THE ARCHAEOLOGY OF TOWN CREEK: CHRONOLOGY, COMMUNITY PATTERNS, AND LEADERSHIP AT A MISSISSIPPIAN TOWN

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ABSTRACT

Edmond A. Boudreaux: The Archaeology of Town Creek: Chronology, Community Patterns, and Leadership at a Mississippian Town
(Under the direction of Vincas P. Steponaitis)

Town Creek is an archaeological site located on the Little River in Montgomery County, North Carolina. Long-term fieldwork at Town Creek indicates that the site was occupied at least intermittently by Native Americans for thousands of years. This dissertation reconstructs the site's late prehistoric through early historic period occupation (A.D. 800 to 1650), particularly the several hundred years (A.D. 1150 to 1450) during the Mississippian period when the community consisted of a planned town with domestic and public spaces. Pottery and radiocarbon dates from Town Creek and several related sites are used to refine the area's cultural chronology and define ceramic attributes diagnostic of different periods. The distribution of postholes, burials, and pits is analyzed and discrete architectural units are defined from the thousands of features at Town Creek. Architecture is dated to different periods and an occupational history consisting of five stages is defined. Attributes of buildings are used to identify public and domestic structures within each stage. Public architecture at Town Creek included an earthen platform mound which was constructed around A.D. 1250, approximately 100 years after the town's founding.

Once an occupational history is established, mortuary and ceramic data are used to explore synchronic variation and diachronic change. Emphasis is placed on changes in the nature of leadership roles that may have accompanied mound construction. In particular, a

model that proposes a relationship between changes in public architecture and the centralization of political authority in Mississippian societies is tested against the archaeological record of Town Creek. The data indicate that changes in leadership and site structure were associated with mound construction at Town Creek, but that these changes do not necessarily reflect the centralization of political authority.

For Christy. It's done.

ACKNOWLEDGMENTS

There have been many times along the way where it was hard to imagine how all of this was ever going to get done. That it is finished is because of the effort, assistance, and encouragement of many people. I am grateful to them all.

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I want to thank all of the people who have made the Town Creek site and its archaeological collection incredible resources for learning about Native Americans in the Southeast. Archie Smith and the staff at Town Creek Indian Mound State Historic Site have been helpful and encouraging throughout my research. Steve Davis of the Research Laboratories of Archaeology at the University of North Carolina put an incredible amount of effort into organizing the materials from Town Creek, especially the photographs and the site map. The occupational history of Town Creek could not have been investigated in a dissertation without Steve's previous work. Since 1937, much effort has gone into excavating, processing, and curating artifacts from Town Creek. I was very fortunate to walk into a situation where I had access to an organized, well-curated collection that included tens of thousands of labeled ceramics and a number of reconstructed ceramic vessels. I want to thank the field workers, the lab workers, and the on-site supervisors for their efforts. I also want to acknowledge Joffre L. Coe, the man who envisioned and oversaw long-term research at the site. Town Creek is an important part of his legacy.

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whatever they could to help me succeed and to provide for us. Christy's parents, Robert and Dorothy Cranston (a.k.a. Paw-paw and Grandma), have helped us in so many ways. I will be forever grateful to them all. My children, Anthony and Christian and the not-yet-arrived Claire Anne, have provided joy and frustration as well as much needed diversion and perspective. Finally, there is Christy. She has had to tolerate far too much dissertation-related foolishness in the last few years and I thank her for toughing it out. I could not have done this without her.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1: Background

The late prehistoric period saw the development of numerous Mississippian societies across the southeastern United States. The Mississippian period began at approximately A.D. 1000[1] and lasted until the period of European contact (Smith 1986; Steponaitis 1986). The Spanish contacted Mississippian societies across the Southeast during the sixteenth century, and the French interacted with them in the Lower Mississippi Valley through the beginning of the eighteenth century (Clayton et al. 1993; Hudson 1990; Swanton 1911). These societies existed from Illinois to Florida and as far west as eastern Oklahoma (Griffin 1967:190). Clearly defining Mississippian culture has been a difficult proposition because of the great deal of variation that the concept subsumes (see Griffin 1985a). Generally, these societies have been associated with relatively large populations, the increased importance of maize as a dietary staple, the construction of permanent towns and ceremonial centers, extensive trade networks, the appearance and elaboration of village-level positions of authority, and the placement of public buildings on earthen platform mounds (Griffin 1985a:63; Smith 1986:56-63; Steponaitis 1986:388-391). The appearance of Mississippian platform mounds often is seen as indicating that the communities who built them possessed certain social and political attributes that communities without mounds lacked. At the regional scale, sites with mounds generally are seen as social and political centers that integrated contemporaneous nonmound sites into settlement systems. At the community level, mounds are often seen as marking both increased vertical social differentiation and

centralization of political power (Anderson 1994:80; Hally 1999; Lewis and Stout 1998:231-232; Lindauer and Blitz 1997; Milner and Schroeder 1999:96; Muller 1997:275-276; Steponaitis 1978, 1986:389-392).

In the research presented here, some of the community-level assumptions attributed to the appearance of Mississippian mounds are tested against the archaeological record of the Town Creek site—the remains of a town located on the northeastern edge of the Mississippian culture area (Figure 1.1). In particular, the archaeological record of Town Creek is used to test the idea that the appearance of Mississippian platform mounds was accompanied by the centralization of political authority in the hands of a powerful chief. Town Creek is appropriate as a case study for examining the evolution of Mississippian leadership as it relates to the appearance of platform mounds because the construction of a mound after the site's initial occupation allows the comparison of deposits that predate and postdate mound construction.

MISSISSIPPIAN ARCHITECTURE AND LEADERSHIP

Platform mounds have been a part of Southeastern Native American communities since at least 100 B.C. (Jeffries 1994; Knight 1990; Lindauer and Blitz 1997:172). They were associated with a number of different activities and they were built by societies that were economically, politically, and socially organized in very different ways (Blitz 1993a:7; Lindauer and Blitz 1997). One significant development occurred around A.D. 400 when leaders in some communities began to place their houses on top of earthen mounds—an act that has been interpreted as an attempt to legitimize personal authority by a community leader through the appropriation of a powerful, traditional, community-oriented symbol

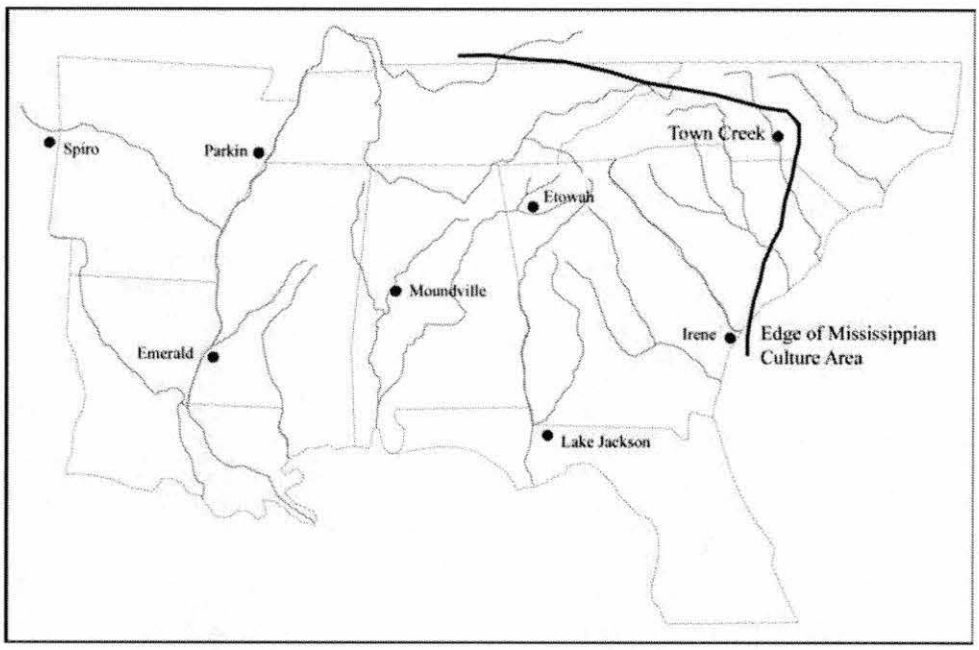


Figure 1.1. The location of Town Creek in the Mississippian culture area.

(Milanich et al. 1997:118; Steponaitis 1986:386). These early acts were followed in subsequent centuries by three major changes in political leadership which are thought to reflect the institutionalization and centralization of political power within Mississippian chiefly authority. First, while leadership positions in Woodland societies probably were attained through achievement (Steponaitis 1986:383), theoretically being open to individuals from any family, Mississippian leaders increasingly were drawn from high-ranking families in the community (Blitz 1993a:12; Knight 1990:17). Second, unlike Woodland societies in which it seems that charismatic individuals built and maintained a group of followers, Mississippian societies had offices of leadership that existed independently of any one individual (Hally 1996; Scarry 1996:4; Steponaitis 1986:983). Third, while earlier societies are thought to have made political decisions through councils in which a number of community leaders reached consensus, community-level decisions in Mississippian societies seem to have been made by a much smaller subset of community members; that is, political power became centralized (Pauketat 1994:168; Scarry 1996:11; Steponaitis 1986:388; Wesson 1998:114; but see Blitz 1993a:7 and Muller 1997:83).

It has been proposed that changes in leadership that occurred during the Mississippian period—namely the centralization of political power—are reflected in concomitant changes in public architecture (Emerson 1997:250; Lewis and Stout 1998:231). Within the regional variant of Mississippian culture known as South Appalachian Mississippian (Ferguson 1971), platform mounds at a number of sites were preceded by a distinctive type of building called an earthlodge—a structure with earth-embanked walls and an entrance indicated by short, parallel wall trenches (Crouch 1974; Rudolph 1984). The best-known example is the building found beneath Mound D at Ocmulgee in Georgia (Fairbanks 1946; Larson

1994:108-110). This was a circular structure with a central hearth and a bench with individual seats along its wall. Based on analogy with the council houses of historic Indians (see Hudson 1976:218-226) and perhaps using the Ocmulgee structure as a prototype, earthlodges in the Southeast have been interpreted as places where a council of community leaders came together to make decisions based on consensus (Anderson 1994:120, 1999:220; DePratter 1983:207-208; Wesson 1998:109).

In contrast to the more inclusive function proposed for premound earthlodges, it has been argued that access to the buildings on top of Mississippian platform mounds was limited to a much smaller subset of the community (Anderson 1994:119; Blitz 1993a:92; Brown 1997:479; but see Blitz 1993a:184). Among historically observed Mississippian groups, mound summits contained the residences and ritual spaces of the social and political elite (i.e., chiefs and their families) (Lewis et al. 1998:17; Steponaitis 1986:390). In contrast, nonelites had limited access—both physically and visually—to mound summits (Holley 1999:30) or were excluded outright (Kenton 1927:427; McWilliams 1988:92). A compelling argument has been made that mounds were the seats and symbols of political power within Mississippian societies (Hally 1996, 1999). If this was the case and if ground-level earthlodges were more accessible than mound-summit structures, then access to leaders and leadership may have decreased through time. Thus, the sequence of change for public architecture during the Mississippian period may reflect a centralization of political power through time (Anderson 1994:119-120, 1999:220; DePratter 1983:207-208; Rudolph 1984:40).

The idea that changes in public architecture reflect society-wide changes in relationships among individuals and groups seems plausible (see Adler and Wilshusen

1990:141; McGuire and Schiffer 1983:283). However, this relationship has not been extensively tested against the Mississippian archaeological record. While changes in public architecture have been documented at numerous Mississippian sites, our ability to explore concomitant social and political change has been hindered in many cases by the limited excavation of contemporaneous contexts within the same community. Excavations at the Town Creek archaeological site have shown that the public architecture there follows the earthlodge-to-platform mound sequence that is well known across the South Appalachian subarea of the Mississippian world (Coe 1995:65-82; Ward and Davis 1999:127). Work at Town Creek also has documented a majority of the site's nonmound architecture. The clear changes in public architecture coupled with the extensive exposure of the site's domestic sphere make Town Creek an excellent case study for examining the relationship among changes in public architecture and leadership within a Mississippian society.

CHIEFDOMS AND CHIEFS

It is clear from the ethnohistoric and archaeological record that chiefdom-level societies existed across the Southeast from the tenth through eighteenth centuries (Blitz 1993a:6; Knight 1990:1; Steponaitis 1986:391). It is generally accepted that Southeastern chiefdoms consisted of multiple settlements that were integrated through shared social and political institutions (Blitz 1999:579). It is also accepted that there was an ascriptive element to the filling of leadership positions within these societies (Blitz 1999:579; Knight 1990:19). Beyond these two general points of agreement, however, there currently is a great deal of debate about the nature of Mississippian societies. The prevalent interpretation has been that the relationships among settlements within Southeastern chiefdoms were hierarchical

(Anderson 1994:118; Emerson 1997; Peebles and Kus 1977:440; Steponaitis 1978:420; Smith 1978:495), but explanations that recognize the possibility that individual settlements were more autonomous recently have been offered (Blitz 1999; Maxham 2004). Chiefs in Southeastern societies have been viewed as powerful individuals with a great deal of economic and political control (Emerson 1997:249-260; Pauketat 1992:40, 1994:168; Welch 1991:180). However, alternative interpretations significantly downsize their control over people and resources (Blitz 1993:184; Cobb 1989:89, 2000:191; Muller 1997:56; Wilson 2001:125).

There are a number of different ways to investigate Mississippian chiefdoms. The approach that was followed when the chiefdom concept was first introduced to anthropology was one in which ethnography and ethnohistory were used to construct the attributes that constituted a model chiefdom (see Carneiro 1981:38). Within this method, the documentation of one or more of these attributes archaeologically is then used to infer the presence of the others, even if these attributes are not demonstrated (see Knight 1990:2). This is the approach that was used in some of the initial studies of chiefdoms in the Southeast (see Knight 1990:2) and it has recently been used to propose organizational variation among chiefdoms worldwide (e.g., Blanton et al. 1996). For two reasons, a different approach will be used in this study of Town Creek. First, since there is disagreement regarding the nature of Mississippian chiefdoms, it will be better to stay as close to the Town Creek data as possible rather than to base this research on debatable extrapolations. Second, a goal of this research is to document and investigate what happened at Town Creek during the Mississippian period, and the assumptions necessary for a more deductive approach might obscure the patterns particular to Town Creek. This is because any chiefdom model would

be biased towards the best-documented archaeological and ethnohistoric examples in the Southeast, which would be Cahokia and Moundville for the former and the Natchez for the latter. There undoubtedly was a great deal of variation among the societies grouped under the Mississippian rubric, which covers over 800 years and virtually all of southeastern North America. Being open to the possibility of variation is especially important in the case of Town Creek, a community that was located on the northeastern edge of the Mississippian world.

The terms "chiefdom" and "chief" will for the most part be conspicuously absent in this dissertation. I am neither opposed to these terms nor prepared to propose something better or different. These concepts are useful when clearly defined and consistently applied. Indeed, in all likelihood, the Town Creek site represents the political and ceremonial center of a simple chiefdom (see Blitz 1993a:12-13). For my purposes, though, the terms "chiefdom" and "chief" are not critical and may actually be impediments because of their associated intellectual baggage. Chiefdoms, by definition, are regional entities consisting of multiple communities under the political authority of a chief (Carniero 1981:45; Earle 1991:1). The data presented here regarding social and political change all come from a single site, Town Creek. Although it would be fascinating to explore regional-level data for the Pee Dee River Valley in the vicinity of Town Creek, this study has not been conducted at this time. Thus, it would be misleading and of little interpretive value to talk about "the Town Creek chiefdom" when such an entity has not been defined (see Flannery 1999:45). I will instead be talking about the Town Creek community. The individuals that occupied preeminent political positions at Town Creek will be referred to as community leaders, although a number of expressions would have been appropriate. The term "chief" has been

avoided partly because it has come to be associated with ideas of political and economic power as well as manipulative and personally aggrandizing behavior (see Earle 1997). While these attributes and activities may have been a necessary part of political leadership in some Mississippian societies, they certainly did not exist to the same degree in them all.

SOUTH APPALACHIAN MISSISSIPPIAN

The rubric of Mississippian culture encompasses a great deal of variation regarding material culture, physiography, settlement patterns, and political organization (Griffin 1967:190; Smith 1978). Regional distinctions within the Mississippian world have been based primarily on ceramics. A South Appalachian province (Figure 1.2) has been recognized as a large-scale variant within the Mississippian area based on the occurrence of a predominantly complicated-stamped and non-shell-tempered ceramic tradition (Caldwell 1958:34; Ferguson 1971:7-8; Griffin 1967:190). The spatial extent of the South Appalachian Mississippian tradition is essentially the eastern half of the Southeast, containing Georgia, South Carolina and contiguous portions of Alabama, Florida, North Carolina, and Tennessee (Ferguson 1971:7). The co-occurrence at Town Creek of a predominantly complicated-stamped ceramic tradition and a substructural platform mound places it firmly within the South Appalachian Mississippian tradition (see Ferguson 1971:261).

The South Appalachian Mississippian tradition has been divided into three broad cultural units—Etowah, Savannah, and Lamar—that cross-cut the numerous phases that constitute more localized cultural sequences. Although primarily based on distinctions initially recognized in north Georgia (Ferguson 1971:254; Wauchope 1966), these three regional cultural units represent regularities in local ceramic sequences that occur across the

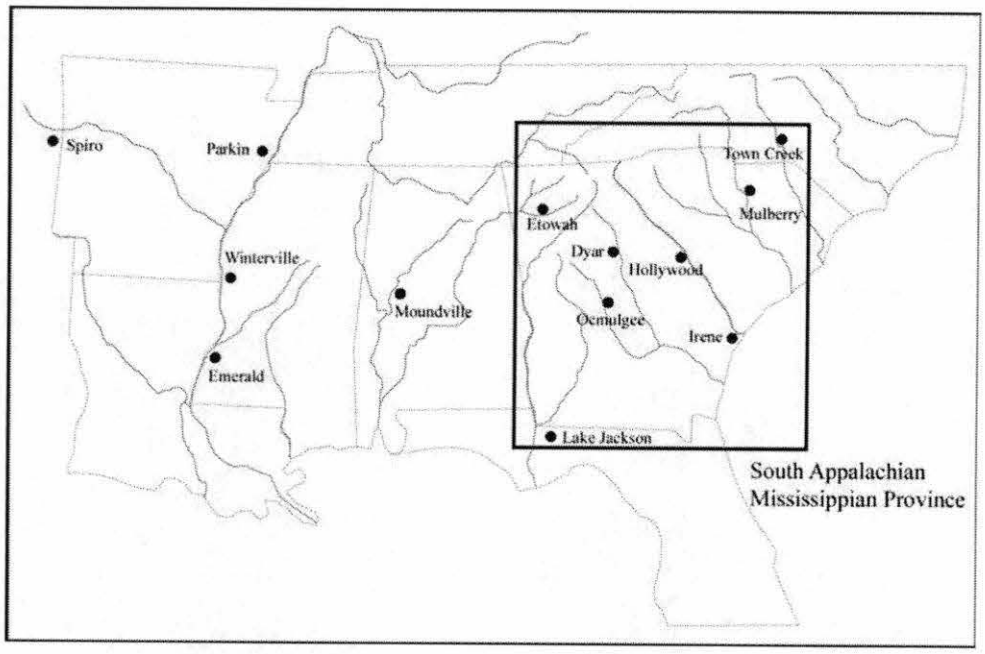


Figure 1.2. The South Appalachian Mississippian culture area (based on Ferguson 1971:Map 1).

entire South Appalachian Mississippian area (King 2003:29). Etowah culture represents the Early Mississippi period (A.D. 1000-1200) (Hally and Langford 1988:25 and 44). Etowah pottery predominantly consists of relatively fine-lined complicated stamping with rectilinear motifs (Hally and Langford 1988:51; King 2003:30). It is with the Etowah culture in the Georgia Piedmont that major political and ceremonial centers were formed (Hally and Rudolph 1986:37). Public architecture at these Etowah centers includes ground-level earthlodges (Ferguson 1971:255). Savannah culture dates to the Middle Mississippi period (A.D. 1200-1350) (Hally and Rudolph 1986:51). Savannah pottery is characterized by complicated stamping with grooves that are relatively wider than Etowah complicated stamping, a preponderance of curvilinear motifs, and jar rims that are decorated with various appliqués (Anderson 1994:362; Rudolph and Hally 1985:269). It was with the Savannah culture that public buildings changed from ground-surface earthlodges to structures on platform mounds (Hally and Rudolph 1986:59). Lamar is the Late Mississippi period (A.D. 1350-1550) culture that extended into the Early Historic period (Hally 1994; Hally and Langford 1988:67). Lamar pottery is generally associated with complicated stamping exhibiting broad grooves, incising, and the frequent decoration of jar rims (Hally 1994:147).

The South Appalachian Mississippian construct contains a great deal of ceramic variation, and a number of local ceramic series and sequences have been defined within this broader tradition (Hally 1994:Figure 14.1; Williams and Shapiro 1990:30-77). The Pee Dee series, which includes the Mississippian pottery found at Town Creek and surrounding sites, is one of these local variants. The development of the Pee Dee concept, both as an archaeological culture and a ceramic series, has been closely tied to the work of Joffre Coe. Coe (1952:308-309) gave the first definition of the Pee Dee focus based on his excavations at

Town Creek, and he included a brief discussion of the Pee Dee pottery series in his landmark publication *Formative Cultures of the Carolina Piedmont* (Coe 1964:33). Later, J. Jefferson Reid, one of Coe's students, produced the first detailed description of Pee Dee pottery from Town Creek (Reid 1967).

The geographic extent of Pee Dee culture (Figure 1.3), indicated by sites with a predominance of pottery from the Pee Dee series, as it is currently understood includes portions of south-central North Carolina and northeastern South Carolina (Anderson 1982:313; Judge 2003). Several Pee Dee sites in the North Carolina Piedmont in the vicinity of Town Creek have been identified and tested (Mountjoy 1989; Oliver 1992). A number of Pee Dee sites also have been investigated to the south in the Wateree River valley of South Carolina (Cable n.d.; Kelly 1974; Stuart 1975). Further south, Pee Dee sites have been excavated along the South Carolina coast north of Charleston (South 2002: Trinkley 1980). Temporally, a Pee Dee ceramic sequence established for the Wateree Valley spans the period from A.D. 1200 to 1675 (DePratter and Judge 1990:56-58). Stanley South and Leland Ferguson have related Pee Dee pottery to a ceramic construct they refer to as Chicora (South 2002:154; Ferguson 1974 in South 2002), which South (2002:158) has attributed to the period from A.D. 1000 to 1600.

THE TOWN CREEK SITE

Town Creek is located in the southern Piedmont of North Carolina, opposite a bend of the Little River near the town of Mt. Gilead in Montgomery County. Town Creek has figured prominently in North Carolina archaeology since the late 1930s. According to Ward and Davis (1999:131):

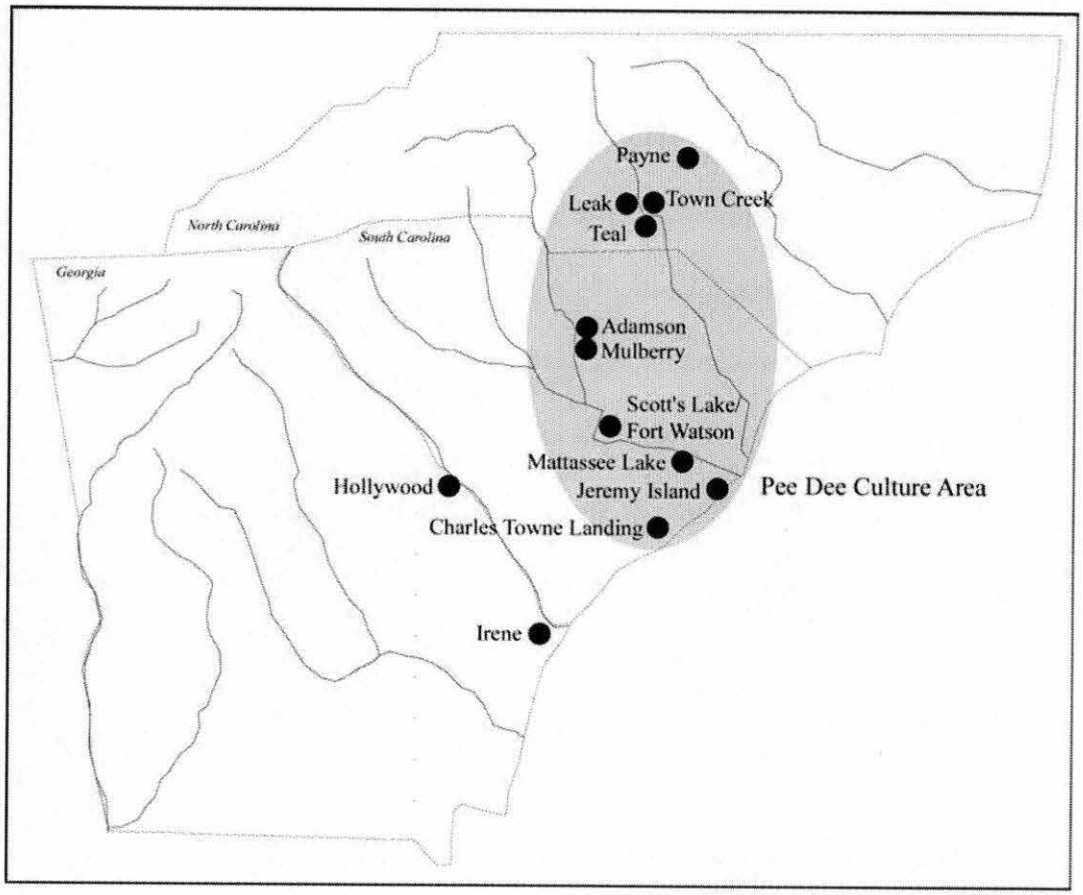


Figure 1.3. Pee Dee culture and related sites.

> The Town Creek site, like a powerful magnet, has drawn the attention of archaeologists for over sixty years. With only mild hyperbole, it could be said that the mound on the banks of the Little River has been the center of the archaeological universe in the southern North Carolina Piedmont.

Town Creek is prominent partly because fieldwork took place there for a long time, intermittently for approximately 50 years. These long-term excavations produced a valuable research collection and made Town Creek one of the most extensively excavated sites in the region. Town Creek is also important because it became a state historic site in 1955, the only one in North Carolina devoted exclusively to the interpretation of Native American culture (Ward and Davis 1999:123). Today, Town Creek Indian Mound State Historic Site consists of a museum and an area for living history displays, as well as archaeologically based reconstructions of the mound, a palisade, an enclosure, and three structures (see Coe 1995:29-41; Carnes-McNaughton 2002; South 1995).

Fieldwork

In this section, a brief overview of the excavations that took place at Town Creek is presented. Readers interested in a more detailed account should consult Coe's book *Town Creek Indian Mound: A Native American Legacy* (1995), and readers interested in the history of professional archaeology in the North Carolina piedmont should look to Ward and Davis's book *Time before History: The Archaeology of North Carolina* (1999).

Fieldwork began at Town Creek under the direction of Coe in 1937. It continued until 1942 when a hiatus occurred because of World War II (Griffin 1985b:297). Excavations resumed in 1949 and continued intermittently until 1983. Coe supervised fieldwork in 1937 and 1940. Excavations at other times were directed by a series of on-site

supervisors while Coe served as overall director from the Research Laboratories of Anthropology[2] (RLA) at the University of North Carolina (UNC) in Chapel Hill (Coe 1995:18). A number of these on-site supervisors went on to distinguished careers in Southeastern archaeology after their time at Town Creek. They include Roy Dickens, Leland Ferguson, Bennie Keel, Stanley South, and David Phelps.

In 1937, Coe, then an undergraduate at UNC, stopped taking classes in order to direct the first excavations at Town Creek (Ward and Davis 1999:122). The site was then called the Frutchey Mound, after the landowner who had recently donated the mound and some adjoining land to the state (Coe 1995:12). The excavation project was approved to use Works Progress Administration (WPA) labor (Figures 1.4 and 1.5) (see Coe 1940), but eligible individuals not assigned to other projects were scarce in Montgomery county (Coe 1995:14). Thus, the crew sizes at Town Creek were relatively small, unlike many other Depression-era excavation projects that received labor from federal relief programs (see Ferguson 1995:xiii; Lyon 1996).

As was the practice at the time, the mound area was given a different site number than the remainder of the site when fieldwork began in 1937. The area that encompassed the mound was designated as $Mg^{o}2$ while the rest of the site was called $Mg^{v}3$. The Mg2 grid (Figure 1.6) consisted of 170 excavation units encompassing a 130-×-110-ft area while the Mg3 grid (Figure 1.7) consisted of 822 units that covered a main area approximately 200-×-400 ft in extent but with several rows of units extending well away from this core.[3] The two grids had different baselines and were operated independently of each other. The Mg2 grid was oriented to parallel the mound while the Mg3 grid was oriented to the cardinal directions. The fact that the two grids were independent of each other means that there are a

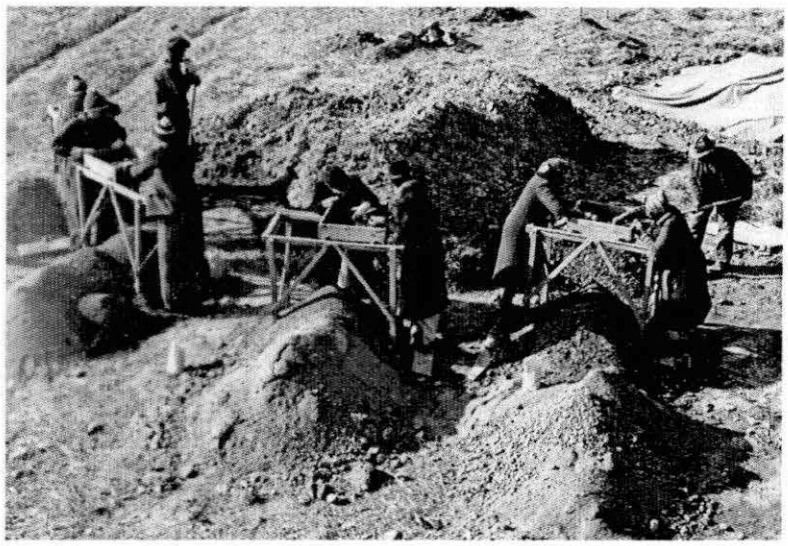


Figure 1.4. Early fieldwork at Town Creek, 1942 (RLA negative 1176).

Figure 1.5. Early fieldwork at Town Creek, 1941 (RLA negative 858).

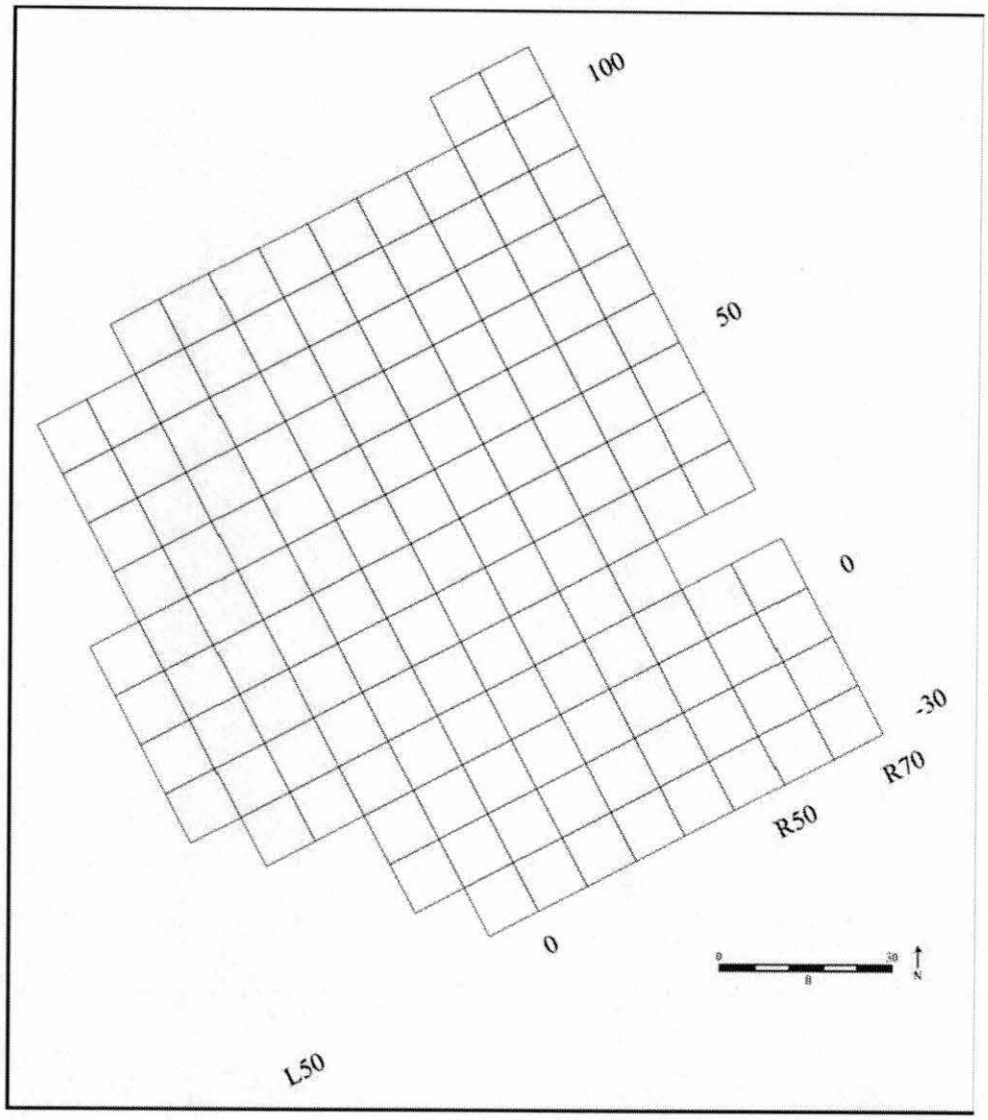


Figure 1.6. Mg2 excavation grid.

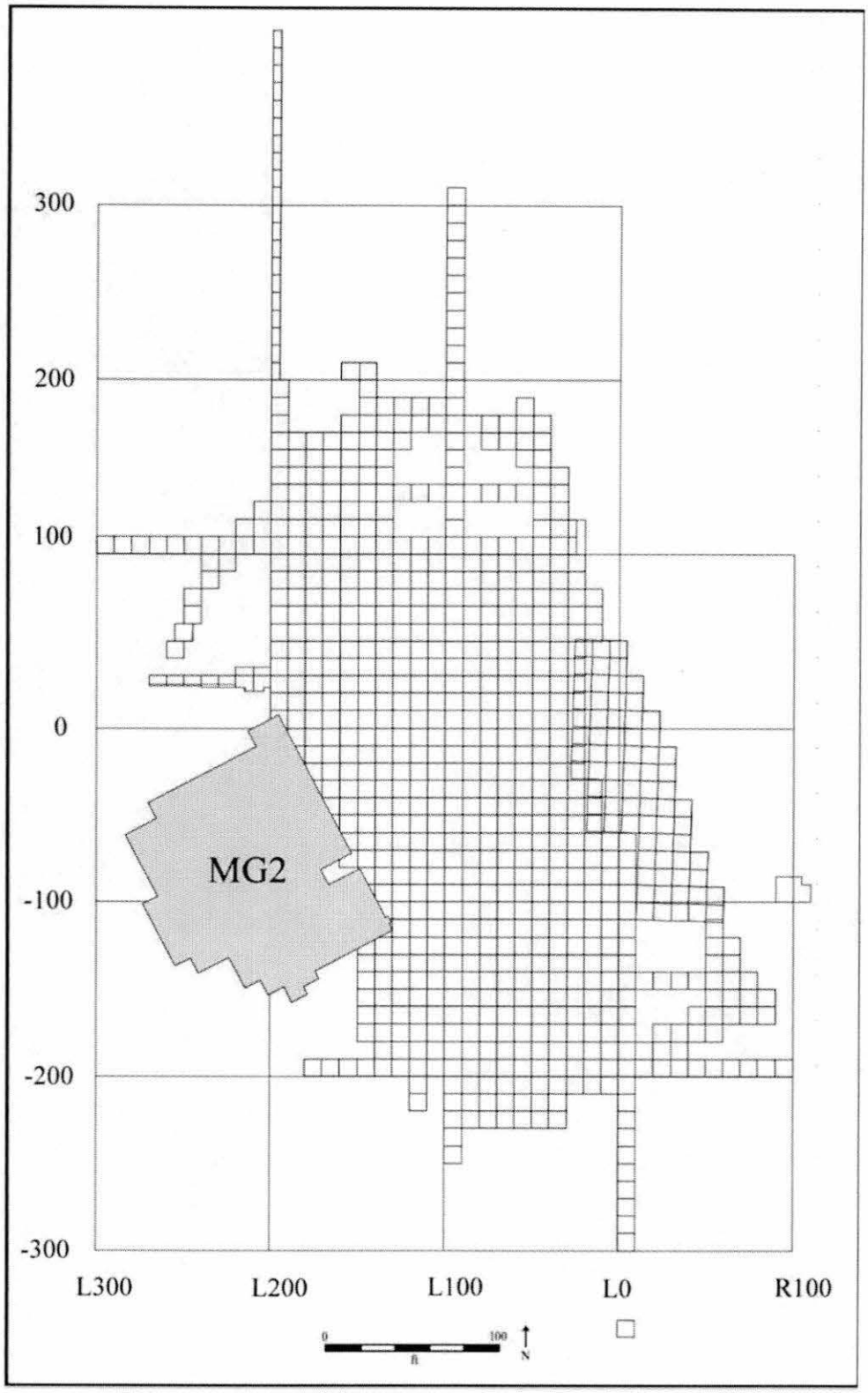


Figure 1.7. Mg3 excavation grid.

number of cases in which two excavation units have the same grid designation with one being from Mg2 and the other from Mg3. Additionally, features and burials from Mg2 and Mg3 were numbered independently. Thus, in a number of cases two features or burials were given the same number, one from Mg2 and the other from Mg3.

The first field seasons at Town Creek concentrated on the mound and the area immediately surrounding it. In 1937, the mound was about 12-ft high, measuring about 100 ft north-south and 90 ft east-west. Although the core of the mound was relatively intact, relic collectors in the late 1920s had severely damaged its eastern part (Figures 1.8 and 1.9). One looting episode included the use of mules and a drag pan to remove the eastern portion of the mound down to subsoil (Coe 1995:8). Much of the 1937 field season was spent cleaning up this earlier damage and recording the stratigraphy of the exposed face of the mound (Coe 1995:15). Excavations into the mound began with four 5-×-10-ft exploratory trenches. These trenches were located at the center of each side of the mound at its base (Coe 1995:62). After the trenches, 10-ft squares were the units used for most of the Mg2 and Mg3 excavations (Figure 1.10). The fieldnotes and provenience information indicate that the excavators were primarily using the stratigraphy of the mound, rather than arbitrary levels, for their vertical control (Figure 1.11). Thus, most of the artifacts from the mound can be attributed to stratigraphic layers documented in the field drawings. Also, the fieldnotes indicate that the soil from the mound was frequently screened (Figure 1.12). This was especially the case with the upper portions of the mound where the excavators were searching for glass beads (Coe 1995:84). It is clear from the notes, however, that not all contexts from the mound were screened, and it is unclear which ones were treated this way and which ones were not. Most of the mound was excavated prior to 1940. The only

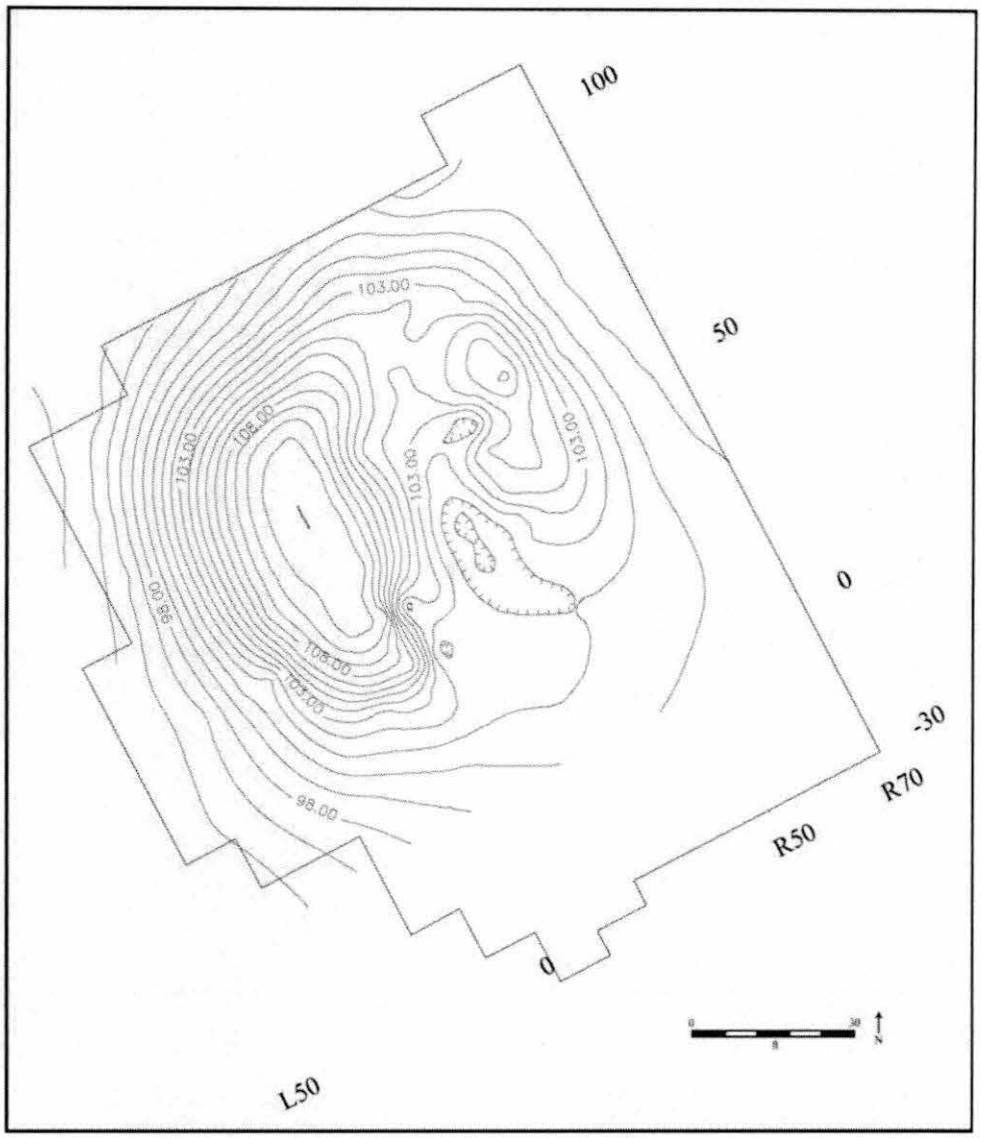


Figure 1.8. Topographic map of the Town Creek mound based on Coe's 1937 data.

Figure 1.9. 1937 photograph showing damage to the eastern part of the Town Creek mound (RLA negative X2349).

Figure 1.10. 1940 photograph of mound excavations (note the standing profiles for recording stratigraphy on the left side) (RLA negative 720).

Figure 1.11. Mound excavated to the base of the first habitation level, 1940 (note the pedestal near the center of the frame that contains Feature 57/Mg2 which was associated with the second habitation level) (RLA negative 725).

Figure 1.12. 1940 photograph of Town Creek mound excavation (note the screen on the mound summit) (RLA negative 734).

exception was a 40-×-70-ft block near the center of the mound that was left unexcavated. This block remains intact underneath the reconstructed mound.

In the parts of the Town Creek site away from the mound, deposits consisted primarily of a layer of plowed soil above the subsoil with archaeological features visible in the latter. In a few parts of the site, an undisturbed midden was encountered between the plowzone and the subsoil. The same excavation procedure was followed for virtually all nonmound excavation units (see Coe 1995:52; Reid 1985:25). First, the plowzone was excavated by hand and screened (Figure 1.13). Next, subsoil features were documented, which involved making traditional measured drawings and photographing each unit from a specially constructed tower (Figure 1.14). This tower ensured that similar photographs were taken of each unit with the intention that these photographs would one day be used to construct a photographic mosaic of the archaeological deposits across the entire site (Boudreaux and Davis 2002; Coe 1995:49-60; Dickens 1968). The next step for many units was the excavation of subsoil features followed by post-excavation documentation, which included more maps and photographs. A number of units were backfilled after they had been photographed and subsoil features were not excavated. The purpose of this was to document the location of archaeological features at Town Creek while preserving them for future research (Ferguson 1995:xvi). Of the 832 nonmound excavation units at Town Creek, 424 of them, or approximately 44%, still contain five or more unexcavated features (Figure 1.15). When Mg2 is considered as well, the percentage of units with five or more unexcavated features is also about 44% (424 of 972 units). Thus, large portions of the Town Creek site were not excavated beyond the base of the plowzone and thousands of known archaeological

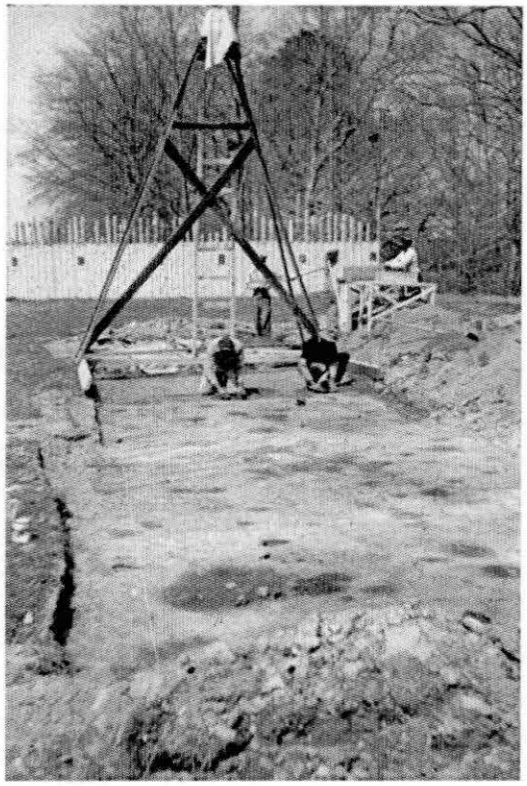


Figure 1.13. Excavating and screening plowed soil in a nonmound unit, 1957 (note the photographic tower in the background) (RLA negative 835).

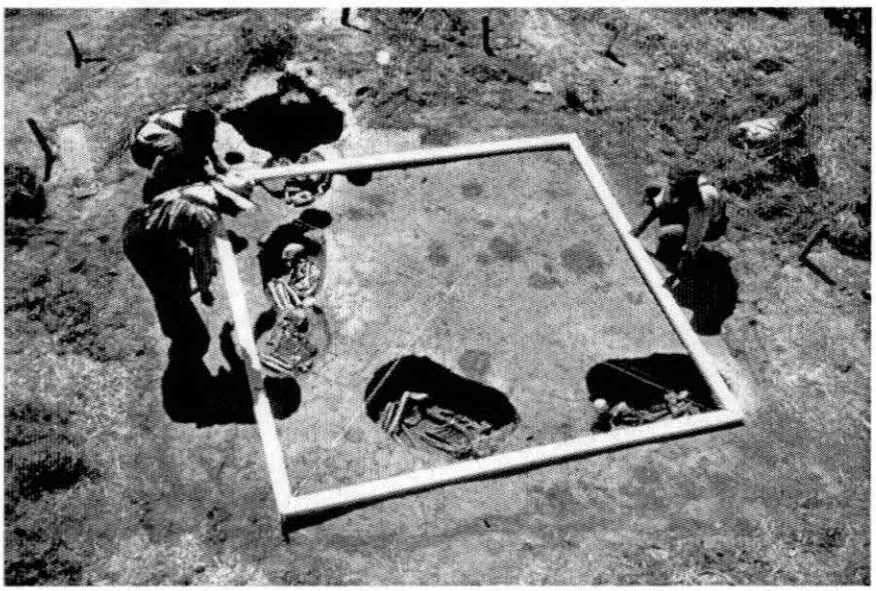


Figure 1.14. Workers positioning a mapping frame to record excavated features in Sq. -90R30/Mg3, 1941 (RLA negative 456).

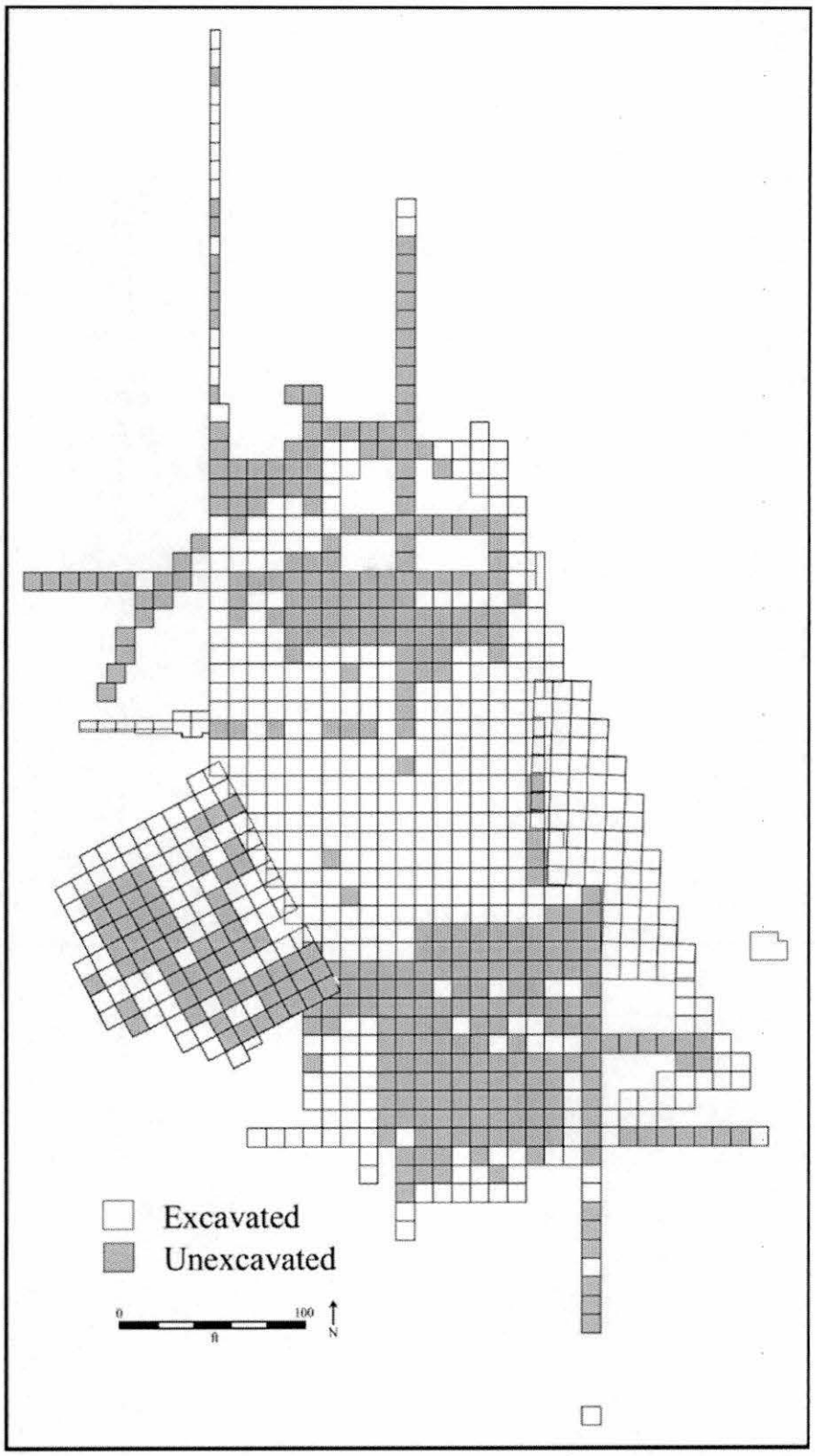


Figure 1.15. Map showing units that contain five or more unexcavated features.

features are preserved at the site. According to Reid (1985:25), Town Creek "exists today as an ideal laboratory for exploring a variety of research questions."

One area of the site that was excavated differently—through a combination of arbitrary and natural levels—was a deep, stratified midden deposit located next to the Little River. The site sits on a terrace above the Little River, and this stratified midden was located along the slope of this terrace on the west bank of the river. Here, a block of 17 excavation units was placed along the terrace slope. These excavations encountered stratified deposits approximately 7 ft in depth. Several layers in these deposits were rich middens, one of which was approximately 3 ft in thickness. These middens contained high densities of artifacts, including a large assemblage of ceramic vessel portions. The riverbank excavations began under Barton Wright in the early 1950s and were completed under the direction of Stanley South in the late 1950s.

Publications and Research

The first description of Town Creek and its material culture was presented by Coe in his contribution to the 1952 volume, *Archeology of Eastern United States* edited by James B. Griffin. In his chapter, Coe used the materials from Town Creek to define the Pee Dee focus. The interpretation that he offered then was that Town Creek represented a village occupied by a group of people who had moved into the area from the south during the mid-sixteenth century (Coe 1952). Pee Dee culture was so different from the others that had been identified in the area that Coe was convinced it represented the movement of people from the coast into the North Carolina Piedmont and the subsequent displacement of indigenous groups. According to Coe (1952:308):

> One of the best archeological records of the movement of a people in the southeast is that of the Pee Dee Culture. It moved into the upper Pee Dee River Valley with household and baggage about the middle of the Sixteenth Century, forcing the Uwharrie descendants into the hills of the Piedmont.

The next works to focus on Town Creek and Pee Dee culture were by two of Coe's graduate students at UNC. The first of these was J. Jefferson Reid's 1967 thesis which presented an analysis of the pottery from the mound at Town Creek. Reid provided a detailed description of Pee Dee pottery and documented differences in the assemblages from superimposed strata. He also discussed several radiocarbon dates associated with submound and mound-summit contexts. In this thesis and in a published article, Reid (1965, 1967) noted the similarities among the pottery assemblages from Town Creek and the Irene and Hollywood sites along the Savannah River in Georgia. Based on these similarities, Reid (1967:65) proposed that these sites had been related prehistorically through an interaction sphere that he called the Town Creek-Irene axis. Reid (1985) also used pottery to examine the formation processes that affected the strata of the mound at Town Creek. Billy Oliver's 1992 dissertation was on the Leak and Teal sites, two Pee Dee sites located near Town Creek. Oliver's dissertation documented his excavations at Leak and Teal, and presented a number of radiocarbon dates from these sites (1992:Figure 40). He (Oliver 1992:240-253) also established a chronological sequence consisting of three phases for Pee Dee culture in the Town Creek vicinity.

The culmination of Coe's work at Town Creek was his 1995 book *Town Creek Indian Mound*. This volume presents a detailed account of the site's modern history, emphasizing the processes and people that have shaped archaeological research there. This book contains Coe's descriptions of the excavation and photographic mosaic procedures. It also includes a

chapter by Coe on ceramics as well as contributed chapters about Town Creek's stone tools (Oliver 1995), faunal remains (Wilson and Hogue 1995), skeletal remains (Burke 1995), and paleoethnobotany (Trinkley 1995). Coe's interpretations of the archaeological record at Town Creek are presented throughout the volume. Town Creek was seen as being primarily ceremonial in nature with a small resident population (see also Oliver 1992:60). Town Creek was interpreted as the place where surrounding communities brought some of their dead to be buried, and the circular structures at the site were interpreted as mortuary buildings used for this purpose[4] (Coe 1995:265-268; Oliver 1992:250). As was the case in his earlier work, though, Coe still saw Town Creek as the product of a group intrusive to the Piedmont, and the Pee Dee occupation of Town Creek was seen as having been relatively short in duration (Coe 1995:89-90: Oliver 1992:240). Although he documented in great detail a sequence of architectural changes associated with the mound (Coe 1995:65-82), Coe saw the Pee Dee deposits at the site as dating to the same period (1995:Figure 5.11).

Several works have been based on the human skeletal remains from Town Creek. The first of these was the inventory of remains and associated artifacts compiled in response to the Native American Graves Protection and Repatriation Act (NAGPRA) (Davis et al. 1996). This project involved the analysis of all skeletal remains from Town Creek by Patricia M. Lambert as well as the documentation of all associated artifacts. A dissertation in 2001 by Elizabeth Driscoll approached the human skeletal remains from a bioarchaeological perspective. Driscoll was concerned with possible relationships between status, gender, and health, and spatial patterning in skeletal and artifactual data. Among other things, her research identified the restricted distribution of certain artifacts to burials in the mound and in a special area across the plaza (Driscoll 2002:22-23).

RESEARCH OBJECTIVES

While research has been conducted in the Town Creek area for decades, there is still a great deal that we do not know about the site itself. The research presented here has four major objectives. First, it refines the ceramic chronology that exists for the Town Creek region. Oliver has proposed a three phase cultural sequence for Town Creek and its vicinity based on his excavations at the Leak and Teal sites. The research presented here adds to his chronology data and radiocarbon dates from the Payne site[5] and the Town Creek site itself. As a part of the refining process, Town Creek is placed in a regional context by relating its sequence to those recently established for surrounding areas, particularly those to the south of Town Creek (Hally 1994:Table 14.1; South 2002:226-230; Williams and Shapiro 1990:39-77). Second, pottery is used to systematically date contexts at Town Creek. Dating contexts from the entire site is important because while we currently have a good sense of how the mound area changed through time because of Coe's (1995) and Reid's (1967, 1985) work, we do not know how these changes relate to any other part of the site. Third, the site's occupation is divided into smaller spatial (e.g., public and domestic contexts) and temporal (e.g., phases and occupations) units. Once these units are established, the fourth objective is to use mortuary and ceramic vessel data to explore the nature of leadership at Town Creek and how changes in leadership might have corresponded to the appearance of the platform mound. Mortuary data are used to indicate who leaders were and how their status was marked. Vessel size and functional data are used to evaluate the assumption of political centralization by indicating the size of the social groups that had access to public buildings, the loci of political decision making.

While these objectives are aimed at addressing how leadership changed through time at Town Creek, they also are important because even though the density of features and artifacts as well as the degree of change documented in the mound suggests that a great deal of time is represented in the Mississippian occupation of Town Creek, current interpretations view the site's architecture as virtually dating to the same period (Coe 1995:Figure 5.11). Furthermore, this lack of a grasp on the temporal dimension has forced other researchers to treat the pottery (Anderson 1989:105) and the burials (Driscoll 2001, 2002) from Town Creek largely as undifferentiated data sets when surely a great deal of time is represented within them.

Endnotes to Chapter 1

1. Unless indicated (e.g., cal. A.D. 1000-1200), all dates are based on uncorrected radiocarbon dates.

2. Throughout the time of the Town Creek excavations, the labs were known as the Research Laboratories of Anthropology. The name was changed in 1997 to the Research Laboratories of Archaeology. Either way, the RLA acronym is appropriate.

3. The excavations at Town Creek followed a grid consisting of 10-×-10-ft squares (Coe 1995:46-48). Coe had attended the University of Chicago field school at Kincaid in 1935 and had contacted Glenn Black about how to lay out a grid (Ward and Davis 1999:120-121). The methods that he learned included designating each unit within the grid based on its location relative to the grid's origin. At Town Creek, the designation of each square was the location of its southeast corner relative to the grid's baseline. These designations were given as a northing and an easting with the latter expressed as either an "L" or an "R" depending on if the unit was to the left or right of the north-south baseline. Coe followed these procedures at Town Creek and other early excavations in the Piedmont, and similar procedures are followed by RLA excavators today (Ward and Davis 1999:121).

4. Interestingly, Coe (1952:309) had earlier seen these structures as houses.

5. Joseph Mountjoy of UNC-Greensboro, who excavated the Payne site, generously gave me access to that site's collections as well as his field notes and maps. He has also transferred the Payne site materials to UNC-Chapel Hill to be curated.

Chapter 2: Ceramic Chronology

In order to examine the evolutionary development of the Town Creek community, a basis must be established for dating the site's numerous contexts and architectural elements as well as grouping them into relatively contemporaneous sets that represent stages in the site's development. For several reasons, changes in ceramics will be used to date contexts at Town Creek. First, the use of changes in pottery for dating deposits is a common, successful method in archaeological research worldwide (Rice 1987:435; Sinopoli 1991:74). Second, pottery is so ubiquitous at Town Creek that a dating scheme based on ceramic attributes and assemblage characteristics will allow many of the site's contexts to be dated. Third, the common use of ceramics for dating purposes in the Southeast (see Gibson 1993) in general and the South Appalachian Mississippian area in particular (see Anderson 1994:363) means that once a ceramic chronology is established for Town Creek, it can be related to extant chronological frameworks for other sites in the region.

