construction among the Georgia Salzburgers, but this material also may have been used to chink cracks between logs. In buildings of half-timber construction, clay was used to fill...
the walls. The existence of the half-timbered architecture style at Ebenezer is inconclusive, but certainly possible.

There were 1,148 wrought iron nails, spikes, or nail fragments recovered from Schrempff's building. Other building hardware included two broken iron hinges. Since Schrempff was a blacksmith it is likely that many of these nails were related to his trade. As evidenced in the construction of the wooden cellar platform, nails certainly were used in the construction of Schrempff's house.

Window glass was a valuable commodity during the eighteenth century. Boltzius notes that most of the early houses at Ebenezer did without glass windows. By mid-century, window glass was more readily available. Window glass occurred in nearly equal amounts to nails (N=1,149) and these artifacts almost certainly were part of the Schrempff's building. In one of the lower zones of the cellar fill the frequency of window glass was markedly increased. This zone was predominantly sand. This zone also contained larger pieces of glass than in other levels of the cellar, and window glass was more common relative to other artifact types. We speculate that this window glass zone represents a major remodeling of the Schrempff's windows. A particularly severe hurricane struck the Southeast during the fall of 1752 (Calhoun 1983). Perhaps the glass deposit is the result of that hurricane.

**DATING THE ASSEMBLAGES**

The artifacts recovered from the Eighth Tything include no types manufactured exclusively during the nineteenth century. The latest terminus post quem for any ceramic type found in this area is 1774. Our conclusion is that the three lots sampled in this tything were abandoned prior to 1800. This area may have been abandoned as a result of the Revolutionary War. A summary of dates from the Eighth Tything is presented in Table 15. The mean ceramic dates range from 1741.9 in Block A to 1770.6 in Block D. Most of the dates cluster around the decade of the 1750s. Ceramics combined from all five block units in the Eighth Tything produced a mean ceramic date of 1753. We suspect that urban life in this portion of Ebenezer reached a peak during that decade. Fewer pipestem dates were available, but these suggest peak use of the Eighth Tything in the mid-eighteenth century. The pipestem dates range from 1752.2 in Block E to 1765.6 in Block A. Pipestems combined from all block units in the Eighth Tything produced a date of 1764.5. Other artifact types including buttons, buckles, bottle glass, goblet styles, coins, and wrought nails all substantiate a pure eighteenth century age for the assemblage in the Eighth Tything. Only one artifact, a milk glass button, dates to the nineteenth or twentieth century and this item may have been lost by a farmer centuries after these lots were abandoned.

Too few ceramics or pipe fragments were recovered from Blocks F, G, or H for
<table>
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<tr>
<th>PROVENIENCE</th>
<th>MEAN CERAMIC DATE</th>
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<th>(N) TERMINUS POST QUEM</th>
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<td>Block D- Lot 2</td>
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<td>Block H</td>
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Table 15. Summary of Date Estimates.
producing reliable date estimates. The assemblages from these blocks, however, all support an eighteenth century occupation as no nineteenth century artifacts were found.

Eighteenth and early nineteenth century occupation was evidenced by survey in the southern parts of town, but survey of the West Ward appeared to be exclusively eighteenth century. The sample size was too small in both areas for a reliable date estimate.

ARTIFACT PATTERNS AT EBENEZER

The artifacts recovered from the excavations were grouped into functional categories following South (1977). Table 16 presents a breakdown of each category for each area of block excavation. The assemblage from the Eighth Tything was dominated by kitchen artifacts (51%) followed by architecture artifacts (21%), activities artifacts (20%), and tobacco artifacts (8%). Minor amounts of arms, clothing, furniture, and personal artifacts were recovered. The abundance of activities artifacts primarily is the result of Rupert Schrempff's blacksmithing trade. The town average based on 1987 survey data revealed the activities Group to be 2.8 percent.

The Ebenezer data are then compared with data from the Ebenezer Mill District and other areas of Colonial Georgia (Table 17). The Mill District sites also were dominated by kitchen artifacts (73.1%) and were quite similar in relative frequency to samples from the Eighth Tything.

STATUS COMPARISON

Differences in economic wealth among the American colonists is apparent from reading existing histories. The fact that the Salzburgers and other German speaking colonists who settled in Georgia immediately were among the lower class is apparent from reading the Detailed Reports of the Ebenezer colony. Some of Ebenezer's settlers later rose to middle-class status. Perhaps the wealthiest person in town was John Casper Wertsch, but Rupert Schrempff probably was not far behind.

