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## POLITICAL ECONOMY OF EXOTIC TRADE ON THE MISSISSIPPIAN FRONTIER: A CASE STUDY OF A FOURTEENTH CENTURY CHIEFDOM IN SOUTHWESTERN VIRGINIA

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ABSTRACT OF DISSERTATION

MAUREEN ELIZABETH SIEWERT MEYERS

The Graduate School

University of Kentucky

2011

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ABSTRACT OF DISSERTATION

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A dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy in the College of Arts and Sciences at the University of Kentucky

By  
Maureen Elizabeth Siewert Meyers

Lexington, Kentucky

Director: Dr. Richard Jefferies, Professor of Anthropology

Lexington, Kentucky

2011

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### POLITICAL ECONOMY OF EXOTIC TRADE ON THE MISSISSIPPIAN FRONTIER: A CASE STUDY OF A FOURTEENTH CENTURY CHIEFDOM IN SOUTHWESTERN VIRGINIA

Although the Mississippian culture area has been studied for decades, the frontier of the Mississippian region is less understood. Various Mississippian frontiers appear to have been important for the obtainment of trade goods which were important symbols of chiefly power. Studying these frontiers will allow archaeologists to better understand the emergence and maintenance of power within Southeastern chiefdoms. This dissertation explores one frontier site, Carter Robinson (44LE10) in southwestern Virginia, and its role in Southern Appalachian chiefdom power through its control of trade at the border. This research identifies ceramic and non-utilitarian markers of trade and identifies changes at the frontier site over time, an accumulation of power that occurred through control of trade.

KEYWORDS: Mississippian, frontiers, trade, southwestern Virginia, power

Maureen Elizabeth Siewert Meyers

February 1, 2011

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January 25, 2011



DISSERTATION

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The Graduate School

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First, I want to thank my advisor and chair, Dick Jefferies. Dick was one of the few people who not only didn't think this idea was crazy when I first suggested it, he thought it was viable and interesting. His interest and support did not wane over six years of graduate school work, qualifying exams, two seasons of fieldwork, and over two years of analysis and writing. His help, advice, and support were invaluable at every stage. My committee members, Chris Pool, Lisa Cliggett, and Fay Yarbrough, were incredibly supportive throughout the whole process, helping it progress smoothly the entire way. Each was chosen for their specific expertise, and each added that and so much more. Chris' knowledge of ceramics and Southeastern archaeology was invaluable many times over, as was his sharp editing skills and ability to see the pertinent trees in the forest. Lisa brought a cultural anthropologist's eye to the study of frontiers, and urged me to see the connections between this work and broader anthropological theory, which made the dissertation more broadly applicable. Fay honed my historiography skills, and helped me make connections between the historic Southeastern Indian societies and those of the past in more meaningful ways. I thank them all for their support and patience during this process.

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Multiple individuals in Southeastern archaeology supported this idea at various stages. Mark Williams was one of the first and most steadfast. He listened to an unformulated idea, saw my passion for it, and urged me to do this for my dissertation. He

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Lee County is among the most beautiful spots in Virginia. Although I was warned before I went that they did not take kindly to strangers, my experience was quite the opposite. Every person I encountered and talked to about this work was excited and supportive. Of those, the most supportive is undoubtedly Alan Crockett, and his extended family, Sue Crockett and Jo Zingg. Alan's tireless devotion to the archaeology of Lee County is at once astounding and inspiring. His assistance to me, at and through all stages of fieldwork, is a gift I can never repay. Field days were made better when Alan came to help; when he wasn't there, I quickly learned that he was out trying to make our lives better, whether by securing someone to mow the field or finding someone to move dirt.

Alan's quiet demeanor belies his intelligence and devotion to the field of archaeology, and to Lee County history. I was most proud and pleased to call him my friend and colleague, and I hope to work with him for many years. As Alan is quiet, his cousins, Sue and Jo, are not. They are the epitome of strong southern women who get things done, and thankfully for me, they got things done. From finding water to finding housing; from finding a cook to making life just generally easier, these women exemplified the best that Lee County has to offer. I appreciate their great kindnesses to me, and value their friendships. Their extended families are thanked for both assisting in the field and for allowing them the time and energy to devote to this project. I hope we can all work together again soon.

Lee County residents who assisted in this work were many. Shawn Morris was of great assistance in the county, showing me where multiple sites were, visiting the site, and often returning with needed equipment which he donated to the project. Shawn made many things run much more smoothly. He also assisted in spreading the word about the project, and getting others involved. Harry Ho and his wife were very supportive of the project, hosting a relaxing party for the 2008 field school students at their home, a much-needed respite, and assisting in other ways. The Wilderness Road State Park staff was of great help in 2008. Marty McConnell, then park manager, and his staff, including Billy Heck, Chief Ranger/Interpretation, and John Sprinkle, Assistant Ranger, were incredibly supportive, assisting my student Jessica Schmidt with publicizing and organizing an Archaeology Day at the park. Mary Sprinkle volunteered at the site for many days, and was of great help. Jonathan Tustin, present park manager, is commended for continuing this tradition of helpfulness and support. I look forward to continuing my work with the WRSP staff. In addition, Lee Laningham, Becky Jones and the Lee County Historical Society, and Rod and Janie Griffith have been supportive of this project in multiple ways, inviting me to talk and meet key persons in Lee County, and generally making my time there easier. I thank them for their assistance. Harold Jerrell, Extension Agent in Lee County, assisted numerous times with photographs of the site as well as identification of shell; his enthusiasm for this project was needed and appreciated on many hot days.

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## **Chapter 1. Introduction**

The Mississippian period (A.D. 1000-1550) of the Southeastern United States is well documented and known from sites like Cahokia, Etowah and Moundville. The frontiers of the Mississippian cultural world are less well-known, if known at all. Few of these sites have been systematically excavated to understand the effects of peripheries on the core region. One such periphery is southwestern Virginia (Figure 1.1), where Mississippian mounds are present at two sites, and possibly more. Although the location of these sites has been known for over a hundred years in some cases, they have been ignored by archaeologists, particularly within the Southeastern region. At the same time, archaeological excavations, including academic, private, and public, have increased our understanding of Mississippian social organization, subsistence, trade, power, settlement, and the role of craft production.

It seems that Mississippian archaeology studies are poised to examine the interactions of Mississippian groups with non-Mississippian groups, and understand how these interactions affected each group. This is particularly true with the recognized importance of long-distance trade networks and its ties to chiefly power during the Middle and Late Mississippian periods. Some of these trade goods were exotic to Mississippian cultures, and this exotic attribute was central to their value. Chiefs who had access, particularly exclusive access, to such valuable non-local goods were able to use these goods as a symbol of their own power.



Figure 1. Location of Site 44LE10.



Therefore, it follows that to understand how and why some Mississippian leaders were able to access these goods, and why others were not, in order to understand shifts in power across the Mississippian landscape over time, we need to study the edges of the Mississippian culture area. It is at these edges that we can identify the source of goods, the groups in charge of producing goods, and the trade of these goods as sources of power. As Mississippian chiefs became ever more dependent on these goods as symbols of power, it is important to examine the frontiers and the groups that engaged in this trade, to understand another important facet in the trajectory of Mississippian power.

Carter Robinson appears to be a Mississippian frontier site engaged in trade with local Radford groups during the Middle Mississippian period. Remains excavated at the site suggest that in a relatively brief (100 years) period, inhabitants moved in and aligned themselves with local groups in order to access trade routes; ultimately they were successful. This dissertation examines how this occurred and the results of this alignment and control on local and regional chiefdoms.

This dissertation identifies three important questions for this Mississippian frontier, and uses architectural, ceramic, and other artifact data to answer these questions. First, it seeks to identify the cultural identity of the Carter Robinson site's inhabitants. Prior to this research, it was not known who inhabited this site. Cultural identity is determined through an examination of site architectural grammar and ceramic attributes. Second, it seeks to identify whether this site was a frontier, and specifically, what type of frontier it was. Using ceramic and other artifact information, data are examined for indications of trade. Third, the research seeks to identify changes in households across

the site. Specifically, it attempts to identify indicators of the control of craft production and ties to changes in power present at the site.

The local environment is briefly described and the cultural history of the region is described at length in Chapter 2. In Chapter 3, I discuss the theoretical foundations of chiefdoms, frontiers, and Mississippian frontier chiefdoms. Chapter 4 describes the research questions addressed here. The architectural grammar of the site, in terms of site layout and individual structures, combined with some artifact data, are utilized to address the three research questions described above in Chapter 5. Chapter 6 uses the ceramic assemblage data to investigate the research questions. Chapter 7 addresses the role of trade and identifies material indicators of the control of craft production and exchange found at the site. Finally, Chapter 9 summarizes the study and its implications, and discusses suggestions for future research.

## **Chapter 2. Environmental and Cultural Setting**

### **Environment of Southwestern Virginia**

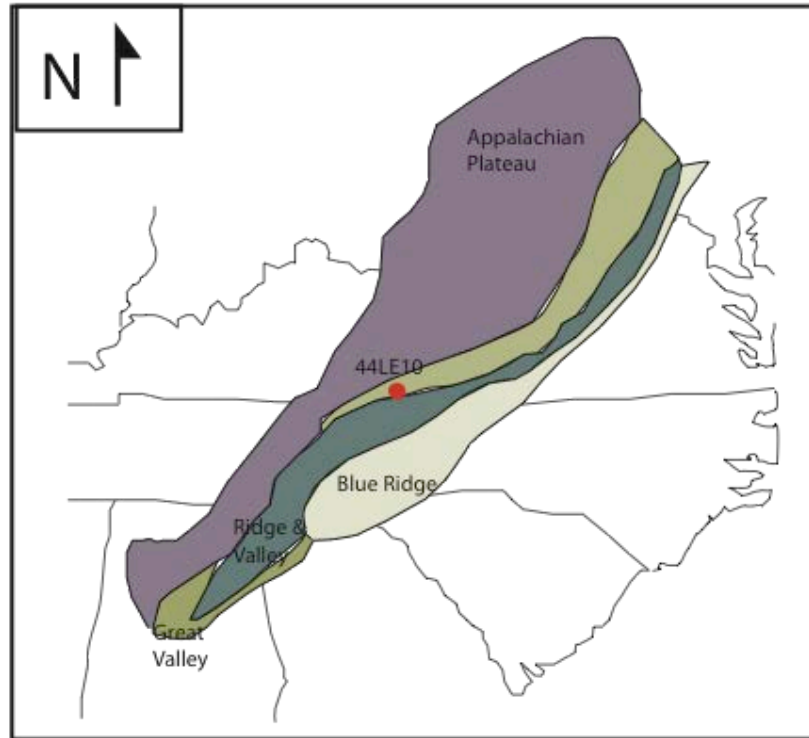
This section examines the environment of the southwestern Virginia region, and describes physiographic provinces, river systems, soils, natural and plant resources, and climate for the region.

### **Physiographic Provinces**

Southwestern Virginia lies within three physiographic provinces: the Cumberland Plateau to the west; the Valley and Ridge in the center; and the Blue Ridge to the southeast (Figure 2.1). The Carter Robinson site is located in the Cumberland Plateau physiographic province. This province stretches northeast to southwest, and is defined by Manning (1999:6) as an “uplifted tableland with broad plains dissected by river canyons.” The Cumberland Plateau contains two distinct woodlands. The Upland Forest is a more uniform forest containing dominant species such as pine and oak. The Ravine forest, by contrast, contains a more varied arboreal species.

### **River Systems**

River systems within the valley include the Holston, Clinch and Powell, all tributaries of the Tennessee River (Butts 1940:18). These flow southwest. The Holston is divided into North and South forks at the northern end of the river. The Holston is the northern river, the Clinch the southern river, and the Powell lies between the two. All flow into the Tennessee River near Knoxville, Tennessee.



**Figure 2.1. Physiographic provinces of region showing location of Site 44LE10.**

## **Culture History of Southwestern Virginia**

### **Previous Research**

Southwestern Virginia has received less attention from archaeologists than most other parts of the Commonwealth, such as the Chesapeake Bay; however, archaeology in the region was done as early as 1880, and with the advent of contract archaeology in the late twentieth century, archaeological knowledge of the area is increasing.

Archaeologists from the Peabody Museum, Harvard, conducted the first archaeological investigations in the region. The Ely Mound, in Lee County near the town of Rose Hill, and located approximately 10 km north of the Carter Robinson mound, was chosen for the site of investigations. Using a team of local workers, excavations proceeded into the center of the mound (Carr 1877). A large trench excavation uncovered multiple burials, both adult and subadult, containing grave goods such as conch shell earplugs and a shell gorget. Excavation ceased, however, when the wall of the excavation collapsed onto a worker, killing him. Although the results of the investigation were published in a brief BIA report (Carr 1877), no further work was ever done at the mound. Locals came to believe that it was haunted, because of the worker's death, and probably as a consequence, no looting has occurred there. The mound's location next to and within site of the main thoroughfare of Route 58 likely also dissuaded looters.

Minimal work was done in this remote region during the early twentieth century. Wainwright investigated some sites in 1914 and 1915 for the Smithsonian Institution, and these investigations are reported in brief letters (Wainwright 1915). In the mid-twentieth century Evans (1955) published his "Ceramic Study of Virginia." Although he discusses the ceramics of southwestern Virginia, this work is based on ceramic samples obtained

from the Roanoke area, which Evans extrapolated to the larger southwestern Virginia region. In general, Evans identified the Radford ceramic series, a limestone-tempered ware, usually found with cordmarked or net-impressed surface decorations, as the dominant type for the region during the Late Woodland period. Vessel morphology includes mostly jar forms. Radford ware is consistent across the region with regards to surface decoration and temper. A second less-common ware is the sand-tempered and usually net-impressed Dan River series, found in the southern portion of central and southwestern Virginia near the North Carolina state line. Finally, the New River series is the only shell-tempered ware found during the Late Woodland period (A.D. 1300-1700) (Egloff 1987) and it is often plain or cordmarked.

The most comprehensive work in the region during the mid-twentieth century was Holland's Smithsonian-sponsored twenty-county *Survey of Southwest Virginia* (1970). Talking to local informants and undertaking limited excavations, Holland was the first to identify and record all the major sites in the region, including the Carter Robinson mound. He followed Evans' typology for ceramics, but further differentiated between types of shell-tempered ware, identifying a gastropod shell ware and a mussel shell ware. The latter Holland affiliated with Mississippian Dallas phase cultures in northeastern Tennessee. Also of note, Holland recognized a Pisgah variant in Lee County and vicinity, which he termed the "Lee" series, characterized by sand and/or quartz temper, distinctive chevron rim designs, and rectilinear stamped body surface decoration.

Holland's work demonstrated that a wide range of ceramic types is found in the region and these types exhibit great diversity in temper and surface decoration. He suggested the area should be viewed as a "cultural crossroads," where multiple groups

from the surrounding regions (northeastern Tennessee Dallas; western Carolina Pisgah and later Qualla and/or Burke; Kentucky Fort Ancient; and central and southwest Virginia's Radford) came for purposes of trade; the result was a "crossroads" of regional cultures that would explain the variation present in ceramic samples as well as extralocal trade goods. Holland's study, though important for establishing a cultural context for sites, had several drawbacks. First, he relied on local informants for site location and land access, which likely highly biased his study toward well-known sites. Second, although he identified many sites, his ceramic sample from those sites is small, limiting analyses of change over time in ceramic chronology. Third, and related to the latter, is the lack of radiocarbon dating or large-scale excavation, both of which would have placed the sites within a larger cultural context.

During the 1970s and 1980s, most of the work in the region was salvage archaeology; sites excavated at that time most pertinent to this research are described below. Based on this work, MacCord (1989) proposed an "Intermontane Culture" model for the region that emphasizes slow, *in situ* Late Woodland cultural development which "did show numerous influences from surrounding areas, e.g., Fort Ancient, Dallas, and Dan River" (MacCord 1989:1). This model incorporates data from area excavations to describe the local cultural groups represented by the Radford pottery series. These cultures lived in palisaded villages comprised of between ten and twenty circular houses. Houses were made from posts set vertically into the ground, and if circular measured about 4-10.35 meters in diameter (Egloff 1992:207); some oval and rectangular structures have also been found. Houses usually contained a central hearth, with storage pits and burials located outside the households; some burials were located near palisades.

Limestone-tempered pottery is the predominant ware, with small (between 1 and 5 percent) amounts of other types from surrounding regions. Subsistence included horticulture or agriculture of some type; corn, hickory and wild fruit remains have been recovered from sites. White-tailed deer were the primary mammal exploited, along with occasional bear and elk, and often turkey, small mammals, turtles, fish, and reptiles were also part of the diet. Social organization as seen by MacCord, was egalitarian, with little or no ranking evident.

In contrast to MacCord's Intermontane Culture, Gardner (1979) suggested that ranked social organizations were located in the region, based on the presence of multiple mound sites. Turner (1983) expanded upon this idea, and defined both characteristics of chiefdoms and their possible manifestations in southwestern Virginia; he concluded that ranked societies were present in the region during the Late Prehistoric period. Egloff (1987) studied Late Woodland ceramics from sites located along the Clinch and Powell Rivers, which clarified earlier regional ceramic types. He also suggested that variation in surface treatment of mussel shell-tempered ceramics indicated varying degrees of interaction between indigenous cultures and Mississippian cultures farther south. Egloff (1987:49) concluded "the arrival of Pisgah and Dallas wares ca. A.D. 1200 from societies further south indicates another period of increased cultural interaction" reflecting "the arrival of a chiefdom society."

Further evidence of interaction or possibly presence of Mississippian cultures was found by Reid (1997) at two sites in Lee County. At one site, 44LE129, he found over one hundred shell-tempered sherds that resembled the Dallas type. At the second site, 44LE121, he found the remains of an oval-shaped single-set post structure similar to



those found at Dallas phase occupations in eastern Tennessee; one post from this structure was dated to A.D. 1420 (Reid 1997:65). Unlike Dallas structures, which usually had four main roof posts, the structure in Lee County had center-line supports, which Reid thought may have been a local variation in house style. Pisgah sherds were also found at this site, as well as a cannel coal bead.

More recent work by Pullins (1999) examined the settlement patterns of prehistoric sites in the Clinch River Valley and found Mississippian components at ten sites, which suggested to him interaction between indigenous cultures and ranked cultures of eastern Tennessee. Jefferies (2001), in an overview of the region, proposed that Dallas phase groups moved into the area sometime after A.D. 1200, and established chiefdoms marked by mound centers, which interacted with local groups. Jefferies describes both groups as living along the northern “boundary” of the Mississippian world.

It should be stated that the Late Woodland period in southwestern Virginia is approximately contemporaneous, lasting from ca. A.D. 900 until the seventeenth century, with the Mississippian culture in the Southeast. In Virginia, the Late Woodland period “is marked by the acceptance of a horticultural system of subsistence based on the growing of corn, beans, and squash” (Egloff 1992:187). Both large permanent villages found in river bottomlands and small encampments, likely for hunting, are typical settlement types of this period. Egloff (1992:187) notes the few references to natives in this region in seventeenth-century European accounts, and by the eighteenth century “travelers saw a few abandoned fields and villages, but there were no settled Native Americans to welcome or oppose them.”

## **Regional Context**

In order to better understand the role of Carter Robinson within its region, this section will discuss specific contemporaneous sites in Virginia, Kentucky, Tennessee and North Carolina. The most detailed discussion will focus on Lee County and surrounding counties in Virginia. First, contemporaneous sites in those counties will briefly be described. Second, one site from each county will be discussed in detail. These sites were chosen because they exhibited the following qualities. First, radiocarbon dating and material culture remains demonstrated their contemporaneity with Carter Robinson. Second, they were subjected to excavations extensive enough to reveal information about village layout, households, subsistence, and artifacts that would provide comparative data with Carter Robinson. Following discussion of Virginia sites, a somewhat more limited overview of contemporaneous sites in surrounding regions is presented to better understand the various cultures interacting with the frontier in southwestern Virginia.

## **Virginia**

### Lee County

Lee County is home to the Carter Robinson site as well as one and possibly two other mounds (Figure 2.2). The closest mound site to Carter Robinson is the Ely Mound, located approximately 10 km northeast of Carter Robinson in the town of Rose Hill. Like Carter Robinson, Ely is not located near a major river; only a small creek runs near the site. Excavations undertaken there in the late nineteenth century, discussed above, were done by Lucian Carr. Carr reported the mound's dimensions as flat, 19 ft high and 300 ft in circumference. On the mound summit Carr (1877:76) recorded decaying stumps of a series of cedar posts on the slop

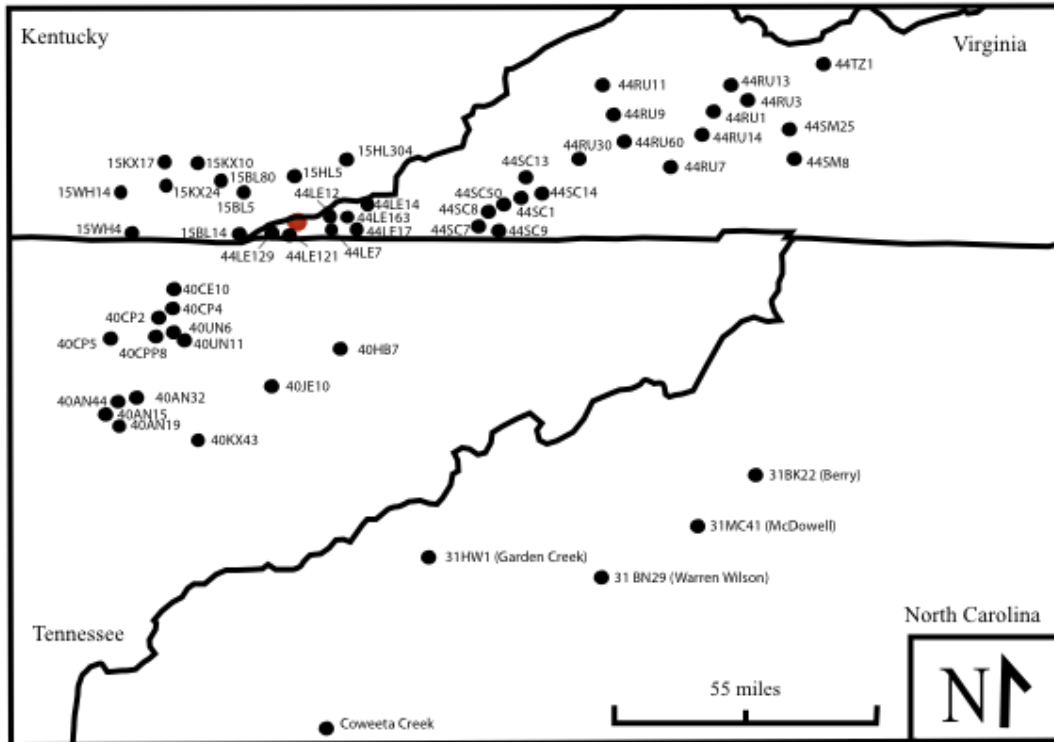


Figure 2.2. Location of Site 44LE10 and contemporaneous sites in Kentucky, Tennessee, and North Carolina.

the mound as well as one cedar post remnant in the center of the mound. Based on this evidence, he surmised that the mound summit had been occupied by a building, possibly a rotunda or council chamber. In the trench, at a depth of approximately 3 m, he encountered two subadults in one grave and two additional graves (age and sex of burials unspecified) in the side excavation at about 2 m deep. Since Carr's work, the mound has not been plowed or disturbed, and it was recently purchased by the Archaeological Conservancy. A slight depression on the mound summit likely represents Carr's excavations (Egloff 1987) and an apron of soil that extends to the southeast may be evidence of a ramp or series of steps (Egloff 1987:18). Artifacts from these excavations are curated at the Peabody Museum at Harvard University (Diana Loren, personal communication 2000). These include six stone discoidals, two shell earplugs, an incised shell gorget with weeping eye motif, and thirty beads, as well as ceramics, projectile points, flakes, animal bones and charcoal. Most artifacts were associated with the graves. The shell gorget, shell earplugs, and shell beads were found in the first grave (with two subadults); the second grave contained a few shell beads, and the third contained a quartzite spear point, a chalcedony "lancehead" and a polished discoidal stone.

Site 44LE7, the Speaks Mound, is a possible mound site situated about 15 km east of Carter Robinson. Holland (1970:17) identified it as a 10-foot high elliptical mound about 90 ft long and 60 ft wide; however, Holland found no artifacts there.

Archaeologists affiliated with the Virginia Department of Historic Resources (VDHR) have attempted to find this mound over the past two decades, with no success, and it is not clear if this is a mound or a natural land formation (T. Klatka, personal communication 2006).

Site 44LE17 was likely a mound located about 25 km east of Carter Robinson, on a high ridge above the Powell River. Holland excavated a strata cut into the mound that revealed a lens of artifacts overlying a layer of limestone slabs (Holland 1970:19); this lens returned a radiocarbon date of A.D. 1210+/- 120 (uncalibrated). Holland made his strata cut in the center of a noticeable rise, which Egloff (1987:18) suggests may have been the base of a substructure mound. Analysis of 49 sherds from the site by Egloff (1987:18) showed the assemblage included approximately 50 percent Dallas phase (shell-tempered) and 50 percent Pisgah (sand or quartz-tempered) types; two sherds date to the earlier Connestee phase (A.D. 100 to 600).

Contemporaneous non-mound sites in Lee County include Site 44LE14, located 9 km northeast of 44LE7. This village site contained a mixture of Dallas sherds and Pisgah Rectilinear Complicated Stamped pottery. A second village, 44LE163, located 2 km north of 44LE17, contained shell-tempered, limestone-tempered, and sand-tempered sherds. Sites 44LE121 and 44LE129, located approximately 7 km south of Carter Robinson, are discussed above. Overall, there are three and possibly four mound sites and four village sites within a 35-km area in central and southern Lee County.

### Scott County

Scott County lies adjacent to and east of Lee County. The Clinch and North Fork of the Holston Rivers this part of southwest Virginia. Holland reported two mounds in Scott County, 44SC7 and 44SC8 (see Figure 2.2). Site 44SC7 is only known from a map of Scott County found in Holland's archival files; however, it was not reported in his 1970 volume. A note on the site form states "a mound 1.5-2 feet high directly south of barn and east of site is mentioned on Holland's Scott County map. The mound is U-

shaped and has been destroyed by flooding” (VDHR State Site File Form). The scant information available about this mound, its small size, and its odd shape makes its identification as a cultural feature questionable. Site 44SC8 may have been a mound located near the town of Fort Blackmore. Holland (1970:33) describes it as sitting “atop a truncated, conical knoll, with its base nearly filling the knoll’s plateau, and the slope of the mound is nearly coincident with the slope of the knoll.” Wainwright excavated burials from the mound, reported in letters to the Smithsonian Institution in 1915. In these letters, he described the mound’s dimensions as “12 feet high and 70 feet across the base” (in Holland 1970:33). In 1963, Holland estimated the mound’s measurements as 8-10 ft high, 50-60 ft across the base, and 40 ft across the top.

Other sites in Scott County include two village sites, 44SC1 and 44SC13, both with limestone- and shell-tempered pottery. The latter was extensively excavated and is described in detail below. A third village, 44SC9, has Dallas, Pisgah, and Radford wares that Egloff (1987) describes as an integration of Mississippian-style pottery. Two other villages, 44SC14 and 44SC50, contain shell-tempered pottery.

#### 44SC13 The Flanary Site

This site is located 60 miles north-northwest of Carter Robinson, along the Clinch River in Scott County (Figure 2.3). Although there are small Archaic and Woodland occupations at the site, its main occupation was during the Late Woodland period, where a large palisaded village was located. Portions of a palisade and one house pattern (circular) were identified at the site. Perhaps most noteworthy, MacCord (1979) identified what he termed “the first definitely Mississippian ceramics thus far reported in Virginia”, including a squash effigy vessel. Equally noteworthy is the fact that many of

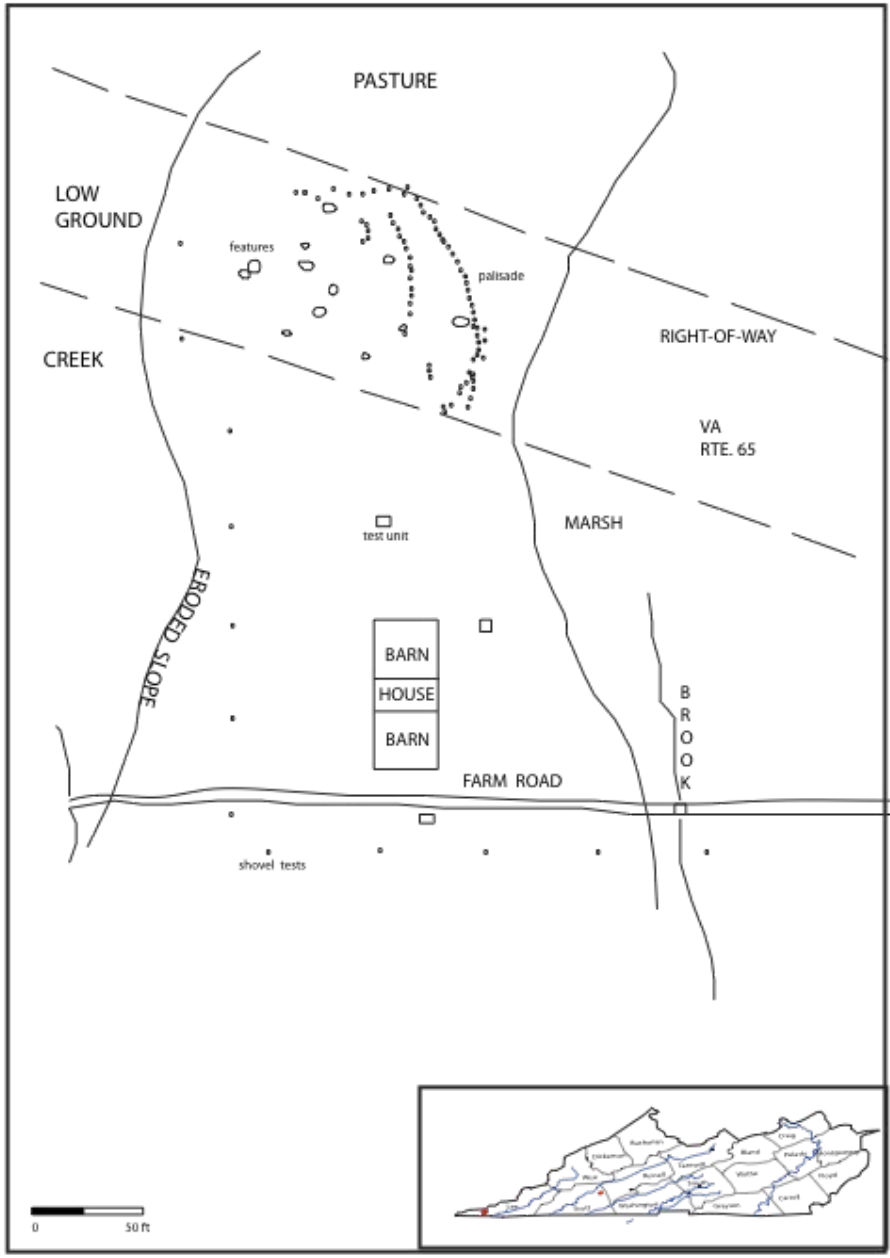


Figure 2.3. Site plan of Site 44SC13 (adapted from MacCord (1979)).

these vessels were found unbroken, providing information on vessel morphology for the region during the fourteenth and fifteenth centuries.

The site measures approximately 100 x 50 m, and occupies the widest portion of the terrace (MacCord 1979). The western portion of the site has been adversely impacted by erosion, and the size of the site in this area is not known. Excavation in 1977 consisted of seventeen 5-x-5-foot units randomly spread across the site within the proposed highway right-of-way, and an additional four test units placed outside the right-of-way on the adjacent property. Although artifacts were provenienced with regard to their test unit origin, surface artifact scatters were collected and bagged together, and their location recorded only as “surface”.

#### *Site Settlement History*

One radiocarbon date was obtained for this site, a date of A.D. 955 +/- 155 (uncalibrated) from Feature 15, a pit containing human remains (MacCord 1979); Egloff (1992:196) suggests the date is too early. Because the site contained earlier small Archaic and Woodland occupations, it is possible that soil in this feature was mixed. Five intact pots were recovered from this pit; two vessels appear to be Mississippian in form, which makes the radiocarbon date more suspect.

Portions of a palisade, one possible house pattern, seven burials, two burnt red earth hearths, and a storage pit were excavated during this salvage work. In addition, approximately twenty scattered postmolds were identified and mapped. The palisade may have been rebuilt at least once, or the two lines may represent interior and exterior palisade lines. The house pattern is incomplete, and it is not clear if the house was circular or square. Other possible house patterns may be represented by “fire-reddened”



areas, presumably hearths, with singular nearby postmolds. All graves were found within the palisade. No analysis of skeletal remains was done.

### *Ceramics*

The ceramics from this site are noteworthy because they offer the best examples of vessel morphology for the region. Seven complete or nearly complete vessels were recovered from this site. In addition, almost 400 sherds were found. The majority (89 percent) are shell-tempered, with small amounts (6 percent) of limestone-tempered and minor amounts of grit and sand tempers present. Surface decorations are only listed for shell-tempered sherds, and include fabric-impressed (36 percent), knot and net-roughened (19 percent) and cordmarked (18 percent), with low frequencies of plain (8 percent) and simple stamped (1 percent). MacCord (1979) interprets the high frequency of shell-tempered sherds as evidence of Mississippian occupation of the site. However, with such a small amount of the site excavated, more evidence is needed.

### *Non-utilitarian Artifacts*

Three possible fragments of a ceramic dipper or spoon handle were recovered from Feature 12, a probable burial. The feature also contained two celts, one made of greenstone and one of siltstone. One fragment of a ceramic pipebowl was found in a shovel test. A ceramic disk or gaming stone was recovered from a shovel test, and was typed as Lee Linear Stamped (i.e. Pisgah).

### *Summary*

The Flanary site was a Late Woodland period palisaded village. One radiocarbon date places the occupation in the tenth century, but this date is suspect. Artifacts, particularly pottery, suggest an Early Mississippian occupation. More detailed

excavations and analyses are needed to clarify the cultural components represented at this site, as well as the size of the village. Little information about house form or village layout is available. Although the pottery is overwhelmingly shell-tempered, the sample size is relatively small (400 sherds) and from a restricted area of the settlement. Overall, this site occupation appears to be contemporaneous with Carter Robinson.

### Russell County

Russell County is located adjacent to and northeast of Scott County. No mound sites have been recorded here; however, three village sites (44RU9, 44RU11, and 44RU60) contain large amounts of mussel-shell tempered pottery, suggesting to Egloff (1987) a strong Mississippian influence in the area (see Figure 2.2). A fourth site, 44RU7, contains both local and Mississippian wares, and was excavated by the VDHR; it is described below in greater detail. Site 44RU14, better known as Daugherty's Cave (Benthall 1990), is a stratified rockshelter located just south of the Clinch River. This site is significant because it contained intact stratigraphic remains whose existence strengthened the existing regional chronology. New River, Radford, and Wythe wares were recovered from the site, and Benthall (1990:29) was able to show that a decrease in limestone-tempered wares during the Late Woodland period was followed by an increase in shell-tempered wares.

### Site 44RU7 (Hansonville site)

Site 44RU7 is located approximately 85 miles west of the Carter Robinson mound site. It was first identified as a Late Woodland village by C.G. Holland (1970) (Figure 2.4). The site is located in Russell County, and is unusual because of its location on a

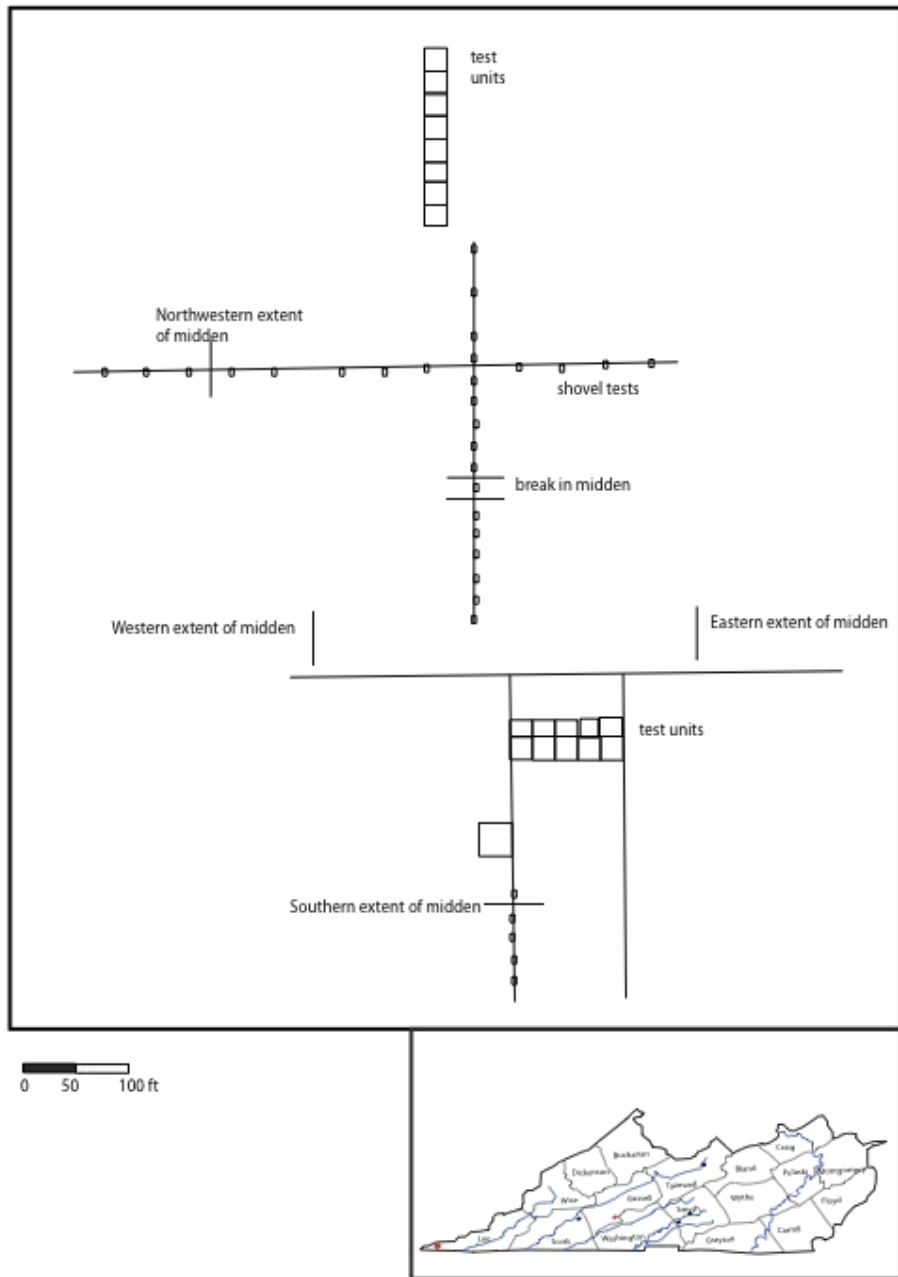


Figure 2.4. Site Plan of Site 44RU7 (after Bott 1981).

sloping uplands rather than a river valley (Bott 1981). It is located near two small streams that drain into the North Fork of the Holston River, not unlike Carter Robinson. No radiocarbon dates were obtained from this site, although artifact remains suggest contemporaneity with Carter Robinson.

### *Site Settlement History*

Investigation of the site included trench, test unit, and shovel test excavations. Two areas of midden, each with associated features, were uncovered, a northern and southern portion. The northern portion's northern, western and southern edges were identified by the presence or absence of midden. No eastern edge was found, possibly because it was identified in the southern portion and presumed to be the same. Two hearths and two unidentified features were identified through shovel testing. Both hearths contained burnt red clay soil. In the southern portion of the site, shovel testing the northern and southern limits of the midden; eastern and western limits of the midden were estimated from shovel test data excavated on the northern edge of the site.<sup>1</sup> Eight test units were excavated within the southern portion, where three house patterns and five burials were uncovered. The first house pattern is located in the center of the southern midden, and includes nine postmolds in a circular shape around an unidentified feature that also contains a postmold. A second house, approximately 7 m west of the first, contains at least one postmold around a hearth, and a burial adjacent to and partially covered by the hearth. A third house pattern is approximately 10 m west of the second, and is most clearly circular, and located around a hearth. Four other postmolds located northeast of this area may represent an additional house, or portions of a palisade line.

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<sup>1</sup> It is not clear what defines the eastern extent of the midden; however, surface collection appears to have been the determining factor.

Three burials were found south of the house patterns. Based on the patterns of features, analysis of ceramic artifacts (discussed below) and extent of the midden across the site, Bott (1981:8) suggests that two distinct occupations are present.

### *Ceramics*

Over 300 sherds were collected from this site. Like Carter Robinson and Flanary, Site 44RU7 contained a majority (90 percent) of shell-tempered wares. Other wares present included limestone-tempered (7 percent) sherds and minor amounts of sand and grit tempered (1 percent or less) sherds. Net-impressed surface treatment was the most common, followed by cordmarking. Bott (1981) suggests that there are two areas of occupation at the site, based in part on ceramic frequency types. Ten sherds were found in the northern portion of the site; six of these were limestone-tempered, and two were shell-tempered. By contrast, 90 percent of sherds from the southern portion of the site were shell-tempered.

### *Lithics*

Over 1100 lithic artifacts were recovered during excavation. Most (79 percent) are flakes, but chunks (7 percent), utilized flakes (7 percent) and bifaces (6 percent) are also present. Mississippian period projectile points include four Madison, four Dallas, and five probable Clarksville types. Bott (1981) did not include information about raw material use at the site.

### *Nonutilitarian Artifacts*

One ceramic disk was recovered from the site; temper and surface treatment are not described in the report.

### *Summary*

Using a cultural ecology model, Bott (1981:37-45) identified potential reasons for the location of Site 44RU7. He (Bott 1981:39) suggests the site “served as a strategic link in a regional transportation network of trade and/or communication by controlling access through the adjacent mountain gap leading to the North Fork of the Holston River” based on the site’s location at a major gap of Clinch Mountain. He proposes the site’s upland setting was a result of increasing population during the Late Woodland period that forced settlements away from floodplains and into uplands. Further, he hypothesizes “in some cases, upland soils in Southwest Virginia are more productive than the terrace soils. These differences would have been recognizable” (Bott 1981:42-44) and populations like those occupying Site 44RU7 would have chosen settlement in the more productive upland soils in a region where prime agricultural land would have been scarce. Trade and communication were important factors also, and may have been a determining factor in settlement of upland rather than floodplain soils.

### Smyth County

Smyth County is located southeast of Russell County; the North and South Forks of the Holston River bisect the county. Late Woodland sites (see Figure 2.2) in the region were examined by Barber and Barfield (2000), who suggested that a Radford chiefdom was present in Smyth County, centered in the Saltville region. Although no mounds are present in this hierarchy, the sites are clustered around a valuable resource, salt, suggesting the location of villages here was not random.

Within Saltville Valley, one site, 44SM25, is located directly over natural salt deposits. Barber and Barfield (2000) suggested that this site controlled the procurement of salt as well as access to the valley from the north and east. Four additional sites located

within the valley could have provided western and southern defensive positions. A second ring of contemporaneous sites are located on travel routes nearby, and potentially offered additional control over access into the valley. A 10-kilometer corridor between the valley and Site 44SM8 at Chilhowie connected the salt production center with this major trade center. Additional sites along this corridor and around 44SM8 may have served to protect both the corridor and the trade center. Three additional sites, located at varying distances between Saltville and Chilhowie, may have provided defensive positions at mountain gaps or creek crossings.

Based on this site distribution, Barber and Barfield (2000) proposed that salt was mined at 44SM25 and transported to the Chilhowie area, probably to Site 44SM8, where it entered the Ridge and Valley province. They suggest it was traded through Lee County into eastern Tennessee, then into the lower Southeast.

Saltville is the largest salt deposit for the Southeastern Southern Appalachian area; the next largest southeastern deposit is located along Alabama's Gulf Coast. For sedentary agricultural communities, salt was a valued commodity, and also easily traded, being lightweight. Moore (1999) and Beck (1997) have noted the existence of a trail noted on the Fry-Jefferson map of 1751, as well as the 1770 Collet and 1775 Mouzon maps (Cumming 1966:23-27) from the town of Joara in the Catawba River Valley in western North Carolina to the Chilhowie/Saltville area. Ethnographic evidence for the importance of salt is found in the 1584 Domingo de Leon accounts, translated by Worth (1994). In this account, Luisa Mendez, an Indian woman taken from the interior by Juan Pardo, testified before Governor Canco of Florida in 1600 that there were three to five saltwater springs at the base of the mountains where she lived, and these were the only

such springs in all of that land (Hudson 1990:87); Mendez was recorded as being the *cacica* of Manatique. Beck (1997:165) suggests that the town of “Manatique” was located on the South Fork of the Holston River near present-day Saltville. Barber and Barfield (2000) suggest that Site 44SM8 was the administrative center because it was more easily accessible and visible than the salt mining site.

Large numbers of shell gorgets found in the region suggest that status items may have been traded into the valley in exchange for salt. The intricate defense strategy seen in the Saltville region protected both procurement and administration of trade of this commodity, and helps explain Bott’s (1981) and Meyers’ (2001) similar findings of two settlement patterns, one of large villages along floodplains and a second of upland villages on non-alluvial soils. These upland villages may have served an important role as defensive controls for access to, and trade of, salt. Further, a decreased amount of arable land at these sites increased the importance of salt as a means of obtaining supplemental forms of subsistence. Two upland sites, 44SM4 (Fox) and 44SM7 (Bonham) have been extensively excavated and are described in detail below.

#### Fox Site (44SM4)

The Fox site (44SM4) is a Late Woodland period village located in Smyth County on the Middle Fork of the Holston River (Figure 2.5). It was investigated initially in 1940, and again in 1963, 1973, and 1994. Thirty-two features were uncovered and recorded during the most recent investigations, and included seven burials, a sub-rectangular structure with two internal support posts, a palisade line, eleven refuse pits, an isolated midden deposit, four amorphous stains, two vandalism-related disturbances, and three natural disturbances. A preliminary report (Klatka 1995) and a



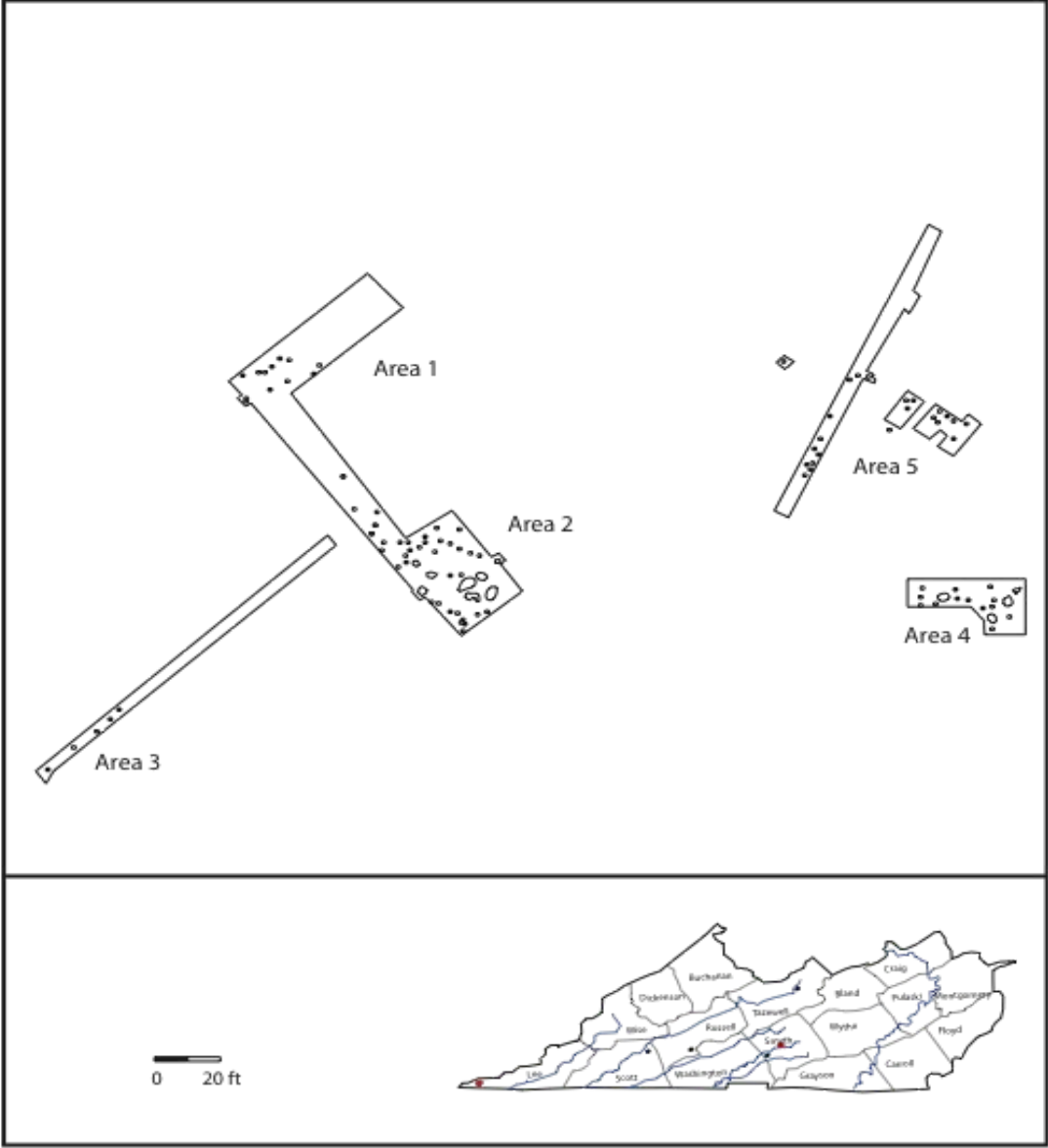


Figure 2.5. Plan of the Fox site (44SM4) (after Klatka 1995).

zooarchaeological report (Atkins 1997) provide the bulk of information about this site. The site is located within a horseshoe bend of the Middle Fork of the Holston River across from its confluence with Walker Creek, and between the towns of Marion and Seven Mile Ford. The site is about 30 ft above the adjacent river, at an elevation of about 2,020 ft above mean sea level (Klatka 1995:1).