The goal of the ceramic sequence and chronology is to recognize assemblage or vessel attributes that are diagnostic of segments of the site's history and to use the distribution of these diagnostics to date—assign to a relative stage in the site's history and associate with an absolute date based on a ceramic chronology—contexts and architectural elements across the entire site. Several steps are important in establishing Town Creek's ceramic chronology. The first is to establish a ceramic sequence (see Willey and Phillips 1958:24-25) by determining stylistic trends in ceramics that reflect the site's overall history

(i.e., establish a relative order of ceramic change). Once an overall sequence is established, the second step is to isolate assemblages characteristic of segments of the site's history. In this step, the continuum of ceramic change represented in the overall ceramic sequence is divided into segments. The assemblages that constitute each segment are then used to construct a model assemblage, each of which represents a ceramic phase—the pottery that would have been used during a particular period of time (see Willey and Phillips 1958:22-23). Third, the local sequence of ceramic assemblages is transformed into a ceramic chronology by relating it to internal stratigraphic information, radiocarbon dates, and ceramic chronologies from adjacent regions.

CERAMIC ANALYSIS AND TYPOLOGY

Pottery analysis for this research consisted of six steps with each step involving several typological options (Figure 2.1). In this section, each step is discussed and classes are defined. The goal of the ceramic analysis and the typology is to recognize and document the distribution of elements of Pee Dee pottery that changed through time. This is accomplished by incorporating into the ceramic typology attributes, types, and modes recognized as chronologically sensitive in adjacent regions (DePratter and Judge 1990; Hally 1994; South 2002; Stuart 1975) as well as in previous analyses of Pee Dee pottery. These previous analyses include Reid's (1967) observations of pottery from the mound at Town Creek, my analysis of pottery from the mound (Boudreaux 2001), and Oliver's (1992) work at the Leak and Teal sites.

The first step of the pottery analysis was to distinguish between Pee Dee and non-Pee Dee pottery based on gross differences in temper and paste. Pottery was classified as non-

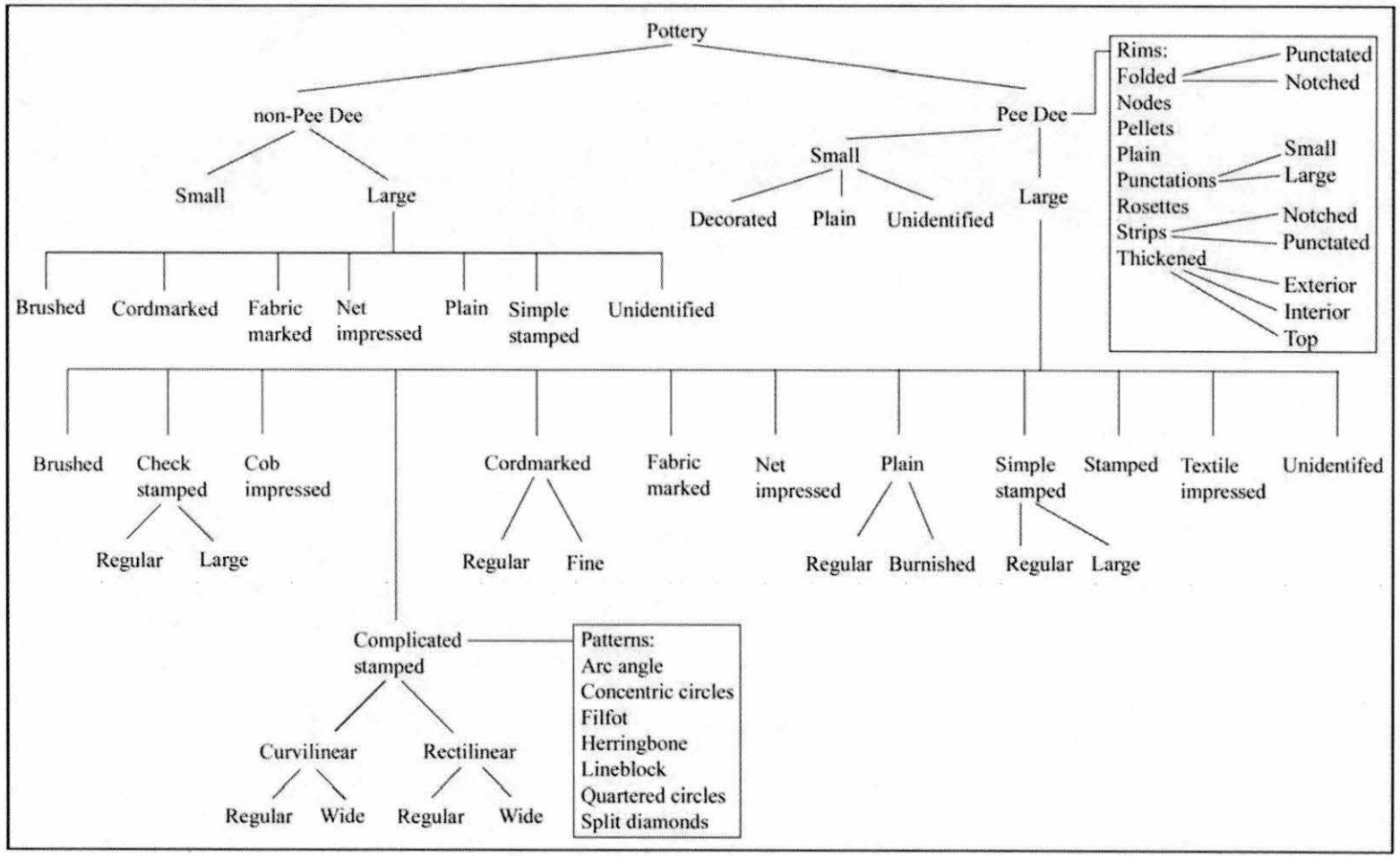


Figure 2.1. Pottery analysis decision tree.

Pee Dee based on the size and distribution of temper particles in the paste. The non-Pee Dee category probably includes pottery from the Early Woodland Badin series, the Middle Woodland Yadkin series, and the Late Woodland Uwharrie series (Coe 1952, 1964, 1995; Ward and Davis 1999). While the pottery classified as non-Pee Dee includes a great deal of variation in color, the majority of it is light in color (e.g., lots of yellows and light browns) with a paste whose temper consists of large, widely spaced pieces of crushed rock—primarily white and clear quartz (see Reid 1967:1). Based on Coe's (1995:Table 9.1) analysis, most of the non-Pee Dee pottery is probably from the Yadkin series.

Pee Dee pottery is defined as being generally dark in color (see Reid 1967:51) (e.g., lots of dark browns, grays, and blacks) with a paste that has medium-sized grit temper distributed relatively evenly throughout it. It should be noted that earlier analysts have described the Pee Dee pottery from Town Creek as being sand-tempered (Coe 1995:168). Although there is sand in the paste, I have called the Pee Dee pottery grit tempered because fine-to-medium pieces of grit, which are larger and more heterogeneous than the sand particles, predominate. Reid describes the paste of Pee Dee pottery as being compact, granular, sugary, and coarse in appearance (Reid 1967:42, 52). Although a great deal of variability exists in the coarseness and density of temper, patterned distributions to this variation were not recognized in the analysis described here and temper was not used to internally sort Pee Dee pottery. Reid (1967:2) was unable to recognize any chronological significance to differences in paste and temper, although he does describe the temper and paste of plain sherds as being generally "finer" than that of complicated stamped sherds (Reid 1967:52). It would not be surprising to find differences in temper among vessel types that were related to function, especially regarding issues of thermal and mechanical stress

(see Steponaitis 1984), but their recognition would require a level of analysis I was unwilling to initiate and sustain at this time.

The second step of the analysis was to segregate sherds by size based on maximum sherd length.[1] The third step was to classify pottery based on differences in surface treatment, defined as a modification of a vessel's surface that covers all or nearly all of its exterior. Pee Dee sherds with a maximum length less than 4 cm were classified as either decorated, plain, or unidentified because of the difficulty in consistently identifying all surface treatments on small sherds. All Pee Dee sherds with a maximum length greater than 4 cm were classified as a particular type based on surface treatment.

The fourth step was to identify subtypes or what are essentially varieties, although they have not been formally defined as such using type-variety nomenclature (see Phillips 1970:24). These included fine, large, or wide examples of some surface treatments, as well as re-occurring complicated stamped patterns.

Surface Treatment Types and Subtypes

Most of the Pee Dee types are based on surface treatments produced by striking the exteriors of still plastic vessels with carved wooden paddles or paddles wrapped in fibrous materials. Other surface treatments were produced by brushing or smoothing. In this section, the pottery types used in this research are defined. These types are generally the same as those described by Reid (1967) and Coe (1995) in their discussions of Pee Dee pottery. The convention of using binomial nomenclature (e.g., cultural unit followed by surface treatment) to name South Appalachian Mississippian types is not used because I want to avoid at this time—when I have only analyzed samples from a relatively limited

geographic area—any implication that Town Creek is more or less culturally related to any other region. Types are related to descriptions of similar materials where relevant.

Brushed. This surface treatment consists of thin, irregular, closely spaced, parallel lines executed on a very wet paste (Figure 2.2).

Check stamped. Caldwell and McCann's (1941:44) description of Savannah Check Stamped as consisting "of a grill of raised lines which intersect to form squares or diamonds" is applicable to the Pee Dee materials discussed here. Two varieties are recognized within this type. Small check stamped consists of well-defined, clear checks that were 2.5 mm or less in size (Figure 2.2). Large check stamped consists of less distinct, faintly stamped checks generally greater than 3 mm in size (Figure 2.2).

Cob impressed. This pattern consists of thin, parallel, widely spaced lines generally oriented perpendicular to the rim (Figure 2.2). It was produced by working the exterior of a plastic vessel with a corn cob without the kernels (Coe 1995:170).

Complicated stamped. Reid (1967:51) provides the best description of this surface treatment:

> Exteriors smoothed then stamped with a carved, wooden paddle. A design of evenly cut grooves and moderately narrow lands is generally well executed on the stamp while its application is less precise on the vessel. Stamping occurs over the entire exterior and overstamping prevails to obscure the definition of the total stamp.

Several varieties of complicated stamping are recognized, some of which correspond to established types. Curvilinear are those that contain curved lines while patterns with only straight lines are considered rectilinear. An additional distinction is made based on the width of the ridges and grooves in the pattern. Most complicated stamped sherds have grooves that

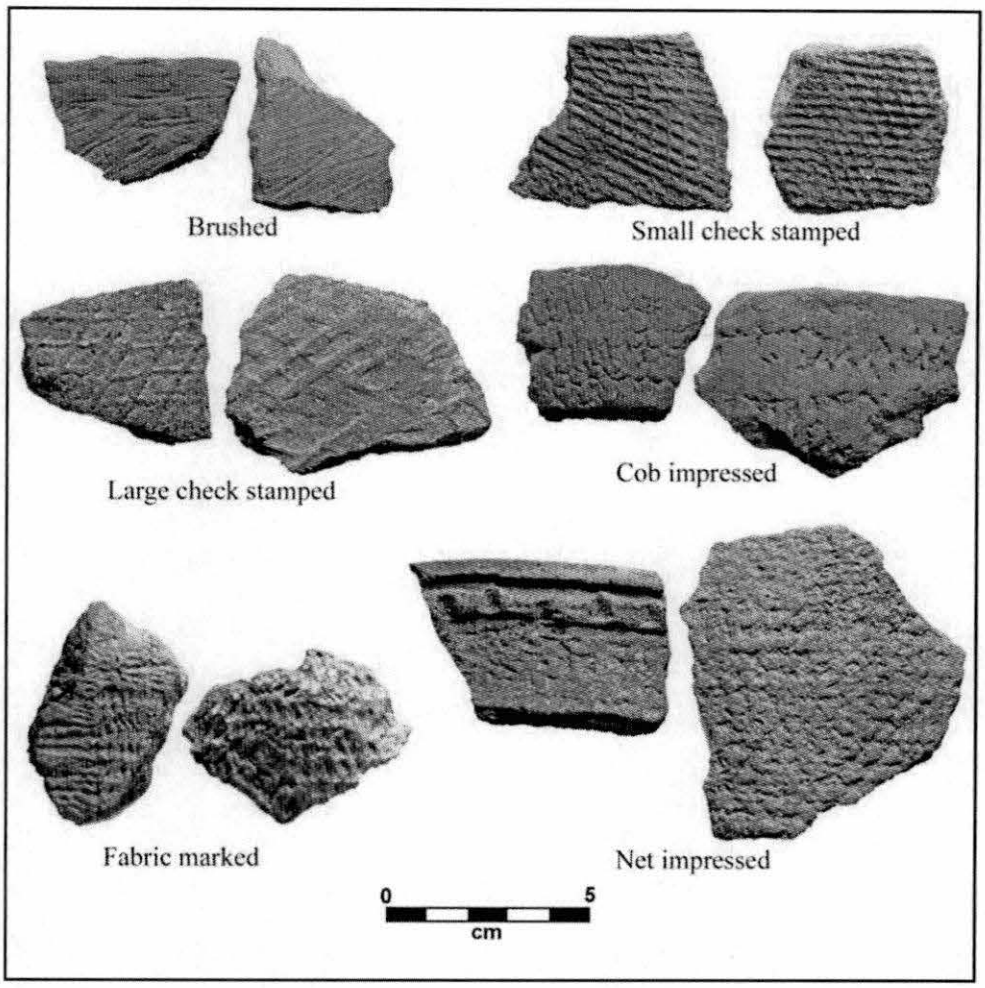


Figure 2.2. Pee Dee surface treatments: brushed, check stamped, cob impressed, fabric marked, and net impressed.

are 1 to 3 mm wide with ridges of essentially the same width (Figure 2.3). Almost all of these sherds correspond to the type Savannah Complicated Stamped (Wauchope 1966:77-79). The few exceptions—based on patterns that consist of line-filled and chevron-filled ovals (see Reid 1967:Plate 7)—are similar to Woodstock Stamped (Wauchope 1966:60-62). Sherds with grooves greater than 3.5 mm and ridges of roughly the same width are classified as wide (Figure 2.4), and these sherds generally correspond to Lamar Complicated Stamped (see Wauchope 1966:79-82). Several sherds with very wide grooves but thin, sinuous, curvilinear ridges (see Reid 1967:Plate 7) correspond to the type Long Swamp Stamped (Wauchope 1966:69-70).

It is possible on some complicated stamped sherds to recognize patterns that appear consistently in Savannah and Lamar assemblages across the South Appalachian Mississippian culture area. Stamp patterns were identified because there may be chronological significance to their occurrence (see Anderson 1994:362). Seven complicated stamped patterns (Figures 2.5 and 2.6) are recognized, all of which were also used by Reid (1967:5-8).

Arc angle. A design consisting of nested arcs and nested right angles arranged in quadrants such that two panels of arcs are opposite each other as are two panels of angles.

Concentric circles. As the name implies, this pattern consists of a series of concentric circles. While Reid (1967:5) recognized two varieties based on the form of the innermost circle, I chose to lump all examples into a single category when early stages of analysis did not indicate any benefit to splitting them.

Figure 2.3. Pee Dee series complicated stamped pottery.

Figure 2.4. Pee Dee series wide complicated stamped pottery.

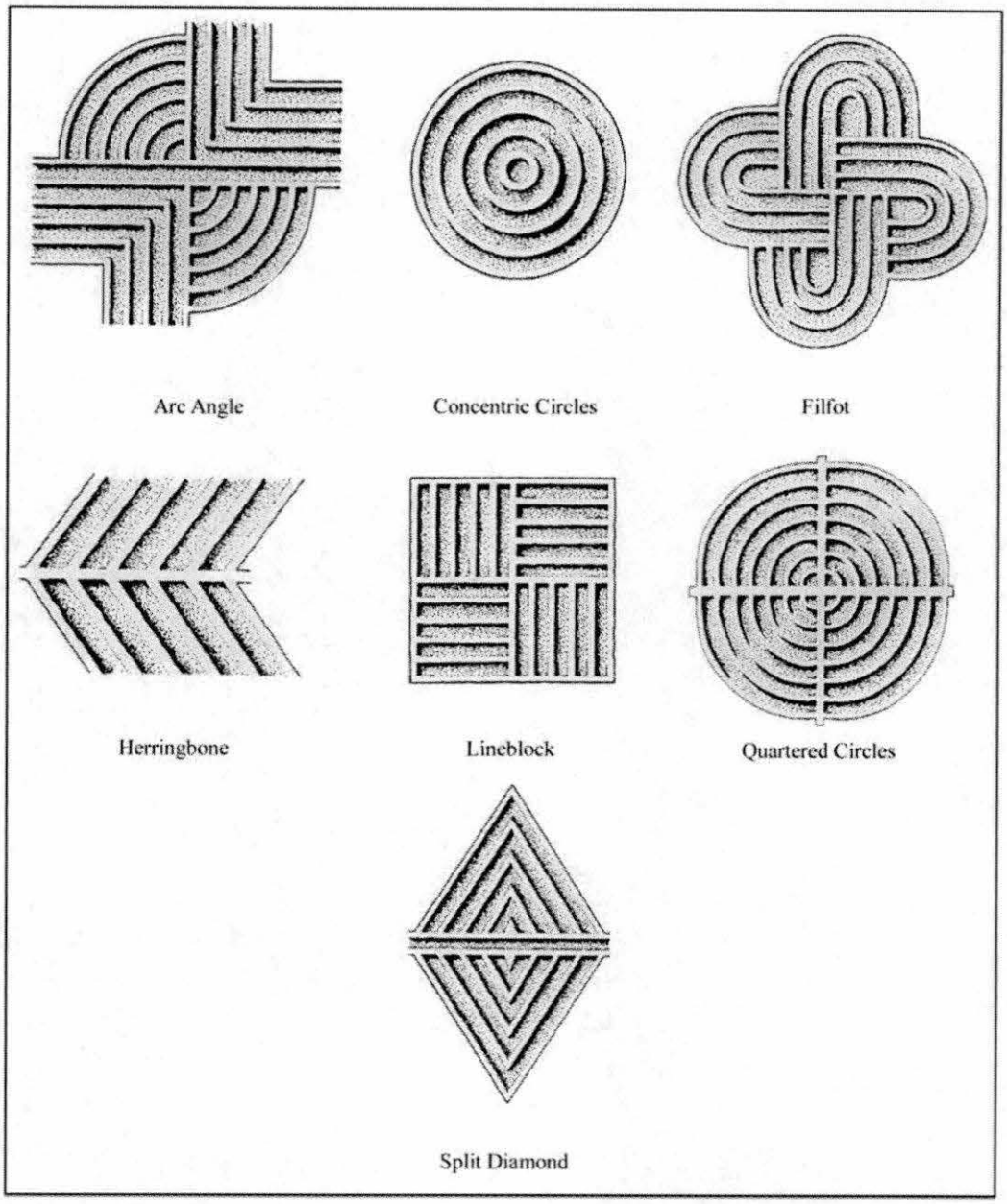


Figure 2.5. Pee Dee complicated stamped patterns (adapted from Reid 1967:Plates 2 and 3).

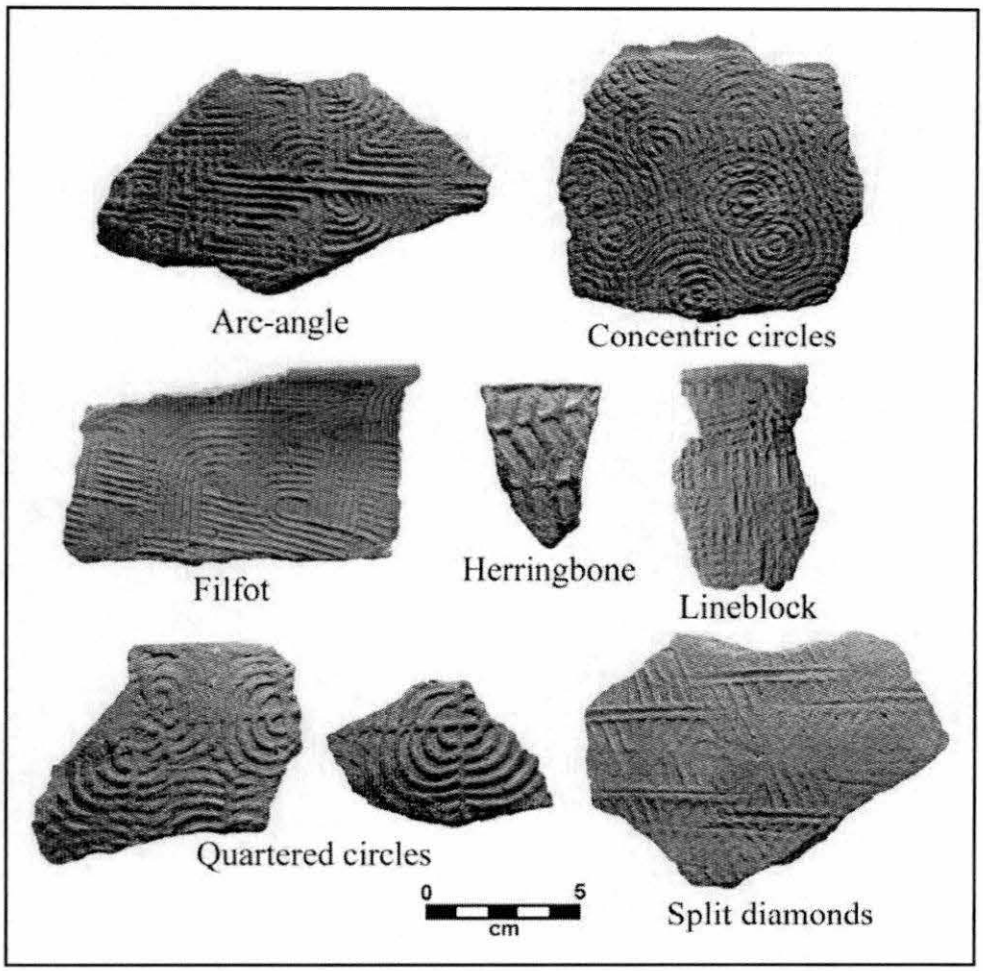


Figure 2.6. Pee Dee complicated stamped patterns.

Filfot. This pattern has the appearance of a rounded cross. The arms of the cross are formed by multiple lines that intersect at a right angle to form the cross and then curve back 180 degrees into the design.

Herringbone. This is a design formed by a long, straight line from which a number of smaller lines emanate at a 45 degree angle. All of the smaller lines are parallel to each other.

Lineblock. This design consists of parallel and perpendicular lines arranged in quadrants such that panels opposite each other contain parallel lines.

Quartered circles. This is a series of concentric circles superimposed by a cross formed by two perpendicular ridges passing through the center of the circles.

Split diamonds. This pattern consists of two equal-sized triangles aligned at their bases on each side of a groove. The overall effect is of a diamond that has been cut in half.

Cordmarked. This treatment consists of a surface covered in parallel, closely spaced lines resulting from the use of a cord-wrapped paddle to malleate the vessel. Two varieties of cordmarking are recognized. Sherds classified as cordmarked have a good bit of variation in the width, spacing, and orientation relative to the rim of the cord impressions (Figure 2.7). Twists of the cord were clearly visible in the impressions on these sherds. Sherds classified as fine cordmarked exhibited smaller, more closely spaced cord impressions (Figure 2.8). Twists in the cord often were not visible and many of these sherds could arguably be classified as fine simple stamped (see Oliver 1992:204 and 206). Fine cordmarked sherds were generally overstamped and cord impressions were most frequently oriented 45 degrees to the rim. These impressions were more evenly spaced, were uniform in width, and generally covered the entire exterior surface. The lips of vessels of this type were often stamped as well. The top-thickened rim mode appeared exclusively on sherds of this type.

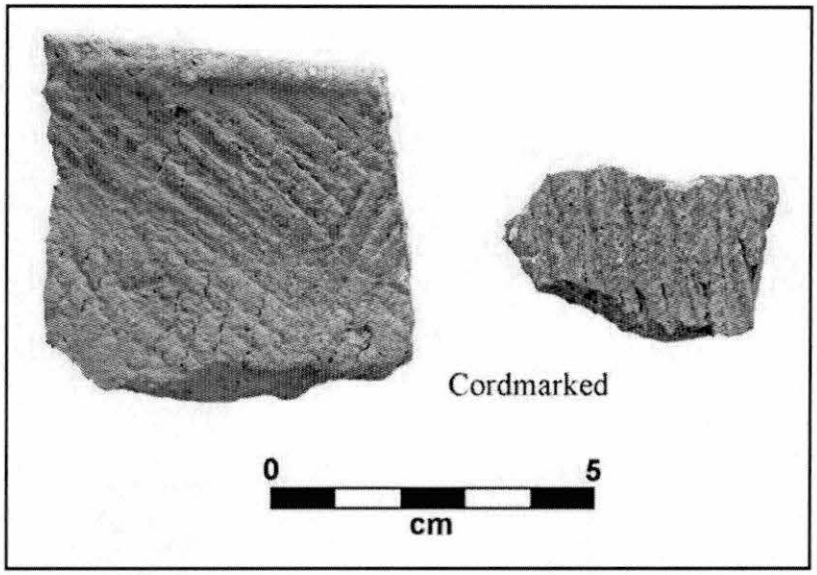


Figure 2.7. Pee Dee series cordmarked pottery.

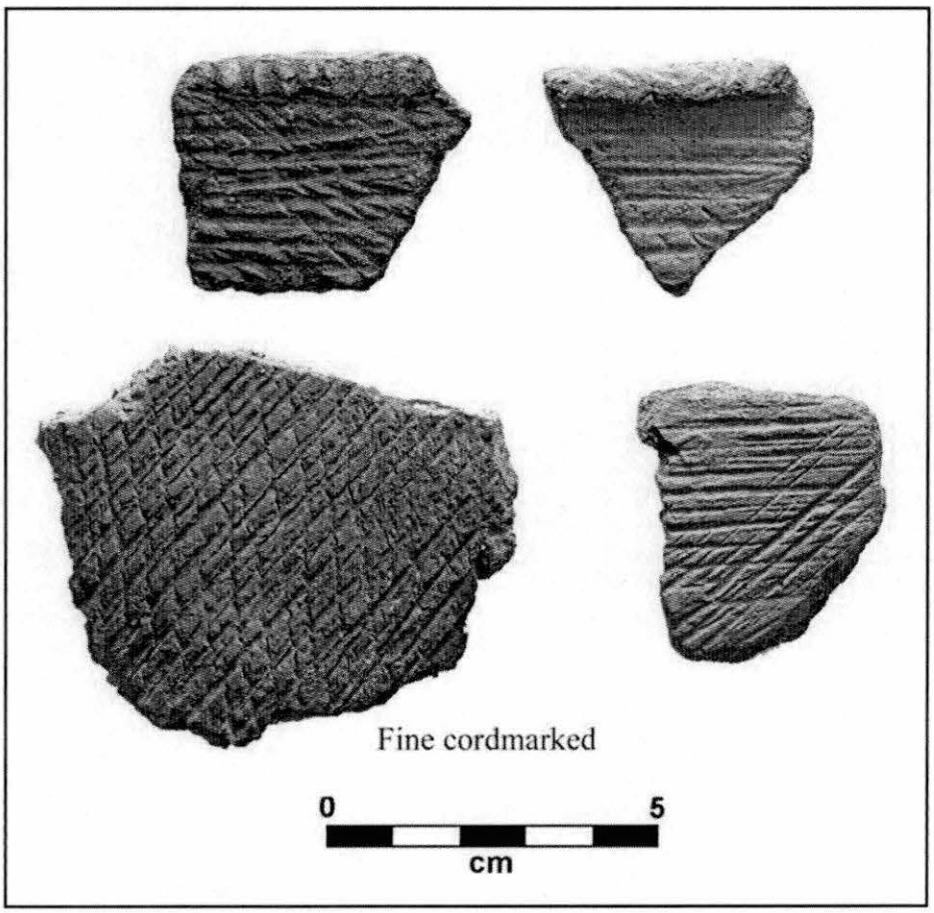


Figure 2.8. Pee Dee series fine cordmarked pottery.

Oliver (1992:203-206) defined the types Savannah Creek Fine Cordmarked and Savannah Creek Fine Simple Stamped based on his excavations at the Teal site. These are certainly the same as what I have identified as fine cordmarked, although I have chosen not to segregate sherds on which cord impressions were not clearly visible. I agree with Oliver (1992:203) that these fine cordmarked (and/or simple stamped) sherds appear to correspond to Savannah Fine Cordmarked (Caldwell and McCann 1941:43-44), Santee Simple Stamped (Anderson 1982:302), and Camden Simple Stamped (Stuart 1975:174).

Fabric marked. This treatment consists of circular impressions in rows oriented parallel to the rim (Figure 2.2). Coe (1995:174) attributed the pattern to paddling the vessel's exterior with a roll of stiff, plaited matting.

Net impressed. This treatment consists of regularly spaced, round depressions across the entire exterior surface (Figure 2.2). These depressions are thought to be impressions of the knots tied in a net that had been wrapped around a wooden paddle (Coe 1995:173).

Plain. Plain pottery has an exterior that was smoothed but otherwise free of surface treatments. A distinction was made between plain and burnished plain based on the luster and more compact paste of the latter.

Simple stamped. This pattern of parallel lines was produced by a wooden paddle carved with straight lines all oriented in the same direction. Two varieties of simple stamping are recognized. The simple stamped category consists of relatively thin, faint impressions while large simple stamped consists of clear, distinct impressions with grooves wider than 2 mm (Figure 2.9).

Stamped. This is a residual category that contains treatments that were produced by some form of carved wooden paddle, but that could not be confidently classified farther.

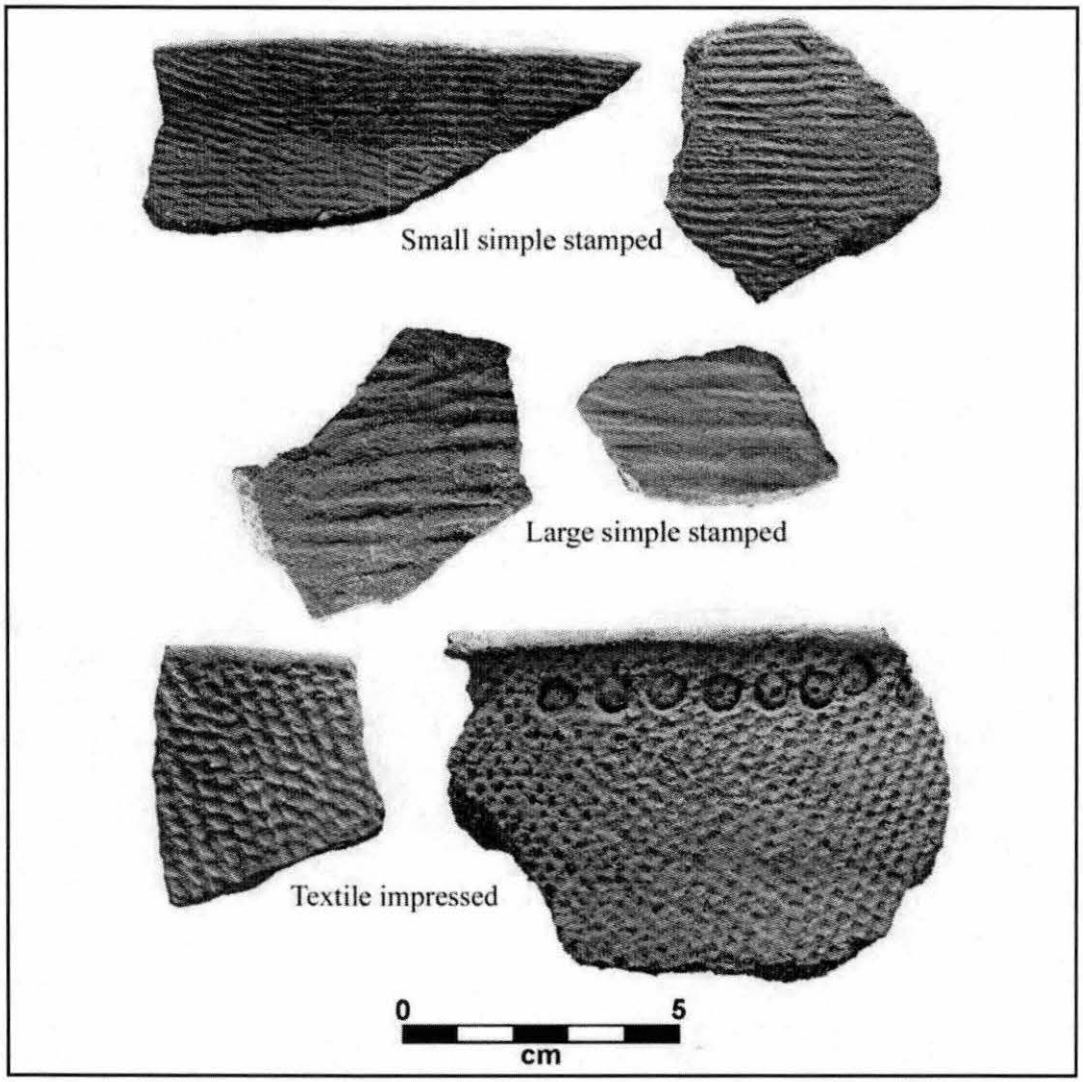


Figure 2.9. Pee Dee surface treatments: simple stamped and textile impressed.

Textile impressed. This treatment consists of regularly spaced round to diamond-shaped impressions across the entire surface (Figure 2.9). This treatment was produced by paddling cloth into the exterior surface of still plastic vessels (see Coe 1995:175-178 for a discussion of the various textile types represented; Reid 1967:8-9). The description of this treatment sounds similar to that for net impressed, but the depressions are more closely spaced in textile impressed. Textile impressed sherds are sometimes similar to check stamped sherds, but a closer examination often shows impressions of interwoven fabrics in the former. Coe (1995) and Reid (1967) both state that textile impressing was produced by wrapping vessels in strips of cloth and then paddling them into the clay rather than using cloth-wrapped paddles.

Unidentified. Sherds in this category could not be classified beyond the point that they had a surface treatment other than plain.

Modes

Pee Dee pottery was also classified based on modes—consistently co-occurring attributes whose distributions cross-cut those of the types defined by surface treatment (see Phillips 1970:28). The modes described here are all based on either the presence or absence of modifications to the upper portion of vessels, primarily to vessel rims but also to shoulders and necks. The different modes include plain—in which no modifications were present, punctations applied directly to vessel walls, and various appliqués.

Folded rim. This is a thickening of the vessel wall at the lip either by the addition of a coil to the exterior or by bending the vessel's lip back on itself. Two varieties of folded rim are recognized. Folded-and-notched rims show a thickening of the vessel's exterior that was

flush with the lip and that was decorated with large, evenly spaced rectangular punctations oriented perpendicular to the lip (Figure 2.10). Folded-and-punctated rims consist of a thickening that was sometimes flush with the lip but often located well below the lip (Figure 2.10). Folded-and-punctated rims were decorated mostly with large circular punctations, but rectangular punctations also occurred.

Nodes. Nodes are large (generally greater than 15 mm tall and 5 mm thick), round pieces of clay applied to vessel exteriors just below the lip (Figure 2.11). Most nodes are punctated in the center while a few are either plain or punctated multiple times. Some are molded onto the exterior surface of the vessel while others are "riveted" into the body—the vessel wall was actually built around one end of the node. Nodes are widely spaced on vessels with only two or four placed equidistant around its circumference. Nodes are often outlined by one or two rows of punctations that continue along the rim below the lip (Reid 1967:24).

Pellets. Pellets are small (less than 10 mm), round to rectangular, individual pieces of clay added to a vessel exterior around its entire circumference (Figure 2.11). Pellets were placed either just below the vessel's lip or further down on its shoulder.

Plain rim. These are rims with no decoration or appliqués.

Punctated. Punctations are predominantly circular. They were formed with both solid and hollow dowels in a continuous band around the vessel's circumference, often just below the lip but also at the neck. Circular punctations appeared in two size classes. Small punctations are less than 10 mm in diameter and were created with solid or hollow dowels (Figure 2.12). Large punctations are greater than 10 mm in diameter and were executed with either a cane or a fingernail (Figure 2.12). Rectangular punctations created with a solid dowel in a band at the shoulder of carinated vessels are also present.

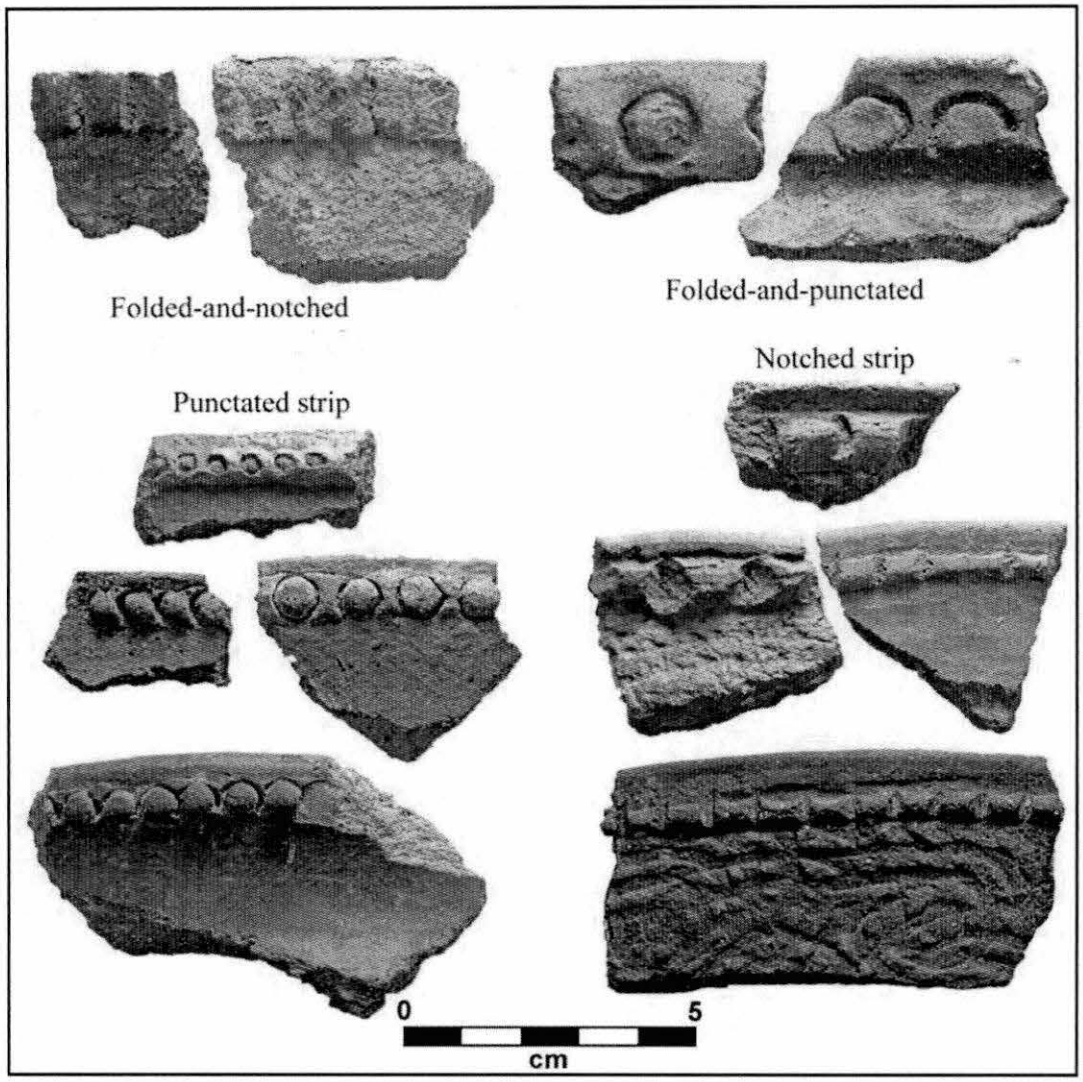


Figure 2.10. Rim modes: folded and strips.

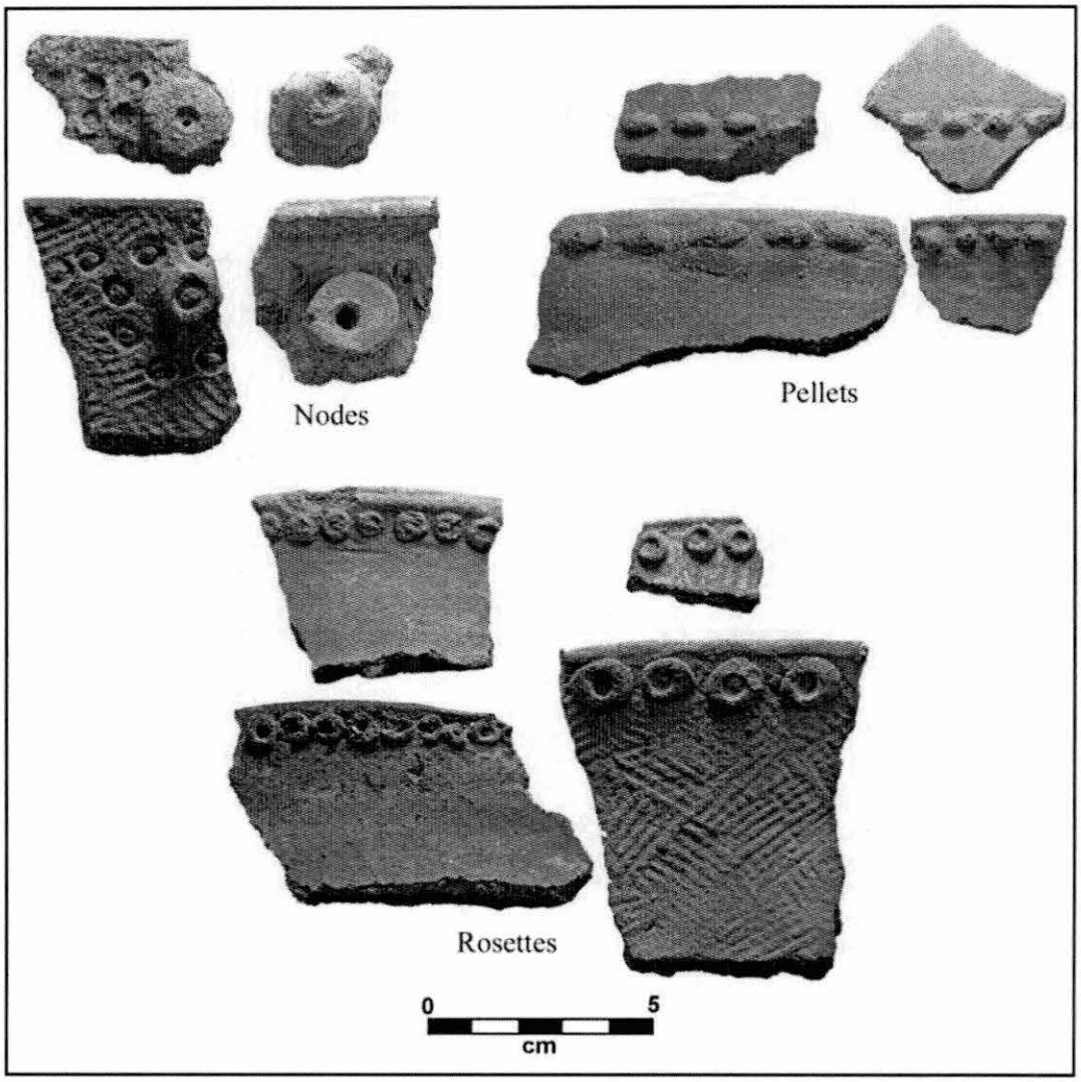


Figure 2.11. Rim modes: nodes, pellets, and rosettes.

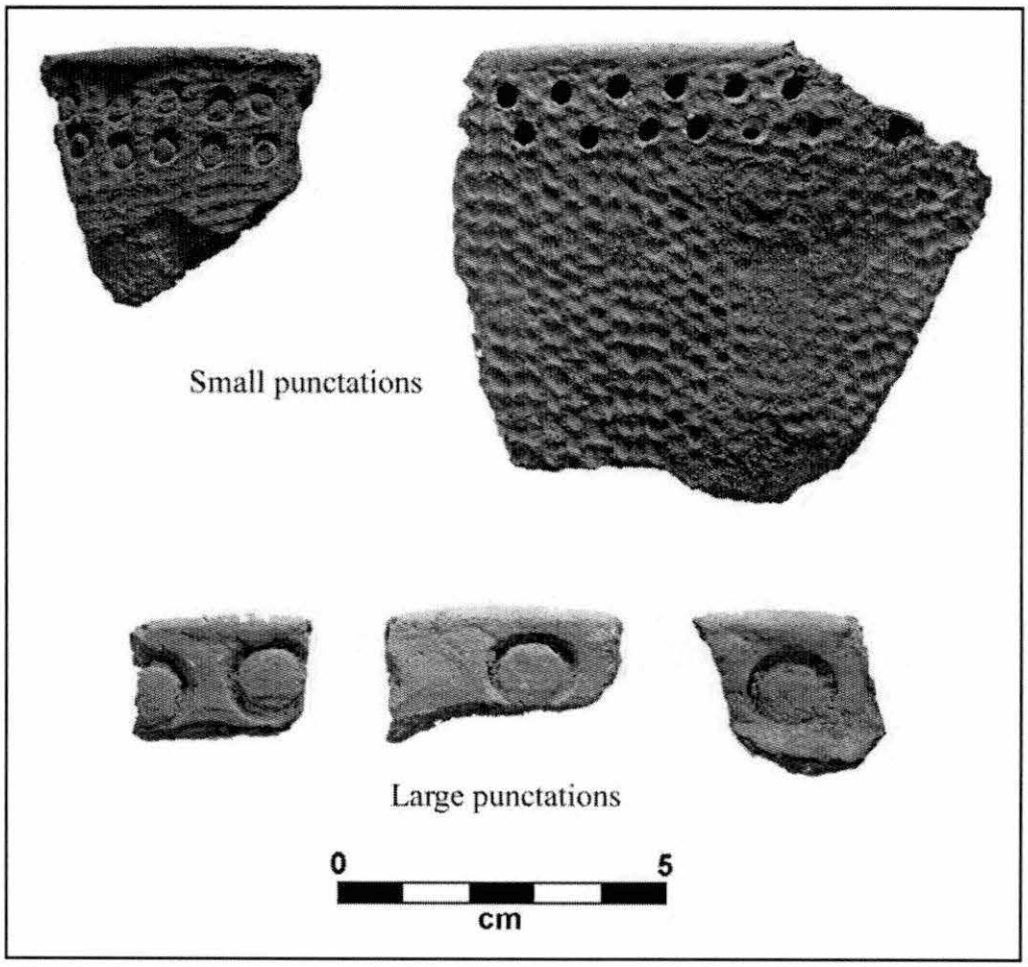


Figure 2.12. Punctated rim mode.

Rosettes. Rosettes are small (generally less than 10 mm tall and 5 mm thick), round pieces of clay applied in a continuous band around vessel exteriors just below the lip (Figure 2.11). They were punctated with a round, solid dowel that produced a "doughnut" effect. Reid (1967:25) describes them as:

> Closely spaced circular clay pellets [that] are slightly flattened as they are applied to the rim below the lip and then punched centrally with a solid dowel, producing a doughnut shape.

Strips. This mode consists of a narrow strip of clay—generally 5 mm or less in height although occasionally wider—that encircles the vessel parallel to the lip. Strips were never flush with the vessel lip, being located just below or well below the lip. Strips were decorated in one of two ways along their entire length. One form of decoration consists of punctations with a circular dowel (Figure 2.10) that was most often hollow—perhaps cane—but occasionally solid. The second form, notched, also consists of punctations, but the effect is to divide the strip into roughly rectangular segments (Figure 2.10). Rim strips as defined here are often referred to as fillets in the literature (Reid 1967:25).

Thickened rim. This mode consists of a coil added to the top, exterior, or interior of the vessel's lip. Exterior thickened rims (Figure 2.13) are relatively rare. Unlike rim strips which are relatively narrow and below the lip, exterior thickened rims are wide and flush with the lip. Exterior thickened rims are distinct from folded rims in that the extra coil used in the former was not completely welded to the vessel wall—a distinct break between the two is visible—while the extra coil used in folded rims often seems to be a continuation of the vessel wall. Interior thickened rims consist of an extra coil of clay added to the vessel's interior at its lip (Figure 2.13). In each case, the additional coil was thoroughly welded with

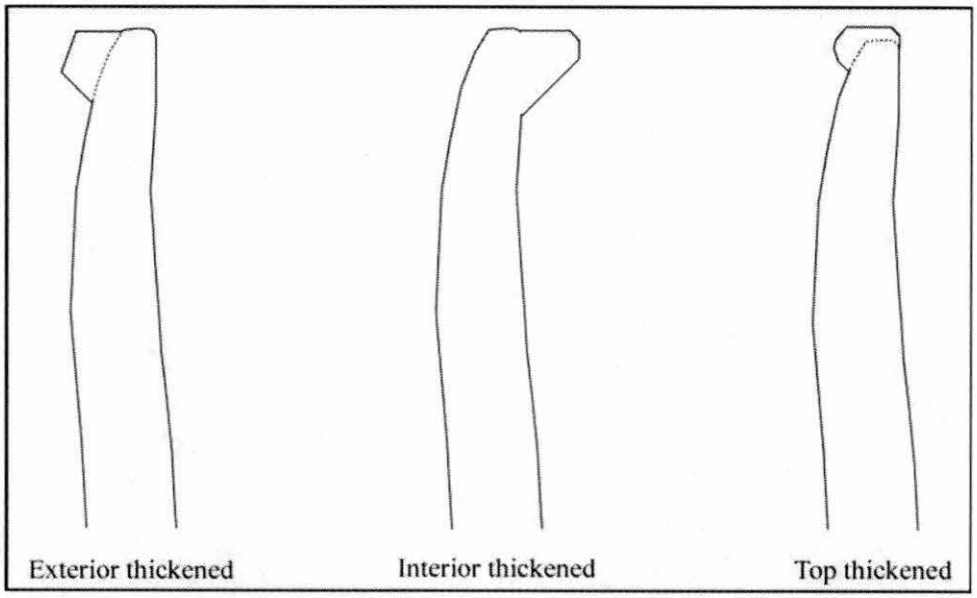


Figure 2.13. Thickened rim mode.

the vessel wall so that no distinct break was visible between the two. Top-thickened rims (Figure 2.13) appear exclusively on fine cordmarked sherds, and they were most often stamped in the same way as the vessel's surface (Figure 2.8). In most top-thickened examples, the additional coil was not completely welded to the lip so a distinct break can be seen between the two in profile.

SERIATION

A ceramic sequence was constructed for this research by ordering assemblages through the use of several seriation methods. Seriation can be defined as a technique used to arrange units into a sequence such that, starting from any specific unit, the other units most similar to it are closest to it in the sequence, and similarity decreases with distance in the sequence (Cowgill 1972:381; Marquardt 1982:408; Shennan 1988:341). One advantage of seriation methods is that they allow the integration of contexts from separate areas of excavation into a single chronological sequence, not just those that can be related through stratigraphy (see Drennan 1976). This allowed the incorporation of assemblages from across the Town Creek site as well as some from nearby Pee Dee sites to establish as complete of a sequence as possible. This was important at Town Creek because only two parts of the site contained stratified deposits, the mound and the riverbank midden, and there were several problems with relying solely on them. One problem was that these deposits could represent just a portion of the site's history and using them only would produce an incomplete sequence. Also, while both areas contained stratified deposits, they were not always discrete—the deposits next to the river represent trash from countless episodes of dumping and mounds are generally notorious for their complex stratigraphy.

Assemblages Seriated

The local ceramic sequence for Town Creek is based on seriations of 11 assemblages from four sites and several types of contexts[2] (Tables 2.1, 2.2, and 2.3). I only considered assemblages that contained 50 or more sherds that were 4 cm or longer to avoid sampling issues. Not only is 50 sherds a threshold others have recognized as being minimally acceptable (Ford 1962:41), but I also found from experience that problems arose when using smaller assemblages. Eight assemblages came from Town Creek—six from large pit and basin features scattered across the site and two from midden layers in the mound (Figure 2.14). The two mound layers are Level A, a premound midden, and Level X, a flank midden (see Smith and Williams 1994) located near the southwest corner of the mound that was presumably associated with mound-summit activities (Reid 1985:25-26). Level A was an extensive deposit, covering much of the area beneath the mound. Level X was also relatively extensive. All of the sherds that came from Level A and Level X were not analyzed because of the large samples involved. The portions of these levels used consist of sherds from a 20-×-100-ft block of excavation units that crosscut the mound along the baseline and L10 line (Figure 2.14).

Materials from the Leak site (31Rh1) in Richmond County, the Teal site (31An1) in Anson County, and the Payne site (31Mr15) in Moore County were also included as a way to incorporate assemblages from periods that may have been absent or poorly represented at Town Creek (Figure 2.15). A Mississippian occupation, as indicated by Pee Dee pottery, is the predominant component represented at each site. The Leak and Teal sites are located along the Pee Dee River within about 10 miles of Town Creek. The Payne site is located on

Table 2.1. Surface treatment counts in seriated assemblages.

Context	Brushed	Small Check Stamped	Large Check Stamped	Cob Impressed	Curv. Comp. Stamped	Wide Curv. Comp. St.	Rect. Comp. Stamped	Wide Rect. Comp. St.	Cordmarked	Fine Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Simple Stamped	Wide Simple St.	Stamped	Textile Impressed	Unidentified	Total
Town Creek																				
Feature 13	-	-	1	-	24	20	7	16	-	-	-	3	38	13	-	8	31	5	19	185
Feature 16	-	-	-	-	36	-	4	-	1	-	-	-	13	3	-	-	11	15	11	94
Feature 19	-	1	2	-	16	-	4	2	-	-	1	-	30	-	2	-	17	6	7	88
Feature 30	-	-	-	-	11	3	3	-	-	-	-	-	18	17	-	-	7	2	3	64
Level A	-	-	-	-	118	-	44	-	1	1	4	-	73	-	-	-	34	10	20	305
Level X	-	-	-	-	65	-	15	-	1	-	2	-	78	4	-	-	15	14	8	202
Sq. 160-170L40/Pit	1	1	3	-	8	7	6	3	2	-	-	-	18	6	1	1	18	-	6	81
Sq. 90L70/Pit 10	-	-	-	-	25	-	4	-	2	-	-	-	10	1	1	-	11	-	3	57
Other sites																				
Leak	-	-	-	-	21	-	17	-	-	-	-	-	23	2	-	-	9	4	2	78
Payne	-	8	-	-	27	-	8	-	6	-	8	4	35	-	13	-	9	12	14	144
Teal	-	1	-	1	109	-	45	-	90	36	1	-	69	8	8	-	46	3	23	440
Total	1	11	6	1	460	30	157	21	103	37	16	7	405	54	25	9	208	71	116	1738

Table 2.2. Rim modes from seriated assemblages.

Context	Non Pee Dee	Plain	Thickened Top	Small Punctated	Thickened Exterior	Rosettes	Pellets	Punctated Strip	Large Punctated	Folded and Fluted	Nodes	Notched Strip	Folded and Punct.	Total
160-170L40/Pit	1	24	-	1	1	1	1	1	1	-	-	3	4	38
Feature 13	5	102	-	-	-	3	3	5	1	-	4	3	10	136
Feature 30	-	13	-	-	-	-	3	4	-	1	1	-	-	22
Feature 19	-	15	-	-	-	-	1	3	1	-	-	-	-	20
Level X	1	50	-	2	-	1	4	-	-	-	-	-	-	58
Leak	-	29	-	-	-	3	1	-	-	-	-	-	-	33
Feature 16	-	15	-	-	-	2	-	-	-	-	-	-	-	17
Payne	6	152	1	5	1	-	-	-	-	-	-	-	-	165
Level A	5	129	2	1	-	-	-	-	-	-	-	-	-	137
90L70/Pit 10	-	19	-	-	-	-	-	-	-	-	-	-	-	19
Teal	3	138	4	1	-	-	-	-	-	-	-	-	-	146
Total	21	686	7	10	2	10	13	13	3	1	5	6	14	791

Table 2.3. Contexts of assemblages used in seriation.

Context	Description	Location
Town Creek		
Feature 13	large basin	adjoining portions of Sq. 20R0, Sq. 20R10, and 30R0/Mg3
Feature 16	small basin	Sq. 20L30/Mg2
Feature 19	large basin	Sq. -30R10/Mg3
Feature 30	pit	Sq. -100R50/Mg3
Level A	submound midden	throughout BL and L10 units
Level X	mound-flank midden	in southern BL and L10 units
Sq. 160-170L40-Pit	large pit	adjoining portions of Sq. 160L40 and Sq. 170L40/Mg3
Sq. 90L70-Pit 10	pit	Sq. 90L70/Mg3
Other Sites		
Leak	general excavation levels	area excavated by Keel
Payne	general excavation levels	area excavated by Mountjoy
Teal	general excavation levels	area excavated by South

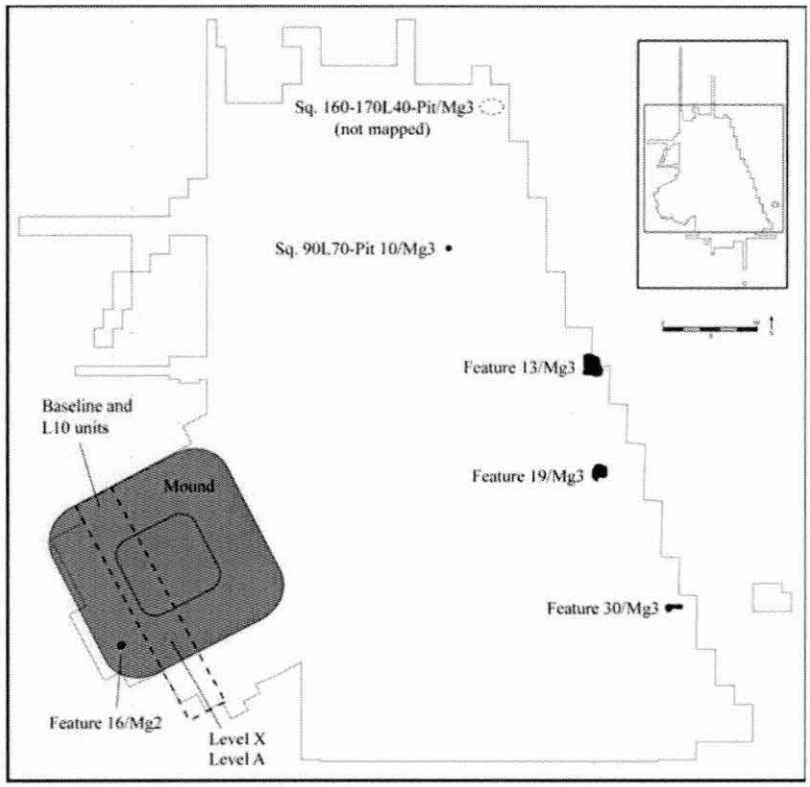


Figure 2.14. Location of seriated assemblages from Town Creek.

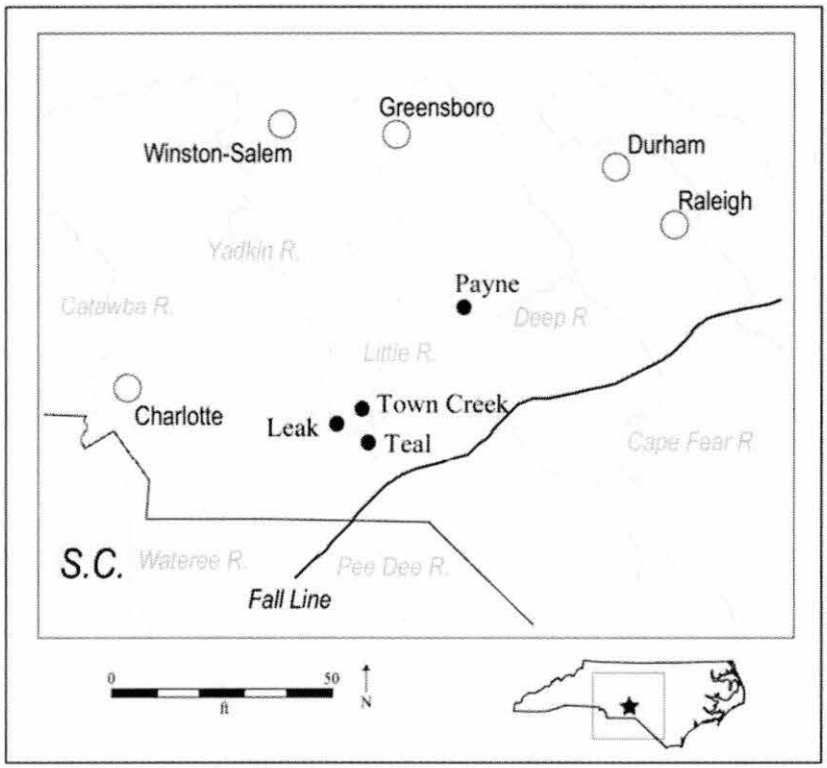


Figure 2.15. Pee Dee sites near Town Creek.

the Deep River about 30 miles from Town Creek. The Leak site pottery came from two test units that Bennie Keel excavated in 1961 (see Oliver 1992:87-92). The Teal site pottery came from two test units excavated by Stanley South in 1958 (see Oliver 1992:176-181). Both of these excavations were conducted under the auspices of the RLA, where the collections are still curated. The Payne site materials came from excavations conducted by Joseph Mountjoy (1989), who graciously allowed me to use the notes and collections from his fieldwork. Because no single excavated context from Leak, Teal, or Payne had more than 50 sherds of sufficient size, all of the excavated contexts were collapsed into a single assemblage for each site. This is justifiable because surface treatments and rim modes indicate that these three assemblages each represent relatively short occupations.