Blacksmiths were well paid for their work during the eighteenth century. In neighboring South Carolina during the early 1700s, smiths could expect to make an average of 7 shillings 6 pence for a day's labor. By comparison a common laborer earned only 1 shilling 3 pence per day, or one-fourth the wages of a smith. By mid-century the smiths monthly wages averaged 14 to 16 pounds, or 168 to 192 pounds annually (Glen cited in Merrens 1977: 81, 184). By these accounts, a good blacksmith probably could have sustained a middle-class eighteenth-century lifestyle. Rupert Schrempff probably
<table>
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<tr>
<th>GROUP</th>
<th>SHOVEL TESTS</th>
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<th></th>
<th>BLOCK C</th>
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* Excludes building materials brick, daub, & mortar

Table 16. Pattern Analysis Summary.
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<td>43.5-57.1</td>
<td>1.3-3</td>
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<td>1.4-14</td>
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* Excludes brick & daub


Table 17. Pattern Analysis Comparison.
made a comparable wage.

Historical archaeologists use a variety of methods for defining status based on a family's artifact record, and these methods are applied to the Eighth Tything. Certain kitchen artifacts seem to be sensitive indicators of a family's social standing in the community. One of the most easily measurable indicator of status on eighteenth century sites is the relative importance of porcelain in the ceramic assemblage. During the eighteenth century the partaking of tea, chocolate, and coffee went beyond being a subsistence activity and was enveloped in a social ritual that extended to the outer reaches of the British Empire. In the 1740s and 1750s, Georgia was in the outer reaches of this sphere. Evidence of the tea ceremony was well represented in discarded trash in the Schrempff's cellar, however. The tea ritual required special paraphernalia consisting of porcelain tea service, cups, saucers, small bowls, and teapots, and related serving furniture (Curtis 1988). The tea ceremony served to solidify status recognition within the community. Gracious hosts flashed symbols of their wealth and prestige at tea time. The tea ceremony gained popularity from the seventeenth through the eighteenth centuries. Tea, and other imported beverages, were expensive, and were served in expensive ceramic containers. Chinese porcelain was the primary high status ceramic associated with tea, although tea was served in a variety of refined earthenwares as well as low-fired earthenwares. Archaeologists have begun to examine frequencies of porcelain in ceramic assemblages as a means of identifying status distinctions in the archaeological record. Quantified archaeological data can be used to gauge differences in economic status between individuals. Unfortunately the data from many archaeological excavations has not been presented in a consistent manner so that direct comparisons between sites can be made.

There is wide deviation in porcelain frequencies on eighteenth century sites in North America. These differences are due, in part, to differences in wealth and the ability to pay. Yet even on remote frontier military sites, such as Fort Michilimacinac on the Great Lakes, porcelain comprised 21 percent of the ceramic assemblage (Stone 1974). The people of Fort Michilimacinac were not wealthy, but used the tea ceremony to rigidify status differences between officers and their families and others in the community (Miller and Stone 1970; South 1977). A similar pattern was observed at the military site of Mount Pleasant upstream from Ebenezer where porcelain comprised 15 percent of the ceramics (Elliott and Elliott 1990b).

At a domestic site in Clermont, New York, porcelain made up 14 percent of the ceramic assemblage. Other sites in the Northeast have lesser amounts of porcelain. Ceramics from the Voorlezer House and Conference House excavations in New York contained 4 percent porcelain, while ceramics from the early eighteenth century cellar in Newtown, Virginia contained 5 percent porcelain (Baugher and Venables 1987; Wittkofski et al. 1980). Unfortunately quantitative data from many excavated sites in the Chesapeake region has not
been regularly reported.

Data on the relative proportion of porcelain from recent excavations in Charleston also show higher frequencies of porcelain among the social elite. Work by Zierden and others (1987) provides information useful for comparison with the Ebenezer data (Table 18). They have gathered base-line information on status on several sites using a combined historical/archaeological approach. Samples from elite residences were obtained at the Gibbes, Rutledge/McPherson houses, and Drayton Hall plantation (Zierden et al. 1987; Zierden and Grimes 1989; Lewis 1978). At the Gibbes House, porcelain comprised 11 percent of the ceramic assemblage, at Drayton Hall porcelain was 11 percent, while at the Rutledge/McPherson House porcelain made up from 18 to 27 percent of the ceramic assemblage. Even excavations from poorer sections of Charleston have yielded porcelain frequencies ranging from 4 to 11 percent.

In sharp contrast, the ceramic assemblage from Rupert Schrempff’s lot at Ebenezer contains approximately 2 percent porcelain and Nicholas Kronberger's well contained less than 1 percent porcelain. On average, porcelain frequencies throughout the Ebenezer District are less than 1 percent of the total ceramics. Clearly two ends of a socio-economic continuum are represented by the Ebenezer and Charleston assemblages. Many of the residents of Ebenezer were "dirt poor". Rupert Schrempff was more financially secure than most of the people in the town, but even poor Rupert was worlds apart from John Rutledge and the other Charleston elite.