Wedel (1951) was the first to visit the site after reports of vandalism. He field-inspected the site and collected a small sample of sherds, which were later used by Evans (1955) in his analysis of Virginia Native American ceramics. In the 1960s, Holland (1970) visited the site as part of his regional survey, and tested it to determine if intact subsurface deposits were present; he also noted evidence of looting. Holland collected nearly 300 sherds as well as flakes, projectile points, and a drill from the surface collection (Holland 1970:34) and almost 500 sherds, flakes, three projectile points, a stone or clay disk, and a clay pipe from a 5x5-foot test unit. A probable hearth and postmold were identified in the test unit. MacCord (1974) excavated three trenches at the site in 1973, exposing almost 600 ft<sup>2</sup> of excavations in the western and southern parts of the site. These investigations identified multiple postmolds and features, as well as the site's northwest boundary. In all, fifty postmolds, three adult burials, and one infant burial were uncovered. A complete Radford net-impressed ceramic pot was found within one adult grave, as well as marginella, olivella and tubular shell beads (MacCord 1974:3).

#### *Site Settlement History*

Almost 300 postmolds were identified during the 1994 investigations. Most were found in a part of the site designated as Area 2 and were part of a subrectangular structure (Feature 42). The structure measured 23 x 28 ft and had two internal support posts

(Klatka 1994:15). In Area 1, located northwest of Area 2, twelve postmolds may be associated with an historic agricultural structure. Area 4, located east of Area 2, may represent additional structures; however, not enough area was uncovered to identify definite postmold patterns. Forty-one postmolds in Area 5, located east of Area 2, are part of a palisade (Feature 41) that surrounded the village. Klatka (1994:15) notes that “two overlapping segments of the palisade indicated the presence of a funnel-shaped opening” and “approximately 70 non-continuous feet of the palisade were documented.”

Radiocarbon dates from the site suggest two different areas or periods of occupation, or possibly long-term occupation of the site. Phase A is represented by Area 4, and dates to A.D. 1240. Phase B, represented by Areas 1,2, 3 and 5 (which includes the subrectangular structure and the palisade lines) is slightly later, dating to A.D. 1440.

More excavation of the site is needed to determine if the occupation is continuous.

### *Burials*

There were 7 burials uncovered at the Fox site, and these features accounted for one-third of all features. Most of these were adversely affected by vandalism. Two burials, one adult (Feature 20) and one infant (Feature 13) contained substantial amounts of grave goods. Feature 13 contained 1,129 marginella shell beads and a conch/whelk shell pendant. Features 23 and 29 contained two marginella shell beads and Feature 28 contained one olivella shell bead. Klatka (1995:14) suggests these are good evidence for “participation in regional exchange systems.”

### *Lithics and Ceramics*

Artifact analysis information is sparse, based only on a preliminary report. However, Klatka (1995:15-16) notes that the “absence of ground stone tools and the near

absence of chipped stone tools were conspicuous.” Most of the lithic artifacts consisted of chert debitage. There were more ceramics than lithics recovered, and most of the sherds were Radford (limestone-tempered) ware with some Limestone/Gastropod Shell ware and the Wythe variant of Dan River Ware. Of note, there is an increased diversity in surface decoration over time, which Klatka (1995) interprets as indicative of increased interaction with multiple groups.

### *Subsistence*

Zooarchaeological remains from the Fox site were examined to aid in reconstructing subsistence information about the site. Over 1,200 animal bone fragments were recovered during the 1994 investigations; of these, approximately one-third (409 elements) was identifiable to the taxonomic level. These included fish, birds, mammals, and amphibians. Fish remains included primarily suckers, catfish and sunfish, all common to the region. Suckers and catfish spawn in the spring, and sunfish spawn from May to August, suggesting a seasonal (summer) exploitation pattern. A few frog remains were found as well. Over 100 turtle elements were identified. Turtle remains are often found at sites in the region. Turtle meat was eaten and the shells were used as containers or rattles. A small amount (n=2) of snake bones were recovered as well. Excavations yielded forty-eight bird elements, and of these, ten were identifiable to species. One was a member of the perching bird family (Atkins 1997:5) and the other nine were turkey remains, also a common bird found on Late Woodland sites in the region. Over 1,000 mammal elements were recovered, including rabbit, chipmunk, squirrel, beaver, mouse, woodrat, white-tailed deer and elk. Of note, one turkey tibiotarsus was formed into a bead.

Atkins (1997:12) identifies some changes in resource exploitation over time. The majority of fish bone (92 percent) came from the early period of site use, which may be attributable to early over-exploitation of this resource, or varied soil acidity levels resulting in differential preservation. The amount of box turtle increases over time, while the amount of white-tailed deer decrease. Beaver and elk are found only in the later-dated deposits. Atkins (1997:12) provides some hypotheses for these changes, but lacks sufficient information to make any definitive conclusions.

In terms of butchering practices, Atkins (1997:15) notes that all elements of the white-tailed deer remains were present, suggesting the entire carcass was butchered onsite. The age range of deer killed varied between 1 and 8 years, indicating “entire animals were taken as opportunity arose.” Atkins rejects the idea status may be represented by differential access to foods like meat. It should be noted, though, that he did not compare remains by feature or area. Further, only one feature is definitively associated with a household, making intra-site comparisons difficult.

### *Summary*

The Fox site was occupied during the fourteenth and fifteenth centuries. Radiocarbon dates, combined with ceramic and zooarchaeological data, suggest two site occupations; however, it is possible that the two dates are associated with a single continuous occupation of the site. Few non-utilitarian articles were recovered from the site, suggesting decreased participation in trade, as compared to other surrounding sites. However, a diachronic increase in ceramic stylistic diversity suggests there was an increase in interaction over time, although this increase was not drastic. Fox is like many villages in the region during this period, characterized by increasing, though not

overwhelming, interaction with other groups. As such, it may be emblematic of change in the region over time, and may reflect increased participation in trade across the entire region, possibly related to Carter Robinson's role in that trade. It is interesting that Fox and Carter Robinson are first occupied about the same time, but their relationship, if any, is unclear.

#### Bonham Site (44SM7)

The Bonham Site (44SM7) is located in Smyth County, Virginia, along the Middle Fork of the Holston River, approximately 102 miles from the Carter Robinson mound site (Boyd et al. 2005). This Late Woodland village complex was excavated in 1989 and 1990. Over 25 features were uncovered, and two overlapping major village sites found during the initial testing. Salvage excavations done in 1990 uncovered 25 refuse-filled features, 3 postmolds, and 26 burial pits. Located in the Ridge and Valley province, like Carter Robinson, the site is oriented northeast-southwest and situated on a floodplain of the Holston River on soil with good agricultural potential (Boyd et al. 2005:4).

#### *Site Settlement History*

Radiocarbon sample from the site provide three calibrated dates of occupation. Feature 2G, a large, bell-shaped pit with a nearly circular opening, contained a large amount of animal bone and ceramics, especially in the bottom 10 cm. A charcoal sample produced a fourteenth century date (cal A.D. 1289-1410, 2 $\sigma$ ). Feature 15C was an oval refuse-filled pit with charcoal, bone, shell and ceramics that dates to the fifteenth and sixteenth centuries (cal A.D. 1443-1534, 2 $\sigma$ ) Feature 23C was a shaft-and-chamber burial

pit undisturbed by looters. Shell beads were recovered from the fill surrounding the burial. A charcoal sample for this feature dated to cal A.D. 1397-1637 (2 $\sigma$ ). These dates suggest the presence of two occupations and changes in artifacts support this interpretation.

The excavations revealed a palisade line present around the exposed village area on its northern and eastern sides (Boyd et al. 2005:11). A possible entranceway is suggested by a gap in the palisade line on the northeastern side. A second, interior palisade line was identified as well. Additional palisade lines are present on the northeast corner of the site, and another portion is located within the second interior palisade. According to Boyd et al. (2005: 11), “the number of palisade lines suggest at least one and perhaps as many as three rebuilding episodes of the village with, of course, the outer, best-preserved palisade representing the last village expansion”; the number of lines suggest a long village occupation.

Over fifty features, including pits, hearths, basins, and burials, were uncovered. Boyd et al. (2005:11) note that the northwestern area of the site does not contain many features or burials, suggesting the presence of a central plaza here, “with features and structures arranged in a circular pattern surrounding the plaza.” Although Boyd et al. (2005) do not estimate the number of structures present, a review of the site map suggests as many as eight structures were either partially or wholly uncovered. Most posts are quite small, approximately 50 cm or smaller in diameter, and no evidence of wall trenches was uncovered. Posts uncovered revealed the palisade, described above, but postmold house patterns are much less obvious. Some post lines appear to form right angles, suggesting square or rectangular, rather than circular, house patterns; however,

circular patterns are also suggested. If there were two occupations of the site, these could represent distinctive house types from each period.

Features types included 26 oval pits (two with human remains), twelve circular pits, four bell-shaped pits (one containing human remains), and a trench or ditch. Twenty-six other pits were burial features, including fifteen oval pits, seven shaft-and-chamber burials, two bell-shaped pits, and two circular pits. Some graves had clay linings. At least nine graves contained substantial amounts of refuse. Although looters disturbed many of these burials, not all burials containing significant amounts of refuse were looted, suggesting this was intentional for some interments.

### *Burials*

Of the thirty-five individuals recovered from these excavations, pathologies were quite common, and included osteoarthritis and periodontal disease. Infectious pitting and lesions, nutritional deficiency, and trauma were also present (Boyd et al. 2005:42). Boyd et al. (2005) compared the Bonham site skeletal data to skeletal remains from the Shannon site (44MY8), a contemporary settlement located east of Bonham along the New River in Montgomery County. There were many similarities between the two populations, especially among subadults. Among the adult population, Bonham occupants appeared to live longer than individuals at the Shannon site. At both sites, abscessive lesions of the sternal end of the clavicle were recorded, which Mecklenburg (1969:138), in her analysis of the Shannon site individuals, attributed to “strain in the ligamentous attachment of the clavicle.” (Boyd et al. 2005:44). Of note, the incidence of caries at Bonham was very low (less than 6 percent), whereas adults at the Shannon site almost all had incidences of caries. This could suggest a decreased reliance on maize at



Bonham as compared to Shannon, although Boyd et al. (2005:44) note that paleoethnobotanical evidence from the site indicates maize cultivation and use was rather intensive.

### *Ceramics*

Over 5,500 sherds were recovered during excavations, and of these, 50 percent were grit-tempered. Approximately the same amount of shell- (19 percent) and limestone-tempered (16 percent) types were present, with slightly less sand-tempered wares (12 percent). Knot-tempered surface decoration was the most common. There is some evidence, based on ceramics, that two occupations were present at the site. The earlier occupation appears to have had more Mississippian ties or influence.

### *Lithics*

Lithic artifacts from the site suggest production based on local resources, namely chert and chalcedony. Bifacial chipping was the dominant lithic reduction technology, but similar to Carter Robinson, bipolar flaking of small nodules for the production of small flakes “was also a significant technology” (Boyd et al. 2005:51). Small triangular points dominated the sample, and some drills were present as well.

### *Subsistence*

Zooarchaeological and paleoethnobotanical analyses of remains from the site indicate a year-round occupation. Hunting of deer was a significant source of meat, and occurred during the summer months for the most part. Other important animals that were exploited include Eastern box turtle and turkey, and some remains of black bear were recovered. Flotation samples were obtained from burial and feature contexts. Identified cultigens include tobacco, a relatively rare find in the region, as well as maize, squash,

beans, and a little barley. Maize was quite common in the flotation samples, found in 61 percent of the light fractions examined, and was of the common Eastern Eight Row variety. Nine percent of the samples contained squash remains, which the author notes is “an unusually high representation” (Boyd et al. 2005:82). Four percent of the light fraction contained bean remains, characteristic of other surrounding sites. Little barley is a native grass often found with known domesticates; here, only a small fragment was found, leading to a tentative identification. Over one-fourth of the sample contained hickory nutshell; acorn shell, hazelnut shell and walnut shell were also found in lower numbers. In addition, some fruit seeds (blackberry, strawberry and huckleberry) were recovered. Overall, the plant and animal remains recovered at Bonham are typical of other sites in the region.

#### *Non-Utilitarian Items*

Non-utilitarian items mostly consisted of modified faunal remains, including shell. Four wolf canines were perforated at their base for suspension, as were four raccoon canines. Of note, 87 squirrel mandibles were recovered with perforations for suspension (Boyd et al. 2005:72). Forty-one turkey wing phalanxes were recovered from Feature 11E, a burial. Excavations also yielded bone beads, and one complete and one fragmented Eastern box turtle carapace cup (Boyd et al. 2005:73). In addition, multiple shell and bone beads were recovered. All but one of the shell beads were associated with burials. Finally, seven ceramic disks were recovered from five features, clay pipe fragments were found in five features, and clay beads were recovered from two features. Although most non-utilitarian goods were found in burials, as the authors note, “no distinct pattern of inclusion of these items occurred; all ages and sexes

are represented in these burials with non-utilitarian grave goods” (Boyd et al. 2005:73). Two adult female burials were found with unusual items that suggest at least differential status. These included conch columella beads and earplugs. These non-utilitarian goods, with minor exceptions (i.e., the earplug and likely some of the shell beads) could have been made with local resources and tools. Indeed, many faunal remains were fashioned into tools such as awls and drills. Evidence for intense involvement in extralocal trade networks is not very substantial.

### *Summary*

The Bonham site was a Late Woodland period village occupied initially during the end of the thirteenth century, with occupation continuing into the fifteenth century. Boyd et al. (2005) suggest that there may have been two separate occupations of this village based on two different dates and changes in ceramic types. However, the three radiocarbon dates overlap somewhat. In addition, it appears that only part of the site was excavated, so there is not enough information to determine if the occupations were discrete or continuous. Certainly the obvious rebuilding stages of the palisade suggest that the village grew over time. It is not clear, based on posthole patterns, if circular or rectangular houses were present, or both; the latter would suggest two different occupations. What is known is that during the early occupation of the site, residents had access to extralocal ceramic goods, as suggested by the presence of Lamar Incised sherds, or at least knew of these designs—the presence of Lamar Incising with limestone temper suggests imitation rather than direct procurement. Over time, it appears that this interaction with other groups decreased. This also occurred as the site grew larger and the palisade more substantial, possibly indicating increased hostility or at least group

cohesion over time. By the end of the fifteenth century, the site was abandoned, about the same time as Carter Robinson.

### *Tazewell County*

Tazewell County is northeast of Lee County, and directly north of Smyth County. Although rather far afield of Carter Robinson, excavations at one site in particular, 44TZ1, may demonstrate the varying nature and function of frontiers in the region (see Figure 2.2). This site is discussed in detail below. Site 44TZ19 is located southwest of 44TZ1, and appears to be contemporaneous, but a lack of radiocarbon dates and complete pottery analysis makes this difficult to ascertain (Jones 1978). Limestone-, shell-, and grit-tempered wares were recovered, as well as a platform pipe; the site appears to have been a smaller village than 44TZ1.

The Hoge site (44TZ6), situated 40 km east of 44TZ51 (see below), was dated to 1660 +/-1170 (sic) (Egloff and Turner 1988:18). This large palisaded village contained the remains of eleven structures, seventeen burials, 33 hearths, 39 storage pits, and multiple postmolds (Egloff 1992:192), and is probably “one of the last major sedentary communities in southwestern Virginia prior to European settlement” (Egloff and Turner 1988:18). No European artifacts were recovered from there.

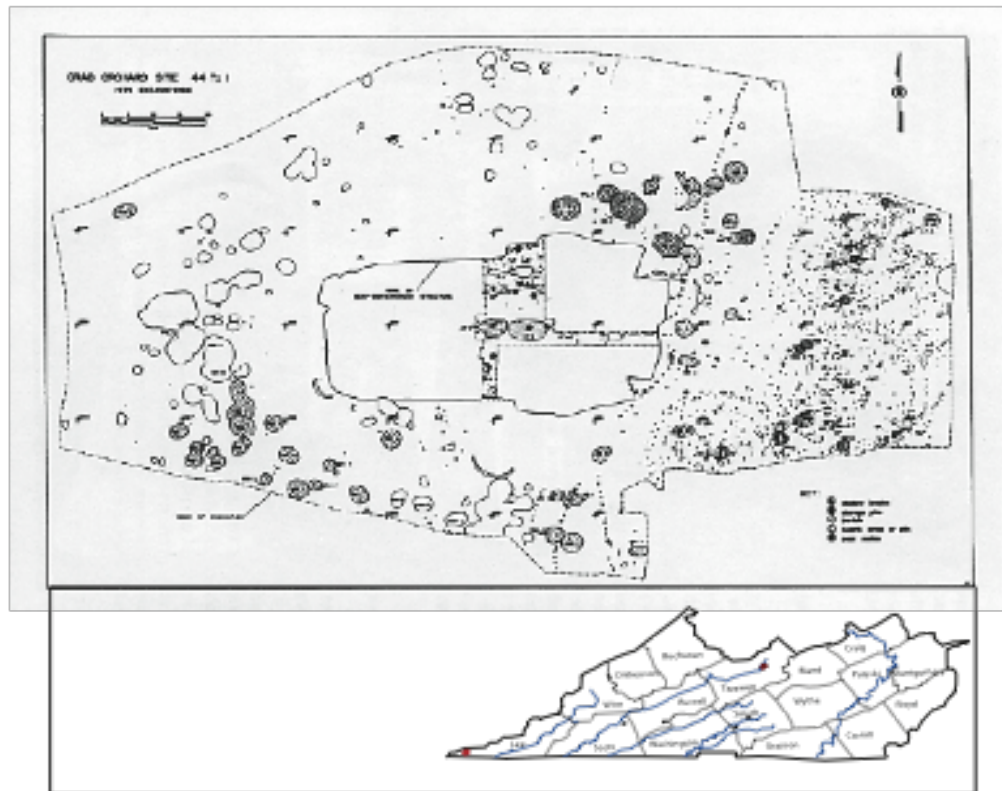
Other sites in the county that are of interest include the palisaded village of 44TZ51, located 17 km southeast of 44TZ1. This site, the Richlands Hospital site (Egloff and Turner 1988), was a small (1 ha) village located along the Clinch River. The one radiocarbon date from the site was A.D. 1480 +/-70 (uncalibrated) and within this context, a charcoal-filled feature, a very rare (for Virginia) native copper pendant (13 cm long) was found. Other native copper artifacts include a rolled cone tinkler, the only one

found at a pre-contact site. Ceramics at 44TZ51 largely consisted of limestone-tempered (59 percent) sherds, but significant amounts of shell-tempered (38 percent) and minor amounts (3 percent) of sand temper pottery were present.

#### Crab Orchard (44TZ1)

The Crab Orchard site is located in Tazewell County and is the northernmost site discussed in the study area. Located near the city of Tazewell, along the Clinch River, it is bounded by steep hills to both the north and south (Figure 2.6). Wainwright, in a 1914 letter to the Smithsonian Institution, first reported the site. Newman and Caldwell visited the site in 1947 (Caldwell 1951) and Evans (1955) included their collections in his ceramic study of Virginia. Holland excavated a test unit at the site in 1963. The most extensive research at the site was twofold: first, Howard MacCord of the Virginia State Library examined a 500 x 90-foot strip through the center of the village as well as areas to the north and south of the village, in 1971, as part of pre-construction survey of Route 632. MacCord found three concentric palisade lines around a village estimated about 400 ft in diameter. Within the village were eleven circular house patterns, over 180 pits, and about 160 burials. A radiocarbon date of A.D. 1570 (uncalibrated) was obtained from a charred concentration within a burial.

The second extensive excavation at Crab Orchard was undertaken in 1978 by the Virginia Research Center for Archaeology (now VDHR) in an area of the site slated for construction. During these excavations, three circular house units, evidence of three palisades, a large semi-subterranean structure, hearths, burials and storage pits were identified (Egloff and Reed 1979). Many non-utilitarian artifacts, including copper, shell,



**Figure 2.6. Plan view of the Crab Orchard site (44TZ1) (after Egloff and Reed 1980).**

and bone beads, as well as black pendants, were found. More extensive excavations were planned, but the proposed construction was cancelled and excavation ceased.

### *Site Settlement History*

As stated above, the most extensive excavations were done in two separate episodes. During the first period, 1971-1973 (MacCord 1980), the northeast, southeast, and southwest portions of the site were uncovered. Features identified within these areas included 74 refuse/storage pits, 145 burials, 14 hearths, 5 midden areas, 4 palisade segments, 13 house patterns, and one gatehouse. The site includes a village measuring about 410 x 400 ft, or approximately 2.96 acres, enclosed by an outer palisade (MacCord 1980:108). Three lines of postmolds suggest multiple rebuilding episodes occurred, indicating that village size increased over time from 1.40 acres originally to a secondary enlargement of 1.85 acres, before the final enlargement. MacCord (1980:108) suggests that a plaza or open area was present in the center of the village; however, more data (i.e., more excavations in the center of the village) are needed to confirm this. The second palisade line may have had a gatehouse attached on the upper northwest side of the village. MacCord (1980:108-109) describes this as a “rectanguloid structure of postmolds with an interior partition on the southern side” lacking any hearths or interior pits; MacCord also suggests that this could just represent overlapping palisade lines. The third palisade line has a more clearly evident square structure attached to the south side of the village measuring 27 x 15 ft. This possible gatehouse contained interior postmolds, but lacked a hearth or other internal features,

Within the village, twelve house patterns were identified, possibly in two or more rows. The average house was 23.4 ft in diameter (428 ft<sup>2</sup> living area) (MacCord

1980:109), often with a central hearth and one to two storage pits. Some houses had hearths outside the structure. This is typical of Mississippian structures, representative of paired summer (with exterior hearth) and winter (with interior hearth) buildings, but it is not clear if this is what is present at Crab Orchard. Unlike Mississippian structures, no entrances were visible; also, burials were located next to houses in the supposed plaza area, and adjacent to the palisades, unlike Mississippian burials, which are more often found within houses. It should be noted, though, that two houses (Features 88 and 210) had wall trenches. In the latter, a mixture of limestone- and shell-tempered pottery was found, although limestone-tempered was predominate. MacCord (1980) interprets all house patterns as circular; however, closer examination of the site plan included with the report suggests that house patterns may have changed over time, from rectangular to circular or vice versa. In addition to houses, MacCord (1980:110) noted activity areas, some of which included earth ovens.

During the 1978 excavations, three circular house patterns, each about 25 ft in diameter, as well as additional evidence of three palisades, assorted storage features and burials, and most interestingly, a large (64 x 30 ft) (Egloff and Reed 1979) semi-subterranean structure were uncovered. The houses were constructed using the single-set post method. According to Egloff and Reed (1979:6), “the unusual number of postmolds associated with each house unit were evidence of considerable wall reinforcement through post replacement and rebuilding.” Large interior posts were found placed around central hearths, and some houses had postmolds suggestive of interior room divisions. In contrast to earlier work, Egloff and Reed (1979) found some evidence of vestibule entrances for these houses, which faced the center of the village. Multiple types of



features, including central hearths; cylindrical, basket, and bell-shaped storage pits; and two infant burials, were found within house floors. Interestingly, there was an overall lack of daub found; Egloff and Reed (1979:8) suggest that bark or thatch, instead of clay plaster, was used to cover the houses.

During the second excavation, a semi-subterranean structure was uncovered. First identified as a “large, midden-filled depression” (Egloff and Reed 1980:8), trenches excavated within this depression more clearly identified parts of this semi-subterranean structure. The structure, based on the extent of the midden-filled depression, measured 69 ft east-west. The western portion was 30 ft wide and the eastern portion 39 ft long. According to Egloff and Reed (1979:8), “the midden outline of the eastern half had symmetrically spaced irregularities on both the north and south side” and the original floor was located 9 in below subsoil surface. A clay bench (5-7 ft wide) was found at the northern edge of the structure. Both charred timbers and fibrous materials were found on the surface of the bench. Radiometric analysis of a charred timber yielded a radiocarbon date of A.D. 1610 +/-55 (uncalibrated) (UGa-2816). The locations of postmolds associated with wall and support posts and hearth pits suggested to the excavators that the structure underwent two and possibly three rebuilding stages. A large central postmold was present under a hearth pit. Egloff and Reed (1979: 29) note that a Fort Ancient occupation of a site in West Virginia contained large houses with rectangular features and rounded corners. Their large size suggests public function use, but it is not clear if the Crab Orchard structure may have also functioned as a private residence.

In addition to structures, other features, including storage pits, were uncovered. One basket-shaped pit was clay-lined with a two-inch-thick layer of pebbles in the

bottom. Another large, bell-shaped pit was lined with matting. Radiometric analysis of the matting yielded a radiocarbon date of A.D. 1870 +/- 60 (uncalibrated) (UGa-2815), suggesting sample contamination. Another pit adjacent to the palisade contained sections of charred timbers along the bottom of the pit (Egloff and Reed 1979:14).

Egloff and Reed, like MacCord, also found evidence of three palisade lines; however, they note that “two of the patterns were exposed intermittently, and their assignment as palisades is tentative” (Egloff and Reed 1979:19). The third pattern was the clearest and appeared to bend around the semi-subterranean structure. The palisade line had a gap in the southeast corner, which may mark a gate.

### *Subsistence*

Subsistence remains from Crab Orchard are similar to those documented at other Late Woodland sites in the region. White-tailed deer, not surprisingly, dominate the assemblage. Of note, two storage pits contained bear bones, including one from the pit with mostly shell-tempered pottery. Here, a bear maxilla was cut and smoothed, suggesting that it was part of a mask or ornament (Egloff and Reed 1979:27). Turtle remains were the next most common, and some turtle shells were modified. Turkey bones were also present in large numbers, some of which were used to produce bone beads. Bone tools included an elk antler fragment, possibly a hoe, and fishhooks made from deer bone. .

### *Ceramics*

Over the course of the two excavations, approximately 20,000 sherds were recovered from the site. The majority were limestone-tempered wares, accounting for about 85 percent of the total assemblage. Shell-tempered wares were the next most

frequent type, accounting for about 14 percent of the assemblage. Small amounts of grit and steatite tempered pottery were also present. Cordmarked is the most common surface treatment present. Cazuela bowls were found during the earlier excavations, suggesting Mississippian influence or contact, while some strap-handled vessels were transversely nicked along the area over the strap handle, suggesting Madisonville types of Fort Ancient phase pottery (MacCord 1980:119).

### *Lithics*

Numerous small triangular projectile points were recovered from the site, and constituted over 90 percent of all stone tools. Other flaked stone implements included drills, scrapers, and retouched and utilized flakes. In addition, five small black slate pendants (possibly cannel coal) were found with one burial. During the earlier excavations, MacCord (1980:112) found hematite fragments, possibly used for pigment, as well as several stone pipes made from chlorite, shale, steatite or limestone.

### *Non-Utilitarian Artifacts*

Excavation of the Crab Orchard site also yielded shell and bone beads. Some of the shell came from salt-water species, suggesting that site inhabitants participated in long-distance trade networks. MacCord's excavations also yielded copper artifacts, including a triangular pendant, sheet copper scrap, and copper beads. The pendant and sheet copper were tested and found to be native copper; eleven small tubular beads from one burial were not tested, whereas twelve tubular beads and a triangular scrap of copper found in another burial may not have been made from local, native copper (MacCord 1980:118). No copper artifacts and no artifacts of European manufacture were found

during the later excavations. MacCord (1980:148) does note that local residents reported finding glass beads at the site, which may suggest ties to European trade networks.

### *Summary*

The Crab Orchard site is a large Late Woodland village occupied right before and possibly during the contact period; however, its main occupation appears to have been during the fifteenth and sixteenth centuries. Unlike Carter Robinson, and unlike many other villages located south of Crab Orchard, the ceramics at this site are mostly limestone-tempered, with some shell temper. Crab Orchard ceramics also contain much variation in surface decoration, including elements found on Fort Ancient and Mississippian wares. Crab Orchard appears to have been a frontier village engaging in trade during the latter part of the Late Woodland period and, as suggested by the presence of limited numbers of trade goods such as glass beads, the early part of the Contact period. The overwhelming amount of limestone-tempered ceramics at Crab Orchard suggests that local Radford groups settled here, as opposed to outside (i.e., Mississippian or even Fort Ancient) groups. It appears that trade routes changed during the thirteenth to the fifteenth centuries. The presence of native copper pendants and tinklers at the nearby Richland Hospital site, which contains more shell- than limestone-tempered pottery, as compared to Crab Orchard, may reflect the beginning of this change. Hoffman (1997) has analyzed the large number of shell gorgets from sites in West Virginia dating to the latter part of the Late Woodland period, and suggests that Crab Orchard played a major role in this trade.

### *Summary of Southwestern Virginia Sites*

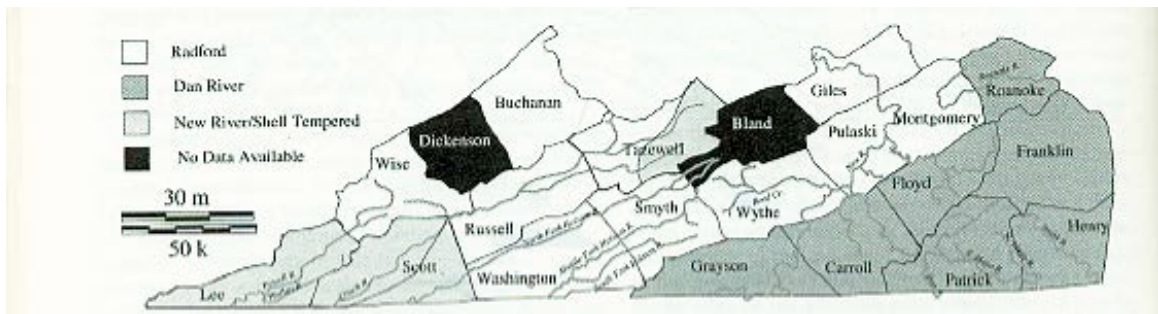
The various attributes of the sites discussed above are listed in Table 2.1. Some regional patterns are apparent. First, there appears to be a heavy occupation during the thirteenth century. Occupation decreases during the fourteenth century and then increases again during the fifteenth century. However, the earlier occupation is centered in the western part of the region, in Lee and Smyth counties, while the later occupation appears to have expanded north to include Tazewell County. By the sixteenth and seventeenth centuries, occupation is almost exclusively found in the eastern edge of the region, starting at Tazewell and including sites such as Trigg and Thomas-Sawyer, located along the New and Roanoke Rivers, farther east.

Second, ceramic temper varies within the region and then over time. The ceramic assemblage at Carter Robinson, discussed in Chapter 5, indicates a change from grit-tempered or grit-and-grog-tempered types to shell-tempered types during the later part of the occupation. Limestone-tempered, as well as sand- and quartz-tempered types are not present in large amounts. Other sites in the region, including all in Lee County, all but one in Scott County, and four Russell County sites, have shell as their primary ceramic temper. For some of these where such data are available, shell accounts for 85-90 percent of all sherds. Other sites, however, have limestone as the predominant temper. Where data is available, limestone accounts for 85-90 percent of tempers, directly inverse of the shell-tempered sites. These include sites in Tazewell and Smyth counties, and one site in Scott County. Also, Site 44TZ51 in Tazewell is noteworthy because it has almost equal amounts of these two temper types, suggesting it may be transitory between earlier and later occupations (Figure 2.7).

**Table 2.1 Comparative Chart of Sites in Lee, Scott, Russell, Smythe, and Tazewell Counties.**

County	Site Number	C14 Date	Primary Ceramic Temper	Secondary Ceramic Temper	Mound	Palisade	Structure Type	Other
Lee	44LE10	1290-1440	Shell (95%)	Grit/grog (4%)	X		Rectangular & circular; wall trench	Large rectangular structure; possible 2 <sup>nd</sup> mound
	44LE12		Shell		X			Shell gorgets, shell earplugs
	44LE7				Possibly			Unclear if mound
	44LE17	1210+/120	Shell	Sand	Possibly			
	44LE16		Shell	Limestone				
	44LE123	1420	Shell	Sand			Oval	
	44LE121		Shell					Cannel bead
	44LE129							
	44SC7				Possibly			
	44SC8				X			
Scott	44SC1		Limestone	Shell				
	44SC13	955+/155	Shell (89%)	Limestone (6%)		X	Circular & square?	Squash effigy vessel
	44SC9		Shell	Sand				
	44SC14		Shell					
	44SC50		Shell					
	44RU9		Shell					
44RU11		Shell						

Russell	44RU60		Shell				
	44RU7		Shell (90%)	Limestone (7%)			
	44RU14						Cave-stratified deposits
	44SM25 44SM8						Salt production Administrative center
Smyth	SM4	1240-1440	Limestone	Shell	X		Subrectangular structure
	SM7	1289-1440 1397-1637 1443-1534	Grit (50%)	Shell (19%) limestone (16%)	X	Circular & square?	
	TZ1	1420+/-165 1570+/-120 1610+/-55 1805+/-60	Limestone (85%)	Shell (14%)	X	Circular & square? 2 Wall trench structures	Native copper sheet; semi- subterranean structure; gatehouse(s); balck pendants
Tazewel 1	TZ19		Limestone	Shell			
	TZ6	1660+/- 1170			X	X	
	TZ51	1480+/-70	Limestone (59%)	Shell (38%)			Native copper pendant & cone tinkler



**Figure 2.7. Distribution of Dominant Ceramic Wares by County in Southwestern Virginia.**



Third, there is some variance in architectural style in the region. For sites where architecture is known, although structures are reported to be circular, a closer examination of these site plans suggests that circular and square or rectangular structures may have been built in the same spot, although it is unclear which type was built first. Some sites in the region have both circular and square or rectangular patterns. There are a few sites with wall trench construction—Carter Robinson, and possibly two others. Wall trench construction is associated with sites from east Tennessee, and indicates an earlier occupation. Palisades are present in some, but not all, of the sites and it is not clear if multiple palisade lines were present or if they represent rebuilding episodes. One site, Crab Orchard, appears to have had multiple gatehouses built with the palisade. Finally, there are three sites with large rectangular structures: 44LE10, 44TZ1, and 44SM4. Carter Robinson and Fox are contemporaneous (based on radiocarbon dates), while Crab Orchard was occupied later. Crab Orchard's structure is quite large, but not fully excavated, so its function is not clear.

Some artifact types found at these sites are also noteworthy. Cannel coal beads and pendants are found in Lee and possibly Tazewell County and may have been trade items (see Chapter 7 for more on this). Shell may have also been a trade item, although more information about the types of shell present is needed. Native copper is present at Crab Orchard and the Richlands Hospital site, both fifteenth-century sites located in Tazewell County. Finally, Barber and Barfield (2000) have suggested a trade in salt was centered around sites in Saltville, and Beck (1997) cites ethnohistoric evidence of such a trade in the region.

## **Larger Region**

Three states, Kentucky, Tennessee, and North Carolina, border southwestern Virginia on the northwest, southwest, and south, respectively. The Cumberland River in eastern Kentucky drains into north Tennessee; the Clinch, Powell, and Holston Rivers flow into Tennessee, and end at the present-day site of the Norris Basin Reservoir, and the Watauga River flows from western North Carolina into Tennessee, where it joins the north fork of the Holston River. Artifacts from the sites described above in southwestern Virginia contain a mixture of styles, particularly with regards to ceramics, that are identified with each of these surrounding regions. Southwestern Virginia was a frontier to multiple places; together, these places and the interrelationships of their inhabitants are what define this specific frontier and its political economy. As such, understanding the late prehistoric period in each of the surrounding areas is critical to reconstructing this Southern Appalachian frontier.

## **Kentucky**

Jefferies (2001) provides the best overview of Mississippian sites in eastern Kentucky, and this overview relies heavily on this work. Beginning in 1992, Jefferies and colleagues began studying Mississippian adaptation in the Upper Cumberland River system of eastern Kentucky (Jefferies 1995b, 1996b; Jefferies and Flood 1996; Jefferies et al. 1996), located northwest of the Cumberland Gap (and including Harlan, Bell, Knox and Whitley counties). Over seventy Mississippian components have been identified, and these include small artifact scatters, rockshelter sites, stone box cemeteries, small to large floodplain sites, and town-and-mound centers (Jefferies 2001:209) (see Figure 2.2). Most are located in Knox County, for two reasons: first, as the Cumberland River comes out of the mountains in Knox County, broad alluvial valleys are found; second, Knox County

has been subjected to more large-scale surveys than other counties (Hockensmith 1980; Jefferies and Flood 1996). Most sites are found along the river and adjacent floodplain ridges, while upland sites tend to be rockshelters.

Jefferies (2001:210) notes that, based on both archival and archaeological data, at least four small town-and-mound centers were located on the Cumberland River. Of these, “each site has/had a single platform mound ranging from 25-50 m in diameter and from 2 to 3 m high. Several mounds had two or more building stages that once supported mound-top structures” (Jefferies 2001:210). Of these, the Croley-Evans site (15KX24) has been extensively excavated. This site contains a platform mound and surrounding village area, and is located on a floodplain of the Cumberland River. Three construction stages were identified for the mound. Interestingly, wall-trench structures were once located on top of two of those stages. Radiocarbon dates associated with the earliest stages range from A.D. 1011 to 1177, which Jefferies (2001:211) likens to the Hiwassee Island phase. The area around the mound contained structures with single-set post construction, which postdate wall-trench style. Radiocarbon dates from these contexts range from A.D. 1271 to 1439. Ceramics at the site are almost all shell-tempered with plain, cordmarked, check-stamped, and fabric-impressed surface treatments. Of note, “loop handles outnumber strap handles by a ratio of 9 to 1” (Jefferies 2001:211). A few red-filmed and painted sherds and a few rims with nodes were recovered also.

A second mound site is the Bowman site (15WH14), about 60 km downriver from Croley-Evans, with a two-stage platform mound and a surrounding habitation site (Jefferies 1996b). Artifacts were recovered from surface surveys, and include almost all shell-tempered pottery with plain, cordmarked, fabric-impressed, and check-stamped

surface treatments. Like Croley-Evans, some painted sherds and loop handles were recovered; also, zoomorphic appliqués (Jefferies 2001:211).

The Hodges Mound (15B15) was also built in two stages; the first stage was about 1.5 m high. Similarity between the shell-tempered pottery of both stages suggested that Stage 2 was constructed not long after the Stage 1 structure was burned (Dorwin 1970; Jefferies 2001:212). Archival data (nineteenth-century) suggest one Mississippian mound (15HL5) was located near the town of Harlan in the upper part of the Cumberland River. Here, a shell-tempered vessel was associated with one mound burial (Collins 1966); however, the exact location of the mound is unknown. More recent investigations during the 1970s in Harlan identified Site 15HL2, which contained burials with associated Mississippian artifacts, including a shell-tempered jar with strap handles, engraved shell gorgets, shell beads, a shell ear pin, and a conch shell cup (Foster and Schock 1972:plates 5 and 6; Jefferies 2001:212). Finally, Sites 15WH4 and 15KX17, according to Jefferies (2001:212) “may also be Mississippian mound sites.”

In addition to mound sites, there are multiple nonmound sites located on or near floodplains. Smaller sites (250 to 1000 m<sup>2</sup>) likely represent farmsteads and contain few artifacts. Site 15HL304, however, contains the remains of a 5x5 m structure built using single-set-post construction techniques (Jefferies 2001:212), and dated to A.D. 1287-1435. Of note, Pisgah pottery was found here, and a few Pisgah sherds were located at Croley-Evans as well. A Mississippian “homestead” may be located at the Mills site (15BL80) near the Cumberland River (Creasman 1995), as suggested by the presence of a storage pit and shell-tempered sherds with cordmarking and smoothed-over cordmarking.

A radiocarbon date obtained from charcoal within a feature was A.D. 1305-1408 (Creasman 1995; Jefferies 2001:212).

Larger Mississippian sites, more likely hamlets or villages, are also found in the region and include Site 15BL14, which contained Mississippian shell-tempered pottery, including a jar with handles, plain, cordmarked and stamped shell-tempered sherds, and shell beads (Shock and Weis 1976; Jefferies 2001:212). Site 15KX10 contained ceramics with loop and rounded strap handles, indicative of an Early to Middle Mississippian occupation (Jefferies 2001:213); marine shell artifacts were also found here. Site 15KX96 is another large Mississippian habitation site in the region.

In addition to mound sites and non-mound habitation sites and villages, there is evidence of periodic use of rockshelters during the Mississippian period. Some rockshelters have evidence of more intensive occupation, including one radiocarbon dated to A.D. 1016-1295 in McCreary County (Ferguson and Gardner 1986; Jefferies 2001:213). There are also sites used only for mortuary purposes, where bodies were placed in slab-lined graves known as stone boxes. Hockensmith's (1980) survey identified six slab-lined graves located on a ridgetop above a Knox County mound. Jefferies (2001:213) notes that such burials resemble those found in the Nashville Basin during the Mississippian period.

Jefferies (2001) provides an overview of Mississippian culture in eastern Kentucky based on his review of site data. Subsistence remains are well-known from the Croley-Evans mound site investigations (Scarry 1995b, 1997; Jefferies and Scarry 1997). There, acorn and hickory especially were important parts of the diet. Maize was found, but was outnumbered by nut remains by a 15-to-1 ratio. Compared to other Mississippian

and Fort Ancient subsistence remains from the surrounding region, the nut to maize ratio in eastern Kentucky is much higher (Scarry 1997). As Jefferies (2001:213) notes, “this pattern, which is more reminiscent of a Late Woodland one, suggests that site inhabitants pursued a mixed subsistence strategy involving the cultivation of modest quantities of maize and native crops along the bottomlands and the gathering of sizeable quantities of nuts from upland forests.” Such a strategy may be more common in a frontier area, particularly one in an environment with more risk for agricultural subsistence. Animal remains from Croley-Evans are similar to other Mississippian sites, and include over 50 percent deer, but also bear, elk, small mammal, bird and fish.

Jefferies (2001:214) provides a temporal overview of the region during the Mississippian period, based on these data. For those sites with radiocarbon dates, two were occupied during the Early Mississippian period: Croley-Evans, where the burned wall trench structure, dated to A.D. 1011-1177, was associated with the lower construction stage of the mound. This date is about 100 years older than those from the habitation area (A.D. 1271-1439), which to Jefferies (2001:214) suggests “mound construction began before intensive domestic activity developed at the site.” Artifacts from Croley-Evans are similar to Early Mississippian, or Hiwassee Island period, as are artifacts from the Bowman mound (15WH14). Another site, a McCreary County rockshelter, is contemporaneous with these (A.D. 1032). Other radiocarbon dates are somewhat later, A.D. 1271-1439, and are coeval with the Dallas phase. Six dates are statistically the same (Jefferies 2001:214), “suggesting that the most intensive Mississippian presence in the Upper Cumberland occurred between about A.D. 1250 and

1450.” Artifacts from these sites, such as strap handles, lugs, nodes, and a scalloped triskele gorget from Croley-Evans, further support this chronology.

Of note, Jefferies (2001:215) points out that despite proximity to Fort Ancient sites, located south and west of the Upper Cumberland River region, there is not much evidence for interaction between these two groups. Rather, evidence suggests interaction with groups farther south, such as eastern Tennessee, and, probably, southwestern Virginia. Based on these data, it would appear that the movement north from the eastern Tennessee region during the Mississippian period created frontiers in multiple areas.

### **Tennessee**

Within eastern Tennessee, the data from the Norris Basin survey (Webb 1938) is the most applicable for comparison with southwestern Virginia chiefly because of its proximity to mound sites there (and southeastern Kentucky). Moreover, these sites are well-documented and more recent analyses of some of them (e.g., Schroedl 1998) have created a credible comparative database. This section will provide a temporal overview of the Mississippian sites first generally in eastern Tennessee and then more specifically in the Norris Basin.

#### *Mississippian Period in Eastern Tennessee*

The earliest or Emergent Mississippian phase in the region is known as Martin Farm (A.D. 900-A.D. 1000 [Schroedl, Boyd and Davis 1990: 179]), which is present at seventeen sites (Schroedl 1998). It is recognized as different from the preceding Late Woodland phase because it “represents a degree of site size, complexity, and probable permanency not previously represented in eastern Tennessee” (Schroedl 1998:67). At these sites, platform mounds appear for the first time, and are surrounded by villages.

Martin Farm sites are found in the lower Little Tennessee River Valley, the Tennessee River Valley, and the Watts Bar region (Schroedl 1998).

Following the Martin Farm phase is the Hiwassee Island phase (A.D. 1000-A.D. 1300) [Schroedl, Boyd and Davis 1990:179]; mounds, palisades, and plazas were all present at this time (Schroedl 1998). Also present are certain structures which likely represent community buildings. These were either single set-post wall or open- or closed-corner wall trench construction style with a single central hearth. Paired structures are found on mound summits, while community buildings and platform mounds are located at the edge of the village plaza (Schroedl 1998). Domestic structures identified during this phase are small, circular single-post buildings, 2-3 m in diameter.

The final Mississippian phase is Dallas (A.D. 1300-A.D. 1600 [Schroedl, Boyd and Davis 1990:179]) Thirty-three Dallas phase village sites with mounds have been identified in the region (Schroedl 1998). Of these, four are multiple-mound sites: Toqua, Citico, Hiwassee Island, and Long Island, and these likely constitute complex (more than one level of administrative hierarchy) chiefdoms. Smith (1988b) has suggested that these centers are paired with nearby single-mound centers; together, these are the largest centers in any Dallas chiefdom. Polhemus (1987), based on excavations at Toqua, has suggested a four-tiered site hierarchy was present in the region, and consisted of households, household aggregates, towns, and town aggregates, where towns or local centers were the characteristic settlements. Schroedl (1998:74), though, disagrees with this view, and instead emphasizes the importance of hamlets and households, citing data from other late Mississippian sites in the region.



Of the large Dallas-phase towns, Toqua is probably the best-excavated site, and is the basis for much of what we know of the Dallas culture in the eastern Tennessee region. It is the primary source for describing Dallas phase town settlement, planning, and layout, and following Lewis et al. (1998), is likely the best representation of the Dallas Mississippian worldview in eastern Tennessee. There were three critical elements to the settlement plan of Toqua, and these were established early in the site's origins: a primary platform mound (Mound A); a secondary mound located south/southeast of Mound A (Mound B); and a probable charnel house located to the north/northeast (Polhemus 1987). Together, these three features form an equilateral triangle approximately 70 m on a side, and a line bisecting this triangle from Mound A is oriented 121° east of north (Polhemus 1987:1215). Throughout the entire occupation of the site, both the domestic dwellings and the human interments have the same orientation. Polhemus (1987:1216) states that this "may be viewed as a corporate entity" where over time the overall structure of the site is comprised of "a public sector, a private sector, and the physical correlates of the socio-political system linking the two sectors."

There were two paired primary structures present on the western summit of Mound A, and one was generally larger than the other. These structures have well-defined prepared clay hearths, and some have clay partitions and benches. Polhemus (1987) indicated the larger structure was used for ceremonial purposes, and the smaller structure was the residence of a high-status individual, probably a chief. A large rectangular building was also located on a rectangular platform which adjoined the north face of Mound A. This structure underwent twelve rebuilding episodes, a number which makes it unique among Dallas structure at all Dallas sites, where structures were often

rebuilt only a few times. Polhemus (1987) suggested it was the location of a high-status residence as well. Mound B at Toqua was constructed in three stages, and each stage was capped by a building on the mound's summit. This mound appears to have served an important mortuary function, with a total of 105 burials in the final two stages of the mound.

A total of 87 structures were identified at Toqua; the predominant form was rectangular. These structures measured 4-12 m on a side, had parallel trench entrances, a central prepared clay hearth, and small rectangular pit features, probably for storage. Hally (2002) notes the depressed floors found in such structures are typical of winter houses; these are also found in north Georgia Mississippian sites. Four major roof supports were present in the Toqua structures, and served to separate a central floor area from bench and storage areas located along interior walls. Burials were found inside and outside of structures.

Comparing Hiwassee Island and Dallas phase sites in eastern Tennessee reveals marked differences in social organization (Table 2.2). Schroedl (1998) has suggested that these changes, such as the increasingly ostentatious behavior of platform mound construction and elite residence location on top of mounds "served as mechanisms of group self-identity as measures of success in both secular and supernatural realms" (Schroedl 1998:86).

#### *Norris Basin Hiwassee Island Phase*

There are sixteen Hiwassee Island-phase sites in the Norris Basin (see Figure 2.2). They are located on the Upper Powell, Clinch, and Holston River Valleys, but tend to cluster in the Clinch and Powell River areas. Of note, there are three sites that each has

**Table 2.2. Significance of Changes between Hiwassee Island and Dallas Phases.**

<b>Attribute</b>	<b>Hiwassee Island Phase</b>	<b>Dallas Phase</b>	<b>Significance</b>
<b>Placement of burials</b>	Mound only	Mound & village	Division of ritual & domestic spaces reinforced social differences
<b>Mound Structures</b>	Community building on mound	Elite residences on mound	Increased social differentiation
<b>Storage structures</b>	Domestic & public purposes; located near palisade	Below-ground	Suggests resistance to social change; need to hide resources

three mounds: 40AN17, 40UN6 and 40CP4. This relatively high number of multiple-mound sites is unlike that found at other sites in the region during this early Mississippian phase. Structures at these sites are what Webb (1938) called “small-log” town houses (differentiating them from the later Dallas-phase “large-log” town houses) and are rectangular in shape.

Site 44AN17, although large, is located more than 32 km south of other contemporaneous sites on the Clinch and Powell Rivers, suggesting it may be more closely related to chiefdoms based farther south, possibly along the Little Tennessee River. Sites 40UN6 and 40CP4 are located rather close to each other, only 10 km apart, although the former is located on the Powell River and the latter on the Clinch River. Three two-mound sites, three one-mound sites, and one village are located around these two sites within a distance of 40 km. The similar size and distance between each center and their respective surrounding sites suggests they were occupied sequentially rather than simultaneously, as seen in chiefdoms farther south (Hally 1999; Williams and Shapiro 1990). These are known as “paired towns” and occupation of them alternated;

Williams and Shapiro (1990) provide reasons for this, primarily increasing scarcity of resources in one place over time, prompting moves to nearby, less stressed areas.

### *Norris Basin Dallas Phase*

Twelve Dallas-phase sites are located in the Norris Basin in the Upper Powell, Clinch, and Holston River Valleys (see Figure 2.2). Mound centers during this period contain between one and three mounds; however, some large settlements lack mounds altogether. Structures are made with individually-set wall posts. Mound structures are both large and small, and the amount of non-utilitarian artifacts increases in frequency at this time. Three chiefdoms were present in the region during the Dallas phase. The first consists of Site 40AN17, which was likely the administrative center based on its size (three mounds). Two one-mound sites nearby (3-12 km distance) and two village sites also nearby (3-8 km distance) likely comprised the majority of sites in this chiefdom. Three sites (two one-mound sites and a village) are located along the Holston River about 20 km north of a group of Dallas phase sites found on the Nolichucky and French Broad Rivers. The latter group includes seven Dallas phase mound sites, two probable Dallas phase mound sites, and one Dallas phase village site (Polhemus 1987:1249). This chiefdom is different because its settlement pattern is quite dispersed. A third Dallas phase chiefdom was located on the Powell and Clinch Rivers, and consists of four sites. Two have two mounds each, and either may have been the administrative center. Also included in this chiefdom are a one-mound site and a village site.