Nonmetric Multidimensional Scaling

Nonmetric multidimensional scaling (MDS) was used to seriate these assemblages. MDS is a quantitative method that has been used for decades to seriate archaeological materials (Cowgill 1972:396). MDS techniques fashion a geometric representation of a matrix of similarities or dissimilarities such that relative distances between points on a graph reflect relative differences between units in the dissimilarity matrix (Marquardt 1982:428). Widely spaced points in the graph indicate relatively large differences between consecutive units while clusters of points will indicate groups of similar units (Cowgill 1972:398). MDS begins with a measure of similarity or dissimilarity between cases in an abundance matrix, which consisted of percentages of pottery types in this case. MDS is nonmetric because it works not on the actual numerical values of the distances between the cases, but rather on their rank ordering (Shennan 1988:348). The relationships among the cases are represented

in multidimensional space with the number of dimensions being one less than the number of cases (Marquardt 1982:428; Shennan 1988:348). The MDS method tries to preserve the rank-ordering of the distances between points as the dimensions are reduced through an iterative procedure (Shennan 1988:348). Stress is a measure of the success with which the ordering is maintained as the number of dimensions is reduced (Shennan 1988:348-349). If a body of archaeological data is capable of being seriated well, it can be represented with little stress in only one or two dimensions (Marquardt 1982:429). If there is a strong temporal component in the relative frequencies of the ceramic types, MDS will generally produce a two-dimensional plot in which the collections are arranged in a chronological order along an arc (DeBoer et al. 1996:266; Kendall 1971:223). MDS will not produce a chronological ordering if the data are insufficient (Drennan 1976:292). If the units do not fit into two dimensions with a low stress or if they do but the configuration is not elongated and linear, then there is more than one major factor underlying variation among the entities and it is not sensible to attempt a seriation (Cowgill 1972:397; Kendall 1971:223).

MDS Process

The first step toward producing a MDS plot of the Pee Dee assemblages was the construction of an abundance matrix with rows that represent pottery types and columns that represent assemblages. The subset of types used (Tables 2.4 and 2.5) were those that I thought were most chronologically sensitive based partially on ceramic chronologies from adjacent regions, but more importantly on my familiarity with the assemblages based on a preliminary analysis of pottery from the stratified layers of the mound and from much trial and error in seriating different assemblages based on various combinations of types and

Table 2.4. Counts of select surface treatments used for multidimensional scaling.

Context	Large Check Stamped	Complicated Stamped	Wide Complicated Stamped	Cord marked	Fine Cord marked	Plain	Burnished Plain	Wide Simple Stamped	Textile Impressed	Total
160-170L40/Pit	3	14	10	2	-	18	6	1	-	54
Feature 13	1	31	36	-	-	38	13	8	5	132
Feature 30	-	14	3	-	-	18	17	-	2	54
Feature 19	2	20	2	-	-	30	-	-	6	60
Level X	-	80	-	1	-	78	4	-	14	177
Leak	-	38	-	-	-	23	2	-	4	67
Feature 16	-	40	-	1	-	13	3	-	15	72
Payne	-	35	-	6	-	35	-	-	12	88
Level A	-	162	-	-	2	73	-	-	10	247
90L70/Pit 10	-	29	-	2	-	10	1	-	-	42
Teal	-	154	-	90	36	69	8	-	3	360
Total	6	617	51	102	38	405	54	9	71	1353

Table 2.5. Percentages used for multidimensional scaling.

Context	Large Check Stamped	Complicated Stamped	Wide Complicated Stamped	Cord marked	Fine Cord marked	Plain	Burnished Plain	Wide Simple Stamped	Textile Impressed
160-170L40/Pit	5.6	25.9	18.5	3.7	-	33.3	11.1	1.9	-
Feature 13	0.8	23.5	27.3	-	-	28.8	9.8	6.1	3.8
Feature 30	-	25.9	5.6	-	-	33.3	31.5	-	3.7
Feature 19	3.3	33.3	3.3	-	-	50.0	-	-	10.0
Level X	-	45.2	-	0.6	-	44.1	2.3	-	7.9
Leak	-	56.7	-	-	-	34.3	3.0	-	6.0
Feature 16	-	55.6	-	1.4	-	18.1	4.2	-	20.8
Payne	-	39.8	-	6.8	-	39.8	-	-	13.6
Level A	-	65.6	-	-	0.8	29.6	-	-	4.0
90L70/Pit 10	-	69.0	-	4.8	-	23.8	2.4	-	-
Teal	-	42.8	-	25.0	10.0	19.2	2.2	-	0.8

modes. Following DeBoer et al. (1996:26), to imply that the local sequence for Town Creek was wholly "discovered" would be misleading.

The abundance matrix used for the MDS seriation includes only identifiable surface treatments (i.e., it excludes sherds classified as stamped and unidentifiable) because it did not seem that my inability to classify particular sherds would be of chronological significance. Surface treatments represented by fewer than five sherds were excluded because earlier seriations showed them to contribute more confusion than resolution. The individual types of curvilinear and rectilinear complicated stamped as well as wide curvilinear and wide rectilinear complicated stamped were collapsed into complicated stamped and wide complicated stamped categories, respectively, because pilot seriations showed these more inclusive categories produced more elegant solutions. The percentages used in the abundance matrix are based on counts divided by the total number of sherds per context as used in the seriation—not the total number of sherds per context as excavated. Once again, this was a decision based on the clarity of the plots produced by the different data sets. The city-block metric, which measures differences among cases by summing the absolute differences between each of their variables, was used to construct a dissimilarity matrix of coefficients that express the relationships between cases (Shennan 1988:225). This dissimilarity matrix was then used to produce a MDS plot.

The first plot produced only contains assemblages from Town Creek (Figure 2.16). Based on information discussed later in this chapter, it is likely that the Sq. 90L70-Pit 10 assemblage is oldest and the Feature 13 assemblage is most recent. The curvilinear distribution of points is a common pattern in MDS plots (DeBoer et al. 1996:266; Drennan 1976:293; Kendall 1971:227). The stress of this configuration is very low at 0.04. The

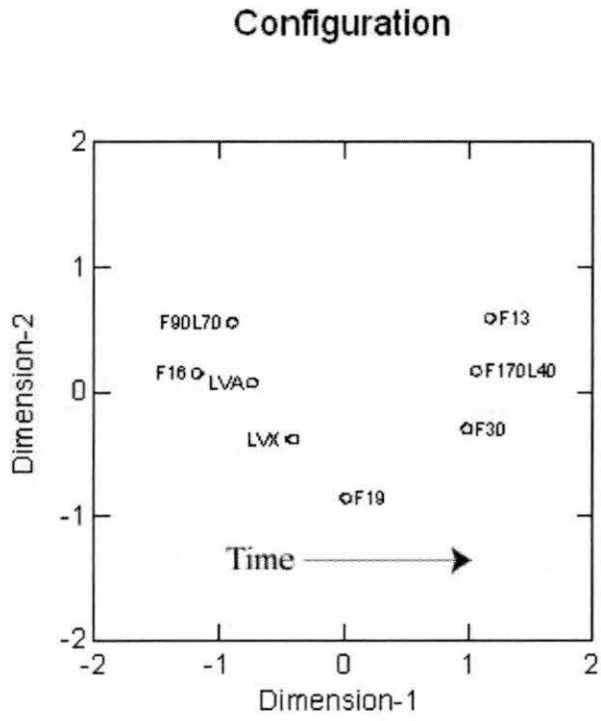


Figure 2.16. Multidimensional scaling plot of Town Creek assemblages.

distribution of assemblages in this MDS plot can be characterized as consisting of two clusters and an isolated point. From the earliest to the most recent, these are a cluster consisting of Sq. 90L70-Pit 10, Level A, Feature 16, and Level X; the isolated point of Feature 19; and a cluster consisting of Feature 30, Sq. 170L140/Pit, and Feature 13. The second MDS plot is based on the same data from Town Creek but with the addition of assemblages from the Teal, Leak, and Payne sites (Figure 2.17). The distribution of points in this plot is also curvilinear. This configuration also has a low stress at 0.07. The distribution in the second MDS plot can be characterized as consisting of two clusters and two isolated points. From the earliest to the most recent, these are the Teal site; a cluster consisting of Sq. 90L70-Pit 10, Level A, Feature 16, Leak, Level X, and Payne; the isolated point of Feature 19; and a cluster consisting of Feature 30, Sq. 170L140/Pit, and Feature 13.

An examination of the percentages of types in the assemblages indicates the patterns in the data on which the MDS plots are based. One major trend is the decrease in complicated stamped pottery over time. Complementary to this is an increase in plain wares through time (Figure 2.18). The early end of the sequence is marked by a relatively high proportion of cordmarking and the presence of fine cordmarking. The later end of the sequence is marked by surface treatments with larger elements, such as large check stamped, wide complicated stamped, and large simple stamped.

Seriation based on Rim Modes

The assemblages were also seriated based on an incidence matrix (see Marquardt 1982:409) which indicated the presence or absence of certain rim modes. These assemblages were ordered by hand based on the Concentration Principle which states that arrangements

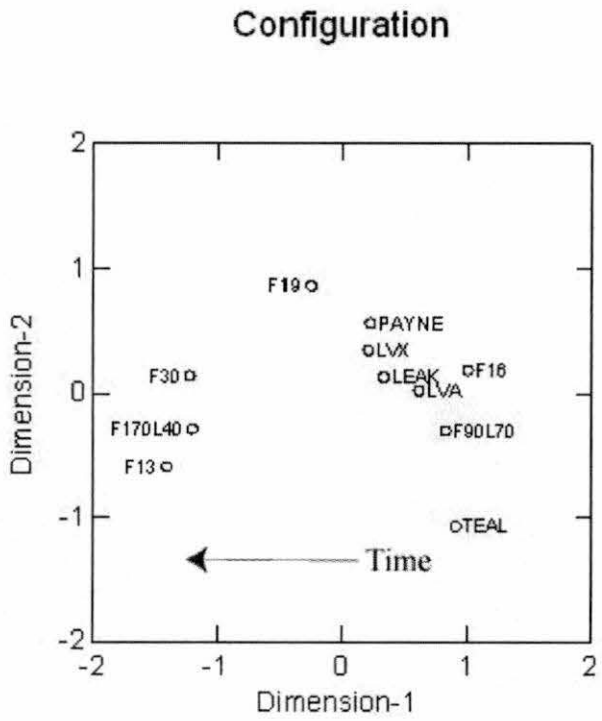


Figure 2.17. Multidimensional scaling plot of all Pee Dee assemblages.

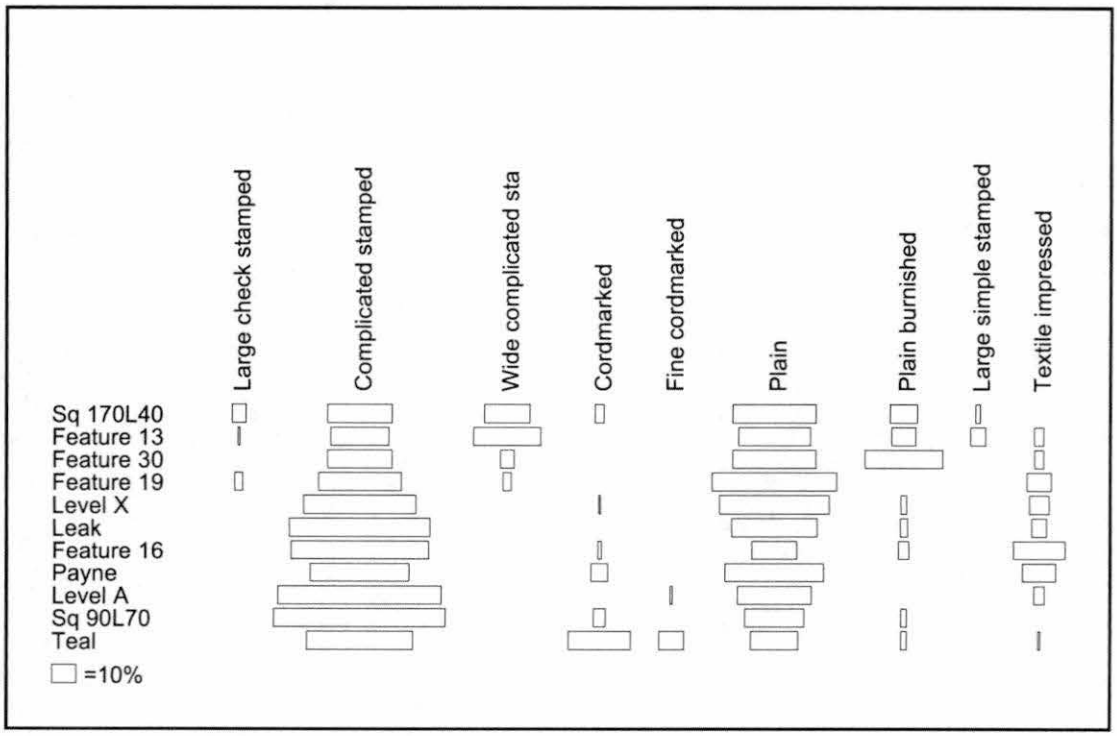


Figure 2.18. Ford seriation graph based on the percentages used for multidimensional scaling.

which reduce the ranges of varieties are to be preferred to those which do not (Kendall in Doran and Hodson 1975:276). The best seriation is one that most closely brings the X's together in one group in each column (Cowgill 1972:389; Marquardt 1982:410). The incidence seriation of rim modes (Table 2.6) produced an order that was very similar to that of the MDS plot. As was the case with the MDS plot, the incidence seriation based on rim modes placed Teal at one end and Feature 13 and Sq. 170L40/Pit at the other. Sq. 90L70-Pit 10 was not included in the rim mode seriation because it only contained plain rims. The incidence seriation can be divided into segments based on the appearance of particular rim modes. Segment 1 is based on the presence of top-thickened rims and the small punctated mode, Segment 2 on rosettes, Segment 3 on punctated strips, and Segment 4 on notched strips, the large punctated mode, and folded rim modes. One can see, by the fact that I emphasized the importance of some modes while ignoring the appearance of others (e.g., pellets and nodes), that defining the boundary of segments was somewhat arbitrary (see Steponaitis 1983:90).

Seriation based on Rim Modes and Minority Surface Treatments

The assemblages also were ordered in another incidence seriation that included rim modes in addition to select minority surface treatments. The rim modes and surface treatments used were not present in every assemblage, but were present in more than one. Also, they appeared in low frequencies when present, never more than about 10% of an assemblage. Sq. 90L70-Pit 10 was not included because it did not contain any of the types or modes on which this seriation is based. The order produced by this seriation is consistent with the other two (Table 2.7). It places Teal at one end opposite Sq. 170L40/Pit with the

Table 2.6. Incidence seriation based on rim modes.

Context	Segment	Top Thickened	Small Punctations	Rosettes	Pellets	Punctated Strips	Nodes	Folded-and-Fluted	Notched Strips	Large Punctations	Folded
Feature 13				X	X	X	X		X	X	X
160-170L40/Pit	4		X	X	X	X		X	X	X	X
Feature 30				X	X	X	X	X			
Feature 19	3		X		X	X					
Level X			X	X	X						
Leak				X	X						
Feature 16	2			X							
Payne		X	X								
Level A		X	X								
Teal	1	X	X								

Table 2.7. Incidence seriation based on select surface treatments and rim modes.

Context	Segment	Fine Cordmarked	Top Thickened Rims	Fabric Marked	Rosettes	Pellets	Large Check Stamped	Punctated Strips	Wide Complicated St.	Nodes	Large Simple St.	Folded Rims	Large Punctations	Notched Strips
160-170L40/Pit					X	X	X	X	X		X	X	X	X
Feature 13	4				X	X	X	X	X	X	X	X	X	X
Feature 30					X	X		X	X	X				
Feature 19	3			X		X	X	X	X					
Level X				X	X	X								
Leak					X	X								
Feature 16	2				X									
Payne			X	X										
Level A		X	X	X										
Teal	1	X	X	X										

remaining assemblages between them. This seriation can also be divided into four segments. Segment 1 includes assemblages with top-thickened rims, fine cordmarking, and fabric marking. Segment 2 is based on the appearance of rosettes and pellets as well as the disappearance of top thickening and fine cordmarking. Segment 3 is marked by the appearance of punctated rim strips as well as wide varieties of complicated stamping and large check stamping. Segment 4 includes the appearance of large simple stamping as well as folded, notched strip, and large punctated rim treatments.

Comparing the Seriations

In this section, the sequence produced by MDS is compared to that produced by the two incidence seriations in order to abstract as a chronology the order that is common to them (see Dunnell 1970:316). It is important to remember that the exact position of any one assemblage within a seriation is not critical to this process. Assemblages should not be thought of as having been placed in their "true" position or the only position possible, but instead as in the best possible position based on the data at hand (see Steponaitis 1983:88). The data used here are less than ideal. Assemblages from different contexts could have been subjected to different formation processes, general levels from the mound have a high probability of being mixed, and data from all excavated contexts from Leak, Teal, and Payne were analytically combined at the individual site level for analysis. Thus, emphasis should not be placed on the position of individual assemblages but rather on general trends that will allow the definition of a sequence of ceramic change. Rather than talk about the position of individual assemblages, it will be more productive to divide the sequence of each seriation into segments and talk about them as the aggregate of their constituent assemblages.

Ceramic Groups

All three seriations are in agreement in placing Teal at one end and Feature 13 and Sq. 170L40/Pit at the other. It is the order and grouping of the intervening assemblages that needs to be reconciled. In this section, arguments are made for grouping assemblages based on information from all of the seriations.

Group 1. This group consists of the Teal assemblage which was placed at one end of the order in each of the seriations. While one could argue from both incidence seriations that Level A and Teal are similar enough to be in a single group, I beleive that the separation of Teal from all other assemblages in the MDS plot—based on its relatively high percentages of cordmarking and fine cordmarking—indicates it should be in its own group (Figure 2.19).

Group 2. The bulk of the assemblages in the seriation are included in this group. It incorporates the large cluster and one isolated point from the MDS plot and segments 2 and 3 from the incidence seriations. This group can be divided into two subgroups based primarily on the incidence seriation.

Group 2a. This group consists of the assemblages from Sq. 90L70-Pit 10, Level A, Feature 16, and the Payne site. It could be argued that the presence of only plain rims in Sq. 90L70-Pit 10 means that it should be placed before Teal in the incidence seriation. Based on the placement in the MDS plot of Sq. 90L70-Pit 10 close to a number of other assemblages and some distance from Teal, it is more likely that Sq. 90L70-Pit 10 should be placed in the group that follows Teal. Level A, Feature 16, Payne, and Sq. 90L70-Pit 10 are placed together in this group because they do not contain the variety of rim appliqués seen in other assemblages. Also, with the exception of the Payne site, similarities among the assemblages

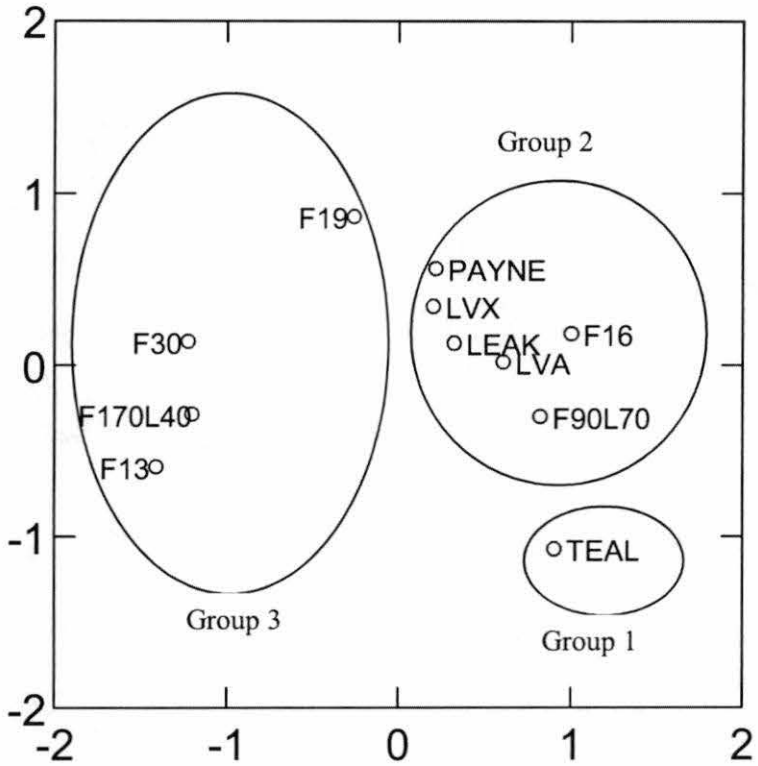


Figure 2.19. Multidimensional scaling plot of all Pee Dee assemblages showing ceramic groups.

are indicated in the MDS plot by the fact that they are located near each other on the right side of the large cluster of points constituting Group 2.

Group 2b. The assemblages from the Leak site and Level X from the mound at Town Creek are placed in this group. These two assemblages are located close to each other on the MDS plot. Their assemblages of rim appendages include both rosettes and pellets, but punctated strips are absent.

Group 3. This group consists of the assemblages from Feature 19, Feature 30, Sq. 170L40/Pit, and Feature 13. All three seriations agree in placing these assemblages in the second half of the distribution. This group was subdivided based on the incidence seriations.

Group 3a. The assemblages from Feature 19 and Feature 30 are placed in this group. It is marked in the incidence seriations by the appearance of punctated strips, wide complicated stamping, and large check stamping, but also by the absence of large simple stamping, notched strips, large punctations, and folded rims. These two assemblages are widely separated on the MDS plot and Feature 19 could arguably go with Group 2 based on those plots. However, I feel that the appearance of punctated rim strips and their similarity to subsequent notched rim strips was important enough to place both Feature 19 and Feature 30 in Group 3.

Group 3b. This group consists of the assemblages from Sq. 170L40/Pit and Feature 13. These two are distinguished based on the presence of notched strips, large punctations, folded rims, and large simple stamping.

Corroborating the Sequence

In this section, the proposed ceramic sequence based on the three seriations is assessed and corroborated in several ways which indicate that there is chronological significance to the ordering produced by the seriations. Group 1 appears to be the oldest, subgroups 2a and 2b come next, and subgroups 3a and 3b are the most recent.

Stratigraphic Relationships

The stratigraphic relationships among contexts are consistent with the ordering produced by the seriations. Level A (Group 2a) is a premound midden at Town Creek located stratigraphically below Level X (Group 2b) which is a mound-flank midden. Additionally, Feature 16, also of Group 2a, is a pit superimposed by a palisade line that runs beneath the mound, placing it stratigraphically below Level X as well.

Radiocarbon Dates

Radiocarbon dates from three seriated contexts at Town Creek are consistent with the sequence of assemblages. Level A and Sq. 170L40/Pit were dated directly. While Level X was not directly dated, it probably represents trash from mound-summit activities and several samples from mound-summit buildings were dated. The seriations put these contexts in the order of Level A being the oldest, then Level X, and finally Sq. 170L40/Pit. The uncorrected radiocarbon dates of A.D. 1205 $\pm$ 140 for Level A; A.D. 1350 $\pm$ 50, 1280 $\pm$ 40 and 1350 $\pm$ 140 for the mound summit (Reid 1967:62); and A.D. 1650 $\pm$ 60[3] for Sq. 170L40/Pit are consistent with the seriations. While a number of radiocarbon dates were obtained by Oliver

(1992) from the Leak and Teal sites, they span a large amount of time and are not useful in assessing the seriation presented here.

Pottery from Stratified Deposits

Stratified deposits from the mound and the riverbank midden at Town Creek are also used to assess the sequence produced by the seriations. The riverbank midden shows a decrease in plainwares from bottom to top (Table 2.8). These deposits also show, in a gross sense, the changes in rim modes seen in the ceramic sequence (Table 2.9). The rims in the lower levels of the riverbank midden are mostly plain, but with a few rosettes, while rim modes from the upper levels include plain, rosettes, and punctated as well as notched strips. In the mound, Reid (1967:57) found that plainwares increased in popularity through time. He also found only plain rims in the premound levels with rosettes and rim strips appearing in later levels (Reid 1967:58-59). My analysis of pottery from the baseline and L10 units, two rows of excavation squares that crosscut the mound and sampled most of its stratigraphy, also showed that premound deposits contained only plain rims, the lower parts of the mound had rims with nodes and pellets, and the upper parts of the mound had rims with punctated strips and notched strips (Table 2.10).

Regional Comparisons

The Town Creek ceramic sequence is consistent with those defined for early and late occupations at the Mulberry site located on the Wateree River in South Carolina (Caldwell 1974; Stuart 1975). Temporal changes in surface treatments at Mulberry included an increase in plainwares (Caldwell 1974:95; Stuart 1975:105). Rim mode patterns include the

Table 2.8. Surface treatment counts and percentages from select riverbank-midden units.

Excavation Levels	Non-Pee Dee	Check Stamped	Cob Impressed	Curv. Comp. Stamped	Rect. Comp. St.	Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Simple Stamped	Stamped	Textile Impressed	Unidentified	Total
Counts															
Levels 1-4	1	-	-	61	23	-	1	-	88	12	5	36	33	9	269
Levels 6-10	28	-	1	154	42	-	-	-	78	23	20	38	25	19	428
Percentages															
Levels 1-4	0.4	-	-	22.7	8.6	-	0.4	-	32.7	4.5	1.9	13.4	12.3	3.3	
Levels 6-10	6.5	-	0.2	36.0	9.8	-	-	-	18.2	5.4	4.7	8.9	5.8	4.4	

Note: Counts are based on the riverbank units whose excavation levels could be correlated with depositional layers based on field drawings. These units are all of those in the -95R line and Sq. -90R105.

Table 2.9. Pee Dee rim treatment counts and percentages from select riverbank-midden units.

Excavation Levels	Plain	Small Punctated	Nodes	Pellets	Rosettes	Notched Strip	Punctated Strip	Total
Counts								
Levels 1-4	42	3	1	1	3	2	2	54
Levels 6-10	62	-	-	-	2	-	-	64
Percentages								
Levels 1-4	77.8	5.6	1.9	1.9	5.6	3.7	3.7	
Levels 6-10	96.9	-	-	-	3.1	-	-	

Note: Counts are based on the riverbank units whose excavation levels could be correlated with depositional layers based on field drawings. These units are all of those in the -95R line and Sq. -90R105.

Table 2.10. Rim modes in the baseline and L10 units from the mound.

Context	Plain	Top Thickened	Small Punctated	Rosettes	Pellets	Lugs	Nodes	Punctated Strip	Notched Strip	Total
Disturbed yellow layer	81	-	2	-	-	-	-	3	1	87
Undisturbed yellow layer	30	-	3	-	4	-	-	-	-	37
Mound topsoil	139	-	7	1	2	1	-	3	1	154
Townhouse I	32	-	-	-	-	-	1	-	-	33
Level X	50	-	2	1	4	-	-	-	-	57
Moundfill	14	-	-	-	-	-	-	-	-	14
Premound embankment	3	-	-	-	-	-	-	-	-	3
Level A	126	1	1	-	-	-	-	-	-	128
Total	475	1	15	2	10	1	1	6	2	513

presence of small punctations, rosettes, and riveted nodes earlier and notched strips later (Caldwell 1974:95). Similar trends in Irene pottery from the Georgia and South Carolina coast are also evident. There is an increase in the width of ridges and grooves of complicated stamped patterns later in the sequence (DePratter 1991:190). An increase in the incidence of elaborated rim treatments is noted at the Irene site (Caldwell and McCann 1941:42). The sequence of change is from punctated nodes to punctated or notched rim strips followed by folded rims (Braley 1990:103). Irene pottery shows plain rims, nodes, rosettes, and plain strips earlier in the sequence, followed by notched strips later (Pearson 1984:22; Saunders 2000:42). Rim strips are replaced later in the sequence by hollow punctations on plain or folded rims (Cook 1986:5).

GROUPS AS CERAMIC PHASES

Oliver (1992) proposed a sequence of phases for the Mississippian period in the vicinity of Town Creek based on his excavations at the Leak and Teal sites. These Mississippian phases are Teal (A.D. 950-1200), Town Creek (A.D. 1200-1400), and Leak (A.D. 1400-1600), which largely correspond to my ceramic groups 1, 2, and 3 respectively. In this section, the assemblages that constitute each ceramic group are combined to define a model ceramic assemblage for each phase (Tables 2.11, 2.12, and 2.13). These model assemblages are related to Oliver's sequence and the phases he defined are modified. Once defined, ceramic content associated with each phase is related to other South Appalachian Mississippian phases. The temporal spans presented for the phases differ from those in Oliver's (1992) original definitions (Table 2.14). The new time periods are based on fifteen radiocarbon dates (Table 2.15) from the Leak, Payne, Teal, and Town Creek sites (Eastman

Table 2.11. Surface treatments by phase.

Phase	Brushed	Small Check St.	Large Check St.	Cob Impressed	Curv. Comp. St.	Wide Curv. Comp. St.	Rect. Comp. St.	Wide Rect. Comp. St.	Cordmarked	Fine Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Simple Stamped	Wide Simple St.	Stamped	Textile Impressed	Unidentified	Total
Counts																				
Leak (all)	1	2	6	-	59	30	20	21	2	-	1	3	104	36	3	9	73	13	35	418
Late	1	1	4	-	32	27	13	19	2	-	-	3	56	19	1	9	49	5	25	266
Early	-	1	2	-	27	3	7	2	-	-	1	-	48	17	2	-	24	8	10	152
Town Creek (all)	-	8	-	-	292	-	92	-	11	1	14	4	232	10	14	-	89	55	58	880
Late	-	-	-	-	86	-	32	-	1	-	2	-	101	6	-	-	24	18	10	280
Early	-	8	-	-	206	-	60	-	10	1	12	4	131	4	14	-	65	37	48	600
Teal	-	1	-	1	109	-	45	-	90	36	1	-	69	8	8	-	46	3	23	440
Percentages																				
Leak (all)	0.2	0.5	1.4	-	14.1	7.2	4.8	5.0	0.5	-	0.2	0.7	24.9	8.6	0.7	2.2	17.5	3.1	8.4	
Late	0.4	0.4	1.5	-	12.0	-	4.9	7.1	0.8	-	-	1.1	21.1	7.1	0.4	3.4	18.4	1.9	9.4	
Early	-	0.7	1.3	-	17.8	2.0	4.6	1.3	-	-	0.7	-	31.6	11.2	1.3	-	15.8	5.3	6.6	
Town Creek (all)	-	0.9	-	-	33.2	-	10.5	-	1.3	0.1	1.6	0.5	26.4	1.1	1.6	-	10.1	6.3	6.6	
Late	-	-	-	-	30.7	-	11.4	-	0.4	-	0.7	-	36.1	2.1	-	-	8.6	6.4	3.6	
Early	-	1.3	-	-	34.3	-	10.0	-	1.7	0.2	2.0	0.7	21.8	0.7	2.3	-	10.8	6.2	8.0	
Teal	-	0.2	-	0.2	24.8	-	10.2	-	20.5	8.2	0.2	-	15.7	1.8	1.8	-	10.5	0.7	5.2	

Table 2.12. Rim modes by phase.

Phase	Plain	Top Thickened	Small Punctated	Rosettes	Ext. Thickened	Pellets	Punctated Strip	Notched Strip	Large Punctated	Folded and Punct.	Folded and Fluted	Nodes	Totals
Leak (all)	154	-	1	4	1	8	13	6	3	14	1	5	210
Late	126	-	1	4	1	4	6	6	2	14	-	4	168
Early	28	-	-	-	-	4	7	-	1	-	1	1	42
Town Creek (all)	394	3	8	6	1	5	-	-	-	-	-	-	429
Late	79	-	2	4	-	5	-	-	-	-	-	-	91
Early	315	3	6	2	1	-	-	-	-	-	-	-	338
Teal	138	4	1	-	-	-	-	-	-	-	-	-	146

Table 2.13. Complicated stamped patterns by phase.

Phase	Arc Angle	Two Bar Diamond	Herring bone	Concentric Circles	Filfot	Quartered Circles	Line Block	Total
Leak (all)	-	-	-	4	7	-	1	12
Late	-	-	-	3	2	-	1	6
Early	-	-	-	1	5	-	-	6
Town Creek (all)	7	16	18	25	28	7	2	103
Late	1	7	8	8	13	1	1	39
Early	6	9	10	17	15	6	1	64
Teal	3	1	5	6	3	-	-	18
Total	17	33	41	64	73	14	6	248

Table 2.14. Calibrated and uncalibrated dates (A.D.) for phases.

Phase	Calibrated	Uncalibrated	Oliver's (1995) Original Dates
Leak	1300-1500	1300-1550	1400-1600
Late	1400-1550	1450-1550	
Early	1300-1400	1300-1450	
Town Creek	1150-1300	1050-1300	1200-1400
Late	1250-1300	1250-1300	
Early	1150-1250	1050-1250	
Teal	1000-1150	900-1050	950-1200

Table 2.15. Mississippian period radiocarbon dates from the Town Creek, Leak, Payne, and Teal sites.

Sample Code	Site	Context	Age (BP)	Standard Deviation	Uncalibrated Intercept	Uncalibrated 1-Sigma	Calibrated 1-Sigma	Phase Association
Beta-184061	Town Creek	Sq. 170L40/Pit	300	60	1650	1590-1710	1496-1651	Late Leak
Uga-5645	Leak	Fea. 1	525	65	1425	1360-1490	1319-1443	Early Leak
FSU-185/FSU-175	Town Creek	Townhouse I	595	50	1355	1305-1405	1305-1405	Early Leak
Uga-5644	Leak	Fea. 1	485	175	1465	1290-1640	1297-1632	Early Leak
FSU-186/FSU-176	Town Creek	Townhouse II	670	40	1280	1240-1320	1279-1386	Early Leak
FSU-145/FSU-154	Town Creek	Townhouse II	600	140	1350	1210-1490	1262-1448	Early Leak
Uga-6050	Leak	Fea. 4	680	50	1270	1220-1320	1274-1387	Late Town Creek
Beta-201468	Town Creek	St. 4a	820	40	1130	1090-1170	1187-1261	Early Town Creek
Beta-18411	Payne	Fea.	820	70	1130	1060-1200	1158-1274	Early Town Creek
FSU-184/FSU-174	Town Creek	Lev. A	745	140	1205	1065-1345	1155-1397	Early Town Creek
Beta-18412	Payne	Fea.	860	70	1090	1020-1160	1051-1255	Early Town Creek
Beta-18410	Payne	Fea.	910	60	1040	980-1100	1040-1173	Early Town Creek
Uga-6047	Teal	Fea. 47	950	50	1000	950-1050	1025-1154	Teal
Uga-6048	Teal	Fea. 49	950	50	1000	950-1050	1025-1154	Teal
Uga-6046	Teal	Fea. 46	1000	55	950	895-1005	987-1150	Teal

1994; Mountjoy 1989; Oliver 1992; Reid 1967). These spans are approximations of the areas where the ranges of the dates associated with assemblages from each phase overlap (Figures 2.20 and 2.21). The CALIB Radiocarbon Calibration (Stuiver et al. 2005) program was used to calibrate these dates.

Teal Phase (A.D. 900-1050; cal A.D. 1000-1150)

While complicated stamping is the most common surface treatment, the Teal phase is distinctive because cordmarking (cordmarked and fine cordmarked) is its second most common surface treatment (Figure 2.22). In contrast, cordmarking constitutes only about one percent of the assemblage in subsequent phases. Cob impressed appears as a minority surface treatment in this phase, but is absent later. This phase also has the lowest percentage of plain pottery in the sequence. This is especially the case when only those types used in the MDS seriation are considered. Wide surface treatments (e.g., large check stamped, large simple stamped, and wide complicated stamped) are absent. Rims are mostly plain, but top-thickened rim modes occur on fine cordmarked sherds. Complicated stamped patterns include arc angle, concentric circles, filfot, herringbone, and split diamond.

Dating

Oliver (1992:Figure 40) obtained 16 radiocarbon dates from the Teal site, but they are of limited utility for dating the Teal phase because their intercepts range from the tenth through sixteenth centuries. It is unclear as to why this might be the case. The Teal sherds that I analyzed contained only top-thickened and plain rims, suggesting that other Pee Dee components are not represented or that they are relatively discrete if present. It is possible

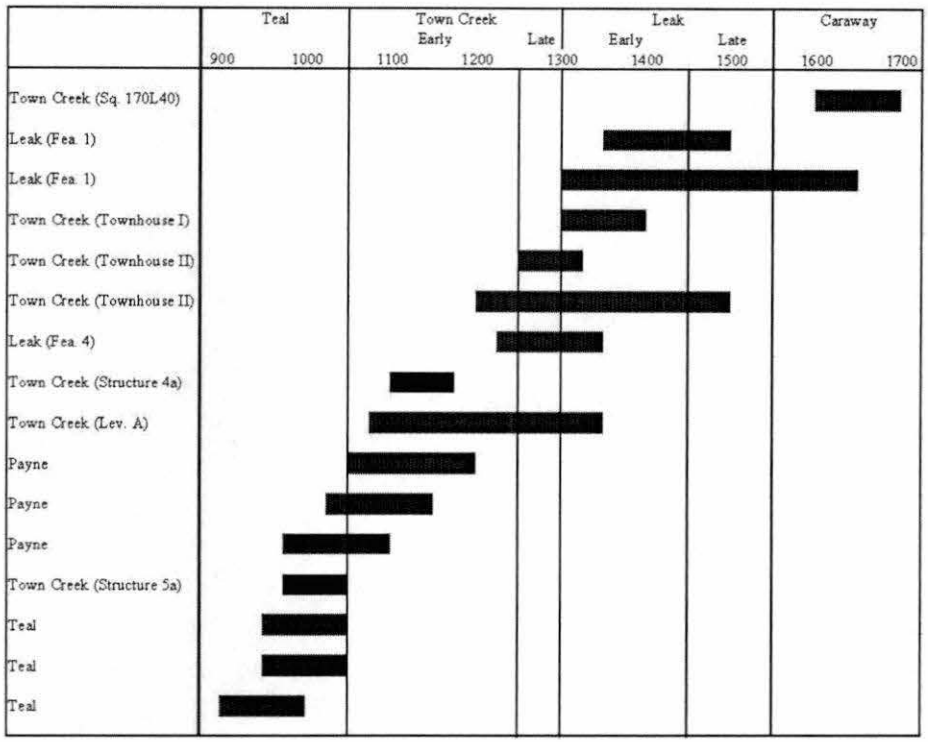


Figure 2.20. One sigma range for uncalibrated Mississippian Period radiocarbon dates.

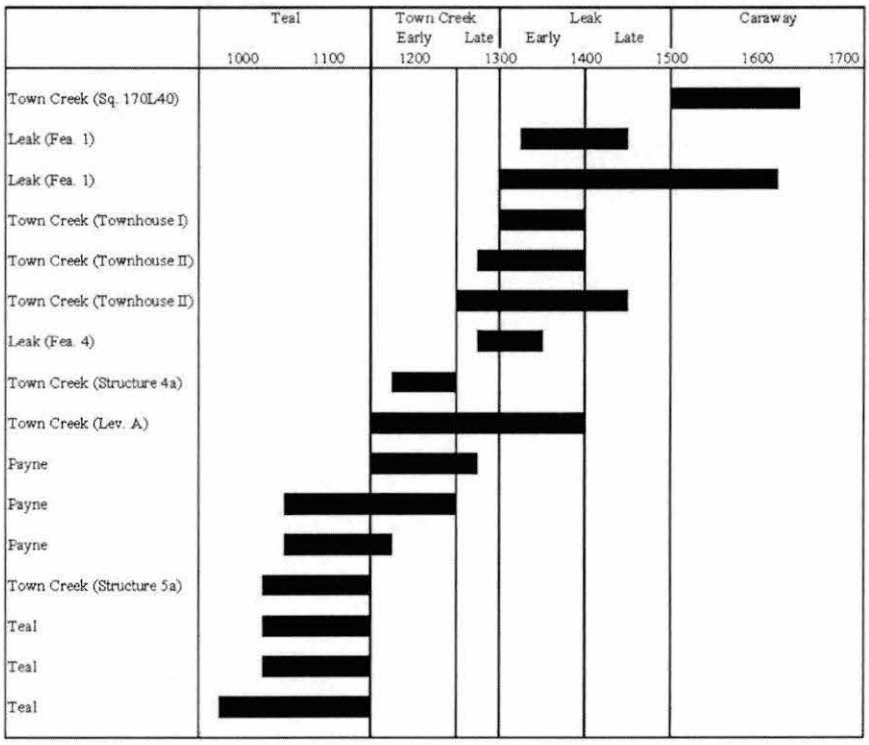


Figure 2.21. One sigma range for calibrated Mississippian Period radiocarbon dates.

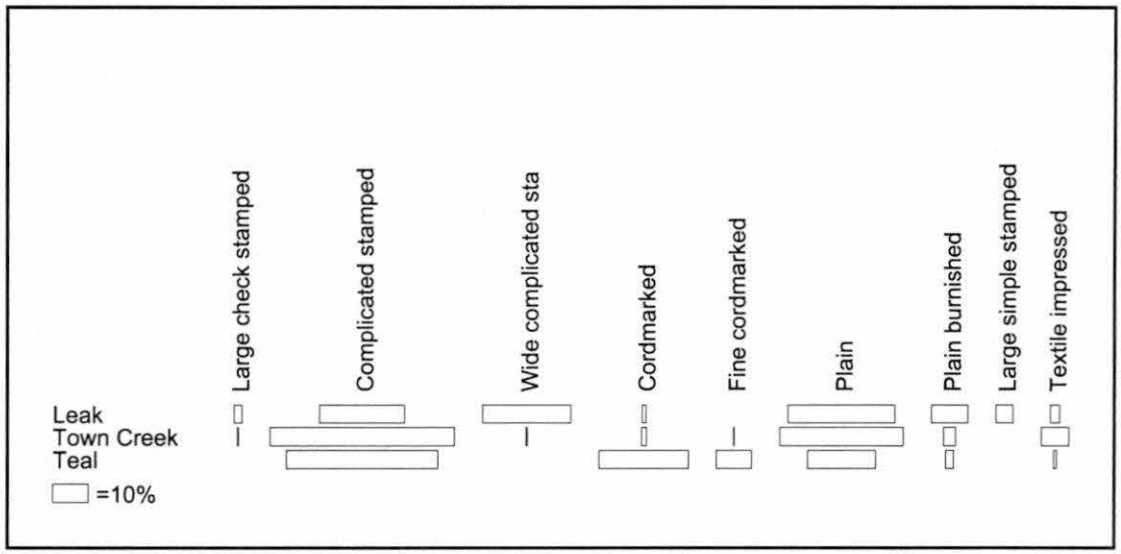


Figure 2.22. Ford seriation graph of select surface treatments (percentages) by phase.

that Oliver (1992) excavated a portion of the site in which multiple components were represented, although this cannot be assessed from the ceramic data he presents. I decided to use three of the radiocarbon dates obtained by Oliver (1992) from features that contained types (e.g., fine cordmarked) and rim modes (e.g., top thickened) consistent with the pottery I analyzed (Oliver 1992:199-210). The dates from these three features are A.D. 950 $\pm$ 50 (cal. A.D. 987-1150), 1000 $\pm$ 50, and 1000 $\pm$ 50 (cal. A.D. 1025-1154) (Oliver 1992:209).

Regional Comparisons

Several Teal-phase diagnostics appear in assemblages at other sites across the region. The Savannah II phase (A.D. 1100-1200) in the lower Savannah River sequence contains Savannah Fine Cordmarked pottery, and contemporaneous piedmont sites contain cob impressing (Rudolph and Hally 1985:459-460). Simple stamping with stamped lips, probably the same as my fine cordmarked, is common during the Santee II phase along the Lower Santee River which ends around A.D. 1200 (Anderson 1990:59). The split diamond, filfot, and lineblock stamp patterns are all present in the Etowah III phase of northwest Georgia (Rudolph and Hally 1985:268) which dates to around A.D. 1100 (Hally and Rudolph 1986:Table 2).

Town Creek Phase (A.D. 1050-1300; cal A.D. 1150-1300)

Overall in the Town Creek phase, complicated stamping dominates, textile impressing is at the height of its popularity, and wide surface treatments appear for the first time. The quartered circles and lineblock stamp patterns first appear, with the former apparently dating entirely to this phase because it is absent during the subsequent Leak

phase. The Town Creek phase can be divided into an early and late segment—ceramic groups 2a and 2b, respectively—based primarily on the presence of different rim modes. The early Town Creek phase (A.D. 1050-1250, cal A.D. 1150-1250) contains primarily plain rims, but crude rosettes—as found in Feature 16/Mg2 (Figure 2.23)—may be present in small amounts. The late Town Creek phase (A.D. 1250-1300, cal A.D. 1250-1300) is marked by the presence of pellets and rosettes as well as the disappearance of top-thickened rims and fine cordmarking.

Dating

In the 1960s, several radiocarbon dates were obtained from mound contexts at Town Creek. One sample that can be attributed to the early Town Creek phase came from Level A and produced a date of A.D. 1205 $\pm$ 140 (cal A.D. 1155-1397) (Reid 1967:62). Mountjoy (1989) obtained three radiocarbon dates from the Payne site that also are attributable to the early Town Creek phase. The Payne site dates come from a small, cob-filled pit (A.D. 1040 $\pm$ 60) (cal. A.D. 1040-1173), a larger pit (A.D. 1130 $\pm$ 70) (cal. A.D. 1158-1274), and a large pit possibly associated with a circular structure (A.D. 1090 $\pm$ 70) (cal. A.D. 1051-1255) (Mountjoy 1989:15).

One of the three radiocarbon dates obtained by Oliver from the Leak site may be associated with a late Town Creek-phase context, although this is not certain. The excavated materials I analyzed from Leak seem to represent a late Town Creek-phase component, but the presence of a punctated rim strip in surface collections and rim strips in materials reported from the site by Oliver (1992:Table 1) indicate that a subsequent Leak-phase component may be represented as well. Oliver's (1992:209) three dates of A.D. 1270 $\pm$ 50

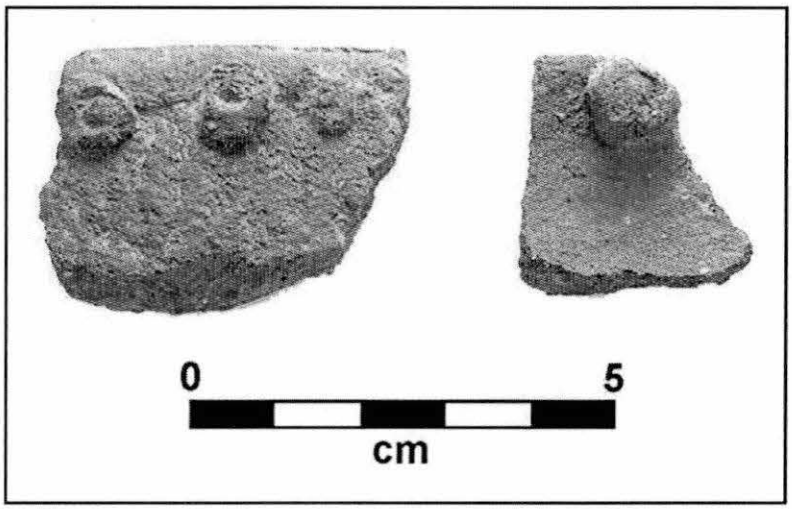


Figure 2.23. Rosettes from Feature 16/Mg2.

(cal. A.D. 1274-1387), 1425 ± 65 (cal. A.D. 1319-1443), and 1465 ± 175 (cal. A.D. 1297-1632) (Oliver 1992:209) presumably are related to these late Town Creek-phase and early Leak-phase components, although I am not certain of this in the absence of Oliver's ceramic data. Assuming that this is the case, I have attributed the earliest of the three dates from the Leak site to the late Town Creek phase and the two later dates to the Leak phase.

Regional Comparisons

The Town Creek phase as proposed here corresponds in ceramic content to the Belmont Neck and Adamson phases (A.D. 1200-1300) of the Wateree River Valley (DePratter and Judge 1986, 1990:56-57). Belmont Neck (A.D. 1200-1250) is similar to the early Town Creek phase because both are dominated by plain rims, but rims with small punctations are also present. Adamson (A.D. 1250-1300) seems to correspond to both the early and late parts of the Town Creek phase based on the predominance of plain rims and the presence of rosettes.

The Town Creek phase also shares some features with Savannah-culture (A.D. 1200-1350) phases of the Georgia Piedmont (Hally and Rudolph 1986:51). Shared types include curvilinear and rectilinear complicated stamped, check stamped, cordmarked, plain, and burnished plain (Hally and Rudolph 1986:Table 7). Shared stamp patterns include concentric circles, filfot, herringbone, split diamond, and quartered circles (Hally and Rudolph 1986:62). Although the Town Creek phase and the Savannah-culture phases generally exhibit the same types and stamp patterns, there is a great deal of variability among these phases regarding percentages of surface treatments (see Hally and Rudolph 1986: Table 7). The Town Creek phase resembles the Wilbanks phase (A.D. 1200-1350) of northwest

Georgia based on the percentages of plainwares and curvilinear complicated stamped in their assemblages (Hally and Langford 1988:Table 11). The Town Creek phase shares essentially the same pottery types with the Beaverdam (A.D. 1200-1300) (Anderson et al. 1986:38; Rudolph and Hally 1985:470) and Hollywood (A.D. 1250-1350) phases of the Savannah River sequence, although the former has a much higher percentage of plainwares (Hally and Rudolph 1986: Table 7) and the latter a much higher percentage of check stamping (Anderson et al. 1986:40). The upper Savannah River Hollywood phase (A.D. 1250-1350) includes punctations and riveted nodes (Anderson et al. 1986:40). A close resemblance between the Hollywood phase and the pottery at Town Creek has been noted (Anderson et al. 1986:41; Reid 1965).

Leak Phase (A.D. 1300-1550; cal A.D. 1300-1500)

Plainwares constitute a relatively high proportion of the assemblage in this phase. Brushing appears for the first time as does large simple stamping. Net impressing is at its most popular as are large check stamping and wide complicated stamping. The early Leak phase is indicated by nodes, punctated strips, and thickened exterior rims as well as the disappearance of the split diamond stamp pattern. Net impressing and wide surface treatments appear for the first time in the early Leak phase. The late Leak phase is marked by the appearance of notched strips, folded rims, and large hollow punctations. The concentric circle, filfot, and lineblock stamp patterns persist while arc angle, herringbone, and quartered circles have dropped out. Although I was able to make a distinction between early and late Leak-phase materials in the seriation, these different diagnostics—as will be discussed in Chapter 3—had similar spatial distributions so that I was unable to use them to

distinguish between early and late portions of the Leak phase in most contexts. Perhaps the similar distributions are the result of chronological proximity. While the introduction of some rim modes postdated the introduction of others, the period of time between their appearances may have been small, especially in an archaeological sense. Based on the low frequency of incising at Town Creek, it is likely that the bulk of the Leak-phase component at the site predates A.D. 1450 (see Hally 1994:145).

Dating

Three dates from Town Creek can be attributed to the Leak phase, based on information to be presented in Chapter 3. These samples came from two superimposed mound summit structures. One sample from the lower structure gave a date of A.D. 1355 ± 50 (cal. A.D. 1305-1405) while two samples from the upper structure gave dates of 1280 ± 40 (cal. A.D. 1279-1386) and 1350 ± 140 (cal. A.D. 1262-1448) (Eastman 1994:10 and 47-48; Reid 1967:62). As discussed previously, it is likely that two dates from the Leak site—A.D. 1425±65 (cal. A.D. 1319-1443) and 1465±175 (cal. A.D. 1297-1632) (Oliver 1992:209)—are also attributable to the Leak phase. A radiocarbon sample from the seriated late Leak-phase feature in square Sq. 170L40/Pit produced a date of A.D. 1650 ± 60. The one sigma calibrated result is A.D. 1496 to 1651 and the two sigma calibrated result is A.D. 1448 to 1675. While the upper end of the range of these calibrated dates seems too recent, the lower end—which indicates a late fifteenth or sixteenth century date for the late Leak phase—is plausible.

Regional Comparisons

The Wateree Valley Town Creek phase (A.D. 1300-1350) exhibits elements of the Leak phase in that both contain punctated and notched rim strips (DePratter and Judge 1986, 1990:56-57). The absence of incising in the Leak-phase assemblage indicates it generally predates the appearance and profusion of Lamar Incised around A.D. 1450 (Hally 1994:145). The Leak phase is similar to numerous phases of the Early Lamar (A.D. 1350-1450) period in that it has punctated and notched rim strips but lacks incising (Hally 1994:147). The Leak phase may predate or overlap with the early end of the Caraway phase (A.D. 1500-1700), which has been described as "the southern Piedmont's version of the widespread Lamar style" (Ward and Davis 1999:137). The Caraway phase is similar to the Leak phase as defined here in that plainwares and complicated stamping are most popular and that brushing and net impressing are minority surface treatments (Ward and Davis 1999:137).

The Leak phase also corresponds to the McDowell phase (A.D. 1350-1450) in the Wateree River Valley in that both have wider complicated stamping and notched rim strips (DePratter and Judge 1986, 1990:57). It is important to note that post-1450 assemblages in the Wateree Valley are characterized by an increase in the popularity of incising (DePratter and Judge 1986, 1990; Stuart 1974:107-108), a form of decoration that is poorly represented at Town Creek.[4] The Leak phase resembles the Early Lamar Irene I and II phases (A.D. 1300-1450) of the Georgia-South Carolina coast based on the presence of similar surface treatments and rim strips, although the general lack of incising at Town Creek would place this assemblage at the earlier end of the Irene I and II date range (DePratter 1984:52). The Leak phase is also comparable to the Early Lamar Rembert (A.D. 1350-1450) phase of the Upper Savannah River sequence in the Georgia piedmont. Similarities include the popularity

of complicated stamping, the increased popularity of specialized rims, the increasing popularity of plainwares, and the fact that Lamar Incised is not common (Anderson et al. 1986:41-42; Rudolph and Hally 1985:456-458).

Pottery excavated from a moundless ceremonial center at the Charles Towne Landing site in South Carolina has been attributed to the Charles Towne pottery series. Surface treatments and rim modes of the Charles Towne series are similar to those found at Town Creek, including curvilinear complicated stamping, small punctations, rim strips, rosettes, and folded rims with punctations (South 2002:225 and Figure 7.3). A radiocarbon sample from Charles Towne Landing produced a date of A.D. 1500 $\pm$ 60 with a calibrated one sigma range of A.D. 1276-1387 (South 2002:227), and this is consistent with the dates attributed to the terminal Town Creek through Leak phases.

ADDITIONAL DIAGNOSTIC ATTRIBUTES

The purpose of the chronology presented here is to recognize and document patterns of change in Town Creek-area ceramics in order to identify those that are diagnostic of a particular span of time. This is partly accomplished through the preceding discussions of the surface treatments, stamp patterns, rim modes, and assemblage attributes associated with each phase. It is these diagnostic ceramic attributes that are used in subsequent chapters to establish a *terminus post quem* for individual contexts, architecture, and groups of burials.

Additionally, there are two ratios that change monotonically through time that may be useful in dating contexts. The first of these is the ratio of decorated sherds to plain sherds that are smaller than 4 cm. This ratio shows a consistent decrease from the Teal through Leak phases (Figure 2.24) (Table 2.16) and reflects the increase in the popularity of

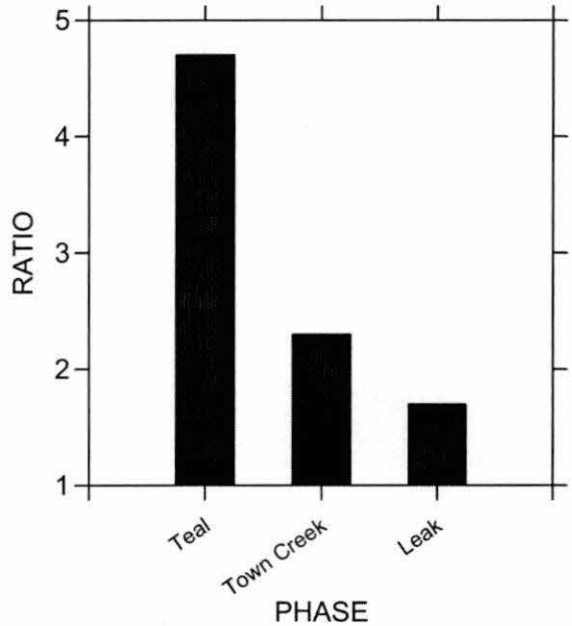


Figure 2.24. Bar chart showing the ratio of decorated to plain small sherds (<4 cm) by phase.

Table 2.16. Decorated and plain small sherds (<4cm) by phase.

Phase	Decorated	Plain	Ratio
Leak	554	329	1.7
Town Creek	2513	1076	2.3
Teal	913	195	4.7

plainwares through time. Counts based only on small sherds were used in this ratio because of their ubiquity across nearly all contexts at Town Creek. The second ratio of chronological significance is that of plain rim sherds to decorated rim sherds. This ratio shows a consistent decrease from the Teal through Leak phases (Figure 2.25) (Table 2.17) and reflects the increasing diversity of rim treatments later in time. The counts used for this ratio include all rim sherds, regardless of size, because rim treatments can be confidently identified even on very small sherds.

REGIONAL COMPARISONS

The Town Creek ceramic chronology proposed here fits comfortably within the South Appalachian Mississippian ceramic tradition (see Ferguson 1971). There are surface treatments and rim modes in the Town Creek-area assemblages that allow us to relate this area—under the rubrics of Etowah, Savannah, and Lamar cultures—to numerous other Mississippian period sites located in the eastern part of the Southeast. While Town Creek ceramics fit comfortably with what is found to the south and west, the distinctions between Town Creek pottery and what is found to the north and east are striking. Detailed chronologies developed for the central and northern piedmont in North Carolina (Ward and Davis 1993, 1999) indicate that these areas, located less than 200 miles from Town Creek, exhibit very different yet contemporaneous ceramic traditions that lack the distinctive rim treatments and complicated stamping found at Town Creek. The ceramic traditions in the Sandhills and Coastal regions of North Carolina to the east are equally distinct from that found at Town Creek (Ward and Davis 1999). The systematic survey of 97,000 acres of the Fort Bragg military reservation, located approximately 40 miles east of Town Creek, has

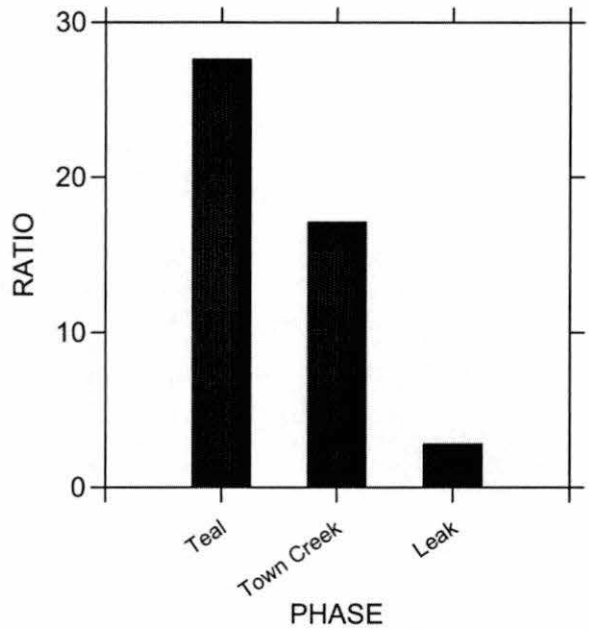


Figure 2.25. Bar chart showing the ratio of plain to decorated rims by phase.

Table 2.17. Plain and decorated rims by phase.

Phase	Plain	Decorated	Ratio
Leak	154	56	2.8
Town Creek	394	23	17.1
Teal	138	5	27.6

produced only a handful of complicated stamped pottery (Joseph Herbert, personal communication 2005; Irwin et al. 1999:82). As Coe (1952) emphasized in his first publication on Pee Dee culture, Town Creek is clearly distinctive in the North Carolina Piedmont, and it is located on the northeasternmost edge of the Mississippian culture area in the Southeast.

Endnotes to Chapter 2

1. Each sherd was assigned to a size class by using a template consisting of nine concentric circles with diameters increasing at 2-cm intervals from 2 to 18 cm.