Ebenezer was at the other end of the spectrum in the use of porcelain, where it is represented by less than 1 percent of the ceramic assemblages. Rupert Schrempff had twice the amount of porcelain compared against the observed average in the Ebenezer colony (Smith 1986). Two percent of Rupert's ceramics were porcelain, including cups and small bowls. Rupert was probably within the upper income bracket at Ebenezer, and his family apparently used the tea ceremony to mark their status in the community.

The porcelain data from the Ebenezer settlement suggests that both the Kronbergers and Schrempffs had higher socio-economic status than many of their peers in the Ebenezer colony, but by Charleston standards the people of Ebenezer were destitute. The ownership of porcelain was linked to the British colonial social behavior of the tea ceremony. The low frequency of porcelain at Ebenezer may reflect a cultural choice among the Salzburgers not to participate in this tradition. The large volume of tea accoutrements such as cups and teapots in other ceramic media (stoneware and earthenware) among the Schrempffs and Kronbergers suggests otherwise. These two families were mimicking a status-reinforcing behavior that by the mid-eighteenth century had spread throughout the British Empire. Tea was a part of the Ebenezer culture, but most of the Ebenezer colonists did not acquire all the tools requisite for this status-reinforcing ceremony. Perhaps the poor of Ebenezer preferred to take their tea from coarse-earthenware vessels which were more fitting their
<table>
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<th>Porcelain %</th>
<th>Coarse earthenware Count</th>
<th>Coarse earthenware %</th>
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Table 18. Porcelain & Coarse Earthenware Frequency Comparison.
lifestyle.

Differences in wealth also are mirrored by the percentage frequency of table glassware (goblets, tumblers, decanters, etc.) in the kitchen group assemblage. At the Charleston Townhouse sites table glass comprised 1 percent of the kitchen group, while at Drayton Hall it made up 7 percent (Zierden et al. 1987; Lewis 1978). Schrempff's kitchen assemblage had approximately 2 percent table glass, while Kronberger's had slightly more than 1 percent. Interestingly, the Ebenezer glassware frequencies were much closer to the assemblages from the Gibbes and Rutledge Houses -- each having 1 percent (Zierden et al. 1987; Zierden and Grimes 1989).

MERGING HISTORY AND ARCHAEOLOGY AT EBENEZER

The Detailed Reports, it must be considered, were a propaganda tool aimed at raising moral and financial support for the struggling settlement. These documents were widely circulated in Europe among potential benefactors. This version of life in Ebenezer, while containing a plethora of useful facts, is weighted towards the position of the Church. Other versions of the story exist in the historical record, and undoubtedly the truth lies somewhere in between. Archaeology can be used to sort out discrepancies in the historical record. Archaeology also can provide information on many topics for which the historical record is silent. When archaeology is used in conjunction with the abundant historical documentation at Ebenezer, this union has the potential to provide one of the most complete records of any American settlement in the English colonies.

Our detailed look at one individual, Rupert Schrempff, is an example of what can be accomplished from combining history and archaeology. By sifting through his trash we begin to understand the man. Rupert was well respected in the community as a citizen, Christian, family man, and skilled craftsman. He lived on Lot 1 for less than five years, yet he left an amazing trail in the archaeological record. We better understand his business pursuits, smoking habits, medical history, food preferences, and material wants. We know the type of buttons and buckles he wore. Rupert was a hard working man, and the metal and slag debris stand as a testament to his trade. His years on Lot 1 were his last. He was smoking heavily and his health declined. By 1753 he had died leaving a wife and two boys.

But what of his wife Ottillee? What do we know about her? From the archives we know precious little other than her birth and marriage statistics. The archaeological record contains a rich array of her possessions. We see the vessels that she cooked with and the beads and other jewelry that adorned her body, for example.

And what about their oldest son Frederick? On Frederick Schrempff archival history
provides almost no details. But the Schrempff lot contains many artifacts that probably are associated with Frederick Schrempff's household. Like his father, Frederick was an devoted smoker, and his wealth was probably equal to that of his father. Was Frederick, like his father, a skilled blacksmith continuing the tradition? Future excavation of Lot 1 will provide additional clues concerning Frederick Schrempff and other colorful characters of Ebenezer--clues that can be obtained from no other means besides archaeology.

THE FUTURE

At the end of two seasons of archaeology in New Ebeneezer the prospects are bright. At the end of our first survey in 1987 we outlined an ambitious seven phase plan for developing an archaeological program in Ebenezer (Elliott 1988). The first phase involved the study of domestic life in the town. Our studies in the Eighth Tything, East Ward have partially accomplished this goal and will continue. Once the lot boundaries are pinpointed we can target selected individuals for study such as the Reverend Boltzius, physician Thilo, and shopkeeper Wertsch.