The distance between the northernmost Norris Basin chiefdoms and the southwestern Virginia mound sites is approximately 40 km. Hally (1993) has identified

regularities in the spacing of mound sites in Georgia, where contemporaneous mound centers distributed less than 18 km apart were administrative centers of a single polity; those separated by distances greater than 32 km belonged to different polities. The similarities in material culture between Norris Basin and southwestern Virginia mound sites suggests the occupants of these sites were related in some way, yet the distance between them suggests they belonged to different polities.

### **North Carolina**

Western North Carolina is located in close proximity to both eastern Tennessee and southwestern Kentucky (see Figure 2.2). Two Mississippian phases are recognized in this area; the Pisgah Phase (A.D. 1000-1450) and the Qualla Phase (post A.D. 1350). The characteristics of these phases are summarized below, with specific information included as it relates to the sites in southwestern Virginia.

#### *Pisgah Phase (A.D. 1000-1450)*

Ceramics are one of the most diagnostic material traces of the Pisgah phase, and were recognized quite early (Holmes 1884; Holden 1966; B. Egloff 1967). Dickens' (1976) work at the Warren Wilson and Garden Creek sites identified the larger suite of Pisgah material culture, and as Ward and Davis (1999:160) state, "Dickens's work remains the definitive statement on the Pisgah phase and the arrival of the South Appalachian Mississippian tradition in the Appalachian Summit."

Pisgah settlements include a range of site types, from small farmsteads to large nucleated villages; the latter occasionally have substructure platform mounds. Regardless of the size of settlement, they are almost always located in floodplain settings (Ward and Davis 1999:160). Pisgah sites are centered in the eastern and central portions of the Appalachian Summit, with most sites found around the present-day cities of Asheville,

Pigeon, and Hendersonville. Multiple lines of palisades are often found in the larger village sites, such as Warren Wilson. Ward (1986) recognized inner and outer walls of palisades at Warren Wilson; the inner walls may have served as a way to partition the central plaza from the habitation area, whereas the outer wall would have served as a defense mechanism. Pisgah houses were rectangular in shape, measured about 20 ft per side (Ward and Davis 1999:161), and were built using individually set post construction. Central hearth basins, with prepared clay collars, were located inside structures. Some have parallel entry trenches, and all at Warren Wilson contained interior central support posts. Of note, some pit features at Warren Wilson were large, shallow depressions found around the edge of the village near the outer palisades, sometimes lined with clay. Ward (1980:108-110) suggested these may have functioned as roasting pits, possibly for large gatherings. Also noteworthy is the lack of storage pits at Warren Wilson; apparently, aboveground buildings (storage cribs or granaries) were used instead. As Ward and Davis (1999:164) state, "this pattern stands in sharp contrast to that of the Piedmont Siouans, who made extensive use of underground storage." Burials found at Warren Wilson (n=61) were located inside or adjacent to houses, and placed in simple pits or shaft-and-chamber burial facilities. Grave goods, if present, include shell beads, gorgets, and ear pins; turtle-shell rattles and bone beads; and mica plates and disks. Columella beads were the most common burial accompaniment. Some burials associated with houses had grave offerings, but not all. Dickens (1976) thought this reflected differential access to goods, and was an indication of hierarchical social ranking.

As stated, Pisgah pottery is quite distinctive, namely for its surface treatment. In particular, it is defined by the presence of collared rims and rectilinear complicated-

stamped designs. The rim form “was created by adding a thick strip of clay or “collar” above the neck to create the rim and lip. These collars were usually decorated with punctations, incisions, and castellations” (Ward and Davis 1999:166). This type of rim treatment is most like that found farther north, among the Iroquois of western New York state; they are definitely unlike earlier Connestee phase ceramics found in the region. However, the surface decoration found on Pisgah ceramics is more like rectilinear complicated-stamped designs found farther south, such as Napier, Woodstock and Etowah types of north Georgia. Ward and Davis (1999:167-169) suggest Pisgah surface decorations show a mixture of different northern and southern influences. This is most apparent in the mountains of northwestern North Carolina, the area closest to southwestern Virginia. Fabric-impressed and net-impressed surface treatments tend to predominate there, found in conjunction with Pisgah rims; however, temper is more likely to be quartz rather than sand-tempered.

Dickens (1976) suggested two sub-phases of Pisgah. The early subphase (A.D. 1000-1250) is characterized by ceramics with fine-element, rectilinear complicated-stamped designs, clearly related to pottery types from the Etowah site in northwestern Georgia (Ward and Davis 1999:169). The later subphase (A.D. 1250-1450) is identified by the presence of “bolder and more varied rectilinear complicated-stamped designs as well as curvilinear designs similar to those of the Wilbanks, Savannah, and Pee Dee ceramic series” (Ward and Davis 1999:169). Other material culture items associated with this later phase include clay pipes, polished stone disks, and stone celts.

The Garden Creek site complex, consisting of three mounds, and located on the south side of the Pigeon River, contains one mound that was constructed during the

Pisgah phase, and has an associated village. Excavation of the mound revealed multiple occupation levels. First, two semi-subterranean, earth-embanked buildings were built at the same time, and were located adjacent to each other (Ward and Davis 1999:173), and connected by a passageway. The larger structure was 28 feet square with a clay bench located along all four interior walls (Dickens 1976), whereas the smaller structure was 20 feet square with a clay bench along one wall.

Following construction of these structures, multiple rows of posts were placed adjacent to them. This large rectangle (42 x 60 ft) (Ward and Davis 1999:174) “probably supported a large, arbor-like building that was used in conjunction with the earth lodges, perhaps for communal gatherings during the warmer months” (Ward and Davis 1999:174; Dickens 1978:123). As the posts deteriorated, they were covered with boulders, then soil, and then finally a clay cap. The earth lodge roofs then collapsed, and this area was filled with midden and covered with a clay cap. More layers were needed to stabilize the area, and then two structures, a palisade, and burials were placed on the surface. Evidence for later use of the mound during the Qualla phase was destroyed by plowing and erosion (Dickens 1976:87). Twenty-four burials found in the mound date to the latter part of the Pisgah occupation; 50 percent of these contained grave goods similar to those found at Warren Wilson (shell beads, gorgets, ear pins, and especially columella beads). Ward and Davis (1999:174-175) note “the kind and quantity of the grave goods from the mound did not differ appreciably from those accompanying the village burials at Warren Wilson” suggesting no difference in status between persons buried in mounds vs. villages; however, “mound burial itself may be the best indicator of higher status.”



Ward and Davis (1999:176) note what they term the “earthlodge-to-temple-mound construction sequence” is seen at other sites in the region, including Town Creek (Coe 1995; Boudreaux 2007), as well as possibly Peachtree in Cherokee County, NC (south of Garden Creek), and Tugalo, Irene and Beaverdam Creek located in the Savannah River drainage of eastern Georgia. Additionally, there are reported earth lodges under mounds at the Dallas, Davis and Hixon sites in southeastern Tennessee, and the Wilbanks, Horseshoe Bend, Log Swamp and Eastwood sites in north Georgia (Anderson 1994; Ferguson 1971; Lewis and Kneberg 1941; Rudolph 1984; Wauchope 1966). Davis and Ward (1999:176) discuss this regional shift in public architecture as a reflection of change in the social organization:

“It has been suggested that earth lodges probably served as council houses wherein several representatives of an egalitarian society met to negotiate consensus decisions. The later construction of elevated mounds to support temples or chiefly residences reflects a change to a more hierarchical form of political organization centered around a class of hereditary elites who ruled, to varying degrees, by decree (Anderson 1994:308; DePratter 1983:209).”

They note that chiefdoms during this time were inherently unstable, and subject to cycling. Hally (1996:123), using archaeological evidence from central and northern Georgia, thinks chiefdoms rarely lasted more than 100 years.

#### *Qualla Phase (after A.D. 1350)*

Qualla is usually viewed as the northern manifestation of the Southeastern late prehistoric Lamar phase or culture. Lamar is found over a wide geographic area (Georgia, Alabama, and parts of South Carolina and Tennessee) with regional variations, and depending on the geographic area, was present anywhere between A.D. 1350 and 1800 (Hally 1994:147). All three Lamar periods are recognized in the Southern Appalachian

Mississippian Summit area (Ward and Davis 1999:178). These have been defined by Hally (1994) based primarily on changes in pottery styles. Early Lamar (A.D. 1350-1450), Middle Lamar (A.D. 1450-1550) and Late Lamar (A.D. 1550-1800). Early Lamar ceramics are characterized by well-executed complicated stamped decorations, and include motifs such as the filfot cross, figure nine, and figure eight. Incising is rarely seen, and rim areas are decorated with nodes or appliquéd strips of clay that can be pinched, notched or punctated (Hally 1994:147). During the Middle Lamar period, incising increases, but the application of complicated stamped designs is poorly executed. Applique strips are still present, and sometimes folded rims, which were often pinched (Hally 1994:147). Late Lamar ceramics include complicated incised-design motifs, and although complicated stamping was still present, brushed and check-stamped appear, as well as notched rim fillets.

Within North Carolina, Dickens (1976) identified Early (A.D. 1450-1650) and Late (A.D. 1650-1838) Qualla phases; he also defined differences between Pisgah and Qualla. Pisgah sites are located in the eastern and central mountains, and along the French Broad and Pigeon Rivers (Ward and Davis 1999:179), whereas Qualla sites are found in the western southern mountains, along the Little Tennessee and Hiwassee River drainages. Both phases occur in the Pigeon, Tuckasegee and Oconaluftee River drainages (Ward and Davis 1999:179). More recent research has supported Dickens's early observations. Ward and Davis (1999:180) do suggest that the western mountain area of North Carolina likely held a sizable population, "an as-yet-unrecognized early Qualla (or Lamar) phase culture", while Pisgah was more dominant in the central part of the Appalachian summit. This suggests that an evolution from Pisgah to Qualla is likely not

apparent in much of the region. Based on these ideas, Ward and Davis suggest that Dickens's "Early Qualla" phase is more accurately termed a "Middle Qualla" period that begins around A.D. 1450; they extend its ending date to A.D. 1700, because of lack of significant contacts between Europeans and natives until that time. Ceramics of this now-recognized Middle Qualla phase include jars with flaring rims, often with a notched applique strip beneath the lip. Surface decoration includes stamping with a carved wooden paddle, with both rectilinear- and curvilinear-stamped designs present. Motifs include concentric circle, figure nine, parallel undulating line, chevron, and rectilinear block or herringbone designs (Ward and Davis 1999:181); often, these designs were blurred by smoothing (B. Egloff 1967). Cazuela bowl forms (with sharply carinated shoulders) appear during the Middle Qualla phase with incised designs around the shoulders, which incorporated curvilinear and rectilinear elements. Burnishing, checkstamping and cordmarking surface treatments are present in minor amounts (Ward and Davis 1999:182-183).

Mounds constructed during the Early and Middle Qualla phases are sometimes constructed platform mounds with summits used for chiefly residence, but other Middle Qualla and Late Qualla phase mounds differ, as described by Ward and Davis (1999:183):

They were formed as successive town house structures were built at the same location. The rubble and debris from earlier structures formed the foundations for later ones, and additional soil was added only to flatten and smooth the ground surface so that new buildings could be erected. After a period of time, the successive building episodes created a low mound whose elevation was fortuitous to its purpose."

The Coweeta Creek site contains one such Middle Qualla phase mound, termed “town house mounds.” Excavations there revealed six separate town house floors built atop one another and separated by thin layers of sand and refuse. Most of the town houses appear to have been burned (Ward and Davis 1999:186). They were square, about 36 ft on a side, and contained vestibule entrances. Roofs were supported by large, interior support posts surrounding a central clay hearth. In these details, Middle Qualla phase houses are very similar to Pisgah phase houses; however, Middle Qualla sites are found farther south, in the southwestern part of North Carolina. Middle and Late Qualla ceramic types are not seen in southwestern Virginia, suggesting a change in contact between the regions occurred sometime around A.D. 1450.

Closer to the southwestern Virginia region are sites located in the Catawba River Valley of North Carolina, specifically the McDowell and Berry sites (see Figure 2.2). McDowell (31Mc41), excavated in the 1970s by Keeler (1971), contained a village and low mound on the south side of the Catawba River. The mound was similar to that found at the Garden Creek site, and appears to be a substructure platform type. Two radiocarbon dates indicate a fourteenth through sixteenth century occupation. In 1986, members of the Upper Catawba Archaeology Project excavated (Levy et al. 1990; Moore 1987, 1999) four large blocks across the site. These excavations uncovered portions of a palisade, two domestic structures, one possible public structure, and small remnants of a possible substructure mound (Moore 2002:211). One of the domestic structures “appears similar to the house patterns described by Dickens (1976:32) at the Warren Wilson site, a Pisgah site located 30 miles west of the McDowell site” (Moore 2002:203). This structure had walls measuring about 20 ft long and rounded corners. The possible public structure,

Structure 3, was located next to (north/northeast) of the mound (although contemporaneity of the mound and this structure has not been established) and was quite large, possibly as much as 50 ft, but at least 25 ft in diameter (Moore 2002:205). The location of Structure 3 near the mound and its large size indicates it may have had a public function. Moore (2002:206) suggests it is similar to earth-embanked structures described as earthlodges by Rudolph (1984:33) found in Georgia, North Carolina (Town Creek, Garden Creek, and Peachtree sites), and South Carolina. Radiocarbon dates from charcoal taken from burned timbers within the structure yielded dates of 890 $\pm$ 50 B.P., or a calibrated date of A.D. 1168; the 1 sigma range is A.D. 1041-1226. Another excavation block on the mound indicated the mound was placed on a natural rise and contained probable basket-loaded fill. An artifact recovered from the plowzone associated with the mound was a carved soapstone pipe whose carving may symbolize an Uktena, a mythical Cherokee creature (Moore 2002:206-207). Pottery recovered from these excavations belong to multiple series, and include Pisgah, Burke, McDowell, Cowans Ford, and other types that do not fit clearly into the existing typology. Overall, Moore (2002:73) characterizes the McDowell ceramic assemblage as mixed, which is typical of late prehistoric and protohistoric sites in the region.

The Berry site (31Bk22) is located on Upper Creek, a tributary of the Catawba River, about 8 miles north of Morganton, North Carolina. First recorded by Cyrus Thomas (1891) as containing a 15 ft high mound, the mound and site were regularly plowed, and in 1964, the mound was bulldozed by the landowner. The site was excavated in 1986, where four zones, each representing different formation processes, and 18 features, were identified. Despite excavation, little can be said definitively about the site

based on the 1986 investigations, other than a portion of a circular structure was found, and the presence of other postholes suggests more structures were present (Moore 2002:60). Beck (1997a) did a surface collection of sites in the Catawba River Valley, including Berry, and suggested the site was as large as twelve acres. More recent investigations have identified the Berry site as the town of Joara, the location of Juan Pardo's camp during the late sixteenth century, where Pardo built and garrisoned Fort San Juan. Beck et al. (2006) have identified multiple burned structures, some with evidence of both native and Spanish construction methods, as well as pieces of Spanish Majolica pottery, glass beads, a metal scale, and chain mail.

Prior to the establishment of the fort, Joara was the head of a regional polity or chiefdom which included twenty-five other sites in the region during the Burke phase (A.D. 1400-1600). Moore (2002) defined the Burke phase, which he sees as a regional variant of Lamar, based on the distinctive Burke series pottery type. Ceramics belonging to the Burke series are soapstone tempered. Vessel forms include plain and complicated stamped jars, and incised cazuela bowls (Beck et al. 2006:69; Moore 2002). Beck (1997a) has suggested that a salt trade existed between the inhabitants of Joara and those at Maniatique, which he places in the Saltville vicinity of southwestern Virginia.

### *Summary*

The western North Carolina late prehistoric period is of interest to this study for two primary reasons. First, the Pisgah culture was based here, and many sites in the southwestern Virginia region contain Pisgah ceramics, sometimes in significant numbers, which may indicate Pisgah settlements, but at the very least indicate sustained interaction. The relationship between the Pisgah-period occupants of both regions needs to be

investigated. Second, during the later prehistoric Qualla phase, there appears to have been little interaction between these groups; however, there may have been interaction, based primarily on ethnohistoric documentation, between the late prehistoric (contemporaneous with Qualla phase) Burke phase people and at least some groups in southwestern Virginia. The North Carolina data suggests that different areas in southwestern Virginia may have served as different types of frontiers with different groups of people, and that these interactions changed over time. The trade of at least one commodity, salt, probably played a role in these interactions.

### **Summary**

This chapter has provided a detailed background of archaeological investigations in southwestern Virginia, and a more general background of investigations in the areas surrounding the study area. In southwestern Virginia, there is an increase during the thirteenth century in occupation; this declines during the fourteenth century, and then rebounds during the fifteenth century. However, the location of that increase changes, from the western part of the region (Lee and Smythe counties) to the northern (Tazewell county) and finally eastern edges (Montgomery county). Ceramic ware types vary in the region, changing in some parts from grit and grog tempers to shell tempered, especially in Lee and Smythe counties, but maintaining limestone temper in other parts of the region. Some mixing of styles occurs, both in terms of temper and surface decoration. Finally, there is some variation present in architecture; both square and circular structures are present, and palisades are found at some sites. Some sites also contain evidence for trade goods production. To the west, in Kentucky, Mississippian sites are similar, but have a greater Fort Ancient influence or interaction. To the south, in Tennessee, sites are definitively Mississippian. To the southwest, in North Carolina, Pisgah and later Qualla

periods show evidence of interaction with groups in southwestern Virginia. Based on these data, it should be clear that multiple frontiers were present not only in Virginia, but also in Kentucky and probably North Carolina. Holland (1970) was correct in assessing this area a “cultural crossroads.” Chapter 3 will provide a theoretical understanding of Mississippian chiefdoms, frontiers, and the role of trade in hierarchical societies.



### **Chapter 3. Chiefdoms, Mississippians & Frontiers: Theoretical Considerations**

This chapter addresses theoretical considerations that are the basis of this research, namely, the concepts of chiefdom, Mississippian culture, and frontiers. It includes a discussion of how these intersect, and finally describes the archaeological correlates of a Mississippian frontier chiefdom.

#### **Chiefdom Theory**

Anthropologists have long used *types* to define different groups of people with specific regard to their sociopolitical organization. Chiefdom is one of these types. Oberg (1955:484) defined chiefdoms as multivillage tribal units that are governed by a hierarchy of chiefs. In doing so, he followed Steward (1948) who, though not using the term, differentiated between societies with and without stratification. Sahlins' (1958) work on Polynesian chiefdoms about the same time became synonymous with chiefdoms. Central to Sahlins' definition of chiefdoms was a redistributive economy, which he saw as a basis of power for these societies. In such economies, chiefdoms ideally occupy environmentally diverse areas which local populations exploited; such groups procured certain goods, and then brought these goods to a central location, where the chief redistributed them to the whole society. By focusing on the role of redistribution as critical to the definition of chiefdoms, chiefdoms came to be defined by their economic role primarily, with political and social roles taking secondary status. By contrast, Fried (1967) examined power and authority in what he termed "rank societies" in which valued positions are more limited than the number of people qualified to fill those positions.

These societies may be, but are not necessarily, stratified. Stratification limits equal access to goods within a society.

Other researchers (Renfrew 1976; Griffin 1952) echoed the important role of a redistributive economy in chiefdoms. Earle (1977) reexamined this issue in Hawaii and found little evidence for redistributive economies. Instead, most districts were fairly autonomous. What Earle found instead was that redistribution involved massive mobilization of goods at periodic collections directed by an elite hierarchy. The role of redistribution was not economic; rather, it was to support an elite population, establish and maintain political relationships, and provide for capital investment. Earle was suggesting that the primary role of chiefs was political. Other works (Peebles and Kus 1977) supported Earle's reinterpretation of chiefly power. In this same vein, Wright (1984) viewed the emergence of chiefdoms as representative of hereditary elite development that maintained control apparatuses over a series of communities; unequal access to resources became widespread in such societies. He further differentiated between simple (one level of administrative hierarchy) and complex (multiple levels of administrative hierarchy) chiefdoms.

### **Economic Strategies to Chiefly Power**

Earle (1987) more specifically identified three bases of chiefly power: political, economic, and ideological. Most important is the economic role, where chiefs control access to resources. Staple goods, usually in the form of food, are mobilized and used by a chief to gain control of a chiefdom. Once control is established, the chief uses surplus staple and/or prestige items to pay off supporters and support an emerging elite. Societal complexity, in the form of rank and status differentiation, emerges with this elite.

Competition between chiefdoms for control of surpluses occurs as chiefdoms emerge; as

it continues, it augments societal complexity by increasing the importance of chiefs and elite. Earle (1997) thinks that control of staple goods, through ownership of land, occurs via productive dominance of limited lands by emerging elites.

A second basis of control is prestige goods. In prestige goods economies (Frankenstein and Rowlands 1978) political advantage is gained through exercising control over access to resources that can only be obtained through trade. These objects are important because they serve to solidify social transactions; that is, they legitimize chiefly authority by representing esoteric knowledge (Helms 1992). They may symbolize ties with other chiefs that represent a risk management strategy. Often, prestige goods contain certain motifs tied to ideological beliefs. As these goods with motifs are passed around a region, their original meaning can be lost, but elites can reinterpret these motifs to serve their own purpose (e.g., Marcus 1989).

### **Political Strategies to Chiefly Power**

Theories that emphasize political strategies to chiefly power emphasize the role of the individual vs. the role of group leaders in similar ways; however, the implication of each strategy differs. Renfrew (1974) defined two types of chiefdoms: group-oriented and individualizing. The first emphasizes solidarity among the group, and this solidarity is expressed through group labor projects such as mound building. The second emphasizes the investment of power in a small number of individuals, and personal wealth items increase in importance. Johnson (1982) used organizational models to suggest two types of hierarchies. Simultaneous hierarchies achieve system integration by exercising control and regulatory functions by a small portion of the population; these are seen in more egalitarian societies. Sequential hierarchies form in response to decreasing decision quality, and are more common in chiefdoms, although Johnson (1982) notes that both

types of strategies can co-occur in a society. In a similar vein, Blanton et al. (1996) suggest a dual-processual model to account for variability in chiefdom structure. In this model, corporate modes of chiefly control concentrate power in the hands of a group; here the community is more important than the individual. By contrast, network models concentrate power in the hands of a few or even one person. Prestige-goods economies are vital in network modes of power because possession of such goods helps individuals accumulate and reify power bases. Finally, Beck (2003) views chiefdoms as scalar hierarchies, where decisions made at any one level affect the operation of any other level. Depending upon the relative autonomy of community-level leaders, such hierarchies can be either constituent or apical. In the first, community-level leaders cede a portion of their authority upward by acknowledging a regional chief. In apical hierarchies, the regional chief delegates local authority downwards by appointing leaders to administer communities under the chief's control.

These four types of political strategy theories are similar because they emphasize individual vs. group decision-making as the power of authority in chiefdoms. I would argue that the dual-processual model postulated by Blanton et al. (1996) is a more elaborate version of Renfrew's earlier model. Johnson's model is more applicable to quantifying differences between egalitarian and hierarchical societies, and attempts to understand why hierarchies emerge. Beck's model is more concerned with the way in which power is administered. His approach is specifically geared to Mississippian chiefdoms of the Southeast.

### **Ideological Bases of Power**

Ideology, although important as a basis of chiefly power because it aids our understanding of the justifications for chiefdom existence, has not been intensively

examined because its extent and effectiveness is difficult to infer from the archaeological record. Earle (1987) has isolated three themes in chiefly ideology: ceremonies of place, symbols of individual position, and symbols of warrior might.

The first, ceremonies of place, are sacred spaces where chiefs symbolized or were viewed as gods on earth connected to a higher realm. Mounds in the Southeast, for example, served as a symbol of the chief's connection with a higher being. By living directly on the mound, the chief reified his elite status. Living atop the burial place of all preceding chiefs visually and physically solidified his right to that position. And, because the mound was sacred, only the sacred could live upon it, which further strengthened the chief's position as a religious ruler (Morrison and Lycett 1994). Blitz and Livingood (2004) examine Mississippian mounds, and note that two positions account for the size of mound. One assumes that mound volume increases as long as the mound was in use because its occupation entailed periodic construction episodes or stages (Hally 1996). The second suggests that a leader's ability to compel compliance to his or her central authority is represented by the size of the mound. They found that between 10-40 percent of mound volume can be explained by duration alone, and conclude that the influence of chiefs may have been more important at the bigger sites, so that by building a mound, chiefs were laying rather than reflecting claims to power. Ceremonial places like mounds were also important because they served as places of communal integration through feasting. Annual feasts were often held at central places, and hosted or paid for by the chief. In this way, the chief's power was reinforced, by both a display of economic prosperity and by incurring the debt of others. Dye (2002) has suggested that feasts in the Southeast were used to solidify alliances between warring chiefdoms.

Symbols of individual position are seen archaeologically in burials, specifically, burial goods. Exotic goods are often buried with elites, and serve to symbolize chiefly power. Peebles and Kus (1977) identified two parts of social persona, subordinate and superordinate, seen in burial practices, to distinguish social inequality at Moundville. Subordinate included age, sex, and achievement while alive, whereas superordinate dimensions were seen in energy expenditure on the grave, grave goods, or other symbolism not tied to age, sex or achieved status. Redundancy of goods is another indicator of social complexity (Tainter 1978), where highly redundant sets of artifacts are found in consistently correlated ways with specific groups, and those with low redundancy have few associations to particular groups.

Finally, symbols of warrior might are also represented in burials, where weapons and warlike effigies are found in graves. Earle (1987) suggests that such symbols were intimidating to non-warriors and to non-elite who lacked control over warriors; such intimidation would smooth over chiefly succession to power by acting as a continuity of the natural world order of domination by the powerful.

Overall, Earle (1997) views ideology as presenting the code of social order that facilitates and legitimizes domination. Information about the cosmic world is particularly important in chiefdom, and leaders manipulate information to which access is restricted, resulting in a perception that ruling elite have the right and the hold on authority. Earle (1997) thinks that once this social order is established, people need little ongoing persuasion to ensure their cooperation. By contrast, Pauketat and Emerson (1997) using the Mississippian site of Cahokia as a case study, suggest that elites need to remind people of the social order and the commoner's role in that order, to maintain power.

Migration may have been a common method in which commoners expressed their lack of belief in the prevailing social order (Cobb 2005).

### **Origins of Power in Chiefdoms**

The study of how power originates in chiefdoms is important in general because it is in chiefdoms that hierarchy becomes an institutionalized part of the society. In frontier chiefdoms, the origins of power may vary from other chiefdoms. Frontiers are areas where identities are more malleable, and the social order less restrictive. Theories about the origins of power are addressed here, with the understanding that this may not apply in the same way to frontier chiefdoms. These possible differences are discussed at the end of this chapter.

Although several authors have discussed the nature of power within chiefdoms, the question of how that power arises remains. More specifically, what social, political and economic factors need to be present, and in what ways do they need to interact, in order for societies who practiced institutionalized heterarchy to change to a system of institutionalized hierarchy? Certainly this change is not dramatic, but rather is gradual, one in which heterarchy and hierarchy co-exist in some form. Both Saitta (1997) and Mills (2004) have examined the dual role of heterarchy and hierarchy in the emergence of chiefdoms. Saitta (1997) accuses archaeologists of conflating differential social power that accompanies political hierarchies with direct and coercive control of labor (exploitation); however, he suggests they do not necessarily co-occur. Central to his thesis is that people hold roles in multiple social relationships, and therefore, there is no necessary correlation between the communal relations of labor processes and various other social processes that organize human life. Elites may get compensated for doing acts that maintain communal relations. Saitta (1997) terms this a “thin communal social

form” where both communal and non-communal social forms co-exist. This work is important because it rejects the simplistic notion that rank in chiefdoms exists as an either/or dichotomy.

Mills (2004: 238) focuses on similar themes, noting that “it is important that prestige does not always convert to power and that there are multiple prestige structures within any society such as those based on gender, age, kinship, and occupational class.” She uses the idea of “inalienable objects” to investigate multiple prestige structures. Inalienable objects are similar to prestige goods; they require special knowledge to produce, are used in ceremonies, and are restricted in their circulation. They can be used both to establish and defeat hierarchy. In establishing hierarchy, they are used to validate the identity and claims of groups who have unequal access to knowledge or other resources. They defeat hierarchy “when used to promote communal identities, rather than the individual identities of particular leaders...and when the knowledge of how to make and use them is destroyed” (Mills 2004:240). Mills’ work is important because it focuses on the dual nature and uses of prestige goods, rather than just viewing them as objects used by and for elites.

Diehl (2000) also addresses the assumption that hierarchies emerge from egalitarian societies, and the concomitant notion that hierarchy’s role is to solve problems, as elites act as managers in the society. He suggests instead that the contrast between egalitarian and complex societies is a false one; egalitarian groups such as foragers “compete and develop status hierarchies and establish claims to regions or territories through their use,” creating an ongoing system of social debts. Price and Feinman (1995) echo this idea, and suggest that all societies have varying degrees of



inequality; when that inequality is institutionalized, a significant change in sociopolitical relations has occurred. Hayden (1995) suggests many ways in which that might happen. A key distinction he makes is between communities where individual families acquire necessary subsistence resources and those where cooperative labor that is exploited or controlled by corporate groups is needed to acquire such resources. Further, he identifies a society that is neither egalitarian nor stratified. These “trans-egalitarian” groups can include despots, reciprocators, entrepreneurs, and finally, chiefs. It is when subsistence-based surplus becomes available on a regular basis that economically-based competition arises (Hayden 1995:24), resulting in a monopoly by small groups or individuals over control of resources. What results is something Arnold (1995:88) terms “marginalization”: “the process by which established or emerging elites create socioeconomic relations of superior versus subordinate/dependent manipulations of labor and distributions of social resources.” Such groups gain access to prestige technologies and/or regional exchange systems, and establish lineages to control inheritance of resources, through the incursion of social debts. Such debts arise from functions like feasting, war payments, bridewealth, and child growth payments. Hayden (1995:69) emphasizes that “the mere act of giving wealth away by itself does not result in increased power for the giver. To be effective, wealth must be given away in contexts that generate recognized and binding obligations.” The main goal of aggrandizers is to “attract, control, and maintain labor” (Hayden 1995:67), and ideology is used to legitimate (rather than create) social power. This is often accomplished through co-option of existing ideologies.

Examining the basis of power in chiefdoms, and taking into consideration the economic, political, ideological and social roles of that power, I would argue that chiefdoms are more than quantitatively intermediate societies. They are that, being different from tribes and states in terms of population size. But what distinguishes chiefdoms from tribes is not the emergence of inequality, but its institutionalization. Following Diehl (2000), Roscoe (2000), Price and Feinman (1995), and Hayden (1995), I agree that hierarchies are present in all societies. There is no great divide between egalitarian and non-egalitarian, mostly because the latter do not truly exist. Power is present in all social relations. In addition, as Roscoe (2000) argues, power is constantly exercised to attain certain ends by different individuals. However, power in what we traditionally term egalitarian societies is never permanently held by one individual, nor is it inherited across generations. In hierarchical societies, the institutionalization of power does result in a small group of people who have unequal access to resources as compared to the larger population. Further, they seek to sustain that unequal access to resources in multiple ways. They legitimize it by co-opting existing ideologies to support their power positions. They support the exchange of certain goods—Mills’ “inalienable objects” or prestige goods—to manipulate information to support their power. They use kinship to legitimize the inheritance of goods, and create monumental architecture (by controlling labor) as evidence of their power, either emerging or established.

So, although likely there were many ways that inequalities were institutionalized, they followed a similar trajectory. “Egalitarian” tribes had social inequalities based on age, sex, and/or achievement. Possibly one clan or family group within the tribe, over time and through intentional or unintentional consequences, increased their family size

and/or land holdings such that they amassed more labor and/or land, which resulted in a surplus. This scenario likely happened multiple times; however, it was only when this surplus was continual for multiple years that economic differentiation occurred. King (2006) notes that within fifty years of the advent of intensive maize agriculture in the Southeast, such inequalities emerged. What we see is the addition of economic inequalities laid atop social inequalities. Such economic inequalities become institutionalized through different social forms, such as bridewealth, feasting, or funeral payments. The other groups in the village often can only repay the dominant group through labor, which only serves to widen the economic gap between these groups of people. Once economic stratification is secured, existing ideology is manipulated to legitimize these differences.

The next section examines Mississippian chiefdoms of the Southeast, describing this culture as understood through archaeological and ethnographic resources.

### **Mississippian World**

Mississippian chiefdoms flourished in the Southeastern United States from A.D. 900-1500. Although there are three well-known chiefly centers—Cahokia (in East St. Louis, Missouri), Moundville (in central Alabama) and Etowah (in northwest Georgia)—a variety of chiefdom types, including simple, complex and a few paramount, were present at different times across the region. They were originally defined by the presence of certain traits, namely earthen platform mounds, shell-tempered pottery, large village settlements along floodplains, and the presence of exotic goods with distinctive motifs, which collectively came to be known as the Southeastern Ceremonial Complex (SECC). As chiefdom theory in general has become more sophisticated, so has our understanding

of the nature of Mississippian societies, and these newer interpretations are detailed below.

### **Mississippian Settlement**

Smith (1978) examined variation in Mississippian settlement patterns and suggested that Mississippian included a cultural adaptation to a specific habitat situation, and a particular level of sociocultural integration. Mississippian chiefdoms tend to be located in floodplain environments. Smith argues that this is not only for availability to easily tilled soils, but also for proximity to a rich habitat zone, one that included linear bands of circumscribed agricultural land and concentrated biotic resources. This location provided access to migratory waterfowl, aquatic species, and floral and faunal resources. Some drawbacks to such settlement, however, included decreased soil fertility after about 10-15 years of intensive agriculture and frequent flooding of bottomlands.

### **Mississippian Architectural Grammar: House, Town & Mound**

Mississippian settlement types included towns, many of which, but not all, contained mounds and plazas as their focal points, with houses arranged in a semi-circle around the mound and plaza. Lewis et al. (1998:2) have termed these arrangements a Mississippian architectural grammar, by which they mean a spatial arrangement that “focuses on the rules by which elements were combined in architectural expression.” Through studying the architectural grammar of a culture, we can view indirectly other systems that make up the culture, including language, beliefs, kinship and economics. People assign meaning to spaces and as a result intentionally design their living spaces, both small-scale (within a house) and large-scale (an entire town layout). Spaces used, or intended to be used, for longer periods tend to be more architecturally complex and receive more intensive labor and time resources.

Lewis et al. (1998:5) describe the Southeastern Mississippian architectural grammar as follows:

The fundamental architecture of built communities in the southeastern United States between the tenth and seventeenth centuries A.D. is clearly distinguishable from that of societies in other places and times...The main architectural elements include plazas, platform mounds and other earthworks, entryways, various means of segregating space and activities, defensive works, and natural terrain features.”

The basic design elements of this Mississippian architectural grammar include the plaza, mound(s), boundaries and gates. Plazas are important because they emphasize space, whereas mounds emphasize mass (Lewis et al. 1998:11). Although it is easy to view plazas as secondary to mounds within the overall grammar, Lewis and Stout think they were intimately linked. Mounds may have been, at many sites, locations for elite use, so conversely plazas were for public use. As Lewis et al. (1998:11) state “plazas are communal spaces that allow all members of society to share in the ceremonies, rituals, and daily life experiences that unite and define a community.” The importance of the plaza to communal life might be suggested by what is not found there typically: structures of any kind, and quite rarely artifacts. Archaeological evidence at many Mississippian sites suggests that plazas were regularly swept clean, a fact which signifies their importance to all members of the society. Of note, Mississippian plazas did vary in size and shape (including round, rectangular, and square forms). Lewis et al. (1998:15-16) note that in terms of village construction, most mounds were built after plaza spaces were delineated, and as such, “the size and shape of a plaza may indicate something of early site planning, intended use, and perhaps the size and centralization of the population that made and used it.”

As plazas delineate space, mounds dominate it. Mounds were usually built in the center of the village layout, often immediately behind the plaza. Lewis et al. (1998:17) state that the importance of mounds is the “visible differential” their presence created between the mound itself and the space surrounding it and “this differential may have served to elevate the status of an individual, a family, a lineage, a god, or some combination of these.” Mounds were sometimes built in stages, and other times all at once. The addition of new stages may indicate an annual public building of the mound. Mound size was also increased after the death of a chief, when the chief’s house was burned, the chief buried, sometimes along with retainers killed to accompany him to the afterlife, and a “clean” mantle of dirt placed atop the burial. Often excavations of mounds reveal a structure at the base of the mound, upon which the mound was built.

Structures were often placed atop the mounds too, and are thought to have been the residence of chiefs and his/her family or other elites. Ceremonies and feasting may have occurred on top of mounds. Mounds were often accessed via a ramp or stairs. Excavations at the Etowah site in northwestern Georgia by King (2003) identified the remains of a ramp.

Some Mississippian towns had what Lewis et al (1998:18) term “boundaries” as well as gates. Barriers between public and private spaces are called “locks” (Rapoport 1977)—they limit access to certain specified areas to only certain people. Boundaries are “locks that cover large units of space,” whereas gates are defined as “locks that control points” (Lewis et al. 1998:18). Boundaries are usually recognized as ditches, palisades or natural terrain limits by Mississippian researchers. Lewis et al. (1998:18), however, note that using such obviously physical features of space delineation “implicitly maps our own

cultural associations onto the Mississippian landscape.” Gates are less likely, found at the Snodgrass site (Price and Griffin 1979), but there is no evidence of a gateway on the boundary of a Mississippian town plaza (Lewis et al. 1998:19). Secondary smaller mounds may have served as “de facto” gateways by limiting access to plazas and or other mounds. Finally, stairways to the tops of mounds, mentioned above, can be considered gateways that may have been intentionally designed to direct one’s path and draw attention upward. Stairways may have also served to decrease mound erosion by reducing foot traffic on the mound.

Structures are the last component of Mississippian architectural grammar. Only recently has the architectural variability of Mississippian structures been analyzed in-depth (Lacquement 2007), although there has long been a recognition of two basic types of Mississippian house design over time, that of small-set pole design and widely-spaced post design (Lacquement 2007:4-7). During the Dallas period in the Southern Appalachian region, three types of structures are identified: winter houses, summer houses, and corn cribs (Hally 2008: 114-120).

Temporally, structures made with small set-poles were placed in a wall trench, and excavations at numerous sites suggest these are earlier than the second house type. The earlier type may have had a curved roof structure that was covered with bark, cane matting, or grass thatching (Lacquement 2007:4-5), whereas the later form had a hipped or gabled roof. Although each of these structures will be discussed in detail in the chapter on architecture, a general overview is provided here. The wall trench structures likely could not support hipped or gabled roofs because they lacked posts in the corner and interior of the structure. As Lacquement (2007:7) states, “open corners are

considered necessary to weave the wall poles together into a roof framework” and only posts with small diameters could be woven in this fashion. Further, “the interwoven framework of the flexed roof is believed to resist inward pressures and therefore requires no internal roof supports” (Lacquement 2007:7). Wall trenches were not essential for these flexible structures (Reed 2007:20), but Lewis and Kneberg (1946:50) suggested that the structures may have been pre-assembled and then placed upright into the ground. A pre-dug wall trench would have made installing these already assembled sections or entire house easier.

In contrast to the earlier Mississippian wall-trench structures, the large individually set post structures were prevalent during the Middle and Late Mississippian periods. As Lacquement (2007:64) describes, “this architectural form is characterized by large, widely spaced, individually set wall posts. There is a clear indication of internal roof supports in many of these houses.” Such houses had as much as 50 percent more floor area than earlier houses (Lacquement 2007:68), leading Lacquement to suggest an increase over time in the number of people living within these structures. The presence of burials under the floors in these later structures may have also necessitated an increase in space. Another compelling reason may be related to climatic change. As regional temperatures dropped, starting around A.D. 1350 with the advent of the Little Ice Age, there was an increased need for houses insulated with daub. The larger single-set post structures may have withstood the application of heavy daub better than the earlier, flimsier wall trench structures. Polhemus (1985) has noted that the small, flexible posts needed for wall trench structures were not very resistant to decay, whereas the support posts of later structures were larger and made from more durable woods (pine or oak)



which would have held up better over time. Also, as more agricultural land was cleared, stands of small flexible trees would have decreased, as these are found along river bottomlands more frequently. Lacquement (2007:71) estimated that fifty poles would have been needed to create a flexed pole dwelling. Using Moundville site data, he estimated 5-8 persons per residence and approximately twenty residences, or approximately 10,500 poles necessary to build twenty residences during the Moundville I phase. With rebuilding needed approximately every ten years, “it would have taken an estimated 210,000 thin, flexible wooden poles to house the Moundville inhabitants for the entire 200 years of the Moundville I phase, assuming there were no large changes in population” (Lacquement 2007:71).

Likely, a combination of changes in both household size, possibly related to changes in sociopolitical organization, and climate and resource availability precipitated the change in architectural style. Of note, large logs used in the construction of the later structures would have been carried farther than small poles, and would have possibly needed a sizable, planned work force, whereas Blanton and Gresham (2007) think a small family group could have easily erected flexed pole architecture.

Although residential structures were the main type of structure present in Mississippian towns, other types were built as well, including corncribs to dry and store corn. Many sites contain the remains of joined winter and summer houses, often associated with corn cribs. Summer houses were less substantial than winter houses, and more open; winter houses were, as Hally notes (2002) “as caves beneath the ground”, well-insulated in part by the buildup of earth on the exterior walls. Chiefs’ houses mimicked standard village houses, but sometimes were larger and in some cases,

contained specific private and public areas, which are discussed in detail in the architecture chapter.

Research on households (e.g., Netting et al. 1994; Wilk 1989; Blanton 1995) has a long history in anthropology and archaeology, and is gaining more attention in Southeastern archaeology (e.g. Boudreaux 2007; Pluckhahn 2010; Rodning 2004; Wilson 2005, 2008). While the house remains are a material representation of the structure, the structure includes “a prescribed amount of space, and [is] divided according to societal norms and probably to some degree by individual choice” (Gougeon 2007:136). Just as the architectural grammar of the town speaks to the collective culture of its inhabitants, so does the architectural grammar of the house reveal the social life of its occupants. The people who lived in the house, their relations toward one another and to those outside of the house, their delineation of space in the house, and the prescribed activities within that space, make up the household. Gougeon (2007:139) defines Mississippian household units as “the domestic structures and outdoor activity areas used by a household.” His analysis of household units at the Little Egypt site in northwestern Georgia suggests that “elites used corporate strategies at the village level to organize the means to control political, economic, and ideological power, even as they were engaged in network strategies at larger regional scales” (Gougeon 2006:190).

### **Mississippian Social Status**

The presence of institutionalized status within chiefdoms has been a defining factor of Mississippian culture. With the increasing knowledge of the role of status and hierarchy in complex societies beginning in the 1960s (see chiefdom discussion, above), studies of Mississippian cultures attempted to define the nature of hierarchy in Mississippian societies. Peebles and Kus (1977) examined this issue at Moundville

through analysis of burial location and grave goods. They found that commoners were buried in or near the village, whereas elites were buried in the mound. Among elites, there were subsets of ranked groups, distinguished by their placement in, and adjacent to, the mound, and the types of artifacts found with them. Since this study, researchers have recognized a range of status types within Mississippian chiefdoms. Blitz (1993) in an examination of the Lubbub Creek mound in southeastern Alabama, found that feasting was a primary activity on top of the mound, and concluded that such an emphasis on communal integration activities downplayed the status of the individual chief. By contrast, Smith and Hally (1992) used Spanish documents to identify multiple examples of chiefly status, including the litter-bearing of chiefs and contact avoidance between chiefs and commoners. At Moundville, Powell (1988) found little difference in skeletal remains between supposed elites and non-elites at the site, suggesting that for some cultural activities, such as subsistence, most people ate the same diet. Studies such as these are not so much contradictory as they are indicative of the variety of ways in which status was expressed in Southeastern chiefdoms.

### **Mississippian Political Organization**

During the 1980s, Southeastern archaeologists drew on the works of Wright and Johnson (1975) (discussed above) and focused on centralization, polity and decision-making as they analyzed Mississippian political organization. The increasing amount of data on Mississippian societies gathered as a consequence of numerous cultural resource management surveys at this time and a new emphasis on reconstructing the early (Spanish) *entradas* into the region furthered this effort and provided a clearer understanding of the nature of Southeastern chiefdom political organization. Using such information, Hudson et al. (1985) proposed a location for the Late Mississippian main

town of Coosa, and suggested it was a sixteenth-century paramount chiefdom. As such, it was a location where one paramount chief held sway over a region that included both simple and complex chiefdoms. In paramount chiefdoms, from two to three decision-making levels are present, and include commoners, lesser elites and elites. For northwest Georgia and the surrounding region, archaeologists were able to reconstruct the size of paramount chiefdoms, which included town size and distance between towns. Other paramount chiefdoms have since been identified, and include Ocute in central Georgia, Cofitachequi in central South Carolina, and Cahokia in East St. Louis, Illinois.

Territorial size is an important factor when considering the political organization of Southeastern chiefdoms. Hally (1993) proposed a model for chiefdoms which draws on archaeological data from Mississippian sites in northwestern Georgia. In this model, territories used and controlled by chiefdoms seldom measured more than 40 km in diameter, and were usually much smaller. This distance is recognized as a general territorial limit in chiefdoms cross-culturally; it corresponds to the distance chiefs could travel in one day to control or draw support from members of the polity. Anderson (1994) proposed that chiefdoms in the Southeast went through a series of phases he referred to as “cycling.” Complex chiefdoms emerged and collapsed amid a regional landscape of simple chiefdoms. He argues that the life of the chiefdom was rather brief (30-50 years), at least in the Savannah River Valley region of eastern Georgia and western South Carolina. Hally (1996) has examined platform mound construction and the instability of Mississippian chiefdoms, and argues that the construction and use of Mississippian platform mounds was largely coterminous with the existence of chiefdoms in which they functioned. In northwestern Georgia, chiefdoms appear to have lasted from 75 to 100

years. Hally attributes their collapse to interpolity competition. Overall, he concludes that the political organization of the chiefdom was inherently unstable, and that some may have risen and fallen so rapidly as to be archaeologically invisible.

Recently, the dual-processual model of complex sociopolitical organization (Blanton et al. 1996) has been used to explain the political trajectory of sites in the Southeast like Cahokia (Trubitt 2002) and Etowah (King 2003). In general, all three well-known Mississippian centers, Cahokia, Moundville, and Etowah, had similar political trajectories (King 2006; Wilson et al. 2006; Beck 2006). Depending on the site, at some point during the tenth or eleventh centuries, agricultural subsistence methods intensified. This intensification occurred in combination with an aggregation of area populations into a central area. Then certain groups within these societies, likely through control of surplus, gained political power over other groups. One probable way was through using surplus to indebt people to groups (likely related by clanship or kinship), led by emerging leaders. Power at this stage, whether it was at Etowah, Moundville, or Cahokia, was fairly decentralized. It was expressed through communal activities, such as mound-building and feasting atop mounds, and these activities served to unify communities. As more elite groups emerged in a region, and/or as the original kin group grew and split off from the original community, smaller chiefdoms were formed which had allegiance to the primary chiefdom. Over time, these 'daughter' lineages established and maintained alliances, which were symbolized and reified through exchange. As these changes occurred, a network form of leadership emerged, which emphasized exchange of prestige goods and a more individualized leadership role, as opposed to the earlier corporate or

communal order. In particular, King (2003) has used archaeological evidence from Etowah to show this change in leadership strategy over time.

Of interest to this study is Blitz's (1999) fission-fusion process of chiefdom development. Blitz suggests that the simple/complex chiefdom dichotomy does not encompass the range of variability present in Southeastern chiefdom political organization. He suggests that there were variations between dispersed and concentrated political centers, where "mound-affiliated political units assembled and dissembled to create polities of different size and complexity" (Blitz 1999:589). Such a model takes into account population movement.

### **Mississippian Economy**

Mississippian economies initially were based on the presence of a surplus of corn. As described above, it is likely that some kin group was able to experience consecutive good harvests, and with such harvests, indebted others around them to the kin group, often through feasting (which utilized the surplus harvest). Such indebtedness enabled this group to increase their labor pool and work more land, increasing their surplus to the point that increased surplus came to be an expected part of the economy. With this surplus, the emergent leaders could procure extralocal prestige goods, which worked to solidify their power and place within the group.

As prestige goods increased in importance, and as daughter lineages became further removed from the apical ancestor chief, elites (or network) power strategies emerged as the primary political strategy. In network strategies, power is centralized in one (or a small group of) individual(s). Prestige goods exchanges are vital to the maintenance of elite power, for prestige goods symbolize linkages with other powers who may provide assistance in times of risk. Prestige goods often are iconographic symbols.

As they are passed throughout a region, the original meaning of those icons is often lost, but elites can reinterpret the motifs to serve their own local, immediate purposes. In the long run, however, elite strategies are unstable. They are tenuous institutions, focused on single individuals reliant on outside networks for a portion of their power. If outside networks fail, or if internal threats arise, elite power strategies fail. At all three major Mississippian centers, such failure occurred, and when it did happen, was fairly abrupt.

Power is accumulated for chiefs through the trade of prestige goods. This is because exotic goods, because they are from other places, represent supralocal power of chiefs to access these places. Access to non-local places also means access to non-local power and information; prestige goods are symbols of this access and power. Controlling the trade of such goods can serve to limit power to certain individuals, thereby increasing their power. It can also be used by certain individuals to determine who is worthy of receiving certain goods. Bestowing goods on others creates a pattern of indebtedness which can increase the power of the person controlling trade.

Reconstructing prestige trade routes can be difficult because the origin of multiple types of trade goods must be established. Goad (1978) has attempted to reconstruct trade routes for the Southeast with limited success. Her study was diachronic, focusing on the development and spread of Southeastern prehistoric trade. She found that trade routes were first established in the Archaic period, and were used for thousands of years. While the routes themselves varied little, the meaning behind the exchange changed as social stratification became institutionalized during the late prehistoric period.