2. The assemblages selected for seriation represent an attempt to establish as complete a ceramic sequence as possible while avoiding the misleading results of temporally mixed assemblages and small sample sizes. While one should ideally compare assemblages from similar types of contexts to insure that formation processes unrelated to chronology are not responsible for the variation among them, I chose to include different kinds of contexts—as long as they included the minimum of 50 sherds—if they allowed me to construct a more useful ceramic sequence. For example, using both pits and midden layers from Town Creek allowed me to directly relate mound to nonmound contexts at the site. Also, the collections from Teal provided a robust example of a component poorly represented at Town Creek. I attempted to minimize the impact of temporally mixed assemblages for Town Creek by using large pits which presumably were filled rapidly after their use (see Dickens 1985:42-43; Hayden and Cannon 1983:144) and by using field drawings to isolate collections from the mound that came only from one layer. I could not maintain the same standards for Leak, Teal, and Payne, where all excavated contexts were collapsed into a single assemblage. While the final set of assemblages used in the seriations is less than ideal, it results in an order that is consistent across multiple seriation methods and is independently corroborated by stratigraphic relationships, radiocarbon dates, and ceramic chronologies from other regions.

3. 300 $\pm$ 60; Beta 184061; predominantly wood charcoal with some seeds and nut shell; $\delta^{13}C$ = -23.8 ‰.

4. Lamar Incised sherds were recovered at Town Creek (Reid 1967:Plate 14), but there are few of them and none are associated with dated contexts. Of the 33,123 sherds from Town Creek that I have analyzed for this research—27,704 of which are from the Pee Dee series, only 9 could be classified as Lamar Incised. Eight of the Lamar Incised sherds came from the plowzone and one came from a general level in a test pit on the riverbank.

Chapter 3: Architecture

The Mississippian occupation at Town Creek has been characterized as being short in duration with a site structure consisting of an essentially contemporaneous mound and village (Coe 1952, 1995). Early attempts at defining site structure recognized palisades, enclosures, and structures, but the number of architectural elements identified was relatively low considering the size of the site and the density of postholes. However, the small number of structures identified and discussed was consistent with the idea that Town Creek represented a short-term occupation. The architectural elements that were identified included: several palisades; a premound earthlodge (a square structure with entrance trenches and earth-embanked walls); superimposed rectangular structures with entrance trenches on two of the mound summits; several small rectangular structures interpreted as ceremonial sheds; a rectangular structure with entrance trenches surround by a rectangular enclosure interpreted as a priest's house; and at least 17 circular structures interpreted as mortuaries (Coe 1995:87, 96, 265, and Figure 5.3).

One of the goals of the research presented here is to attribute architectural elements to different periods so that contemporaneous constructions can be used to explore the Town Creek community at different stages in its development. This chapter presents the steps involved in this process. First, problems associated with the site's original overall map and the ways in which these problems were addressed using the photographic mosaic are discussed. Next, architectural elements from excavated portions of the site are identified and

dated. Finally, similarities among structures are used to define structure types and their associated assemblages are used to date them.

IDENTIFYING ARCHITECTURE AT TOWN CREEK

One of the keys to developing a community history of Town Creek is the ability to identify discrete architectural elements (e.g., houses, public buildings, plazas, palisades, enclosures) that served as the loci of activities in the past. Defining these spaces and contrasting the materials they contained will allow not only the recognition of activities from different periods, but also contemporaneous activities—in an archaeological sense—within the same community. A major hindrance to the identification of architectural elements at Town Creek has been the manner in which most of the site was excavated. Although Town Creek was a WPA project early in its excavation history, it never saw the large crews that characterized most Depression-era projects (Lyon 1996). Crew sizes were relatively small prior to the interruption in fieldwork caused by World War II, and they were even smaller during the period from the early 1950s to the early 1980s, primarily consisting of a staff archaeologist and an assistant (Coe 1995). Rather than having large crews work for a short period of time, excavations at Town Creek consisted of small crews working for a long period of time (Figures 3.1 and 3.2). Small crews necessitated relatively small-scale excavations at any one time, primarily consisting of one or two 10-×-10-ft squares being open simultaneously (Figures 3.3 and 3.4). This strategy was a successful adaptation to the resources at hand, and it had a profound cumulative effect over the course of several decades, making Town Creek one of the most extensively excavated sites in North Carolina. The major drawback to this strategy was that the excavators were largely unable to identify and

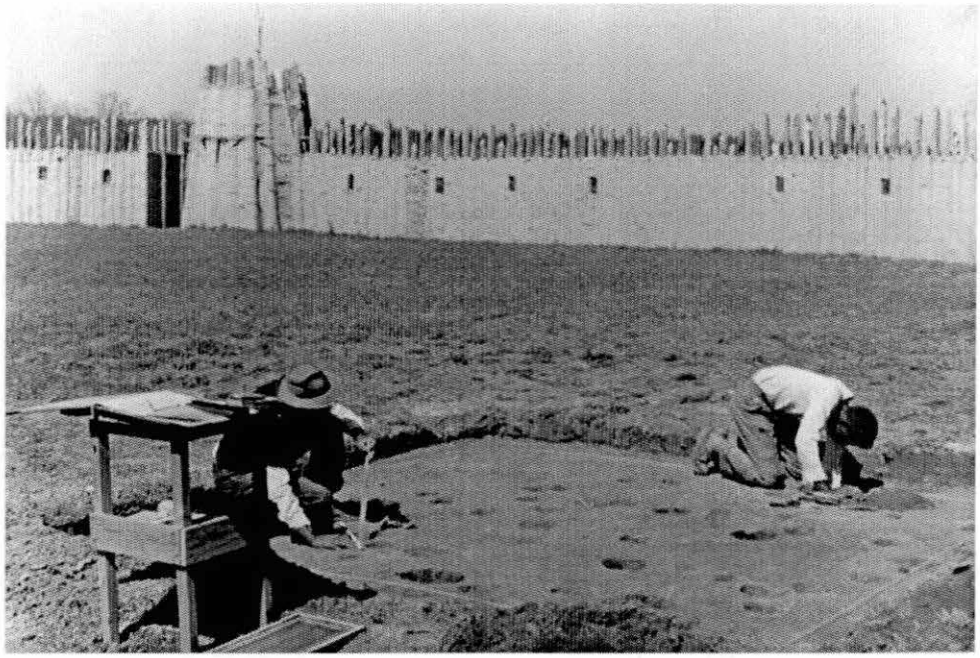


Figure 3.1. Mapping and excavating features in a nonmound unit at Town Creek (RLA image 2412).

Figure 3.2. Excavation of the first temple level on the mound summit, 1941 (RLA image 443).

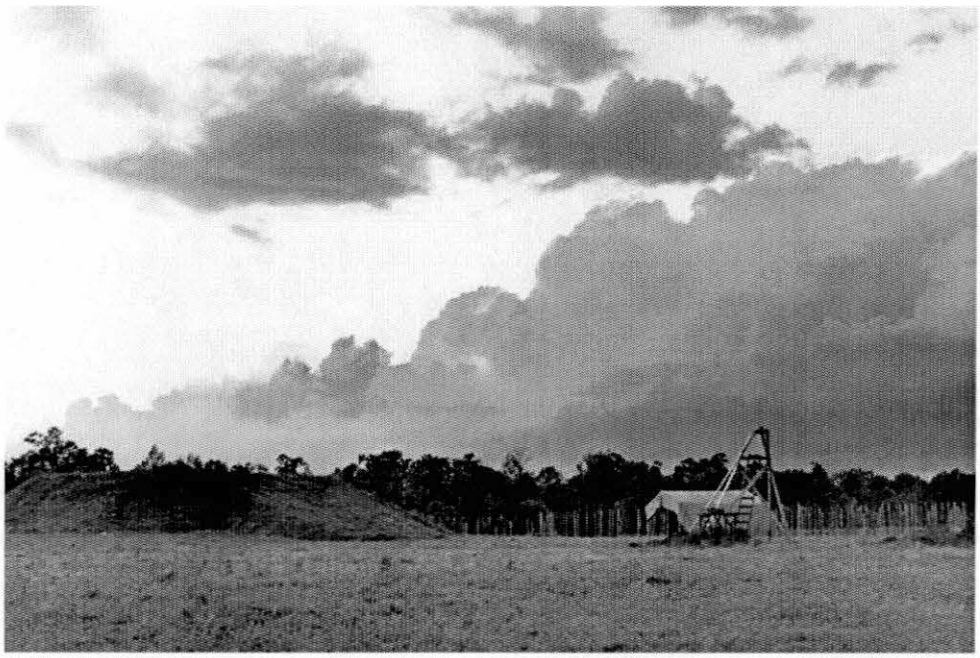


Figure 3.3. View of the site showing the photo tower and reconstructed mound, 1952 (RLA image 2072).

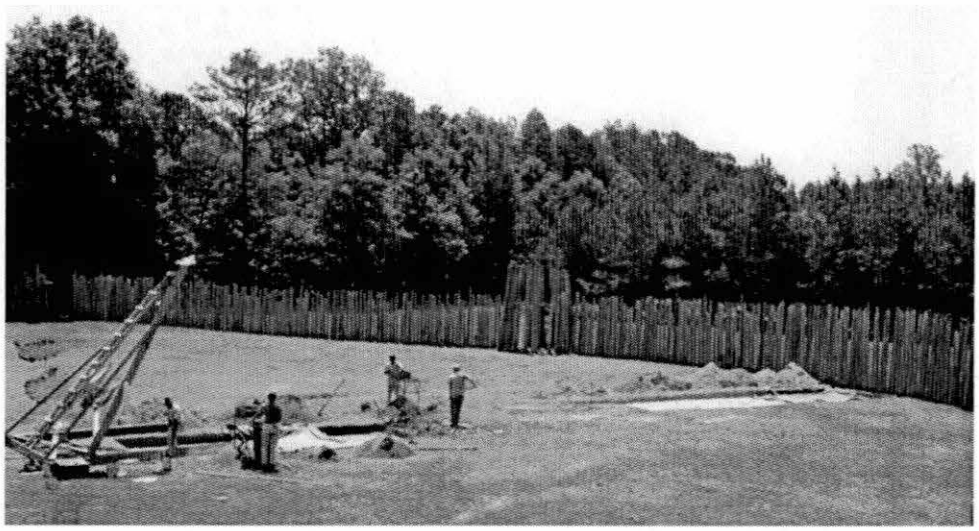


Figure 3.4. View of excavations with reconstructed palisade in background (RLA image 5249).

expose entire structures in the field. This meant that the identification of many structures occurred well after excavation, a less-than-ideal situation. The identification of structures after excavation was further complicated by the fact that in many units, soil discolorations were mapped but not excavated (Figure 3.5) as part of Coe's plan to document features at Town Creek while preserving them for future research (Ferguson 1995:xvi). Thus, many of the soil discolorations mapped as features were never tested, and it is likely that a great number of them are not actually features, but rather natural anomalies.

The Photographic Mosaic

This section provides a brief summary of the Town Creek photographic mosaic as it relates to the research presented here. Interested readers should look at Coe's (1995:49-60) more detailed, first-hand account. Coe was deeply interested in photography and how it could be used to document archaeological fieldwork. This interest led him to serve as an interpreter of aerial photographs during World War II (Boudreaux and Davis 2002; Griffin 1985b:298). Inspired particularly by United States Department of Agriculture soil surveys that used a series of photographs to provide complete coverage of large areas, Coe (1995:49) developed a plan for documenting the Town Creek site through a photographic mosaic (Boudreaux and Davis 2002; Spaulding 1951:8-9). The ultimate goal of this plan was to photograph the archaeological features in each excavation unit and then piece these photographs together into a mosaic that showed the entire site. Coe began the photographic mosaic project at Town Creek in 1940, following the excavation of the mound and the deposits immediately surrounding it (Mg2) (Coe 1995:1940). Remarkably, the field implementation of this project continued until the end of excavations in 1983.[1] This aspect

Figure 3.5. Map showing excavation units that contain five or more unexcavated features.

of the fieldwork endured through the tenures of 17 on-site supervisors and documented 761 of the 822 nonmound units.

Taking photographs for the mosaic was a part of the field regimen at Town Creek for the nonmound portions of the site (Mg3) (Coe 1995:52-54; Reid 1985:25). Units were excavated to the base of plowzone and then trowelled (Figures 3.6 and 3.7). This clean surface was then photographed from a 12-ft tall, cantilevered tower that was designed to place the photographer directly over the unit so that an orthographic perspective could be obtained (Figures 3.8 and 3.9). The ideal approach was for a series of three photographs to be taken of each unit: the trowelled surface at the base of plowzone, that same surface with all features outlined, and the same surface after features had been excavated. For most excavation units, though, the only photograph that exists is the trowelled surface at the base of plowzone.

Several portions of the photographic mosaic have been assembled over the years. One of these was put together by Roy Dickens (1968) for a class project at UNC. The process he used involved arranging 5-×-5-inch prints of each excavation unit on a gridded plywood board (Figure 3.10). The section of the mosaic he assembled showed for the first time a circular house, with a number of interior burials, adjacent to a palisade line (Figure 3.11). Other portions of the mosaic were constructed following the same methods used by Dickens. However, the entire photographic mosaic was never built, probably due in part to the effort involved and the potential size of the final document, which would have covered approximately 143 ft^2.

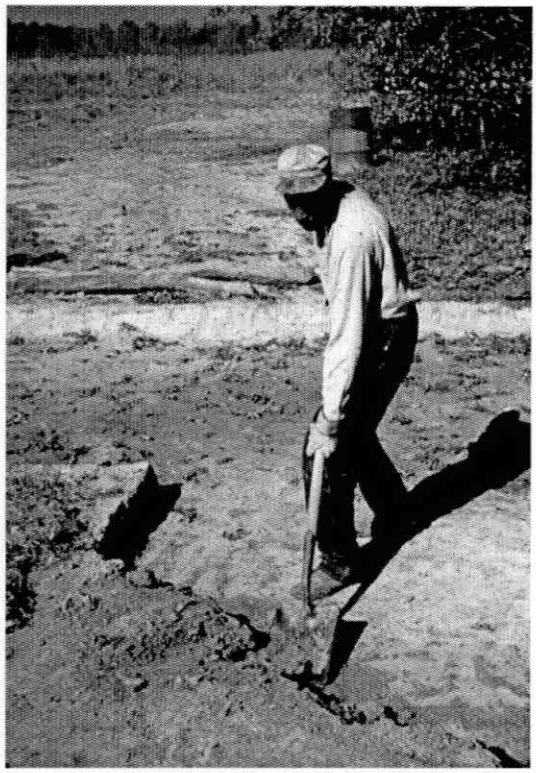


Figure 3.6. Excavating plowzone in a nonmound unit at Town Creek, 1952 (Note: The individual in this photograph is Ed Gaines, a long-time excavator at Town Creek) (RLA image 485).

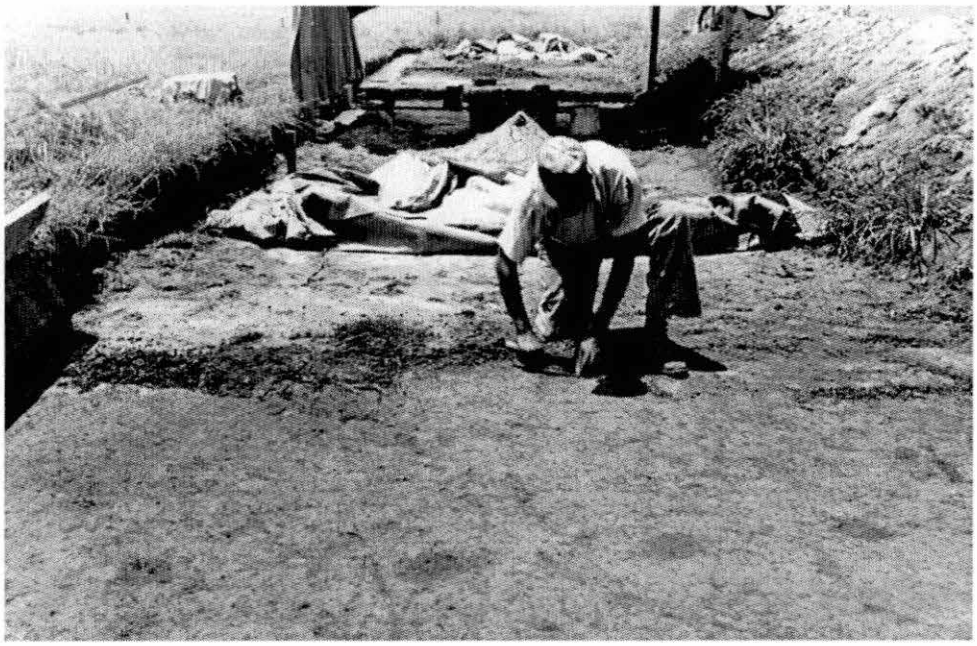


Figure 3.7. Trowelling the surface at the base of plowzone, 1952 (RLA image 2086).

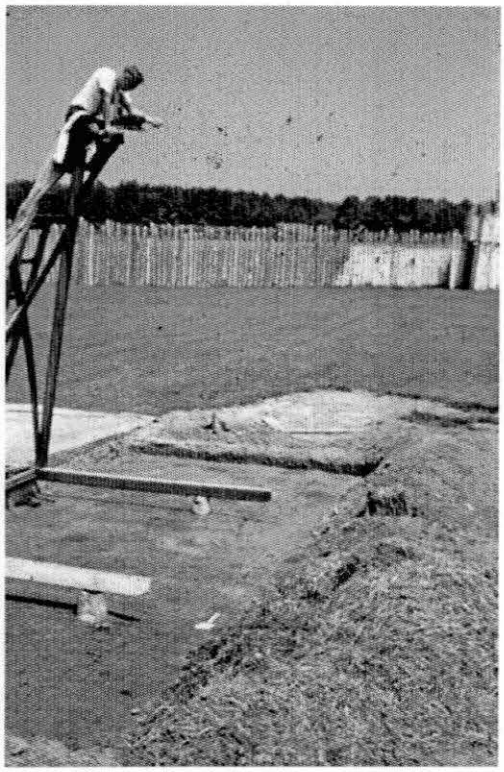


Figure 3.8. Stanley South on the photographic tower, 1957 (RLA image 836).

Figure 3.9. Photographer at the top of the photographic tower, 1952 (RLA image 2088).

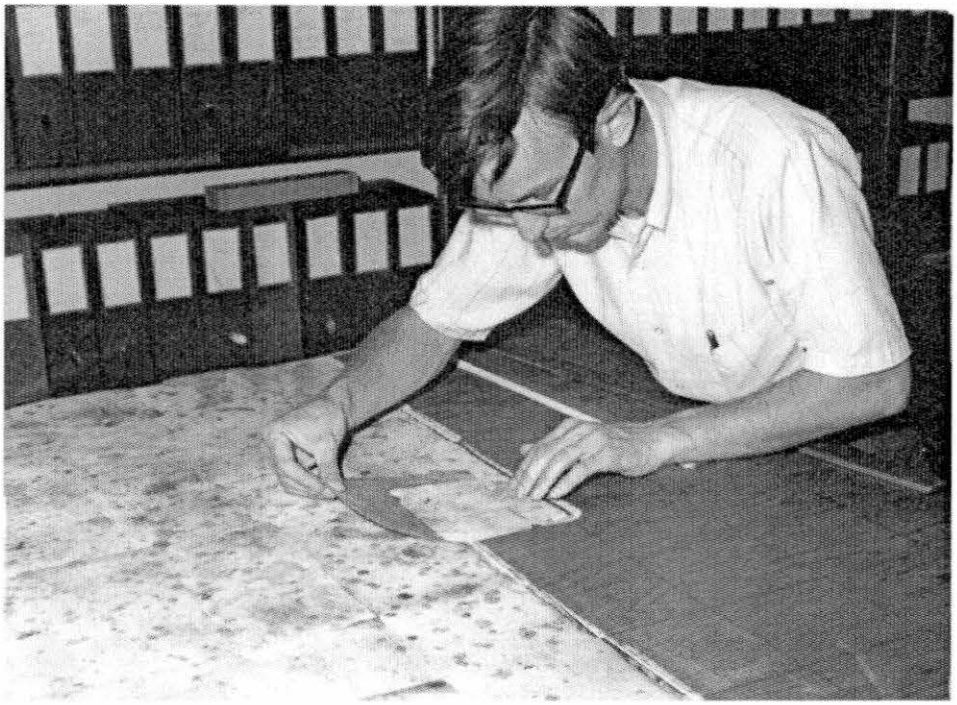


Figure 3.10. Roy Dickens assembling a portion of the photographic mosaic (from Dickens 1968).

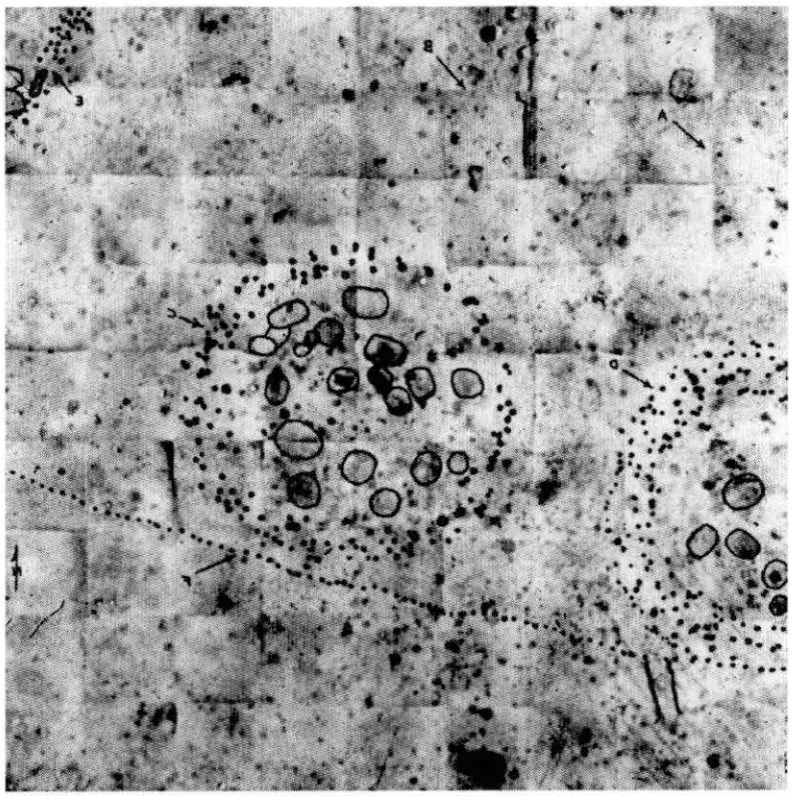


Figure 3.11. Portion of the photographic mosaic assembled by Roy Dickens (RLA image 23374).

The Overall Site Map

Prior to 2001, the overall site map that existed for Town Creek was not conducive to isolating architectural elements (Figure 3.12). The digital version of this map had been produced by R. P. Stephen Davis, Jr. of the RLA by digitizing the plot sheets from individual 10-×-10-ft units and then compiling them into a single plan.[2] Because of the issues discussed earlier of only exposing one small area at a time and mapping but not excavating soil discolorations, the first overall site plan was indecipherable and can be best described as a morass. Recognizing this problem, Davis developed and implemented a project that involved editing the site plan by coupling the excavation photographs taken for the photographic mosaic with the technology of geographic information systems (GIS) software. This project consisted of scanning the black-and-white excavation photographs, geo-referencing these digital images so that they could be arranged by the GIS software in their correct position, overlaying the site plan on these digital images, and then editing the plan based on the soil discolorations documented in the excavation photographs (Boudreaux and Davis 2002). Davis and several students were responsible for scanning the photographs and creating the digital photographic mosaic (Figure 3.13). As a part of this work, I was responsible for using the photographic mosaic to edit the site plan.

The digital photographic mosaic was used to edit the site plan in several ways. First, any unexcavated discoloration that was mapped on the individual plot sheets but that did not appear in the photographs was eliminated from the site plan. When compared to the original, the edited site plan presents a much less cluttered picture (Figure 3.14), which made identifying architectural elements easier. Second, the digital photographic mosaic provided a way to find mapping errors on the plot sheets made in the field. When necessary, objects on

Figure 3.12. Original site map of Town Creek.

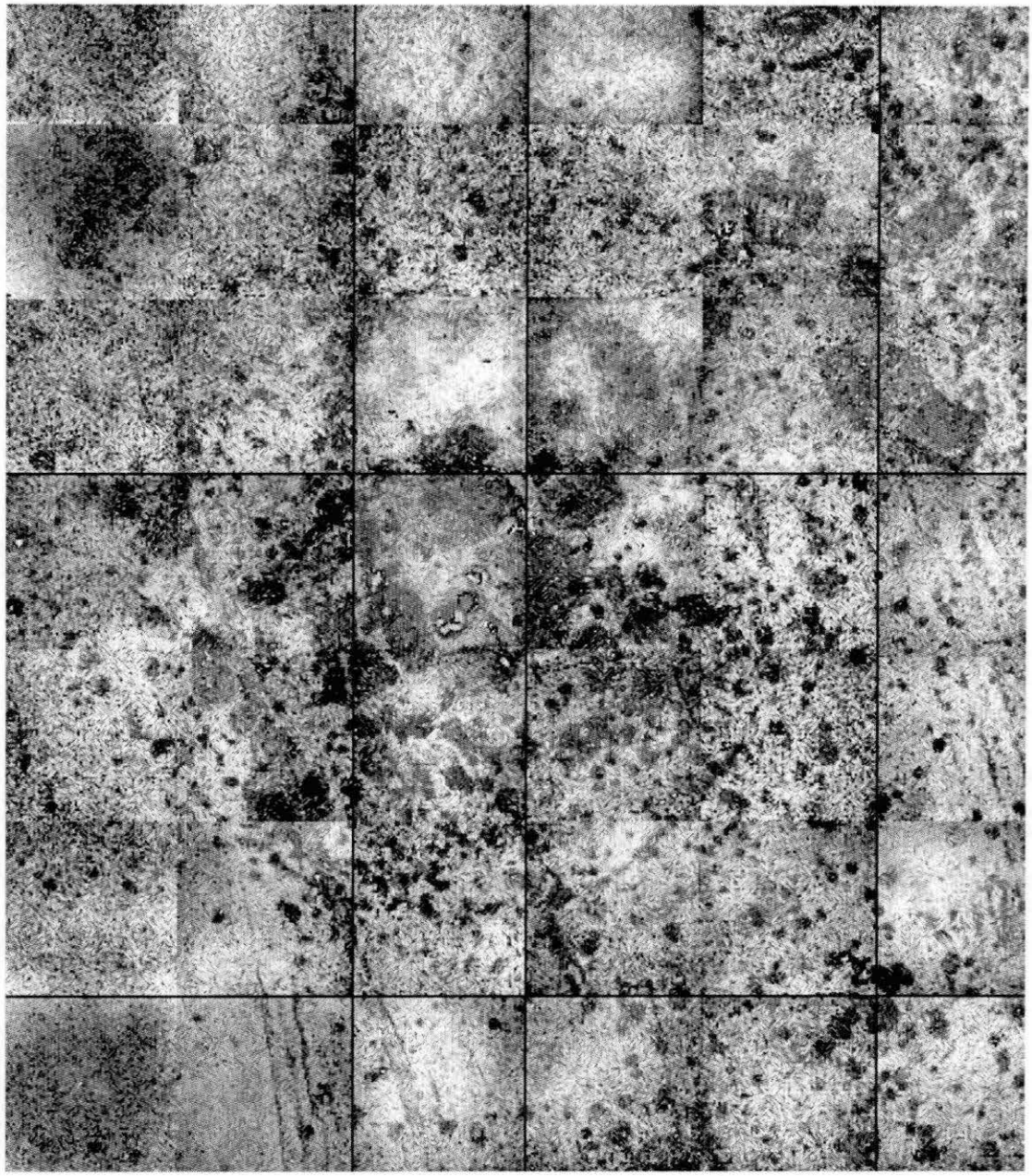


Figure 3.13. Portion of the digital photographic mosaic showing Structure 7.

Figure 3.14. Revised site map of Town Creek.

the site plan were repositioned and redrawn based on the photographs. Third, and most importantly, the digital photographic mosaic allowed the examination of excavated surfaces that expanded beyond the 10-×-10-ft excavation unit—a perspective largely unavailable to the excavators of Town Creek—which allowed the identification of larger posthole patterns and the inspection of areas where there were gaps in larger patterns.

Architectural elements were identified primarily based on symmetrical patterns of evenly spaced postholes. This process was facilitated by the capability in GIS to classify objects based on various attributes. One way in which this was critical was that once an architectural element was defined, the postholes that constituted it were coded in the database as belonging to an identified element which allowed their removal from the map by querying the theme that contained all of the mapped archaeological features (Environmental Systems Research Institute 1999:13-2). Once a structure was identified and its features removed, the remaining features could be examined for additional patterns (see Prezzano 1988:43). This was important at Town Creek, where many structures were superimposed on the same surface. Classifying objects in GIS also allowed the identification of a few structures by posthole depth based on the assumption that postholes belonging to the same structure would be relatively uniform in depth. This approach was used by Stanley South at Town Creek in the 1950s when he color coded postholes by depth on paper maps and was able to delineate a structure (South 1957b). For my analysis, posthole depths were obtained from cross-section drawings on the original plot sheets. These values were then recorded in the GIS database. Initially, a histogram was used to find natural breaks in the distribution of the posthole depths and classes were based on them with each class represented by a unique color on the map. This first attempt did not reveal any new patterns. The range of values in each class was then

adjusted by a tenth of a foot until a few new architectural elements became recognizable. Although my approach was the same as South's, the major advantage I had was that GIS allowed me to change maps by simply altering the parameters for the depth classes. Without GIS, entirely new paper maps would have been needed. The two approaches enabled by GIS—removing postholes from consideration and classifying postholes based on depth—allowed the identification of a number of architectural elements, primarily through the former approach, that would not have been possible otherwise.

DESCRIPTIONS OF ARCHITECTURAL ELEMENTS

Many of the architectural elements discussed in this section (Figure 3.15) have been identified during the course of this research, well after their excavation, while some were identified by Coe, South, and others during excavations. Four classes of architectural elements have been identified. Structures are the buildings that were used by the people of Town Creek. At least 42 whole or partial structures have been identified[3] (Figure 3.16). Burial clusters are spatially discrete concentrations of burials that could not be associated with any structure. Palisades were constructions that encircled the entire community while enclosures were ones that delineated a part of the community (see Lewis et al. 1998:18-19).

The descriptions of architectural elements focus first on those that were excavated which allows them to be dated based on associated ceramics and stratigraphic relationships with other features. Beginning with excavated elements also allows a discussion of structures in terms of their internal features. This section is organized by excavation area within the site (Figure 3.17). Once excavated architectural elements are discussed, the

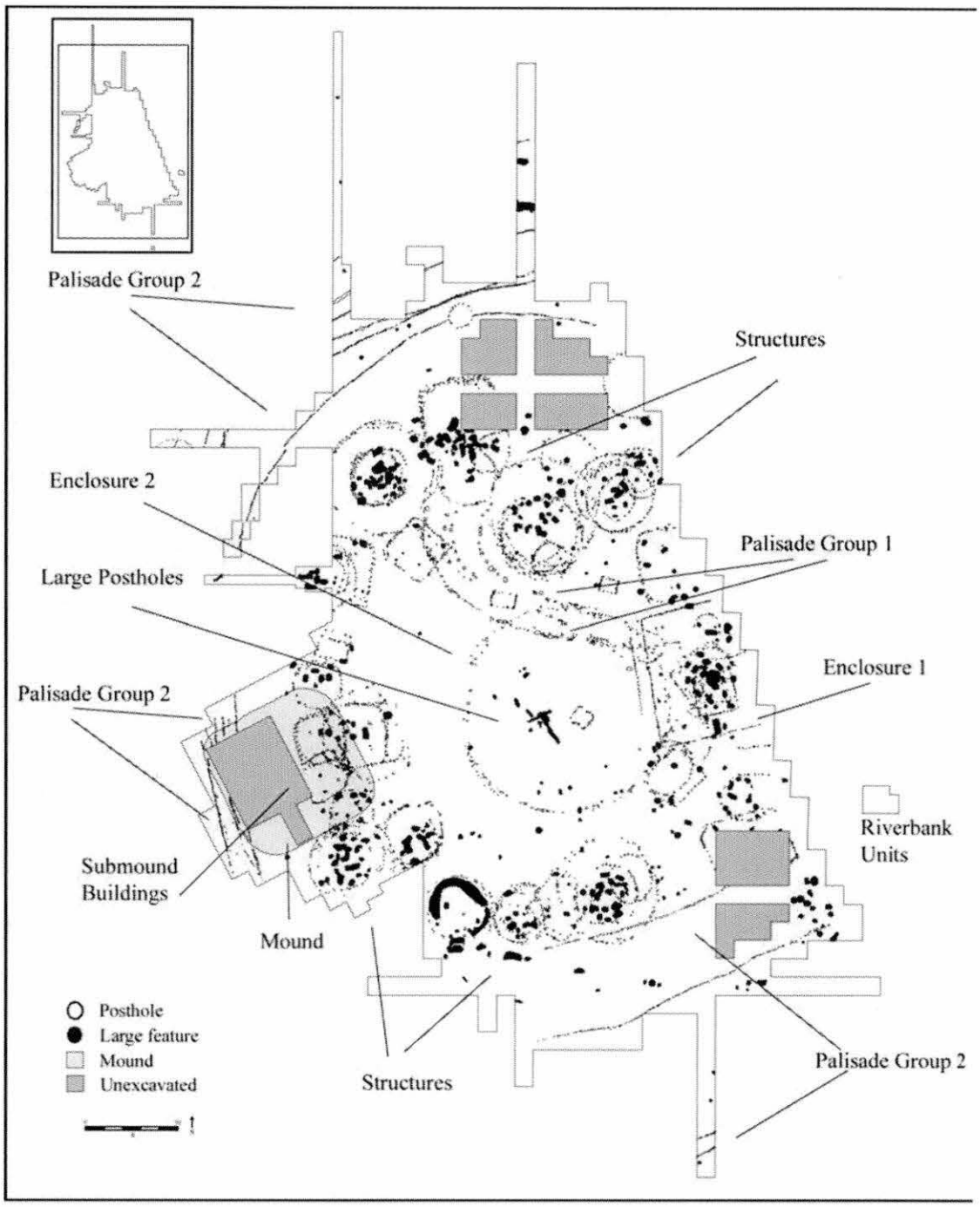


Figure 3.15. Identified architectural elements at Town Creek.

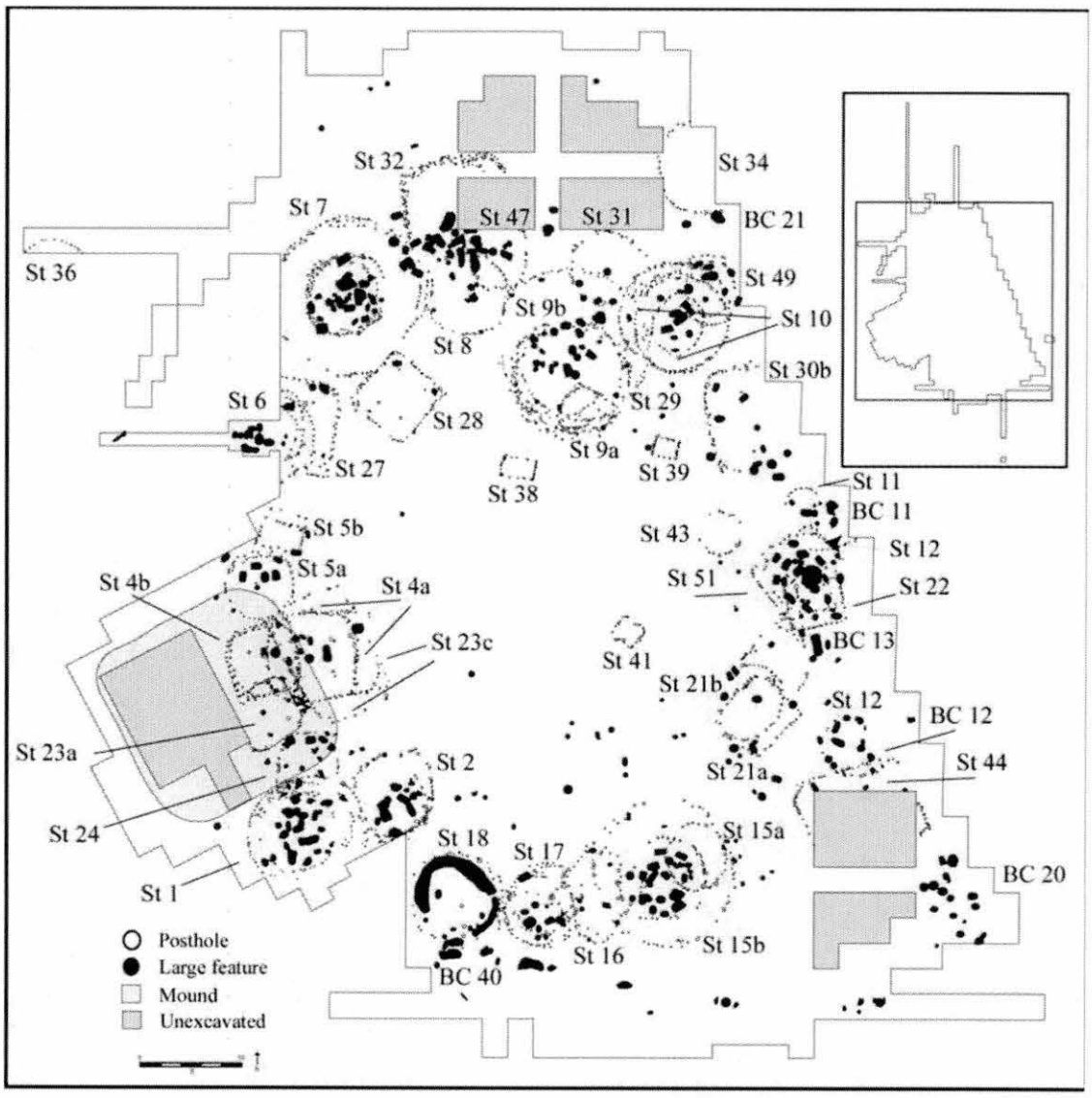


Figure 3.16. Identified structures and burial clusters at Town Creek.

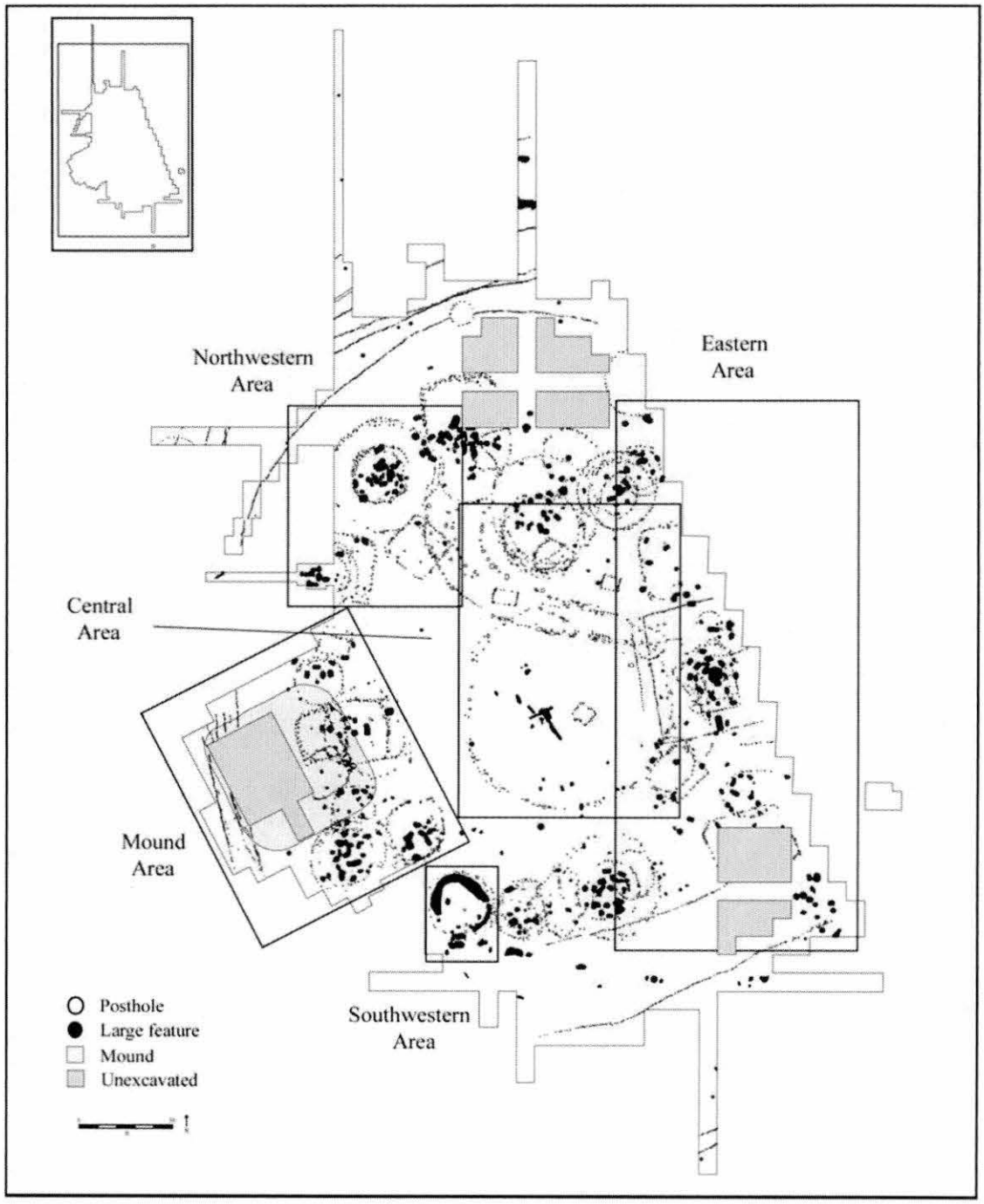


Figure 3.17. Map showing excavated areas at Town Creek.

patterns they suggest are used to identify architectural elements in parts of the site where subplowzone features were mapped but not excavated.

Each section includes a discussion of the chronological information available for architectural elements. Pottery is used to date architectural elements[4] (Table 3.1). The distribution of diagnostic types in features associated with and in the vicinity of structures is considered. The diagnostic types are primarily the rim modes discussed in Chapter 2. In the absence of such rim treatments, the presence of certain surface treatments is used. Diagnostic types are used to establish a *terminus post quem* for individual features. Also, the stratigraphic relationships among features and other dated contexts are used in some cases to establish a *terminus post quem* or a *terminus ante quem* for those features. Diagnostic artifacts are used to date features which are then used to date the architectural element with which they are associated.

Features associated with structures include the postholes that constitute the walls and internal features such as roof supports, pits, basins, and burials.[5] In most cases, features occurred in spatially discrete clusters that could be assigned to a structure or burial cluster. In cases where there was overlap between clusters and I had to use my judgment, decisions were based on factors such as the distance between features, the alignment of features with a structure's wall, feature morphology, and associated artifacts.

Mound Area

The Mound Area is the western part of Town Creek that was encompassed by the Mg2 grid (Figures 3.18 and 3.19). This includes the submound and mound deposits. Coe (1995:65-84) and Reid (1985:25-26) have discussed the sequence of events represented in the

Table 3.1. Pottery in architectural elements.

	<2				Stamp Patterns									Rims								
Architectural Element	Non Pee Dee	Decorated	Plain	Unidentified	Arc Angle	Concentric Circles	Filfot	Herringbone	Lineblock	Quartered Circles	Split Diamonds	Non Pee Dee	Plain	Folded Punctated	Nodes	Pellets	Small Punctations	Lugs	Rosettes	Notched Strip	Punctated Strip	Thickened Exterior
Structures																						
1	24	64	21	2	-	4	1	-	-	-	-	1	29	-	-	-	-	2	-	2	-	-
2	24	85	38	2	-	-	1	-	-	1	-	2	21	-	-	1	1	-	1	-	-	-
4a	23	48	25	4	-	2	1	-	-	-	-	-	9	-	-	-	1	-	-	-	-	-
4b	-	2	-	-	-	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
5a	2	16	1	1	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
5b	-	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
6	9	86	19	8	-	1	-	-	-	1	-	-	18	-	-	-	-	-	-	-	-	-
7	230	885	248	128	2	7	10	80	-	3	1	4	141	-	1	-	-	-	-	-	-	-
8	6	23	5	8	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
9a	9	19	5	3	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-
9b	25	102	29	10	-	-	-	-	-	-	-	3	13	-	-	-	-	-	-	1	2	-
10	16	38	13	-	-	-	-	-	-	1	-	1	4	-	-	-	-	-	-	-	-	-
12	46	249	88	21	-	1	7	-	-	-	-	1	30	-	-	-	-	-	3	-	-	-
14	23	105	18	-	-	-	-	1	-	1	-	-	16	-	-	-	-	-	-	-	-	-
15a	14	33	14	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
15b	104	419	141	20	-	-	1	-	-	1	1	4	38	1	-	1	2	-	1	-	-	-
16	3	29	3	1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
17	7	62	18	19	-	-	1	-	-	1	-	-	8	-	-	-	-	-	-	-	-	-
18	714	149	62	68	-	-	1	1	-	1	-	18	24	-	-	-	1	-	-	-	-	-
21a	1	11	5	1	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-
21b	11	52	27	3	-	-	-	1	-	-	-	-	9	-	-	1	-	-	-	-	1	-
22	2	10	2	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
23a	-	8	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23c	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
24	-	3	2	-	2	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
27	38	109	11	4	-	6	-	1	-	-	2	1	12	-	-	-	-	-	1	1	-	-
28	37	30	16	1	-	-	-	1	-	-	-	2	2	-	-	-	1	-	-	-	-	-
29	14	78	22	3	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-
30b	49	255	104	8	-	-	1	-	-	-	-	2	42	1	-	3	1	-	2	-	1	1
31	26	94	36	-	-	3	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-
32	15	7	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
32b	7	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	2	14	4	1	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-
39	7	40	14	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
41	-	21	7	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
43	2	1	2	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
44	-	6	1	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
48	5	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	42	106	24	3	-	-	1	1	-	-	-	1	14	-	1	-	-	-	-	-	-	-
50	5	8	-	1	-	-	-	-	-	1	-	1	3	-	-	-	-	-	-	-	-	-
51	29	164	55	4	-	-	-	-	-	-	-	1	12	-	-	-	-	-	-	1	-	-
Burial Clusters																						
11	4	11	5	5	1	-	-	-	-	-	-	-	6	-	-	1	-	-	-	-	-	-
13	9	56	11	1	-	1	-	-	-	-	-	2	13	1	-	-	-	-	-	-	-	-
14	15	42	13	9	-	-	-	1	-	-	-	2	9	-	-	1	-	-	1	-	1	-
20	71	243	128	208	-	-	1	-	-	-	-	3	45	-	-	4	1	-	3	-	-	-
21	18	23	6	3	-	-	-	-	-	-	-	1	12	-	-	-	-	-	-	2	-	-
40	76	159	42	23	1	5	-	-	-	-	1	3	19	-	-	-	-	-	-	-	-	-
Miscellaneous																						
Enc. 1	7	16	2	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Enc. 2	12	36	17	1	-	-	-	1	-	-	1	-	6	-	-	1	-	-	1	-	3	-
Lg. Ph. (plaza)	24	78	22	15	-	6	-	-	-	-	-	1	11	-	-	-	-	-	-	-	-	-
Pal. 1	55	170	70	19	-	-	-	3	1	2	1	4	26	-	-	-	2	-	-	-	-	-
Pal. 2	21	15	6	2	-	-	-	1	-	-	1	-	3	-	-	-	1	-	-	-	-	-
Total	1884	4302	1410	616	6	39	29	93	2	13	8	60	662	3	2	14	12	2	13	7	10	1

Table 3.1 (cont.). Pottery in architectural elements.

Architectural Element	Pee Dee Surface treatments																			Non Pee Dee surface treatments							
	Brushed	Small Check Stamped	Large Check St.	Cob Impressed	Curv. Comp. St.	Wide Curv. Comp. St.	Rect. Comp. St.	Wide Rect. Comp. St.	Cordmarked	Fine Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Small Simple St.	Large Simple St.	Stamped	Textile Impressed	Unidentified	Brushed	Check Stamped	Cordmarked	Fabric Marked	Net Impressed	Plain	Simple Stamped	Unidentified
Structures																											
1	-	-	-	-	18	-	4	-	-	-	-	-	10	2	-	-	2	-	1	-	1	2	1	-	-	-	-
2	-	-	-	-	11	1	2	1	-	-	-	3	10	3	-	2	4	3	2	-	2	1	-	-	-	-	-
4a	-	-	-	-	13	-	2	-	-	-	-	-	2	2	-	-	3	-	1	-	-	1	-	-	3	-	-
4b	-	-	-	-	6	-	4	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
5a	-	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
5b	-	-	-	-	2	-	-	-	-	-	-	-	2	-	-	-	2	-	1	-	-	-	-	-	-	-	-
6	-	-	-	-	14	-	6	-	1	-	-	-	3	-	-	-	3	1	5	-	-	-	-	-	-	-	-
7	-	2	-	1	169	-	139	1	5	-	1	-	79	20	2	-	25	3	28	-	-	16	-	-	5	2	-
8	-	-	-	-	8	-	5	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	-	-	-
9a	-	-	-	-	4	3	2	-	-	-	-	-	1	1	-	-	-	-	2	-	-	-	-	-	-	-	-
9b	-	-	-	-	8	-	4	1	-	-	-	-	9	3	1	-	5	-	13	-	-	1	-	-	2	4	-
10	-	-	-	-	5	-	4	-	-	-	-	-	-	-	-	-	1	2	1	-	-	2	-	-	-	1	1
12	-	1	-	-	31	-	17	-	-	-	-	-	7	4	-	-	11	4	6	-	-	1	-	-	2	-	-
14	-	-	-	-	8	-	10	-	-	-	-	-	1	-	3	-	1	1	1	-	-	1	-	-	1	-	-
15a	-	-	-	-	3	-	3	-	-	-	-	-	2	-	-	-	1	-	-	-	-	1	-	-	-	-	-
15b	-	-	-	-	40	-	8	-	1	-	-	1	13	3	1	-	8	1	3	-	-	1	-	-	2	1	-
16	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-
17	-	-	-	-	5	-	1	-	-	-	-	-	1	1	-	-	3	-	-	1	-	-	-	-	-	2	-
18	-	10	-	-	13	-	4	-	73	-	-	-	29	1	11	-	6	-	1	1	3	13	2	-	16	7	-
21a	-	-	-	-	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
21b	-	-	-	-	3	-	3	-	-	-	-	-	2	-	-	-	2	1	2	-	-	1	-	-	1	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23a	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23c	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	32	-	3	-	-	-	-	-	3	-	-	-	3	-	2	-	1	-	-	-	-	1	-
28	-	-	-	-	4	-	5	-	-	1	-	-	8	1	-	-	-	-	2	-	-	2	-	-	1	-	-
29	-	-	-	-	11	-	3	-	-	-	-	-	3	-	1	-	6	-	3	-	-	3	-	-	-	-	-
30b	2	-	1	-	22	-	5	-	-	-	-	-	17	6	-	1	8	3	4	1	-	3	-	-	1	1	1
31	-	-	-	-	25	-	4	-	2	-	-	-	10	1	1	-	11	-	3	-	-	-	-	-	1	1	1
32	-	-	-	-	6	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
32b	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	-	-	1	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	1	-	-
49	-	-	-	-	20	-	10	-	-	-	-	-	11	4	-	-	3	2	7	-	2	-	1	-	-	1	-
50	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
51	-	1	-	-	14	-	5	-	-	-	-	-	3	-	-	-	5	-	2	-	-	-	-	-	1	-	-
Burial Clusters																											
11	-	-	-	-	1	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	14	-	9	-	-	-	-	-	3	1	-	-	1	-	1	-	2	3		-	2	-	-
14	-	1	-	-	3	-	3	-	-	-	-	-	2	4	-	-	1	5	3	-	-	-	-	-	-	-	-
20	-	-	-	-	13	-	4	-	-	-	-	-	8	-	-	2	5	1	6	-	-	1	-	1	-	-	-
21	-	-	-	-	1	-	1	-	-	-	-	-	3	-	-	-	1	-	1	-	-	4	-	-	-	-	-
40	-	-	-	-	34	-	5	-	5	-	-	1	3	2	-	-	3	-	2	-	-	9	1	-	1	3	1
Miscellaneous																											
Enc. 1	-	-	-	-	-	-	7	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enc. 2	-	-	-	-	9	-	7	-	-	-	-	-	7	4	-	-	3	-	2	-	-	-	-	-	-	1	1
Lg. Ph. (plaza)	-	-	-	-	37	-	6	-	-	-	-	-	7	-	1	-	5	-	3	-	-	2	-	-	3	2	-
Pal. 1	-	-	-	-	16	-	11	1	5	1	-	-	26	6	-	-	11	2	8	-	2	4	-	-	4	2	-
Pal. 2	-	-	-	-	4	-	2	-	-	-	-	1	2	-	-	-	1	-	1	-	-	1	-	-	-	1	-
Total	2	15	1	1	642	4	316	4	92	2	2	6	304	71	21	5	150	32	127	3	13	76	5	1	48	30	5

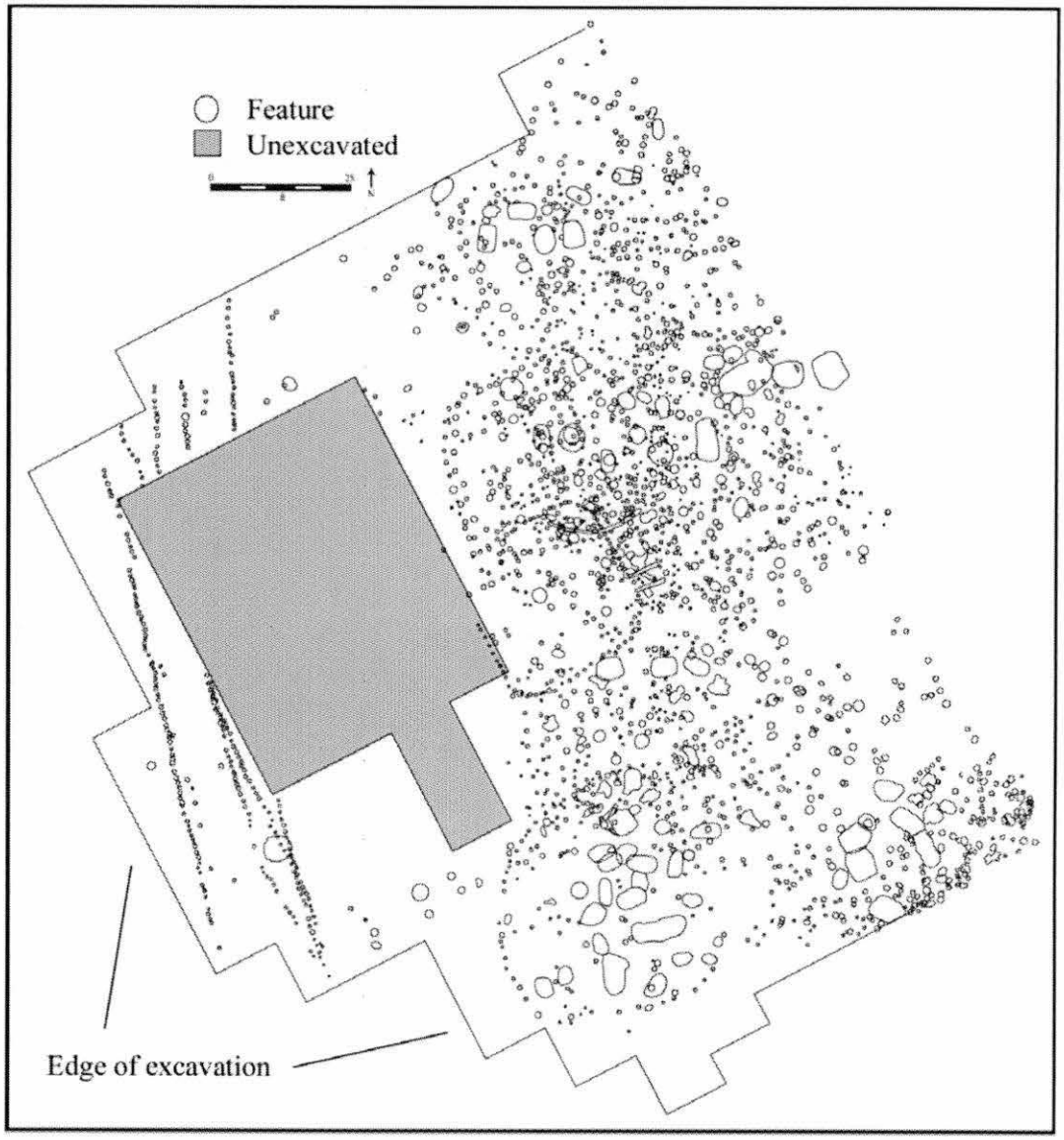


Figure 3.18. All features in the Mound Area.

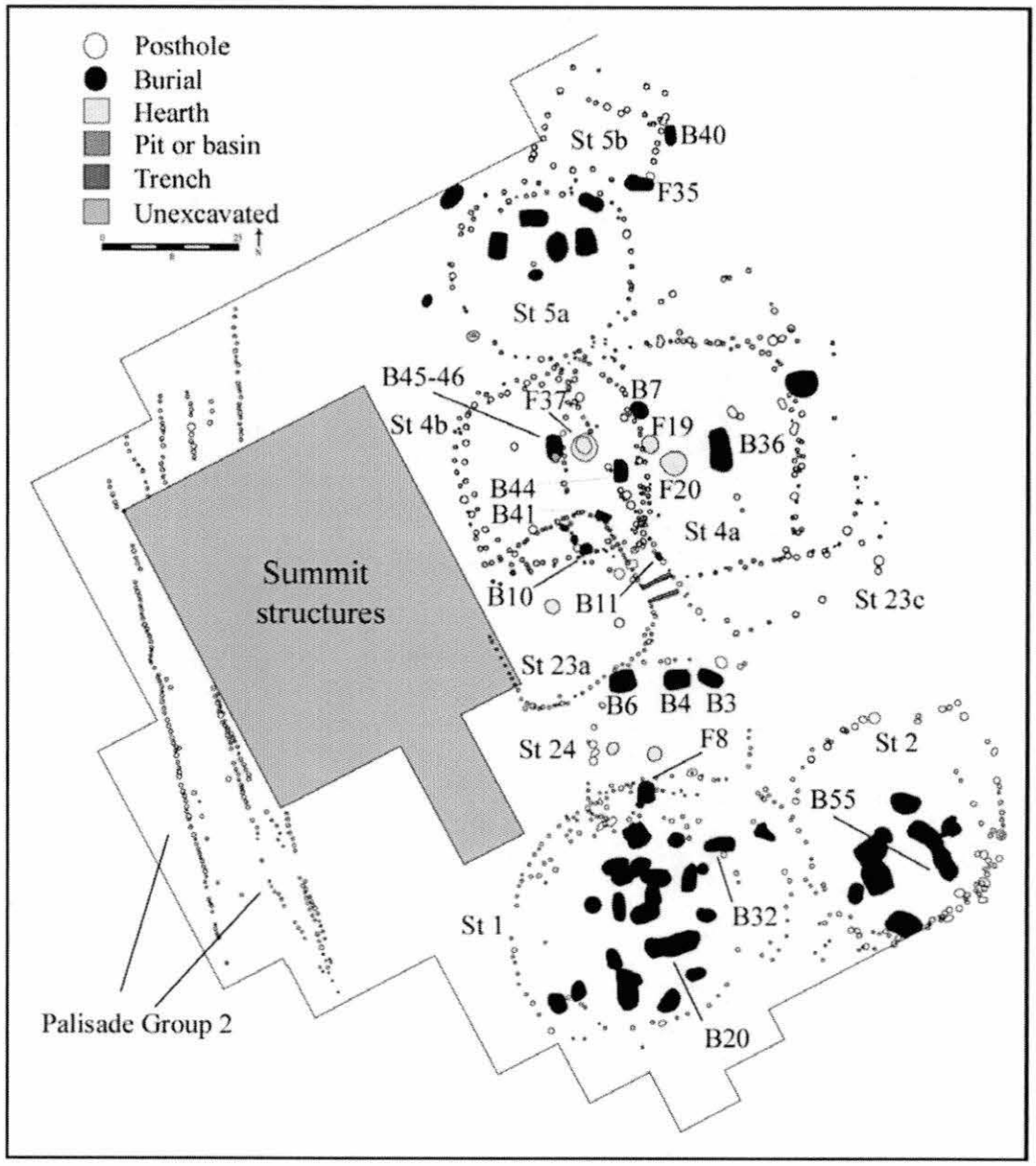


Figure 3.19. Identified architectural elements in the Mound Area.

submound and mound deposits of the Mound Area. The interpretations presented in this section are partially based on their accounts, but they are also based on the photographs, drawings, and notes produced by the excavators at Town Creek. There are many points of agreement between my interpretations and those of Coe and Reid. However, there are several structures I identified that they did not and at least one case where they defined a structure that I did not.