Progress also has been made on several of the other proposed phases of research. The silk filature location has been identified so that research on this interesting industrial feature can begin in earnest. Survey work beyond Ebenezer also has helped to define other settlements in lower Georgia that interacted with the Ebenezer colony (Elliott 1990).

There are many different and exciting research topics that await further research. We have made significant in-roads in preparing for these studies. The most immediate task is to muster the resources and energy needed to continue this valuable work. It will be a unique opportunity to reclaim lost portions of our country's heritage. The LAMAR Institute is proud to be a part of this endeavor.

§

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APPENDIX 1.
An Examination of Vertebrate Remains from the New Ebenezer Site, Effingham County, Georgia.--Karen G. Wood
AN EXAMINATION OF VERTEBRATE REMAINS FROM THE
NEW EBENEZER SITE, EFFINGHAM COUNTY, GEORGIA

by
Karen G. Wood

Introduction

The New Ebenezer site, located in the Coastal Plain on the Savannah River, is approximately 25 mi inland from the coast. The site is located on a high broad terrace less than 100 m from the river (Effingham County). New Ebenezer is the location of the second Salzburger settlement, founded soon after the establishment of Savannah. The site was occupied from 1736 until around 1800. The Salzburgers were German citizens fleeing religious persecution in their homeland.

In 1989, Dan and Rita Elliott shovel tested the town site, which is owned by Mr. Richard Kessler. The shovel tests indicated one area that contained a deep artifact zone. Test excavations in this area of heavy artifact concentration revealed a large pit feature, probably a cellar and a well (Elliott and Elliott 1990:17).

The cellar was on a lot occupied by a blacksmith named Rupert Schrempff. Schrempff and his family lived on the lot from 1750 to 1753. Good documentation on many aspects of life at New Ebenezer exists because of the detailed recordings made by the Lutheran leaders who lived at New Ebenezer. Several notations mention the industrious Rupert. One account notes that Mr. Schrempff liked to "eat meat three times a day" (Elliott and Elliott 1990:12).

Methods

The sample identified from Ebenezer was poorly preserved. The bone specimens exhibited extremely weathered surfaces, probably due to a combination of exposure to the elements, plowing and highly acidic soils. Because of the poor bone preservation and limited time constraints, the bone identification was modified. Most of the standard zooarchaeological procedures were used during identification of the vertebrate materials. Identifications were made by Gwyneth A. Duncan using the comparative skeletal collection at the Zooarchaeology Laboratory, Natural History Museum, University of Georgia.
Specimens were identified to the nearest species, genus, family or class level possible and quantified by weight and count. Element and element symmetry (pairing), bone modifications (burning, gnawing), butchering (sawing, cutting, hacking), and aging characteristics (such as the degree of epiphyseal fusion) were recorded. None of the elements were complete enough to measure. None of the standard analytical computations (MNI and biomass) were made on the sample, however.

Results and Discussion

Table 1 is a list of all taxa identified along with weight and count. Eighty percent of the bone could not be identified beyond the mammal class. Six taxa were identified, all of which were mammal except for one box or water turtle fragment. Three of the five mammal taxa were domesticates. The two wild species present in the sample were deer (*Odocoileus virginianus*) and raccoon (*Procyon lotor*). Cow (*Bos taurus*) predominated the sample by weight and count. One sheep/goat (*Caprine*) element was identified from the sample.

Because of the eroded surface of most of the bone, little in the way of modifications could be detected. One interesting modification noted was a cow tibia that contained a piece of lead shot. Records on New Ebenezer note that cattle were allowed to range freely (personal communication, Dan Elliott, 1990).

The small percentage of bone identifiable to a genus or species due to poor bone preservation restrict the results and conclusions of this report. The New Ebenezer site would be ideal for studying the dietary habits of a population in a recently settled region, if the bone preservation was good. An examination of an Old World culture adapting to a New World environment is intriguing. The Ebenezer site is particularly significant because it was occupied by one group of people for a very short period of time.

A good faunal sample from New Ebenezer could be compared to the data from the large sample gathered at Fort Frederica at the Thomas Hird Lot. Both sites are contemporary and it would be interesting to compare English and German adaptations to the New World. Reitz and Honerkamp (1983) have formulated a Colonial subsistence pattern based on the materials from Fort Frederica. It would be interesting to see how the New Ebenezer site data would fit with the New World English subsistence strategy.

The study of faunal materials from Feature 11 indicates the potential for bone being present on the site. Hopefully, further work at Ebenezer will locate features with better bone preservation.
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Table 1. Species List, The Ebenezer Site, 9EF28.

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