Certain items, particularly shell, copper, and salt, may have held special significance during the Mississippian period. Shell is found in interior locations far from

the coast, often as ornamental gorgets decorated with distinctive motifs. Collectively, these motifs have been known as the Southern Cult, or the Southeastern Ceremonial Complex (SECC)(Brain and Phillips 1996; but see Knight 2006 for a different interpretation of SECC goods and their meanings). Similar motifs have been found throughout the Southeast, leading some to speculate that Mississippian represented a widespread religious cult. More likely, the variation in design combined with the overall similarity in motif elements indicates a prestige goods exchange network between elites, in which motifs were reinterpreted locally. Part of this interpretation, central to prestige goods economies, would have entailed creating such prestige goods at interior chiefdoms. In this way, elites could increase their own wealth through amassing such goods, assigning meaning to them, and increasing the amount of goods<sup>2</sup> available for exchange.

Copper was also extensively traded, and SECC motifs are often found on copper items. Earlier (pre-A.D. 1400) copper found in the Southeast originated in the Lake Superior region; however, Goad (1976) found that use of copper from the Appalachian region increased in frequency at Mississippian sites. This switch in copper sources may indicate local elite power strategies of copper procurement for interregional exchange.

Salt was also traded in the Mississippian world (Brown 1980; Muller 1984). There are few interior salt sources, and salt in agricultural communities is a necessary nutrient. Muller (1984) excavated the Great Salt Springs site on the western edge of the Mississippian world, and found little evidence for full-time or even part-time specialization in the production and distribution of salt. However, McKillop (2002), in her study of salt exchange among the Maya, found similar archaeological evidence of salt

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<sup>2</sup> This is what Prentice (1987) and Trubitt (2002) have argued might be more rightly perceived as wealth, even money.



production and interpreted this as a part-time specialization. Salt production is particularly amenable to agricultural societies because it can be done in the ‘off-season’, thus widening household economic opportunities. Early (1993) also found evidence of possible part-time specialization in Arkansas. Barber and Barfield (2000) suggested that salt from Saltville, Virginia may have served the interior Southeast during the late prehistoric period.

### **Mississippian Societies: How Complex?**

There are two predominant views on the question of chiefdom complexity during the Mississippian period. One side (Milner 1999; Muller 1997) argues that the Southeast was not very complex at all, and the other side argues there was great complexity in some parts of the region (Pauketat 1994; Emerson 1997). For Muller (1997) there is a lack of evidence for craft specialization and where it does occur, little evidence supporting elite control of such specialization. Further, he suggests that exchange was likely not centralized, and that the distribution of goods followed a simple exchange model.

Pauketat (1994) and Emerson (1997) argue that there was great complexity in the Southeast at certain sites. Emerson (1997:267) argues that it is difficult to envision that “the lords of Cahokia rose to heights without total hegemonic control over the masses” but that the latter developed more quickly than the structural capabilities to effectively manage such total control; as a result, the system collapsed. While they do not propose that Cahokia was a state-level society<sup>3</sup> they do argue a centrally controlled administrative hierarchy was in place, one with multiple levels and far-reaching authority in some realms. The nature of political power in their view is ideological, especially in the elites’ ability to control exchange items that have symbolic importance, and the elites’ ability to

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<sup>3</sup> O’Brien (1989) does argue that Cahokia was a state-level society.

interpret those items, as well as everyday events (like commanding the sun to rise), to increase their power. They further assert that such an ideology was quickly pervasive within the American Bottom region, resulting in a quick rise, followed by a rather quick decline, in power at Cahokia.

Both sides of this argument use American Bottom data as their main line of evidence, but they do not use data from the same American Bottom sites in the same way to argue their position. Data from other areas in the Southeast, such as northwestern Georgia, have the additional benefit of ethnohistorical documentation to suggest that these chiefdoms may have been more than simple. Smith and Hally (1992) use these documents and identify instances of chiefly behavior within the Coosa paramountcy that show a level of complexity as revealed by allegiance and deference to the chief. These include the use of burden bearers, women, and tribute. Burden bearers were provided to the DeSoto expedition to carry equipment (Smith and Hally 1992:102). Women were provided multiple times to DeSoto, and Smith and Hally (1992:105) suggest “chiefs may have been attempting to establish marital alliances or fictive kin ties” with the Spanish leader. Tribute payment, likely corn and deerskins, is often recorded in the DeSoto documents (Smith and Hally 1992:105).

It is worth noting that prior to the use of English documents along the Mid-Atlantic coast to understand sixteenth-century native organization, the archaeological evidence suggested, at most, a very simple chiefdom was present there (Turner 1983). Using the documents forced researchers (Rountree and Turner 1994) to reassess that evidence because it charts the quick rise of the paramount Powhatan chiefdom in the region. My point is, to echo Hally (1994, 1995, 1996), that *archaeological* evidence of

paramount chiefdoms in the Southeast may be ephemeral to nonexistent based in large part on the short-lived existence of such organizations.

### **The Frontier**

Frontiers have more traditionally been analyzed by historians and geographers, yet the concept of the frontier has caught the attention of anthropologists, for multiple reasons. Political and economic systems tend to vary at the frontier, often because they either flaunt the traditional systems seen at the core, or because they are a crossroads where multiple types of systems merge into different forms. The frontier is also a place where social identity is more malleable than at the core, and as such is often formed and reformed; indeed, it is often viewed by anthropologists as a good place to identify the formation of ethnic groups.

Rice (1998) identifies two contrasting anthropological definitions of frontier, either as place or as process. As place, the frontier “emphasizes the territorial limits and settlement aspects of a frontier; it sees the frontier as a crossroad, a line or zone where culture takes place, on outer fringe of the reaches of civilization into open, undeveloped territory” (Rice 1998:49-50). By contrast, viewing frontier as process “focuses on interactions taking place within a geographical region, considering the frontier to be a changing societal (including political and economic) panorama, a set of dynamic relations between natural and cultural components that vary in time and space” (Rice 1998:50). Parker (2006:79) sees both place and process as part and parcel of what makes up a frontier, so that frontiers may have multiple political or cultural units and have empty areas devoid of any units. Such a definition is more inclusive, and allows for a multiplicity of frontiers to be recognized.

Turner (1920) famously defined the frontier as a subject of analysis, specifically with regard to the development of American history, in which the idea of manifest destiny was key. Through a historical analysis, Turner charted the mobile nature of the frontier line and its changes through time, always seeing it as “the meeting point between savagery and civilization” (Turner 1920:1). Only recently have Turner’s ideas been criticized for their biased nature (Adelmon and Aron 1999), and their ignorance of the multiple cultures inheriting frontiers at various times (Berkhofer 1981; Thompson and Lamar 1981).

Within anthropology, Kopytoff (1987) in an analysis of African frontiers, very explicitly rejected Turner’s frontier thesis, and rather saw the frontier as “a force for culture-historical continuity and conservatism” (Kopytoff 1987:1). In Kopytoff’s model, social reproduction, where core groups continually expand, and frontiers become cores with new frontiers, is key to understanding the nature of frontiers. Kin groups are central to the formation of frontiers; tensions between older and younger members of kin groups results in fissioning, and younger members break off and form new frontiers. Once established, the frontier maintains ties with the core, or what Kopytoff terms the “metropol,” and the maintenance of these ties serves to draw additional kin members to the frontier. Kopytoff does recognize that the frontier is not an empty area. New groups attain power at the frontier by incorporating ideologies from the groups already located there. By co-opting the existing ideology, the outsiders’ power is legitimated. Because this model identifies both kin ties to a center and variation through incorporation of existing ideologies at the frontier, both broad similarities and variation in frontiers can be explained. However, it allows little room for agency or individual expression.

## **Frontier Power and Identity**

The dialectical nature of borders is critical to the formation of power there.

Because individuals make and remake identities at the border, they continually seek new ways to increase power. As a result, borderlands “both make power visible and yet subvert it through the possibility of hybridities and crossings” (Cunningham and Heymon 2004:291).

Parker (2006:84) has identified types of political borders, emphasizing the interrelatedness of subcategories of political control within and between borders. Indirect rule is more difficult to identify archaeologically than other types of rule that involve significant political reorganizations (i.e., direct political takeovers or integrations). They might be identified through layers of destruction or abandoned sites (Parker 2006:84). Frontier military sites might also be identified by their strategic locations, while at the same time containing material correlates as the core.

The way in which ethnicities form and reformulate over time, also known as ethnogenesis, often occurs at the frontier. For example, Galloway (1995) examined a frontier of the colonial world, the formation of Choctaw identity during the sixteenth through eighteenth centuries. Here, external forces pushed multiple groups, related by kin and/or language, to form one ethnic identity, Choctaw.

Identity is often formed at the border. Flynn (1997) shows that identities at the border in Benin are malleable; as such, they are a way to increase one’s power. However, these identities and their concomitant power are contextual. Borders are also important to the metropolitan regions or cities they border. As a result of this importance and the malleable identity formation seen at the border, borderlands have an advantage and become interstices “full of power” (Flynn 1997:312). Importantly, controlling movement

at the border allows residents to increase their power. It is this social interaction at the local level, where communities act and intersect, that is critical to understanding borders.

Mutersbaugh (2002) more actively highlights agency in the core community, and recognizes that a dialectic of sorts exists between the core and its migrants. The interplay between the core and the border results in “reterritorialization” or the “reworking of the fabric of everyday interactions and exchanges to include new persons, places and relations (Mutersbaugh 2002:475). In a similar vein, Donnan and Wilson (2001:11) examine borders as identity markers that are proactive, and suggest that by focusing on border cultures we can identify and analyze the networks of politics, economics, and society that tie groups together.

### **Frontier Economies**

Economy is another source of power at the border. Indeed, borderlands are often settled as a way to control the exploitation of natural resources located there which are important to the core. Parker (2006:88) notes that mountains in particular may contain natural resources desired in the core. If remains of certain imports are found in borderlands, their presence may suggest economic networks that linked remote frontier regions with larger interaction spheres. Because economic and political power arises, in part, from control of production and transport of goods, and because goods are often moved across borders, controlling their movement at borders can increase power. As a result, enclosure is common in border areas. Enclosure can be physical, but Cunningham and Heyman (2004:293) view it in a broader sense, as “social processes that delimit and restrict the movement of specific goods, people and ideas.” The act of moving goods itself can transform the goods and their value. What is considered a commodity is often defined or redefined at the border, and this affects its value within a culture.

Of note, subversive economies are often found at borders. Such economies are located outside the limits of state power, and this is often flaunted in the face of the state or core. At times, new markets are created at borders, often as an outgrowth of subversive economies; this is especially true where core polities have established colonies.

### **Frontiers and Chiefdoms**

It is probably in the realm of economics that relations between frontiers and chiefdoms are most visible. The importance of prestige goods economies to the economic power of chiefdoms is discussed above, but briefly, this theory holds that elites maintain their position by monopolizing intersocietal exchanges of prestige markers and luxury goods (after Earle 1987). With regard to frontiers, Kipp and Schortman (1989:373) point out that “sometimes items imported from distant locales may be essential to elite claims of access to supernatural powers on which the society depends (Helms 1979).” Exchange between chiefs was likely a face-to-face direct type, which reinforced the symbolic role such prestige goods conveyed. Schortman (1989) has suggested that such exchange may have symbolized an exclusive “elite” identity between two rulers.

Trade can be a separate type of economy from exchange. Kipp and Schortman (1989:378) distinguish “trade” as being of an entrepreneurial nature, one that “destabilizes the political economy of chiefdoms based on personal bonds of clientage and alliance cemented through exchanges.” Trade diasporas often resulted from chiefs’ attempts to control the exchange of luxury items. As they note, (Kipp and Schortman 1989:380) “at first chiefs are drawn into the long-distance *trade* in luxury goods to procure the symbols of power and the “currency” to become patrons and allies. No doubt

they find themselves stuck to a golden goose they cannot fully control” (emphasis in original).

Hirth (1978:37) provides a concrete example of how this might occur through the idea of ‘gateway communities’ which “develop either as a response to increased trade or to the settling of sparsely populated frontier areas...the function of these settlements is to satisfy the demand for commodities through trade and the location of these communities reduces transportation costs involved in their movement.” Gateway communities can appear in places between cores and frontiers, where they act as middlemen to more efficiently move goods; however, their role often affords them increased power, acquired through a decrease in the power of the core. Also importantly, Hirth (1992:27) notes that if goods in interregional exchange originate at frontier areas, then those areas become pivotal in elites’ quest to increase their power.

Frontiers, as I have attempted to demonstrate, are a distinct set of structural relations and interactions. Different paths to power and identity exist at frontiers, and often it is the different nature of economics at the frontiers that allow this to happen. Frontier identities both exist separate from cores while being partially defined by those same cores. Additionally, we need to recognize that frontiers can be attached to multiple cores. Understanding frontiers as nested, scalar entities, and recognizing differential contexts in which frontier activities occur, we can understand the dialectical nature of cores and frontiers.

### **Core-Periphery Model**

Although I have used the term “core” above to refer to the entity by which the frontier may define itself, this use is not specifically referring to cores in the sense of core-periphery models tied to world-systems theory. However, it is difficult to understand



cores and their frontiers without a discussion of this theory. Core-periphery models are a type of frontier model that are inherent aspects of world-systems theory. Wallerstein (1974) proposed world-systems theory to explain capitalist economies. Capitalism operates between three entities: core, periphery, and semi-periphery. Cores are the nexus or central location of political and economic centralization of a world system. Peripheral regions are geographically defined in relation to their distance from the core. In world-systems theory, peripheries are important because they supply raw materials to the core, while receiving services and political decision-making from the core. Because they are exploited by the core, they tend to be economically disadvantaged with regard to structural inequalities. Between the core and the periphery lies the semi-periphery, which may represent transitional stages in a state's participation in the system over time.

Core-periphery models have been critiqued for their tendency to dichotomize the two, and present cores as active and dominant in the relationship while peripheries are their exploited passive counterparts. Further, little role is given to local economies and their effects on the system, or on the role of prestige goods (Schneider 1977; Blanton and Feinman 1984). Probably most central here is the fact that world-systems theory was developed as an explanation of capitalist systems only. Conversely, Rice (1998) sees them as ideal for prehistoric archaeological applications, because of their emphasis on hierarchy; it is also particularly ideal for viewing economic relations in a nested or scalar approach. World-systems models also account for change over time, particularly when allowing for peripheries to become semi-peripheries, and vice versa.

Santley and Alexander (1992:24) view world-systems theory as a subtype of a more general core-periphery model in which articulations between components in the

system are dendritic in structure. Although world-systems theory was originally used to describe capitalist economic systems, Chase-Dunn and Hall (1991b) suggest it is applicable to precapitalist systems. In capitalist world-systems models, growth is from the core outward to the periphery. In precapitalist world systems, core areas are not necessarily more “developed,” either economically or politically, than peripheries. Also, prestige rather than bulk goods link precapitalist world systems, as do warfare and political alliances.

Stein (1998) has critiqued the world-systems model for its failure to account for the leveling effect of distance on core hegemony over peripheral areas. By contrast, he posits the distance-parity model which “suggests that the core’s ability to exercise hegemonic power decays with distance, thereby leading to increasing parity or symmetry in economic and political relations with increasingly distant peripheries” (Stein 1998:228-229). Unlike capitalist systems, peripheral economies do not always develop such insular dependency on cores. A result is the formation of a highly variable social landscape in which peripheries are active participants in interregional interaction networks.

Kowalewski (1996:33) suggests that a macroregional approach is particularly useful for understanding peripheral areas, particularly those engaged in the production and transfer of valuables throughout a region; it is here that what he terms “emergent properties” of the macroregional whole might be visible. Dincauze and Hasenstab (1989:76) use such a macroregional view when examining the entire Eastern Woodlands region during the late prehistoric period. They suggest that Iroquoia, although very

peripheral to the core Mississippian culture area of the Southeast, incorporated Mississippian culture in ceremonies and cultigens such as corn.

Wolf (1982) suggests that the concept mode of production, with its kin-ordered and tributary modes, is ideal for analyzing the economies of peripheral societies. In such systems, it may be possible for chiefs to transcend the limitations of kin-ordered modes and thereby turn a difference in status into a class differential and bring on the advent of a tributary mode (Champion 1989). When chiefs interact with expanding peripheries, where the possibility of control over resources and attached sources of power via control over new prestige goods, information or political alliances, the transformation beyond kin-ordered modes can occur.

For core-periphery models, prestige goods exchange is probably the most central type of economy. Peregrine (1992:5-6) states that in such systems, "elite symbols are needed by all members of the society for social reproduction." Peregrine argues that prestige goods economies have an inherent division of labor because these goods are made by special artisans or traded from outside the group. The location of elites themselves is tied directly to core-periphery relations. Those located at nodal points on trade routes will have the means to control those routes and the goods flowing from them, whereas elites not located on those routes can be quickly undermined by those more centrally located (to the source of goods). Nodal point locations further work to chiefs' advantage because populations are more attracted to elites with better access to prestige goods (Peregrine 1992:7).

Access to the goods is important for what those goods symbolize. Helms (1992) has emphasized the importance of information from afar as a source of power,

particularly for elites involved in prestige goods economies; indeed, information itself can be a type of prestige goods. Within core-periphery systems, the periphery can take on added importance because it is the source of such extraordinary or supernatural power.

Overall, peripheries are increasingly viewed as more active than originally envisioned by Wallerstein. Lightfoot and Martinez (1995:473) see that frontiers serve many roles: “as semipermeable cultural barriers that can restrict social interactions, filter information exchange, and limit the movement of some material goods.” I would argue that by viewing peripheries in this light, interactions between the core and periphery take on different meanings when viewed in a more even rather than an asymmetrical relationship.

### **Core-Periphery and Chiefdoms**

When seeing chiefdoms through the lens of core-periphery theory, such models only become relevant when chiefdoms are more complex and command power over a wide area. Interactions with a periphery vary as a result. Most interactions in such a complex chiefdom are economic because of the nature of prestige goods systems and their role in attaining and maintaining elite power. Peripheral areas may very likely have a resource desired by the core, one that is significant in the wider prestige goods exchange system. By controlling access to that resource, the chief can increase his own wealth and rank (Prentice 1987). At the same time, depending on the degree of centralization present within the complex chiefdom, those at the periphery may be able to increase their own power by participating in the exchange. This could be done through different means, for example, by exchanging their externally valued resource for internally valued commodities. Or they could serve as middlemen in the trade, and receive payment for their services. Both peripheries and semi-peripheries can increase

power to such an extent in the latter role that they often become gateway communities, siphoning power away from the core. Simultaneously, elites can manipulate how prestige goods are made and used at the periphery, co-opting their interpretation and further increasing their own power.

### **Mississippian Culture, Core-Periphery and Frontier Studies**

Within Mississippian studies there is an increasing recognition of the variability of chiefdoms in the region. Where once viewed as a monolithic entity, Mississippian is now seen as composed of many different types of chiefdoms at many different stages of development. Research on the periphery of the traditionally defined Southeastern Mississippian world has expanded our idea of its extent (King and Meyers 2002). Mississippian mound sites are now recognized in southeastern Kentucky (Jefferies et al. 1996), southwestern Virginia (Meyers 2002) and western North Carolina (Beck and Moore 2002), and their presence in these non-traditional regions provides additional evidence of the variation in Mississippian culture.

Traditionally, Mississippian cultures were thought to have an economy based on intensive corn agriculture. Areas on the periphery, however, were not as dependent on corn agriculture for the institutionalization of hierarchy. More broadly, for chiefdom studies in general, this suggests that economic inequalities arise in a variety of ways, and this can lead to a variety of chiefdom types in the archaeological record. Other studies in the interior Southeast suggest variation there as well. Mississippian cultures inhabited a range of habitats found in the coastal plain, piedmont, and mountains, and as a result, developed differential adaptations to these environments.

Peregrine (1995) and King and Freer (1995) have suggested that world systems theory is applicable to understanding the nature of Southeastern economies because it

relies on interaction as an agent of change and allows for the examination of these interactions at multiple scales. In particular, Peregrine (1995) argues that using core-periphery approaches in Mississippian studies necessitates using a multiscalar research agenda, “one that can take us from an individual site to the relations between sites, to macroregional relations within some larger entity, which, I would further argue, should be conceived of as a world-system” (Peregrine 1995:258). Peregrine ties this model in with the *Annales* method of historical research. When using such a methodology to understand the macroregional relations, we can then create an archaeology “that considers not only the events that lead to change, but also the short-term and long-term structures and processes that foster or hinder or shape those events” (Peregrine 1995:260).

In applying world-systems to the Southeast, King and Freer (1995:276) see a different nature and scale of core-periphery relations occurring. As they state, “rather than being dominated by a few large core areas with vast peripheries, we view the Mississippian Southeast as having many cores (i.e., it is multicentric) with limited and overlapping peripheries.” For them, core areas are mound centers that dominated (but did not control) regional and local exchange, and peripheries were subsidiary mound and village sites in the region, which “were connected to the core through a series of nested spheres of interaction at the local, regional and extraregional levels” (King and Freer 1995:276). What is apparent in both Peregrine’s and King and Freer’s applications of core-periphery to the Mississippian world is that they recognize the multiple interactions within the Mississippian culture and view these interactions using a multiscalar, regional approach.

Related to the study of core-periphery relations in the Southeast is a more explicit examination of frontiers there (King and Meyers 2002). King and Meyers (2002:114) define frontiers as “geographic areas along the edge of advancing or retreating wave fronts of Mississippian forms of organization.” This definition incorporates agency. The authors suggest that by studying frontier areas, we can map out the exchanges between different groups, which have “the potential to shape the history of individual social groups as well as interacting systems” (King and Meyers 2002:115). Other studies also examine frontiers in the Southeast. Blitz and Lorenz (2002) suggest that Mississippian immigrants inhabited a sparsely inhabited frontier zone along the Chattahoochee River Valley in Alabama. This and subsequent work by Blitz and Lorenz (2006) suggest that migration into frontier areas by Mississippian groups, and the resulting contact and competition between intrusive and *in situ* groups may explain both the spread and variation in Mississippian chiefdoms. In a similar vein, Kelly (2002) argues that people migrated to Cahokia during the Emergent Mississippian period, drawn in part by an elaboration of earlier traditions. Further afield, Meyers (2002), Beck and Moore (2002) and Pollack et al. (2002) looked at interactions between Mississippian and areas on the northern and eastern frontier.

These studies on Mississippian cores and peripheries suggest first, there is much more variability in chiefdom organization in the region than formerly recognized. Second, there were multiple cores and peripheries in the prehistoric Mississippian world, and these interacted to various degrees. Unlike in a world-systems theory view, these pre-capitalist core areas probably did not dominate peripheral areas as much as capitalist core areas did. Third, understanding these interactions means identifying the frontiers of these

many cores, and charting the interactions between the multiple cores and peripheries over both time and space. By doing so, we may better understand the nature of Mississippian cultures across the region, accounting for both similarities and variations in the sociocultural expression of political hierarchies that are present.

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## **Chapter 4: Research Questions**

This study is an archaeological analysis of a frontier chiefdom, represented by the Carter Robinson mound site (44LE10) of the Mississippian culture. This study addresses four questions, each of which are discussed in detail here. First, what is the cultural identity of the occupants of the Carter Robinson mound site, and how is this recognized from archaeological remains? Second, how did Carter Robinson function as a frontier chiefdom? Intrinsic to understanding the latter is the third question, what role did craft production and trade play in the formation, identity, and changing nature of this frontier? Finally, I will address the importance of this research to the study of frontiers in anthropology.

### **Cultural Identity of Carter Robinson**

The question of cultural identity of the site occupants specifically asks how were the site's inhabitants related to others in the region. That is, was the site inhabited by people related to Mississippian chiefdoms in eastern Tennessee, or was it inhabited by people from nearby southwestern Virginia Radford cultures? And, why is it important to identify the origins of the site's inhabitants?

If the inhabitants were related to, and therefore a frontier of, the Mississippian world, identifying the inhabitants as such helps to understand the role of frontiers within Mississippian culture. As described in Chapter 2, much is known about the Mississippian culture that existed in the Southeast from about 1200-1550 A.D.; however, the edges of this culture area have been overlooked. It is at the edge or frontiers of such areas that identity is formed and reformulated, and this reformulation can and often does influence

the center or core of the culture area. If Carter Robinson is a frontier of Mississippian chiefdoms located farther south in Tennessee, then it may provide evidence for daughter lineages forming new villages and mound centers from existing chiefdoms, as suggested by Blitz and Lorenz (2006) for other areas of the Southeast. This scenario suggests a Southeastern version of the African Frontier Model, and has also been suggested by Hally (2006) for Mississippian chiefdoms in northwestern Georgia.

If the Carter Robinson mound site occupants were local groups, part of the Radford culture of southwestern Virginia, and they incorporated fragments of Mississippian culture, this is still a frontier area, albeit of a different nature. Studying such a frontier would increase our understanding of how hierarchy develops in situations of culture contact. Milanich (1999) has suggested such a development occurred in north Florida, where northern Utina villages borrowed chiefly titles and behavioral patterns from nearby Apalachee groups as a means of protection. Milanich (1999:256) suggests these Utina groups “acted complex” as “a successful attempt to maintain their autonomy.”

The cultural affiliation of the Carter Robinson mound site will be identified through an examination of architectural grammar and artifacts. Architectural grammar, discussed in Chapter 3, refers to the planned arrangement or layout of a settlement by its inhabitants. Mississippian architectural grammar has been described many times, and formally identified by Lewis, et al. (1998). A typical Mississippian site’s architectural grammar contains a mound oriented toward an open plaza, which in turn is surrounded by houses in a semi-circular arrangement facing the mound and plaza; a palisade often encloses the entire village. Mississippian houses contain their own individual

architectural grammar, as defined by Gougeon (2006). These usually are rectangular in shape, with specific areas for sleeping and cooking. Often these areas are divided by gender and age groups, and are recognized as such by their artifact groupings. In terms of architectural style, earlier Mississippian houses (ca. A.D. 1100-1250) were wall trench structures whereas later structures (A.D. 1250-1550) were single-set post structures with hipped or gabled roofs and wattle and daub walls.

In contrast to Mississippian architectural grammar and household style, the local southwestern Radford culture also had its distinctive architectural grammar. This would include houses arranged in a circular pattern around an open plaza area, and usually surrounded by a palisade. Sometimes, as in the case of Crab Orchard (discussed in Chapter 2), there were bastions at the corners of the palisade and occasionally gatehouses or entrance areas to the village. Radford houses were circular, single-set post structures with wattle and daub walls. Within the structures were sleeping and cooking areas, although no studies to date have been done distinguishing or identifying different types of activities within these households by age or gender.

Artifact types distinctive to Mississippian or Radford groups include ceramics, lithic tools, and non-utilitarian items (such as beads). Mississippian ceramics of the late prehistoric period are shell-tempered, plain or cordmarked, and vessel shapes include bowls, jars, and large storage vessels. Earlier (A.D. 1100-1250) ceramics from eastern Tennessee are grit and grog-tempered, either plain or cordmarked, and vessel decoration includes some lugs and nodes; loop handles are common. Later Mississippian (A.D. 1250-1550) ceramics are more commonly shell-tempered, although other temper types are present. Plain or cordmarked surface decoration is still present. Loop handles are

replaced by wide strap handles, particularly on jars. Stamping and incising becomes more frequent during the later period.

Radford ceramics are usually limestone-tempered and plain or cordmarked, although the latter surface treatment is more commonly seen; fabric-impressed surface treatment is also more common than on Mississippian vessels. Vessels do not exhibit lug handles or nodes, and only occasionally have strap handles during the later prehistoric period.

Lithic tools include projectile points, drills, chisels, hammerstones, abraders, and pitting stones. Projectile points tend to be the same throughout the region, and include small triangular types such as Madison. Drills, chisels, hammerstones, abraders and pitting stones also tend to be similar across the region. One difference may be in the types of drills produced. Drills found in this region are distinctive from those found at other Mississippian sites such as Cahokia. At Cahokia, drills were manufactured from blades using an expedient technology. Within the southwestern Virginia region, drill types are more numerous, and exhibit less evidence for having been expediently produced.

Non-utilitarian items include things like beads, pendants, palettes, and certain types of groundstone objects, as well as the byproducts (i.e. debitage) related to their manufacture. Beads were common in both culture areas, and are prevalent in burials in both cultures. Pendants are more common in Mississippian sites, as are stone palettes, some with incised designs. Groundstone is also more common in Mississippian sites. In general, because Mississippian chiefdoms are institutionalized hierarchies, they are more likely to have a higher frequency and a wider variety of nonutilitarian items because such items were used by elites to demonstrate and solidify power. Nonutilitarian items became

increasingly more important over time as networks between local leaders became more important and were symbolized by the exchange of exotic goods. These often also included shell gorgets, along with items such as salt, a valuable commodity in agricultural communities. One resource that may be unique to the region is cannel coal, which was modified into beads and pendants, and possibly larger items such as fishing weights. Cannel coal is found as far west as the Angel Mounds in Indiana, and is more common in the mountain regions; however, no cannel coal artifacts have been found to date in Radford culture sites of southwestern Virginia.

One non-utilitarian item common to both culture areas is the pipe, either made of stone or clay. Mississippian pipes, however, are more likely to be incised. Finally, stone and ceramic discs, also known as chunky stones, are common on Mississippian sites. Chunky stones may have been used as a game piece (Hudson 1976), but they also may have been used for other, as yet unknown, uses.

Mississippian subsistence was based on intensive corn agriculture, supplemented by hunting deer, bear, and small mammals, along with collecting turtles and fish. In addition to corn, other plants or plant products, like beans, chenopodium, wild berries, and nuts were important sources of nutrition. Nutshells themselves were also important as mast, or supplementary fuel. Mississippian settlements were strategically situated to maximize access to subsistence resources. Locations on wide, flat river bottoms ideal for corn agriculture were the preferred setting. Many of these places also had access to upland and woodland areas that provided wild animals and flora.

Radford subsistence strategies focused less on agriculture than did those of typical Mississippian groups. Although maize has been identified at Radford sites in the region,

it is not found in large quantities or very frequently. Instead, a more varied subsistence was practiced, one which emphasized a range of horticultural resources as well as wild resources, both plant and animal. There is also more variation in Radford settlement patterns. Village sites are found on bottomland and upland environments.

In attempting to identify the cultural affiliation of the Carter Robinson site, more than site layout and artifact similarities are required. What is required is a similarity of context in which artifacts were used and cultures lived. Santley et al. (1987) found that at the Mesoamerican Classic period site of Matacapan, a Teotihuacan ethnic enclave was present. This was based not only on the presence of similar artifacts, but also on the household and supra-household (ceremonial) contexts in which they were found. If the Carter Robinson inhabitants were a Mississippian enclave at the frontier, this would be evidenced by first, a majority of Mississippian-style artifacts at the site and second, the presence of these artifacts in similar contexts as are found in Mississippian sites. Similarity in architectural grammar is an overriding context that would provide evidence of Mississippian enclave; however, what is also necessary is the presence of Mississippian artifacts in similar contexts as are found at Mississippian sites.

By contrast, if the Carter Robinson mound site occupants were affiliated with the local Radford culture, the majority of artifacts should be associated with this culture. Second, if Mississippian artifacts are present, they would not occur in large quantities; further, the interpretation of their motifs might differ, either in execution of the motif, the context in which it is found, or both. Regionally, in a general sense, sites closest to the Mississippian heartland should have more Mississippian artifacts than sites farther away, exhibiting a distance fall-off from the center of exchange. If exchange was balanced, then

Radford culture artifacts should be found in approximately equal amounts in Mississippian sites in Tennessee and Georgia. Settlement would lack the distinctive architectural grammar common in Mississippian sites, most notably a mound, and houses would lack architectural details such as wall trenches during the earlier site occupation. Daub is rarely found at Radford sites. Subsistence would be more varied, indicating a decreased intensity of agricultural activity and greater reliance on hunting and gathering and horticulture.

Distinguishing the cultural affiliation of the Carter Robinson site inhabitants will be undertaken with the knowledge that these are general guidelines. Because the Carter Robinson site is a frontier, where, as discussed in Chapter 3, identities are often reformulated, some variation should be expected in the expression of identity with either Mississippian or Radford cultures. This might be most apparent in nonutilitarian items and their uses (i.e., contexts) where elites might co-opt certain ideas and alter them to fit local needs. This would probably be more common if the inhabitants were affiliated with the Radford culture rather than the Mississippian culture. At Olmec sites, Sharer (1989) found that compared to the Olmec heartland, the southeastern Olmec periphery's interpretations of Olmec motifs differed substantially. Overall, however, the larger picture of all artifact types, their context, combined with architectural grammar, collectively should identify the cultural affiliation of the Carter Robinson site.

### **The Nature of the Carter Robinson Frontier**

The nature of the frontier site of Carter Robinson depends in large part upon its cultural affiliation. As a frontier of Mississippian cultures on the eastern front, Carter Robinson would have faced different challenges and opportunities than if it were a western frontier of Southwestern Virginia Radford cultures. Regardless of which culture

the site was affiliated with, changes in power relations on multiple scales (local, regional, multi-regional) occurred over time. Further, as a frontier, this site interacted with different groups of people from different areas, and as a result, its identity changed over time. All of these factors played a part in creating the frontier site of Carter Robinson.

As a Mississippian culture frontier, the Carter Robinson site would have been one of the northeasternmost mound sites of the Mississippian world. Expansion into this area could have occurred for a number of reasons. Population growth in the eastern Tennessee region may have limited resource availability, prompting population movement to the east. However, this is not likely because archaeological evidence does not suggest such resource limitations occurred. Another reason for movement into southwestern Virginia may have been trade. Parker (2006) identifies trade areas as economic boundaries of borders. In analyzing such economic borders, we need to take into account “the modes and intensity of the exploitation of those materials, the means by which such materials are converted into finished products, and the effects that shifting economic boundaries may have on frontier societies and ecosystems” (Parker 2006:86). Perhaps just as important for the southwestern Virginia region, if Carter Robinson was a Mississippian frontier, is that “the remains of imports in a borderland may illuminate economic networks that linked remote frontier regions with larger interaction networks” (Parker 2006:86). The items that may have been of interest to Mississippian groups, to the extent that they were willing to physically move a portion of their population to a more viable location for control of resources, include salt, cannel coal, native copper, and shell gorgets.



A third reason for location to the southwestern Virginia region may have been to solidify existing relations with groups already there; however, this begs the question of why such relations would need solidification. Avoidance of warfare may have been a factor. Establishing peaceful relations as a way to avoid costly wars that chiefs could not be assured of winning would have meant stabilizing the frontier by settling it. Related to this may be that Mississippian chiefdoms were settling in the region as an offensive move, to establish power there as a show of force, again to avoid war or aggressions.

As a frontier of Radford culture, the Carter Robinson site may have been seeking to extend its trade network while retaining control of trade resources. Reasons for such an expansion may include the desire to increase power in the region, or as an expression of increasing institutionalization of hierarchy. It may also have been an act of hostility, moving toward the more powerful Mississippian chiefdom areas as a way to show power. If these reasons were the case, there would need to be evidence of increased power differential at other sites in the region as well as at Carter Robinson.

Carter Robinson, as a frontier of either Mississippian or Radford cultures, changed over time. Over the course of its occupation, it did not lose its frontier status. As discussed in Chapter 2, frontier areas tend to allow more malleable identities to be forged among the inhabitants. The nature of the frontier, the reasons for the site being occupied as a frontier, may have changed over time, as a result of changes in power in Mississippian chiefdoms, Radford cultures, and within the site itself. This project seeks to identify these changes over time at the site, and understand how outside forces affected and were affected by these changes. Specifically, it seeks to identify any changes in the

way hierarchy was institutionalized at the site over time, and how power relations there changed.

### **Craft Production/Craft Specialization**

As already stated, one primary function of many frontiers is the production and trade of craft goods. In the case of Carter Robinson, this appears to be a primary function of this site. Evidence for this is twofold. First, the site is located in a risky environment for intensive corn agriculture. That is, this area is less likely to have 200 frost-free days on an annual basis, necessary for intensive, annual corn production. Additionally, there are few river bottomlands, the preferred Mississippian settlement locations. Although wide rivers are present, including the Powell and Clinch, these valleys are constrained by high flanking mountain ridges. Both climate and arable land are diminished in southwestern Virginia. Second, the area does contain natural resources valued by Mississippian chiefdoms. These include salt, from Saltville, and smaller, closer saltlicks; copper from the surrounding mountains; cannel coal; and possibly foods limited to mountainous environments such as bear and wild berries. The combination of these two factors suggests that the reason for settlement at Carter Robinson, if by Mississippian groups, was to take direct control of the procurement and trade of natural resources available. If settlement was by Radford groups, the second reason, the presence of abundant natural resources valued by Mississippian groups, was probably the primary reason for settlement there. Radford groups did practice horticulture, although not intensive corn agriculture, and so the environment which would have seemed risky to Mississippian groups posed less risk for Radford groups.

If craft production rather than intensive corn agriculture was the primary reason for the settlement of Carter Robinson, then this would have defined the economic basis of

most if not all households at the site. Production of craft goods for trade would have been a major emphasis. Households would have made the goods, and this production included procuring raw materials and organizing other members of the group to produce and trade these goods. This type of production may have been part-time. McKillup (2002) suggests that Mayan frontier groups produced and traded salt as an off-season activity when agriculture was not a primary concern of the village. It is possible that craft production at Carter Robinson was also a supplemental, seasonal task. This may have been necessary because of the risky environment for intensive corn agriculture. It is important to note that craft production rather than specialization was occurring. Craft specialization implies that full-time specialists are needed to produce particular goods; they are usually attached to a person of elite status who then owns and trades these goods. Craft specialization is possibly seen at Cahokia, but this is of debate. Craft production implies that there were no full-time specialists producing goods; rather, all members of the society likely produced goods and as stated, it may have been an off-season activity.

As a craft production and trade center, Carter Robinson would have differed from other Mississippian chiefdoms or Radford settlements because these were its primary reasons for being. The nature of frontiers is that, although they are affiliated with a centralized authority, they are physically separate from it, and often lack a centralized governing authority on site. As a frontier of Radford settlements, this would have been typical of Radford political organization, which lacked institutionalized hierarchy. Indeed, if Carter Robinson is a frontier of Radford settlements, this suggests a level of hierarchy and organization not evidenced elsewhere in the region, except possibly in the Saltville vicinity. Such a void of centralized control might allow certain individuals,

aggrandizers, to step into the role of overseeing production. As a result, some form of hierarchy may have emerged and over time become institutionalized, as Barber and Barfield have suggested for the Saltville region.

If Carter Robinson is a frontier of Mississippian chiefdoms, it is likely that settlement of the site occurred because either it was mandated by an existing chief, or a group broke off from a mother village and settled there because of an aggrandizer. If the latter, it is possible that the void of central government allowed an aggrandizer to oversee production and trade and increase his/her own power. If the former, the existing aggrandizer would have overseen production and trade from the start. In such an instance, hierarchy might become more institutionalized over time as production and trade became more successful.

Whatever the circumstances that led to the establishment of the site, the emergence of aggrandizers, or the increased power of an aggrandizer, would have changed the nature of Carter Robinson as a frontier site. Instead of acting as a peripheral site, its power may have increased because of the increased market for its goods, a market it very well may have created. As the frontier itself became a site of more centralized government, it may have become more distanced from the original core and emerged on a more equal footing with it. At the same time, hierarchy would have become more institutionalized at the frontier itself, as the aggrandizer and those related to him/her increased their power and control over production and trade of goods. Indeed, what appeared as craft production may have eventually taken steps toward craft specialization. Activities may have become more restricted, and certain genders or age groups limited in their range of activity.

Identifying the formation of a frontier at Carter Robinson through archaeological remains involves three main lines of evidence: subsistence, craft production, and trade of goods. First, if analyses of paleoethnobotanical remains suggest that intensive corn agriculture was not practiced by inhabitants of the site, this is supporting evidence that Carter Robinson was primarily settled for craft production and trade. This would be strengthened if other food remains suggest that some subsistence was obtained from outside the region.

Second, if there are similar indicators of craft production (cannel coal chunks, copper fragments, salt pans) in all households and in the same general context within those households, this suggests that most households participated in making goods. That is, craft production was occurring (not craft specialization) and this was not very centrally organized. Conversely, if artifact remains indicate the presence of workshops located either in restricted areas of the site, possibly unaffiliated with households, or occur only in certain households, this would suggest that workshop areas were used to produce goods. The presence of workshops in certain contexts, particularly affiliated with larger households and/or those located nearest the mound, suggests control of production also occurred.

Third, if extralocal trade goods made of similar material with similar decoration are found in the majority of households across the site, regardless of location of household with relation to the mound, and found in the same general context within most households, this would suggest that most households had equal access to extralocal trade goods. If extralocal goods are present, but are found in isolated contexts, and particularly in households that are larger than the majority of households and/or are located closer to

the mound, this would suggest that only certain individuals controlled trade of produced goods.

As a frontier of either Mississippian or Radford cultures, Carter Robinson would have differed from the core because of its frontier status. If a Mississippian frontier, such differences might manifest as less hierarchy as a result of a more decentralized political economy. This might be visible in a similarity of trade goods across the site within households. Households would likely be the same size, and contain the same artifacts, regardless of location near mound. Mound remains would reveal evidence of communal activities such as feasting, because such activities would reinforce a less hierarchical structure within the community. There may also be evidence of emerging hierarchy over time in certain households. At frontier societies there are more opportunities for aggrandizing, particularly if trade is a primary reason for settlement of the frontier. At the same time, communalism might be emphasized in certain ways to maintain the tension between heterarchy and emerging hierarchy. Such emphasis might take the form of multiple families sharing space within households, or similarities in diet across households at the site.

If Carter Robinson is a frontier of Radford culture, similar circumstances might occur. However, it may be more likely that a decentralized political economy is maintained because the core culture is less hierarchical in general. Again, though, aggrandizers may take advantage of opportunities presented at the frontier to increase wealth and power and create differences within the society. Overall, there may be little difference in what the frontier looks like once established, whether allied with Mississippian or Radford groups. Additionally, the nature of the frontier is apt to change

over time, as a result of increased importance of trade goods to Mississippian groups and the resultant increased importance of frontier sites like Carter Robinson where trade is the primary economic task.

### **Importance of Studying Frontiers**

The study of this site is important regionally because it investigates the presence of late prehistoric mound sites located at the edge of the Mississippian world, and seeks to identify their cultural identity and the role they played in the political economy of not only Mississippian and Radford cultures, but other cultures as well, including Pisgah and possibly Fort Ancient. Beyond this regional scale, and its importance for better understanding the function of Mississippian chiefdom political economy, this study is important on a larger scale in both an archaeological and anthropological sense.

First, the study of the Carter Robinson site and the larger issues surrounding its identity and role during the late prehistoric period is an examination of a case of culture contact and resulting changes within both core and periphery using archaeological evidence. Many studies, especially of late, have examined present-day cores and peripheries, but few studies have examined them archaeologically, and fewer still have examined them in a systematic manner in not only North America, but particularly in the Mississippian Southeast. This is important because institutionalized hierarchy was present for a few hundred years only in the Southeast before contact. By studying the frontier of this area, we can better understand how institutionalized hierarchies form, particularly the factors present in their formation. Further, because we have good long-term data on Mississippian chiefdoms, we can study the frontier and identify the relationship between the core and the periphery. Specifically, we can identify changes in the core and the periphery that affect one another, and ultimately see the effects of these

changes on a large scale. This approach sees peripheries as more than passive recipients of cores; rather, peripheries can be viewed as having agency as well as cores, and as a result, their actions can have repercussions on the core. Using archaeological data from both regions, we can begin to chart such agency on both sides, and see these repercussions.

Archaeologists have begun to understand that chiefdoms are inherently unstable, but reasons for such instability have been primarily viewed as internal problems. Instability might arise from peripheral areas, some under the control of the core itself. This is because the frontier is not a constant unchanging presence. Rather, the frontier, perhaps more than the core, changes over time. Reasons for initial settlement of the frontier may be altered by changes in both natural resources and political organization across a wide landscape. The frontier is dependent on the core initially, but if some individuals at the frontier gain power, possibly through actions like trade, the nature of this dependence changes, sometimes drastically. At the least, the relationship becomes more equal and as a result, the core is affected by the actions of the frontier. In some extreme instances, the frontier might accrue power enough to rival or threaten the core. Therefore, the frontier is an important consideration toward understanding the nature of chiefdom instability.

This study provides archaeological evidence of the formation of a frontier and the changes that frontier undergoes over time, approximately 350 years. The important change is the emergence of the institutionalization of hierarchy. The frontier allows us a window into this emergence that provides an opportunity to understand some of the factors pivotal in chiefdom formation, because as Parker states (2006:77) “nearly all parts



of the world were, at some point in their history, in some way connected to, or defined by, a frontier.” Also, many frontiers became cores, as Kopytoff (1987) elaborates. Therefore, examining archaeological evidence of the formation and progression of a frontier from an isolated settlement into an institutionalized hierarchy can provide us with an example of chiefly formation. In a larger sense, this provides us with an example of the formation of hierarchy and its institutionalization. The institutionalization of hierarchy is a process that occurs cross-culturally around the world at different times, and is an important change in human social organization. However, by neglecting the frontier, particularly in the Mississippian world, we may be missing important information toward understanding how this formation and institutionalization occurred.

One key factor in the emergence of hierarchy in frontiers is craft production and trade of goods. Frontiers are often areas settled because they contain specific natural resources that require full-time oversight to procure, process and trade. Often frontiers are zones where multiple types of resources are found or at least where the trade of multiple resources crosses paths. One theory of chiefly formation suggests chiefs utilized a networking strategy to increase and maintain power. Central to this networking strategy was access to and control of exotic goods. Frontiers are important in the formation of power by chiefs because they provide such goods. In fact, the settlement of frontiers may be a method used by some aggrandizing chiefs to directly control the procurement, manufacture, and trade of certain goods. However, at the same time, frontiers are located some distance from the core, and it is difficult for chiefs to exercise daily oversight of this process. As a result, the leaders directly in charge of the process can use the same methods to increase their own power, thereby usurping power from the core. In this way,

the relationship of the frontier and the core is altered, to a more level playing field, with both sides exercising agency. Central to this shift in power is the control of trade goods at all stages: procurement, manufacture/production, and exchange. Studying this process of craft production, and also understanding changes within the region over a long period provides a framework for identifying this shift in power relations between core and periphery, and the subsequent change in the nature of power at the frontier.

### **Conclusion**

The following chapters address the questions laid out here. First, to establish the cultural identity of the Carter Robinson inhabitants, Chapter 5 reconstructs the settlement and occupation history of the site. Specifically, Chapter 5 will use radiocarbon dates, shovel test data from the entire site, and excavation data collected from behind the mound and from the four occupation areas to identify when the site was settled, how it grew over time, and when it was abandoned. This examination will also address the ways in which Carter Robinson functioned as a frontier settlement. Chapter 6 examines the site's ceramic artifacts to reconstruct activities within occupation areas, and to compare the variation of activities among the occupation areas. Combined with the architectural data, this will provide a comparison of activities within domestic spaces, and identify any spatial or temporal variation in those activities, i.e. differences in domestic activities with regard to the location of houses to the mound. Chapter 7 addresses the role of craft production in the formation and identity of Carter Robinson as a frontier site. Specifically, shell bead manufacture, cannel coal item manufacture, and the production of other items such, as palettes, will be investigated. If possible, activity areas will be identified for the production of these goods, and these areas will be compared over both time and space to identify changes in the location and organization of production at the

site. Chapter 8 examines all of the data discussed, to define different households and their functions, and together these data will allow me to define how Carter Robinson functioned as a frontier chiefdom. This chapter also addresses how Carter Robinson interacted with both Radford and Mississippian groups in the greater region, and how these relationships may have changed over time. Finally, this chapter concludes with a discussion about what we can learn from archaeological remains of frontier sites at the edge of hierarchies, specifically, how such studies can assist us in identifying factors in the formation of hierarchy.

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## **Chapter 5. Site Occupation History & Architectural Analysis**

This chapter uses architectural data to identify the cultural affiliation of the inhabitants of the Carter Robinson site. The site's occupation is reconstructed using geophysical, shovel test survey, mound test unit and village block excavation data. The inhabitants' cultural affiliation is identified through an examination of the archaeological correlates present for either Mississippian or Radford culture. Examining the site's identity as a frontier and how that frontier changed over time is done through an analysis of diachronic changes in site use, specifically, changes in the use of the mound and village buildings. This chapter first briefly describes the excavation methods used at the site. Second, the shovel test survey results are discussed to present an overview of site settlement over time. Third, mound construction and occupation data are presented. Finally, results of the excavation of four structures identified are discussed, in chronological order of construction and occupation. These data are compared with data from contemporaneous sites in the region, which allows for the determination of the site's cultural identity. By understanding how and when changes in site activity occurred, the role of this frontier site in the greater region during the thirteenth century is better understood.

### **Excavation Methods**

Excavations began in 2006 and continued through 2008. Field methods included geophysical testing of select portions of the site; intensive shovel testing of the site; test unit excavation behind the mound; and test unit and block excavation of three separate structures within the village area. Each of these methods is described here.

## **Geophysical Methods**

Based on preliminary shovel test data conducted in 2006 (described below), site topography, and local informant information, nine 20-x-20-m grid units were placed in locations around and on the mound (Figure 5.1) in 2007. Conductivity and magnetic gradiometry were used on all the units; ground-penetrating radar was used on Units 1 and 6. The primary goal of the geophysical work was to identify village remains, specifically structures if present, for more extensive excavation. Second, geophysical work on the mound was done to identify the presence of a structure and/or ramp. Additionally, intact deposits had been identified east and south of the mound through shovel test survey. A third goal of the geophysical survey was to identify the extent of these deposits across the site in both mound and non-mound areas, and to investigate a small topographic rise located approximately 80 m east of the mound.

Both an FM 256 fluxgate gradiometer and an EM38A earthen conductivity meter were used in the survey of the nine 20-x-20-meter grid units due to their comparable attributes (Clay 2001). Transects in the gradiometer survey were placed one meter apart with a 0.25-m collection density. EM transects were also placed one meter apart, with a sample density of 0.5 m. In addition, GPR survey was conducted on two grid units (1 and 6) with a Mala Geoscience CUII Geosystem and an 800 mhz antenna. The use of GPR at Site 44LE10 was adversely impacted by the presence of waist-tall grasses, in conjunction with a shallow antenna. However, where GPR was used, data collection followed a 0.25 m transect separation strategy.