Ground-Level Structures

At least nine structures are present at ground level in the Mound Area, seven of which were wholly or partially superimposed by the mound. Four circular and five rectangular structures have been identified in this area. The area underneath the mound was intensively used and the result is a complex arrangement of overlapping features and structures. Unfortunately, this unique part of the site was excavated during the first two seasons of fieldwork and its documentation was not as thorough as with later work. Additionally, the western half of the mound was seriously disturbed by relic hunters and this disturbance extended down to the subsoil in some areas (Coe 1995:8). Furthermore, this area was excavated before the photographic mosaic project was initiated, so there is no way to evaluate the maps and notes that do exist. As a result, several structures cannot be defined as clearly as I would like.

Three circular structures have been identified in the Mound Area. The largest of these is Structure 1, which is designated as Structure A in the field notes (Coe 1937). Structure 1 consisted of two circular patterns of postholes. The larger of these is 47 ft in diameter and the smaller is 30 ft. Structure 1 contained a hearth and a dense cluster of 24

burials containing 30 individuals. Most of the burials occurred within the interior circular pattern, although at least two were found outside of it. The burial position of individuals within this cluster exhibits a pattern that is found across the Town Creek site. Nearly all of the individuals buried in this cluster were interred in a flexed position with the knees drawn up toward the chest. There are two exceptions. One of these is Burial 20/Mg2 which is an extended burial located in an open area near the structure's center. The other is Burial 32/Mg2, also an extended burial, located on the cluster's northeast edge. These two burials also stand out because their fill contained late Leak-phase diagnostics, indicating they date to this phase or later. The northern side of Structure 1 appears to have abutted the south side of the premound embankment which was part of the first mound-construction stage at Town Creek (see Mound Stratigraphic Sequence section that follows). Thus, Structure 1 could date to the first stage of mound construction. Structure 1 appears to have been at least partially covered by subsequent stages, although burials were added to the space delineated by this structure as late as the late Leak phase.

Structure 24 is a square construction that measures approximately 23 ft on a side. It is designated as Structure B in the field notes (Coe 1937), although it is not discussed in subsequent publications. Structure 24 contained two hearths near its center and, in contrast to Structure 1, only four burials. A line of three burials (Burials 3, 4, and 6/Mg2) was located along the structure's north wall. A possible fourth burial was located on its south wall, although it could have been associated with Structure 1 as well. This possible burial is Feature 8/Mg2, a pit that contained mostly trash but also a few human bones.

Structure 2 is a poorly defined circular building that measures 30 ft in diameter. It is poorly defined partly because its postholes were not excavated. Also, it was located at the

southeastern corner of Mg2. In the original Town Creek maps, the edges of excavations in many places had high concentrations of mapped but unexcavated features. Many of these concentrations were removed during the photographic mosaic editing process. Unfortunately, Mg2 was not included in the mosaic, so it is still unclear which drawn postholes are real and associated with the structure and which ones are not. Structure 2 contained 10 burials with 11 individuals. All of the burials with Structure 2 were flexed except for one extended individual (Burial 55/Mg2). Structure 2 was not superimposed by the mound.

Structure 5a is a circular structure that is 26 ft in diameter. It had a hearth located near its center and six interior burials. Another two burials were located outside the structure and presumably were associated with it. Structure 5a was superimposed by the mound.

Structure 5b is the smallest rectangular structure in the Mound Area, measuring 10-×-16 ft. It did not contain any substantial interior features, but two flexed burials were aligned with the structure's walls and presumably were associated with it. One of these (Burial 40/Mg2) was just outside of the structure, and the other (Feature 35/Mg2) was actually superimposed by the structure.

The remaining four rectangular structures were all overlapping in a complex mass of features and postholes. The four structures seem to consist of two sets of two related structures (Structures 4a and 4b; Structures 23a and 23c). It was difficult to clearly define each of these structures. The resolution of four overlapping structures into discrete units would be difficult under the best of circumstances. Unfortunately, as discussed previously, the excavation of these structures did not occur under the best of circumstances. The Structure 4 complex consists of at least two structures (Structures 4a and 4b) that appear to

be distinct but are also clearly related. Of these two, Structure 4a is on the east side, closer to the plaza, and Structure 4b is to the west. An indication that these two structures are related is that several burials and other features found within these two structures seem to be aligned. Additionally, burials found within each structure were oriented along the same north-south axis. There are several reasons why this complex seems to consist of two distinct structures. One important distinction between the two structures is their orientation. The walls of Structure 4b are oriented along a north-south axis while Structure 4a is oriented at approximately 25 degrees west of north. The orientation of Structure 4a parallels that of Structures 23a and 23c as well as the mound and mound summit structures.

Structure 4a is a nearly square structure measuring 33 ft north-south and 34 ft east-west. One unique feature of this structure is that it appears to have had a portico or some similar construction on its eastern side adjacent to the plaza, which would add an additional 9 ft on to its east-west dimension. The interior of Structure 4a contained a number of postholes. Most of these postholes were less than one foot in depth, but four deep postholes arranged in a square appear to represent interior roof supports. This pattern of many shallow postholes and a few deep ones is consistent with the idea of having a few interior support posts surrounded by benches and other furniture. Two large hearths (Features 19 and 20/Mg2) were located near the center of Structure 4a within the area delineated by the support posts. Two extended burials (Burials 36 and 44/Mg2), one of an adult female and one of a child, oriented parallel to the structure were also located within this area. A line drawn through the two extended burials and the two hearths would bisect Structure 4a along its east-west axis (Figure 3.20). Two other burials (Burials 7 and 41/Mg2) probably also

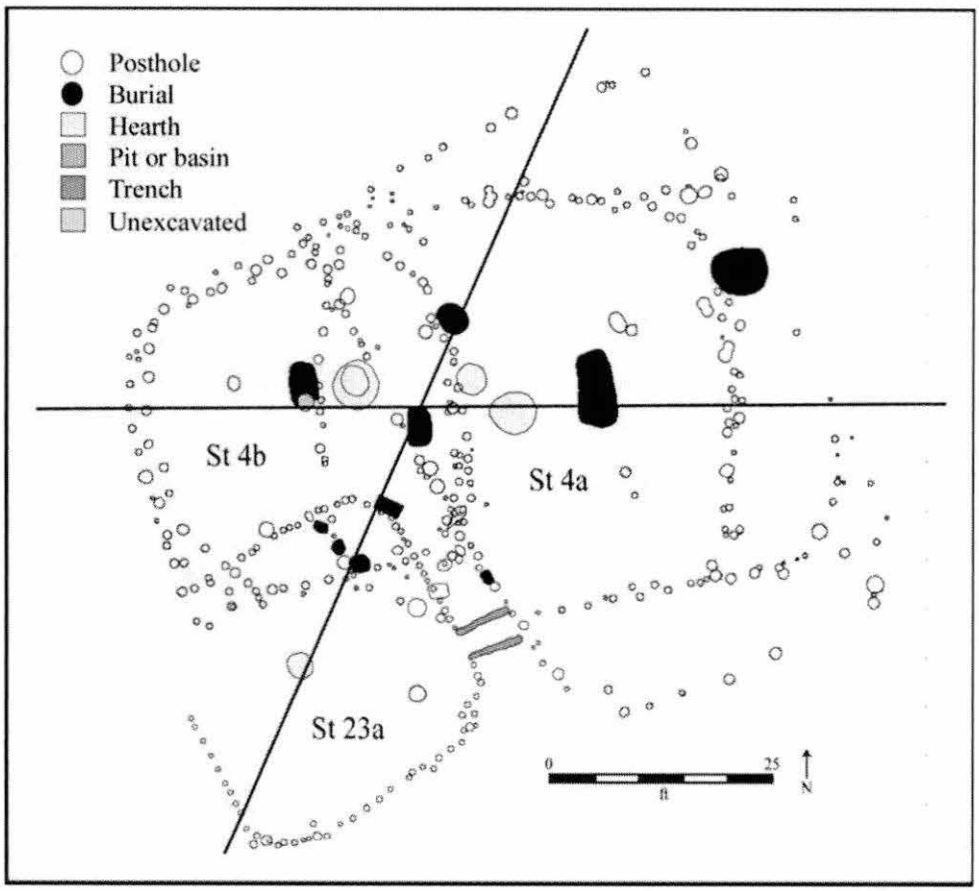


Figure 3.20. Axes intersecting features in submound buildings.

associated with Structure 4a are located to the north and south of this line of features. These two individuals were flexed, and the placement of their burial pits may have been aligned with Burial 44/Mg2 on a northeast-southwest axis. It is unclear what is represented by a cluster of large features near the northeast corner of Structure 4a. These features do not seem to fit with anything else in the structure, and it seems likely that they either predate or postdate it.

Coe (1995:72) discusses a small, rectangular structure in the area north of Structure 23c. This building, referred to in publications as a crib or trash bin (Reid 1985:25), was interpreted as a receptacle for "square-ground sweepings" and ash from ritual burning (Coe 1995:72). I was not able to recognize this structure. Instead, I identified Structure 4b in the area north of Structure 23c. Although my recognition of this structure contradicts earlier interpretations, I believe that the field notes, drawings, and photographs support my identification of Structure 4b. Structure 4b is a nearly square building (26-×-27 ft) that appears to have rounded corners. Structure 4b is referred to as "Structure D" in the field notes (Swart 1940b). The field notes and the excavation photographs indicate that Structure 4b had earth-embanked walls. The photographs show a wide area of light soil surrounding the structure around its exterior (Figure 3.21). This area of discoloration is symmetrical, and its shape parallels that of the postholes that compose the walls of Structure 4b. Additionally, the fieldnotes refer to this area of lighter soil as the structure's "yellowish streaked outer shell," and the structure itself is described as a "stratified house like an earth mass" (Swart 1940b). The exterior wall of Structure 4b consisted in places of two rows of postholes, all of which were over 0.5 ft deep and most of which were over 1 ft deep. It is possible that these multiple rows represent rebuilding or repair events. Alternatively, the depth and density of

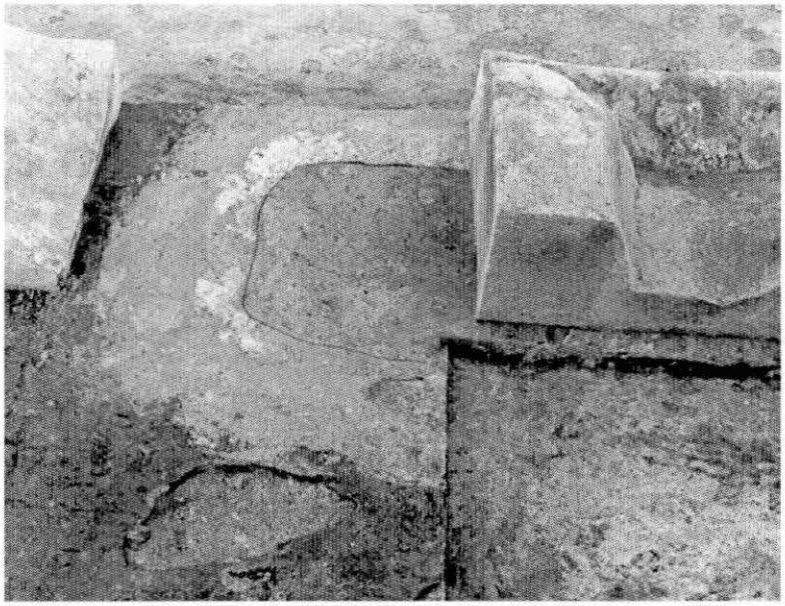


Figure 3.21. Light-colored soil over Structure 4b, 1940 (RLA image 501).

the postholes may be related to the construction needs of an earth-embanked structure. Two large, deep, interior postholes (0.9 to 1.5 ft in depth) probably represent the western half of a square arrangement of roof supports. A hearth (Feature 37/Mg2) and a flexed burial (Burial 45 and 46/Mg2) were located within the roof supports. While these two features are clearly within Structure 4b and would not appear to be a part of Structure 4a because the hearth would be next to a wall and the burial would be outside, these features do appear to be related to Structure 4a. If the east-west line through the two burials and two hearths that bisects Structure 4a was extended to the west, it would intersect the hearth and burial within Structure 4b as well as the structure's northwest support post (Figure 3.20). Additionally, the burial within Structure 4b appears to be oriented north-south, which is the same as Structure 4a, but different than the orientation of Structure 4b. It is possible that these features were associated with Structure 4a, either as part of a construction episode that has not been identified or they are within a portion of the structure that has not been recognized (e.g., a rear portico). Alternatively, these features could have been placed within Structure 4b in reference to known features of Structure 4a, even though the structures could not have been standing at the same time.

Structure 23a and Structure 23b are two rectilinear structures that were joined by an entrance trench. Structure 23a is the smaller of the two, measuring 23 ft on a side, and it is also more complete. Structure 23a is referred to as Structure C in the Town Creek field notes (Coe 1937; Swart 1940b) and as "the earthlodge" in subsequent publications (Coe 1995:65). Structure 23a clearly had earth-embanked walls. The mound was built over the top of this structure and the northeastern corner of its earth-embanked wall was preserved by being incorporated into the mound fill (Figure 3.22) (Coe 1995:68). This corner was isolated and

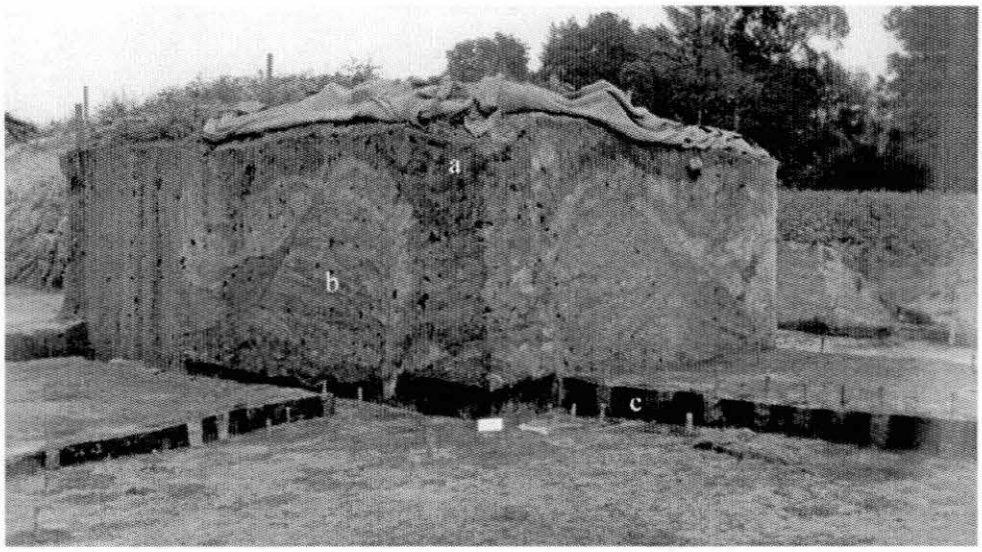


Figure 3.22. Earth-embanked wall and postholes at northeastern corner of Structure 23a, 1937: (a) moundfill (b) earth-embankment (c) Structure 23a postholes, marked by stakes, intruding Level A (RLA image 191).

treated as a discrete unit during excavation. This portion of the wall clearly showed a 3.5 ft tall earthen embankment on the exterior of the structure packed against wall posts on the interior (Figure 3.23) (Coe 1995: Figure 4.12). Structure 23a had an entrance trench, which is consistent with its walls being earth-embanked (see Hally 1994:154), near its southeastern corner on the side facing the plaza (Figure 3.24). A field map of the overall Mg2 excavations shows that the earth-embankment around Structure 23a was 4 to 6 ft wide at its base, extended around the entire structure, and that it tapered in thickness inward toward the end of the entrance trench (Figure 3.25).

The northeast corner of Structure 23a superimposes Burial 41/Mg2, which I have attributed to Structure 4a. This could simply be a coincidence. Alternatively, Structure 23a and its interior features could have been arranged in reference to this and other features associated with Structure 4a. Burial 41/Mg2 is in a northeast-southwest-oriented line with two other burials in Structure 4a. If this line is extended to the southwest, it would bisect Structure 23a—passing through its northeast and southwest corners—and intercept or nearly intercept two support posts, the hearth, and an infant burial (Figure 3.20).

The interior of Structure 23a contained four large, deeply set roof support posts arranged in a square and a large hearth within this space. A cluster of three infant burials was located in the structure's northeast corner. This is an area where several of the premound structures overlap, so it is not clear with which structure these burials were associated. I have attributed them to Structure 23a because they seem to be spatially distributed relative to that structure, occurring between its northeastern interior support post and northern wall. One of these burials (Burial 10/Mg2) is adjacent to and superimposed by Structure 23a's northeast interior roof support. A fourth infant burial (Burial 11/Mg2) was

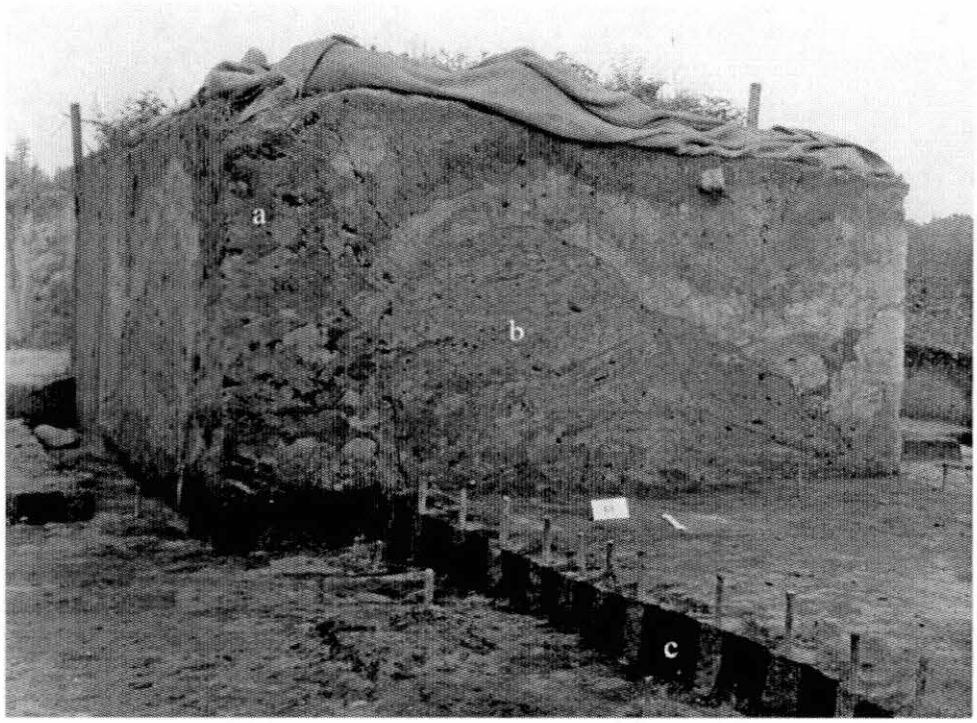


Figure 3.23. Earth-embanked wall and postholes at northeastern corner of Structure 23a, 1937: (a) moundfill (b) earth-embankment (c) Structure 23a postholes, marked by stakes, intruding Level A (RLA image 190).

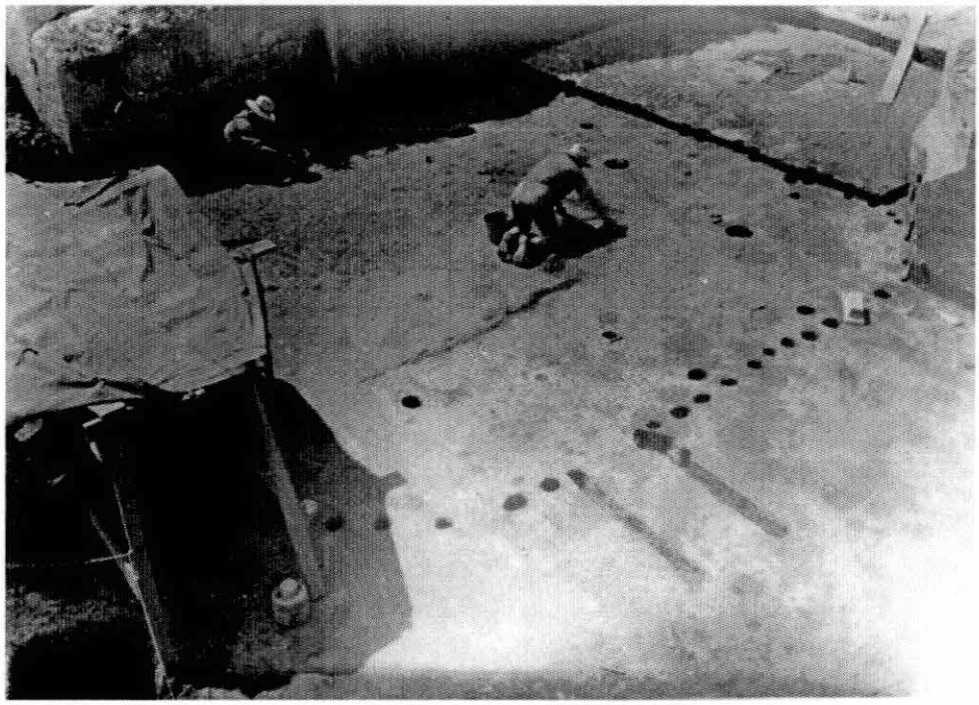


Figure 3.24. Exavation of Structure 23a, 1937 (RLA image 200).

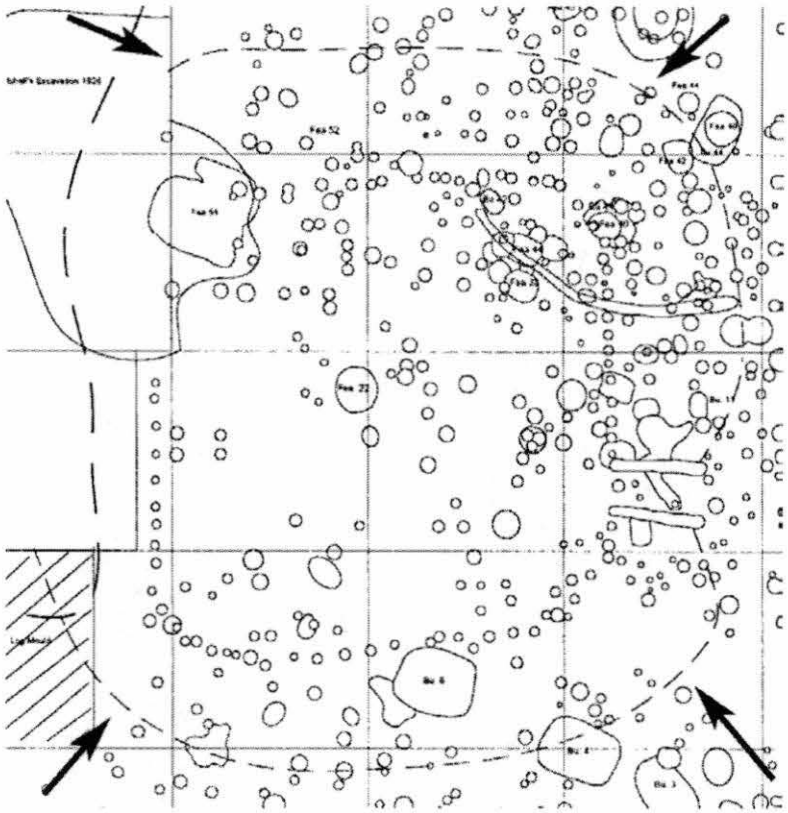


Figure 3.25. Field map of Mg2 showing the base of the earthen embankment (marked by dashed line and arrows) surrounding Structure 23a.

located in the line of posts that compose Structure 23c's west wall. Although the relationships among this cluster of infant burials and Structures 23a and 23c are unclear, it is possible that these burials were related to the construction of these two structures. Ethnohistoric accounts by the French around 1700 document the ritual sacrifice of infants associated with public buildings among Mississippian groups in the Lower Mississippi Valley (Butler 1934:41; Kenton 1927:339). Mississippian public buildings have also been associated with isolated infant burials (Peebles and Kus 1977:439-440). Additionally, the bones of infants have been associated with high-status burials at Moundville in west-central Alabama (Peebles and Kus 1977:439) and at the contemporaneous Kellogg Village site in the adjacent Tombigbee River Valley of east-central Mississippi (Atkinson et al. 1980:171; Blitz 1993a:164). In these cases, it is possible that the remains of infants were part of a ceremonialism that was associated with the highest ranking members of society (Atkinson et al. 1980:171; Blitz 1993a:165). Thus, based on the relationship in Mississippian societies between infant remains and high-status individuals and infant burials and public buildings, it is possible that the cluster of infant burials in Structures 23a and 23c represents a ceremonialism that involved infants, although the situation at Town Creek is not as clear as at other Mississippian sites and is certainly open to alternative interpretations.

The entrance trenches of Structure 23a connect to the west wall of Structure 23c. Structure 23c is a very large rectangular structure, measuring 50-×-33 ft, located adjacent to the plaza. It has the same orientation as Structure 23a. With the exception of a few basins on its south end, I have not been able to associate any interior features with this structure. This is not surprising because of the complexity of the archaeological record, with at least four structures overlapping, and because this is the portion of Mg2 that would have been most

disturbed by the earlier mule and drag pan excavations. As discussed above, an infant burial (Burial 11/Mg2) was located near the entrance trenches for Structure 23a in the line of posts comprising Structure 23c's west wall. The fact that interior support posts could not be defined for Structure 23c could mean that it did not have a roof and was more like an enclosure or that it was a lightly constructed building with a much less substantial roof than other rectilinear structures.

Palisade Group 2

Palisade Group 2 consists of at least five and possibly six concentric palisade lines that completely surround the excavated portions of Town Creek. These palisade lines were exposed in four different areas of excavation, but a link between two areas was made in only one case. Therefore, it is unclear how individual palisade lines in one area relate to individual palisade lines in another. Palisade Group 2 is included here because the Mound Area contained most of its segments that were excavated. The concentric lines of postholes that compose Palisade Group 2 are widely spaced on the northern and southern sides of the site, but much more closely spaced in the Mound Area. This is probably due to the site's topography. The western extent of the innermost palisade of Palisade Group 2 was placed near the edge of the terrace on which the site is located, leaving little room for expansion in this direction. Palisade Group 2 does not appear to have had any bastions, although a small, circular arrangement of posts associated with the innermost palisade line in the northern part of the site has been interpreted as some sort of defensive entryway (Coe 1995:87).

Mound Stratigraphic Sequence

Portions of the earth-embanked wall of Structure 23c were incorporated into the fill of the mound (Figures 3.22 and 3.23), so clearly this was the last premound structure in the Mound Area. An ash layer that contained a number of burned logs was located stratigraphically above Structure 23c and below the first mound construction stage (Figure 3.26) (Swart 1940b). This ash and log layer covered an approximately 60-×-30-ft area with the earthlodge at its southern end (Coe 1937; Lowry 1939:5). It is unclear how far the ash layer originally extended to the north of the earthlodge. A number of impressions of logs were documented at the base of the moundfill immediately above the ash layer (Figure 3.27) (Swart 1940b). The fact that this ash layer covered a large area and that the logs were all oriented either parallel or at right angles to each other suggests that this was not a chance burning episode. Thus, it seems that the ash layer and burned logs represent a planned incident that took place prior to mound construction, perhaps the destruction of an as yet unidentified structure or some other ritual event.

The first step in the mound-building process at Town Creek seems to have been the construction of what Coe (1995:69-70) called a premound embankment (Reid 1985:25; Swart 1940a). This embankment was made of mixed clay walls that were 3 to 4 ft tall and approximately 4 ft thick at the base (Figures 3.28 and 3.29) (Swart 1940b). The overall configuration of the embankment was a square, the outer dimensions (i.e., from exterior base to exterior base) of which were approximately 75 ft on a side. The embankment wall, at its top and along its interior slope, was covered by several layers of moundfill. The profile drawings show several linear layers of moundfill that slope down from their highest along the

Figure 3.26. Photograph showing the premound embankment stratigraphically above the layer of burned logs, 1940: (a) burned logs and ash (b) Structure 4b (c) premound embankment (RLA image 501).

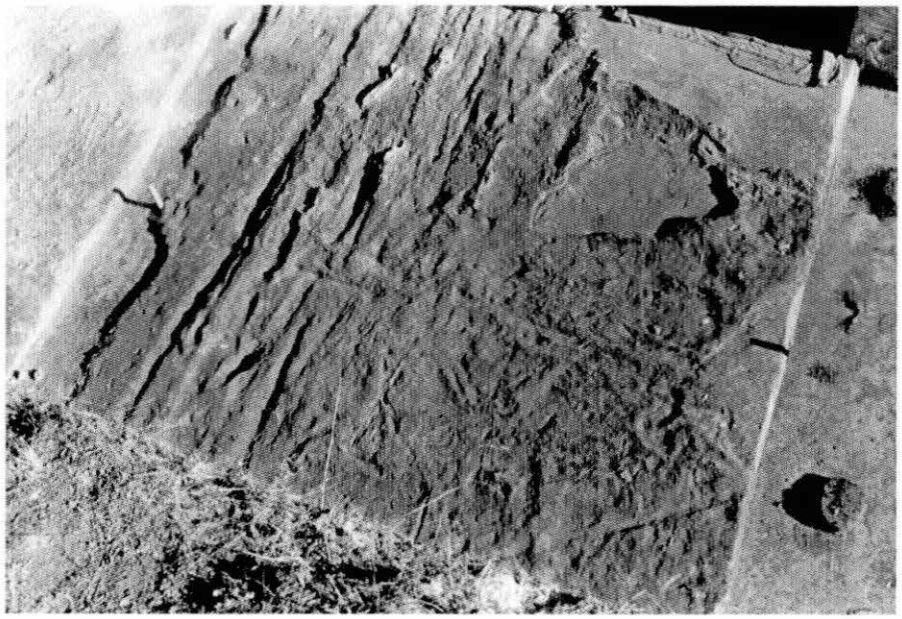


Figure 3.27. Portion of burned logs and ash layer beneath the mound, 1938 (RLA image 380).

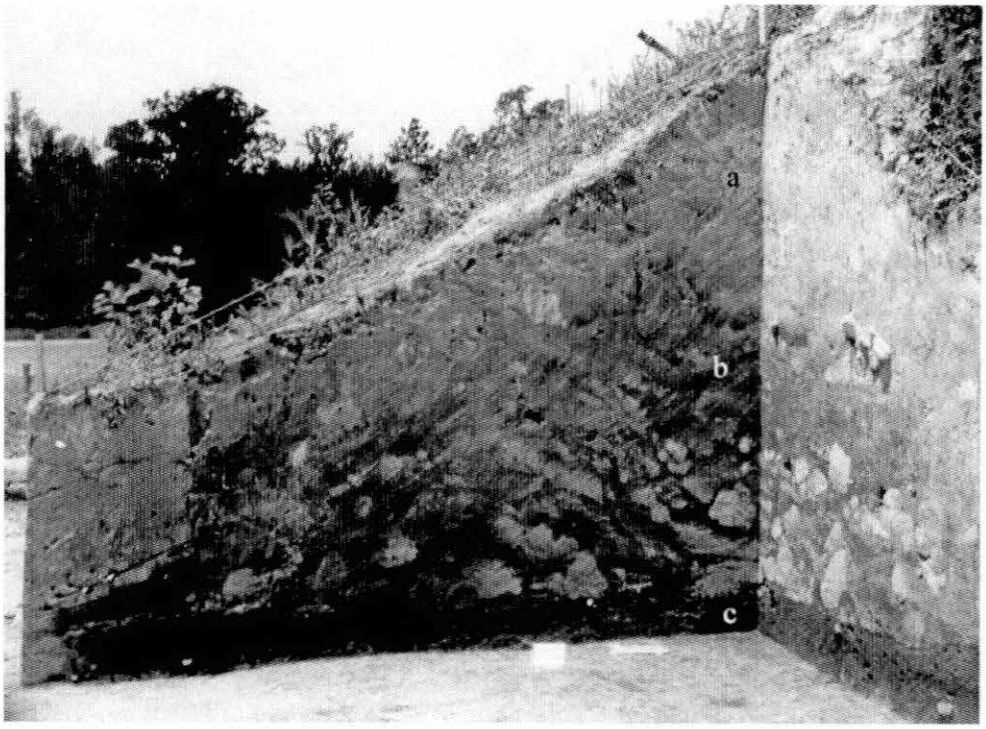


Figure 3.28. Section of mound profile, 1937: (a) moundfill (b) premound embankment (c) Level A (RLA image 81).

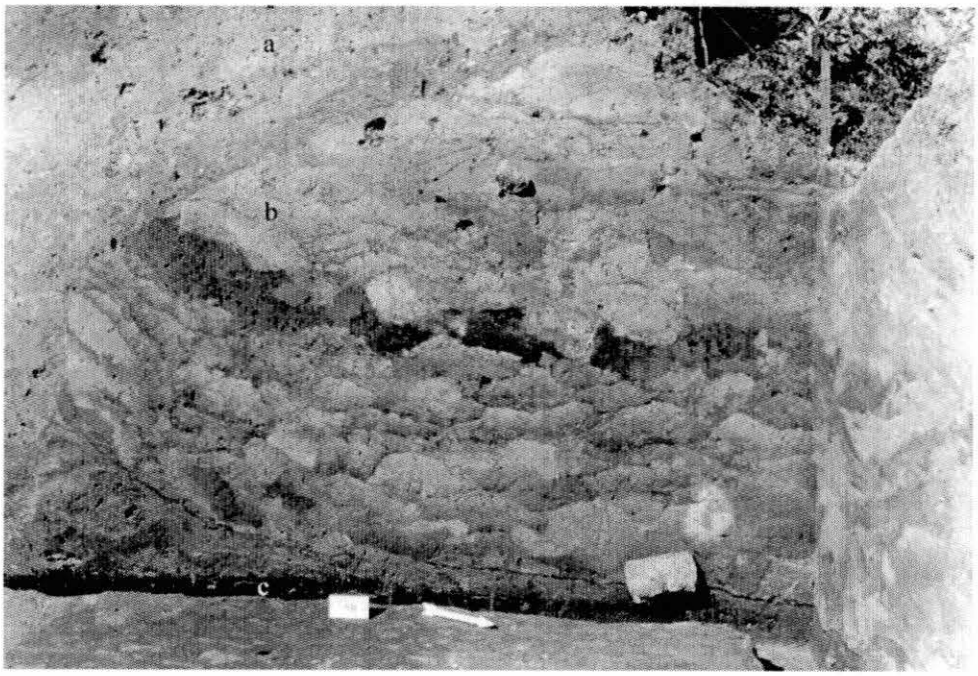


Figure 3.29. Section of mound profile: (a) moundfill (b) premound embankment (c) Level A.

embankment wall toward their lowest point within the interior of the enclosure, indicating that the embankment was filled from the exterior inward (Figures 3.30 and 3.31). Based on all of this, it seems that the function of the embankment was to delineate and provide a container for the first stage of mound construction (see Coe 1995:81). The interior of the embankment was filled up to a level about 1 ft above the top of the embankment itself. Based on the profile drawings, roughly half of the mound was constructed with this first stage. This first mound stage had a flat surface and was approximately 5 ft tall. It is likely that this flat mound summit contained one or more public buildings, but excavations did not get down to this surface because a 40-×-70 ft block was left unexcavated near the center of the mound. The first mound-construction stage as I have defined it was not recognized in previous interpretations of Town Creek which, instead, considered all of the moundfill beneath the lower pair of excavated summit structures as part of the same construction episode (Coe 1995:81; Reid 1985:25).

The second mound-construction stage was much smaller than the first. It was only about 2 to 3 ft thick and accounted for roughly a quarter of the mound's final volume. The western edge of the summit of this second mound-construction stage contained two buildings, Structures 45a and 45b. These two structures collectively are referred to as either "Townhouse I" or "Temple I" in the field notes and drawings (see Coe 1995:74). Large areas of daub on this surface were seen as an indication that these structures had burned (Coe 1995:77). The surface that contained Structures 45a and 45b (i.e., the second mound construction stage) was superimposed by a thin layer, 3 to 6 inches thick, of dark soil. This layer is referred to as the "1st Habitation Level" or the "1st Occupation Level" in the drawings and field notes. It is possible that this dark soil represents a mound-summit midden

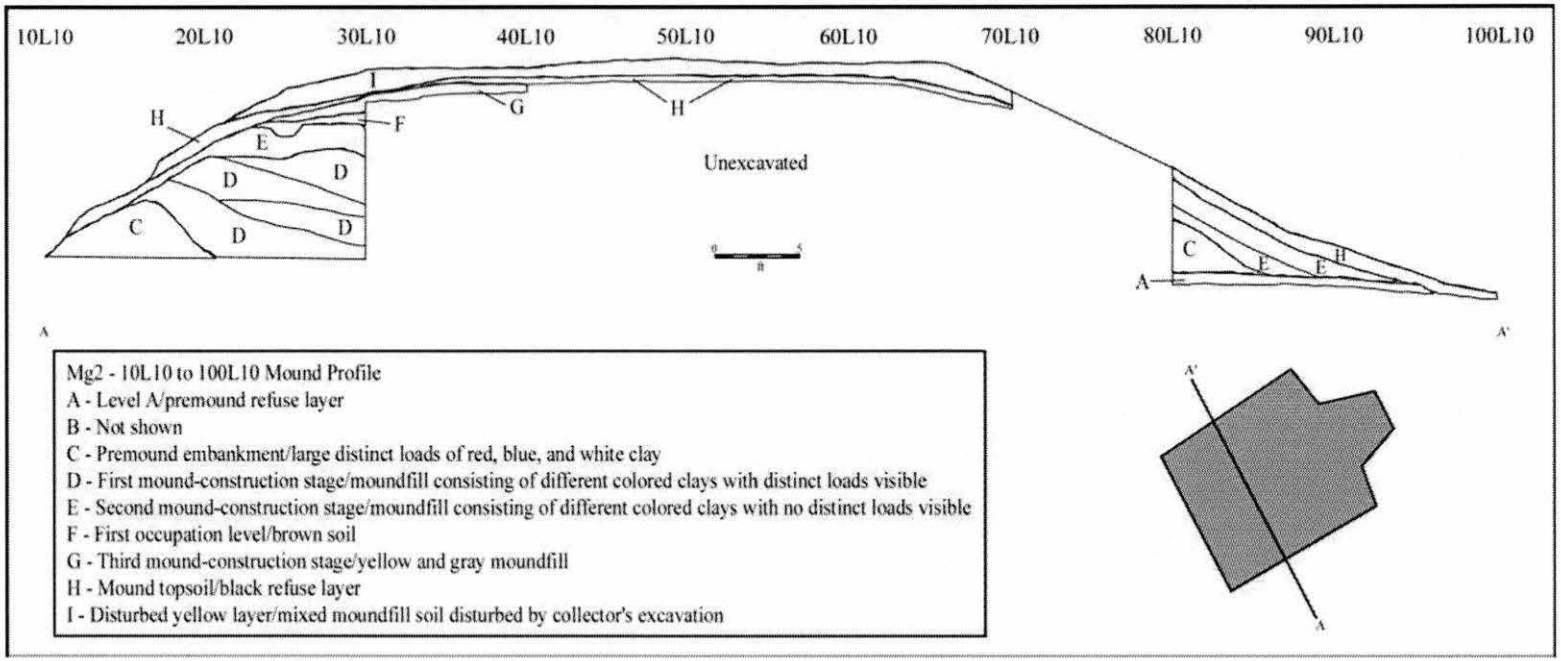


Figure 3.30. Mound profile along the L10 line.

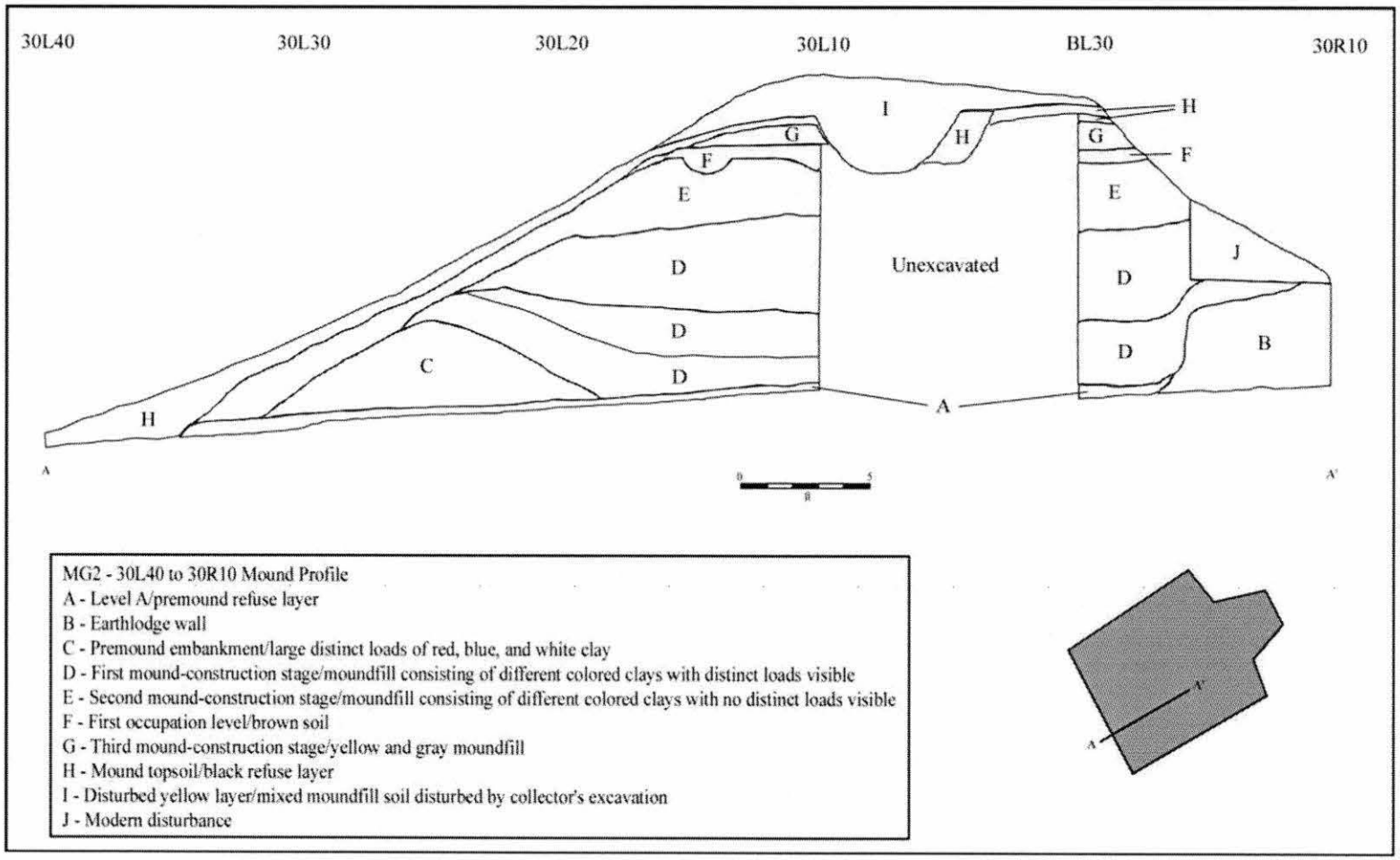


Figure 3.31. Mound profile along the 30 ft line.

associated with Structures 45a and 45b, although what exactly is represented by this layer is unclear.

The third construction stage consisted of a layer of moundfill, from about 1 ft to just a few inches thick, located stratigraphically above the dark layer of soil that superimposed the second mound construction stage, Structure 45a, and Structure 45b. Not only was the third construction stage not very thick, but, unlike previous stages, it did not cover the entire mound. The third mound-construction stage was restricted to the mound summit, whereas the first and second mound-construction stages had covered the sides of the mound as well. The summit of the third construction stage contained two Structures, 46a and 46b, arranged identically to those on the previous summit of the second mound-construction stage. These structures are referred to as "Townhouse II" or "Temple II" in the notes and drawings (see Coe 1995:74). The presence of burned wooden timbers and daub indicated that these structures had also burned (Coe 1995:74).

The third mound-construction stage was covered by a dark layer, about 4 inches thick on the summit and about 1 ft thick further downslope, that was called the Mound Topsoil by the excavators. This was covered by a layer of yellow moundfill, between 6 and 18 inches thick, that was present only on the mound's summit. The interpretation of these two layers is not as straightforward as I would like. The upper layers of the mound had been disturbed before they were excavated professionally, so there was a great deal of mixing of the soil. Also, these layers were worked on early in the site's excavation history and the level of detail that was recorded at this time was relatively low. It is possible that the dark layer represents a mound-summit midden and that the yellow layer represents the fourth mound-construction stage. Alternatively, it is also possible that the dark layer represents what was the uppermost

level in the mound prior to the arrival of looters and that the yellow layer represents their backdirt piles (Reid 1985:25; Swart 1940c). This yellow layer was the uppermost stratigraphic level identified by the excavators.

Two midden layers also are part of the mound sequence. Level A was a premound midden that extended beneath most of the mound and is clearly visible in many of the field photographs. It was located stratigraphically beneath the premound embankment and Structures 23a and 23c (Swart 1940b). Level X was a mound-flank midden on the mound's south side (Reid 1985:26). Coe first encountered this layer in a test trench into the mound (Figure 3.32) (1995:62 and Figure 4.2). After the full excavation of the mound began, this layer was isolated and excavated as a discrete unit.[6]

Mound-Summit Structures

Any materials associated with the structures located on the eastern half of the mound, the side adjacent to the plaza, were destroyed by a mule-driven drag pan prior to the arrival of Coe in 1937. Fortunately, the excavators were able to identify structures on the portion of the mound's summit that remained. Parts of structures were identified on the summits of two construction stages. These structures were nearly identical in their layout, although they were separated by a layer of moundfill and were clearly distinct. Each summit of these two stages appears to have contained two structures connected by entrance trenches, the presence of which indicates at least one or perhaps both structures in each pair were earth-embanked (see Hally 1994:154). The orientation of these structures parallels that of the mound. In both cases, the structure on the north side appears to be slightly smaller than the structure on the

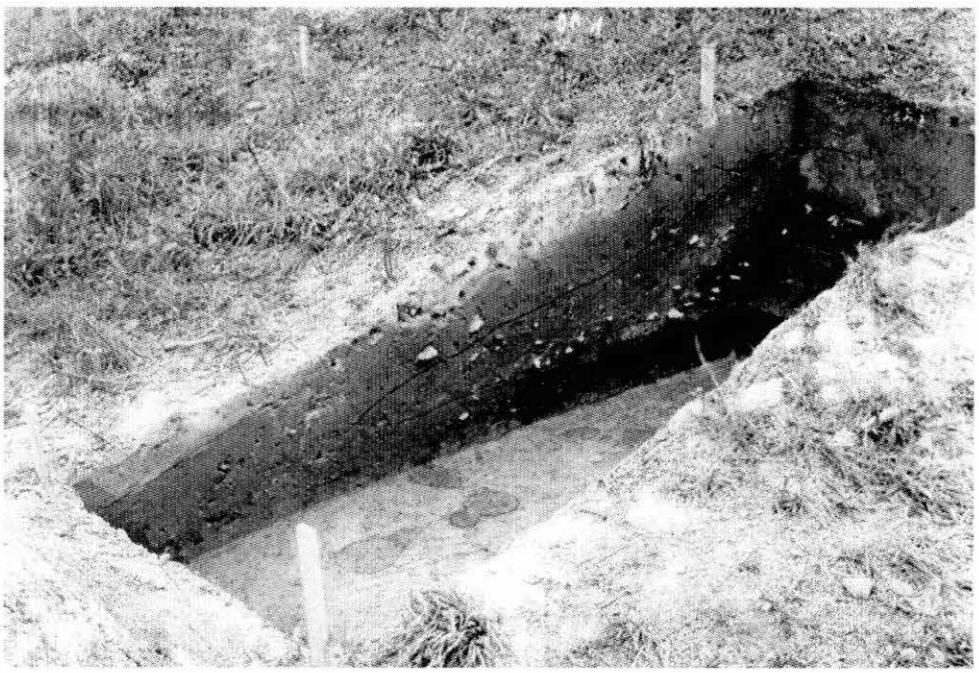


Figure 3.32. Test trench into the mound showing Level X, outlined with protruding artifacts, 1937 (RLA image 61).

south side. It appears that both of the northern structures were completely excavated while only a small portion of each southern structure was exposed.

The earlier of these two structure pairs—referred to variously as "Temple I" and "Townhouse I"—was discussed by Coe (1995:74), but I have been unable to locate the original field maps. Thus, my description of this structure's spatial layout is based on Coe's published map. On this earlier summit, the structure to the north (Structure 45a) is small and nearly square (27-×-28 ft) with slightly rounded corners (Figure 3.33). This square pattern consisted of two rows of posts. This double row of postholes could indicate that the structure was repaired or rebuilt in place at least once or it could be related to the construction requirements of a structure with earth-embanked walls. Four large, round features arranged in a square are likely interior roof supports. A centrally located, prepared clay hearth, two flexed burials (Burials 59 and 61/Mg2), and an empty pit (Feature 29/Mg2) were located within the area defined by the roof supports (Figure 3.34). Entrance trenches extended from this structure's south wall into a single row of posts that presumably was part of the north wall of another summit structure (Structure 45b). Only a portion of Structure 45b's north wall and possibly part of its northwest corner were exposed. Structure 45b contained a single flexed burial (Burial 60/Mg2) and an empty pit (Feature 15/Mg2). These structures were burned.

The patterns on the later mound summit are much less clear. This summit presumably contained paired structures because its features consist of an entrance trench between two undifferentiated clouds of postholes (Figure 3.35). Using Structure 45a as a model, the west wall of the northern structure (Structure 46a) can be delineated. This structure contained the base of a daubed wall (Feature 57/Mg2) (Figure 1.11)—which was

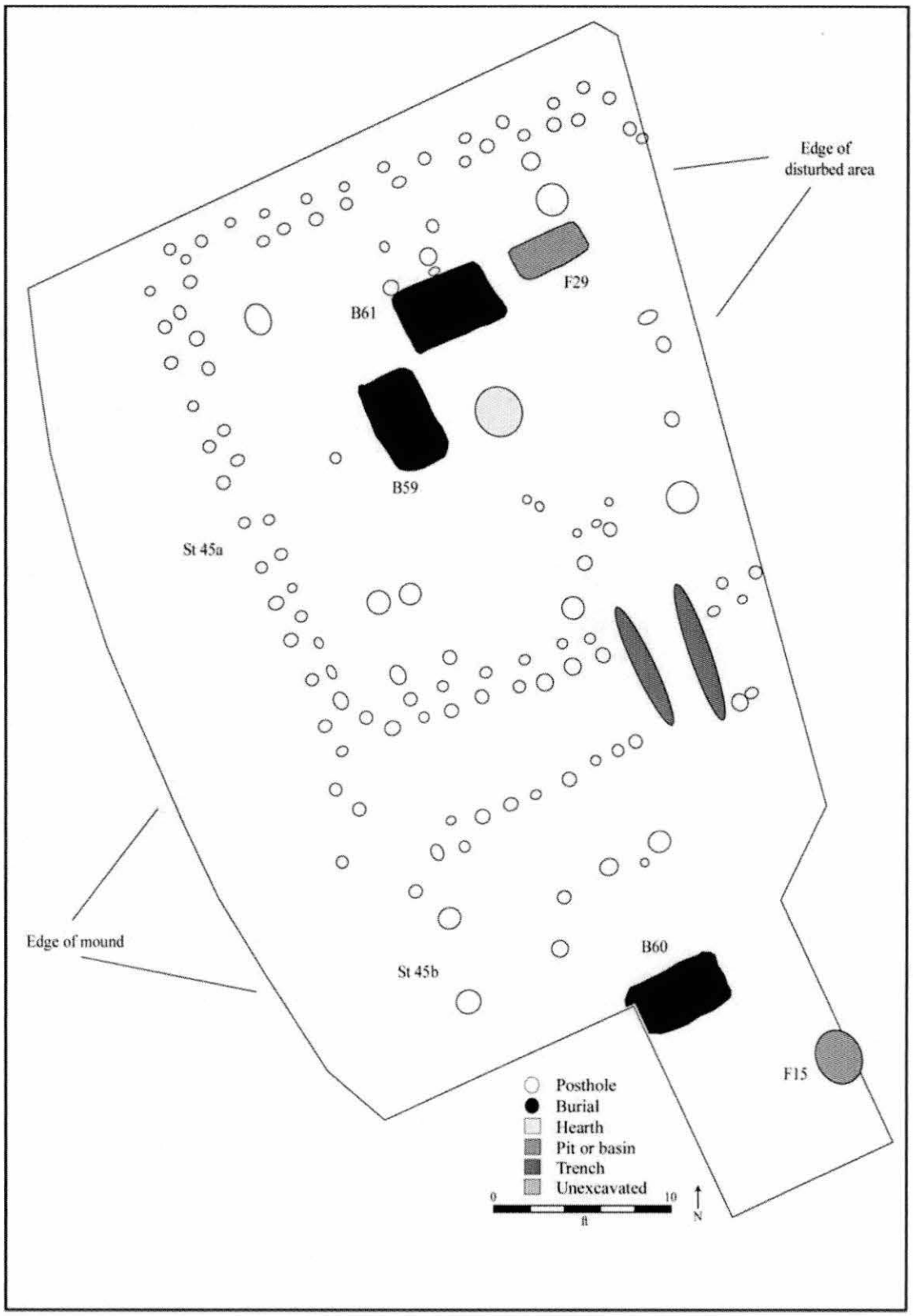


Figure 3.33. Structures 45a and 45b on the mound summit.

Figure 3.34. Features associated with Structure 45a (background) and 45b (foreground) on the mound summit (RLA image 1592).

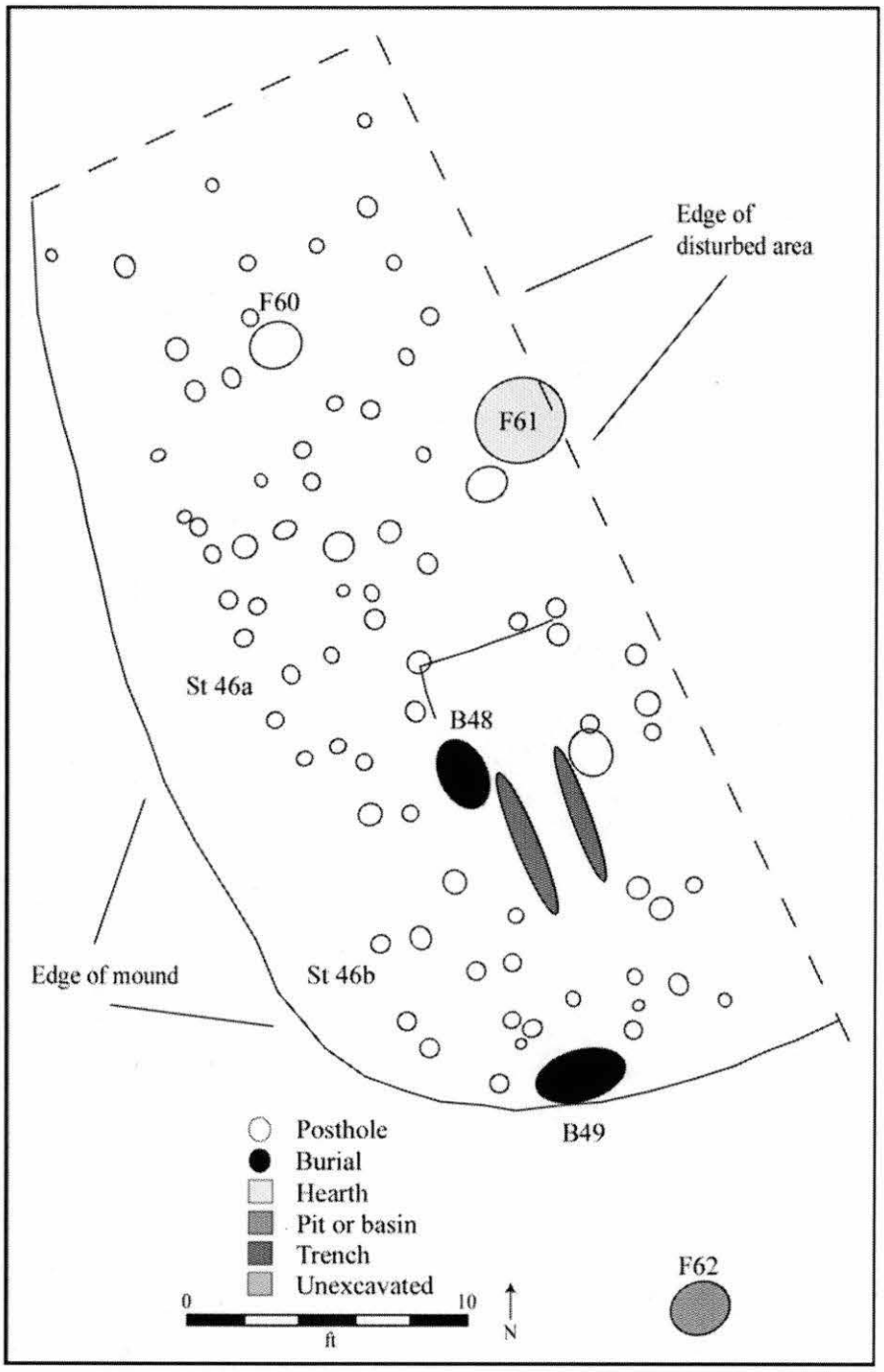


Figure 3.35. Structures 46a and 46b on the mound summit.

interpreted as an internal partition (Coe 1995:74)—near the entrance trench as well as a bundle burial (Burial 48/Mg2) and a large, central, prepared-clay hearth (Feature 61/Mg2). A large, deep posthole (Feature 60/Mg2) probably held the structure's northwest interior roof support. The structure to the south (Structure 46b) contained one bundle burial (Burial 49/Mg2) and a large, deep pit (Feature 62/Mg2) that may have held one of its interior roof supports. This structure pair was referred to as "Temple II" or "Townhouse II" (Coe 1995:74). Similar to the structures on the earlier mound summit, structures 46a and 46b were burned.

The configuration of mound summit and submound buildings at Town Creek is reminiscent of the configuration documented in sixteenth-century, mound-summit contexts at the Dyar site (Figure 3.36) which are attributed to the Late Lamar, Dyar phase (Hally 1994:157; Smith 1994:34-38). The upper levels of the Dyar mound contained several construction stages and numerous structure rebuildings (Smith 1994:34-38), but there is a consistent pattern to the configuration of these sequential episodes of mound-summit architecture. This configuration consisted of two earth-embanked square structures located on the western half of the summit and one lightly constructed building that covered the entire eastern part of the summit (Hally 1994:157). Summits of the upper construction stages of the mound at Dyar consisted of two levels. Two rectangular structures possibly joined by a passageway were located on the higher, western half of the mound while a larger, more ephemeral structure was located on the lower, eastern half of the mound[7] (Smith 1994: 38 and Figure 14). While there were no indications of the activities that may have taken place in the northwestern structure, the presence of *Ilex* pollen in three of the structures superimposed in the southwestern part of the mound suggested to Smith (1994:38) that this may have been

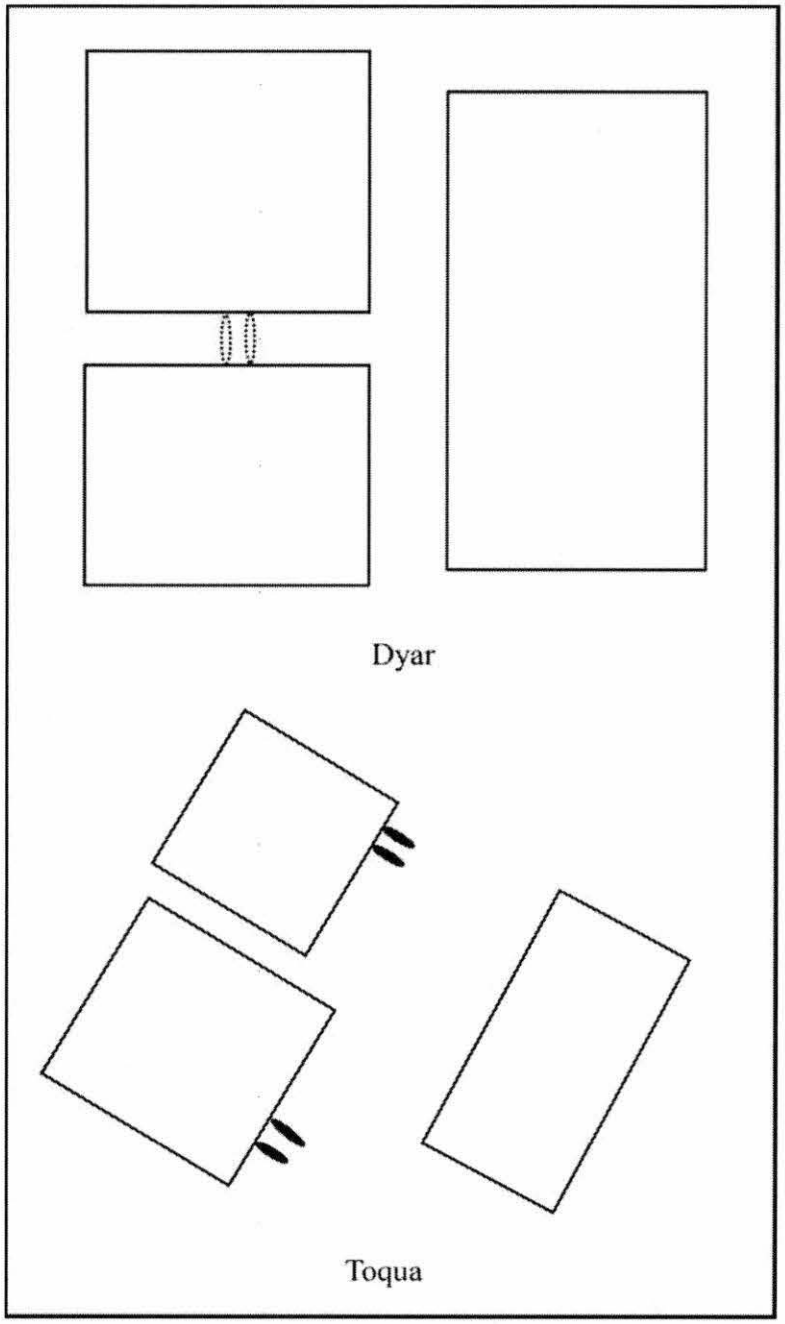


Figure 3.36. Schematic maps of mound-summit structures at the Dyar and Toqua sites (from Polhemus 1987 and Smith 1994).

a place for the preparation of Black Drink, a tea that was made and consumed during the Historic period in public contexts such as council houses (Hudson 1976:372-373). The floor of the shed-like structure on the eastern part of the mound was covered with midden refuse containing sherds and animal bones. Smith (1994:38) suggests that these deposits are the remains of either domestic activities or feasting. Unlike Town Creek, no burials were found in the Dyar mound (Smith 1994:40).

The mound and submound buildings at Town Creek are also similar to those on the summit of Mound A at the Dallas-phase Toqua site in eastern Tennessee (Figure 3.36) (Hally 1994:157). Construction of Mound A started around A.D. 1200. A repetitive pattern of paired, substantial structures on the western half of the summit and less substantial porch or portico structures on the eastern half of the summit began with this initial summit (Polhemus 1987:1213-1214, 1990:131). This pattern of one larger structure on the eastern side and smaller structures on the western side continued for some time.[8] Polhemus (1987:1214) interpreted the smaller structures as the dwellings of high-status individuals and the larger structures as buildings with a more public function (Polhemus 1987:1214).

Public architecture in the mound area at Town Creek always seems to have consisted of some combination of large and small rectilinear structures. At some point prior to mound construction, these public buildings consisted of a small, square, earth-embanked structure joined by an entrance trench to a large, more ephemeral, rectangular structure. This was clearly the case with Structures 23a and 23c. It is possible that the earth-embanked Structure 4b was also joined to an as yet unidentified large, rectangular structure to the east. Unfortunately, there is no stage where the complete suite of public architecture for a mound summit could be documented at Town Creek. The summits of the uppermost mound stages

were disturbed. The eastern half of the second and third stages was destroyed by relic collectors. The summit of the first mound-construction stage was never reached by excavations as a block at the core of the mound was left unexcavated beneath the level of Structures 45a and 45b (i.e., the second mound construction stage). Thus, one can only speculate about the full complement of buildings that was located on each mound summit at Town Creek. One can make an informed guess, however, based on the premound pattern of public architecture, the portions of the summit buildings that are present, and the architectural patterns documented on mound summits at other South Appalachian Mississippian sites. It seems likely that the mound-summit buildings at Town Creek were arranged as follows: on the west side were two small, square, earth-embanked structures joined by an entrance trench; on the east side was a much larger, less substantial, pavilion-like structure to which one or both of the earth-embanked structures were attached by an entrance trench.

Sequence of Architectural Elements in the Mound Area

The analysis of stratigraphic relationships among structures and strata in the Mound Area (Figure 3.37) enables the development of a relative sequence of structure change. Once established, this sequence can be extrapolated to parts of the site where structures do not overlap or where the order of superposition is less clear. The fact that a portion of Structure 23a's earth-embanked wall was incorporated into the first construction stage of the mound indicates that it was the last premound structure to be used in this area. Otherwise, the interiors of other structures would have contained this large pile of dirt. Since Structure 23c was oriented the same as Structure 23a and the two appear to have been connected by an

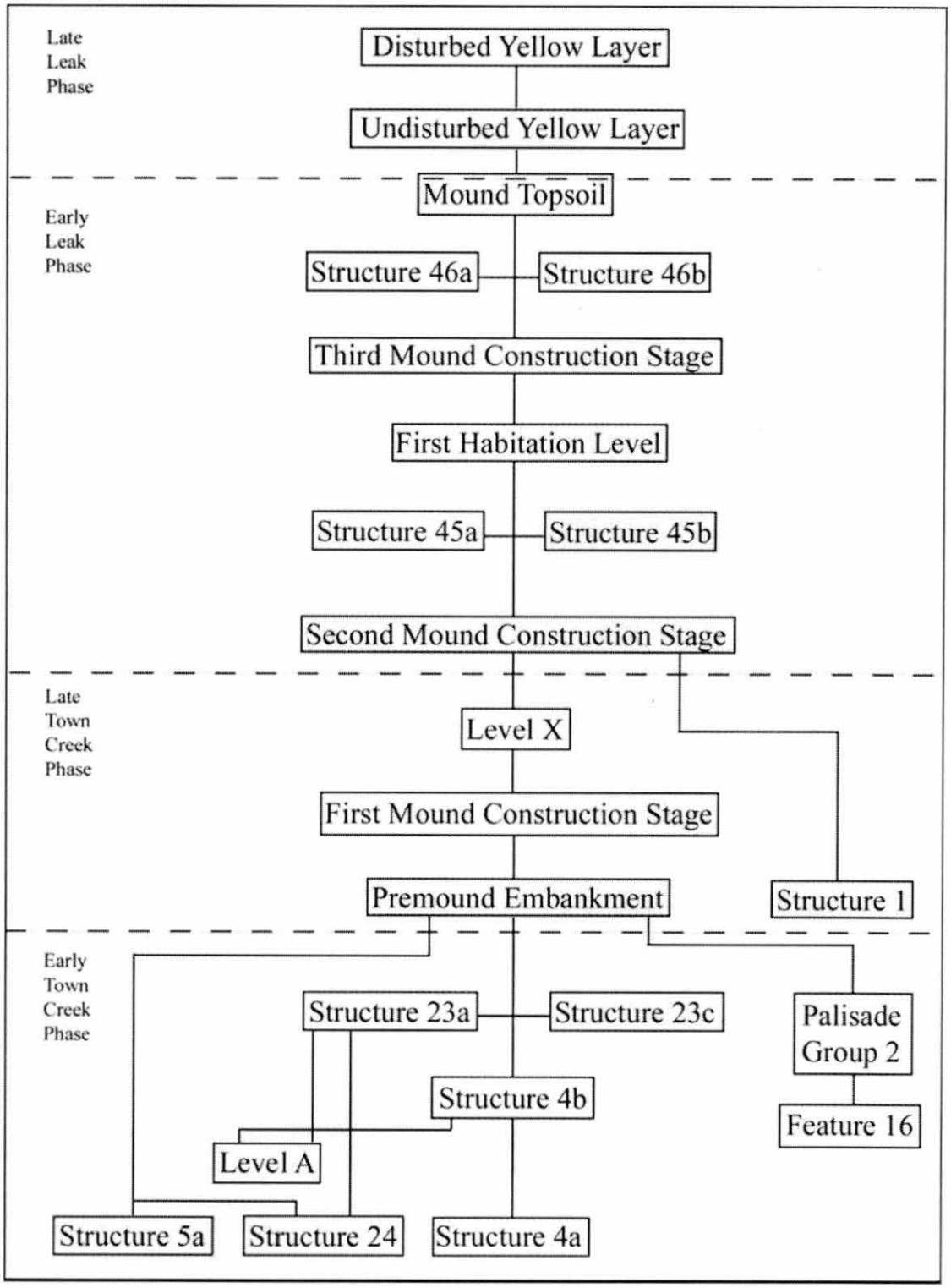


Figure 3.37. Schematic representation of the stratigraphic relationships in the Mound Area.

entrance trench, it can be assumed that both were the last ones in use prior to mound construction. Supporting this is the fact that the line of posts forming the back wall of Structure 23c intrudes into the hearth of Structure 4b, indicating that the former post-dates the latter.

If Structures 23a and 23c represent the later end of the premound architectural sequence, it is likely that Structure 24 represents the earlier end. Structure 24 and Structure 23a overlap, meaning they could not have been in use at the same time. If Structure 23a was the last in the area, then Structure 24 must predate it. Also, a posthole from the south wall of Structure 23a appears to intrude a burial within Structure 24 (Burial 6/Mg2) (Figure 3.38). Furthermore, this burial was located within the halo of lighter soil surrounding Structure 23a that represented the base of its earthen embankment. The fact that the field notes did not mention the burial cutting through this layer of lighter colored soil suggests that the base of Structure 23a's earth-embanked wall superimposed this burial located within Structure 24. The fact that Structure 4a is located near Structure 24 and the two are oriented the same suggests that they were related and in use at the same time.

While the stratigraphic relationship between Structures 4a and 4b is unclear, it seems likely to me, based on architectural style, that Structure 4b was used closer in time to Structure 23a. Structures 4b and 23a are approximately the same size, are rectangular with rounded corners, have four large interior roof supports, and had earth-embanked walls. Both of these structures, as well as Structure 23c, have the same northeast-southwest orientation, which is also what the subsequent orientation of the mound and summit structures will be. In contrast, Structure 4a is oriented to the cardinal directions.

Figure 3.38. Structure 23a after excavation with Burial 6/Mg2 in the foreground, 1937 (RLA image 195).

In summary, the sequence of submound structures based on superposition and architectural style is as follows. Structures 4a and 24 seem to have been used first, and it seems likely that they were in use at the same time. The next building was Structure 4b. Based on the pattern of earth-embanked structures to the west paired with more ephemeral structures to the east exhibited in the submound deposits at Town Creek as well as at the Dyar and Toqua sites, it is likely that Structure 4b also was paired with a large structure to its east that is currently indistinguishable in the palimpsest of features and postholes in that area. The final premound buildings were the paired Structures 23a and 23c.

Chronological Information

In order to date the construction layers of the mound, all of the pottery from a 20-×-100-ft block of units that cross-cut the mound and intercepted each of its strata was analyzed (Figure 2.14). This block of units consisted of the two rows of excavation units west of and parallel to the Mg2 north-south baseline.[9] The premound midden Level A was attributed to the early Town Creek phase (Chapter 2) based on surface treatments and the predominance of plain rims (Tables 2.10 and 3.2). This means that the first mound construction at Town Creek dates to the early Town Creek phase or later. Additional evidence for the dating of the first mound construction comes from a stratigraphic relationship with Palisade Group 2. Palisade Group 2 in the Mound Area consists of four to six concentric lines of postholes. The inner 3 to 5 of these intrude Feature 16/Mg2 and are in turn superimposed by the mound (Figure 3.39). Feature 16/Mg2 dates to the end of the early Town Creek phase based on the presence of the rosettes rim mode (Figure 2.23). The fact that this feature is intruded by

Table 3.2. Surface treatments of large sherds (<4cm) in the baseline and L10 units from the mound.

Context	Brushed	Small Check St.	Curvi. Comp. St.	Rect. Comp. St.	Wide Rect. Comp. St.	Cordmarked	Fine Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Small Simple St.	Stamped	Textile Impressed	Unidentified	Total
Counts																
Level A	-	-	118	44	-	1	1	4	-	73	-	-	34	10	20	305
Premound embankment	-	-	13	6	-	-	-	-	-	13	-	-	8	7	2	49
Moundfill	-	-	12	11	-	-	-	2	-	34	-	1	8	4	4	76
Level X	-	-	65	15	-	1	-	2	-	82	-	-	15	14	8	202
Townhouse I	-	2	64	21	-	-	-	1	-	43	-	-	14	2	9	156
Townhouse II	-	-	3	1	-	-	-	-	-	-	-	-	-	1	-	5
Mound topsoil	1	4	124	31	1	2	1	0	5	120	2	4	40	15	10	360
Undisturbed yellow layer	-	-	36	8	-	-	-	-	-	33	-	1	11	3	6	98
Disturbed yellow layer	-	-	72	29	-	-	-	-	2	75	-	1	33	9	12	233
Total	1	6	507	166	1	4	2	9	7	473	2	7	163	65	71	1484
Percentages																
Level A	-	-	38.69	14.43	-	0.33	0.33	1.31	-	23.93	-	-	11.15	3.28	6.56	
Premound embankment	-	-	26.53	12.24	-	-	-	-	-	26.53	-	-	16.33	14.29	4.08	
Moundfill	-	-	15.79	14.47	-	-	-	2.63	-	44.74	-	1.32	10.53	5.26	5.26	
Level X	-	-	32.18	7.43	-	0.50	-	0.99	-	40.59	-	-	7.43	6.93	3.96	
Townhouse I	-	1.28	41.03	13.46	-	-	-	0.64	-	27.56	-	-	8.97	1.28	5.77	
Townhouse II	-	-	60.00	20.00	-	-	-	-	-	-	-	-	-	20.00	-	
Mound topsoil	0.28	1.11	34.44	8.61	0.28	0.56	0.28	-	1.39	33.33	0.56	1.11	11.11	4.17	2.78	
Undisturbed yellow layer	-	-	36.73	8.16	-	-	-	-	-	33.67	-	1.02	11.22	3.06	6.12	
Disturbed yellow layer	-	-	30.90	12.45	-	-	-	-	0.86	32.19	-	0.43	14.16	3.86	5.15	

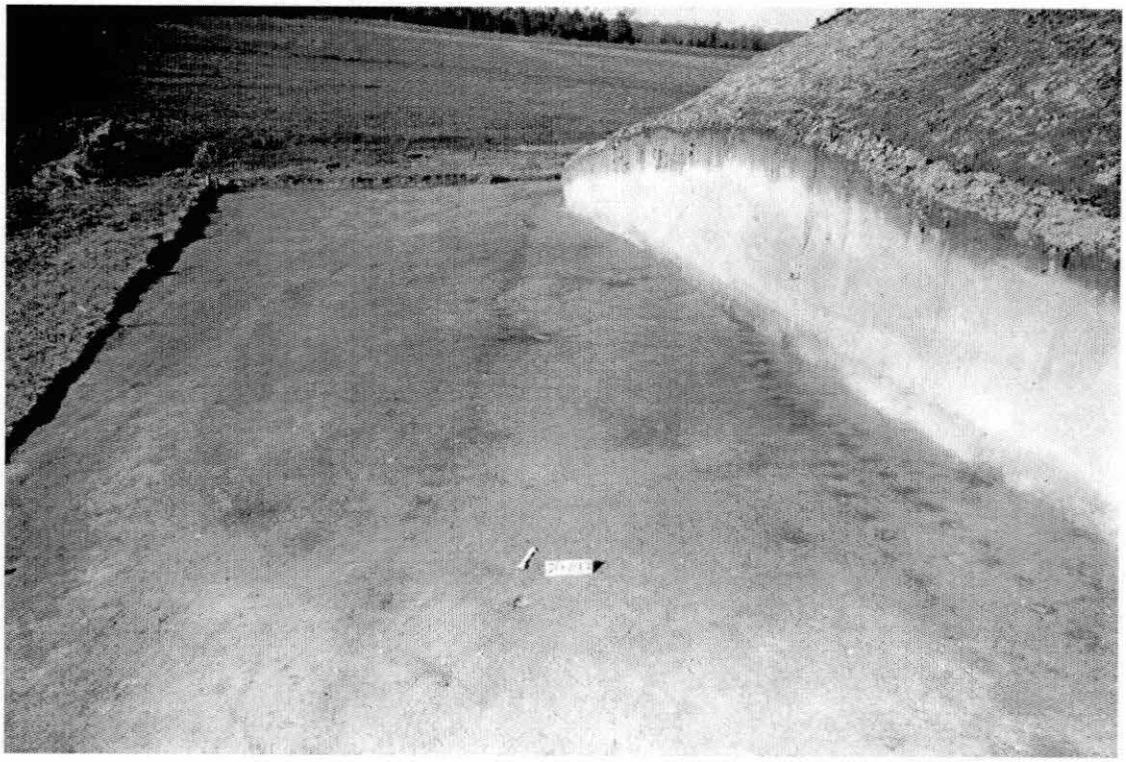


Figure 3.39. Palisade lines superimposed by the mound, 1940 (RLA image 842).

portions of Palisade Group 2 that are then covered by the mound indicates that the first mound construction at Town Creek dates to the period including the end of the early Town Creek phase, approximately A.D. 1250.

Surface treatments and rim modes indicate that Level X dates to the late Town Creek phase which suggests that activities associated with the first mound summit date to the late Town Creek phase or later. The association of a noded rim with Townhouse I (Structures 45a and 45b) on the summit of the second mound-construction stage is consistent with it dating to the early Leak phase or later. The third mound-construction stage, which had Townhouse II (Structures 46a and 46b) on its summit, was superimposed by the Mound Topsoil. The two lowest levels of the Mound Topsoil contained punctated rim strips, indicating they date to the early Leak phase or later, while the uppermost level contained notched rim strips, indicating that it dates to the late Leak phase or later. Few temporally diagnostic artifacts were found in the undisturbed yellow layer, which may represent the fourth stage of mound construction, but the disturbed yellow layer—possibly the fifth construction stage—contained a notched rim strip indicating that it dates to the late Leak phase or later. In addition to pottery, the upper layers of the mound also contained a number of glass beads indicating that activities took place on the mound after contact with Europeans.

In summary, mound construction began at Town Creek around A.D. 1250 at the end of the early Town Creek phase or the beginning of the late Town Creek phase. It is clear that summit activities took place by the late Town Creek phase or later. The buildings that were excavated on the mound summit (Structures 45a, 45b, 46a, and 46b) date to the early Leak phase or later. The mound construction stages above these structures date to the early and

late Leak phase or later. Glass beads in the uppermost layers of the mound indicate that activities continued on the mound during the Caraway phase or later.

If the first mound construction at Town Creek dates to the end of the early Town Creek phase, then all of the structures (Structures 4a, 4b, 5a, 23a, 23c, and 24) clearly superimposed by the mound would have to date to the early Town Creek phase or earlier. Additional chronological information comes from the relationship of some structures to the premound midden Level A. The field notes state that Structures 23a and 4b were on top of Level A with their postholes originating from above this level (Swart 1940b). Level A dates to the early Town Creek phase. If Structures 23a and 4b superimpose Level A, then they must date to the early Town Creek phase or later. Coupled with the fact that the premound structures must date to the late Town Creek phase or earlier, it seems likely that Structures 4b and 23a—and presumably 23c since it was connected to 23a—date to the end of the early Town Creek phase or the beginning of the late Town Creek phase.

The field notes discuss the fact that postholes associated with earlier structures were visible once Structures 4b and 23a had been removed (Swart 1940b). These postholes were observed at the top of Level A (Swart 1940b). If these earlier posts were associated with Level A, that could mean that Structures 4a and 24 date to the early Town Creek phase. Two radiocarbon dates obtained for this research are consistent with these two structures dating to the early end of Town Creek's Mississippian occupation. A date of A.D. 1130±40 (cal. A.D. 1187-1261) on a corn cob from the hearth (Feature 20/Mg2) at the center of Structure 4a places the use of this structure within the early Town Creek phase.[10] A date of A.D. 1010±40 (cal. A.D. 1033-1153) on a corn cob from a pit (Feature 54/Mg2) within Structure 5a suggests that it predates Structure 4a and may date to as early as the Teal phase.[11]

late Leak phase or later. Glass beads in the uppermost layers of the mound indicate that activities continued on the mound during the Caraway phase or later.

If the first mound construction at Town Creek dates to the end of the early Town Creek phase, then all of the structures (Structures 4a, 4b, 5a, 23a, 23c, and 24) clearly superimposed by the mound would have to date to the early Town Creek phase or earlier. Additional chronological information comes from the relationship of some structures to the premound midden Level A. The field notes state that Structures 23a and 4b were on top of Level A with their postholes originating from above this level (Swart 1940b). Level A dates to the early Town Creek phase. If Structures 23a and 4b superimpose Level A, then they must date to the early Town Creek phase or later. Coupled with the fact that the premound structures must date to the late Town Creek phase or earlier, it seems likely that Structures 4b and 23a—and presumably 23c since it was connected to 23a—date to the end of the early Town Creek phase or the beginning of the late Town Creek phase.

The field notes discuss the fact that postholes associated with earlier structures were visible once Structures 4b and 23a had been removed (Swart 1940b). These postholes were observed at the top of Level A (Swart 1940b). If these earlier posts were associated with Level A, that could mean that Structures 4a and 24 date to the early Town Creek phase. Two radiocarbon dates obtained for this research are consistent with these two structures dating to the early end of Town Creek's Mississippian occupation. A date of A.D. 1130±40 (cal. A.D. 1187-1261) on a corn cob from the hearth (Feature 20/Mg2) at the center of Structure 4a places the use of this structure within the early Town Creek phase.[10] A date of A.D. 1010±40 (cal. A.D. 1033-1153) on a corn cob from a pit (Feature 54/Mg2) within Structure 5a suggests that it predates Structure 4a and may date to as early as the Teal phase.[11]

Structure 5b is a small, rectangular building located on the north side of the Mound Area. This structure was not superimposed by the mound. Structure 5b intruded a Leak-phase burial and must date to this phase or later.

Structure 1 was located adjacent to the south side of the premound embankment, suggesting that the two could have been used at the same time. If the first mound construction at Town Creek occurred during the late Town Creek phase, then Structure 1 may date to this phase as well. This structure could not have been standing during later phases, though, because it would have been covered by subsequent mound-construction stages. Therefore, Structure 1 dates to the late Town Creek phase or earlier. The fact that Leak-phase burials were present within this structure indicates that they were placed there at a point when the structure was no longer standing.

Palisade Group 2 in the Mound Area consists of 4 to 6 concentric lines of postholes. The inner palisade lines in the Mound Area date to the end of the early Town Creek phase. The inner 3 to 5 of these are superimposed by the mound, meaning that they must date to the end of the early Town Creek phase or earlier. Additionally, these inner palisade lines intrude a terminal early Town Creek-phase pit (Feature 16/Mg2), indicating that they date to this phase or later. The outermost palisade line in this area was not beneath the mound and both could date to the same period. In the southern part of the site, the second innermost palisade contained a Leak-phase posthole, indicating that this post was removed or replaced during this phase or later.

Eastern Area

At least six structures (Structures 12, 14, 22, 30b, 49, and 51) and a rectangular enclosure (Enclosure 1) were excavated in the area adjacent to the Little River on the eastern edge of the site (Figures 3.40 and 3.41). Additionally, several clusters of burials were identified that could not be definitively associated with particular structures. As was the case with the Mound Area, the archaeological record of the Eastern Area is complex because of the overlap among structures and burial clusters.

Structures

At least three overlapping structures were located near the center of the Eastern Area (Figure 3.42). Structure 12 is a circular building that measured 31 ft in diameter, the interior of which contained 16 burials. Structure 22 was a square building measuring 21 ft on a side with an entrance trench on its west wall that faced the plaza. This structure has been referred to as the "priest's house" or the "minor temple" in the Town Creek literature (Coe 1995). Although there was no direct evidence of an earthen embankment surrounding Structure 22, the entrance trench can be used to infer the presence of such a feature at one time (see Hally 1994:154). In the case of Structure 22, it is likely that the remains of the embankment were obliterated by plowing. It is possible that a linear discoloration at the base of the plowzone that parallels one of this structure's walls in one of the field photographs from this area represents what remained of the earth-embankment at the time of excavation (Figure 3.43).

The interior of Structure 22 contained a square arrangement of four large, deep postholes. Lines of smaller postholes can be seen between these larger ones, indicating the presence of benches or other interior furniture. It is unclear which, if any, of the burials

Figure 3.40. All features in the Eastern Area.

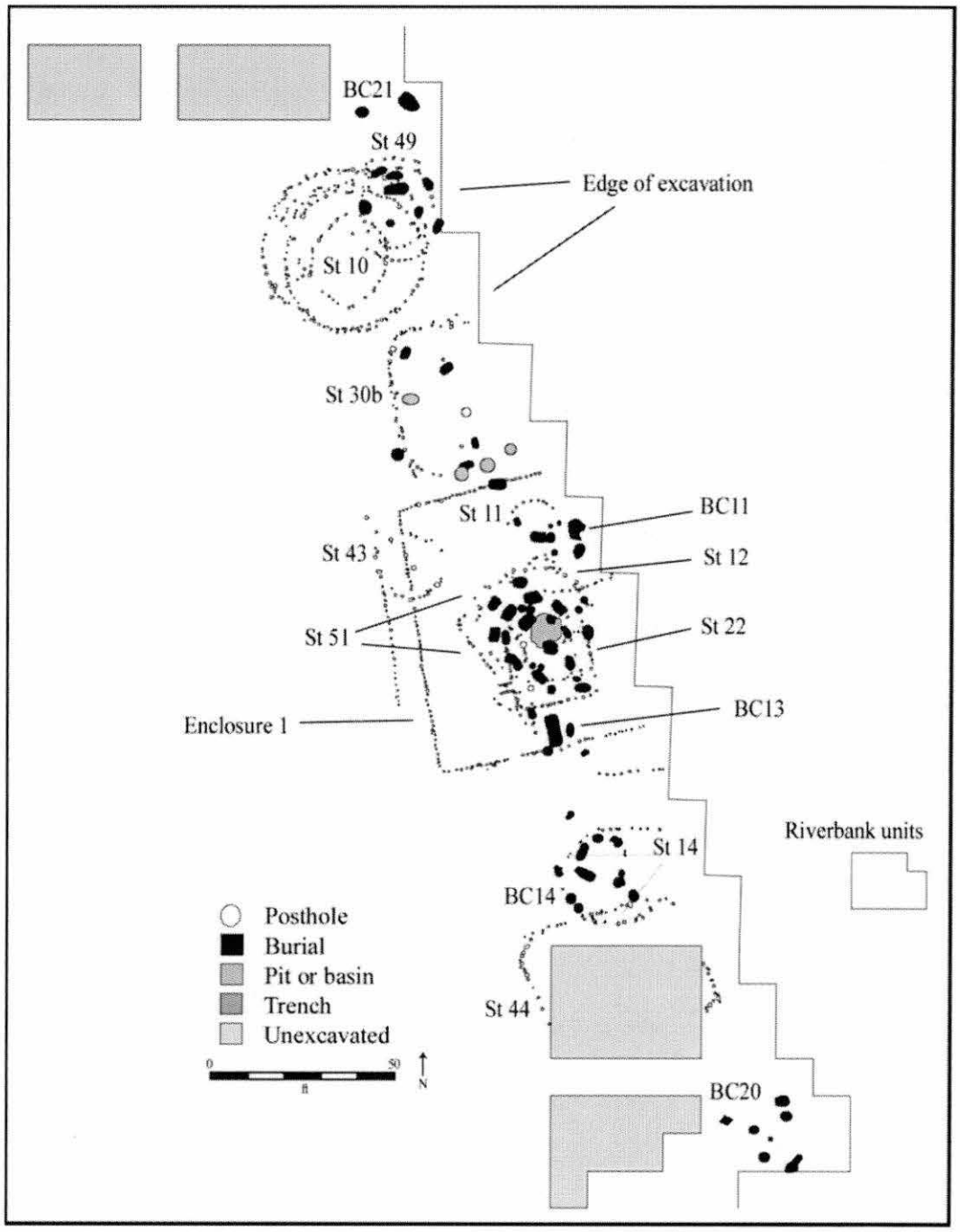


Figure 3.41. Identified architectural elements in the Eastern Area.

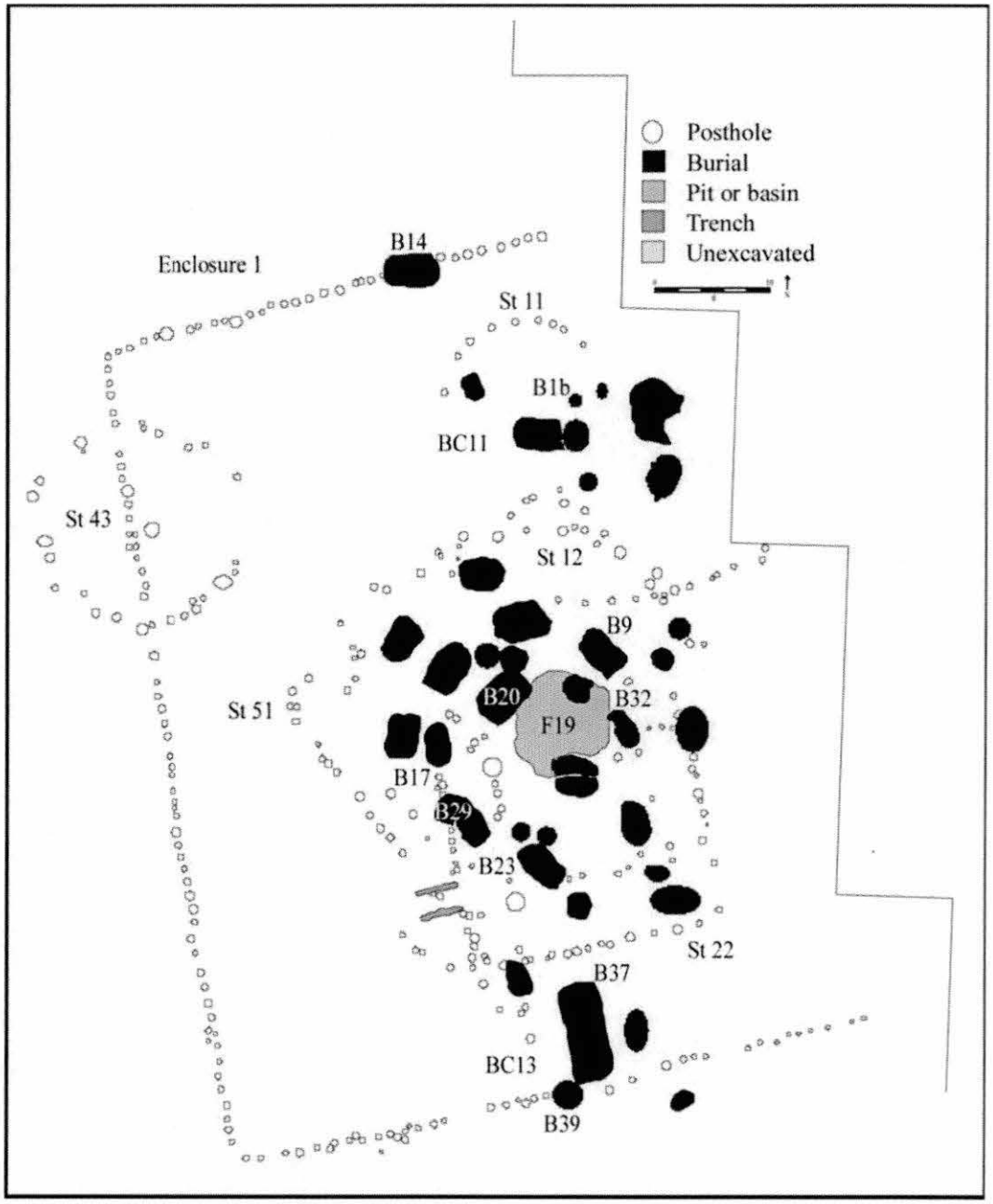


Figure 3.42. Identified architectural elements within Enclosure 1.

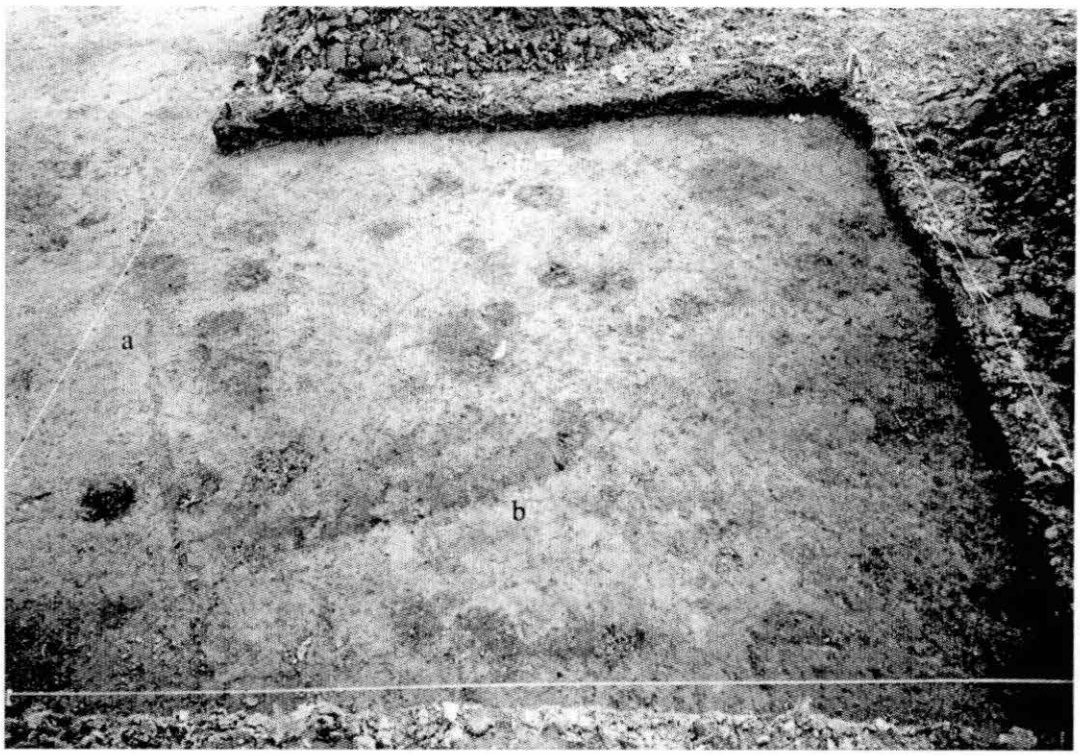


Figure 3.43. Soil discoloration in Sq. 50/Mg3 adjacent to Structure 22, facing south: (a) soil discoloration (b) entrance trench (RLA image 790).

within Structure 22 were actually related to it. Burials have not been attributed to Structure 22 for two reasons. First, many of the burials in the vicinity are clearly not associated with Structure 22 because they either superimpose or are superimposed by the structure. Second, Structure 22 is very similar to Structures 4b and 23a, neither of which was clearly associated with many, if any, burials. If these two structures can be used as models, then Structure 22 may not have contained associated burials.

Structure 51, a square construction measuring 31 ft on a side, contained at least five burials. The orientation of Structure 51 is about 45 degrees from that of Structure 22. Although the burials within Structures 12 and 51 overlap, I have attributed to Structure 51 five burials (Burials 9, 20, 23, 29, and 32/Mg3) that parallel its walls.

Structure 30b is a rectangular building measuring 30-×-40-ft with rounded corners located to the north of Structures 12 and 22 (Figure 3.44). Interior features include three large pits on the structure's south side (Features 11, 21, and 22/Mg3). Two burials (Burials 14 and 28/Mg3) were located just outside of the building and were presumably associated with it, although this relationship is unclear. Four other burials were widely spaced across the structure's interior. One of these was located in the northwest corner (Burial 83/Mg3), and another was located near the south wall (Burial 27/Mg3). The other two (Burials 11 and 26/Mg3) were located on opposite sides of a large hearth along the structure's north-south midline. These three features were aligned with and located between two deep postholes (1.1 and 1.8 ft) that probably represent interior roof supports. If this was the case, then Structure 30b exhibits a slightly different architectural style than other rectangular structures that had four interior roof supports arranged in a square. It could have been that Structure 30b had a gabled roof with a central ridge pole.

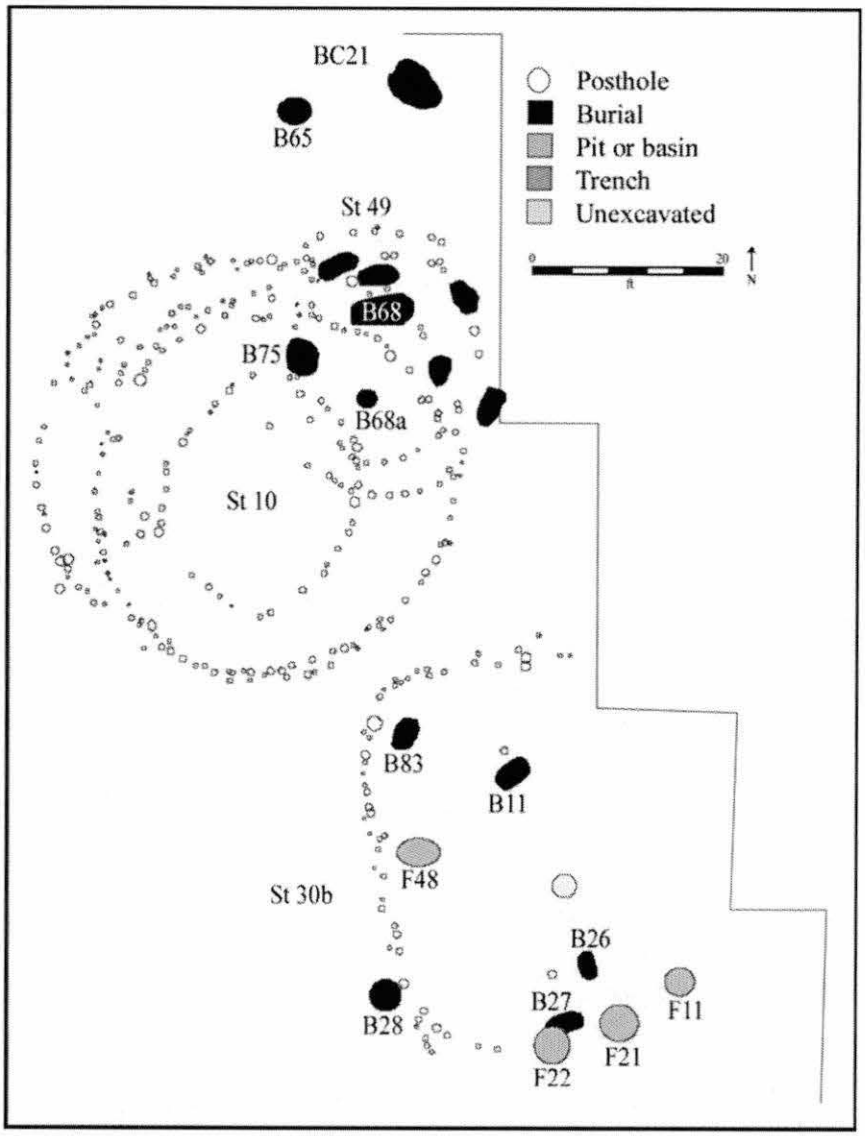


Figure 3.44. Identified architectural elements in the northern part of the Eastern Area.

Structure 49 is a circular building measuring 27 ft in diameter located to the northwest of Structure 30b. It contained a single extended burial (Burial 68/Mg3) in the middle of five flexed burials and an urn burial (Burial 68a/Mg3). Burials 68a and 75/Mg3 were located within Structure 10 and may have been associated with it, but I have attributed them to Structure 49 because there was some distance between these burials and the cluster of features located near the center of Structure 10 and because they complete the circle around the extended burial within Structure 49.

Structure 14 is an incompletely defined circular building 25 ft in diameter located to the south of Enclosure 1 (Figure 3.45). A spatially discrete cluster of burials occurs in and around this structure, but I have attributed these burials to two different entities, Structure 14 and Burial Cluster 14. The burials attributed to Structure 14 consist of seven individuals, six flexed and one extended (Burial 50/Mg3), arranged in a square or circle around an open space. The Burial Cluster 14 burials, which will be discussed later, were segregated because they appear to date to the Protohistoric Caraway phase. The Structure 14 burials appear to be Mississippian for several reasons. First, their arrangement in a circle or square around a relatively open space is similar to other clusters of Mississippian burials at Town Creek (e.g., Structures 2 and 5b). Second, objects associated with burials in the Structure 14 cluster include a copper axe and a shell gorget in the Pine Island style (Brain and Phillips 1996:28-30), both of which are artifact types that have been dated to the Mississippian period. Third, burials within the Protohistoric-period Burial Cluster 14 superimpose both the wall of and a burial within Structure 14, indicating that the two are distinct and that the former predates the latter.

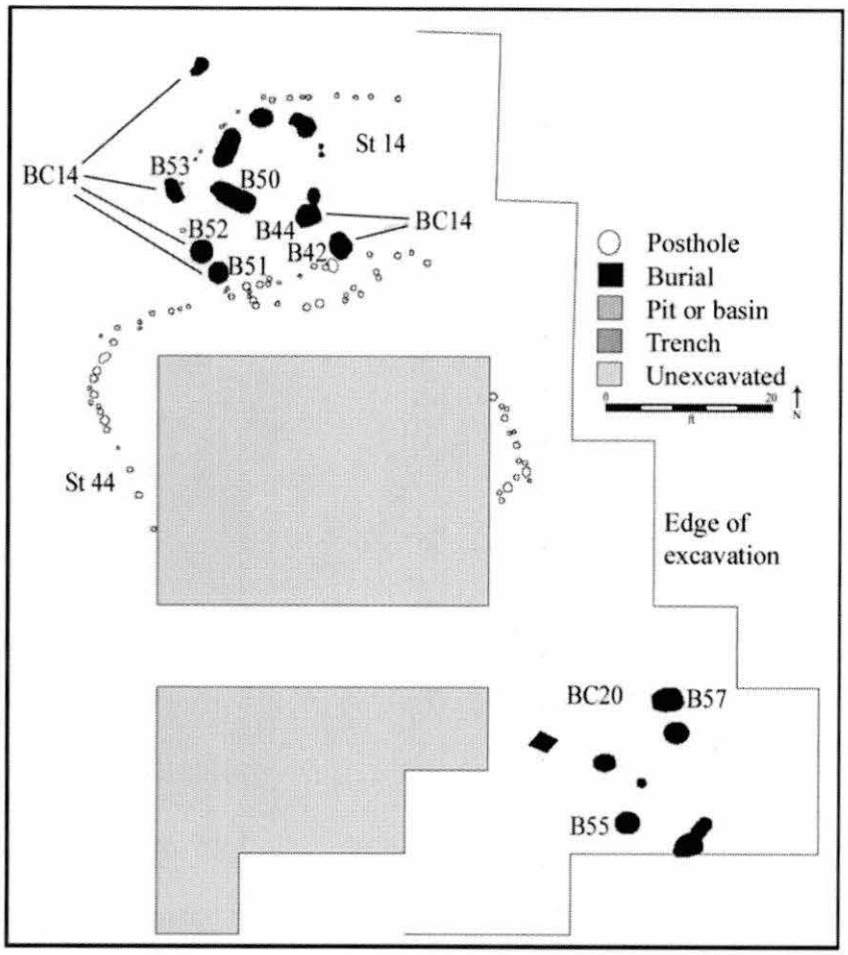


Figure 3.45. Identified architectural elements in the southern part of the Eastern Area.

Enclosure 1

Enclosure 1 is a large, rectangular construction measuring 71-×-56 ft located on the edge of the terrace adjacent to the Little River. Only three sides of Enclosure 1 were identified, but it is possible that the fourth was located in the adjacent unexcavated area or that it was obliterated by erosion next to the river. This construction is identified as an enclosure rather than a structure because of its large size, covering an area of at least 3900 ft^2. Three linear arrangements of postholes—one to the west and two to the south—may be associated with Enclosure 1 and these may represent rebuilding and expansion episodes of this enclosure, although complete patterns could not be identified.

Several burial clusters and at least three structures were located within the space defined by Enclosure 1. While the associations among these elements are unclear, the most obvious relationship is that Enclosure 1 and Structure 22 have parallel orientations. However, Enclosure 1 has connections with Structures 12 and 51 as well. Structure 12 is more or less centered within Enclosure 1. Structure 51 contains a burial (Burial 20/Mg3) that is centered exactly within Enclosure 1. The approximate middle of this grave is 45 ft from both the northwest and southwest corners of Enclosure 1. Although the east wall of Enclosure 1 was not recognized, one can assume that the southern line of postholes is more complete than the northern line because the former is longer. A diagonal drawn from the northwest to southeast corners passes through Burial 20/Mg3 as does a diagonal line drawn from the southwest corner to the projected location—based on the length of the more complete southern wall—of the northeast corner (Figure 3.46). Thus, the diagonals of the rectangle formed by Enclosure 1 intersect at the location of Burial 20/Mg3.

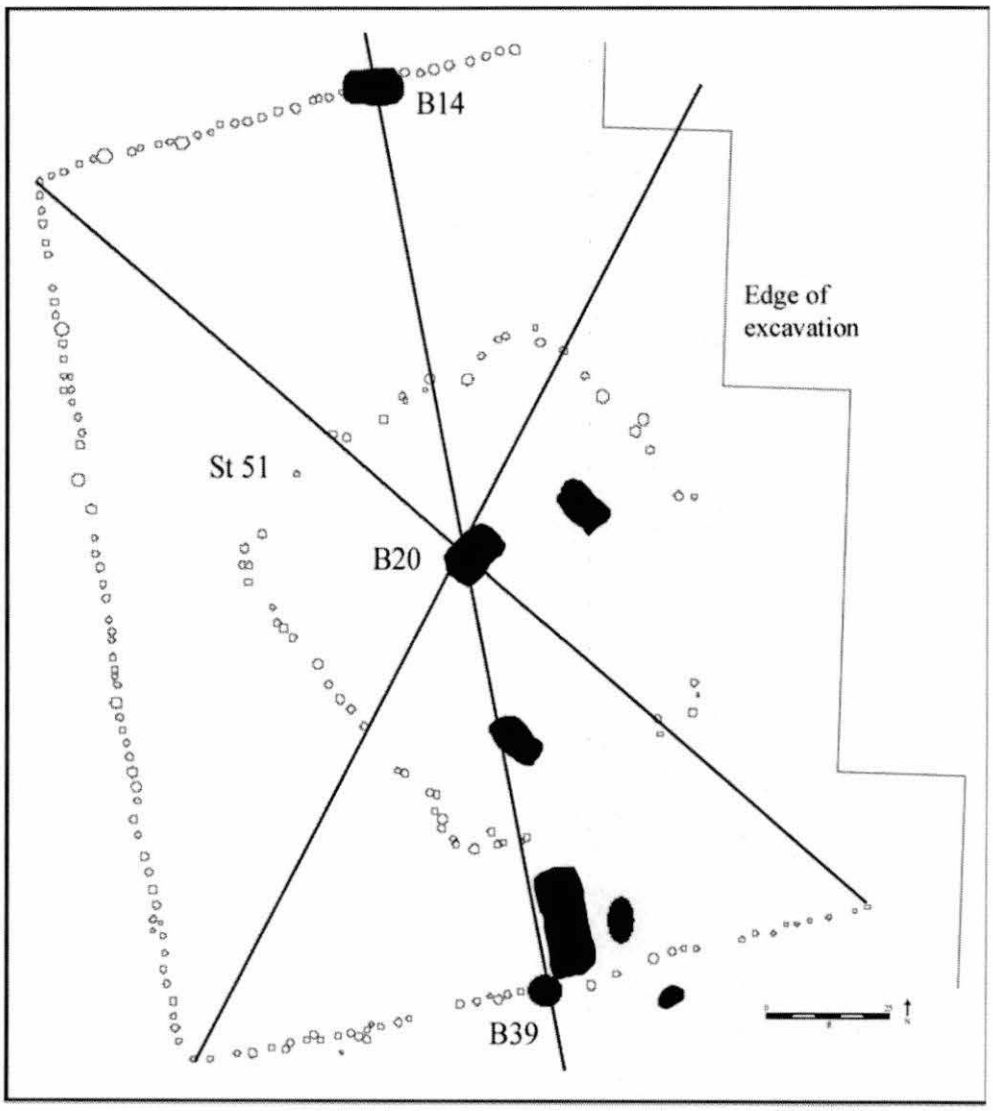


Figure 3.46. Axes within Enclosure 1 that intersect Burial 20/Mg3.

Enclosure 1 intrudes two burials (Burials 14 and 39/Mg3), which is unremarkable due to the density of features at Town Creek. There are several reasons why this may not be due to chance. First, the center of each burial is approximately the same distance, 27 and 29 ft, from the enclosure's eastern corners. Second, both individuals are oriented parallel to the line of postholes that superimposes them. Third, these two burials are aligned with the centrally located Burial 20/Mg3 (Figure 3.46). Fourth, the two burials superimposed by Enclosure 1 may have been aligned with features across the plaza in the mound locus. In the earlier section on Structures 4a and 4b, it was noted that an east-west line drawn through the hearths and extended burials in Structure 4a would not only bisect that structure, but it would also pass through another hearth and burial to the west as well as the northwestern interior support post within Structure 4b. If this line was extended to the east all the way across the plaza, it would pass through Burial 39/Mg3, the burial superimposed by the southern wall of Enclosure 1 (Figure 3.47). Similarly, a line from the entrance trenches of Structure 23a that was oriented the same as this structure if extended to the east across the plaza would pass through Burial 14/Mg3, the northern burial superimposed by Enclosure 1. The facts that the two burials superimposed by Enclosure 1 were the same distance from its western corners, are aligned with the centrally located burial, and may have been aligned with features of public buildings across the plaza suggest that they may have initially defined the space that was eventually delineated by Enclosure 1. This indicates that the layout of the Mississippian town at Town Creek was based on a unified plan that existed early in the community's history.

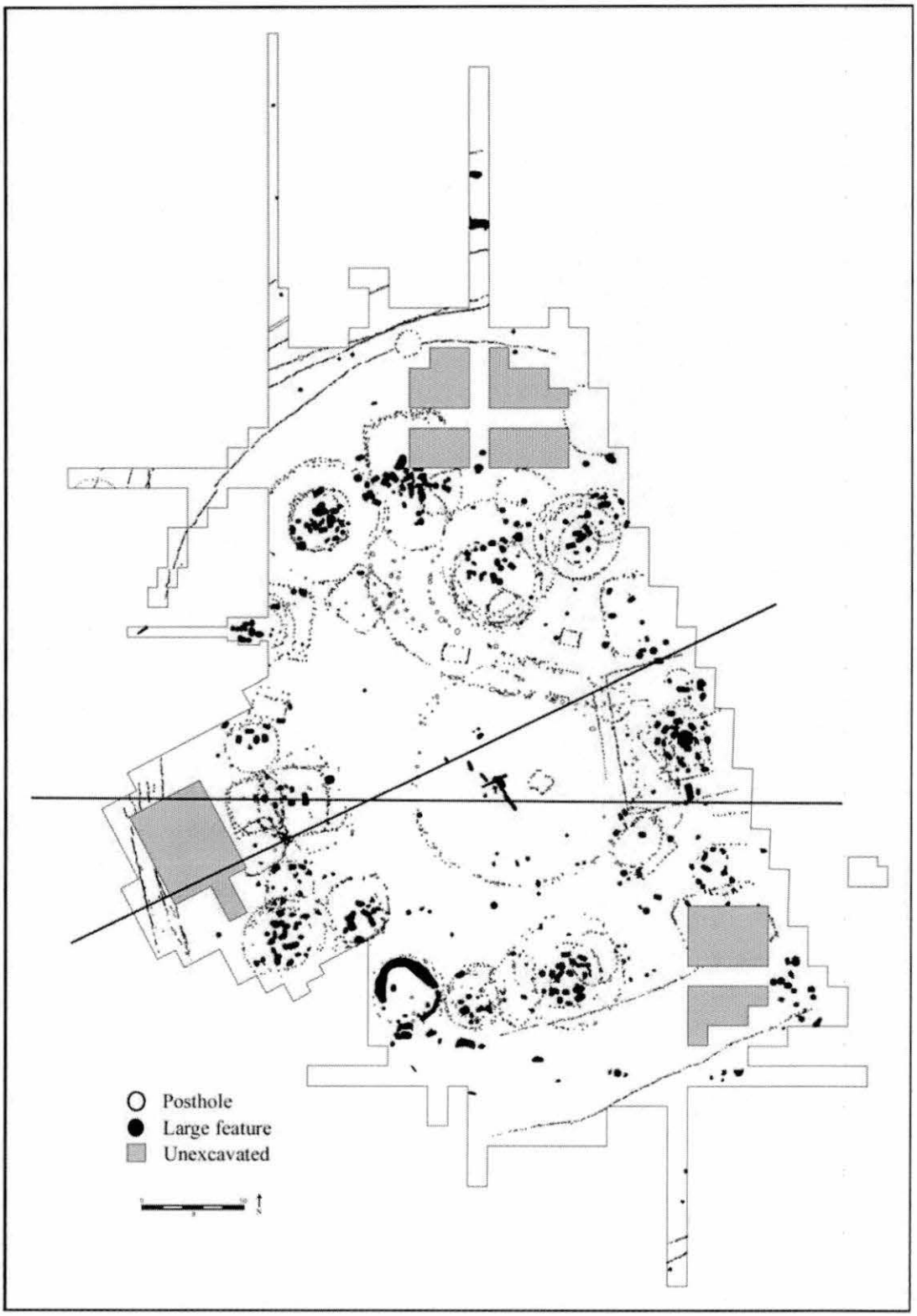


Figure 3.47. Alignments among submound features and burials superimposed by Enclosure 1.

Burial Clusters

Five clusters of burials that were not clearly associated with any structure were identified in the Eastern Area. Four of these clusters were defined because the burials that constitute them occurred in spatially discrete clusters. The other cluster was not spatially discrete, but was recognized as distinct based on artifact associations and burial pit morphology.

Two burial clusters were located in the northeast corner of the site. Burial Cluster 21 consisted of three burials containing five individuals. One of these was a bundle burial (Burial 65/Mg3) while the other burial types could not be determined due to their deteriorated condition. Two burial clusters were located within Enclosure 1. Burial Cluster 11 consisted of nine human burials and at least four other features located on the north side of this enclosure. The burial types that could be determined were flexed. This cluster is unique because it also contained a dog burial (Burial 1b/Mg3) with the remains having been placed inside a large ceramic jar or burial urn (Figure 3.48). Burial Cluster 13 was located on the south side of Enclosure 1. It consisted of four burials, two of which were flexed, surrounding an extended burial (Burial 37/Mg3). This extended burial was oriented the same as Enclosure 1 and was located immediately adjacent to its south wall. The posts from this wall are so close to the edge of the burial pit that it could be argued that they skirt the edge of the burial but do not superimpose it. That the posts did indeed cut into the burial pit is stated on the burial form and appears to be the case in several photographs (Figure 3.49), although this relationship is by no means clear.

Burial Cluster 14 overlaps with the cluster of burials that has been attributed to Structure 14. The five flexed burials that constitute Burial Cluster 14 were segregated for

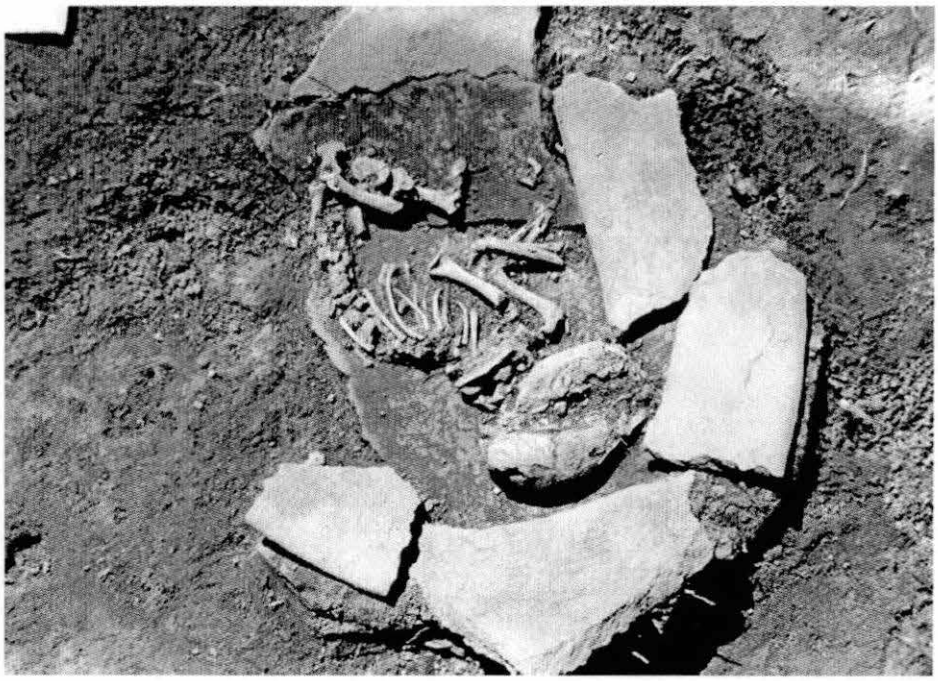


Figure 3.48. Dog burial within Burial Cluster 11, 1940 (RLA image 555).

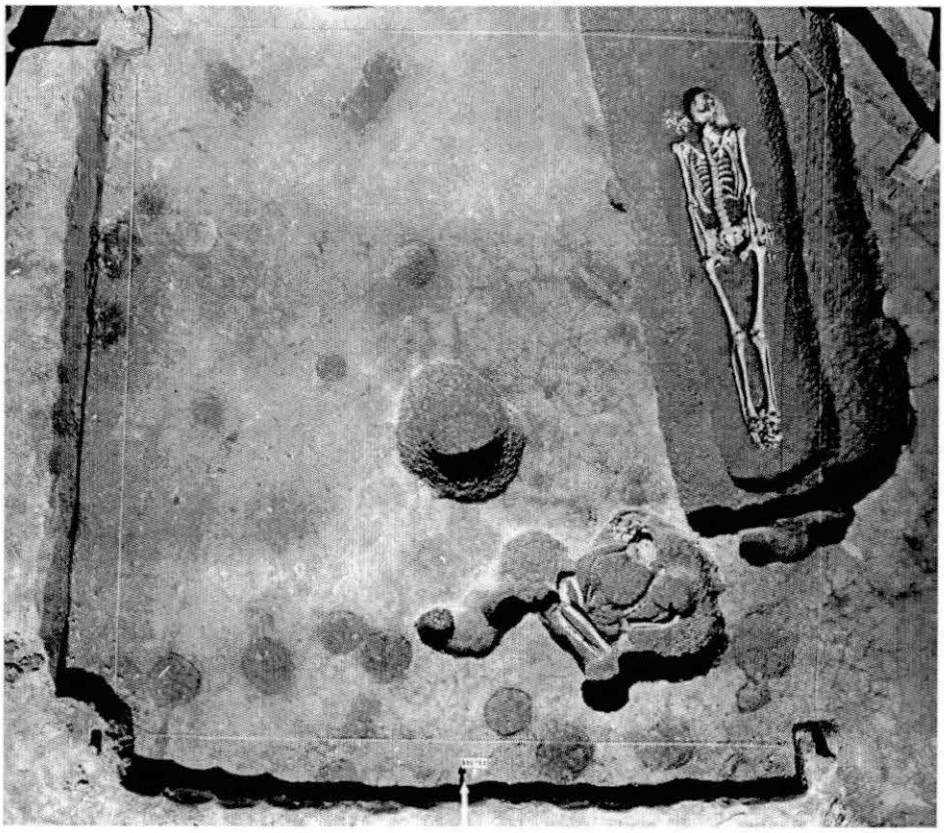


Figure 3.49. Postholes forming the southern wall of Enclosure 1 and their relationship with Burials 39 (left) and 37 (right)/Mg3, 1941 (RLA image 832).

several reasons. First, pits of four of these burials (Burials 44, 51, 52, and 53/Mg3) are of a type that is referred to as shaft-and-chamber which consists of a "shaft" excavated straight down from ground surface and a "chamber" in which the body was placed excavated to one side. Shaft-and-chamber burials are commonly found on sites in the Piedmont that date to the fifteenth century or later (Coe 1995:278-281; Ward 1987:86; Ward and Davis 1999:113-114). Second, two of the burials (Burials 51 and 52/Mg3) contained glass beads and a brass gorget, indicating that they postdate European contact. While the remaining burial (Burial 42/Mg3) in the cluster is not associated with any attribute that indicates it dates to the Protohistoric period, it is among the other clearly Protohistoric burials and set apart from the Mississippian burials. Third, several of the burials in Burial Cluster 14 superimpose the wall of and a burial within Structure 14, indicating that the burial cluster and the structure are temporally discrete.