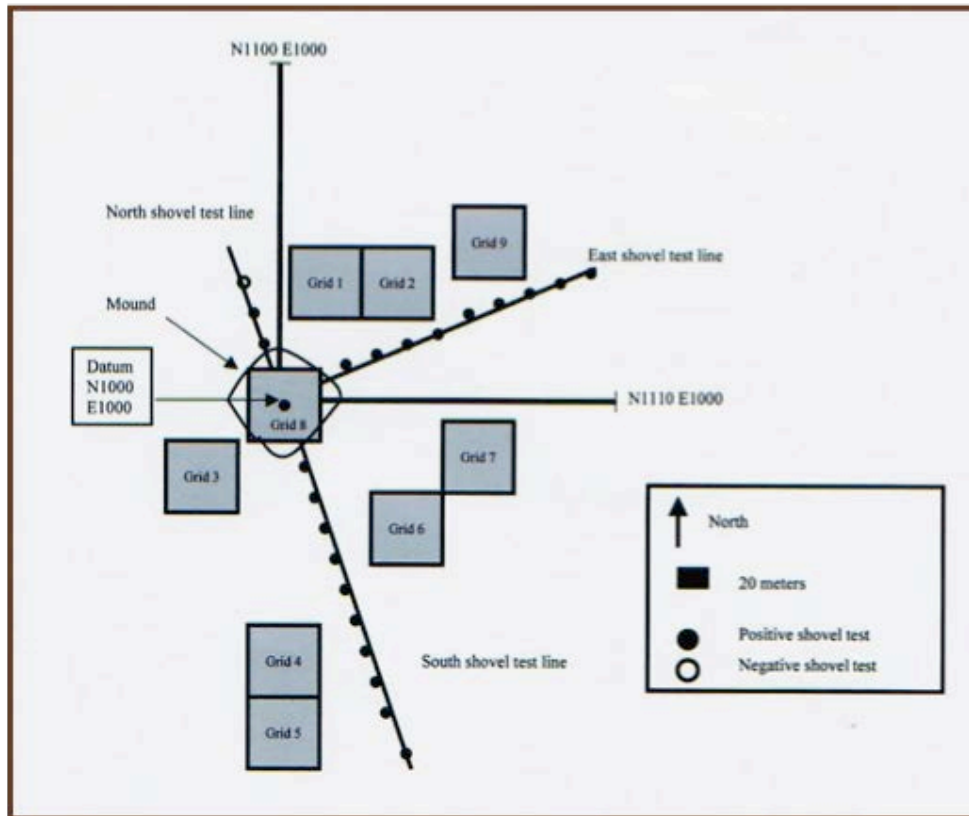


Figure 5.1. Plan view of geophysical grid unit locations at Site 44LE10.

### **Shovel Test Survey**

Shovel tests were excavated initially to identify approximate site limits and gain an understanding of site stratigraphy. More intensive shovel testing during the second excavation season more precisely defined site boundaries. Shovel tests were identified by arbitrary transect lines labeled A-L. Each line was located 10 m apart. The shovel test transects started southwest of the mound, at the edge of a topographic decline (to the west) and a tree line along an old streambed (to the south) and proceeded north at 10 m intervals.

Shovel tests measured approximately 30 cm in diameter, and soils removed were screened through ¼"-mesh hardware cloth. Depths of shovel tests were recorded with reference to ground surface. Descriptions of soil texture and color followed standard terminology and the Munsell (1994) soil color charts. All shovel test data was recorded on standard forms and test locations were recorded on site maps. Shovel test locations were recorded using a Leica TC305 Total Station.

Shovel tests were excavated stratigraphically. All artifacts were bagged and numbered by grid provenience (transect letter and number) and stratum. Ten centimeters of culturally sterile subsoil were excavated whenever possible to ensure that all buried cultural deposits were identified. To ensure that the subsurface site boundaries corresponded to apparent surface features, shovel tests were excavated until two negative shovel tests were encountered at all boundaries of the site, when possible.

### **Test Units**

Test units were excavated where previous surface investigations, geophysical survey, and/or shovel tests indicated concentrations of archaeological materials. Additionally, two test units were placed at the southern and western flanks of the mound.

The primary goal of test unit excavation was to examine site stratigraphy, and increase the potential for examining cultural features from a more controlled context.

Test units usually measured 1 x 2 m; occasionally, 1-x-1-meter test units were excavated, as well as one 2-x-2-meter unit. Levels of test units were excavated either arbitrarily, in 10-cm levels, or following natural stratigraphy. Arbitrary levels were used in areas where the stratigraphy was unknown. Stratigraphic levels were used in areas where the stratigraphy was known. Both methods were sometimes used together in one test unit. In these instances, the plowzone was removed as one stratigraphic level, and arbitrary 10-cm levels were excavated into the subsoil. Each level was screened through ¼"-mesh hardware cloth, and artifacts were bagged by level. All test units were drawn and photographed in profile and/or plan view following termination of excavation. Each corner of every test unit was recorded using a Total Station.

Test units were excavated in four areas. Three of these were located in areas identified by geophysical survey as containing anomalies worthy of more intensive excavation. Each of these areas were found to contained the remains of a structure(s). As excavations in each area increased in size, these areas were designated as blocks, and were ordered numerically as Blocks 1, 2 and 3. Test units were also placed on the western and southern mound flanks. Research by Williams (1999) at mound sites in central Georgia identified these areas as places where remains of feasting and mound-related activities were located. In other words, remains from mound activities atop the mounds were often thrown behind the mound. Because mound excavations were undertaken before shovel test excavations identified the site boundaries, and more specifically, the general village layout, it was not clear which direction (either east or north) constituted



the front of the mound. Therefore, both western and southern test units were excavated to identify any remains from mound activities. Each mound test unit measured 1 x 2 m, and these were placed so as to identify mound construction edges, if possible. Both mound test units were excavated 17 m from the approximate center of the mound summit, which for both sides constituted an approximate mound edge. The test units were excavated to sterile subsoil, an approximate depth of 1.25 m.

### **Zone and Feature Excavation**

Excavation of features proceeded in zones. Zones were numerically designated per block, and each block maintained a zone log. Zones were identified based on differential soil color and/or texture from surrounding matrices. Zones were described on standard forms. Soil color and texture were recorded, and a plan view map of each zone was drawn pre- and post-excavation. Depth of each zone was recorded post-excavation. A 10-L sample of each zone was collected for flotation analysis if possible. Soil from each zone was screened through ¼"-mesh hardware cloth and the soil was bagged per zone. If zones were deeper than the arbitrary 10-centimeter level used in test unit excavation, levels were assigned to zones following the 10-cm arbitrary designation. Each level in each zone was screened separately, and recovered artifacts were retained with reference to both zone and level. Features were photographed pre- and post-excavation. Plan views were drawn of each feature pre- and post-excavation, and profile views were drawn post-excavation, if possible. Some features were initially bisected to identify depth and stratigraphy, and then, time permitting, completely excavated. Features types excavated included postholes, pits, and hearths; no burials were encountered during excavations.

### **Mechanical Excavation**

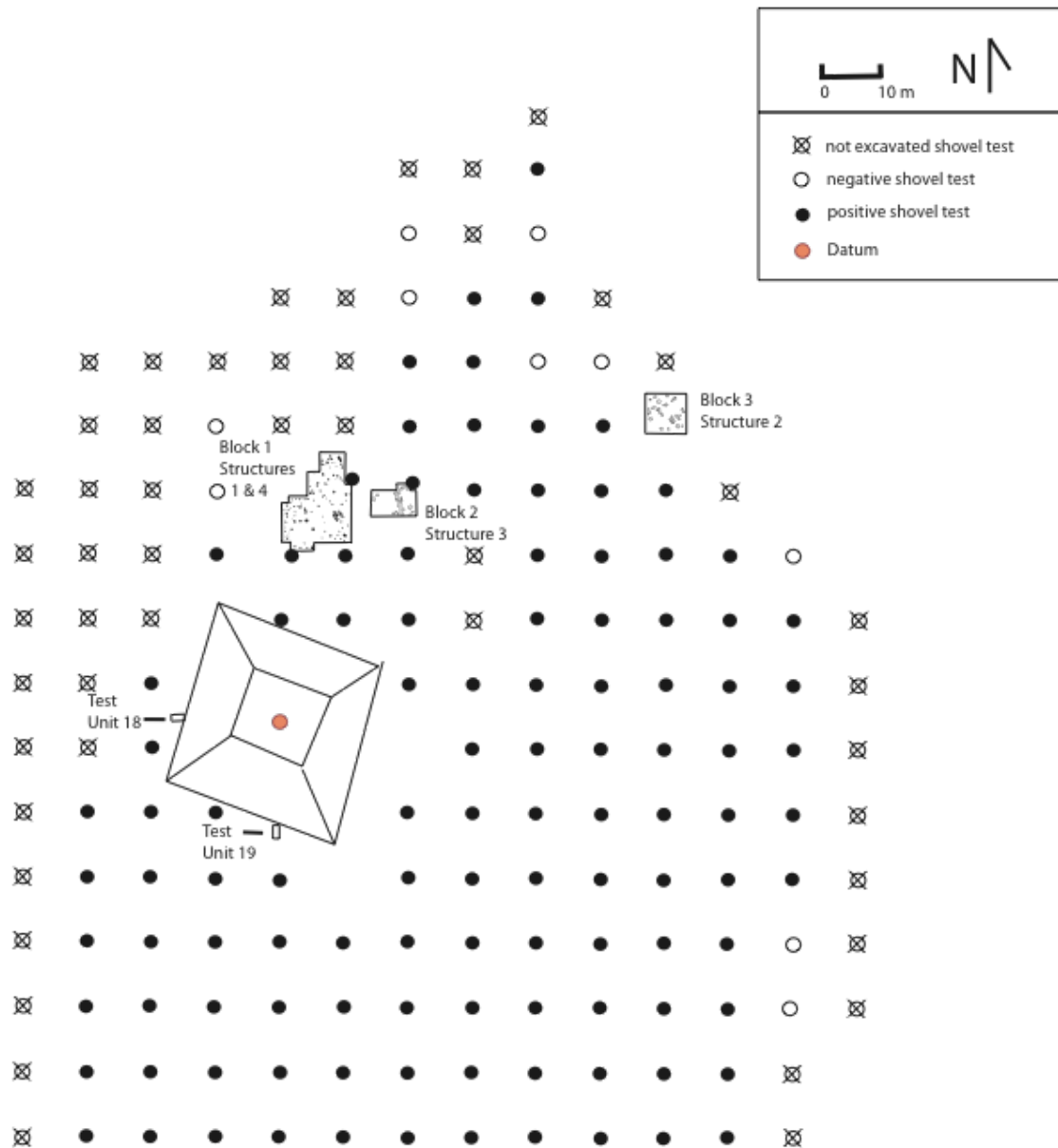
Initial test excavation north of the mound quickly uncovered a partial line of postmolds that appeared to be a structure edge. In order to more fully identify this structure, a larger area needed to be uncovered. Because excavation had identified features visible below the plowzone, or approximately 30 cm below ground surface, a flat-lipped backhoe was used to scrape the plowzone off an area measuring approximately 12 m (north-south) by 10 m (east-west). This area was shovel scraped to clean off any remaining plowzone. The block was then gridded with string at a 1-m interval and entirely mapped. Features identified during mapping were numbered and photographed, and a sample of these features was selected for excavation. Elevations of the block were recorded at 1-m intervals using a total station.

### **Shovel Test Survey Results**

As described above, systematic shovel testing was completed across most of the site to identify site boundaries, areas of high artifact density, the spatial and temporal layout of the village, and to assist in defining the architectural grammar of the site. A total of 117 shovel tests were excavated across the site at a 10-m interval (Figure 5.2)<sup>4</sup>; of these, 109 contained a total of 2,698 artifacts, and 72 g of daub (Table 5.1). Artifact density varied across the site in recognizable patterns (Figure 5.3). First, shovel tests in an area east of the mound that is approximately 40 m<sup>2</sup> had a low artifact density, with shovel tests that contained 10 or fewer artifacts (Figure 5.3). The lack of artifacts in this area suggests an open, cleared area was present here, such as a plaza. Mississippian plazas were often kept clean, with accumulations of artifacts found at its edges.

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<sup>4</sup> Note: Some shovel tests could not be excavated, per Virginia Department of Historic Resources (2008) guidelines, due to excessive slope.



**Figure 5.2. Schematic view of excavations at Site 44LE10, showing mound, shovel tests, block, and test unit excavations.**

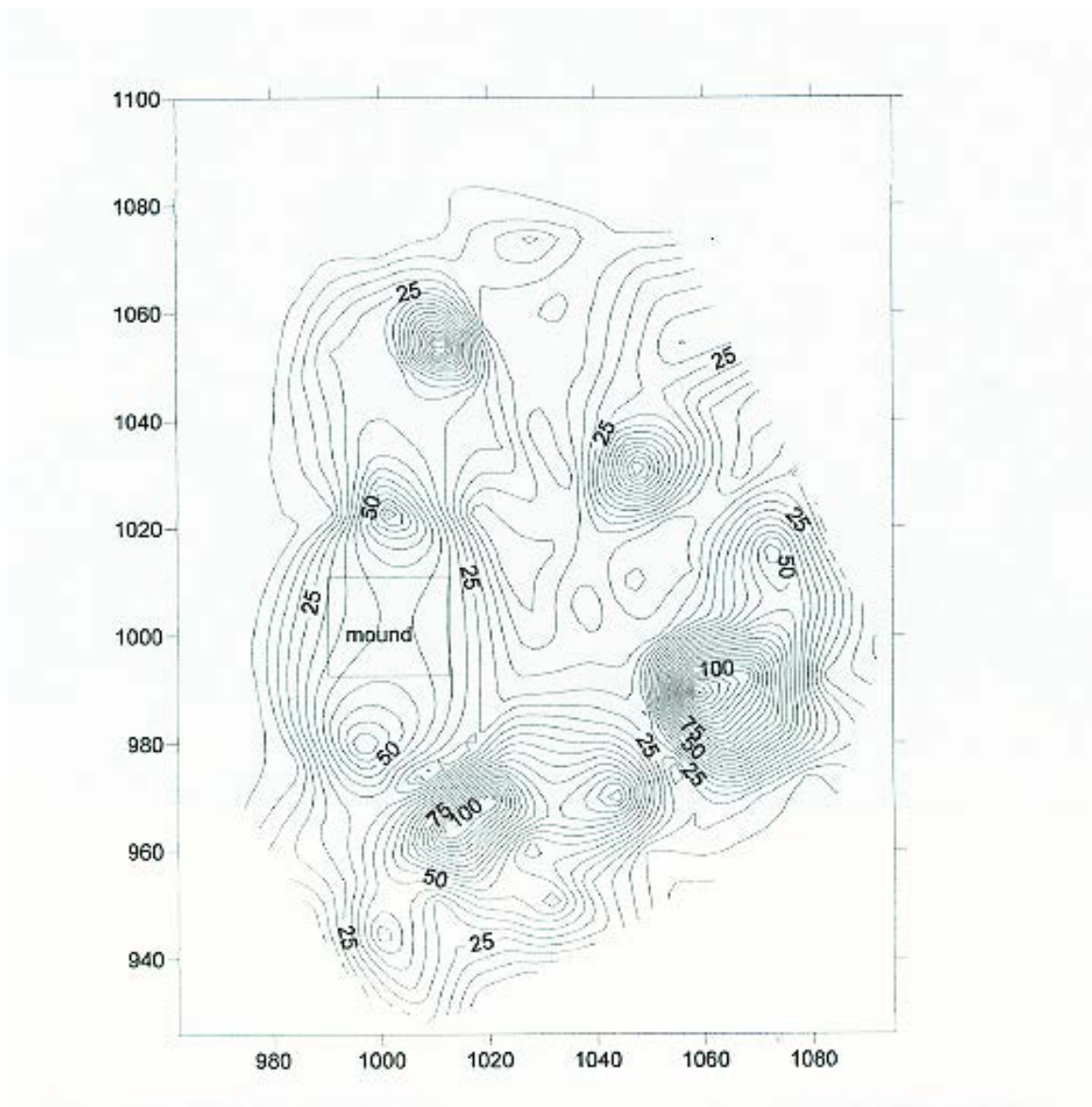
Note: unexcavated shovel tests were located on excessive slope.

**Table 5.1 Count of Artifact Types from All Shovel Tests.**

<b>Artifact Type</b>	<b>Count</b>	<b>Percent of Total</b>
Ceramics	822	31%
Lithic Debitage	1,138	43%
Tool Fragments	4	<.01%
Animal Bones	688	26%
Chunky stone	1	<.01%
Daub	72 g	_____
<b>TOTAL*</b>	<b>2,653</b>	

\*excluding daub

Areas of the site having high artifact density, between 40-120 artifacts per shovel test, are located across the site. One concentration is located south of the mound, between the mound and a now-dried creek bed located approximately 45 m to the south. The higher artifact density in this area corresponds with data obtained through geophysical testing, which showed an area of burned clay and possible pits located here. A second area of high artifact density is located approximately 40 m southeast of the southeastern corner of the mound. Geophysical survey of this area identified at least two large areas of burned soil that resemble structure outlines. A second, smaller area is located approximately 40 m east of the eastern edge of the mound. This area measures only about 10 square meters size but contains a heavy artifact concentration. This area is located about 10 m southeast of Structure 2, described below, and may represent the remainder of this structure that was not uncovered during excavation. A third concentration is located



**Figure 5.3. Contour map based on the density of artifacts from shovel tests.**

north of the mound Finally, one shovel test, located less than 10 m from the northeastern edge of the mound, had a high (around 100 artifacts) artifact density.

This artifact density plot of the site area suggests that a plaza was present on the eastern side of the mound. The low density of artifacts in the plaza suggests that it was maintained as an area clear of settlement (i.e. houses) throughout the duration of site occupation. The artifact density plot also suggests that multiple structures are located across the site, and that they surround the combined architectural pair of mound and plaza.

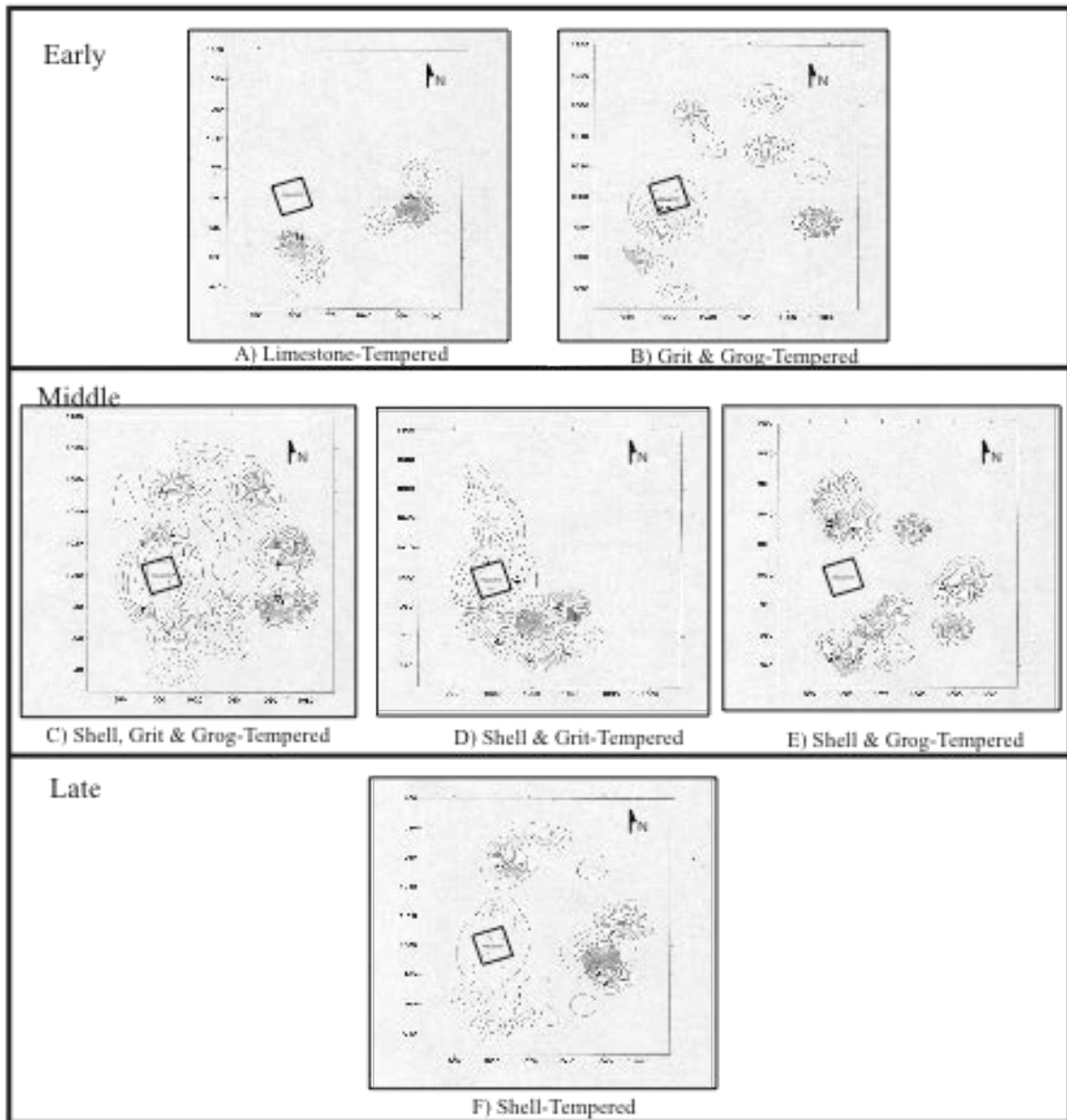
A plot showing the distribution of temporally diagnostic ceramic artifacts from the shovel tests was used to explore the temporal variability of site use during the Mississippian period. Also, a plot of the depth of the A horizon of shovel tests was done. Although all shovel tests contained a midden layer immediately below the plowzone, the density of the midden varied across the site. It is assumed that longer-term occupations would result in thicker middens; therefore, deep (over the average depth of 29.45 cm) shovel tests which contained early Mississippian artifacts were also plotted as indicators of early and late occupation areas.

Although Chapter 6 describes the temporal variation of ceramics in greater detail, both radiocarbon dates and stratigraphic data from the mound test unit excavations enabled me to identify changes in ceramic temper over time at the site. In the earliest stratigraphic layers, grit, grit and grog, limestone, and limestone mixed with either grit or grog are the most common temper types; shell tempering either does not occur or occurs in very low frequencies. The lowest level that contains these tempers dates to between cal A.D. 1254-1299  $2\sigma$ , approximately 60 cm below ground surface.

The upper layers of the mound test units are predominantly shell temper, with some mixture of shell and grit and/or grog found occasionally. Limestone temper is not present in these upper levels. In general, grit, grog, and limestone tempers, or some combination of these types, were used between A.D. 1250-1275. Shell was mixed in with these tempers beginning around A.D. 1275, and likely became the dominant or sole temper after A.D. 1300.

With this understanding of change in ceramic temper over time, these different temper types were plotted using the shovel test data (Figure 5.4). Tempers used early in the occupation, namely limestone and grit and grog, are located in specific areas. Limestone-tempered ceramics are found in two concentrations south and east of the mound. Grit and grog-tempered ceramics are distributed more widely, and found southwest, south, northeast and north of the mound.

The middle period of site occupation is represented by ceramics that contain mixed tempers of shell with either grit or grog, or all three tempers together (see Figure 5.4). Sherds tempered with shell, grit and grog were recovered across the site, but are most heavily concentrated approximately 50 meters east of the mound. There are less dense concentrations north and northeast of the mound, and southeast of the mound, as well as around the northern and southern mound edges. Shell and grit-tempered sherds are concentrated primarily southeast of the mound, and are restricted to the western and particularly southwestern part of the site. Shell and grog-tempered ceramics are found in three areas: south and southeast of the mound; east of the mound, and north/northeast of the mound.



**Figure 5.4. Contour map of ceramic types recovered from shovel tests at Site 44LE10.**



A comparison of earlier and later temper types shows that certain ones are restricted in space. Most notably, limestone-tempered ceramics are found in two locations, south and east of the mound, whereas grit and grog-tempered ceramics are found across the site. After shell is introduced as a temper type, shell and grit-tempered ceramics are restricted to the western part of the site, around the mound, and most predominantly south of the mound. Shell and grog-tempered ceramics are common across the site, although where they appear they are concentrated, suggesting they may be tied to certain structures or localities. Shell, grit, and grog-tempered ceramics are more generally found across the site.

The later period of village occupation is identified through predominantly or solely shell-tempered pottery. Shovel tests with sherds that contained only shell-tempered pottery are concentrated in two areas (see Figure 5.4). One area is north of the mound. Three shovel tests in this area contain over 80 artifacts, and two of the shovel tests have multiple cultural layers. This area is about 50 m long and pottery is fairly dispersed, which may indicate multiple structures or occupations. A second area is also large, and is located about 30 m east of the mound. It is about 40 m wide north-south and 30 m wide east-west. Three of the shovel tests in this area have over 80 artifacts, and one has multiple cultural layers. Four shovel tests in this location also contained earlier ceramic pottery types, evidence of continuity in occupation in this portion of the site. In addition to these two areas, there is a dispersed pattern of shell-tempered pottery around and south/southeast of the mound, marked by pottery found in ten shovel tests. Of these, four contain more than 80 artifacts, and three contain multiple cultural layers.

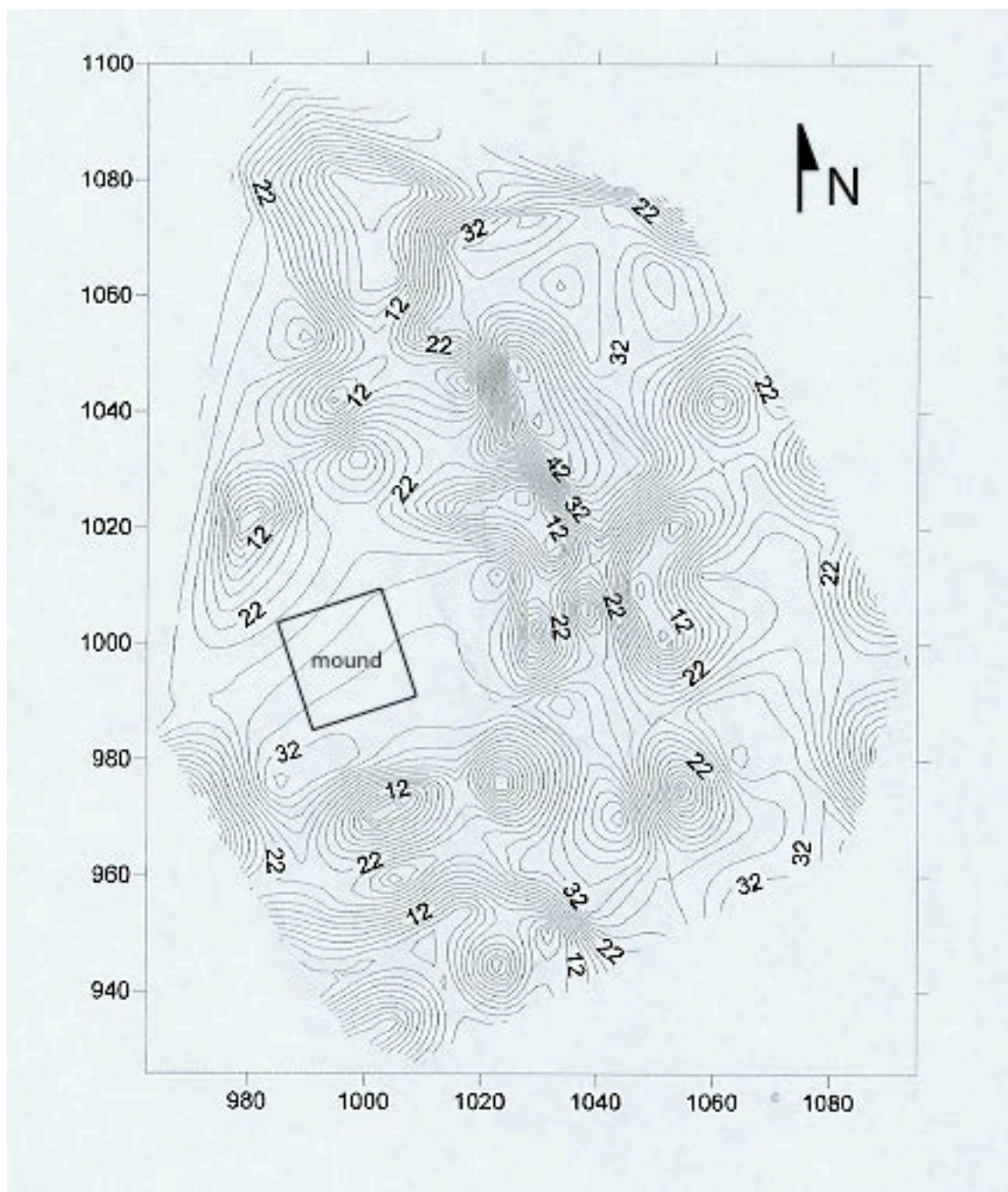


Figure 5.5. Contour map of depth of 'A' horizon in shovel tests at Site 44LE10.

The depth of the A horizon, which represented the midden in the shovel tests, was concentrated in specific areas across the site as well, and when combined with the ceramic data discussed above, clarify areas of occupation (Figure 5.5). Thirty-five of the 117 shovel tests, or 30 percent, contain A horizons deeper than 30 cm (average A horizon depth was 29 cm). Of these 35, 12 (34 percent of deep A horizon shovel tests and 10 percent of total number of shovel tests) co-occur with ceramics with early Mississippian temper inclusions. For the most part, these are found in three clusters across the site. One cluster is located directly south and southwest of the mound. Two shovel tests in this cluster are located less than 10 m from TU 19 which contained early structural remains (see below). This concentration may be an extension of this mound flank structure.

A second concentration is located approximately 35 m southeast of the mound. In this cluster are five shovel tests with more than 80 artifacts, and there is evidence of features in these same shovel tests. It would appear that an occupation of some type was concentrated in this area, which is approximately 50 square meters. Based on its size, it may be that two structures were located here.

A third cluster is located approximately 20 m directly east of the mound. Here, six shovel tests contained both deep A horizons and early ceramic pottery types. Of those six, four contained more than three distinct soil levels, and one contained remnants of a feature. The large area encompassed by this cluster is 60 square meters, which suggests multiple structures may be represented here. This is further supported by additional evidence. In the southern portion of this cluster, four shovel tests contain both early ceramic types and thick A horizons. In the northern portion are two shovel tests with more than 80 artifacts and one with a possible feature. The center of the cluster contains

four shovel tests with multiple soil levels. This clustering of attributes suggests that an earlier structure or occupation of some sort was first located in the southern portion of this cluster, and a later occupation in the northern cluster. Distinctive about this southern portion is the fact that it is located directly over the presumed plaza location. As stated above, the plaza was assumed to be present during all occupations of the site based on the low number of artifacts found in the area directly east of the mound. Although not many artifacts were collected in this area, it is possible that during the early part of site occupation, a structure was present here. Later, when a plaza was used, this area was swept clean of artifacts, resulting in the low artifact density.

One isolated shovel test contains both a deep A horizon and early ceramic pottery types. It is located directly north of the mound, near where geophysical survey indicated the presence of a ramp. It may be part of the latter cluster. Of note, it is located adjacent to a shovel test that contained more than 80 artifacts and evidence of a feature.

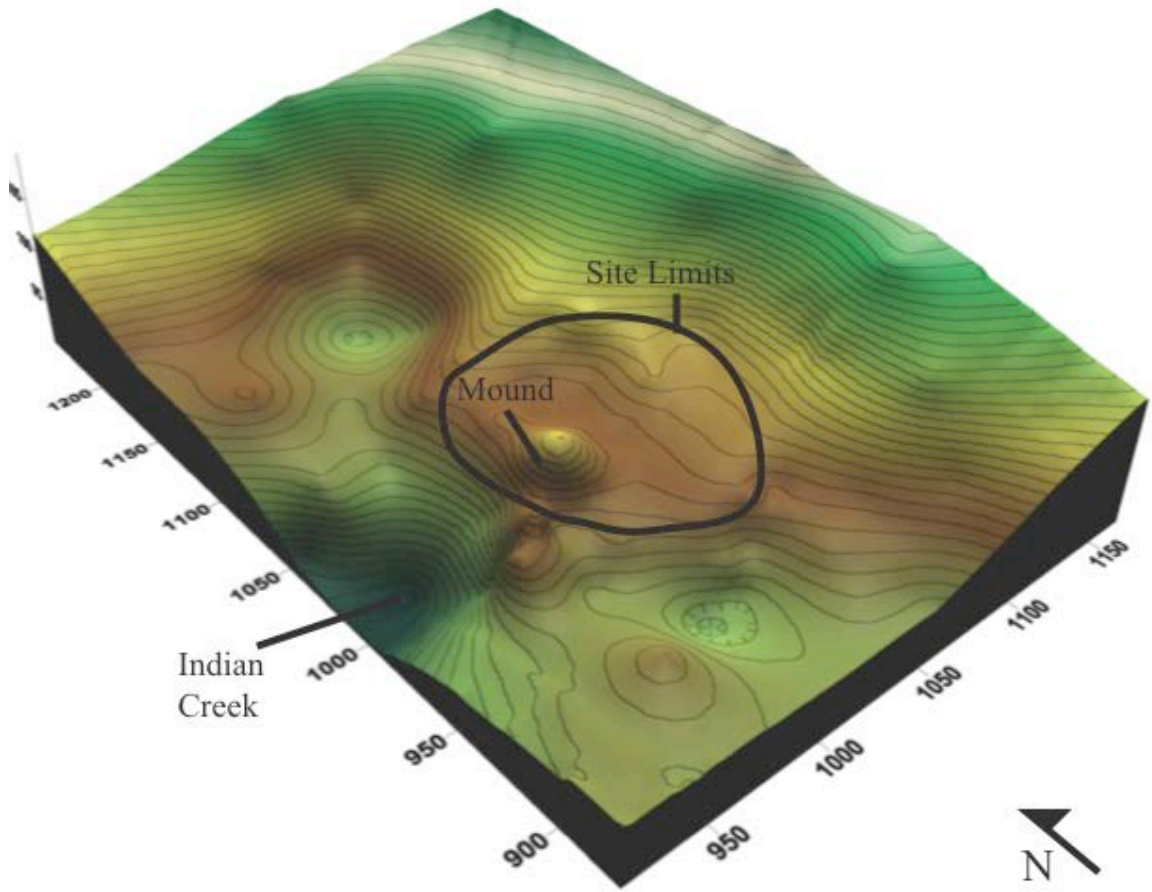
In sum, it appears that the village layout remained generally the same over time. Structures were organized primarily around the mound, and are concentrated in the northeast, southeast, and southern areas around the mound. A lack of artifacts directly east of the mound suggests a plaza was placed here and used throughout most of the site occupation. There is some evidence that a plaza was not in use at this time. During the middle period, as the mound grew in size (see below), occupation was concentrated in these areas as well. During the later Mississippian period, occupation appears more concentrated east and north of the mound, although some occupation was still present south of the mound. During the entire site occupation, it is obvious based on ceramic frequency type that certain areas were reused. That is, there is a continuity of occupation,

likely replacement of structures in the same general location, over time. It is possible that these concentration areas identified here represent extended family kin groups that reused structure locations throughout the duration of the site. Further, based on the limited concentration of certain types of ceramics, notably limestone-tempered ceramics during the initial concentration, and shell and grit-tempered ceramics following the initial occupation, it appears that certain households may have had access to specific types of ceramics goods not found in other households or areas during the same time.

### **Mound Construction and Use**

Mound construction and use can be partially reconstructed through a combination of data from test unit excavations, geophysical survey, and radiocarbon dates (from the test units). The mound is located on a ridge overlooking Indian Creek; the creek is located directly west of the mound. The site is located on a relatively flat landform that is somewhat “bowl” shaped (Figure 5.6). At the edges of the site, the landform rises rather abruptly, resulting in a site setting that is an open, but contained area. In addition to Indian Creek, another water source may have been a fresh spring located approximately 45 m south of the mound. This now-dry creek bed is still visible, and the water source appears to be an underground spring located at the head of the creekbed. The creekbed itself extends for about 40 m from the flat landform before the elevation drops steeply toward the floodplain of Indian Creek.

The mound is located at the western edge of the landform. This may have allowed a maximum degree of protection from outsiders in two ways. First, from the mound’s location, the mountains to the north are clearly visible. In addition, the Indian Creek stream is visible to the foothills of the mountains. Indian Creek actually joins other



**Figure 5.6. Topographic map of Site 44LE10.**

mountain streams and eventually can be followed to the Cumberland River in West Virginia. There are multiple mountain gaps visible from the mound. In essence, this location allows for the identification of people coming from the north. Second, the abrupt ridge located at the edge of the site may have acted as a defensive barrier, although testing along this ridge to identify palisade remains needs to be done.

The location of the mound may be related to two other factors. First, location near water may have been important not only in terms of bodily needs, but also for ritual purposes (Hudson 1976). Second, the mound itself could be viewed as a symbol of the mountain. If so, this symbol is most striking at the western edge of the site, where the landform is the flattest, as opposed to a location near the ridge at the eastern or southern edges of the site.

When the mound was measured by C.G. Holland (1970:18) in 1963, he stated “it measures 10 to 12 feet high and is 120 feet in diameter”; or approximately 3-3.65 m high and 36.5 m in diameter. The mound top is flat and square, and can be typed as a “platform mound.” Local informants (Alan Crockett, personal communication, 2007) said that the mound was plowed at least once, and there is a noticeable depression on the eastern side of the mound near the base. Overall, though, the mound has not been plowed very much, at least since the mid-twentieth century, and plowing that has been done was not mechanical <sup>5</sup>. A comparison of photos of the mound taken in 1963 by Holland (Plate 5.1a) and in 2008 by Meyers (Plate 5.1b) shows that little of the mound’s shape or height has changed in the last fifty years. The site was in pasture in 1963, and is still in pasture today.

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<sup>5</sup> Informants (Alan Crockett personal communication 2007) suggest that this non-mechanical plowing was done by horse, and therefore the plow marks would have been more shallow than if mechanical plowing was done.



A



B

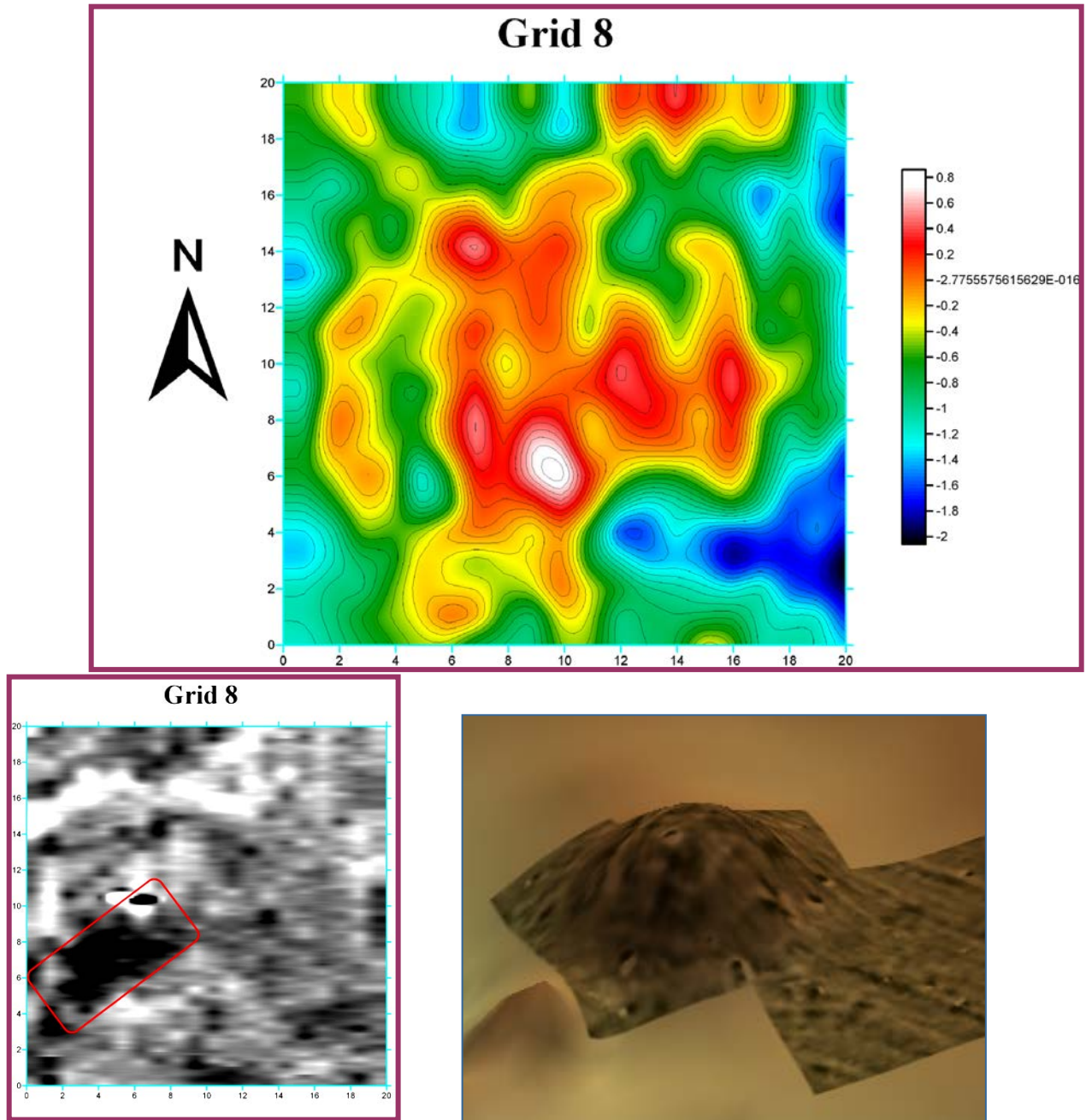
**Plate 1. The Carter Robinson mound (44LE10) in 1963 (A), facing northwest, (Holland 1970) (photo by C.G. Holland) and in 2008 (B), facing northeast (photo by M. Meyers).**



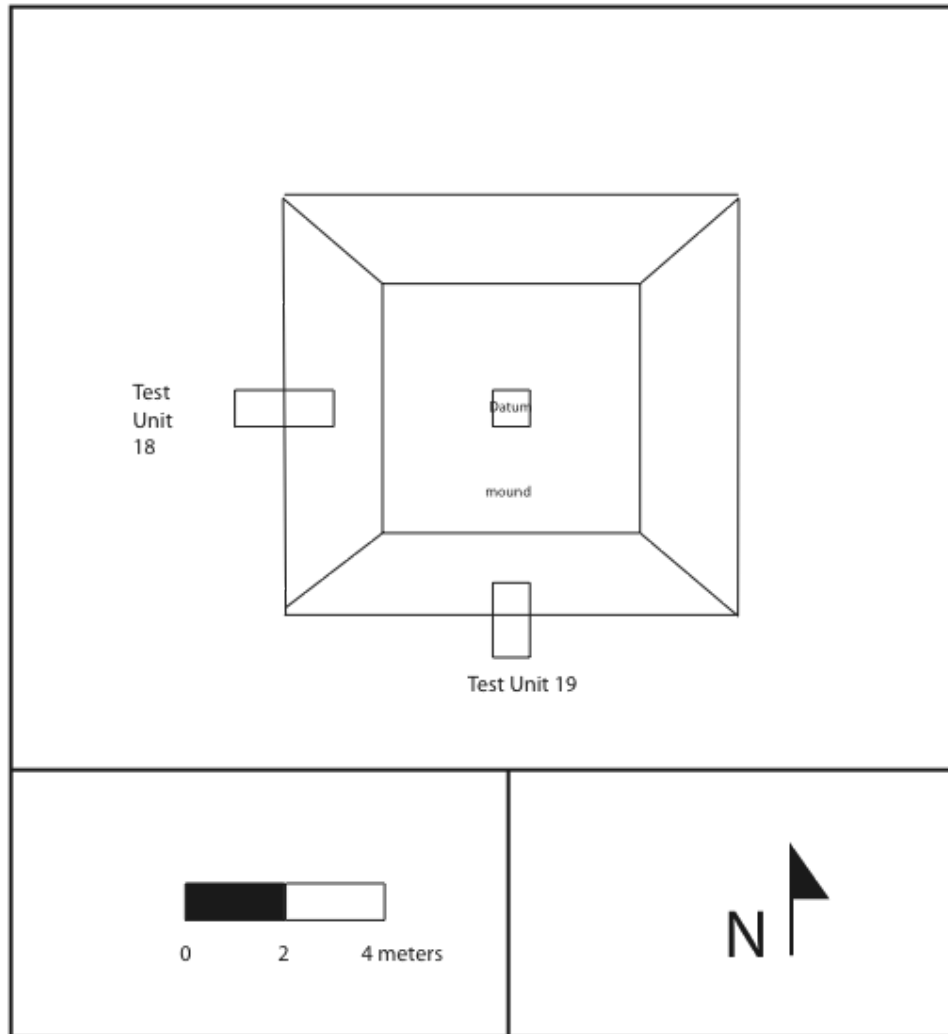
The geophysical survey of the mound may have revealed a ramp and its orientation (east), as well as a possible mound-top structure (Figure 5.7). Excavations were done on the western and southern mound flanks, and located 17 m from the center of the mound (Figure 5.8). These 1-x-2-m test units were located so the long axis of the test unit was perpendicular mound edge to facilitate seeing mound construction techniques. No excavations were permitted on top of the mound.

### **Test Unit 18**

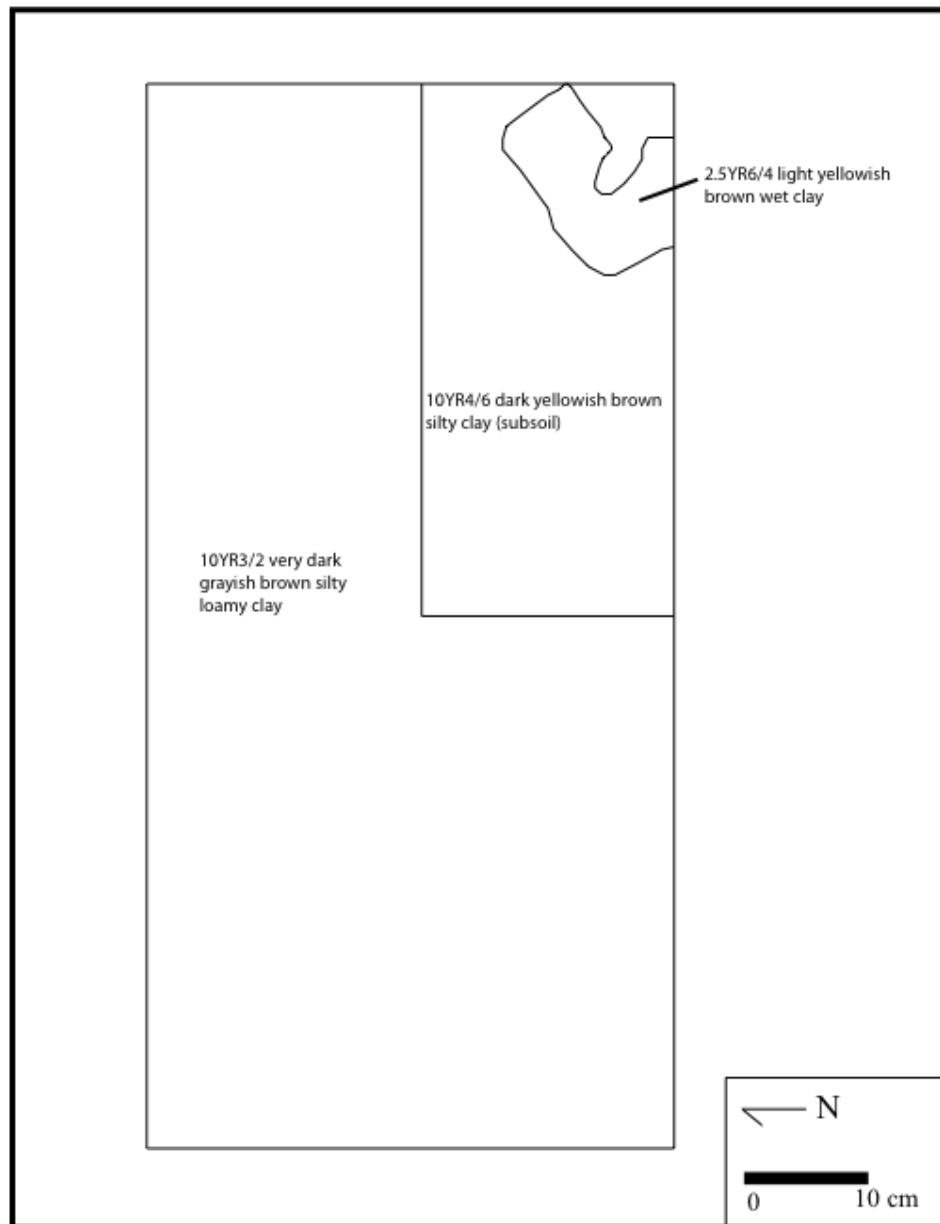
Test Unit 18 (TU 18) was located 17 m west of the mound summit. The test unit was excavated in eight 10-cm levels using shovels and trowels (Figure 5.9; Figure 5.10). Due to time constraints, beginning with Level 9, only the southeastern half of the test unit was excavated. Soil in the first three levels was a loamy clay (10YR3/3) with daub and lithic debitage in all three levels. Soil in Level 4 changed to a very dark gray (10YR3/1) loamy clay, and contained both lithics and pottery sherds. At this level, the north half of the test unit appeared darker than the south half, and the soil texture was not as dense. This color and textural difference continued into Level 5. In Level 6, a large piece of charcoal (4 cm in diameter) was uncovered in the northeastern quadrant of the test unit. In Level 7, soil was a dark brown (10YR3/3) silty clay, similar in color to the soil in the upper levels. Here, pottery and lithic fragments, charcoal, and a triangular biface were recovered. In the northwestern corner of the test unit, a 6-x-3-cm fragment of burned wood was exposed; in general, the northern third of the test unit contained more charcoal as compared to the rest of the test unit. This northern third remained less dense, and near the bottom of the level, soil contained orange mottling. The burned wood fragment was



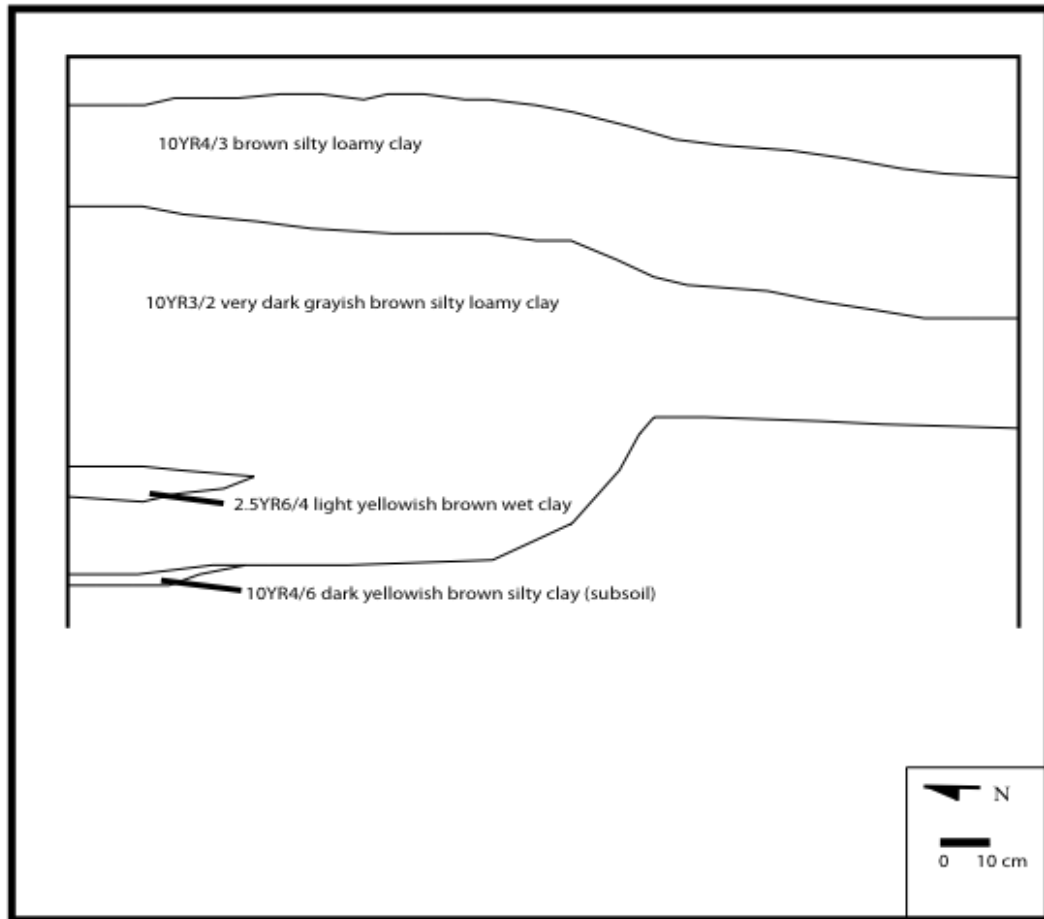
**Figure 5.7. Geophysical map of the mound at Site 44LE10 (conductivity [top and bottom right]; magnetic gradiometry [bottom left]).**



**Figure 5.8. Plan view of Test Units 18 and 19, mound flanks, Site 44LE10.**



**Figure 5.9. Plan view of Test Unit 18, Level 11.**

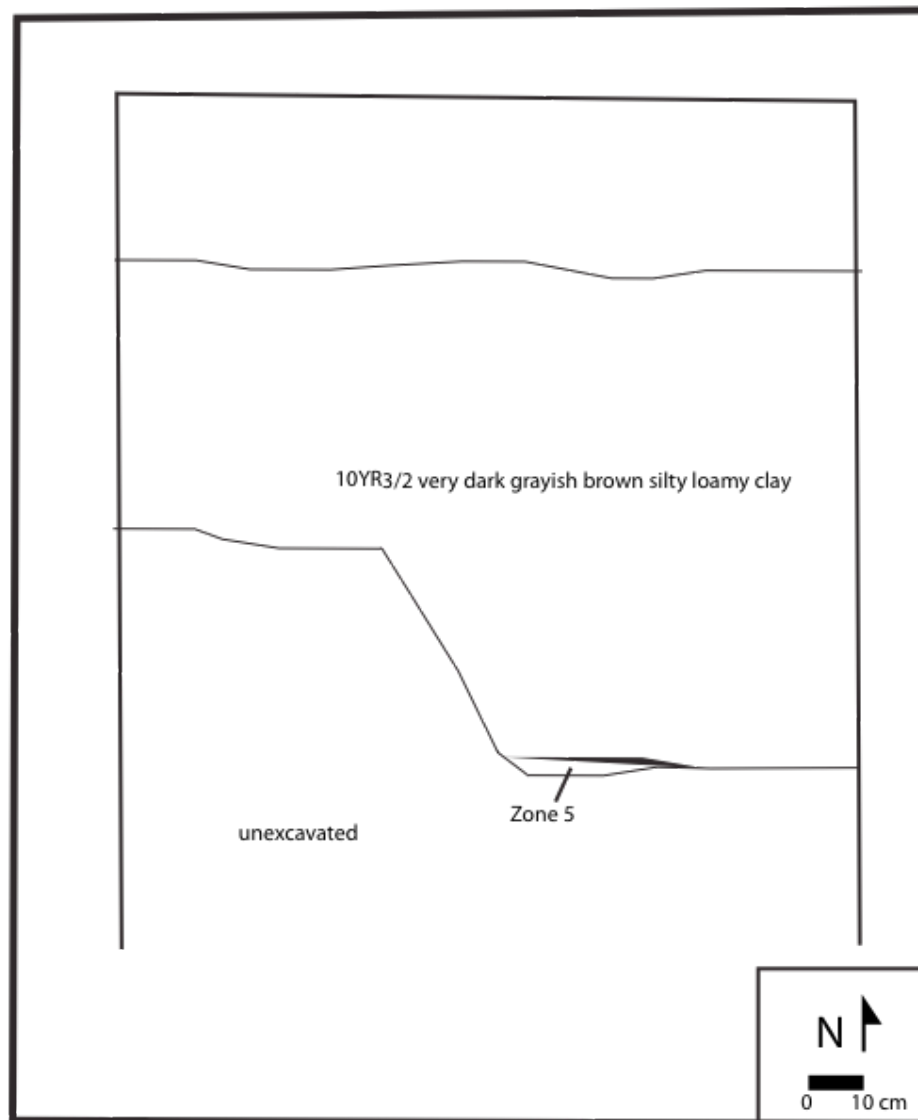


**Figure 5.10. East wall profile of Test Unit 18.**

submitted for radiocarbon dating, yielding a date of 628 $\pm$ 36 (AA 80787; wood charcoal; $\delta^{13}\text{C}=-26.5\%$ ) (cal A.D. 1282-1407 2 $\sigma$  [cal A.D. 1293-1325 1 $\sigma$ ]). Level 8 contained a similar dark brown silty clay; however, it was lightly mottled with a yellowish red (5YR5/8) loamy clay and contained less charcoal than the north portion of the test unit. The north half had a higher concentration of yellowish red loamy clay, and also contained a much higher amount of charcoal, a less dense texture, and a fine layer of pebbles. In this level, daub, pottery sherds, and charcoal were recovered. Because of time constraints, only the southeastern quadrant of Level 9 was excavated. This quadrant was chosen because the mottling was most distinct here. This level was very wet, with burned pottery and a thicker layer of pebbles, which was thickest (1-2 cm) at the eastern end of the unit. At the bottom of this level a feature of burned earth was uncovered in the northwest corner, with a burned sherd and large chunks of charcoal atop the feature. Level 10 contained some charcoal and sandstone rocks, as well as some isolated pebbles in the south-central area of the southeastern quadrant. Soil here was still a dark brown (10YR3/3) silty clay. Level 11 was excavated to subsoil, which was mottled with the overlying dark brown silty clay. However, in the southeastern corner a light yellowish brown clay (10YR6/4) feature was uncovered. This extended 10 cm south of the northern wall edge, and was approximately 40 cm wide (Figure 5.11). Material from this level was dated to 722 $\pm$ 36 (AA 80788; wood charcoal; $\delta^{13}\text{C}=-27.9\%$ ) (cal A.D. 1254-1299 2 $\sigma$  [cal A.D. 1268-1287]. Excavation of the test unit ceased at the bottom of Level 11. Total excavation depth for this test unit was 84 cm.

**Test Unit 19**

Test Unit 19 (TU 19) was located 17 m south of the mound summit center. A small topographic rise was apparent at the surface of the test unit, resulting in an



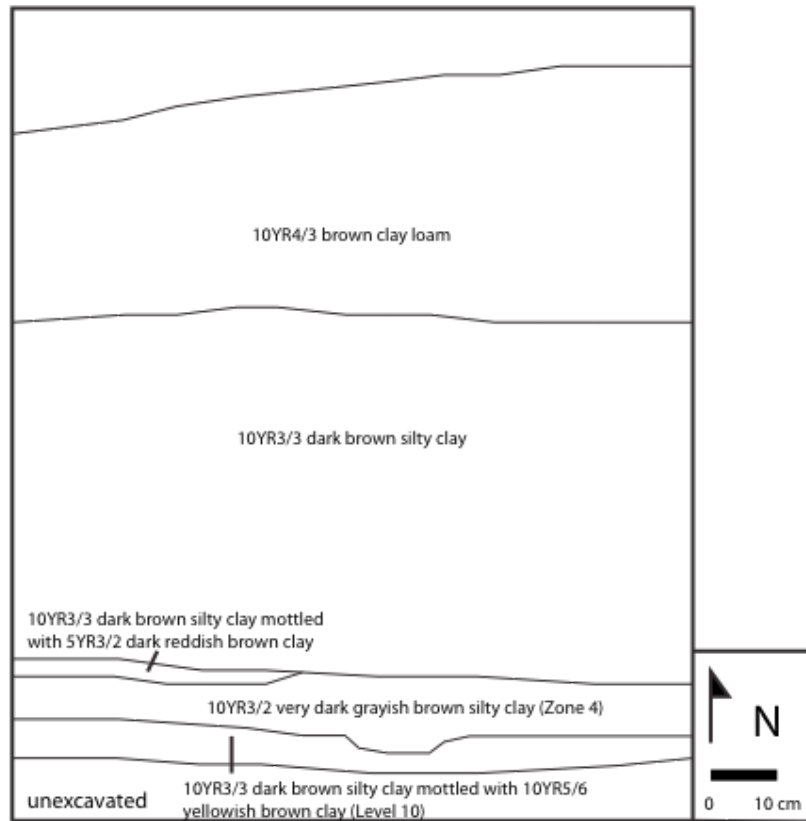
**Figure 5.11. South wall profile, Test Unit 18.**



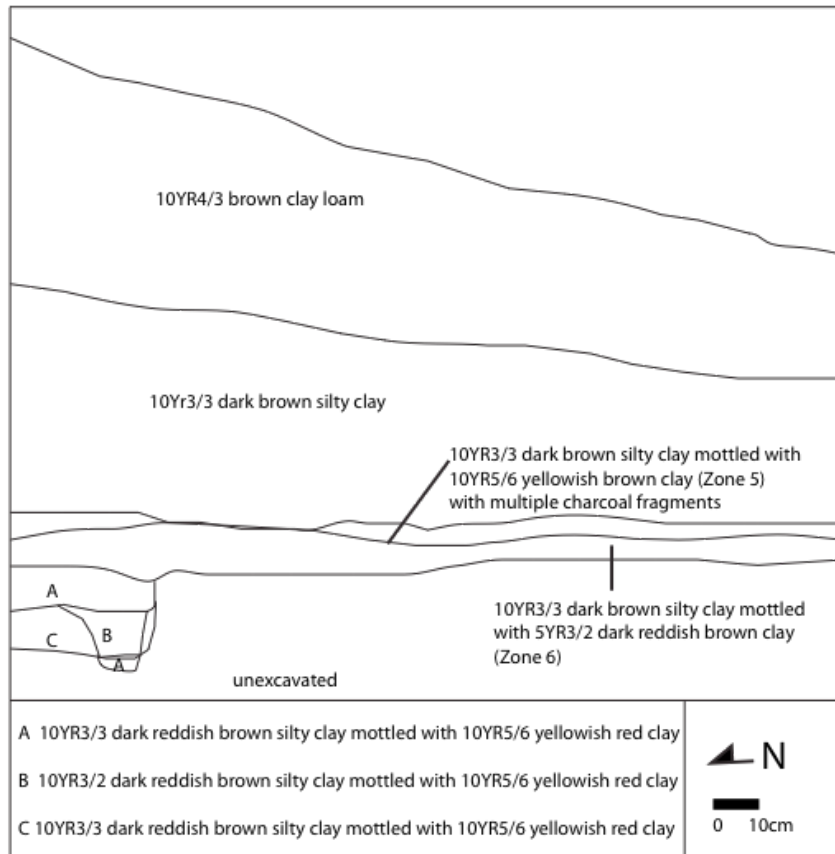
approximate 50-cm difference between the northern and southern ground surfaces. Test Unit 19 was excavated in nine 10-cm levels (Figure 5.12; Figure 5.13) The first three levels were similar in soil color and texture—a pale brown (10YR6/3) silty loam, resembling to the soil in the upper levels of TU 18. Flakes and pottery were present in the upper two levels, as well as a drill in Level 2. In Level 3, lithics, pottery and animal bone fragments were recovered as well as a piece of metal. A soil color change became apparent in Level 4. Here, the center of the test unit was a dark grayish brown (10YR4/2) silty clay loam, while the four edges of the test unit were a dark yellowish brown (10YR4/4) silty clay loam. This level showed an increase in artifacts, both pottery and lithic debitage. A dark stain became apparent in the northern side of the test unit, and it petered out toward the south wall. This dark staining did not extend into the fifth level, where soil was a dark yellowish brown (10YR3/4) silty clay, and a similar amount of artifacts as found in Level 4.

Level 6 contained a similar soil color (10YR4/4 dark yellowish brown silty clay); lithic debitage, pottery sherds, a deer phalange, and daub were recovered from this level. Also, there was an increase in sandstone fragments. Level 7 contained an isolated layer of ash along the northern wall in the northeastern corner. Soil color and texture otherwise remained the same, and lithic debitage and pottery sherds were recovered. Level 8 had the same soil color and texture, except in and around the southern wall, where it changed to a brownish yellow (10YR6/8) silty clay. Similar artifact types and counts continued in this level.

The excavation of Level 9 revealed multiple soil colors. Each of these were excavated and mapped as separate zones. Level 9 began as the same dark brown



**Figure 5.12. North wall profile, Test Unit 19.**



**Figure 5.13. West wall profile, Test Unit 19.**

(10YR3/3) silty clay, and contained pottery, a Jack's Reef point (A.D. 600-1200), animal bone fragments, charcoal, and lithic debitage. Charcoal was concentrated along the western wall. A total of six zones were uncovered in TU 19 Level 9 (Figure 5.14). Zone 1 consisted of ash and burned yellowish red (5YR4/6) clay located in the southern end of the test unit; it was above a dark brown (10YR3/3) clay mottled with a dark reddish brown (5YR3/2) silty clay fire-affected sediment, Zone 6. Portions of Zone 1 were hardened by fire. Grey chert cores and 2 grit-tempered residual sherds were recovered from Zone 1. Zone 3 was a circular mottled zone that first appeared at the top of Level 9, or a depth of 60 cm. When excavated to a depth of 75 cm, the zone constricted in size and appeared to be a circular posthole. Zone 3 was a dark brown (10YR3/3) silty clay mottled with a yellowish brown (10YR5/6) silty clay located at the north end of the test unit. Zone 3 extended under Zone 5 in the northeast corner. When the remainder of Zone 3 was removed, a second post (Posthole 2) was identified. Within Zone 3 were two grit-tempered residual sherd, one grit-and-grog-tempered plain sherd, two shell-and-grit-tempered residual sherds, three shell-and-grog-tempered (two residual, one plain body) sherds, a squared, polished stone, and fire-cracked rock.

Posthole 1 (Figure 5.15), located in Zone 3, measured 30 cm in diameter. This feature was very well defined, and ringed by charcoal at a depth of 75 cm. Numerous gastropod shells and charcoal were recovered from the feature, as well as some pottery and fire-cracked rock. Posthole 2 consisted of a postmold surrounded by a posthole. The posthole measured 11 cm north-south and 10 cm east-west, while the mold was 24 cm wide north-south and 25 cm wide east-west. However, since the

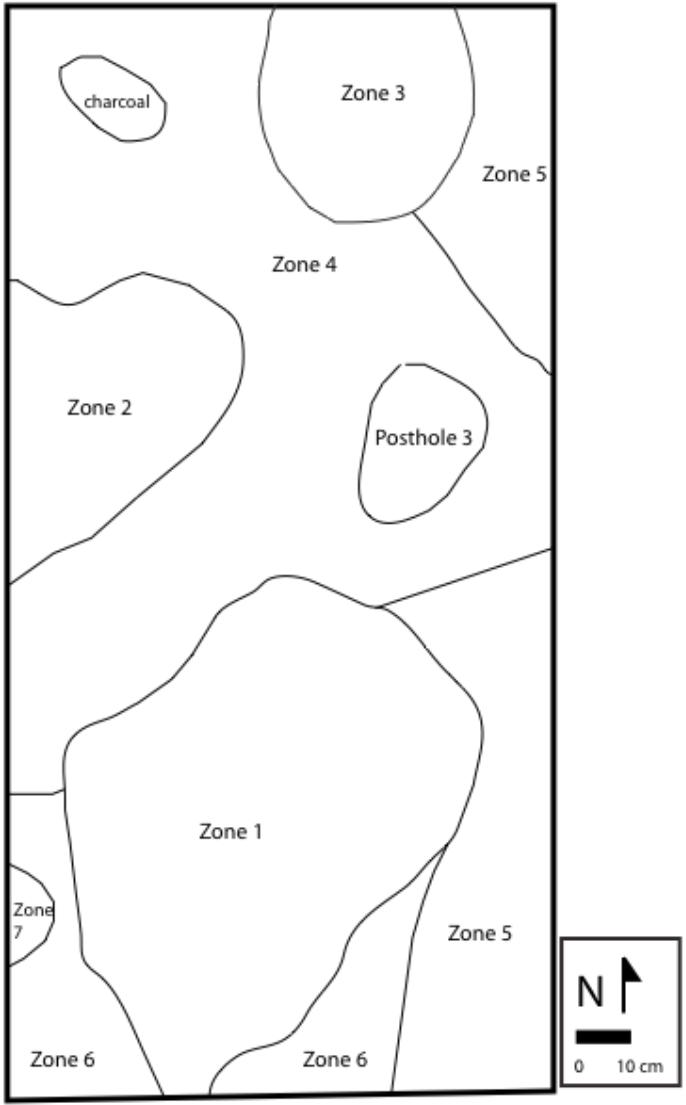


Figure 5.14. Plan view of Test Unit 19, Level 9.

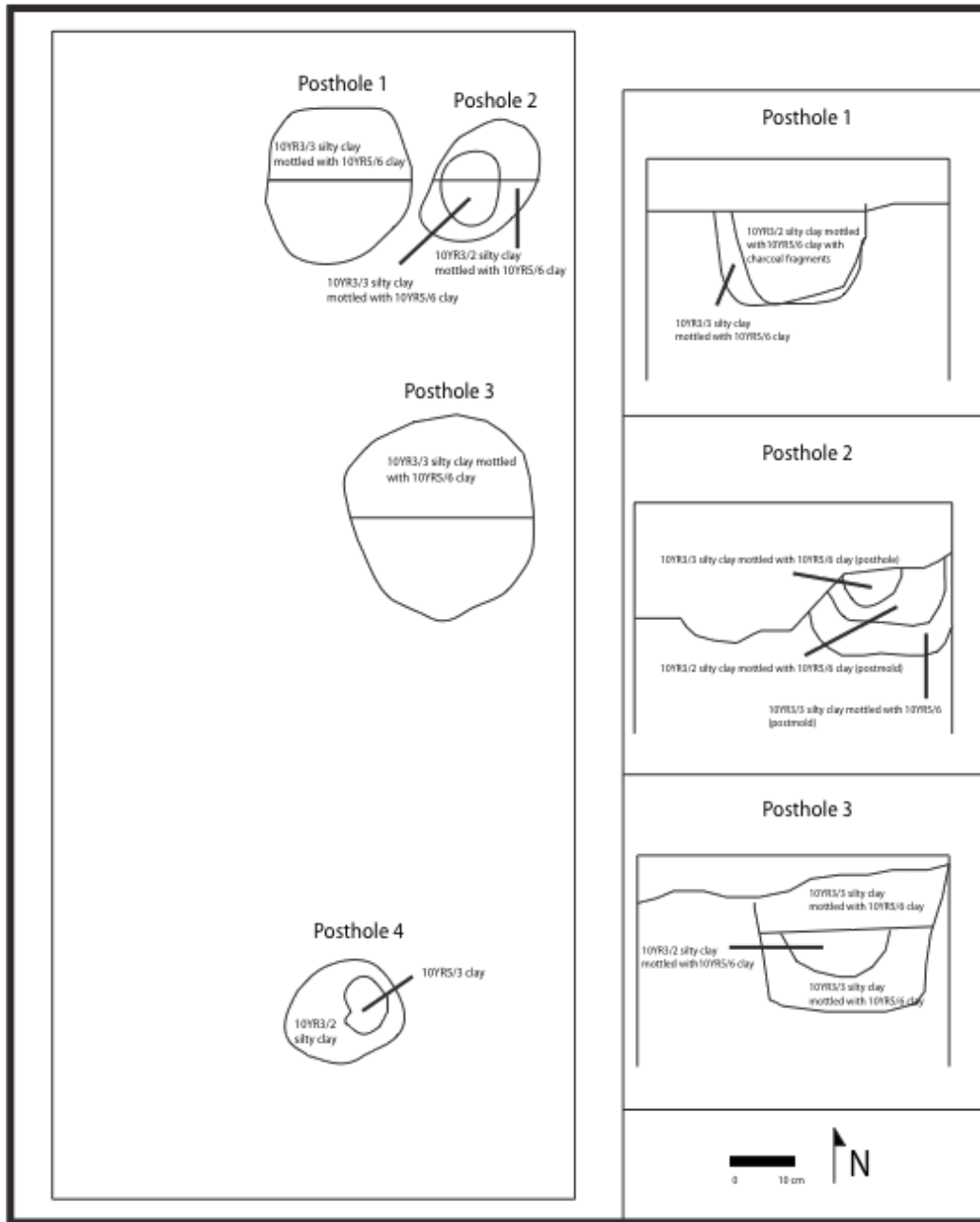
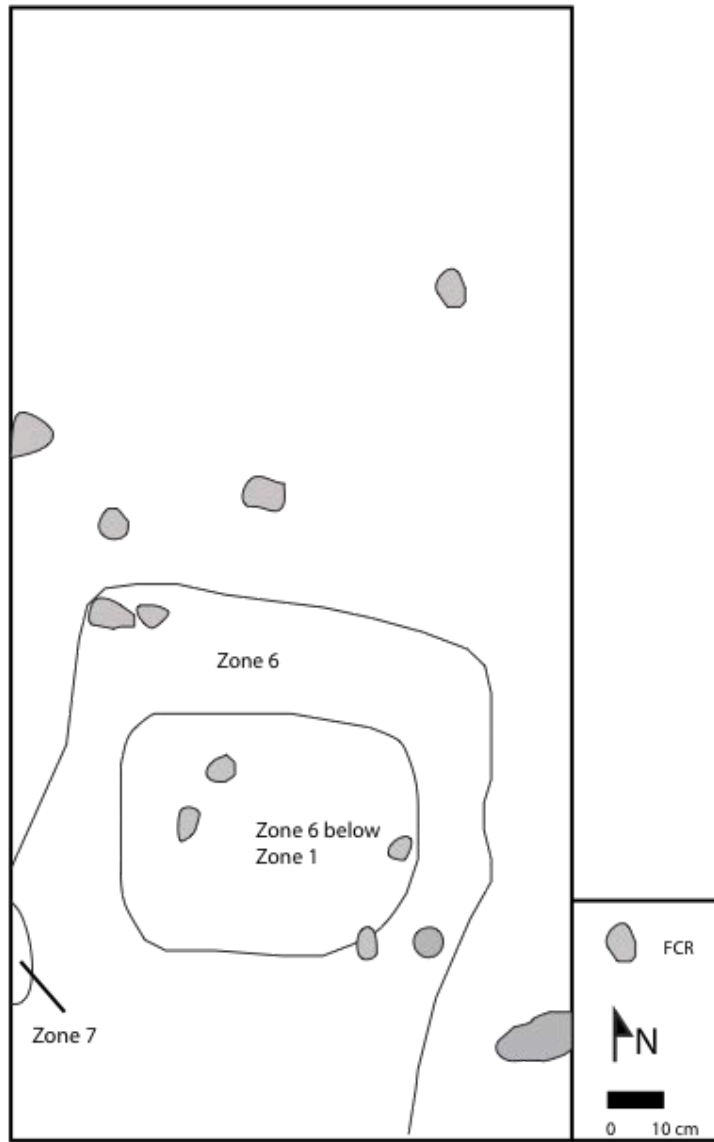


Figure 5.15. Plan view of Test Unit 19, Zone 3, showing postholes and posthole profiles.

postmold continued into the eastern wall, it was likely somewhat larger. Cut mussel shell fragments, animal bone, and chert flakes were recovered from Posthole 2.

Zone 4 was a very dark grayish brown (10YR3/2) silty clay located in the northern half of the test unit. Zone 4 contained grey chert cores and flakes, daub, a sandstone tool fragment, one stone pipe bowl lip fragment, part of a sandstone chunky stone, one groundstone fragment, seven grit-tempered plain sherds, four grit-tempered residual sherds, and one shell-tempered residual sherd. This zone was intruded into by Postholes 1, 2 and 3 and by Zones 1, 3, and 7. Zone 5 overlay Zone 3 in the northeast corner of TU 19. In the southeastern corner of TU 19 Zone 5 extended from Zone 6 and is likely associated with Zones 1 and 6. Zone 5 was a dark brown (10YR3/3) silty clay mottled with a yellowish brown (10YR5/6) silty clay. Primarily daub was recovered from this zone. Posthole 3 was located near Postholes 1 and 2 and Zones 1 and 6. It had a diameter of 34 cm, and contained charcoal.

Zone 6 was a dark brown (10YR3/3) silty clay mottled with a dark reddish brown (5YR3/2) silty clay. This reddish-brown fire-affected sediment laid below Zone 1 and Zone 7 (Figure 5.16), and lay above Posthole 4. Posthole 4 measured 18 cm wide north-south and 27 cm wide east-west, and was more ovoid than round in shape. Both a posthole and postmold were clearly identifiable in this feature. Zone 6 contained five tool fragments, 15 hearthstones, one large grey chert core, three grit-tempered residual sherds, and one shell-tempered residual sherd. Charcoal from this Zone dated to 649 $\pm$ 36(AA 80789; wood charcoal; $\sigma^{13}\text{C}=-23.6\%$ ) (cal A.D. 1278-1400  $2\sigma$  [cal A.D. 1287-



**Figure 5.16. Plan view of Test Unit 19, Level 9, Zones 6 and 7.**



1315] approximately 3 cm thick. Located in the southwest quarter of TU 19, it is a semi-circular clay area that continues into the western wall. Its association with Zone 6, which overlay it, is not known. Excavation of TU 19 ceased with the removal of Zone 6 and Posthole 4.

### **Interpretation of Test Units 18 and 19**

Both test units contain a homogenous 30-cm-thick layer in the upper zones, here labeled Layer A. This layer contains a relatively low number of artifacts as compared to lower levels. The depth of this layer corresponds to plowzone depth present across the rest of the site. The scarcity of artifacts present in these upper 30 cm suggests damage from plowing as well as natural soil accumulation.

The layer beneath the upper layer, labeled Layer B, ranges from 40 to 50 cm thick. Its color is different than found in Layer A. In both test units, Layer B contains either dense charcoal or actual wooden remains. For Test Unit 18, this is present in the northern portion of the test unit, and appears at the top of Layer B. It progressively increases until remains of wood are found in the bottom of Layer B. For Test Unit 19 this is visible at the upper portion of Layer B, in the northern edge of the test unit. I suggest that Layer B represents one building episode of the mound.

Beneath Layer B is another layer, approximately 40 cm thick, here labeled Layer C. It differs in color from Layer B. Most notably, in Test Unit 18 it contains a 1-2-cm thick layer of pebbles, which is thickest at the northern end of the test unit. It also is mottled with a yellowish-red clay, which is also thickest at the north end of the test unit.

In Test Unit 19 Layer C is represented by the presence of multiple zones in Layer 9, which are identified as four postholes. Based on the stratigraphy and shape of these zones, other features are identifiable. Zone 1 appears to be the upper fill of a hearth

feature. Zone 6 is the actual hearth feature. Zone 4, a dark brown sediment that contained heavy concentrations of charcoal and large bone fragments, appears to be the original ground matrix, and was likely intruded into by the other zones (the hearth and the postholes). Zone 5 is Zone 4 that was heavily affected by fire, resulting in its orange-red color. Zone 3 is mixed matrix and subsoil disturbed by the excavation of Posthole 1. A second posthole (Posthole 2) was located below Zone 3. Posthole 4 was located below Zone 6. Its location below the hearth feature is evidence that a structure antedated the hearth. However, Postholes 1, 2 and 3 were located at the same depth as the hearth. Although more evidence is needed, it is possible an earlier structure was in this location. Finally, Zone 7 surrounds and partially overlies Zone 6 (hearth feature). Zone 7 is a fire-hardened semi-circular clay area that continued into the west wall. It may represent a clay basin surrounding the hearth.

Finally, Layer D represents the last 10-15 cm of Test Unit 18 and consists of the matrix immediately overlying the subsoil. This matrix contained a large, distinct yellow clay stain that may represent a basket fill deposit from moundbuilding.

Based on these data, the history of moundbuilding at the Carter Robinson site resembles the following. First, before or right at the beginning of mound construction, a structure (represented by a single post) may have been constructed on the southern flank of the area that would become the mound. Mound building appears to have started at this point, as evidenced by the basket fill present in Test Unit 18. This is Layer C, with a radiocarbon date of cal A.D. 1268-1287 1 $\sigma$ . The location of this fill at the northern edge of the test unit might indicate the mound was initially smaller in circumference. If so, a structure could have been located on the present southern mound edge.

Next, a more definitive structure with a hearth was located on the south mound flank. This is Layer C, and dates to cal A.D. 1287-1315  $1\sigma$ , or just after the Layer D level. At the same time, a pebble layer present on the west mound edge in Test Unit 18 was laid down. I suggest that this pebble layer represents an overlying mantle of the initial mound layer. However, the mound was not very large, as a structure was likely present on the southern flank. It is possible that this south flank structure was somehow related to or incorporated into the mound architecture.

Another mound layer is represented by Layer B. At the bottom of this layer, Level 7 in Test Unit 18 was dated to cal A.D. 1293-1325  $1\sigma$ . High densities of charcoal, seen in both test units, as well as burned wood fragments in Test Unit 18, suggest another structure of some type was present at this level. The different soil color present in this 30-cm layer also suggests a separate mound-building episode occurred at this time. The geophysical data shows evidence of a structure and ramp at what was approximately the upper part of Layer B.

Finally, Layer A represents the uppermost mound layer. It may be another mound level, and evidence for this is found in the differential soil color in the layer (as compared to the earlier Layer B). Further, it is possible that the structure and ramp identified in the geophysical survey is found at the bottom of Layer A. However, the interpretation of Layer A is compromised by plowing, and erosion on the mound flanks.

Overall, the data from the test units suggests the presence of two and possibly three mound-building stages. The mound's first layer was constructed between A.D. 1268-1287. The mound was initially smaller in diameter, and at least one structure was located near the southern edge of the mound. By A.D. 1287-1315, the mound shape was

more formalized, as suggested by the mantle of pebbles laid down; however, it was still small, as a later structure was still present on the southern flank. By A.D. 1293-1325, the mound was likely expanded to incorporate the area where this southern structure had stood. Distinctive changes in soil color in both test units at the same level suggest a rapid mound expansion at this time. There is some evidence that a structure of some type was present in this Layer B. Finally, Layer A may represent an additional mound construction episode. Geophysical survey suggests the presence of a structure and eastern-facing ramp was present at the intersection of Layers A and B. Layer A, however, has been damaged by plowing and erosion. Based on other structural and artifactual evidence, described below, it appears that the mound was abandoned by A.D. 1400, and more likely by A.D. 1375.

### **Non-Mound Occupation**

In this section, I discuss the evidence for structural remains at the site. As will become obvious, none of the evidence is definitive. This is likely due to multiple building episodes in the same areas, as well as limits of excavation. As a result, the excavated structural remains are referred to as occupation areas rather than structures. The artifacts associated with these areas suggest they were occupied by individuals for long periods of time; however, the lack of complete structural data limits my ability to definitively label them as structures.

### **Occupation Area 3**

Sometime during the construction of the mound, a possible wall-trench occupation area was built at the site. Occupation Area 3, located in Block 2 north of the mound, was identified through a combination of geophysical survey and test unit excavation (see Figure 5.2). Geophysical survey suggested that a large pit was located in

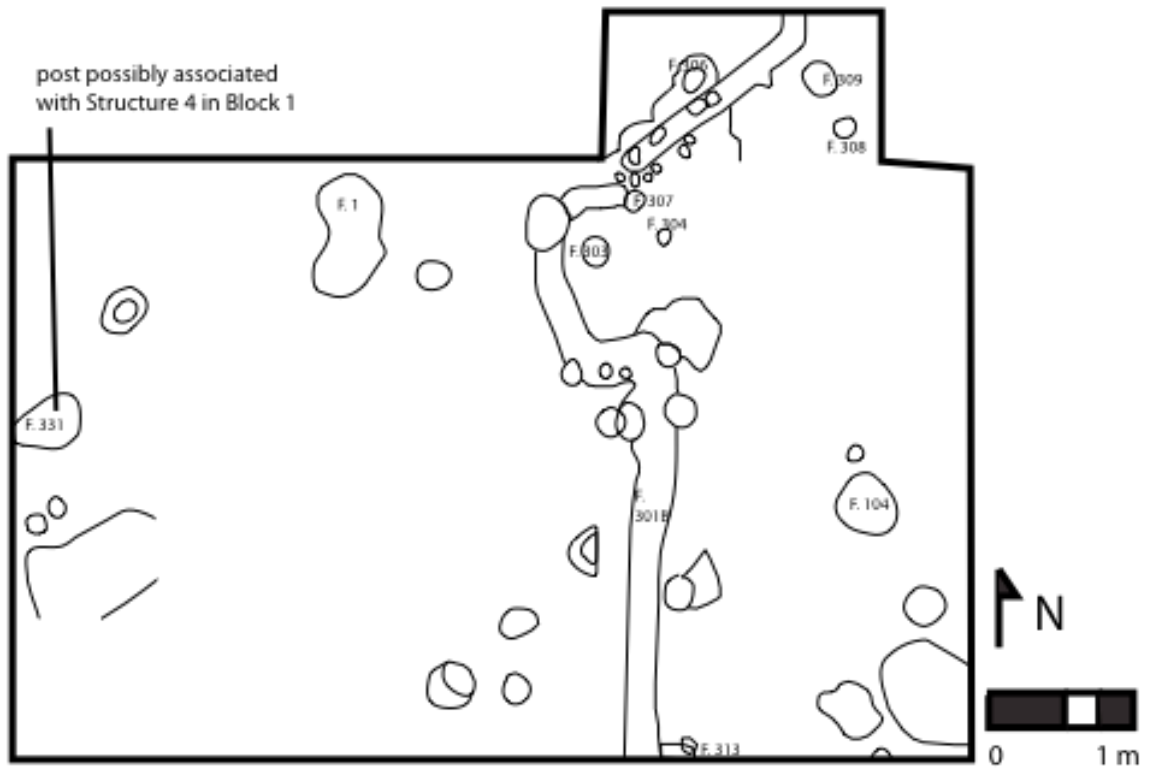
this area; unlike other areas surveyed at the site, the area in Block 2 did not show evidence of buried burned soil. A large 2-x-2-m test unit was placed over the possible pit area. The test unit was excavated in 10-cm arbitrary levels. No features were initially identified in the test unit, although large amounts of lithic debris were recovered. The test unit was excavated to a depth of 35 cm, and temporarily closed because no features were visible below the plowzone. After heavy rains, the test unit was reexamined, and a posthole was identified in the northeastern corner of the test unit, as well as what appeared to be dark linear stains projecting east and southeast of the posthole.

During the second field season, the block was expanded east in seven 1-x-2-m test unit increments. Because the initial test unit had been excavated in arbitrary levels, which had identified the upper 30 cm as disturbed plowzone soil, the extension to what was now called Block 2 was excavated differently. The disturbed plowzone was removed by shovel to a depth of 35 cm, but the soil was not screened<sup>6</sup>. Then, the floor of the test unit was cleaned using trowels. Large artifacts identified during excavation were bagged and labeled according to test unit.

Excavation of the extension of Block 2 initially proceeded east, and attempted to identify the extent of the features exposed in the initial 2-x-2-meter portion of Block 2. The dark line previously identified continued in a northeast direction, and contained postholes mostly around and some within the trench line (Figure 5.17). The line measured approximately 10 cm wide and 3 m long. Excavation proceeded east and southeast of the initial Block 2, and identified an extension of the trench line on the west side. It too contained multiple postholes, mostly around but some within the trench. It

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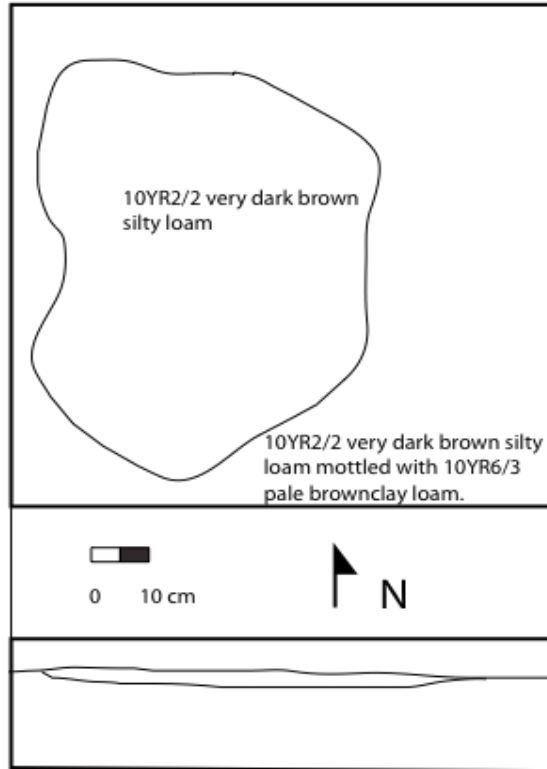
<sup>6</sup> The soil was not screened because the disturbed nature of the plowzone compromised the integrity of the artifacts and limited the information from these data. Previous screening of soil from the initial excavations of Block 2 provided a sample of artifacts from this area as well.



**Figure 5.17. Plan View of Block 3, Occupation Area 2.**

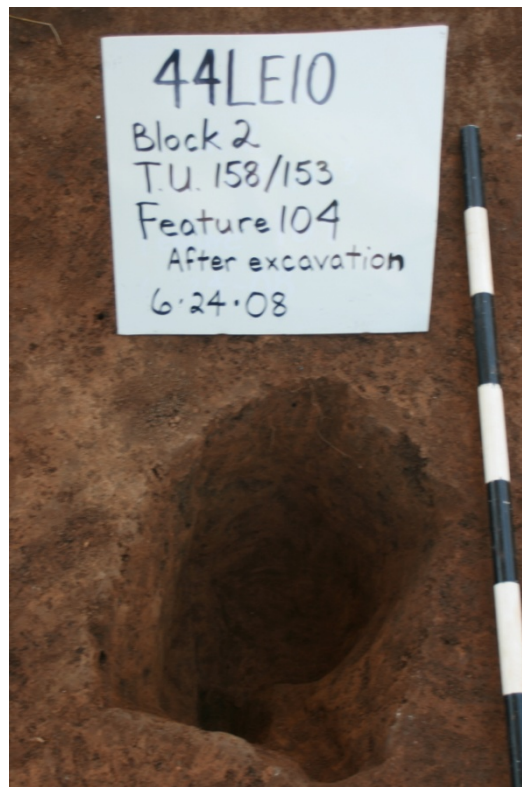
extended for a distance of approximately 2.58 m. Excavation also continued along the northern trench segment to identify a northeastern corner. Portions of this corner may have been identified; however, unlike the northern wall and northwestern corner, the feature stains in the eastern wall were very light. Excavation in the southeastern corner, however, identified a posthole covered with multiple pieces of fire-cracked rock. Of note, the floor east and south of the trench lines was a very hard brownish yellow (10YR6/6) clay and did not contain any other features besides the posthole. It also did not contain any ash layers, and very few artifacts were recovered from the floor. Outside of the trench lines approximately 2 m west of the northwestern corner, a wide but shallow (3 cm) pit (Feature 1) was identified, based on the presence of a circular brown stain. The pit was mapped and photographed, and then bisected to identify and record stratigraphy (Figure 5.18). The entire pit was then excavated. Only one artifact, a flake, was recovered from the pit excavation.

The posthole identified in the Block 2 extension was labeled Feature 104 and was excavated (Plate 5.2). First, the stones located above the posthole were cleaned and identified. Eight fire-cracked rock fragments and multiple limestone fragments were removed. Also recovered was a shell-tempered rim sherd with a large strap handle attached (Plate 5.3). Based on its shape, the sherd appears to be part of a jar. Some cordmarking is evident where the handle meets the body of the sherd, but the rest of the vessel fragment is plain. The rocks, limestone and sherd were removed after the feature was mapped and photographed, and the posthole excavated to a depth of 32 cm below surface. The post measured 40 cm wide north-south and 38 cm wide east-west (Figure 5.19). The two trench lines were also excavated. These lines were identified by a



**Figure 5.18. Block 3, Occupation Area 2, Feature 1 plan and profile views.**

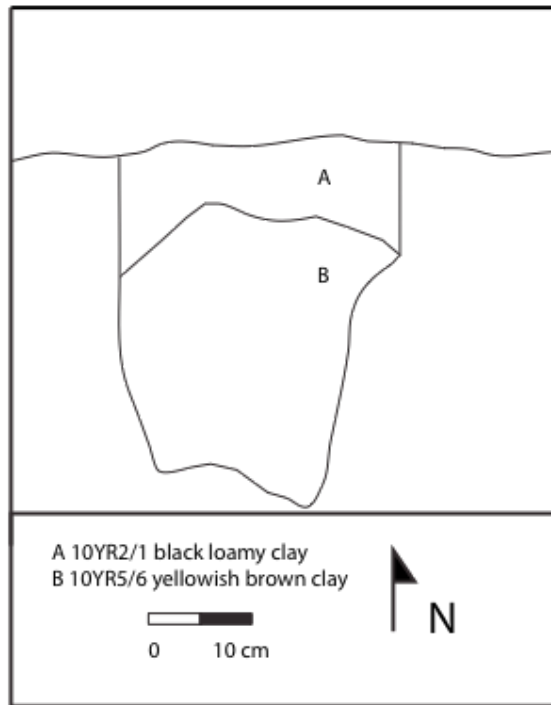




**Plate 2. Block 2, Occupation Area 3, Feature 104 (top) and post (bottom) excavation.**



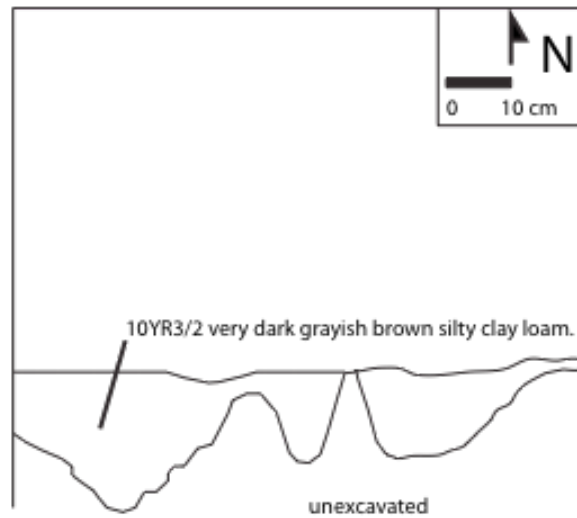
**Plate 3. Dallas rim handle from vessel found in Feature 104, Occupation Area 3, Block 2.**



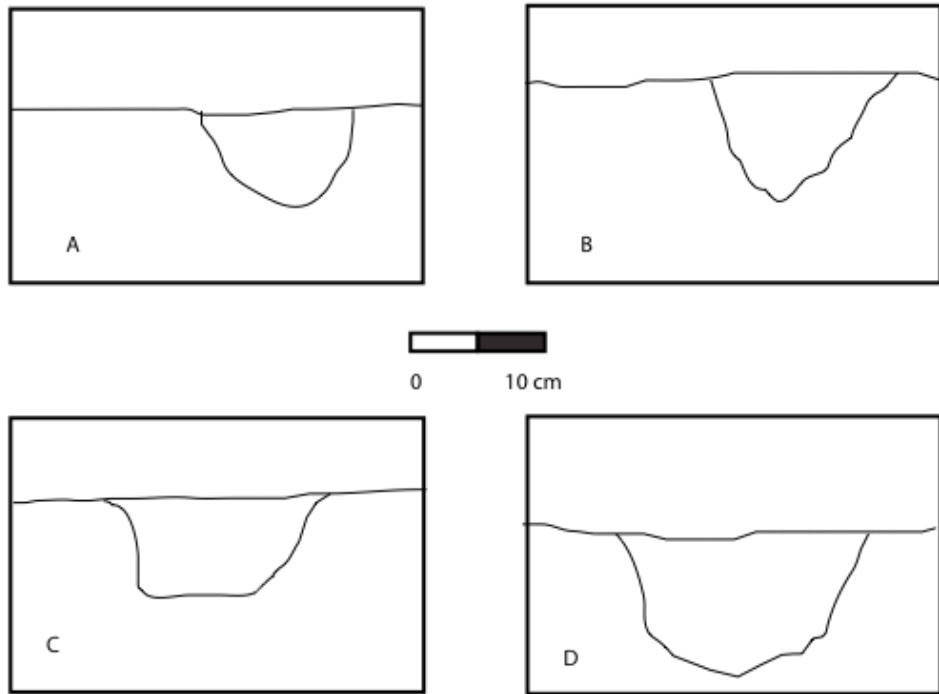
**Figure 5.19. Block 2, Occupation Area 3, Feature 104 north wall profile.**

difference in soil color (more brown than the surrounding matrix) and texture (more friable than the surrounding clay matrix). The northern line, Zone 1, extended at an angle of 55° east of north, and was 26 cm deep (Figure 5.20). This line contained four postholes (Features 306-309) within the trench and eight outside of the trench (Figure 5.21). In addition, soil surrounding the northern trench line differed in color and texture. This was first thought to be midden, based on its darker color, and portions of this area were bisected and excavated. The darker area was approximately 43 cm deep. It contained no artifacts, although some charcoal flecks were present in the fill. A sample of the fill was retained for flotation.

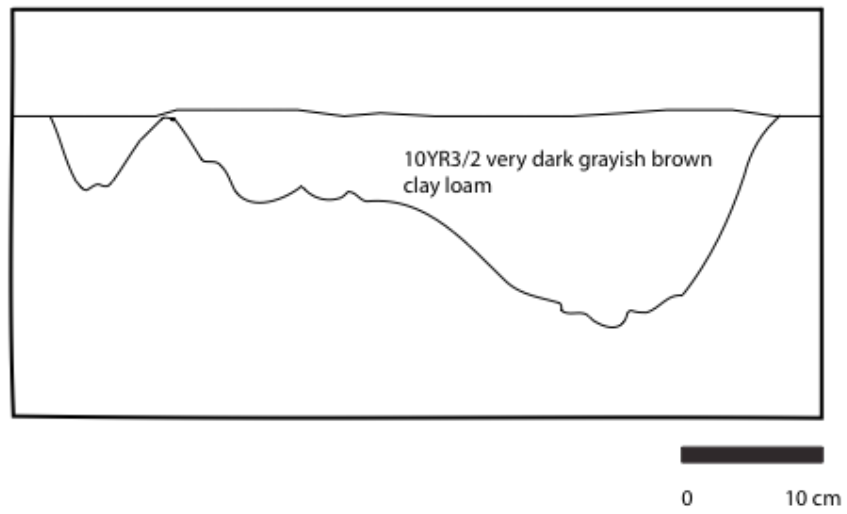
The southern trench line, Feature 301B, extended for a distance of 3.65 m and was 30 cm at its deepest point (Figure 5.22). It contained six postholes within the trench, and seven located outside the trench; of these, three were bisected and profiled (Features 303, 304 and 313) (Figure 5.23). The corner where the two trench lines met was unusual. The southern line extended northwest for a distance of 63 cm, and then extended about 1.07 m north before extending again 60 cm east; the line then changed direction again, toward the northeast, at the above stated angle of 55°. In essence, this created a small, open-ended rectangular area at the corner of the structure. On the upper (northern) corner of this rectangular area was a large posthole, likely the corner post for the structure. On the southern edge of the excavation, the edges of two additional postholes were identified. In addition, four postholes were located approximately 25 cm west of the trench line. Two other postholes were located on the interior of the structure, just southeast of the northern trench line, and another posthole was located approximately 20 cm southeast of the center post.