Burial Cluster 20 was a group of eight excavated burials located in the southeast corner of the site. Seven of these were complete enough to determine that they were flexed. Several large, unexcavated features were located nearby, and it is likely that they represent other burials that can be attributed to this cluster. There are two indications that Burial Cluster 20 postdates the Mississippian-period occupation at Town Creek. First, one of the burials (Burial 55/Mg3) in Burial Cluster 20 was interred in a shaft-and-chamber pit and was associated with a glass bead. Second, another burial (Burial 57/Mg3) was associated with a pottery pipe made in a style found at sites in the Piedmont that date to the fifteenth century or later (Figure 3.50) (Ward and Davis 1993:413, 1999:Figure 7.5).

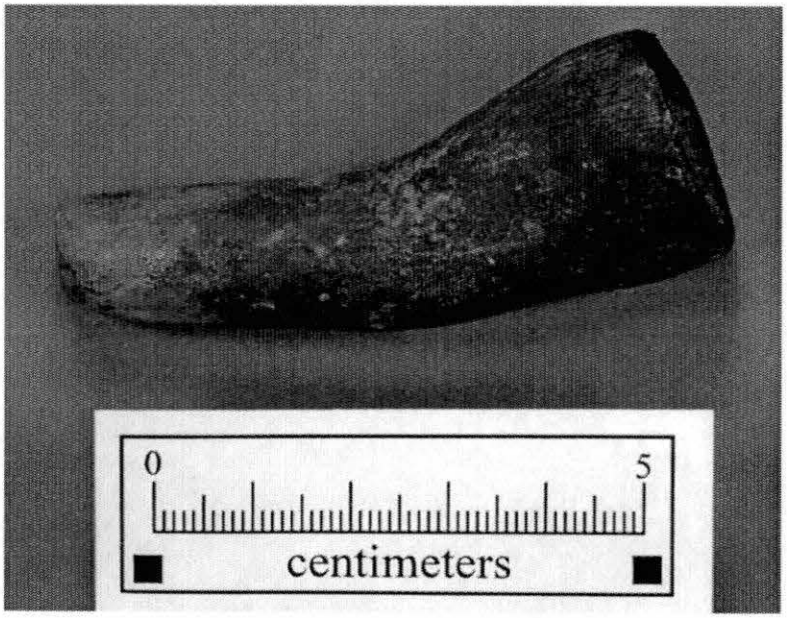


Figure 3.50. Clay pipe associated with Burial 57/Mg3 (Photograph by R. P. Stephen Davis, Jr.).

Sequence of Eastern Area Architecture

Structures 12, 22, and 51 are the only overlapping structures that were excavated in the Eastern Area (Figure 3.51). It appears for several reasons that Structure 12 was superimposed by Structure 22. At least one of the burials (Burial 17/Mg3) within Structure 12 was superimposed by a posthole associated with Structure 22. Also, it is very hard to define Structure 12 in the area where it overlaps with Structure 22, suggesting that the latter was built later and activities associated with it obliterated the posts associated with Structure 12. It appears that Structure 22 was in turn superimposed by Structure 51. Structure 22 was superimposed by burials (Burials 20 and 32/Mg3) associated with Structure 51, including Burial 32/Mg3 which superimposed Structure 22's northeast interior support post. Also, the north wall of Structure 22 was superimposed by a feature (Feature 19/Mg3) which was in turn superimposed by a burial (Burial 20/Mg3) within Structure 51. Enclosure 1 appears to postdate Burial Cluster 13 because its south wall superimposes at least one and possibly two of the burials in the former.

Chronological Information

Structure 12 contained two burials (Burial 18 and Feature 17/Mg3) with rosettes, indicating that it dates to the end of the early Town Creek phase or later. This structure was superimposed on its north side by a cluster of Leak-phase features (Feature 12/Mg3) and thus dates to the Leak phase or earlier. Thus, it seems that Structure 12 can be attributed to the end of the early Town Creek phase or the late Town Creek phase. Structure 22 postdates Structure 12. Additionally, Structure 22 is superimposed by a Leak-phase feature (Feature

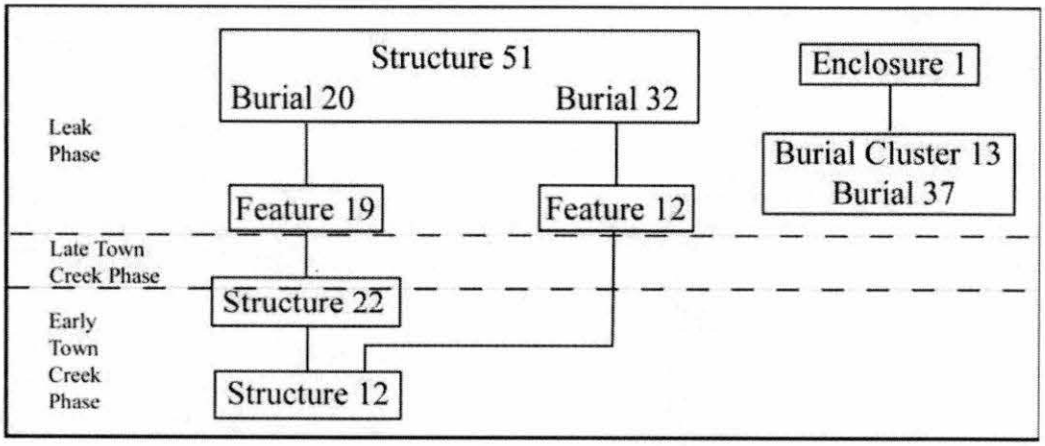


Figure 3.51. Schematic representation of the stratigraphic relationships in the Eastern Area.

19/Mg3) and burial (Burial 20/Mg3) which means that it must date to the Leak phase or earlier.

Structure 14 contained a Town Creek phase burial (Burial 53/Mg3), and it was superimposed by Protohistoric burials associated with Burial Cluster 14. Thus, Structure 14 dates to the Mississippian period, although which phase is unclear. The walls of Structure 30b had a Leak-phase posthole, indicating that the structure was removed or repaired during the Leak phase or later. The interior of Structure 30b contained a late Town Creek burial (Burial 83/Mg3) and a Leak-phase pit (Feature 11/Mg3). A Leak-phase burial (Burial 28/Mg3) was located adjacent to but just outside of the structure's west wall, but its association with Structure 30b is not clear. Structure 30b's east wall is superimposed by a very large Leak-phase basin (Feature 13/Mg3), suggesting that the structure could date to the Leak phase or earlier. Based on the interior features and the superposition of the east wall, I think that Structure 30b can be attributed to the Leak phase.

Enclosure 1 may superimpose the Leak-phase Burial 37/Mg3. If so, then Enclosure 1 dates to the later end of Town Creek's Mississippian occupation, to the Leak phase or later. Additionally, the central location within Enclosure 1 of the Leak-phase Burial 20/Mg3 suggests that the two are related. If so, this also indicates that Enclosure 1 dates to the Leak phase or later.

Several of the burial clusters in the Eastern Area included temporally diagnostic artifacts. The bundle burial (Burial 65/Mg3) within Burial Cluster 21 dates to the Leak phase or later. Burial Cluster 11 contained late Town Creek (Burial 8/Mg3) and Leak-phase features (Features 8 and 12/Mg3), suggesting that the cluster as a whole dates to the Leak phase or later. Burial Cluster 14 contained glass beads, a brass gorget, and shaft-and-

chamber burial pits that indicate it dates to the Protohistoric Caraway phase. The brass gorget is circular with a small hole at its center, a form suggesting that it postdates A.D. 1630 (Figure 3.52) (Waselkov 1989:123). Burial Cluster 20, a shaft-and-chamber burial with a glass bead, also appears to date to the Caraway phase.

Northwestern Area

The Northwestern Area contained at least three and possibly four excavated structures, and a burial cluster (Figures 3.53 and 3.54). Two of the structures are rectangular and another is circular. An additional rectangular structure was located in this area, but it overlaps significantly with another structure, so defining it was difficult.

Structure 7 is a complex arrangement of at least two concentric circular patterns of postholes with a dense cluster of burials at its center. This is by far the largest cluster at the site with 40 burials containing 50 individuals. The inner posthole pattern in Structure 7 is 30 ft in diameter and is centered within the outer posthole pattern, which is 62 ft in diameter. All of the burials were located within the inner pattern. Most of the burials within Structure 7 were in a flexed position. Seven urn burials (Burials 97, 98, 102a, 103, 113, 121, and 124/Mg3) that contained the remains of children were also present. The center of the burial cluster, which was also the center of the outermost circular pattern of posts, consisted of four burials arranged in a square surrounding an open space. One of these was an extended burial (Burial 117/Mg3). The burials of three children, two of which were in urns (Burials 113 and 121/Mg3), were located within the open space at the center of the structure. Another burial of a child (Burial 122/Mg3) was located in the open, central area of the burial cluster. An extended burial was situated to the north of the cluster (Burial 90/Mg3).

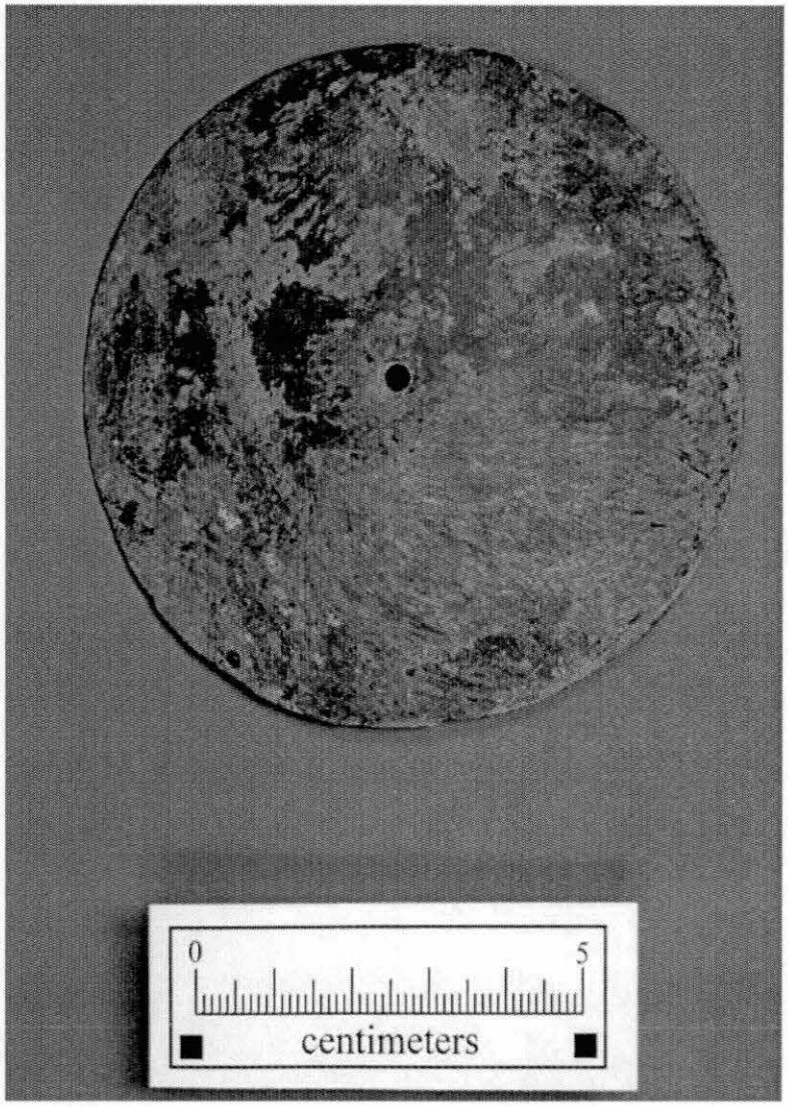


Figure 3.52. Brass gorget associated with Burial 52/Mg3 (Photograph by R. P. Stephen Davis, Jr.).

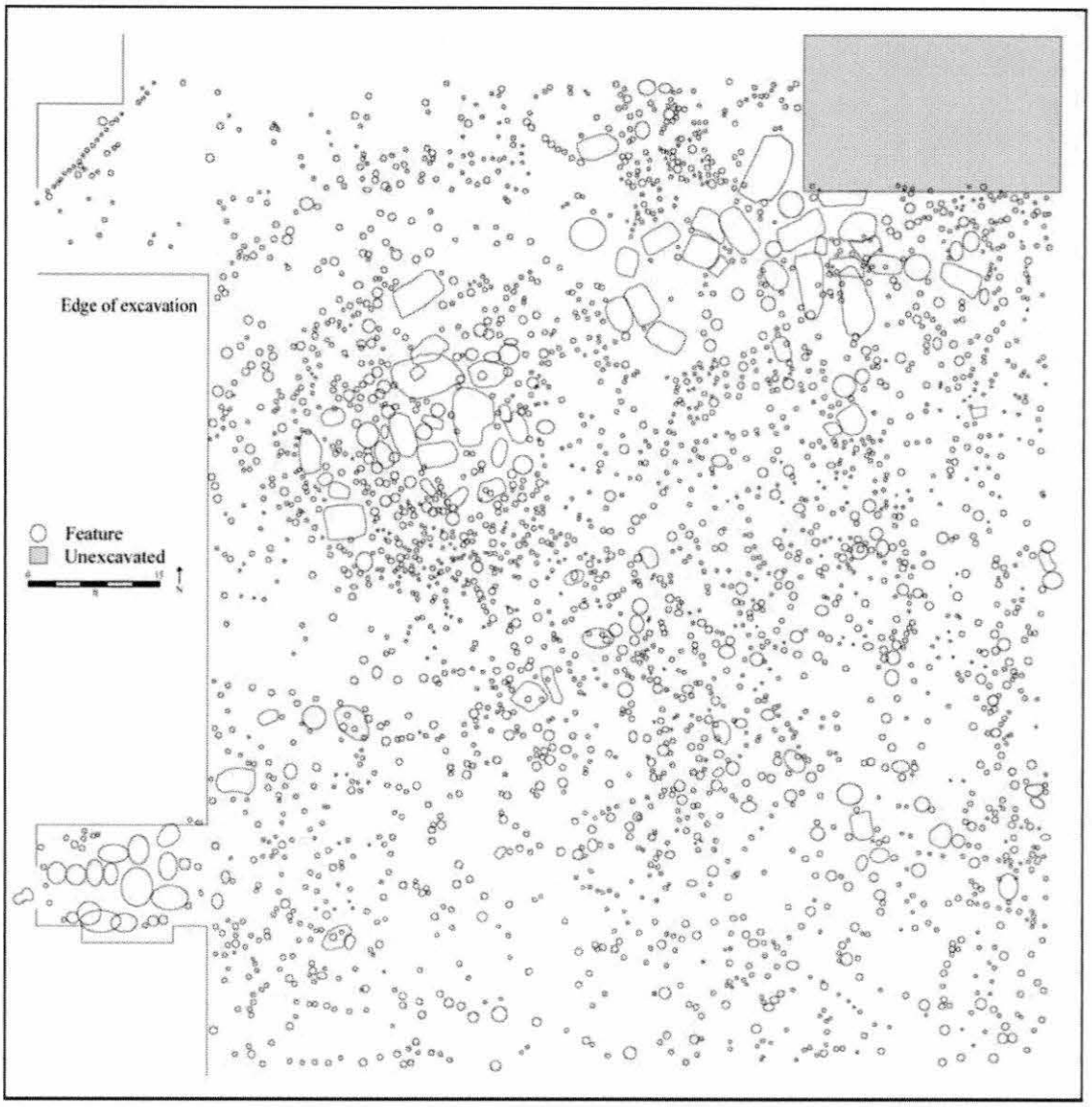


Figure 3.53. All features in the Northwestern Area.

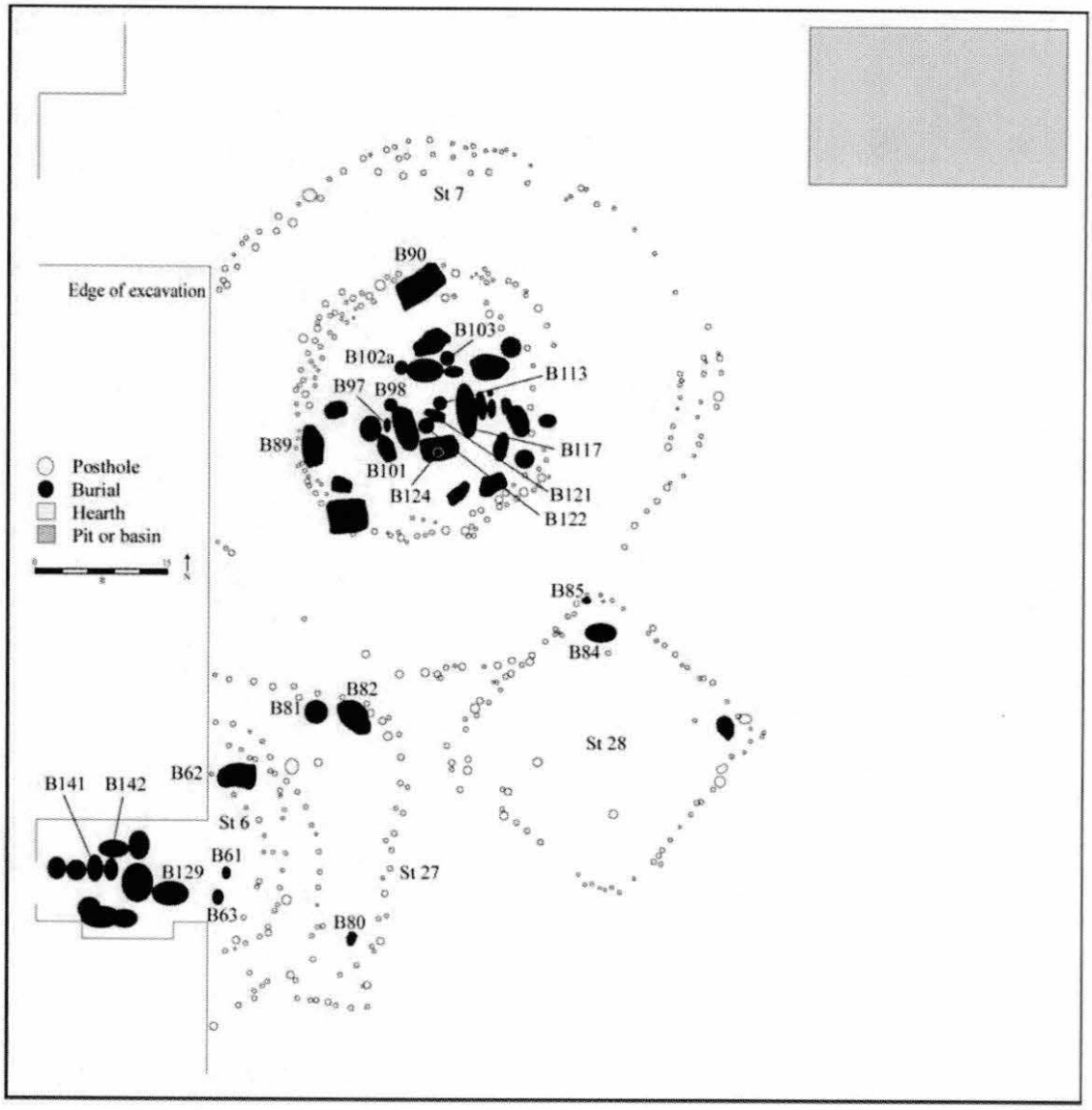


Figure 3.54. Identified architectural elements in the Northwestern Area.

Structure 28 is a square building (26 ft on a side) with its corners oriented to the cardinal directions. Its interior contained a square arrangement of four deep postholes (1.3 to 1.6 ft) that probably represent interior support posts. Three burials were located inside Structure 28, two in its northern corner (Burials 84 and 85/Mg3) and one in its eastern corner (Burial 76/Mg3).

Structure 27 is a rectangular structure with rounded corners. It measured 35 ft along its north-south axis, but its eastern side was not fully exposed by excavators. A large, deep posthole (1.2 ft) may represent the northeastern corner of a rectangular arrangement of interior support posts, but the corresponding post on the southeastern corner could not be clearly identified. Structure 27 contained six burials. These include child burials near the northeast (Burials 81 and 82/Mg3) and southeastern (Burial 80/Mg3) corners of the structure and a rectangular pit (Burial 62/Mg3) that contained the disarticulated, scattered remains of four individuals.

Structure 6 is a poorly defined circular structure that overlaps Structure 27. Structure 6 was 30 ft in diameter. The eastern half of Structure 6 was excavated as was a cluster of 13 burials at its center containing 18 individuals. The western portion of Structure 6 was not excavated. Burials 61 and 63/Mg3 were located close to the Structure 6 burials, but I have attributed them to Structure 27 because they were located some distance away, unlike all of the other burials within Structure 6. Structure 6 contained mostly flexed burials with the one exception being an extended burial located near its center (Burial 141/Mg3).

Chronological Information

Except for the fact that Structures 7 and 28 overlap, there were no stratigraphic relationships in the Northwestern Area. Structure 7 contained several Town Creek and pre-Leak-phase burials and features. A late Town Creek posthole inside the structure indicates that it was repaired or replaced during this phase or later. Two Leak-phase burials, one based on a rim treatment (Burial 89/Mg3) and the other on a surface treatment (Burial 101/Mg3), indicate that burials were added to this cluster during this phase or later. A posthole in the southern part of Structure 7 contained a Leak-phase sherd, but it is possible that this was associated with Structure 28 which contains two other Leak-phase posts in its interior. Thus, it seems likely that posts associated with Structure 28 were removed during the Leak phase or later. Structure 27 contained a Leak-phase posthole in its east wall, which indicates that it too was repaired or replaced during this phase or later. Structure 6 contained burials with Teal (Burial 142/Mg3) and general Town Creek (Burial 129/Mg3) phase diagnostic ceramics, indicating that it dates to the latter phase or later.

Southwestern Area

A structure and a burial cluster were excavated in the southwestern part of the site (Figures 3.55 and 3.56). Structure 18 is an enigmatic construction that consists of a wide (2 to 7 ft), shallow (approximately 0.5 ft) circular feature (Feature 58/Mg3)—divided into at least two semicircular segments—just inside a circular arrangement of posts that is 36 ft in diameter (Figures 3.57 and 3.58). These appear to represent a ditch feature along the interior wall of a circular structure. The fact that Feature 58 appears to be open to the southwest could indicate that this was where the structure's entrance was located. The presence of a

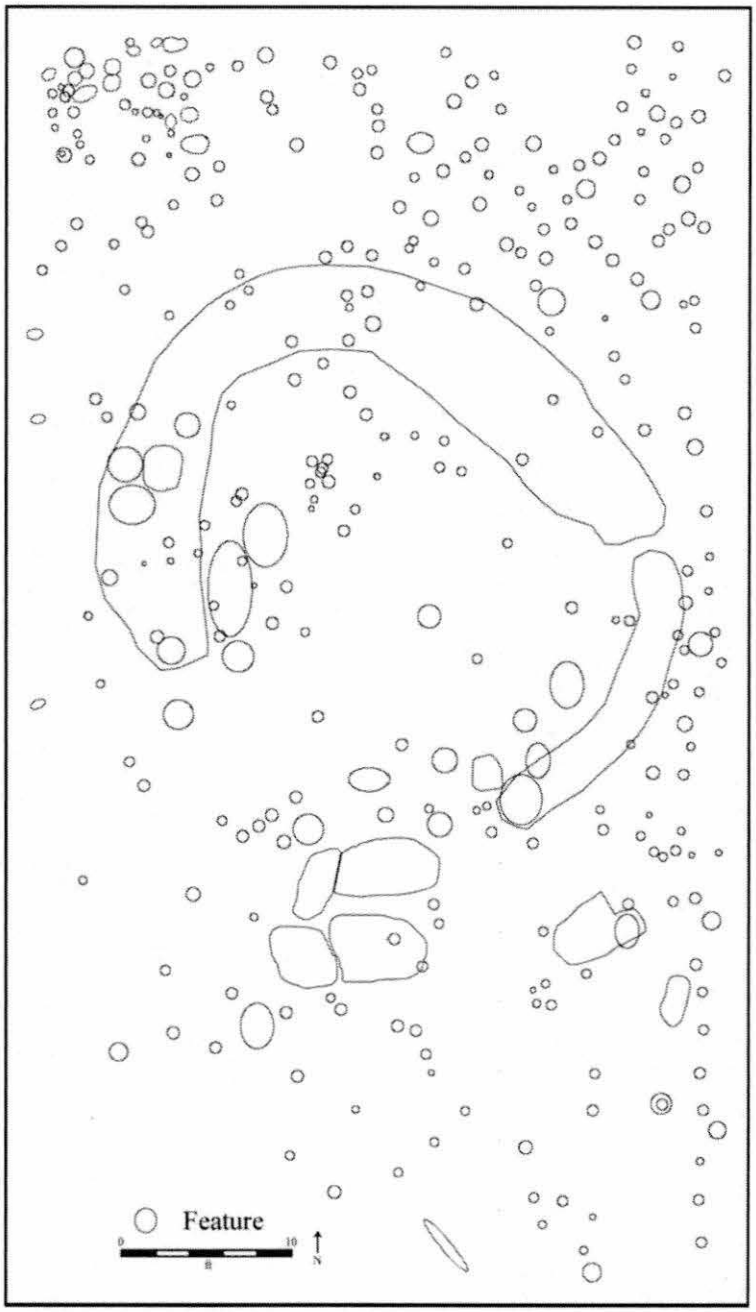


Figure 3.55. All features in the Southwestern Area.

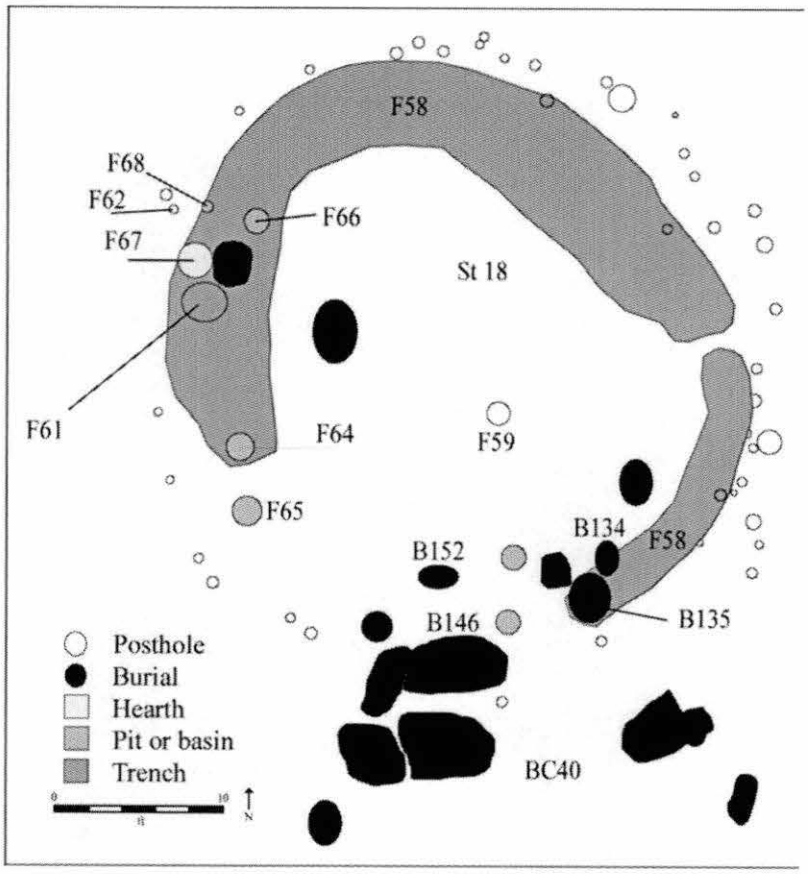
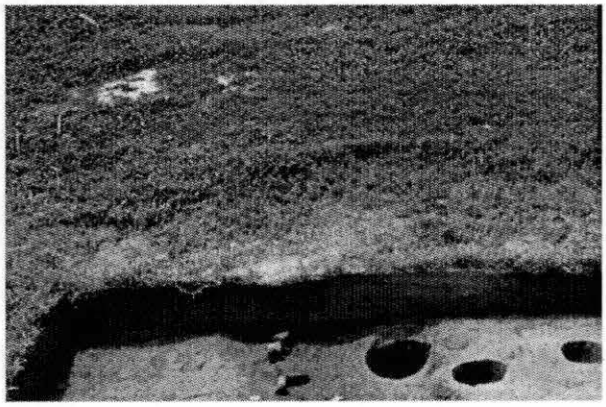


Figure 3.56. Identified architectural elements in the Southwestern Area.



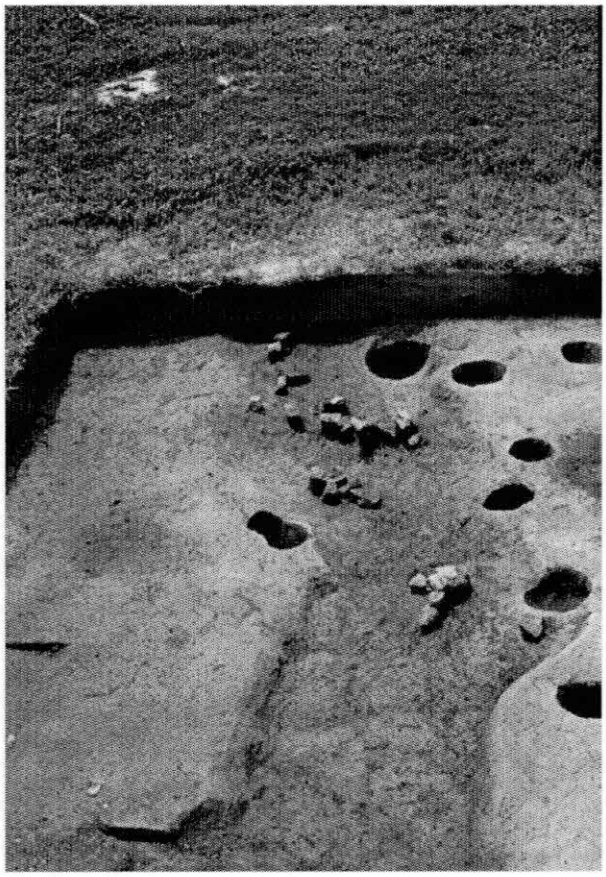


Figure 3.57. Excavated portion of Feature 58/Mg3 (RLA image x2241).

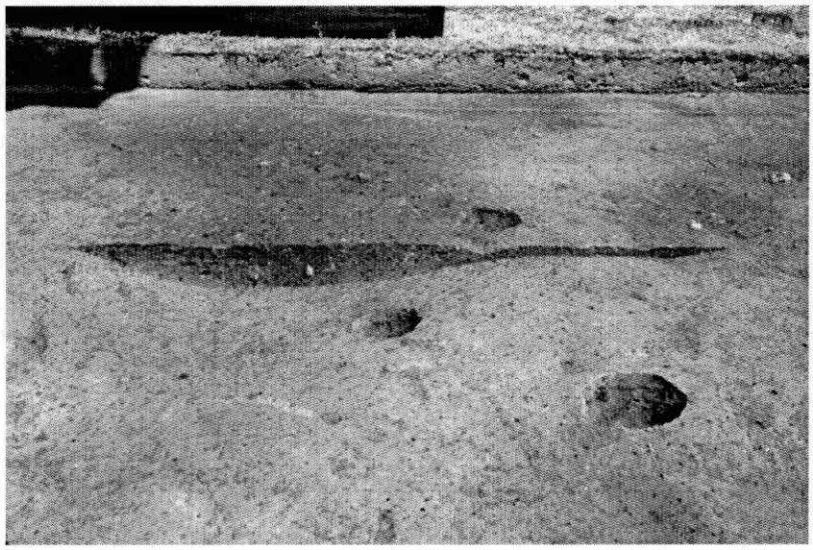


Figure 3.58. Cross-section of Feature 58/Mg3 (RLA image x2339).

charred exterior post (Features 61/Mg3), a charcoal-filled feature (Features 62/Mg3), and a charred interior post (Feature 59/Mg3) suggest that this structure burned. Additionally, some of the exterior posts in the photographs are very dark and possibly filled with charcoal (Figure 3.59).

A number of features were clustered in and around Feature 58/Mg3. Some of these were superimposed by Feature 58. These include at least two burials (Burials 134 and 135/Mg3), a hearth (Feature 67/Mg3), a pit (Feature 66/Mg3), and a basin (Feature 68/Mg3). Six other burials, as well as two large unexcavated features that were probably burials, were located either within or adjacent to Feature 58, but their stratigraphic relationships are not clear. One burial (Burial 152/Mg3) was located in the open area on Structure 18's southwest side. All of the burials located within Structure 18, regardless of stratigraphic position, were flexed. A number of other pits (Features 64 and 65/Mg3) and postholes were located within Feature 58 but were visible from its top, indicating that they superimposed it. In short, the very large Feature 58 superimposed and was superimposed by a number of smaller features.

Burial Cluster 40 is a concentration of several flexed burials and an extended burial (Burial 146/Mg3) located just south of and overlapping slightly with Structure 18. Burials 146 and 147/Mg3 were both associated with complicated stamped patterns that date to the Town Creek phase. Burial Cluster 40 was presumably within a structure that cannot be clearly defined at this time. There are circular and linear arrangements of postholes in this area, but their relationships to Burial Cluster 40 are unclear.

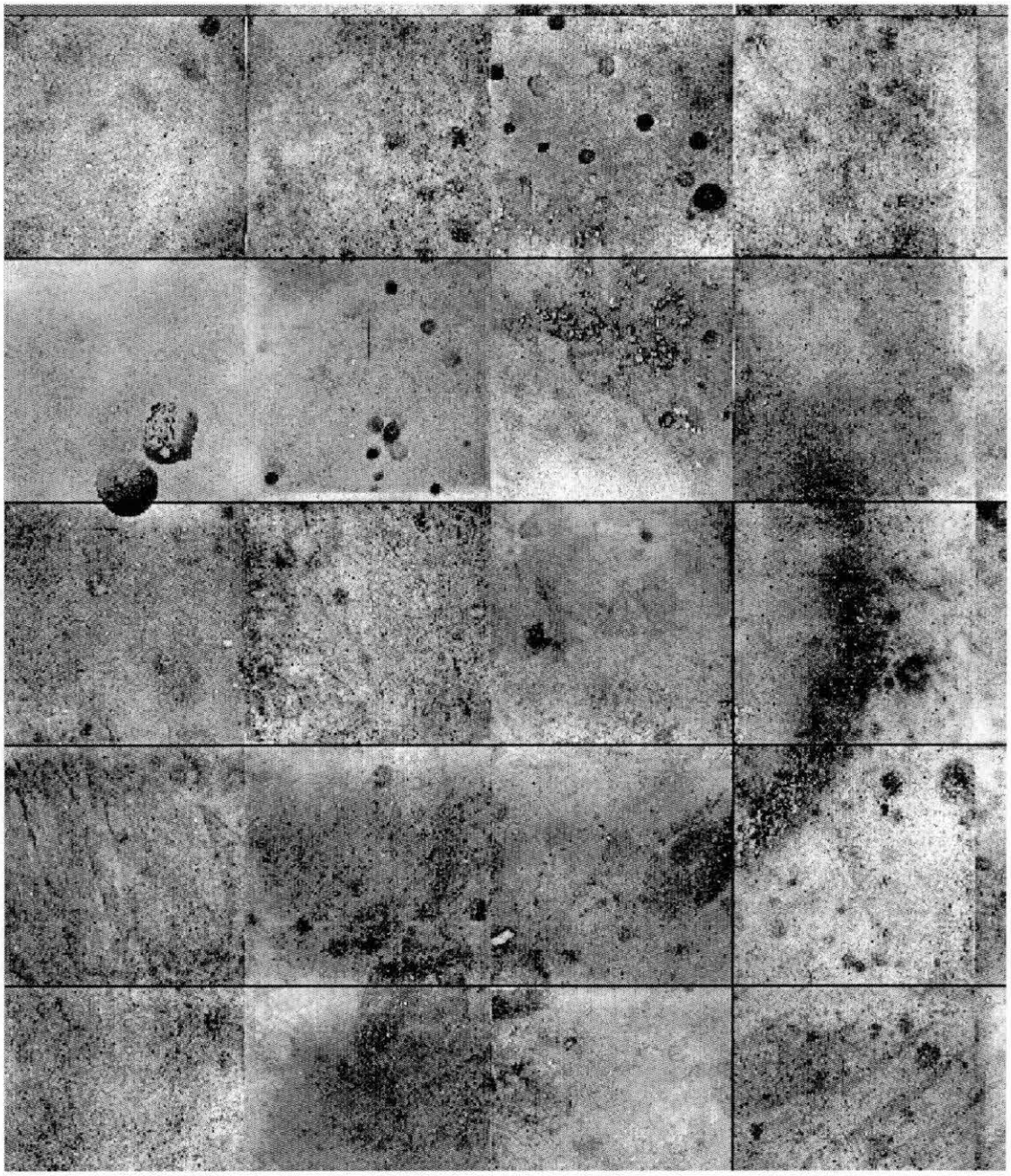


Figure 3.59. Section of the digital photographic mosaic showing Structure 18.

Chronological Information

All that can be said about Burial Cluster 40 is that two of its burials (Burials 146 and 147/Mg3) date to the Town Creek phase or later. Several relationships indicate that Structure 18 dates to the early end of the Town Creek occupation. First, Feature 58/Mg3 covers several features that can be dated to the Woodland period. These include a cluster of features on its northwest side (Features 66, 67, 68, and 69/Mg3) with assemblages dominated by pottery that was tempered with large pieces of quartz, a trait that is associated with Woodland-period ceramics in the Piedmont (Coe 1995:154; Ward and Davis 1999:83). Another superimposed Woodland feature is Burial 135/Mg3 which was associated with a bent-tube, winged style stone pipe that dates to the Late Woodland or possibly Early Mississippian period (Figure 3.60) (Irwin et al. 1999:77). While Feature 58/Mg3 truncates these Woodland features and certainly postdates them, the fact that this large feature overlaps with smaller Woodland features in several places indicates a relationship among them and that Feature 58/Mg3 can be attributed to the Woodland period as well. Consistent with this is the fact that the fill of Feature 58/Mg3 is dominated by quartz-tempered pottery (Table 3.3). Another indication that Feature 58/Mg3 dates to the Woodland period is that one of its exterior posts contains an early Town Creek phase surface treatment, indicating that it was removed during this phase or later. Also, Structure 18 is partially superimposed by Burial Cluster 40 which dates to the Mississippi period.

Central Area

The central part of the site consists of an area with a low density of features which is consistent with it having been a plaza (Figures 3.61 and 3.62). Structure 41 is a small,

Chronological Information

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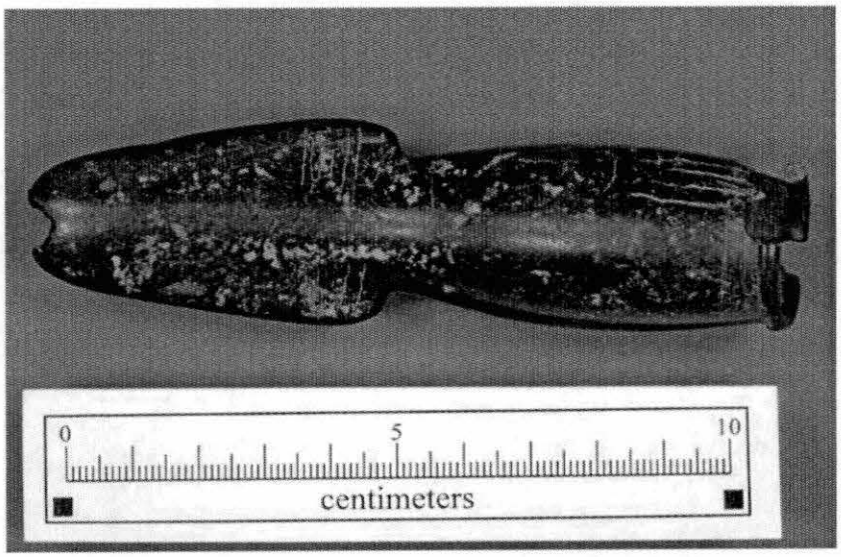

Figure 3.60. Stone pipe associated with Burial 135/Mg3.

Table 3.3. Pottery from Feature 58/Mg3.

Pottery Class	Count
Non-Pee Dee	
Small sherds	631
Check stamped	3
Cordmarked	9
Fabric marked	2
Plain	15
Simple stamped	5
Folded rims	1
Plain rims	15
Total	681
Pee Dee	
Small decorated	53
Small plain	31
Small unidentified	46
Check stamped	10
Curvilinear. comp. st.	3
Rectilinear. comp. st.	2
Cordmarked	71
Plain	23
Simple stamped	11
Stamped	3
Plain rims	14
Total	267

Figure 3.61. All features in the Central Area.

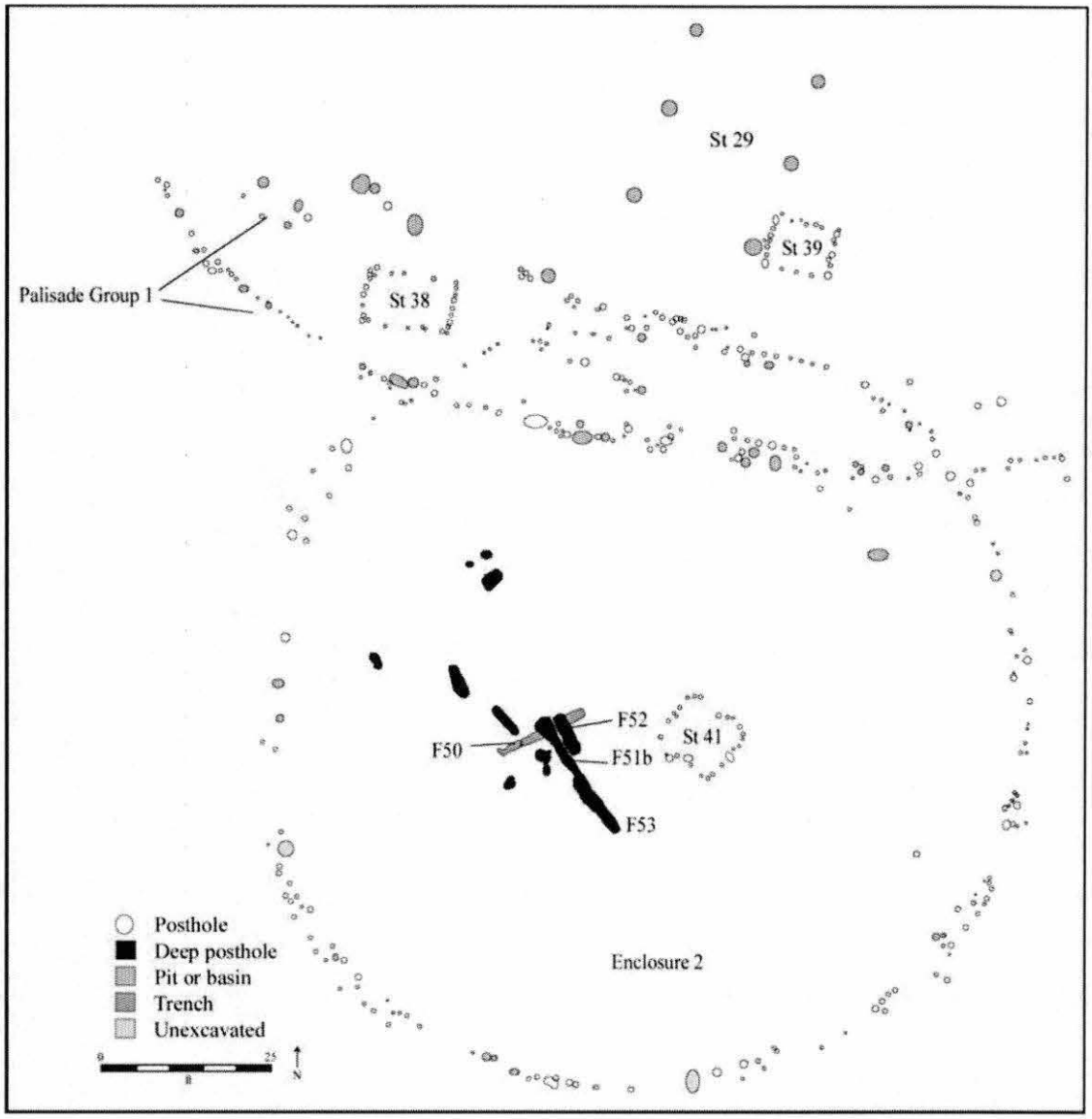

Figure 3.62. Identified architectural elements in the Central Area.

rectangular structure located in the middle of the plaza. It stands out as one of the smallest structures at the site. Eleven large, deep postholes were located in the middle of the plaza just to the west of Structure 41. Each one of these postholes had a number of rocks in its fill. These postholes range in depth from 1.6 to 4.5 ft. The largest of these are three superimposed postholes (Features 51b, 52, and 53/Mg3) between 3.6 and 4.5 ft deep that have extraction-insertion ramps extending up at a 45 degree angle from the posthole (Figure 3.63). The biggest of these (Feature 51b/Mg3), excavated and documented by Stanley South (1957a), had a 0.7 ft deep trench (Feature 50/Mg3) perpendicular to it, the purpose of which is thought to have been to use a perpendicular log in the trench at ground level to secure and stabilize the upright pole (Coe 1995:Figure 5.8). A 2.9-ft deep posthole (-50L90-Pit 3/Mg3) with an adjacent ramp was located nearby as was a 3-ft deep posthole (-40L90-Pit 1 and 2/Mg3) that may have had an adjacent ramp. This means that near the center of the plaza there were at least four and possibly five postholes that were around 3 ft or deeper with an adjoining extraction-insertion ramp.

Enclosure 2 is a large (112 ft in diameter), circular arrangement of posts that occupies most of the plaza. Most of this Enclosure was not excavated, but the portions that were consisted of a few deep postholes (> 1 ft) and a number of shallower ones. The center of Enclosure 2 is located between Structure 41 and the cluster of deep postholes in the middle of the plaza. The relationships among Enclosure 1, Structure 41, and the deep postholes suggests that they may have been related and together formed a large-scale architectural unit. The eastern half of Enclosure 2 contained a number of small postholes—several of which appear to be aligned, although Structure 49 is the only clear building in the area. It may have been that while the western half of the circular enclosure was used for the erection of large

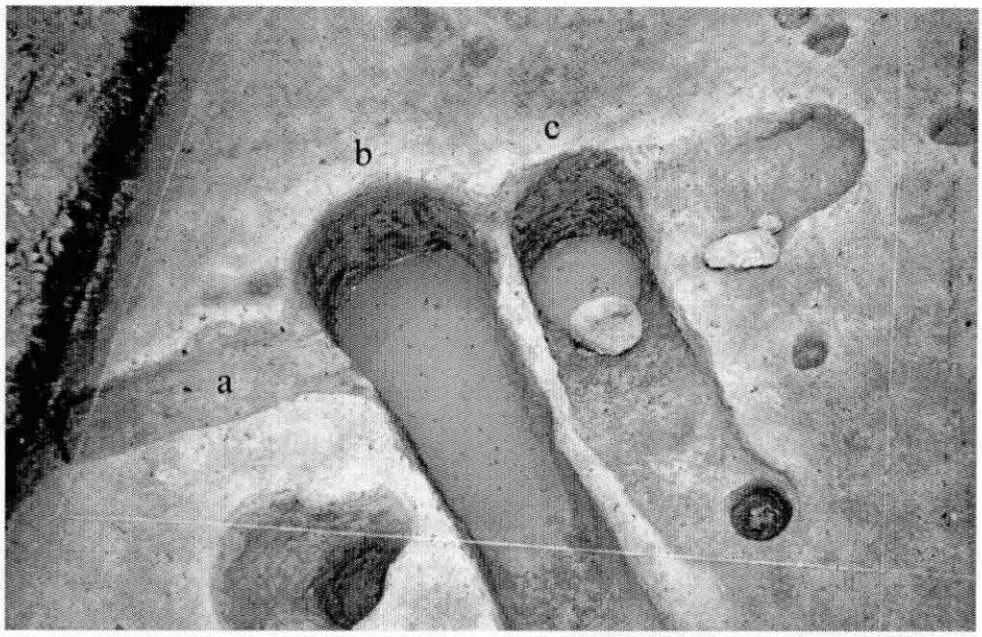

Figure 3.63. Deep postholes near the center of the plaza, 1957: (a) Feature 50 (b) Feature 51b (c) Feature 52/Mg3 (RLA image 1755).

posts, the eastern half was used for the repetitive construction of small, rectilinear buildings similar to Structure 49.

Instances of large, centrally located posts in native Southeastern towns are well documented both ethnohistorically and archaeologically (Anderson 1994:221; Hally and Kelly 1998:50; Knight 1985:106). Such poles may have acted as *axes mundi*—ritually defined, tangible connections between this world and other spiritual worlds (Knight 1985:107). It is plausible that the large posts in the plaza at Town Creek served similar functions. The large postholes with insertion ramps in the plaza at Town Creek are similar to large pits at several other Mississippian sites, some of which were located on mound summits (Knight 1985:106; Pauketat 1993:31 and Figure 3.6; Ryba 1997:10-16). It is likely—based on the size of the pit and post as well as the central location of the work—that the erection and removal of these posts were prominent events within the community at Town Creek. David Hally (personal communication 2004) has discussed the possibility that the erection of these large posts was somehow related to mound-construction episodes, noting that at Town Creek there are at least four mound construction episodes and four or five very large posts with insertion ramps.

Several circular monuments similar to Enclosure 2 have been documented at Cahokia and related sites. Enclosure 2 is at least superficially similar to the Cahokian circular monuments, which are referred to variously as woodhenges or post-circle monuments (Pauketat and Emerson 1997:14 and Figure 1.6). The Cahokia woodhenges consist of very large, regularly spaced posts of red cedar (Smith 1992:15). These monuments may have served as celestial observatories, calendrical devices, or surveying instruments (Demel and Hall 1998:216-218; Smith 1992). It is likely that one of the most critical functions that these

monuments served for the residents of the community was as world center shrines that acted "to gather and direct powers of nature and to serve as a location for communication with the forces of nature" (Hall 1996:125). If the circular enclosure at Town Creek was celestially aligned, it may have served to link the built environment of the town to the motions of the cosmos, thereby infusing the former with the power and sanctity of the latter (Brown 1997:479).

Palisade Group 1 is a set of concentric palisade lines that runs across the Central Area and encloses the northern part of the site. Palisade Group 1 consists of up to four palisade lines, with the outermost being the best defined. These palisade lines largely run through intensively occupied parts of the site, so they are not clearly defined in their entirety.

A rectangular arrangement of pits (50L60-Pit 25, 40L60-Pit 10, 30L70-Pit 1, 40L40-Pit 35, 30L50-Pit 23, 20L50-Pit 20/Mg3) measuring approximately 20-×-30-ft has been tentatively designated as Structure 29. Although these pits are evenly spaced and approximately the same diameter, it is not clear what they represent because other features such as walls, hearths, and burials are absent.

Chronological Information

Enclosure 2 contained two late Town Creek and two Leak-phase postholes, indicating that these posts were removed during these phases or later. A number of features scattered across the north side of the interior of Enclosure 2 date to the late Town Creek or Leak phases or later, although it is not clear how they relate to Enclosure 2. Structure 41 did not contain any diagnostic artifacts. Enclosure 2 overlaps with Enclosure 1, indicating that the

two could not have been used at the same time. Given that there are several indications Enclosure 1 dates to the Leak phase, then Enclosure 2 must date to this phase or earlier.

Palisade Group 1 does not seem to fit within Town Creek's site structure. It overlaps with several architectural elements and it runs across the northern edge of the plaza. This suggests that it either predates or postdates the bulk of the occupation at Town Creek. Palisade Group 1 postholes contain diagnostic artifacts from every late prehistoric phase represented at the site. This is probably not because Palisade Group 1 dates to late in the sequence, but instead to the fact that it overlaps with so many structures that it was often impossible to determine exactly to which architectural element an individual posthole should be attributed. The fact that Palisade Group 1 appears to be superimposed at its southeastern end by Leak-phase features (Features 8 and 12/Mg3) indicates that it dates to the earlier end of the Town Creek occupation. Structure 29 also does not fit within the site's overall structure, indicating that it could either predate or postdate the bulk of the Mississippian occupation. Although no diagnostic artifacts were associated with the six pits that constitute Structure 29, the absence of decorated rims could indicate that these features date to early in Town Creek's occupation.

STRUCTURE TYPES

An important part of defining community patterns is to focus on similarities among architectural elements. While a great deal of variation is represented in the architecture at Town Creek, a number of structures and even burial clusters share attributes that indicate they represent specific types of structures. In this section, structure types are defined based on attributes of excavated structures. Examples of these types are then identified among the

unexcavated and partially excavated structures. Structure types are based on the attributes of size and shape as well as the distribution and density of internal features.

Circular and Rectilinear Structures

The most basic architectural distinction that can be made at Town Creek is between circular (Table 3.4) and rectilinear (i.e., rectangular and square) (Table 3.5) structures. There is a general distinction between circular and rectilinear structures regarding the distribution and density of internal burials. Circular structures often contain dense, central clusters of burials while rectangular ones have either fewer, scattered burials or no burials at all. A scatterplot of the number of burials in a structure plotted against the structure's area (Figure 3.64) shows circular and rectilinear structures largely as two distinct clusters, albeit with some overlap. The one exception is Structure 43, a small circular structure (17 ft in diameter) with no burials. The distinction between circular and rectilinear structures is clearly expressed in a histogram of burial density[12] (Figure 3.65). There is a clear break in the distribution of structures by burial density. With one exception, all rectilinear structures are included in the first group with burial densities less than 1 burial per 100 ft^2. The one exception is Structure 5b, a small rectangular structure that may be associated with two burials. The distinction between circular and rectilinear structures is also expressed in a boxplot (Figure 3.66) that shows significant differences in burial density between structures of the two shapes. Based on these clear differences in shape and burial density, which may be due to either function or duration of use, it is useful to discuss circular and rectilinear structures separately. Even within these broad categories, enough patterned variation exists so that different types of circular and rectilinear structures can be identified.

Table 3.4. Attributes of circular structures.

Structure	North-South (ft)	East-West (ft)	Diameter	Area (sq ft)	Area Excavated [a]	Perimeter (ft)	Perimeter Excavated [b]	Burials	Individuals	Postholes [c]	Burial Density (ct/sq ft)	Post. Density (ct/per.)	Excavation Status
Enclosed circular (exterior posthole pattern)													
1		47.0		1733.5	1733.5		94.9	24	30	90	0.014	0.9	excavated
7	63.0	61.0	62.0	3019.9	3019.9		161.1	40	50	134	0.053	1.2	excavated
10	37.3	36.9	37.1	1082.2	1082.2	118.6	118.6			152		1.3	unexcavated
10	42.5	43.6	43.1	1456.5	1456.5	136.3	136.3			137		1.0	unexcavated
15b	58.3	55.7	57.0	2550.0	2550.0	178.6	178.6			59		0.3	unexcavated
Enclosed circular (interior posthole pattern)													
1	31.0	28.9	29.9	705.1	705.1	99.6	99.6	24	30	46	0.034	0.5	excavated
7	30.4	31.5	31.0	753.0	753.0	102.7	102.7	40	50	124	0.053	0.9	excavated
10	24.5	20.0	22.2	392.7	392.7	70.4	70.4			57		0.8	unexcavated
15b	32.2	33.6	32.9	851.6	851.6	105.9	105.9			70		0.7	unexcavated
Small circular													
S2	30.0	30.0	30.0	706.9	706.9	104.9	104.9	10	11	92	0.014	0.9	excavated
S5a	25.8	25.8	25.8	524.4	524.4	85.5	85.5	8	8	73	0.013	0.7	excavated
S6	29.8		29.8	697.9	373.8	97.2	26.7	13	18	17	0.013	0.8	excavated
S8	31.7	32.6	32.2	813.2	813.2	99.6	99.6			92		0.9	unexcavated
S12	30.5	30.8	30.7	738.3	738.3	98.5	95.9	16	16	57	0.022	0.6	excavated
S14	25.2	25.1	25.1	495.6	495.6	78.1	78.1	7	7	42	0.014	0.5	excavated
S15a	26.8	23.7	25.2	501.7	501.7	80.0	80.0			58		0.7	unexcavated
S17	32.0	30.0	31.0	755.6	755.6	97.6	97.6			75		0.8	unexcavated
S21b	29.5	29.9	29.7	694.0	694.0	98.7	98.7	3	3	90	0.004	0.9	unexcavated
S31	28.6	25.4	27.0	574.0	574.0	88.9	88.9			69		0.8	unexcavated
S32b		34.6		942.4	942.4	120.8	99.5			90		0.9	unexcavated
S49	26.9			569.2	569.2	85.2	62.4	9	9	52	0.004	1.3	excavated
Unassigned													
S9b (ext)	58.9	57.3	58.1	2648.5	2648.5	189.5	185.0			113		0.6	unexcavated
S9b (int)	46.1	44.7	45.4	1618.1	1618.1	143.4	143.3			145		1.0	unexcavated
S18	36.9	35.1	36.0	1019.0	1019.0	115.6	115.6	7	7	40	0.007	0.3	excavated
S34	38.2			1146.7	687.5		48.1			40		0.8	unexcavated
S43	17.3			234.0	234.0	54.8	54.8	--	--	44	--	0.8	excavated

[a] Portion of the structure interior exposed by excavations.

[b] Portion of the structure exterior exposed by excavations.

[c] Number of postholes in a 1 ft buffer on both sides of the structure's outline.

Table 3.5. Attributes of rectilinear structures.

Structure	North-South (ft)	East-West (ft)	Area (sq ft)	Area Excavated [a]	Perimeter (ft)	Perimeter Excavated [b]	Burials	Individuals	Postholes [c]	Burial Density (ct/sq ft)	Post. Density (ct/per.)	Excavation Status
Earth-embanked												
4b	26.2	27.1	708.4	708.4	95.5	95.5	2	2	125	0.005	0.612	excavated
22	21.0	21.3	447.5	447.5		74.2	--	--	70	--	0.944	excavated
23a	23.3	22.7	528.9	528.9		73.5	3	3	115	0.006	1.565	excavated
45a	27.0	28.0	754.4	754.4	82.0	82.0	2	2	71	0.003	0.866	excavated
45b											0.000	excavated
46a						75.8	2	2				excavated
46b							2	2		0.016	0.833	excavated
Large rectangular												
27	34.4		1182.0	1182.0		68.8	6	9	64	0.005	0.930	excavated
30b	40.1	30.3	1214.7	1214.7		112.5	5	5	97	0.004	0.863	excavated
32a	34.1	40.5	1641.9	903.8		116.6			157		1.346	unexcavated
44	31.2	42.2	1315.5	1315.5		83.1			97		1.167	unexcavated
Medium rectangular												
9a	18.7	19.4	362.8	362.8	72.1	72.1			64		0.784	unexcavated
16	31.0	26.1	808.8	808.8	111.0	111.0			64		0.577	unexcavated
21a	25.9	23.4	606.1	606.1	94.4	94.4			94		0.996	unexcavated
28	26.2	25.6	670.7	670.7	106.8	106.8	3	3	95	0.004	0.890	excavated
Small rectangular												
5b	10.0	16.0	160.0	160.0	44.1	44.1	2	2	30	0.019	0.636	excavated
38	7.8	13.1	102.6	102.6	43.8	43.8	--	--	32	--	0.731	excavated
39	5.9	8.6	50.8	50.8	36.3	36.3	--	--	35	--	0.964	excavated
41	7.9	9.7	77.0	77.0	40.9	40.9	--	--	27	--	0.660	excavated
Unassigned												
4a	32.9	34.0	1116.2	1116.2	122.4	122.4	5	5	155	0.003	1.309	excavated
23c	49.6	33.1	1638.5	1638.5	155.7	155.7	1	1	121	0.001	0.777	excavated
24	23.2	23.6	547.5	547.5	89.0	89.0	3	3	70	0.005	0.786	excavated
29	24.2	17.2	415.9	415.9	91.1	91.1	--	--	57	--	0.626	excavated
51	30.7	30.5	937.6	937.6	118.3	122.5	5	5	75	0.015	0.854	excavated

[a] Portion of the structure interior exposed by excavations.

[b] Portion of the structure exterior exposed by excavations.

[c] Number of postholes in a 1-ft buffer on both sides of the structure's outline.