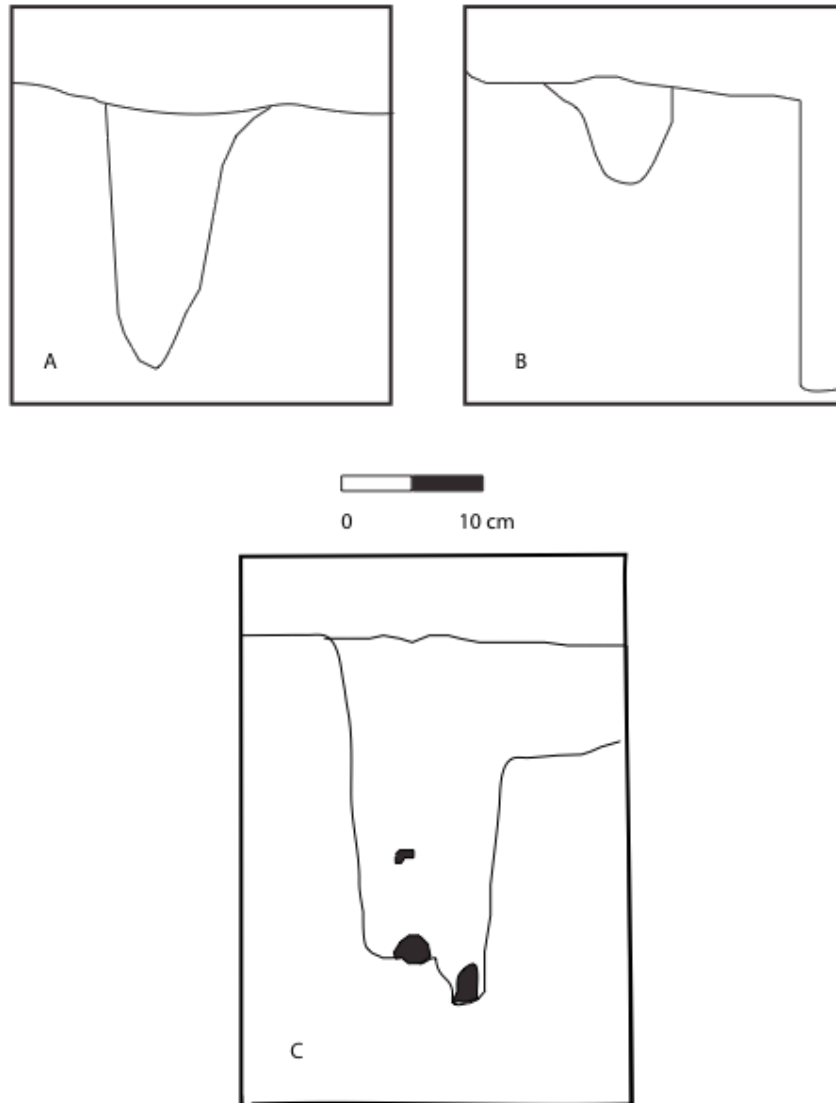
**Figure 5.20 Block 3, Occupation Area 2, Test Unit 155, north wall showing depth of Zone 1.**



**Figure 5.21. Block 3, Occupation Area 2, Profile Views of Feature 306, North Wall (A), Feature 307, North Wall (B), Feature 308, East Wall (C), and Feature 309, East Wall (D).**



**Figure 5.22. Block 2, Occupation Area 3, Feature 301B (trench), north wall profile.**



**Figure 5.23. Block 2, Occupation Area 3, Profile Views of Feature 303, north wall (A), Feature 304, north wall (B), and Feature 313, south wall (C).**



A total of 46 features was uncovered in Block 2; of these, most (42) were posts of various sizes (Table 5.2). In addition to these were the two trench lines discussed above and two possible pit features. Based on their size, posts fell into four categories: very large (over 30 cm diameter) (n=6); large (21-30 cm diameter) (n=7); medium (11-21 cm diameter) (n=11); and small (under 10 cm diameter) (n=18). Very large posts included Feature 104, described above, and Feature 331, which may have been associated with Occupation Area 4 (see below). Large posts did not appear to be arranged in any regular pattern; however, when viewed together with medium posts, these tended to be located in and near Feature 301, the trench, and were often approximately 1.25-1.5 m apart. These were likely structural posts associated with the trench line. Small posts were the most numerous type of post found, and when found, tended to cluster together, particularly in and around the northern trench line. This clustering is discussed below.

### **Interpretation of Occupation Area 3**

It is not clear if the remains found in Occupation Area 3 represent the remains of a structure, and if so, what type. It is possible that Occupation Area 3 represents the partial remains of a wall trench structure. Wall trench structures were used in the Southeast during the Early Mississippian period (approximately A.D. 1200-1350). Webb (1938:21) identified such structures, which he called “small-log” structures, at the Norris Basin excavations in east Tennessee. Based on excavations of a wall trench structure at the Bowman Farm site in Campbell County, Tennessee, Webb describes the construction process as follows:

“the form of the structure closely approximated a true square, 35 feet on the side, with rounded corners...when the structure was in process of construction trenches about 12 inches wide and 14 inches deep were dug in the floor where the walls were to be. These trenches were not carried to the corners but were carried to within 2 feet of the corners. Into these trenches

**Table 5.2 Features associated with Occupation Area 3.**

<b>Feature Number</b>	<b>Feature Type</b>	<b>Feature Location</b>	<b>Width North-South</b>	<b>Width East-West</b>	<b>Depth</b>
1	Pit	Block 2 (north edge)	48	28	3
104	Very large post	TU 157 & 158	32	33	32
		Block 2 & TU 155W,	----	5-11	20
301	Trench	154N, 154S, & 157W			
301A	Medium post	In F. 301	17	10	35
302	Very large post	Block 2 (in F. 301)	13	32	n/a
303	Medium post	Block 2 & TU 155W	13	13	19
304	Small post	TU 155W	7	4	9
305	Trench	TU 156E & 156W	----	66	n/a
305 A	Small post	TU 156W	6	9	37
305 B1	Small post	TU 156W	7	9	16
305 B2	Small post	TU 156W	7	10	5
305 C	Small post	TU 156W	5	5	n/a
306	Medium post	TU 156W	12	17	19
307	Small post	TU 155W	13	10	10
308	Medium post	TU 156E	11	11	8
309	Large post	TU 156E	19	24	11
310	Small post	TU 153N	10	5	8
311	Large post	TU 157E	n/a	30	8
312	Medium post	TU 157E & 158S	17	17	3
313	Medium post	TU 157W	19	16	39
315	Medium post	TU 154N	11	15	n/a
316	Small post	TU 154N	8	8	n/a
317	Small post	TU 154N	8	11	n/a
318	Large post	TU 154N	22	19	n/a
319	Medium post	TU 154N	19	17	n/a
319A	Large post	TU 154N	27	16	n/a
320	Medium post	Block 2 (northwest edge in F. 301)	16	13	n/a
321	Small post	TU 156W	8	7	n/a
322	Small post	TU 155W	3	2	n/a
323	Small post	TU 156W	3	1	n/a
324	Small post	TU 156W	4	3	n/a
325	Small post	TU 156W	4	2	n/a
326	Medium post	Block 2 (northeast)	17	21	n/a
327	Large post	Block 2 (southeast)	26	30	n/a
328	Medium post	Block 2 (southeast)	19	16	n/a
329	Large post	Block 2 (southeast)	20	26	n/a
330	Very Large post	Block 2 (northwest)	31	33	n/a
331	Very large post	Block 2 (west edge)	30	40	n/a
332	Small post	Block 2 (southwest)	8	7	n/a

333	Possible pit	Block 2 (southwest)	59	1.02	n/a
334	Small post	TU 157W	10	8	n/a
335	Large post	TU 158N	23	24	n/a
336	Large post	TU 154S	23	21	n/a
337	Very large post	Block 2 (southeast)	32	n/a	n/a
338	Small post	TU 156W	10	6	n/a
339	Small post	Block 2 (west edge)	9	10	n/a

the basal ends of saplings 4 or 5 inches in diameter were set. Along the trench and outside of the structure a horizontal log was laid at the bottom of the trench. On the inside of the building, on a level with the top of the trench, a second horizontal log was laid and lashed to the vertical posts...The trench was then filled with surface earth and a fresh layer of clay, some 6 inches thick, was carefully spread over the interior of the structure to form a smooth, hard floor. The small end of each vertical post was then bent over toward the center of the building to meet a similarly situated post bent from the opposite side. The two ends of these posts were lashed together to form a continuous bow, extending from one side of the structure to the other. This process was carried on from all four sides until the corners were reached, which resulted in a double system of parallel logs over the center of the building, forming a square mesh about 1 foot wide each way...The corners of the building were closed by using much smaller poles, the basal ends being driven into the hard earth and the small ends leaned up against the structure to which they were attached. These poles were set in the arc of a circle at the corner, and being smaller than the posts used in the wall, and not set nearly so deep, their molds are easily distinguishable from the post molds of the side-wall logs. This gave to the structure the rounded appearance at the corners.” (Webb 1938:21-22)

Webb goes on to state that the structure had wattle-and-daub covering its walls.

In Occupation Area 3, the possible north and west walls of a structure were present, along with the northwest corner and possibly portions of the southwest corner. However, it is not clear that this is a structure. The trench itself does not have uniform sloping sides, nor does it contain multiple evenly spaced and sized postmolds, as Webb found at nearby sites. There may be multiple reasons for this. First, the occupation area may have been adversely affected by plowing; however, even if this is the case, one would expect a more uniform distribution of postmolds within the trench, all of which had been adversely

affected to the same degree. However, the scarcity of artifacts associated with the structure may be a result of plowing through a house floor. Second, the postmolds may not represent a structure. At one site in the Norris Basin, Webb (1938) found a probable structure with irregularly spaced postmolds; he suggested this may have been an arbor, based on the absence of evidence for walls. It is possible that Occupation Area 3 is an arbor-like building, based on the lack of fireplace and lack of definitive postmold patterning. Third, the structure may be the remains of a later single-set post structure, but the more archaeological excavation is needed to make this determination. If it is a single-set post structure, it may have been used as an open-air arbor area also. If it dates to the later part of occupation, it is possible that the trench represents either the remains of an earthen embankment or it could represent part of an entranceway that had been rebuilt. The latter reason would explain the lack of postmolds within the trench. Jefferies et al. (2000) found portions of what he interpreted as an entrance-style trench for a Dallas-phase structure in eastern Kentucky at the Croley-Evans site. There, postmolds were found around the trench in an irregular pattern, not unlike what is seen at Occupation Area 3 at Carter Robinson. If the former reason is true, it should be noted that the trench in the southeastern part of the structure was particularly hard to recognize. This may reflect what Blanton and Gresham (2007) found in their excavation of a reconstructed wall trench structure, that the use of the same soil to backfill the trench obscures the trench outline in the subsoil. A different soil may have been used to backfill the northern wall trench, however, This area was clearly surrounded by a different fill that varied in both texture and color; however, it did not contain any artifacts, further suggesting it was

fill soil and not midden or other cultural debris. This suggests it could represent an earthen embankment.

Also of note is the rectangular extension area located in the northwestern corner. This is noteworthy for two reasons. First, unlike the wall trench structures described by Webb, the trenches do not end two feet from the post, but rather are connected. Second, this connection itself is unusual, because the direction of the wall trenches was altered into a rectangular shape that appears to “jut out” from the structure slightly. This may be a variant of what Webb describes as the smaller corner poles being set in an arc of a circle, which made the building appear round. Alternately, this may represent the remains of a bed or bench placed in the corner of the structure. If so, it is not clear why the bed/bench could not be directly attached to the wall without altering the layout of the wall itself.

The use of Occupation Area 3 will be examined in Chapters 6 and 7, but it should be noted that it is located approximately 25 m northeast of the eastern edge of the mound, near the area that geophysical survey suggests contained a ramp. Although Occupation Area 3’s entrance was not uncovered during excavations, it likely faced the south or southeast, i.e., it likely faced the open area east or in front of the mound.

There is some evidence that the occupation area was purposefully abandoned so the occupants could move to another structure. The structure floor itself, in addition to being composed of hard packed clay, was rather devoid of artifacts. This scarcity suggests that the structure had been swept clean upon final use. There is no evidence that the structure was burned, either intentionally or accidentally. That is, there are no charred remains or ash areas within or around the structure. Finally, Feature 104, the posthole,

was intentionally filled with fire-cracked rock and limestone. Perhaps most notably, a shell-tempered plain strap handle vessel fragment was also used to fill in the posthole. Both the temper (shell) and style (plain/cordmarked, strap handle) are indicative of later Mississippian ceramic styles, and most pottery found in Block 2 was of an earlier, grit-tempered type. Its presence suggests that Occupation Area 3 was intentionally abandoned during the middle Mississippian period. The lack of evidence for burning suggests the structure could have been dismantled. Certainly, an interior support, possibly a central support post for the occupation area, was removed and the hole filled in. The structure floor was swept clean and the area was not used again.

#### **Block 1 and Associated Occupation Areas (1 & 4)**

Block 1 is located approximately 10 m north of the mound edge and contains remains of at least two occupation areas (see Figure 5.2). The edge of one area, Occupation Area 1, was identified by geophysical survey as a large burned area in 2006. Shovel tests here confirmed intact deposits, and test unit excavation identified the edge of an occupation area. Seven 1-x-2-m test units were excavated, and these excavations identified a line of postmolds extending north and northeast 1, as well as part of an interior floor. Above the intact features was a 30-cm disturbed plowzone layer. After retaining a sample of plowzone artifacts from the excavation of these seven test units, emphasis was placed on identifying as much of the occupation area's outline as possible. A flat-lipped backhoe was used to remove the plowzone from an area extending approximately 8 m east and 7 m north. After removal of the plowzone, the area was scraped clean by trowel and features identified. This area, Block 1, was divided into 109 1-x-1-m test units. Each test unit was mapped and photographed. In 2008, an additional eight 1-x-1-m test units were excavated at the southeast and southwest edges, for a total

of 117 1-x-1-m test units. A total of 186 features were identified in Block 1. Of these, most (149; 80 percent) appear to be postholes. The remaining features include two hearths, a pit feature, and 35 partial trench lines.

After all of the features from the test units were mapped, it became apparent that more than one occupation area was present in Block 1. Occupation Area 1 may be part of a large house or structure located 10 m north of the northern flank of the mound; it contains a large burned area, possibly a hearth (see below). Occupation Area 4 is a small house located northeast of Structure 1. In addition, other occupation areas may be present on the northern and northwestern edges of the block. In addition to these structures, a series of trench lines and postmolds are present in the southeastern edge of Block 1, but it is not clear if these are part of another structure or related to these other existing structures. Each of these structures and areas is described below.

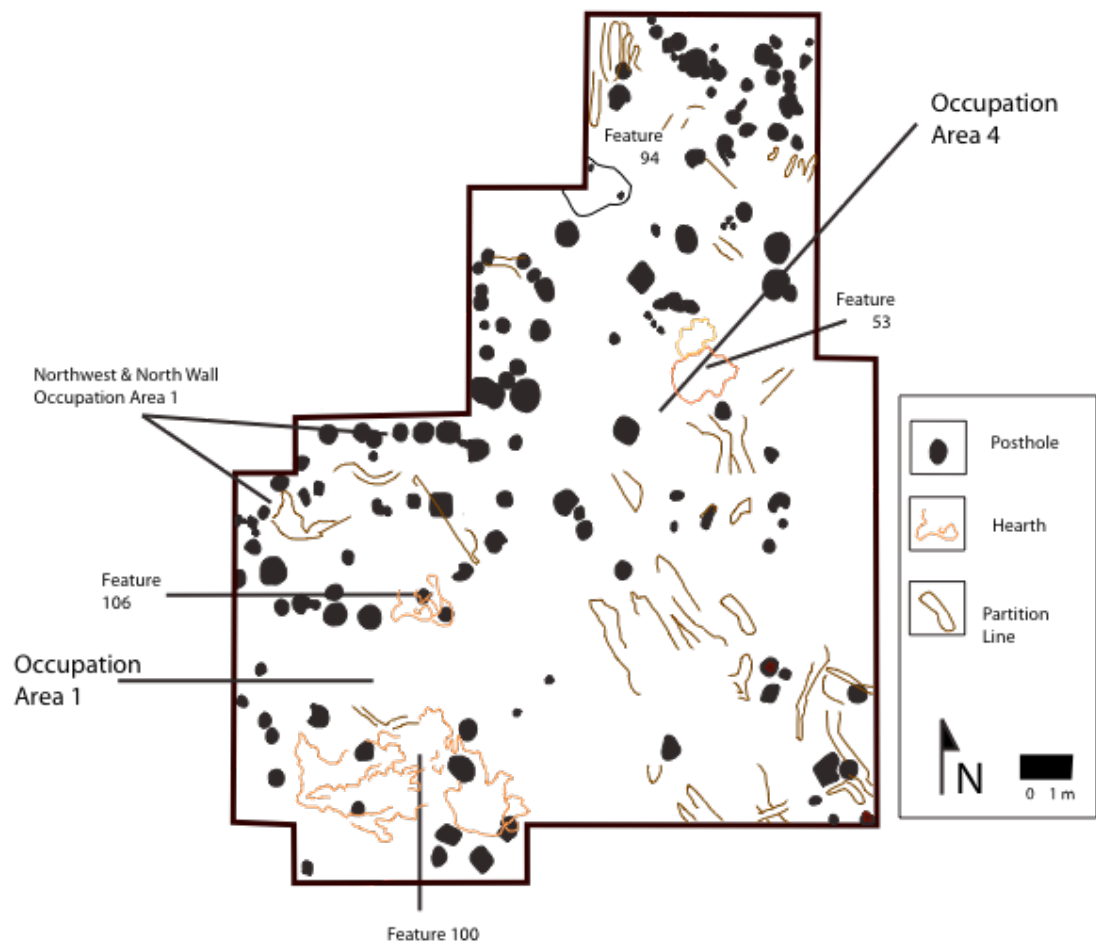
### **Occupation Area 1**

Occupation Area 1 contains multiple postmolds, some aligned in clear linear patterns, but most are in an irregular alignment. The entire northern half of the occupation area was uncovered and mapped; select features, including part of a large burned area (Feature 100), a smaller burned area (Feature 106, and midden were excavated.

Radiometric analysis of a charcoal fragment from beneath the plowzone on the inside of the east wall returned a date of 641 $\pm$ 38 (AA 80784; wood charcoal; $\delta^{13}\text{C}=-23.4\%$ ) (cal A.D. 1279-1404 2 $\sigma$  [cal A.D. 1288-1320 1 $\sigma$ ]), which is analogous to the date from TU 19, Zone 6 and TU 18, Level 7, which indicates that Structure 1 was built while the mound was in use.

A line of regularly sized and spaced postmolds was present on the north and northwest sides of the occupation area (Figure 5.24). The wall is 4.34 m long. A total of





**Figure 5.24. Block 1 Plan View, showing Occupation Areas 1 and 4, and Features 53, 100, and 106.**

13 posts make up what may be a northern wall, and the average distance between posts on this wall is 33.5 cm. The average diameter of posts along this northern section is 25 cm, although the size of the diameters ranges from 15-37 cm. Little daub was found along this northern section (Figure 5.25), although there is a large amount located about 1 m south of the wall, likely related to partitions located in the northwest corner of the structure; these are discussed in more detail below.

The exposed portion of what may be an eastern wall is 6.20 m long. A total of 12 posts make up this portion. The average distance between posts here is 49 cm, the average diameter of posts is 22 cm, and the range of post diameter is between 12 and 32 cm. There are two concentrations of daub along this east side (see Figure 5.25). One is at the northeastern corner, and a second is in the center of the eastern wall, around the wall's largest post. Average post distance on the eastern wall is much larger than that seen on the southern wall. This may be a result of increased burning of posts along the eastern wall, as suggested by the concentration of daub in the center of the eastern wall, and the lack of daub along the northern wall. That is, intense burning may have obliterated some posts, creating a greater distance between posts that did not burn as intensely. Additionally, preservation along the eastern wall may not be as good as that along the north wall.

The western edge of this area has an exposed portion that is 5.30 m long. A total of 14 posts make up this outer wall, and there is an average distance of 29 cm between posts. The average diameter of posts is 25 cm, with a range between 14 and 35 cm. Daub was found along the entire extent of this exposed wall (see Figure 5.25). The smallest concentration of daub is located on the northwestern end, while

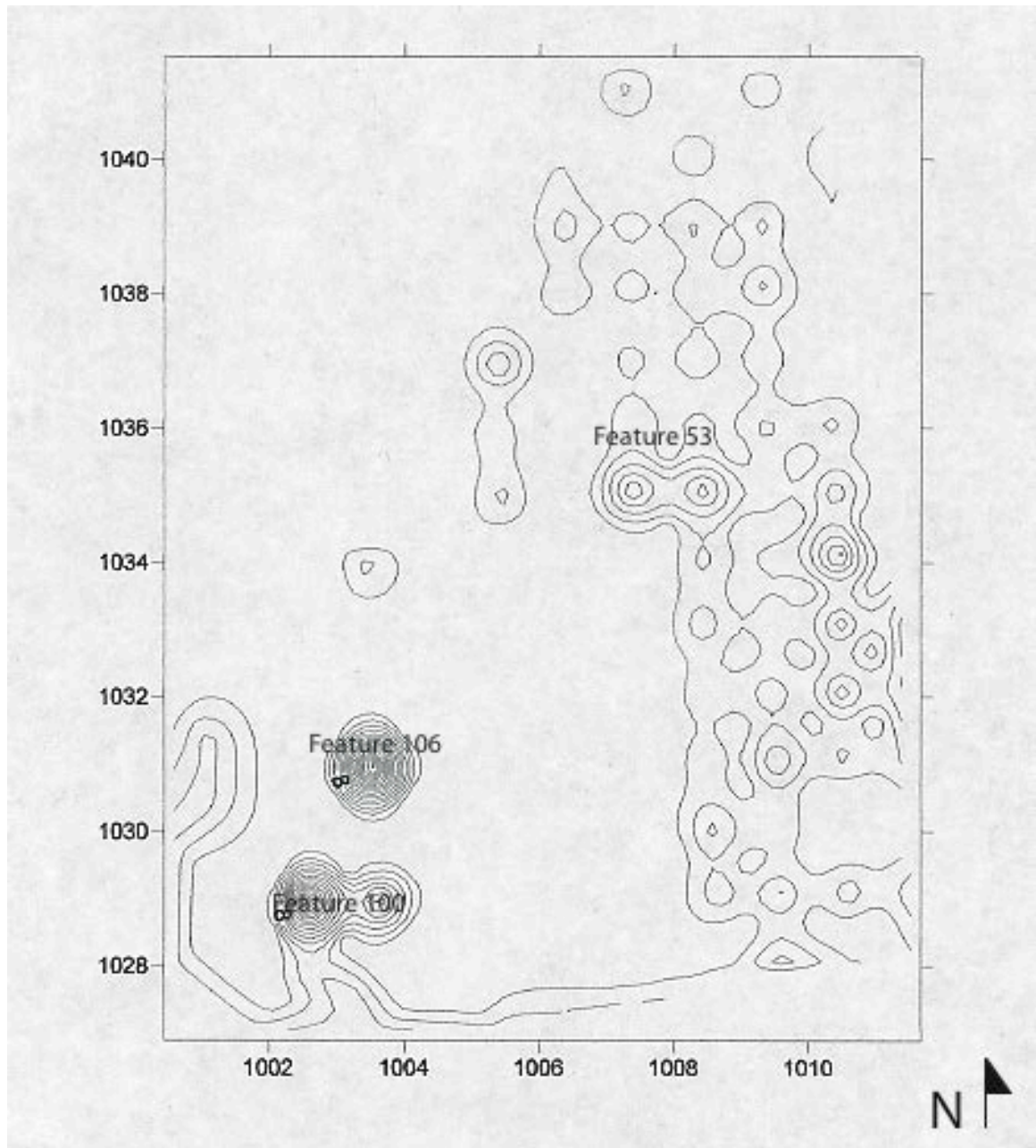


Figure 5.25. Block 1, Occupation Areas 1 and 4, Contour map of daub.

the greatest concentration is in the center of the wall. The southwestern end has more daub than the northwestern end, but not as much as the center. The northwestern segment is clearly delineated, and includes multiple small posts. This may indicate rebuilding or replacement of posts placed here over time. The southwestern portion of the wall is somewhat less clearly delineated and there is no overlap of posts here. Most curiously, the center of this exposed wall portion contains a large distance between posts. This may indicate 1) posts were present at some point but are no longer visible; 2) the possible wall extends farther west at this point, but the limits of excavation hinder the full view or 3) this disjuncture in postholes may have been intentional, possibly for an entranceway of some type.

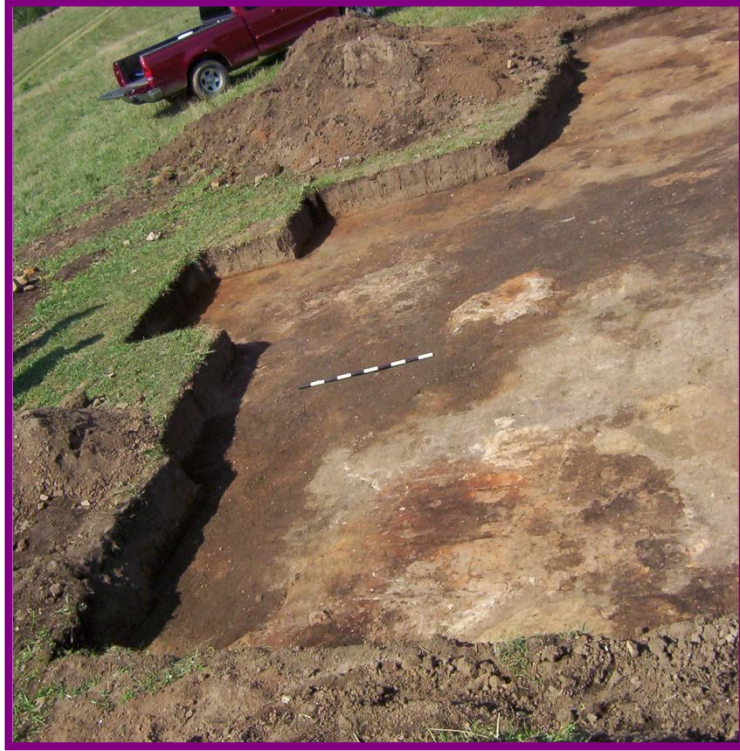
The southern edge of the exposed portion of Occupation Area 1 contains multiple postholes, but it is unclear if this represents a southern wall. A total of four posts are present here, and they cluster in the southeast corner. The average distance between these posts is 50 cm, similar to the northern wall. The average diameter of posts along this edge is 34 cm, with a range between 19 and 60 cm. Three posts located approximately one meter north of these four posts appear to be part of an interior line of posts, with the four other posts making up the exterior line. However, unlike the other three walls, particularly the northern wall, this southern edge lacks a number of posts sufficient to support an edge wall. There is a large burned feature located here, which, although originally thought to be a hearth, may represent a spot where multiple posts burned. Only portions of this feature were excavated, so it is unknown if post remains are located under the entire burned area, particularly the southwest corner of the burned area.

*Structure Size*

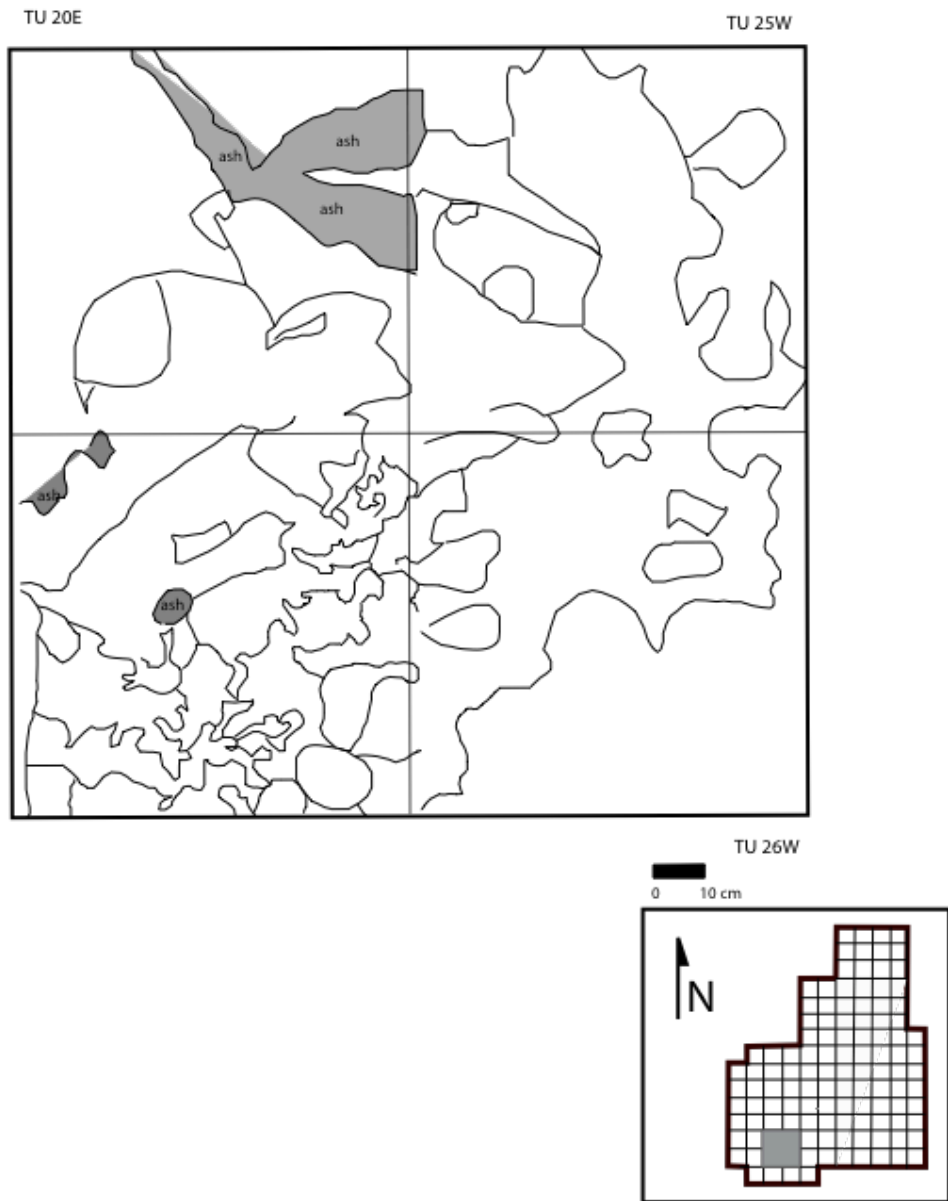
Based on the location of the posts, we can estimate the size of the occupation area, although this is a gross estimation as most of the eastern edge is not present. Polhemus (1987) in describing structures at Toqua, distinguished between a central floor area and an outer floor area. Hally, in interpreting Polhemus, identifies the central floor area as a public use area, “being the place where activities such as eating and visiting occur that involve all residents, and, on occasion, nonresidents.” By contrast, the outer floor area, that portion located between the roof support posts and the outer wall (Hally 2008:82-83), is private space, and “the place where activities such as sleeping and craft production occur that involve individual residents.” Hally finds a strong correlation ( $r=.9086$ ) between total floor space (the entire area of the structure) and central floor space (the area within the four roof supports) for 25 structures at the Mississippian King site in northwestern Georgia. For Structure 1, the total floor area is 35 meters<sup>2</sup> (376.5 feet<sup>2</sup>). The central floor area is approximately 15.75 meters<sup>2</sup> (169 feet<sup>2</sup>), or 45% of the total floor space.

#### **Feature 100-Burned Area**

A large burned area became visible in the southern portion of Occupation Area 1 after the floor was cleaned (Plate 5.4). This was labeled Feature 100, and excavated to determine its nature. Feature 100 was an approximately 50 cm-diameter circular basin (Figure 5.26). It resembles a feature type identified by Polhemus (1987:191) as Type VI, what he terms a “truncated circular deep angular fire basin” (Polhemus 1987:194). At the Ausmus Farm Mound site in the Norris Basin, Webb (1938) found similar features, including Feature 5, a 5 ft diameter burned area, and Feature 10, another 5 ft diameter



**Plate 5.4. Block 1, Occupation Area 1, looking north, with Feature 100 in foreground.**



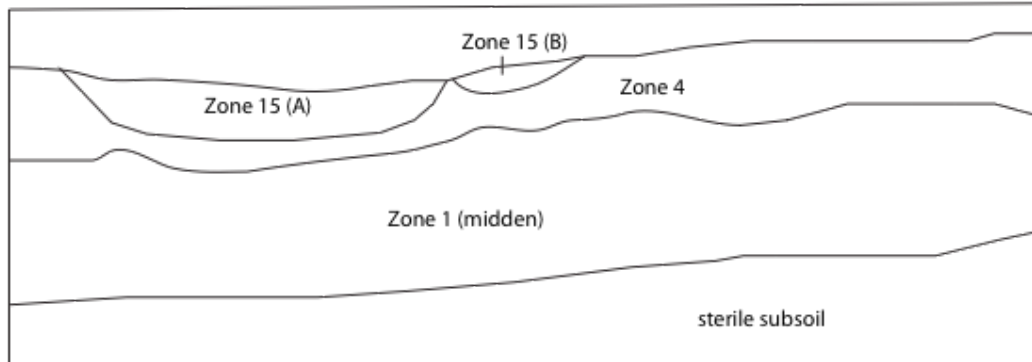
**Figure 5.26. Block 1, Occupation Area 1, Feature 100 Plan View.**

burned clay area filled with humus and mussel shells. At Carter Robinson, the burned area around the feature is more extensive, especially north of the feature. It measures approximately 3.81 m east-west and 2.29 m north-south, encompassing 8.7 m<sup>2</sup>. The burned area on the north side of Feature 1 was excavated to subsoil in two adjacent test units (TU 20E and 25W). These two test units contained multiple midden zones, approximately 10 cm thick, underlain by overlying zones of burned sandy clay (Figure 5.27; Appendix 5a). Within TU 20E, there was a thin, hard clay layer toward the bottom of the midden. The zones below the midden material were composed of brown to dark red sandy clay, sometimes mixed with heavy amounts of ash. These lay above subsoil.

In Zone 7 of TU 20E, a few centimeters above subsoil, remains of a large post were identified. This post was located in the northern portion of the test unit, and continued into the northern wall. It measured approximately 40 cm (east-west) by 15 cm (north-south). Additionally, at the subsoil layer, two posts were identified in the southern edge of the test unit. These both measure approximately 20 cm in diameter, and are laid atop one another, suggesting replacement. South of these posts and abutting them is a mottled midden that appears to be post fill. Another post, also 20 cm in diameter, was identified in the subsoil on the southwestern wall. It was located 20 cm west of the two other smaller posts. TU 25W contained a small post at the surface (i.e., below plowzone). This post measured 13 cm east-west by 20 cm north-south, and was located in the southwestern edge of the test unit. This post did not extend very deeply (a few centimeters) and was not present below the initial layers of the midden zone. The posts in these two test units indicate this burned area represents a burning of multiple

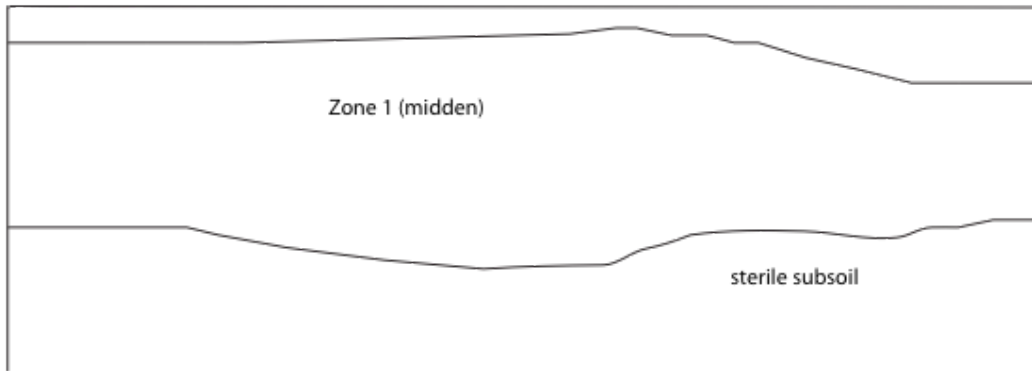


TU 25W



TU 20E

0 10 cm



**Figure 5.27. Block 1, Occupation Area 1, south wall profile of Test Unit 25W (top) and Test Unit 20E (bottom).**

posts rather than a hearth, suggesting the burned area represents the remains of a wall, although more excavation is needed to verify this.

Ceramic artifacts in these two test units show some variation in temper and decoration with depth. A total of 138 sherds was recovered from TU 20E. Of these, most (73 percent) came from the upper midden zones. Shell-tempered sherds were found in all zones, while shell and grit-tempered sherds were only present in Zones 1-6. Shell, grit and grog-tempered sherds were present in Zones 1-7. The second-heaviest concentration of sherds is found in Zone 4, which appears to be an interface between the midden and the burned layers beneath it. Here, 17 sherds (12 percent) were recovered. There is some variance in the types of decoration present on sherds per zone. The lower zones contain smoothed over cordmarked, smoothed, and incised types. The upper zones (Zones 1-4) contain plain, stamped, cordmarked, cross-cordmarked, and incised types.

In TU 25W, a total of 465 sherds were recovered. Like TU 20E, most of the sherds (84 percent) were found in the upper midden zone, while the second heaviest concentration of sherds was present in Level 4 (8 percent). Temper varied by level. In the lower levels, shell-tempered sherds predominate, while in the upper levels, particularly Zone 1, shell, grit and grog-tempered sherds (55 percent) followed by shell and grit-tempered sherds (27 percent) were the majority temper types. There was a greater variety of temper types in the upper zone as well, with (in addition to those tempers listed above) shell and grog, shell and limestone, shell, limestone and grit, shell and sand, and grit tempers present. Level 4 contained shell and grit, shell, grit and grog, and shell, limestone and grit tempers. Variation was present in surface decoration as well. Here, lower zones (11, 16 and 17) contained cordmarked and plain sherds only. In Zone 4, the variety

increased to include cross-cordmarked and one net-impressed sherd. In Zone 1, cordmarked and plain, 43 percent each, are the predominant types; however, cross-cordmarked, incised, net-impressed, slipped, stamped, and smoothed-over cordmarked were present.

Other artifacts suggest activity areas were present. In TU 20E, mostly daub and ceramics were recovered in the upper midden zones, although Zone 1 contained a chert core and a cut mussel shell fragment. In Zone 4, this changes: one flaked and polished bone tube and two bone beads were found. In Zone 6, a polished groundstone fragment was recovered, and in Zone 7, a partially drilled shell, cut shell fragments, and two polished stones were found. Animal bones were concentrated in Zones 4 and 6. In TU 25W, the upper midden zone contained tool fragments, a polished bone fragment, a polished antler tip, a chunky stone, and cut mussel shell fragments. Within Zone 2 an incised turtle shell was recovered along with a mussel shell fragment and a chert scraper. Zone 4 contained only flakes and sherds. Zone 11 contained a limestone axe head and a chert flake tool, while within Zone 15 two shell disk beads, two bone tube beads, and a tool fragment were recovered. Zones 16 and 17 contained a tool fragment and a graver, respectively.

The ceramic data suggest change over time is represented in this feature. The lower zones contain mostly sherds attributable to an earlier, Hiwassee Island or Hiiwassee Island transitioning to Dallas phase occupation. Zone 4 indicates a change occurred, and the midden fill above it represents a greater variety of ceramic tempers and types, consistent with a later occupation. Other artifacts suggest that possibly bead manufacturing, as indicated by the presence of bone and shell beads and cut mussel shell

fragments, may have occurred, particularly in the lower levels. The overlying midden zones may also represent site abandonment and purposeful deposition of midden above the burned area.

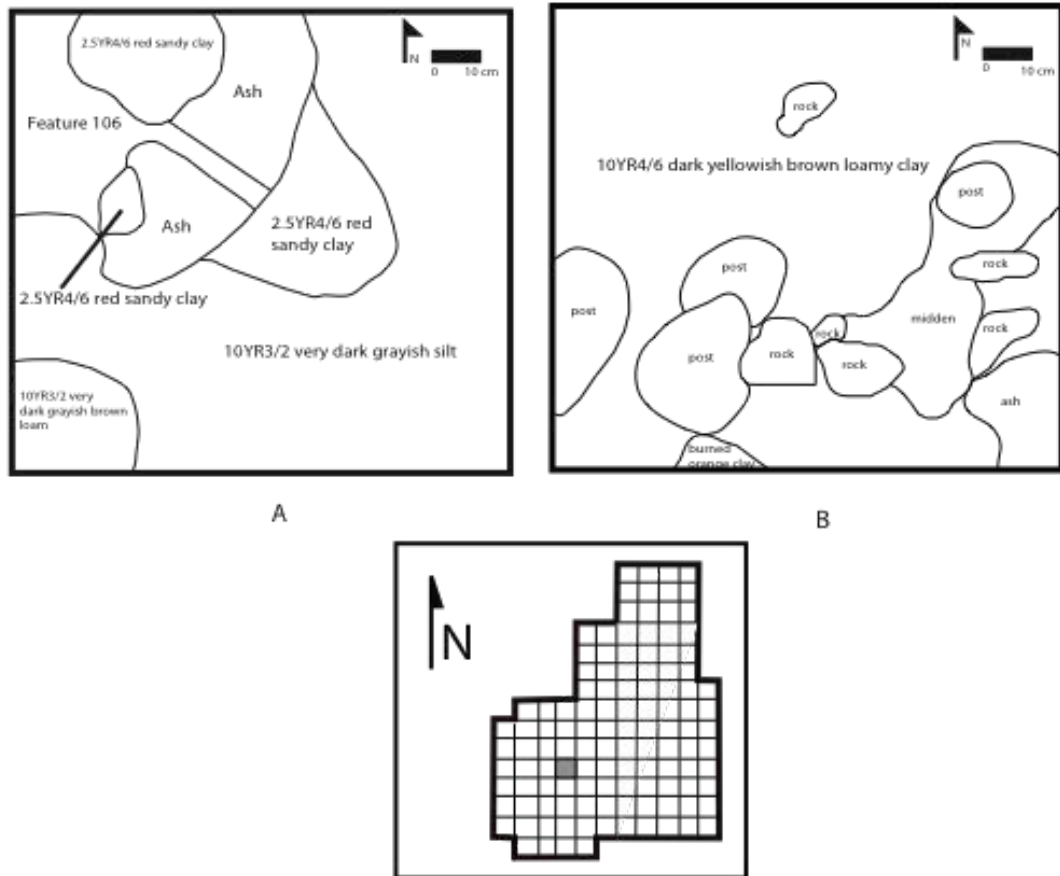
### **Feature 106**

Feature 106 is a small, burned feature located 2 m north of the northern edge of Feature 100 (see Figure 5.24; Figure 5.28). Feature 106 is primarily located in TU 23W, although it extends briefly into TU 4E and TU 1B south. The center of the feature appears to be a burned circular stain, probably a posthole, measuring 30 cm in diameter. It was surrounded by a band of red (2.5YR4/6) ashy clay approximately 7 cm in diameter. This in turn was surrounded by a white ash that extended approximately 30 cm from the orange band of ashy clay in a circle. Midden surrounded the ash on all sides, and some posthole stains were apparent in the midden. Overall, the feature, including interior circular stain and surrounding ash, measured approximately 80 cm east-west and 60 cm north-south.

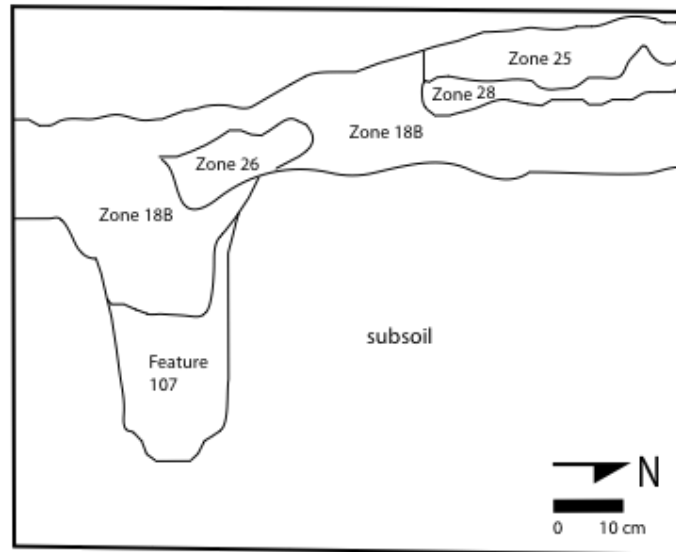
This feature was excavated in multiple zones (Figure 5.29). The midden encircling the feature on its south and east sides was removed, and below this was an ashy clay midden mix. The feature itself contained layers of white and dark red ash; some of this was mixed with midden in thin zones. The bottom layer, Zone 29<sup>7</sup>, was a grey (10YR6/1) ashy floor that was 3-4 cm deep. Postholes were identified during excavation of these zones. Three posts were present in the subsoil located immediately south and east of the central part of the feature, and were overlain by midden. These posts measured between 15-30 cm in diameter, and two appear to represent replacement posts in the same hole. Two of the posts were surrounded by

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<sup>7</sup> Zone 29 was not present in the west wall profile of TU 23W, and therefore is not shown in Figure 5.29.



**Figure 5.28. Block 1, Occupation Area 1, Test Unit 23W, Feature 106, Plan View pre (A) and post (B) excavation.**



**Figure 5. 29. Block 1, Occupation Area 1, Test Unit 23W, Feature 106, west wall profile with Feature 107.**

large (10-15 cm diameter) rocks, likely used for chinking. One post, Feature 107, was visible in the west wall of the test unit (see Figure 5.29).

A total of 263 sherds were recovered from excavations of this test unit. Of these, most (69 percent) came from the upper midden zones surrounding the feature on the south side. The majority of sherds are shell and grit-tempered (39 percent) followed by shell, grit and grog-tempered (33 percent), with equal amounts (9 percent) of shell and grog and shell and limestone tempers. Below Zone 18B, which contained the most sherds, Zones 22 and 24 contained the highest number of sherds, though not in large numbers (n=22 and 8, respectively). Although there are distinctly fewer sherds in these lower levels, the temper of sherds is uniform throughout all the levels. Zone 18B does not show an increased variety in temper. In terms of surface decoration, again, Zone 18B contained the most decorated sherds, with somewhat greater variety in decorative types than other zones. Cordmarked (33 percent) and plain (26 percent) were the most common types, with minor amounts of stamped and burnished, stamped, plain and burnished, net-impressed, and cross-cordmarked found. Of note, Zone 24 contained an incised sherd, Zone 23 an incised and burnished sherd, and Zone 27 a stamped sherd, while two slipped sherds were recovered from Zone 25. Overall, though, plain and cordmarked were the most popular surface treatment in all zones.

Other artifacts recovered from this feature are noteworthy. In Zones 18A and 18B, the soil surrounding the feature, cut gastropod shell fragments, mussel shell fragments, a partial shell bead, a second bead, a chunky stone, cannel coal, jasper core or scraper, and two chert scrapers were recovered. Zone 22 contained a chert drill and a broken polished antler fragment. Zones 23 and 24 contained some cut mussel fragments and stone tools.

Zone 25 contained a drilled shell blank as well as mussel shell fragments and flake tools. Zone 27 contained a flake tool, cut mussel shell fragments, and a hammerstone fragment, while Zone 28 contained large mussel shell fragments, a shell scraper, two shell beads, an antler fragment and a chunky stone blank.

The stratigraphic and artifact analyses of Feature 106 suggest that it may have been a small hearth or possibly a posthole. If it was a single posthole, it is unclear why it was surrounded by layers of ash and burned soil. There is evidence within the feature's zones of shell bead production, and possibly chunky stone production. This area may represent a special-use function, that of bead production. It is possible that the feature is a small hearth necessary for bead production. There are few animal bones associated with this feature to suggest its use as a cooking hearth. Ceramic types are homogenous throughout the feature, indicating a single episode of use, which was covered with midden at or shortly after abandonment of the structure. A similar feature may be present at the McCarty Farm Mound Site in the Norris Basin. There, Feature 1, an ash bed 25 ft long, 5 ft wide, and 18 in thick, contained much shell material mixed with kitchen midden, as well as specialized tools or goods including five shell spoons, two bone awls, and a projectile point (Webb 1938). Although Feature 1 at the Norris Basin site is larger, the function of it and Feature 106 at Carter Robinson may have been similar, but on different scales.

### *Partitions*

There is some evidence of partitioned areas in Occupation Area 3 (see Figure 5.24). Partitions are most evident on the north and west sides of Occupation Area 3, and particularly in the northwest corner. Along the west wall, two areas show a cluster of



postholes that might represent partitions. Daub is concentrated heavily between these areas, followed by concentrations to the south and lesser to the north (see Figure 5.25). Along the north side, there are possible remains of two partition lines. Daub is heaviest along the north side here, and also along the northeastern side. A small partitioned area may have been present here. Finally, daub is heavily concentrated just north of Feature 100. There are small postholes arranged in a circular fashion here as well. The heavy concentration of daub can be partly explained by unequal excavation strategies. That is, the high amounts of daub are from test units excavated on the northern apron of the hearth, and therefore recovery of daub was greater here than other areas. However, daub concentrations remain high south of the hearth.

Although no entranceway was identified in Occupation Area 1, its likely location is on the southeast corner. Such a location would have positioned the front of the structure to face the mound and the plaza. An open east side would have provided a view of the plaza, most of the rest of the village, as well as views of the mountain passes to the north, likely trade routes, and views of the south and east. Ten kilometers east of Carter Robinson lay the Ely Mound site, which was very likely (based on artifact similarities) contemporaneous with Carter Robinson. However, it is possible that this structure lacked walls. Its irregular posthole patterning, except for the northern and northwestern sides, precludes any definitive statement about what type of structure was here. Webb (1938) found similar irregular patterns at Mound 2 of the Bowman Farm Mound site, and suggested they represented an open-air arbor. The presence of the more regularly spaced and sized postholes in the northern and northeastern sides may indicate a building was

here at one time; only part of the building contained walls; or they are part of another structure.

### **Occupation Area 1 Summary**

Occupation Area 1 is a domestic area located on the north side of the mound. Radiocarbon dates show that it is contemporaneous with mound use. Approximately two-thirds of this occupation area was uncovered, revealing more than half of the east and west sides, as well as the entire north side. A large burned area, Feature 100, may represent either a large hearth, or based on the large amount of daub recovered here, the remains of a burned wall. A smaller burned area, Feature 106, may represent a small hearth or possibly a special-use fire area related to craft production. The eastern side may have been more open, as suggested by the relative lack of large posts along this wall. Partitioned areas are also present in the western and northern portions of the structure. Understanding the function of Occupation Area 1 is discussed below following description of the other areas in Block 1.

### **Occupation Area 4**

Occupation Area 4 is located on the northeast corner of Occupation Area 1 (see Figure 5.24). These structures may overlap at this corner; if they do not overlap, they were located very close to one another. Occupation Area 4 may have been built before Occupation Area 1.

Occupation Area 4 resembles a Mississippian structure in many regards. It contains three, and possibly four, interior support posts surrounding a hearth. Occupation Area 4 also contains evidence of an entranceway on its southwest corner. Occupation Area 4 was almost completely uncovered, except for a portion of the northeast corner. In

addition, a hearth as well as a pit feature located within the occupation area were bisected and excavated.

#### *Postholes, Walls & Possible Structure Size*

A total of 10 postholes define what may be the outer walls of a structure in Occupation Area 4 (see Figure 5.24). The average diameter of these posts is 33 cm, and the average distance between posts is 1.3 m. The northern wall measures 6.14 m long, from midpoint of each corner post. The western wall measures 4.69 m long, also from midpoint of each corner post. The total area of the structure is 28.67m<sup>2</sup> (308.6 ft<sup>2</sup>).