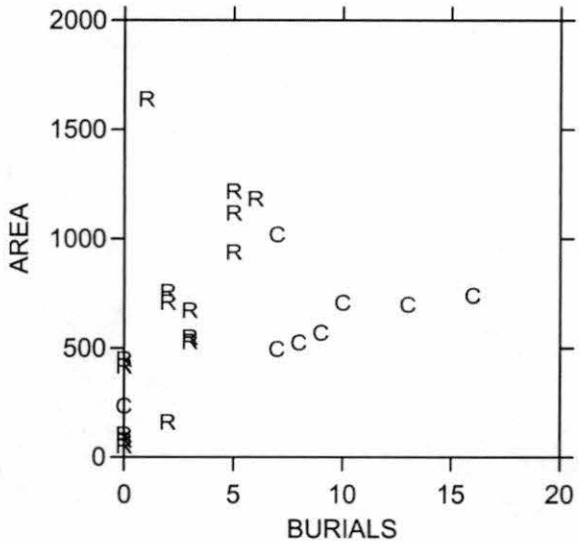

Figure 3.64. Scatterplot of the number of burials against structure area for excavated structures by structure shape (Note: For the Enclosed Circular Structures 1 and 7, the area of the exterior pattern of postholes was used).

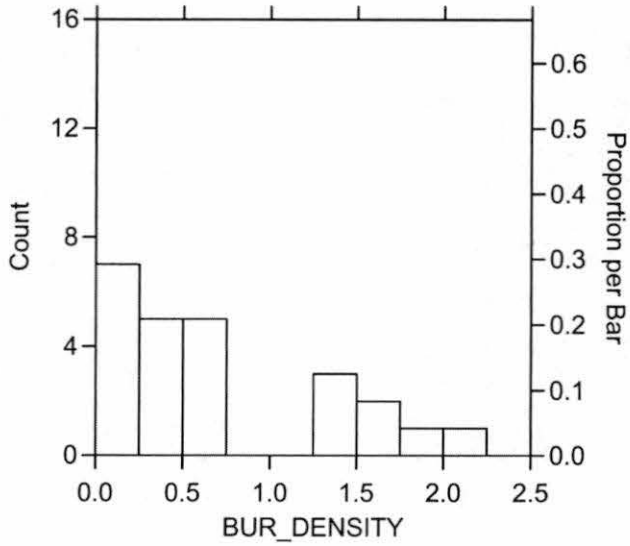

Figure 3.65. Histogram of burial density (count/100 ft^2) by structure.

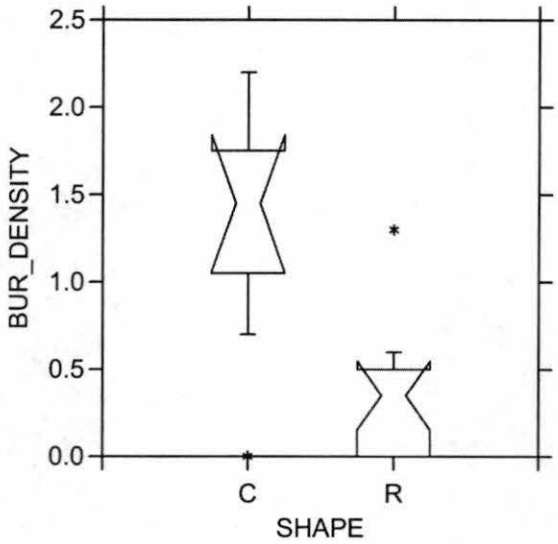

Figure 3.66. Eoxplot of burial density (count/100 ft^2) by structure shape (circular or rectilinear).

Circular Structures

At least two different types of circular structures are present at Town Creek. One consists of a single circular pattern of posts approximately 30 ft in diameter. The other type of circular structure consists of two concentric, circular arrangements of posts that are approximately 30 ft and 60 ft in diameter. One possible interpretation of the two concentric patterns is that the outer circle represents the wall of the structure and the inner circle is the remains of an interior roof support system. Another interpretation is that the inner patterns represent the structure's wall while the outer is an unroofed enclosure.[13] It seems that the structure-and-enclosure scenario is more plausible for several reasons. One is that the largest exterior circular patterns, measuring about 60 ft in diameter, would have represented enormous buildings. Buildings of this size and larger have been excavated in the southeast (Schroedl 1986:234; Shapiro and McEwan 1992:67), so they were clearly within the realm of possibility for aboriginal construction technology. However, they are usually singular examples of public architecture (see Schroedl 1986:219), referred to as townhouses, at late prehistoric and post-Contact period sites. Not only are the Town Creek examples earlier, but if they all were roofed buildings, Town Creek would have had at least four of these distinctive structures. Another reason to think that the exterior patterns do not represent the walls of roofed structures has to do with the inner patterns being poor candidates for roof supports. The postholes in the inner circular patterns at Town Creek are comparable to those of the outer patterns regarding their spacing and diameters. In contrast, the postholes at Town Creek that clearly held interior roof supports—all of which are found within rectilinear structures—consist of a few large, deep, widely spaced postholes. Additionally, the patterns of interior support posts within large, circular structures excavated elsewhere in the Southeast

are marked by regular spacing and massive size (Schroedl 1986:Figure 4.1; Shapiro and McEwan 1992:35). Also, the lack of post patterns between the inner and outer circles is not consistent with the fact that furniture, such as benches, was a common interior element of large, public buildings (Polhemus 1990:131; Rudolph 1984:33; Schroedl 1998:70). Therefore, in cases where concentric circular patterns exist, the interior pattern will be interpreted as the remains of a roofed building and the exterior pattern an unroofed enclosure.

A histogram of the area of all circular posthole patterns supports the idea that the exterior patterns in concentric sets are something distinctive (Figure 3.67). There is a break in the distribution at 1020 ft^2. All of the exterior patterns are in the group that is larger than 1020 ft^2. If the exterior patterns larger than 1020 ft^2 are removed from consideration, the resulting histogram shows a unimodal distribution (Figure 3.68). Thus, there seems to be two different types of circular construction at Town Creek based on size. One type is the Small Circular Structure that measures between about 500 and 950 ft^2 and the other is the Enclosed Circular Structure which consists of two concentric circles with the outermost being greater than 1020 ft^2. Interestingly, Structure 18 is approximately 1020 ft^2, suggesting that it may have been an unroofed enclosure surrounding Feature 58/Mg3. It is possible that the much smaller Structure 43 was a special-purpose building such as a corn-crib.

Excavated examples of Enclosed Circular Structures (Figure 3.69) include Structures 1 and 7. The interiors of these buildings contain large clusters of burials. Clear examples of unexcavated or partially excavated Enclosed Circular Structures include Structures 10 and 15b. These two buildings contain a number of large, unexcavated features that are likely burials. Structures 9b and 34 are possible unexcavated examples of Enclosed Circular Structures, although each is problematic because clear patterns of interior postholes could not

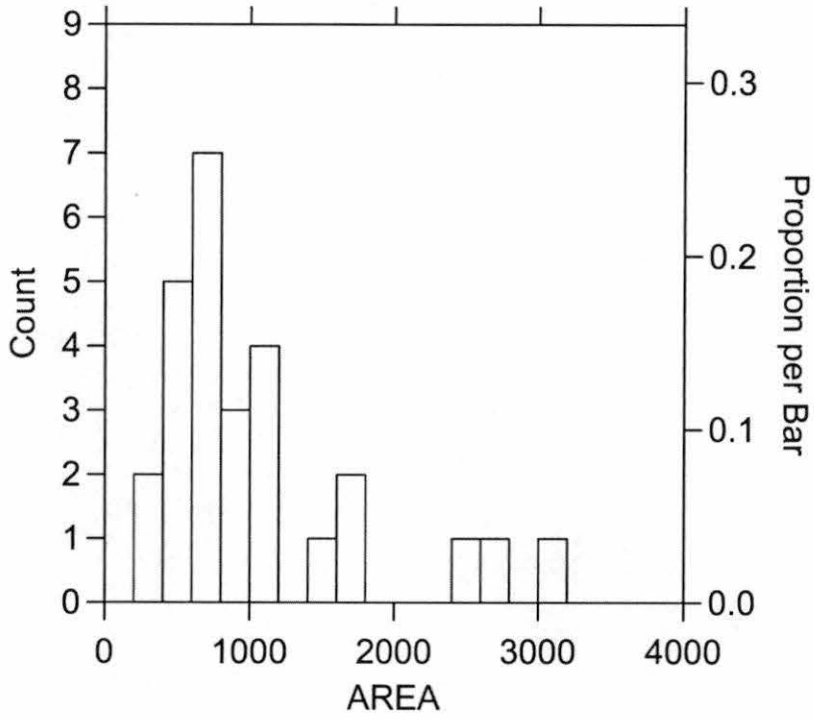

Figure 3.67. Histogram of area (ft^2) of all circular structures.

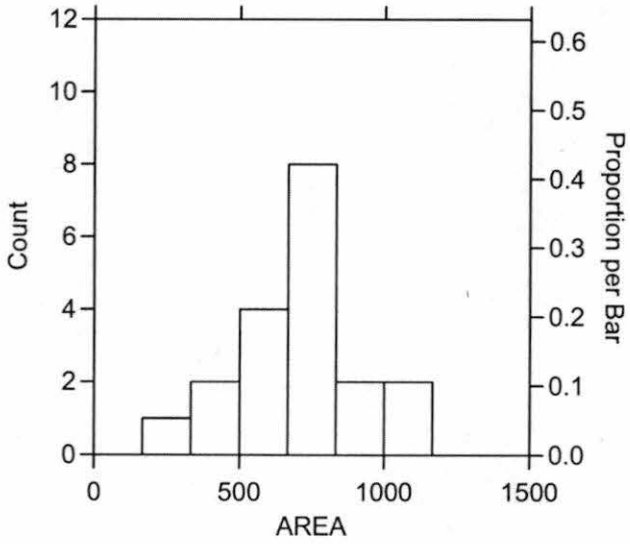

Figure 3.68. Histogram of area (ft^2) of circular structures excluding exterior patterns in Enclosed Circular Structures.

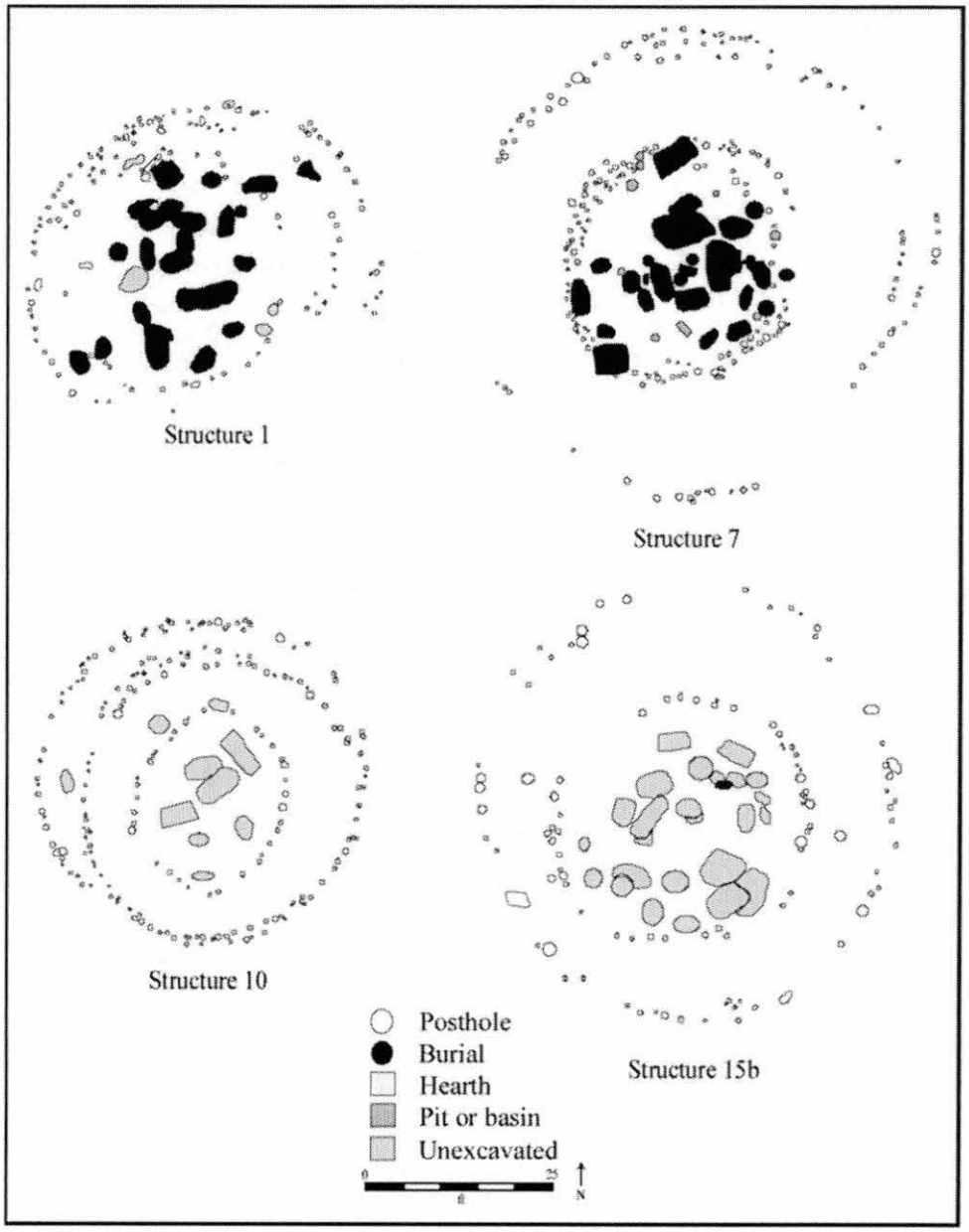

Figure 3.69. Enclosed Circular Structures.

be defined and there were no clear patterns to the large features within them. For these reasons, these structures will remain unclassified at this time.

Small Circular Structures measure between 25 and 34 ft in diameter and they do not appear to have had interior roof supports (Figure 3.70). They were likely flexed-pole constructions, consisting of posts that were individually set into the ground at one end while the other ends were lashed together to form a roof (Lacquement 2004:23; Lewis and Lewis 1995:60). These structures may have been similar to the circular, flexed-pole houses built by the Caddo of the trans-Mississippi Southeast (see Swanton 1996:148-154). The interiors of excavated Small Circular Structures at Town Creek contain clusters of features, most of which were burials. Excavated examples of the Small Circular type are Structures 2, 5a, 12, 14, and 49. In each of these cases, burials were placed in a square or circular arrangement around a central open space. Unexcavated examples of Small Circular Structures include Structures 8, 15a, 17, 31, and possibly 47, although none of these appear to have the same arrangement of internal features as the excavated Small Circular Structures. Structures 6 and 36 were only partially exposed, but their projected floor areas would place them within the range of Small Circular Structures.

A histogram of the number of burials associated with circular structures shows a break in the distribution around 20 individuals (Figure 3.71). Circular structures with fewer than 20 burials are all Small Circular while those with more than 20 are Enclosed Circular. This distinction in the number of burials and the architectural distinction of having a large, exterior, circular pattern is consistent with Small Circular and Enclosed Circular representing two types of circular constructions at Town Creek. It is unclear with Enclosed Circular Structures if the structure and enclosure were standing at the same time and would be

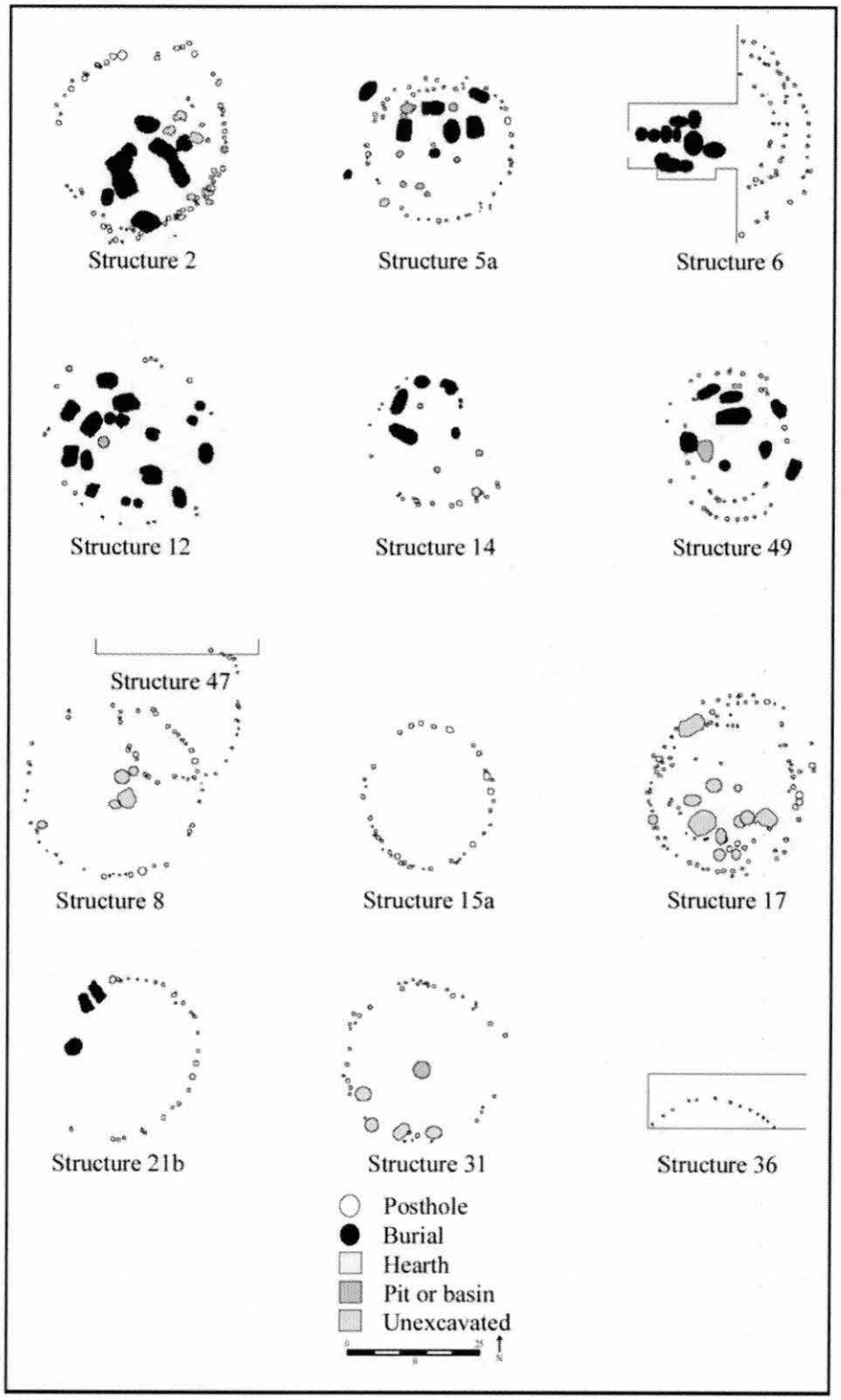

Figure 3.70. Small Circular Structures.

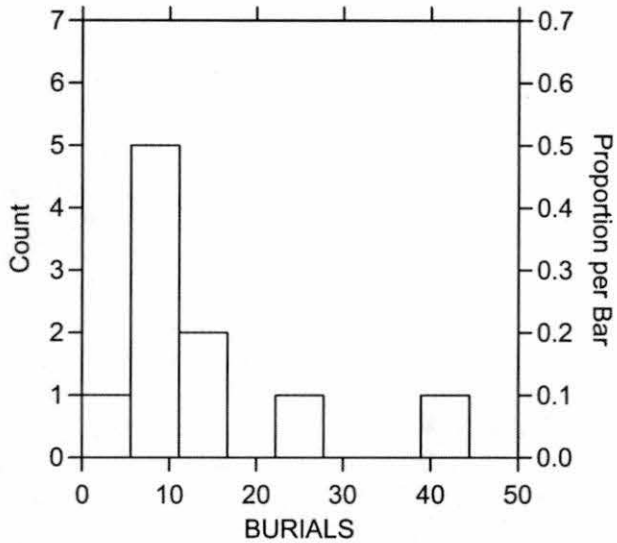

Figure 3.71. Histogram of the number of burials in circular structures.

considered a single architectural element or if one was built after the other. It seems likely that Enclosed Circular Structures 7 and 15 consisted of at least a partially contemporaneous structure and enclosure because the former is centered within and seemingly constructed in reference to the latter. In the case of Structure 1, however, the inner circular pattern is not centered within the exterior pattern. In this case, it seems that the exterior pattern enclosed the structure's space, but that a standing structure may not have been referenced.

Rectilinear Structures

A histogram showing the area of all rectilinear structures reveals several gaps in the distribution (Figure 3.72). Large Rectangular Structures are defined as those that had floor areas greater than 1000 ft^2 and a relatively low density of interior features (Figure 3.73). The low density of features was clear in Structures 27 and 30b, both of which were largely excavated and overlapped little with other structures. Structure 32, an unexcavated Large Rectangular Structure, contains a number of features densely clustered on its southern side; these were probably associated with an unrecognized circular structure. Structure 44 is poorly defined, but it is likely another Large Rectangular Structure, the exposed portions of which contain few large features.

Rectilinear structures that exhibit earth-embanked walls represent another structure type at Town Creek. While a partially preserved earth-embanked wall was directly observed in Structure 23a, earth-embanked walls are inferred in the case of Structure 4b, based on the field descriptions and photographs that indicate a mass of differently colored soil around and over the structure. The probability of earth-embanked walls are also inferred for Structures 22, 45a, and 46a based on the presence of entrance trenches (see Hally 1994:154). Earth-

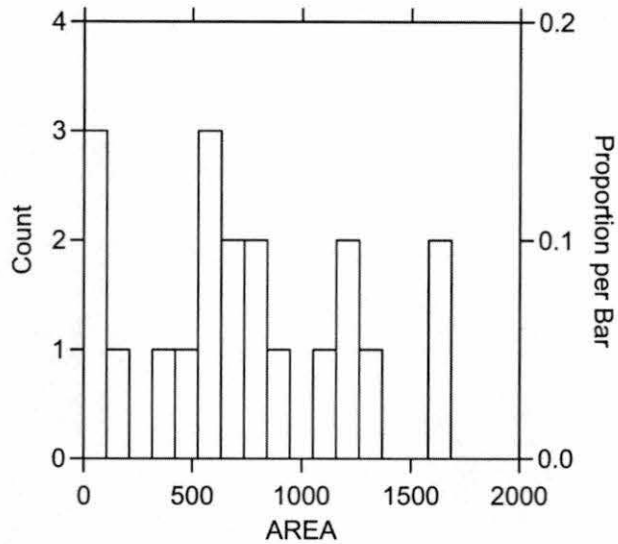

Figure 3.72. Histogram of area (ft^2) of all rectangular structures.

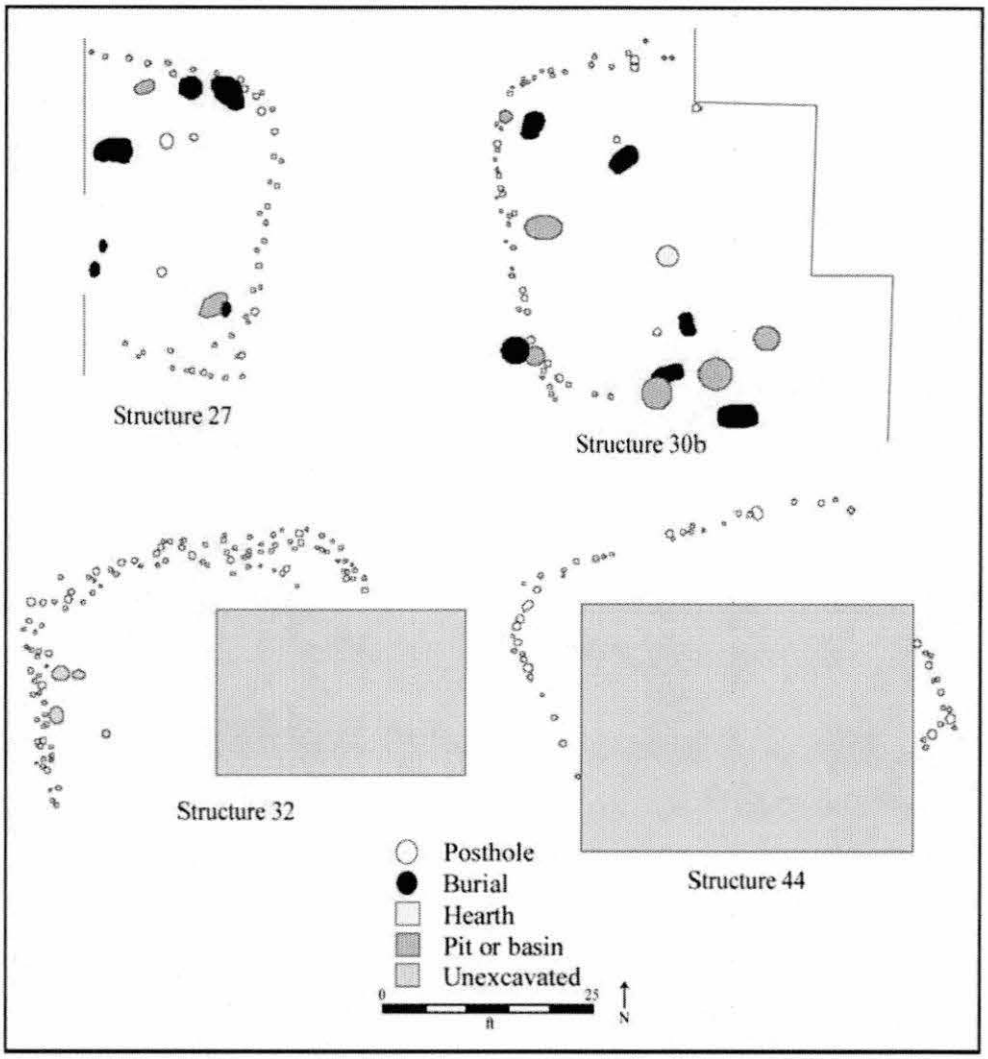

Figure 3.73. Large Rectangular Structures.

Embanked Structures had four large interior roof supports arranged in a square (Figure 3.74). Nearly all of these structures had a large hearth within the area defined by the roof supports. The one exception was Structure 22, the only Earth-Embanked structure that had been plowed. At least three of the Earth-Embanked Structures were paired with other structures.

Medium Rectangular Structures are almost square in appearance and their corners are oriented to the cardinal directions (Figure 3.75). Interior roof supports are represented by four deep pits arranged in a square. There are relatively few features inside Medium Rectangular Structures and those that are present are widely dispersed across the interior. Structure 28 is the only Medium Rectangular Structure that was fully excavated. Its interior contained four deep postholes (1.3 to 1.6 ft) and burials located in its northwest and northeast corners. Unexcavated examples of this type include Structures 16 and 21a, each of which had large features located in their northern corners. Structure 9a may represent the northwest corner of a Medium Rectangular Structure based on its orientation, but this structure is poorly defined at this time.

Four very small (< 145 ft^2) rectangular buildings have been classified as Small Rectangular Structures (Figure 3.76). One of these, Structure 38, was first identified by Stanley South (1957b). Structures 38, 39, and 41 were not clearly associated with any internal features. Structure 5b was not associated with internal features either, but two burials appear to have been aligned with its walls.

Structures 4a, 24, and 51 are unique and have not been assigned to a structure type (Figure 3.77). The size and shape of Structure 4a places it within the definition of Large Rectangular Structures, but the possible presence of a portico and the central location of several burials makes it distinct. Structure 24 is unique because it is small, does not appear

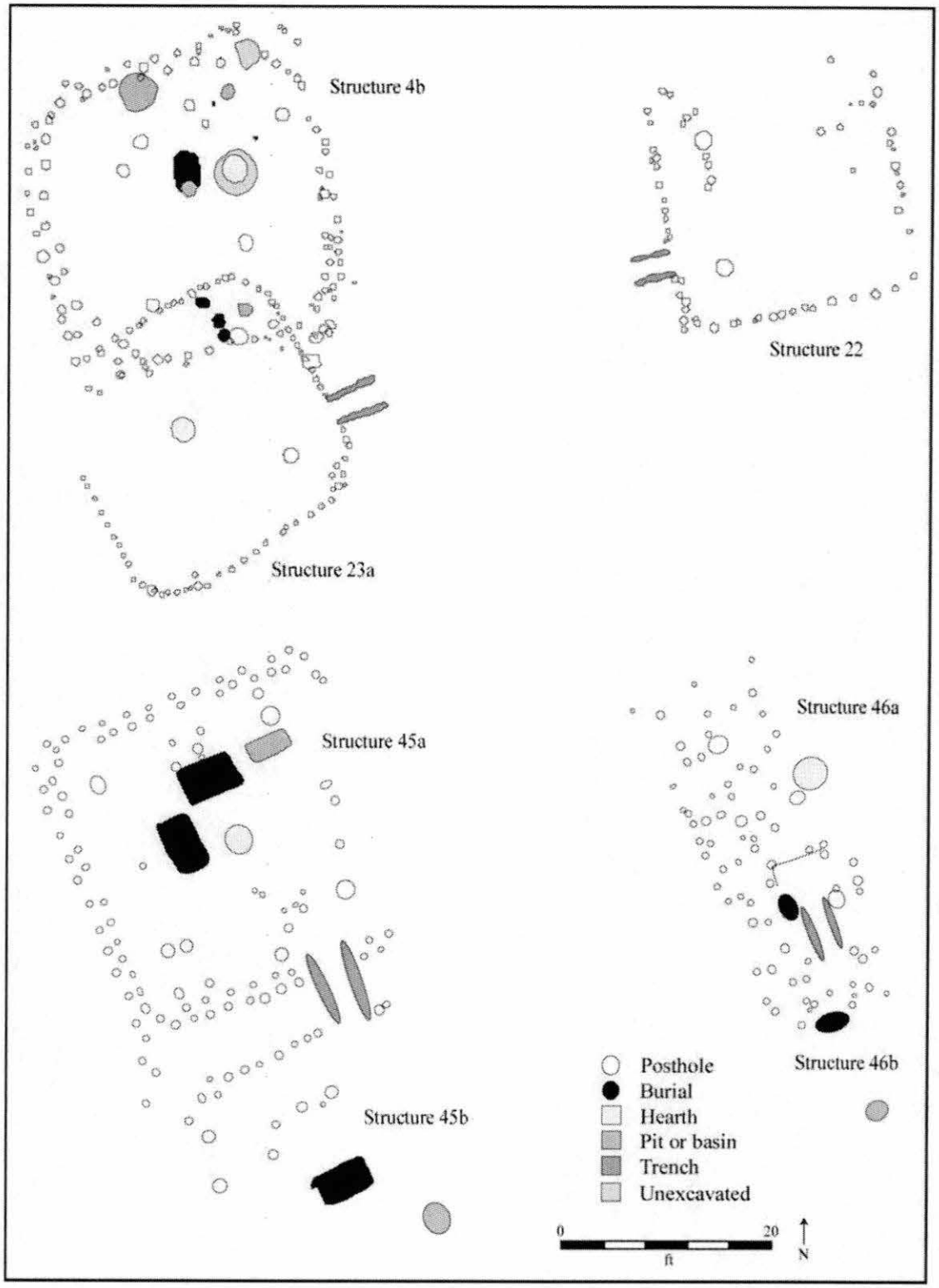

Figure 3.74. Earth-embanked Structures.

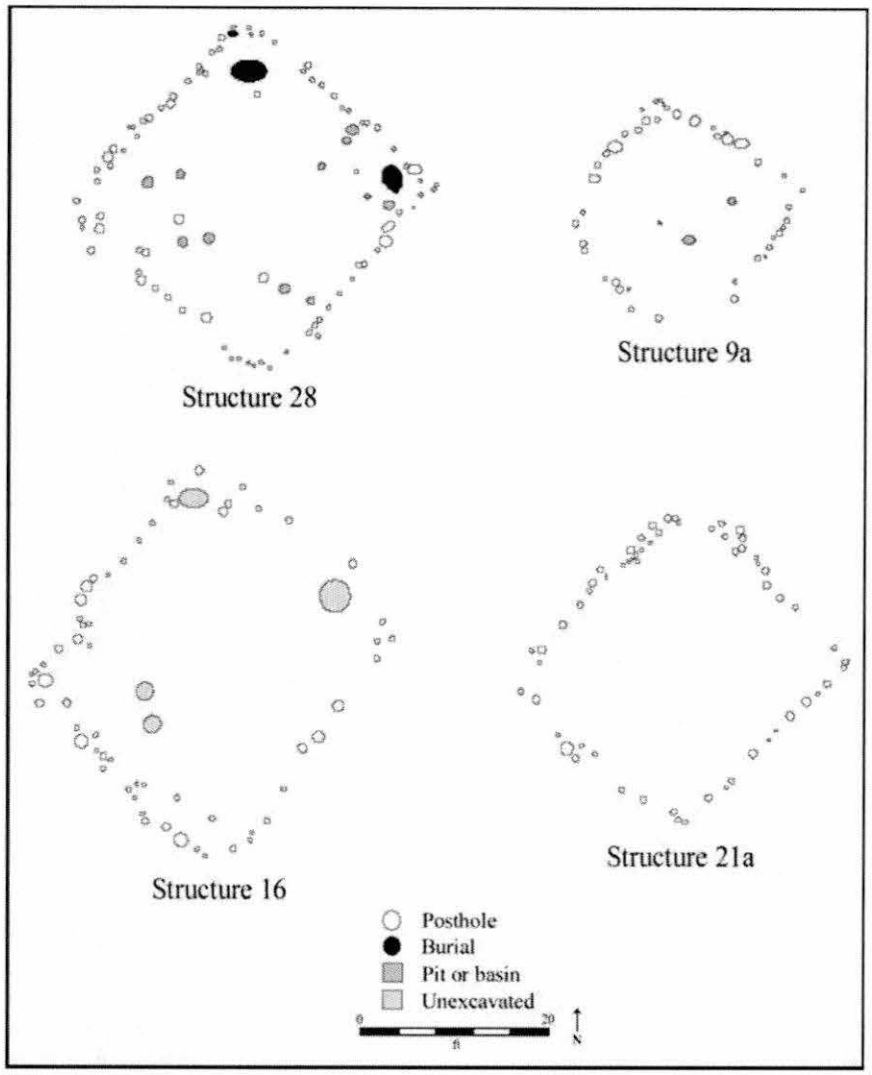

Figure 3.75. Medium Rectangular Structures.

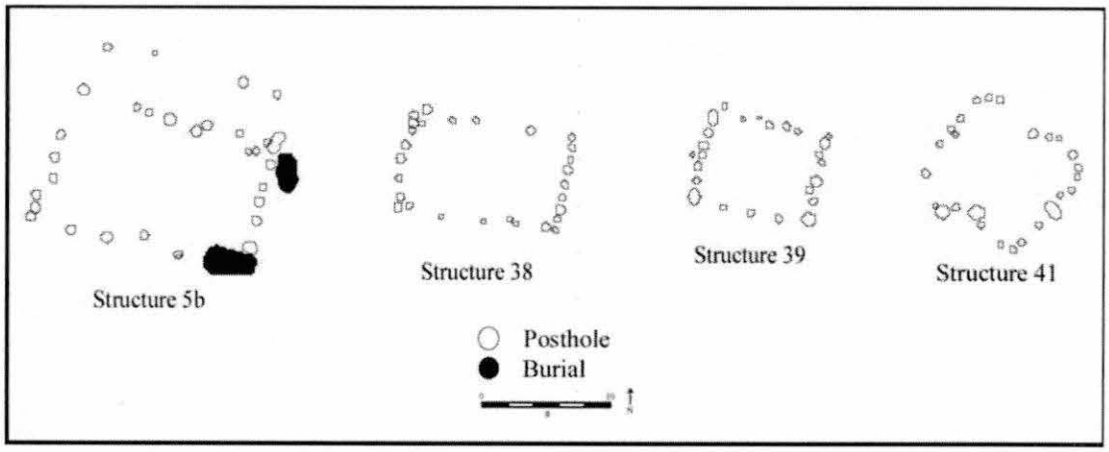

Figure 3.76. Small Rectangular Structures.

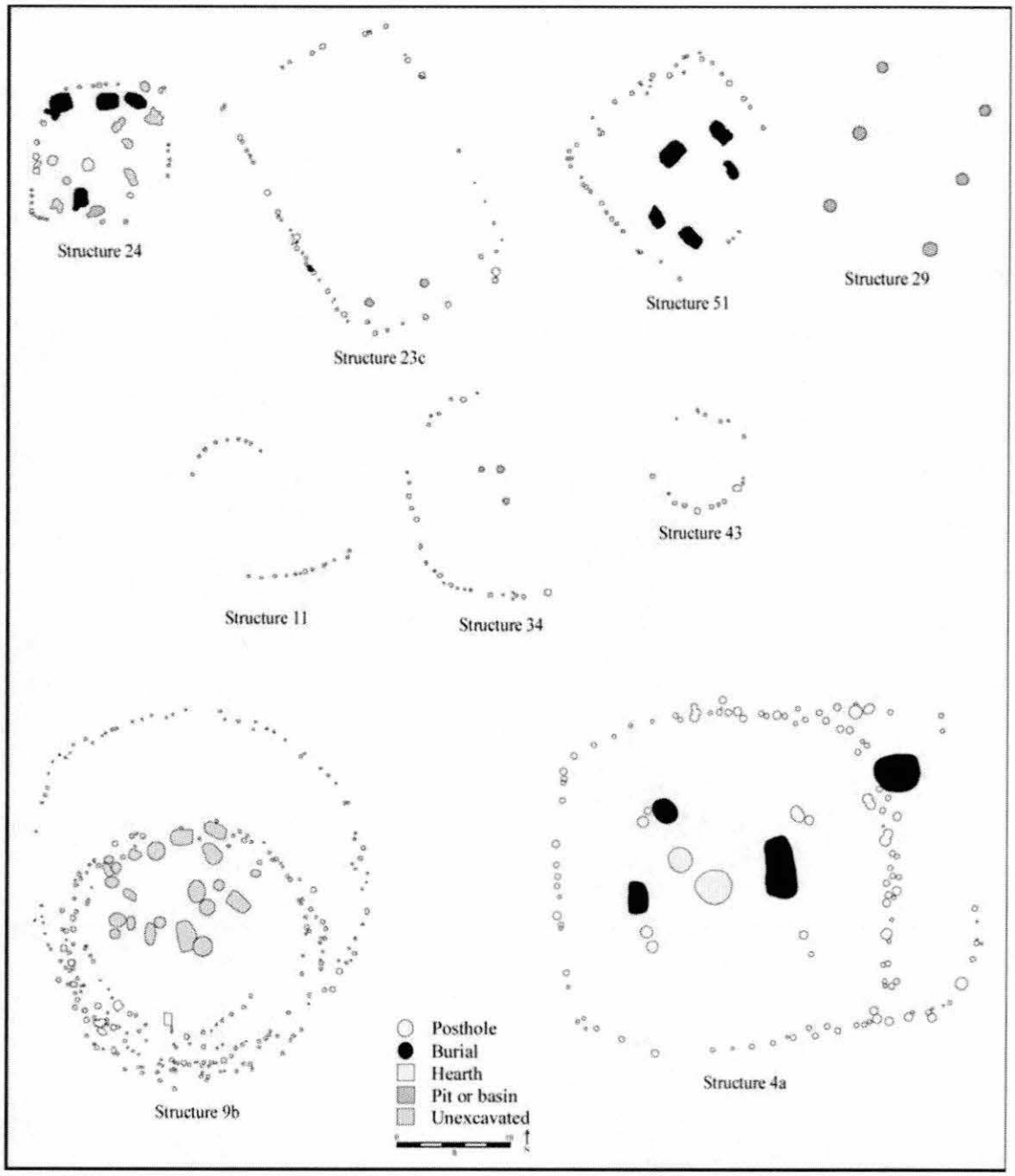

Figure 3.77. Unclassified structures.

to have had interior support posts, and has a line of burials along one wall. Although the orientation of Structure 51 is most similar to that of Medium Rectangular Structures, Structure 51 was not classified as such because it is larger and contains more burials.

Dating Structure Types

In this section, several methods are used to date structure types. One method is to examine the distribution of diagnostic pottery (e.g., surface treatments and rim modes) and dated features (Table 3.6). Another is to pool ceramic assemblages by structure type and compare them based on the ratio of plain to decorated rims.[14] Diagnostic artifacts were used to date features which were in turn used to date the structure with which they were associated (Table 3.1). This can be extended even further to date the structure type represented by individual structures. Attributing individual structures and structure types to phases using diagnostic types is not a straightforward process at Town Creek. The density of posts and the degree to which architecture overlaps results in a situation in which pottery from many different phases was found in and around structures. Another way to date structures, and by extension structure types, is to evaluate stratigraphic and spatial relationships among individual structures. This will involve interpreting cases of overlap and superposition.

There are several indications that Small Circular Structures represent the earliest buildings at Town Creek. First, Structure 5a is clearly superimposed by the mound, indicating that it dates to the late Town Creek phase or earlier. A radiocarbon date of A.D. 1010±40 (cal. A.D. 1033-1153) associated with this building suggests it was used during the early Town Creek or Teal phases. Second, Structure 12 is the earliest one in the sequence of superimposed structures in the Eastern Area and it dates to the late Town Creek phase or

Table 3.6. Pottery by structure type.

	<2				Stamp Patterns									Rims								
Structure Type	Non Pee Dee	Decorated	Plain	Unidentified	Arc Angle	Concentric Circles	Filfot	Herringbone	Line Block	Quartered Circles	Split Diamond	Non Pee Dee	Plain	Folded Punctated	Nodes	Pellets	Small Punctations	Lugs	Rosettes	Notched Strip	Punctated Strip	Thickened Exterior
Enclosed circular																						
1	24	64	21	2	-	4	1	-	-	-	-	1	29	-	-	-	-	2	-	2	-	-
7	230	885	248	128	2	7	10	80	-	3	1	4	141	-	1	-	-	-	-	-	-	-
10	16	38	13	-	-	-	-	-	-	1	-	1	4	-	-	-	-	-	-	-	-	-
15b	104	419	141	20	-	-	1	-	-	1	1	4	38	1	-	1	2	-	1	-	-	-
21b	11	52	27	3	-	-	-	1	-	-	-	-	9	-	-	1	-	-	-	-	1	-
Sub-total	385	1458	450	153	2	11	12	81	-	5	2	10	221	1	1	2	2	2	1	2	1	-
Earth-embanked																						
4b	-	2	-	-	-	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
22	2	10	2	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
23a	-	8	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-total	2	20	4	1	-	1	2	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
Large rectangular																						
27	38	109	11	4	-	6	-	1	-	-	2	1	12	-	-	-	-	-	1	1	-	-
30b	49	255	104	8	-	-	1	-	-	-	-	2	42	1	-	3	1	-	2	-	1	1
32a	15	7	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
44	-	6	1	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Sub-total	102	377	116	13	-	6	2	1	-	-	2	3	60	1	-	3	1	-	3	1	1	1
Late Woodland																						
18	714	149	62	68	-	-	1	1	-	1	-	18	24	-	-	-	1	-	-	-	-	-
Medium rectangular																						
9a	9	19	5	3	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-
16	3	29	3	1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
21a	1	11	5	1	-	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-
28	37	30	16	1	-	-	-	1	-	-	-	2	2	-	-	-	1	-	-	-	-	-
Sub-total	50	89	29	6	-	-	-	2	-	-	-	2	8	-	-	1	1	-	-	-	1	-
Small circular																						
2	24	85	38	2	-	-	1	-	-	1	-	2	21	-	-	1	1	-	1	-	-	-
5a	2	16	1	1	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
6	9	86	19	8	-	1	-	-	-	1	-	-	18	-	-	-	-	-	-	-	-	-
8	6	23	5	8	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
12	46	249	88	21	-	1	7	-	-	-	-	1	30	-	-	-	-	-	3	-	-	-
14	23	105	18	-	-	-	-	1	-	1	-	-	16	-	-	-	-	-	-	-	-	-
15a	14	33	14	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
17	7	62	18	19	-	-	1	-	-	1	-	-	8	-	-	-	-	-	-	-	-	-
31	26	94	36	-	-	3	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-
32b	7	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	42	106	24	3	-	-	1	1	-	-	-	1	14	-	1	-	-	-	-	-	-	-
Sub-total	206	864	261	63	-	7	10	2	-	4	-	4	135	-	1	1	1	-	4	-	-	-
Small rectangular																						
5b	-	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
38	2	14	4	1	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-
39	7	40	14	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
41	-	21	7	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
Sub-total	9	89	28	2	-	-	-	-	-	-	-	-	10	-	-	-	1	-	-	-	1	-
Total	1468	3046	950	306	2	25	27	87	1	10	4	37	459	2	2	7	7	2	8	3	4	1

Table 3.6 (cont.). Pottery by structure type.

	Pee Dee Surface Treatments																			Non Pee Dee Surface Treatments								
Structure Type	Brushed	Small Check St.	Large Check St.	Cob Impressed	Curv. Comp. St.	Wide Curv. Comp. St.	Rect. Comp. St.	Wide Rect. Comp. St.	Cordmarked	Fine Cordmarked	Fabric Marked	Net Impressed	Plain	Burnished Plain	Small Simple St.	Large Simple St.	Stamped	Textile Impressed	Unidentified	Brushed	Check Stamped	Cordmarked	Fabric Marked	Net Impressed	Plain	Simple Stamped	Unidentified	Total
Enclosed circular																												
1	-	-	-	-	18	-	4	-	-	-	-	-	10	2	-	-	2	-	1	-	1	2	1	-	-	-	-	191
7	-	2	-	1	169	-	139	1	5	-	1	-	79	20	2	-	25	3	28	-	-	16	-	-	5	2	-	2239
10	-	-	-	-	5	-	4	-	-	-	-	-	-	-	-	-	1	2	1	-	-	2	-	-	-	1	1	90
15b	-	-	-	-	40	-	8	-	1	-	-	1	13	3	1	-	8	1	3	-	-	1	-	-	2	1	-	817
21b	-	-	-	-	3	-	3	-	-	-	-	-	2	-	-	-	2	1	2	-	-	1	-	-	1	-	-	120
Sub-total	-	2	-	1	235	-	158	1	6	-	1	1	104	25	3	-	38	7	35	-	1	22	1	-	8	4	1	3457
Earth-embanked																												
4b	-	-	-	-	6	-	4	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	18
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
23a	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Sub-total	-	-	-	-	8	-	4	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	46
Large rectangular																												
27	-	-	-	-	32	-	3	-	-	-	-	-	3	-	-	-	3	-	2	-	1	-	-	-	-	1	-	231
30b	2	-	1	-	22	-	5	-	-	-	-	-	17	6	-	1	8	3	4	1	-	3	-	-	1	1	1	547
32a	-	-	-	-	6	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	37
44	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Sub-total	2	-	1	-	60	-	9	-	-	-	1	-	21	7	-	1	11	3	6	1	1	4	-	-	2	2	1	827
Late Woodland																												
18	-	10	-	-	13	-	4	-	73	-	-	-	29	1	11	-	6	-	1	1	3	13	2	-	16	7	-	1229
Medium rectangular																												
9a	-	-	-	-	4	3	2	-	-	-	-	-	1	1	-	-	-	-	2	-	-	-	-	-	-	-	-	52
16	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	42
21a	-	-	-	-	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	25
28	-	-	-	-	4	-	5	-	-	1	-	-	8	1	-	-	-	-	2	-	-	2	-	-	1	-	-	114
Sub-total	-	-	-	-	9	3	8	-	-	1	-	-	12	2	-	-	-	1	4	-	-	3	-	-	1	-	-	233
Small circular																												
2	-	-	-	-	11	1	2	1	-	-	-	3	10	3	-	2	4	3	2	-	2	1	-	-	-	-	-	222
5a	-	-	-	-	3	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	29
6	-	-	-	-	14	-	6	-	1	-	-	-	3	-	-	-	3	1	5	-	-	-	-	-	-	-	-	175
8	-	-	-	-	8	-	5	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	-	-	-	65
12	-	1	-	-	31	-	17	-	-	-	-	-	7	4	-	-	11	4	6	-	-	1	-	-	2	-	-	530
14	-	-	-	-	8	-	10	-	-	-	-	-	1	-	3	-	1	1	1	-	-	1	-	-	1	-	-	191
15a	-	-	-	-	3	-	3	-	-	-	-	-	2	-	-	-	1	-	-	-	-	1	-	-	-	-	-	76
17	-	-	-	-	5	-	1	-	-	-	-	-	1	1	-	-	3	-	-	1	-	-	-	-	-	2	-	130
31	-	-	-	-	25	-	4	-	2	-	-	-	10	1	1	-	11	-	3	-	-	-	-	-	1	1	1	238
32b	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
49	-	-	-	-	20	-	10	-	-	-	-	-	11	4	-	-	3	2	7	-	2	-	1	-	-	1	-	254
Sub-total	-	1	-	-	130	1	59	1	3	-	-	3	46	13	4	2	38	11	30	1	4	4	1	-	4	4	1	1924
Small rectangular																												
5b	-	-	-	-	2	-	-	-	-	-	-	-	2	-	-	-	2	-	1	-	-	-	-	-	-	-	-	25
38	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	29
39	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	70
41	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	-	-	1	-	-	-	-	-	35
Sub-total	-	-	-	-	2	-	1	-	-	-	-	-	5	1	-	-	4	1	4	-	-	1	-	-	-	-	-	159
Total	2	13	1	1	457	4	243	2	82	1	2	4	218	49	18	3	98	23	80	3	9	47	4	0	31	17	3	7875

earlier. Third, Structure 31 had a large early Town Creek-phase pit (Sq. 90L70-Pit 10/Mg3) located at its center. The diagnostic pottery associated with Small Circular Structures is largely consistent with an early or late Town Creek-phase designation. The one exception to this pattern is a burial associated with Structure 49 that contained an early Leak-phase rim treatment.

Enclosed Circular Structures are generally associated with pottery from the Leak phase. Structure 1 contained late Leak-phase burials. Structure 7 contained early Leak-phase burials.

It is clear from the stratigraphic sequence of submound and mound contexts that Earth-Embanked Structures span the period that immediately predates mound construction through the use of the first few mound stages. The Earth-Embanked Structure 23a was the last premound structure and Earth-Embanked Structures 46a and 46b were the upper of two superimposed pairs of summit structures. If the stratigraphic and chronological information from the Mg2 and Eastern areas are pooled, it seems that the ground-level Earth-Embanked Structures date to the late Town Creek phase or earlier. Rim treatments from the stratified deposits in the mound indicate that structures 45 and 46 date to the Leak phase or later. Also, a similarity in artifacts between mound-summit burials and Leak-phase burials within Enclosure 1 (see Chapter 5) in the Eastern Area suggests that the upper Earth-Embanked Structures on the mound summit could date to this phase or later.

The evidence is consistent with Large Rectangular Structures dating to the late Town Creek and/or early Leak phase or later. Structure 30b contained late Town Creek and early Leak-phase features in its interior and one of its walls was superimposed by a late Leak-phase feature. Structure 27 had a late Leak-phase posthole in one of its walls, suggesting that

this building may have been removed during this time or later. Two of the four Small Rectangular Structures also date to the Leak phase or later. Structure 5b superimposed a Leak-phase burial and Structure 38 had a Leak-phase posthole in its interior.

There are several indications that Medium Rectangular Structures represent the latest identified structures at Town Creek. First, Structure 28 has Leak-phase postholes in and around it, suggesting that the structure was removed or remodeled during this phase or later. Second, Structure 21a, although only partially excavated, had several Leak-phase pits in and around it. Third, Structure 9a, although poorly defined and only partially excavated, had several Leak-phase features in and around it.

Assemblages by Structure Type

The distribution of diagnostic artifacts and dated features suggests that: Small Circular Structures date to the earlier part of the Mississippian sequence; Earth-Embanked to both the early and middle parts; Large Rectangular and Small Rectangular Structures date to the middle; and Medium Rectangular Structures date to the later end of the sequence. This potential sequence of structure types at Town Creek can be evaluated through the chronologically sensitive ratio of plain to decorated rims discussed in Chapter 2. In order to use this ratio effectively, assemblages were pooled within each structure type because of the generally small sample sizes associated with individual structures. An arrangement of structure types in decreasing order based on this ratio (Figure 3.78) is consistent with the sequence of structure types based on diagnostic types and rim modes. If the rim ratio is an accurate measure of time, then the arrangement of structure types from earliest to latest for those with sufficient numbers of rims would be Late Woodland (Structure 18), Small

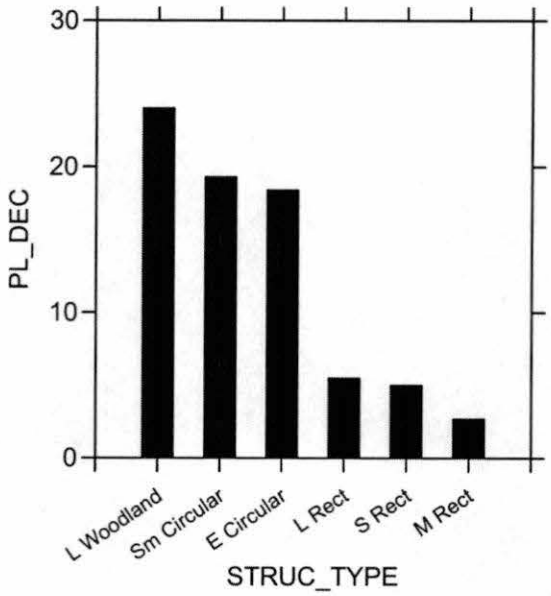

Figure 3.78. Bar chart of ratio of plain to decorated rims by structure type.

Circular, Enclosed Circular, Large Rectangular, Small Rectangular, and then Medium Rectangular.

CONCLUSION

The quantity and density of features at Town Creek resulted in a bewildering site plan that was not conducive to defining and investigating individual structures. An examination of the thousands of features at Town Creek aided by GIS has allowed the definition of numerous architectural elements, including structures, enclosures, palisades, and burial clusters. Patterns among structures in architectural attributes (e.g., shape, size, and burial density) suggest that there are several types of structures represented at Town Creek. Associated ceramics have allowed the arrangement of these structure types into a relative chronological sequence that spans Town Creek's Mississippian occupation. In subsequent chapters, the structures and structure types will provide the spatial and temporal basis for exploring variation and change in site structure and leadership at Town Creek.

Endnotes to Chapter 3

1. Fieldwork has taken place at Town Creek since 1983 to stabilize part of the site that is eroding adjacent to the Little River (Carnes-McNaughton n.d.). However, excavations during the summer of 1983 were the last ones under Coe's direction.

2. When Davis began this project, he was not aware of any maps of Mg3 features in the Town Creek collection other than the plot sheets for individual units. Maps showing larger contiguous portions of Mg3 were later discovered in Coe's personal papers, but it seems that these maps were also compilations of plot sheets from individual units.

3. The numbering scheme used for structures and burial clusters is an outgrowth of Driscoll's study of mortuary patterns at Town Creek (2001). Driscoll numbered both structures that had been identified in the field and dense clusters of posts she believed were structures. She also numbered clusters of burials that were not clearly associated with any structure. I have used her numbers in cases where the elements I identified corresponded to either the structures or the burial clusters she identified. I have assigned unique numbers in cases where correspondence is lacking. Any gaps in the sequence represent structures that I identified early in the process but reconsidered in subsequent analyses. There are several instances in which the same number with different letter designations was assigned to structures. This was done in cases where structures overlapped substantially because early in the process it was often unclear if these represented distinct structures or different parts of the same structure.

4. Although I analyzed the pottery from every subplowzone feature at Town Creek, only those data from features associated with architectural elements are presented here because of the space necessary to show all the data. All of the ceramic data produced for this research are on file at the RLA.

5. The ceramic assemblages associated with structures came from the fill of postholes that composed the structure's walls and the fill of burials and other features inside the structure. Few ceramics at Town Creek came from features within structures other than postholes and burials. Thus, these two types of features provided the bulk of the pottery that was used to date structures, and there are special considerations that must be kept in mind when using artifacts from these types of features. It has been argued that the fill of some types of large features (e.g., storage pits, large basins, etc.) represent discrete, coherent, short-term events (see Dickens 1985:42-43; Hayden and Cannon 1983:144). The logic behind this argument is that once these features had served their purpose, they would have been rapidly filled with household refuse because of the nuisance of having a large hole within one's living space and because of the convenience of having a trash receptacle at hand. Thus, the fill of pits and basins may closely date the use-life of the structure with which they are associated. In contrast, the fill of postholes and burials cannot be interpreted this way. The fill within postholes could have arrived there only after the post itself had been removed. Thus, the contents of a posthole can provide a *terminus post quem* for a structure's re-building or removal, meaning posthole inclusions can be used to estimate the end of a structure's use rather than the date of activities that occurred during its use. While burials are indeed large pits and represent short-term events, there was not a lot of time between the excavation and the filling of the pit. It seems likely that the dirt excavated for

the pit was placed right back in it after the interment had occurred. Thus, burial fill should contain primary refuse that represents sherds that were unintentionally lost in and around households (LaMotta and Schiffer 1999:21; Schiffer 1987:58). The multi-component nature of Town Creek and the fact that most burials were found within the ring of structures surrounding the plaza means that the fill of burials at the site could contain artifacts from a long segment of the site's occupation. While burials are presumably more representative of a structure's use than the fill of its postholes, the fact that the fill could contain artifacts from all earlier occupations of the site must be kept in mind. While artifacts in direct association with interred individuals can be thought of as events associated with the use of the structure, relatively few of the burials at Town Creek were directly associated with pots, so most of the dating of burials was based on sherds in burial fill.

6. It seems that the excavators were too liberal in what they defined as Level X. It is often the case that mound-flank deposits are limited to one part of the mound (Hally 1994:157; Smith and Williams 1994). In contrast, the excavators at Town Creek identified Level X in several parts of the mound. I do not think that all contexts identified as Level X by the excavators were part of the same layer. For the purposes of my research, I have considered as Level X only those contexts that were located on the south side of the mound, especially around its southern corner. This encompasses the midden first encountered by Coe in an exploratory trench in 1937 as well as contexts designated as Level X in contiguous excavation units.

7. The structures on the western part of the Dyar mound had prepared clay floors and were clean of refuse. The southwestern structure on the west side of the mound had an elaborate, modeled clay hearth. The northwestern structure also had a hearth, but it was not as well-defined as the prepared clay hearth in the southwestern structure (Smith 1994:Figure 14). The open shed on the eastern, lower part of the mound summit contained two, well-spaced hearths that were not as well-defined as the prepared clay hearth in the southwestern structure (Smith 1994:Figure 14).

8. The smaller structures at Toqua had earth-embanked walls and centrally located, prepared clay hearths (Polhemus 1987:268-285). The northern structure had an entrance trench that faced the east and an entrance trench that connected it to the southern structure (Polhemus 1987:Figures 5.20 and 5.27). Several of these smaller structures contained burials, but several others did not. The large, rectangular structures on the eastern side were described as open pavilions or porticos (Polhemus 1987:354-355). Burials of high-status individuals were located within one of these open structures (Polhemus 1987:354).

9. The grid points of the corners for this block of units was the Mg2 grid origin point at the southeast corner, 0L20 at the southwest corner, 100L20 at the northwest corner, and 100R0 at the northeast corner. The eastern row of units in this block consisted of those that began with the designation "BL" for baseline. The western row consisted of those that ended in "L10."

10. 820 $\pm$ 40; Beta 201468; corn cob; $\delta^{13}C$ = -11.2 ‰.

11. 940 $\pm$ 40; Beta 201469; corn cob; $\delta^{13}C$ = -11.3 ‰.

12. In some cases, burials were located near a structure but outside of it. For the sake of simplicity, I counted these in the burial density ratio.

13. Coe (1995:266 and 268) also faced the dilemma of deciding if the large, circular patterns at Town Creek represented structures with roofs or open enclosures, although he did not indicate his final thoughts on the matter.

14. In Chapter 2, the ratio of decorated to plain small sherds also was discussed as being chronologically sensitive. However, this ratio shows no differences among structure types. This could be the result of several things. It could be that the temporal differences among structure types are minimal. This probably was not the case, though, because a great deal of time is represented at Town Creek based on the range of radiocarbon dates, the degree of overlap and superposition among structures, and the density of features. Another reason for an essentially flat ratio across the structure types could be that the ratio is not a good measure of time. This also seems unlikely because the ceramic sequence discussed in Chapter 2 clearly shows an increase in plainwares through time. A third possibility—the one I think explains the lack of differences in the ratio of decorated to plain rims among structure types—is that because of the overlapping nature of the deposits at Town Creek, a preponderance of decorated pottery early in the site's history would not have been offset in mixed deposits by the deposition of proportionally more plain sherds later in time. Even though the proportion decreases through time, the differences are not that dramatic. For example, the ratio of decorated sherds to plain sherds for the Teal phase is only about four times larger than that for the Leak phase. In contrast, the ratio of plain to decorated rims is about nine times larger in the Teal phase than in the Leak phase. Thus, the decorated to plain sherd ratio should be useful with assemblages that represent a short-term deposition, but will be of less utility with mixed assemblages.