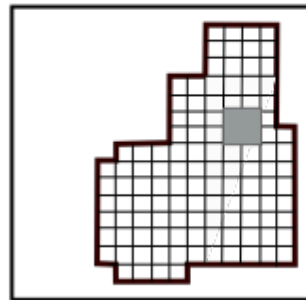
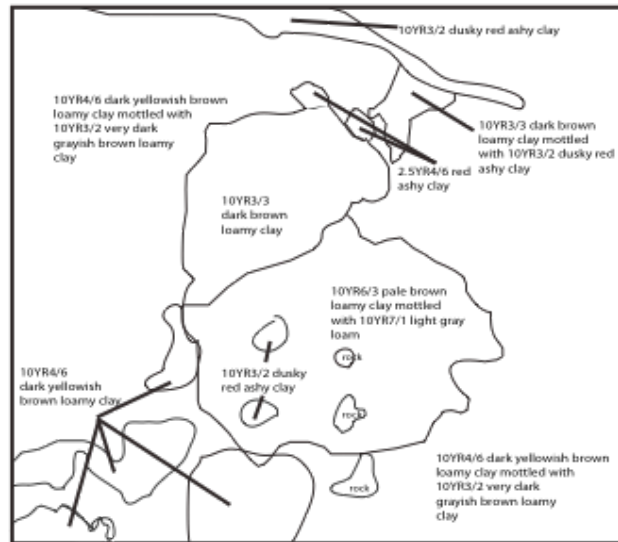
The three interior posts average a diameter of 36 cm. Each is located between 3.7m and 3.9 m from the other. The posts are located an average distance of 2.4 m from the center of the hearth. A fourth post is likely located in the unexcavated portion of Block 1, beyond Block 1's eastern wall, and may be present in the western edge of Block 2 (see Figure 5.2; Figure 5.17). The area encompassed by the interior posts, that is, the central or public living area, is 14.6 m<sup>2</sup> (157 ft<sup>2</sup>), or 51 percent of the total living space. Daub is concentrated in large amounts on the outside of the entranceway, and in smaller amounts on the interior of the entranceway; both concentrations are located on the right side of the entranceway. Although the hearth was bisected and excavated, no significant amount of daub was found in or near it, as compared to the area around Feature 100 in Occupation Area 1 that contained high amounts of daub.

A large post in the western edge of Block 2 may be associated with Occupation Area 4 (see Figure 5.17). Its size and proximity to Occupation Area 4 suggest it is more likely affiliated with the latter structure. If so, it may be a corner post on the exterior wall of Occupation Area 4.

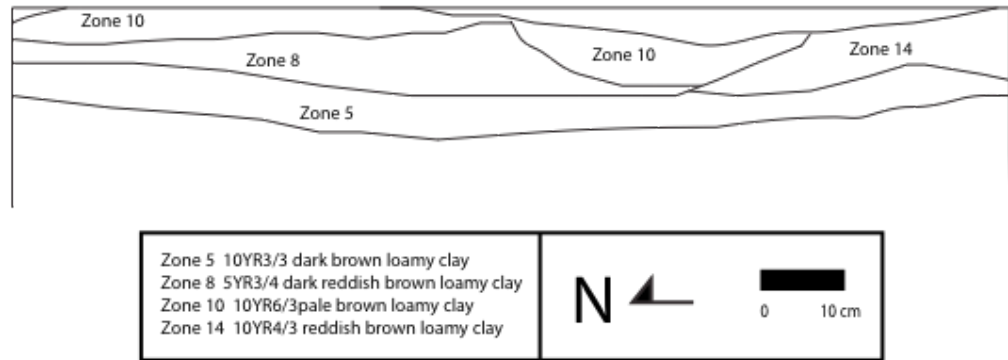
**Feature 53-Hearth**

The hearth (Feature 53) in Occupation Area 4 was located in the middle of the structure, and surrounded on four sides by interior posts. The hearth measures 1.9 x 1.9 m, and covers an area of 1.18 m<sup>2</sup> (Figure 5.30). The hearth was likely square, but its original shape is hard to define, making it difficult to type according to Polhemus' types for Toqua's hearths (1987:191). It contained a hearth basin with an ashy layer that was about 10 cm deep and 80 cm wide; this layer was surrounded by a 10-cm-thick burned clay rim (Figure 5.31). It lacked hearth stones, which distinguishes it from hearths found at sites in Norris Basin (Webb 1938); however, it is similar to Feature 5 found at the Bowman Farm site, which was a 3 ft diameter circular fireplace covered in ashes and charcoal. One small posthole was present beneath the hearth in Occupation Area 4, and was visible after excavation, suggesting it predated the hearth. Another was present immediately (5 cm) southwest of hearth, and appears to have been contemporaneous with the hearth. The hearth itself was surrounded by a midden layer, and overlain by a mixture of plowzone and midden; however, midden was not very thick overlaying this hearth. Feature 53 did not contain a recognizable hearth apron beyond the thin layer of burned clay surrounding the hearth.

Most of the artifacts associated with Feature 53 were recovered from the overlying midden zones. Here, animal bones, a tool fragment, and a ceramic disk were found. Below this, in Zones 8 (burnt red clay layer) and 10 (ash layer below Zone 8) were found turtle shell, polished stone, cannel coal fragments, and animal bone, as well as daub and mussel shell fragments. Other zones below these contained either no artifacts or a few sherds (see below). Feature 105, the post found at the bottom of the hearth



**Figure 5.30. Block 1, Occupation Area 4, Plan view of Feature 53 (Test Unit 46W, top left; Test Unit 46E, top right; Test Unit 45W, bottom left; Test Unit 45E, bottom right).**



**Figure 5.31. Block 1, Occupation Area 4, Feature 53, east wall profile.**

excavations that appeared to intrude the hearth, contained one sherd.

Ceramics recovered from the feature were not very numerous (n=21). Of these, Zone 10, immediately below the midden and located at the edge of the hearth, contained the greatest diversity of types. Shell-, shell, grit and grog-, and shell, limestone and grog-tempered sherds were recovered from this zone. The midden zone contained less variety, with shell-, shell and grit-, and shell, grit and grog-tempered types, while Zone 12 contained only two shell-tempered sherds, Zone 20 one shell-tempered sherd, and Zone 14 one shell, grit and grog-tempered sherd. Surface decoration was most elaborate in Zone 10 as well, with cordmarked, plain, and incised types present, whereas Zone 5, the midden zone, contained only plain sherds. Zone 12 contained two cordmarked sherds; other zones (8, 14, and 20) contained sherds too residual to identify. While the ceramic frequencies for this feature are low, they suggest that the upper layer of the hearth, represented by Zone 10, contained more variety in terms of both type and surface decoration than the lower levels. The presence of only shell-tempered pottery below Zone 10, which changed to include tempers of shell and limestone, and shell, grit, and grog, suggests that the hearth was first used earlier in the occupation as compared to Feature 100 in Occupation Area 1.

### *Partitions*

There is evidence of partitions in Occupation Area 4 (see Figure 5.24). Southwest of the hearth a possible partition line was identified. Other postholes suggest that partitions may be present north of the hearth. A long partition line is present as well on the northwest edge of the occupation area, but is not in line with other partition lines; instead, it appears to face the hearth and may be the remains of a bench or seating area.

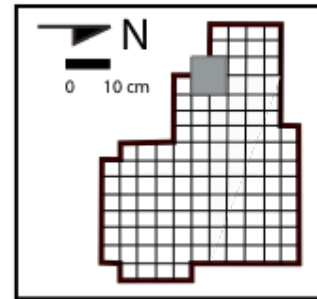
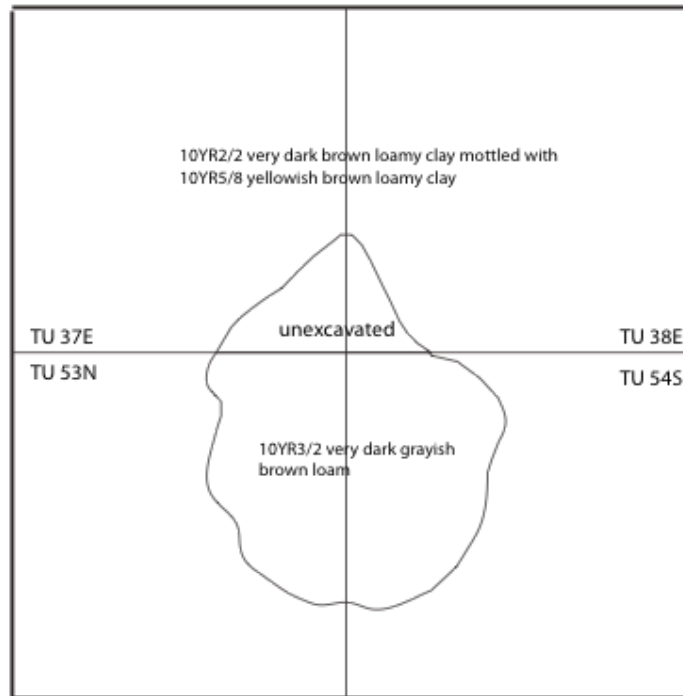
### *Entranceway*

Unlike Structures 1, 2 or 3, an entranceway is identifiable for this occupation area. This is located on the southwest corner of the structure (see Figure 5.24). The eastern entranceway is 1.26 m long, and on its southern end contains remains of a posthole. The western entranceway is 90 cm long, and posthole remnants are visible at both its northern and southern ends. Other partition lines were visible immediately west of these lines, suggesting some rebuilding may have occurred. In addition to the entranceway remains at the outer edge of the building, there is some evidence of an entranceway within the structure itself. Two sets of lines, the same approximate width as those located on the outside of the structure, are located about 1 m and 1.5 m within the structure, respectively. If these are a continuation of the entranceway, it suggests the entranceway turned to the right upon entering the building, and led to the center of the structure.

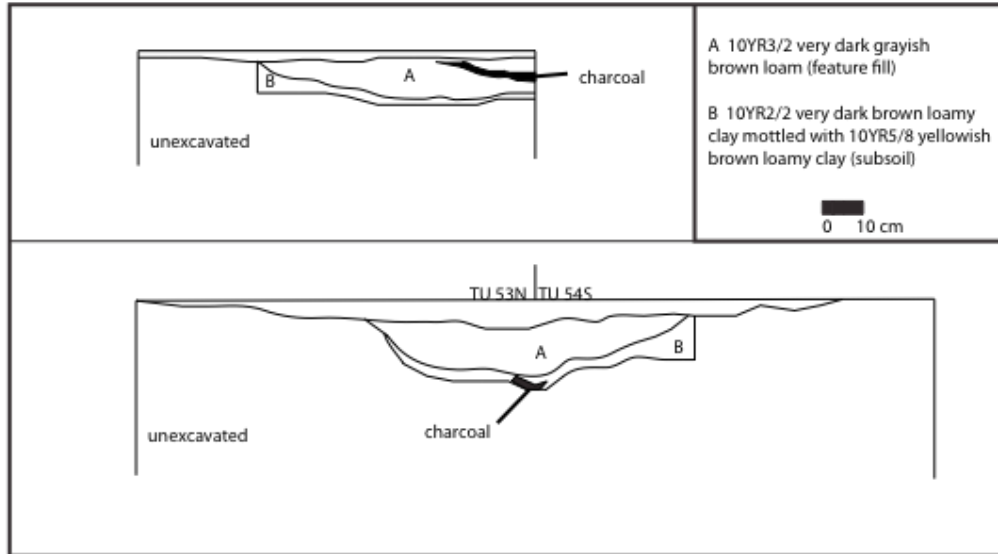
### **Feature 94-Pit**

A circular pit, Feature 94, was located on the north side of Occupation Area 1 (see Figure 5.24). The pit measured 1.05 m east-west and 87 cm north-south (Figure 5.32). The pit was bisected, and the eastern half, comprising over two-thirds of the entire pit, was excavated. The pit was approximately 12 cm deep, and was overlain by approximately 35 cm of plowzone. Fill consisted of a mostly uniform 10-cm-thick layer of "A", underlain by subsoil (Figure 5.33). In the center of the pit was a small charcoal stain, about 1 cm thick. The pit fill contained a tip of a point, and a very small and thin ceramic handle, similar to Hiwassee Island-style pottery handles. In addition, some animal bones, a tool





**Figure 5.32. Block 1, Feature 94 plan view.**



**Figure 5.33. Block 1, Feature 94, south wall profile (top) and north wall profile (bottom).**

fragment, and small fragments of FCR were present in the pit. The pit resembles Type A pits as identified by Polhemus (1987:163) in profile and dimension (Polhemus 1987:173) and in profile type, it is similar to Dalla scomponent pits found at Toqua. Closer to Carter Robinson, pits found at Norris Basin sites are usually wider and deeper; however, Feature 18 at the Ausmus Farm Mound site was a basin filled with ashes and midden, so there are similar analogues in the region.

#### *Occupation Area 4 Summary*

Occupation Area 4 resembles a Mississippian domestic structure, similar to those identified at sites like Norris Basin (Webb 1938), Toqua (Polhemus 1987) and King (Hally 2008). Mississippian components include the four interior support posts, the entranceway, the location of the hearth in the center of the structure, and the dimensions of the structure (see Gougeon 2007). One pit feature associated with the structure is located on the northern wall of the structure, and resembles, in shape and dimensions, similar features found at Norris Basin and Toqua.

Occupation Area 4 was likely built following the occupation of nearby Occupation Area 3. There is evidence for an occupation following the initial occupation of the site (which is represented by Occupation Area 3). Evidence for a later occupation includes the following. First, a structure in Occupation Area 4 was constructed using single-set post methods, an architecture type associated with the Dallas period. Additional evidence for an occupation post Hiwassee Island but early Dallas period is found in the pit associated with Occupation Area 4, where a small, Hiwassee Island-style handle was recovered. Overall, the structure in Occupation Area 4 was likely not inhabited very long, based on the shallowness of the pit and hearth features. In sum, it

was built after Occupation Area 3 was constructed, likely around the time Occupation Area 3 was abandoned. Based on ceramic types, Occupation Area 2 may have been occupied just before Occupation Area 1 was inhabited. It is not clear if the areas were inhabited at the same time; if so, they were located very close to each other. It is possible that Occupation Area 4 was occupied and then abandoned before Occupation Area 1; if so, its occupation was probably brief, based on the shallow features associated with this structure.

### **Other Areas in Block 1**

There are three other areas in Block 1 that may represent the edges of structures. First, in the southwest corner of Block 1, a clustering of posts and a possible trench line are present (see Figure 5.24). Not enough of this area was uncovered to identify post patterns and few artifacts were recovered from this part of the block.

A second area, consisting of a cluster of posts, is located in the northeast corner of Block 1. Again, too little area is uncovered here to identify any pattern to the posts, and few artifacts were recovered from this area.

A third area is on the northwest edge of the block, west of Structure 4. A small cluster of posts is present here that could be related to Structure 4, but their pattern is not clear.

### **Occupation Area 2**

Occupation Area 2 is located approximately 85 m east/northeast of the mound summit center (datum) (see Figure 5.2). During preliminary shovel test survey in 2006, a shovel test located 80 m east of the northeastern mound edge contained at least five cultural strata. Ash and charcoal layers were present in the strata, and over 300 artifacts

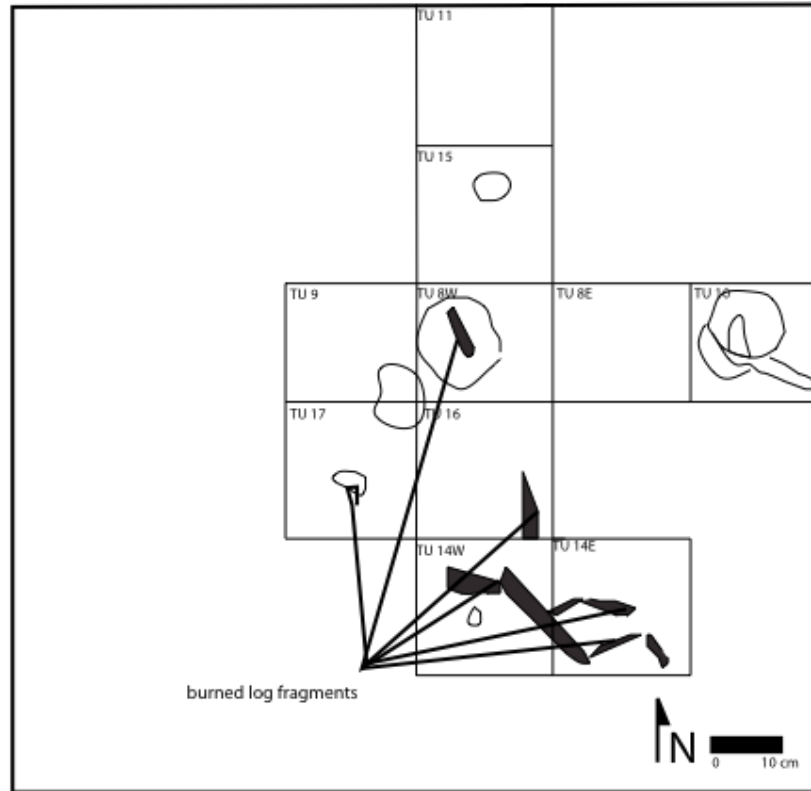
were recovered. Geophysical conductivity survey in 2007 in the same location identified the edge of a burned area at least 10 m wide. Ten 1-x-1-m test units were placed here in 2007. Below the plowzone (located approximately 35-40 cm below surface), all of the test units contained burned soil, and five contained burned wood fragments (Figure 5.34).

In 2008, these test units were expanded into a 6-x-6-m block. Additional burned wood, a hearth, and postholes were identified in this expanded area. Two test units, 8W1/2 and 9, were excavated to subsoil to determine the depth of the cultural deposit. Multiple occupational sequences were identified in these two test units. An adjacent test unit, 163E, was excavated to the layer above the first occupation. A fourth test unit, 172N, was excavated below the hearth dating to the upper occupation. All of the remaining test units in Block 3 (n=32) were excavated to the most recent occupation below the plowzone, which provided the most complete picture of any structure found in Block 3. Appendix B contains stratigraphic descriptions of the excavated zones and features of Test Units 8W1/2, 9 and 163E, which are quite detailed; other test units and features are discussed below. Radiocarbon dates were obtained from this uppermost occupation, which date it to 512 $\pm$ 38 (AA 80785; wood charcoal; $\delta^{13}\text{C}=-25.3\%$ ) (cal A.D. 1325-1345 2 $\sigma$  [cal A.D. 1408-1436 1 $\sigma$ ]). Based on these data, the occupation sequence in this area is described below.

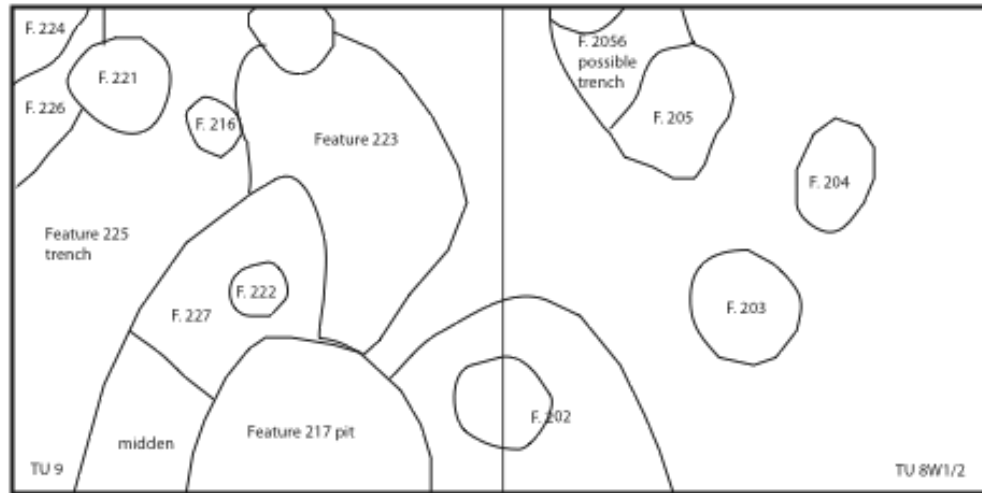
### **First Occupation**

At an approximate depth of 90-115 cm below unit datum, multiple postholes, a possible pit feature, and a possible trench feature were uncovered in the adjacent Test Units 8W1/2 and 9 (Figure 5.35; Table 5.3). The depositional sequence is as follows:

First, a possible trench (Feature 225) marked by a very dark grayish brown (10YR3/2) silty loam, was excavated into dark yellowish brown (10YR5/6) silty clay loam subsoil.



**Figure 5.34. Block 3, Occupation Area 2, 2007 test units showing feature locations.**



**Figure 5.35. Block 3, Occupation Area 2, plan view, lowest level of structure.**



**Table 5.3 Features Identified in Levels 6 & 7, Test Units 8W1/2 and 9.**

<b>Feature Number</b>	<b>Test Unit</b>	<b>Feature Shape</b>	<b>Feature Diameter</b>	<b>Soil Description</b>
202	8W1/2 & 9	Round	55+	10YR3/3 silty loam
203	8W1/2	Round	20 cm	10YR3/2 silty loam
204	8W1/2	Round	22 cm	10YR3/2 silty loam
205	8W1/2	Round	22 cm	10YR3/2 silty loam
206	8W1/2	Linear	20 cm	10YR3/3 silty loam
207	8W1/2	Round	18 cm *	10YR3/2 silty loam
215	9	Round	12 cm**	10YR4/3 loam mottled with 10YR5/6 sandy loam
216	9	Round	17 cm	10YR4/3 loam
217	9	Round	35+ cm	10YR3/2 silt loam mottled with 10YR4/6 clay
223	9	Round	55+cm	10YR3/3
224	9	round?	Unknown	10YR3/2
225	9	Linear	20 cm	10YR3/2
226	9	round?	Unknown	10YR6/6 clay
227	9	Round	45 cm	10YR6/6 clay

\*approximate size; only partial posthole uncovered;

Note: subsoil is a 10YR4/6 silty clay loam

\*\*this is probably the posthole diameter

This trench was approximately 20 cm wide and extended from the western edge of Test Unit 9 into the northwestern edge of the same test unit. A portion of a second trench, a dark brown (10YR3/3) silty loam (Feature 206) may have been present in TU 8W1/2 extending out of its northern wall. This trench was approximately 20 cm wide. It extended about 30 cm before ending at a posthole (Feature 205). A small portion of another posthole, Feature 207, was located atop the northwestern edge of the trench where it exited the wall of the test unit. If this was a trench, it may have connected these two posts. It could represent the end of a trench line, or it may have continued to join other postholes identified (Features 204 and 203), and this portion of the trench is no

longer visible. If it was not a trench, it may represent the remains of a large post, although its shape is more linear than round. It also appeared longer on two sides, again suggestive of a linear shape rather than a square posthole.

Following trench construction, or possibly contemporaneous with it, was the placement of multiple postholes. Feature 202, a partially exposed posthole measuring at least 50 cm in diameter<sup>8</sup>, was located in the south-central portion of both test units (see Figure 5.35). Feature 202 and 206 are similar in size, although Feature 202 was more clearly circular. This could be because more of Feature 202 was exposed (as compared to Feature 206). Other posthole features present included Feature 223, a round feature that appears to date to about the same time as Feature 202 (see Figure 5.35). It is at least 55 cm in diameter<sup>9</sup>. It appeared to intrude into the trench at its northeastern edge. Similarly, Feature 223, located only 5 cm northwest of Feature 202 and 35 cm west of Feature 206, was a large (at least 55 cm in diameter) round possible pit feature filled with charcoal and shell fragments that appeared to intrude onto Feature 225, or the trench feature, located in TU 9.

Multiple similar postholes (Features 203, 204, 205, 215, 216, and 221) were likely dug next. Features 203 and 204 were located in Test Unit 8W1/2 and have similar diameters. Feature 205 intruded into the possible trench feature located in the northern part of TU 8W1/2, and its shape suggested either post replacement occurred, or a side trench was used to erect the post. Hally (2008:154) describes such lateral extensions of

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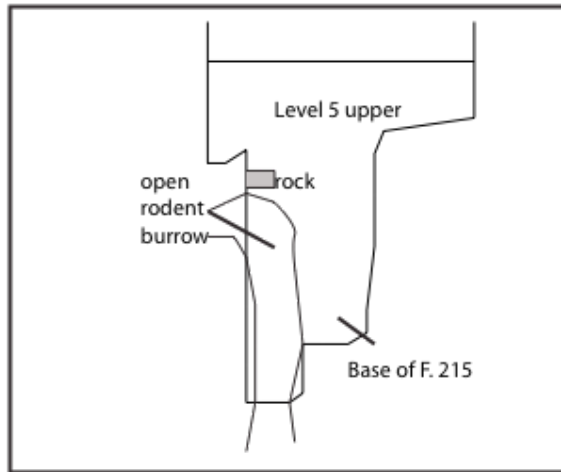
<sup>8</sup> Only approximately 2/3 of this feature was uncovered, so its diameter is estimated based on the uncovered portion.

<sup>9</sup> Feature 223 was overlain by Features 217 and 227, so its diameter is approximated based on the portion of the feature uncovered during excavation.

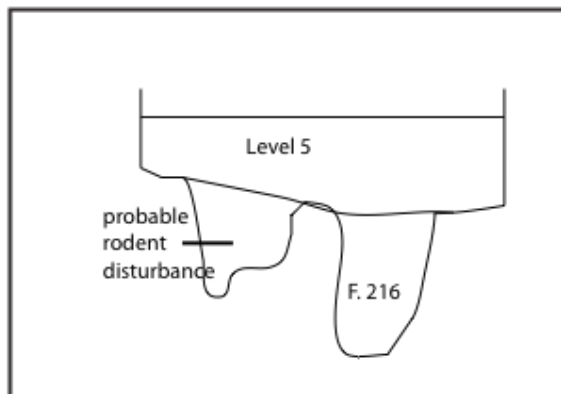
postholes used to aid in raising the post; however, these are usually seen in much larger (2-3 ft) diameter posts, whereas Feature 205 was only 20 cm in diameter.

Feature 215 intruded on both Feature 225 (Test Unit 9 trench) and Feature 223 (the pit feature that intrudes upon the trench in Test Unit 9). Feature 216 was a smaller post that also intruded on the trench, and partially on Feature 223, on that pit's western edge. Both Features 215 and 216 were excavated and profiled (Figure 5.36). Both were postholes with interior postmolds visible. Feature 215 was 12 cm in diameter; it was heavily disturbed by a rodent burrow. Both charcoal and shell fragments were recovered from this feature.

Feature 216 measured 17 cm in diameter, while the post stain (which is visible in the plan view) had a diameter of approximately 9-10 cm. This feature contained animal bone, shell, pottery and charcoal, and it was slightly disturbed on its western side. Feature 216 was approximately 11 cm deep, while Feature 215 was approximately 16 cm deep; however, it is unclear how much the rodent damage altered the original size of the postholes. It should be noted that the fill of both Features 215 and 216 differed from the other postholes, in that they consisted of a brown (10YR4/3) loam, and Feature 15 was mottled with a yellowish brown (10YR5/6) sandy clay. These differences in soil color and texture were likely the result of significant rodent disturbance present in both postholes. However, it may be evidence that these two postholes are part of a separate structure rebuilt here. The fact that in profile both features obviously originated in Level 5 lower, and the other posthole features seen at this level (Level 6) were not visible before Level 6 was excavated, suggest that they may represent a rebuilding episode.



0 10 cm



**Figure 5.36. Block 3, Occupation Area 2, north wall profiles of Features 215 (top) and 216 (bottom).**

Feature 221 was a posthole approximately 20 cm in diameter. Its similar color and shape suggest it was contemporaneous with Features 203, 204, 215, and 216.

Feature 227, a large pit, intruded upon Features 223 and 225. It contained a post, Feature 222, which appeared to intrude into it. Feature 227 was a brownish yellow (10YR6/6) clay, a distinct difference from the silty loam soil of the other features at this level. This feature was approximately 45 cm in diameter. The post, Feature 222, measured approximately 10 cm in diameter, and was the same color (very dark grayish brown [10YR3/2]) as the other posts, suggesting they may be contemporaneous. It is possible that Feature 227 was a postmold and Feature 222 was its posthole; however, the difference in fill color and texture, as well as the large size of Feature 227 as compared to the small size of Feature 222, argue against this.

Finally, Feature 217, a possible pit or posthole, intruded upon all other features, and appears to be the last deposit. It may be a deposit from upper levels intruding upon this lowest level. Its diameter cannot be determined, as it was only partially excavated, but is at least 35 cm. Its fill is a dark yellowish brown (10YR4/6) clay mottled with a very dark grayish brown (10YR3/2) silt loam. The feature is narrow and rounded at the bottom, which suggests a posthole. If it is a pit, the feature is very narrow relative to its depth. Pottery, flakes, fire-cracked rock, animal bone, and of note, a chunky stone were recovered from this feature.

Three additional features were only partially excavated, making their feature type identification difficult. The shape of Feature 207 suggests it was a portion of a circular posthole. The portion in TU 8W1/2 measures 5 cm (north-south) by 18 cm (east-west). Its fill was a very dark grayish brown (10YR3/2) silty loam. Together, soil color and texture,

feature shape, and feature placement suggest it is a posthole contemporary with Features 203, 204, and 205.

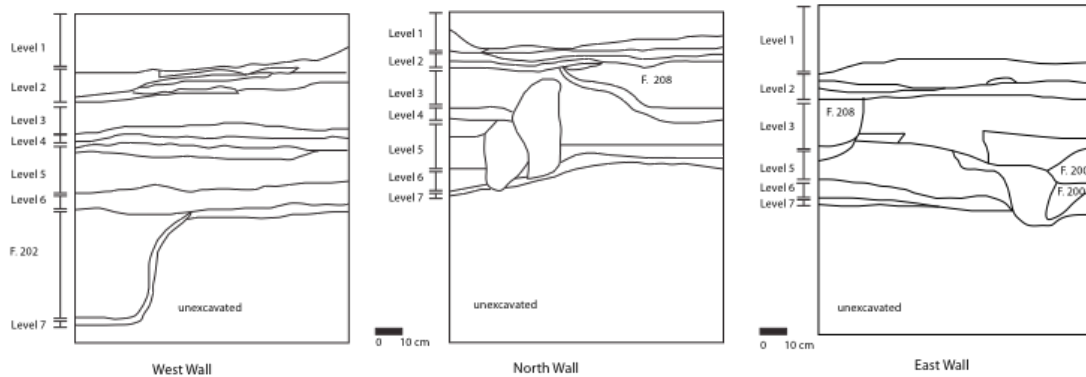
Feature 226 was a possibly linear or rounded pit feature located in the northwestern corner of Test Unit 9. Its fill was a brownish yellow (10YR6/6) clay, which suggests some relationship between this feature and Feature 227, located approximately 20 cm southeast of it. These areas may be re-deposited subsoil from the trench excavation, or they may be pit features associated with the trench structure.

Finally, Feature 224 was a portion of a round area in the northwest corner of TU 9 that intruded upon Feature 226. Its soil color-very dark grayish brown (10YR3/2) and its shape and location above Feature 226 suggest it is a posthole contemporary with Features 215, 216 and 221.

Based on these remains, it appears that a domestic occupation of some type was in this location. The small size of the postholes and their intrusion into the pit suggest that this may have been a wall trench structure whose trench was built first, and posts of approximately the same size were erected in and near the trench. At least one pit may have been present within the domestic occupation area. There is some evidence, particularly in Features 205, 215, and 216, that rebuilding occurred in the area. Lacking additional data from this level, little more can be said about this earliest occupation.

### **Second Occupation**

Above the first occupation level there is extensive evidence of a second occupation level. First, directly above the first occupation features was a midden (Level 5) in TU 8W1/2 (Figure 5.37); this midden was also present in Test Units 9 and 163E. This midden zone varied in depth, but ranged from 10 to 15 cm thick. It is divided into two sections: Level 5 lower, a midden zone of variable depth (between 5-18 cm), is



**Figure 5.37. Block 3, Occupation Area 2, Test Unit 8W1/2, west, north, and east wall profiles.**

lighter in color (very dark grayish brown [10YR3/2]) than the overlying Level 5 upper (dark brown [7.5YR3/2]). Level 5 upper was approximately 10-15 cm thick. The difference in color of the two levels suggests two separate but related, occupations, most likely structure rebuilding and reuse in the same area. Of note, the postholes identified in the lower level associated with the first structure are of the same soil color and texture as Level 5 lower, suggesting the lower midden is associated with this first structure, and a second structure was rebuilt over it. Level 5 upper is the midden associated with this second structure; Features 215 and 216, and possibly Feature 205 are associated with this rebuilt structure.

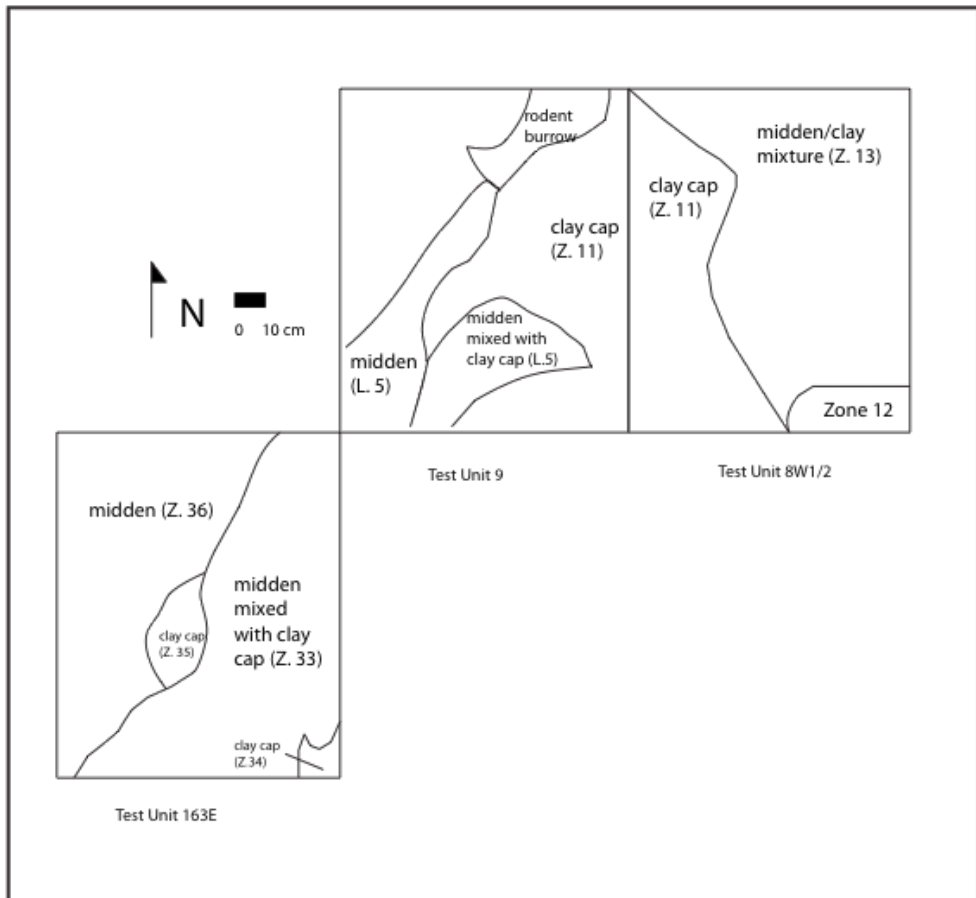
Artifacts recovered from this level of both test units are listed in Table 5.4 below. The highest artifact density occurred in TU 8W1/2. Shell and grit-tempered and shell, grit, and grog-tempered pottery were most common in these test units. Of note, two stamped body sherds and one Pisgah rim sherd were present as well, although most sherds recovered were undecorated. Also recovered from TU 8W1/2 were chunky stone fragments, a stone bead fragment, drill tips, multiple tools, animal bones, including most of an entire turtle carapace, and a mica fragment.

Level 5 upper is overlain by Level 4, an approximate 5-7 cm thick clay cap. Figure 5.38 shows the plan view of the interface between Levels 4 and 5. In this plan view, portions of Level 5 were visible as Zones 11 and 12 in TU 8W1/2; Level 5 in TU 9 (partially disturbed by a rodent), and Zone 36 in TU 163E. An intermediate, mixed zone of Level 5 midden and Zone 4 clay cap was present in all three test units as well, and seen as Zone 33 in TU 163E; Level 5 clay in TU 9, and Zone 13 in TU 8W1/2. Lying above



**Table 5.4. Artifact Types Recovered from Level 5 of Test Units 8W1/2 and 9.**

Artifact Type		TU 8W1/2	TU 9
Grit & grog	Plain	1	0
	Residual	3	0
Shell	Plain	3	0
	Residual	1	0
Shell & limestone	Plain	1	0
	Plain	3	1
Shell & grit	Cordmarked	1	0
	Node	1	0
	Residual	9	4
Shell & grog	Residual	3	0
	Residual	2	8
Shell, grit & grog	Cordmarked	0	2
	Stamped	2	0
Grit-tempered	Pisgah	0	1 (rim)
Polished/cut bone fragments		2	4
Other animal bone		7 (turtle carapace)	0
Tool fragments (celts)		3	3
Chunky stone		1 (broken)	0
Polished stone		0	1
Bead, stone		1 (stone, broken)	0
Drill/drill tips		0	2
Graver		0	1
Daub fragments		Multiple	Multiple
Limestone fragments		3\4	0
Mica		0	1
Cut mussel shell fragments		0	9



**Figure 5.38. Block 3, Occupation Area 2, Test Units 163E, 9, and 8W1/2 showing interface between clay cap and underlying midden.**

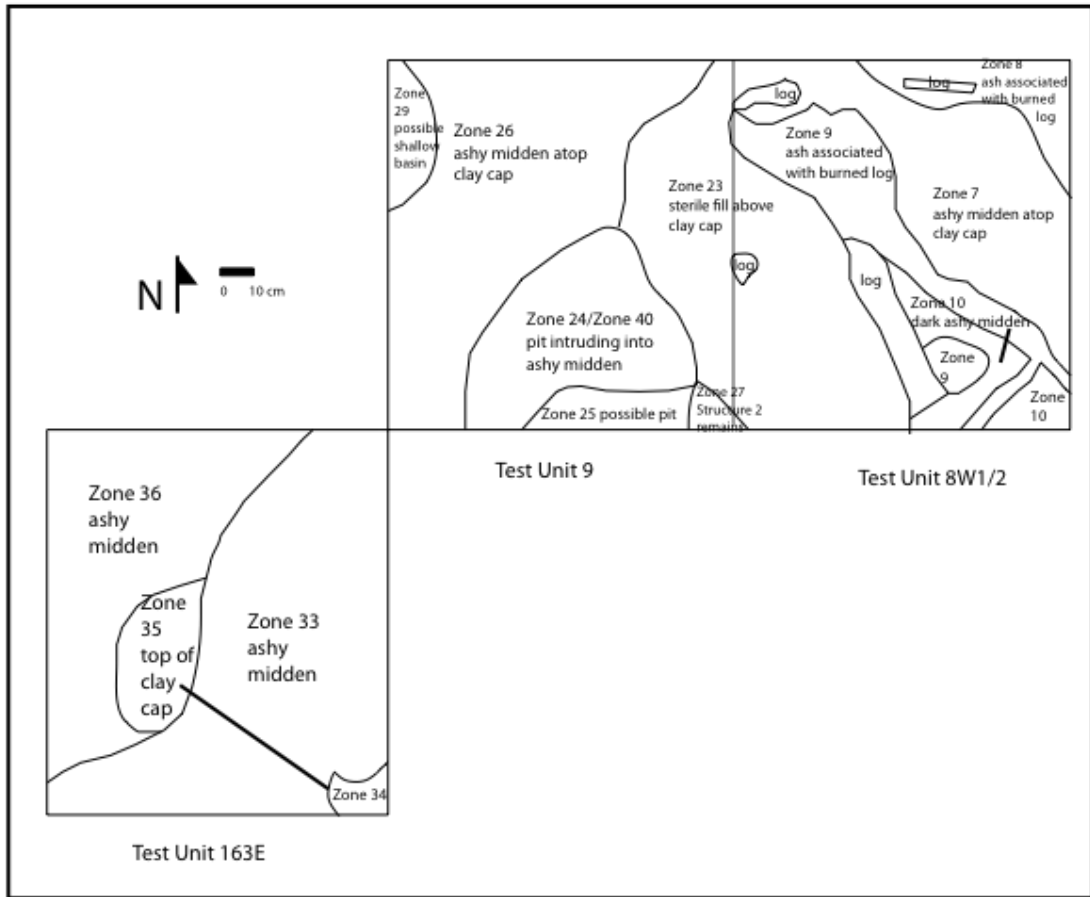
this was Level 4, the clay cap. This was present in Test Unit 9 and in pockets of Test Unit 163 as Zones 34 and 35. In TU 8W1/2, a thin lens of ashy brown soil underlay the Level 4 clay, suggesting that the structure represented by Level 5 upper was burned, and a clay cap placed atop its remains.

Artifacts found in Level 4 in Test Units 8W1/2 and 163E are listed in Table 5.5. No artifacts from Level 4 in TU 9 were recovered. Here, most sherds were shell-tempered, usually combined with grit and grog, grit, or grog tempers. One stamped fragments, possibly part of a pipe bowl, were found, as well as a chunky stone fragment, beads, a drill fragment, tool fragments, and cancell coal fragments.

**Table 5.5. Artifacts Recovered from Level 4 of Test Units 8W1/2 and 163E.**

	<b>Artifact Type</b>	<b>TU 8W1/2</b>	<b>163E</b>
	Residual	31	2
	Plain	7	0
Shell & grit	Stamped	1	0
	Cross cordmarked	1	0
	Residual	11	2
Shell grit & grog	Plain	3 (rim)	0
Shell and grog	Residual	2	0
	Residual	2	0
Shell	Plain	2	0
	Slipped	1	0
Grit	Plain	1	0
Stone bowl fragments		2	0
Limestone slab/scrapper		3	0
Tool fragments (celts)		11	2
Possible chunky stone		1	0
Polished bone		2	0
Iron/ferruginous metal fragment		2	0
Tubular bone bead fragment		1	1
Cancell coal fragment		1	0
Daub		Multiple	0
Grey chert core		0	1
possible palette fragment		0	1
Drill		0	1

Above Level 4's clay cap was another midden, Level 3, associated with a second structure in this location. This ashy midden contained burned logs; the amount of burned logs and ash varies across the test units but this level is approximately 20-25 cm thick. Feature 200, a pit feature located in the southeast corner of TU 8W1/2, originated in this midden and intruded into the Level 4 clay cap. Part of the clay cap was present in the feature fill. This feature was approximately 20 cm wide and 25 cm deep. The pit contained multiple layers of mottled fill, which may represent different depositional episodes, that is, the pit appeared to have been used over a long period of time. It was overlain by approximately 10 cm of midden fill, so it may have been used only during the early part of this second structure's occupation. Like Level 5's midden, there appear to be two building episodes represented in this midden, based on the presence of burned log debris and ash mixed in with the midden at the upper part of Level 3. Figure 5.39 shows the plan view of Test Units 8W1/2, 9 and 163E at the top of Level 3. Test Unit 172N located 1 meter southwest of TU 8W1/2, also contains this Level 3 midden (see below). Beyond the midden, structural remains were not as numerous as the lower level, but they were present. They include Feature 208 in TU 8W1/2, a small pit located on the east half of the test unit. This was recognized as a pit in the east wall profile (see Figure 5.37) and therefore, exact dimensions of this pit are unknown. Based on the profile, it was about 23 cm deep and at least 20 cm wide. In Test Unit 9, a shallow basin, represented by Zone 29 in the northwestern corner, was present. Other pits present here appeared to be part of the structure located above this level. A round stain in the northwestern portion of TU 163E may be a disturbance or possibly a posthole. In TU 172N, three small postholes are present in the eastern part of the test unit (see discussion below). Artifacts recovered .



**Figure 5.39. Plan View of Block 3, Occupation Area 2, Test Units 163E, 9, and 8W1/2, showing cultural remains at interface of Level 2 and Level 3.**

from Test Unit 9 at this level contain fewer sherds than lower levels-only one shell and grit-tempered residual sherd was found, but do contain more tool fragments and cannel coal fragments than lower levels.

### **Third Occupation**

Above Level 3 was Level 2, a midden layer associated with another structure.

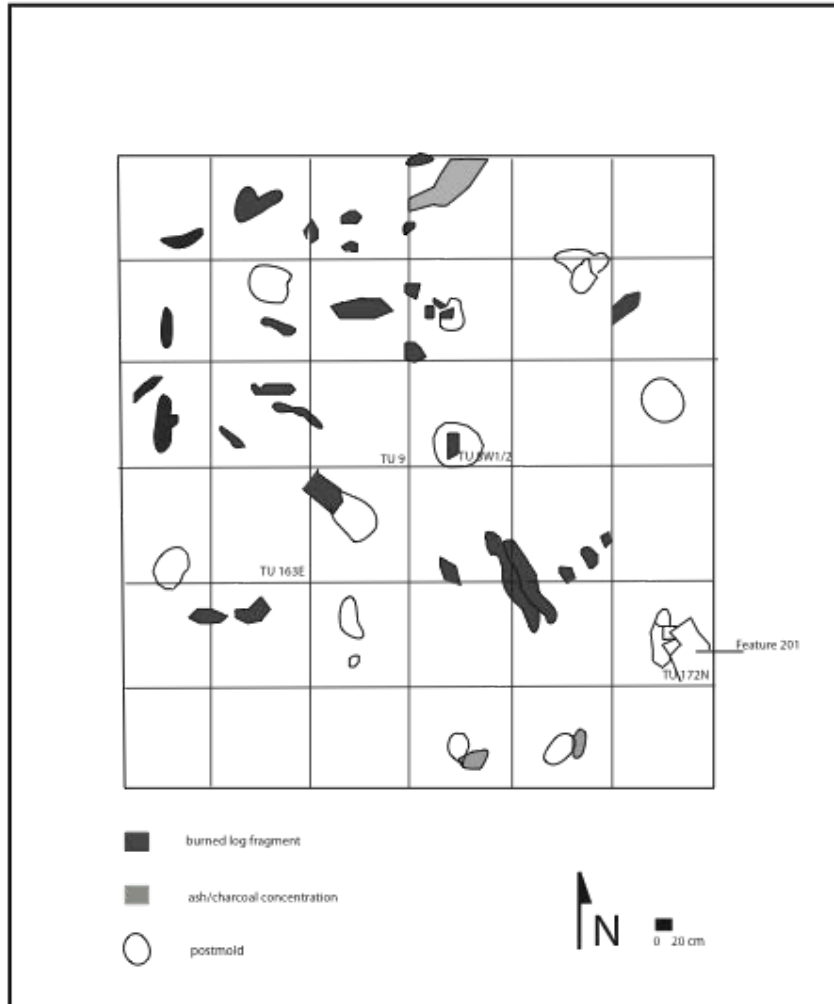
Here, there was a thin ashy lens present in TU 8W1/2, but no clay cap was present.

Above this thin ashy lens was architectural evidence of the last structure built here.

Evidence of this upper structure is present in all 36 test units of Block 3. The plan view map of this level shows only part of the entire structure. Five large posts are present, but the shape of the building is not clear (Figure 5.40). The average diameter of these posts was 38.75 cm. The two on the northwestern edge were 2.92 m apart, while the two on the western edge were 2.5 m apart; the two interior posts are about 1 m apart. These posts may have been interior support posts of a structure, but additional evidence is needed. Support posts are common in Mississippian structures. They encircled the main living area of most Mississippian structures, and partitioned living areas are located beyond them.

Burned logs were present in portions of the upper exposed structure (Plate 5.5).

They tended to lay in a northwest/southeast direction across the interior part of the structure. A hearth, Feature 201, partially excavated in TU 172N, was present on the eastern edge of the block (see discussion below). The presence of posts and midden beneath the hearth suggests that the hearth was located in this part of the structure only during the upper occupation level. The presence of the hearth in this location only in the upper occupation suggests that the structure was rebuilt at least once.



**Figure 5.40. Plan view of uppermost level of Block 3, Occupation Area 2 (below plowzone).**

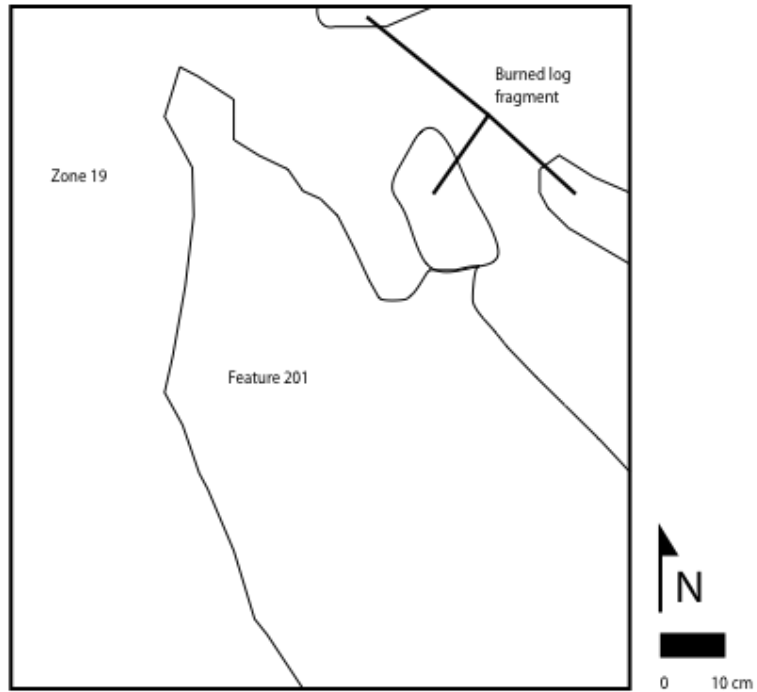


**Plate 5.5. Block 3, Occupation Area 2, facing northwest (previously excavated TU 8W1/2 in center of block).**



### **TU 172N-Feature 201**

Test Unit 172N was located on the eastern edge of Block 3, and was identified below the plowzone as a burned area, possibly a hearth. It was overlain by midden mixed with plowzone to a depth of approximately 35 cm below surface. Once the midden was removed, an area of burned clay surrounded by burnt logs was uncovered. This burned area was labeled Feature 201 (Figure 5.41; Plate 5.6). A red, burned area (yellowish red [5YR4/6] silty clay) surrounding the hearth was removed. This thin (3 cm) zone (Zone 20) contained few artifacts. It was underlain by Zone 21, an ash layer within the center of the feature, approximately 7 cm thick. A burned shell bead, as well as large amounts of daub, a possible chunky stone fragment, two small tubular bone beads, a shell barrel bead, three large cut pieces of mussel shell, and a tool fragment were recovered from this zone. Zone 22, a midden mixed with orange hearth remains, surrounded the hearth feature on both sides. Multiple postholes were present in Zone 22 and excavated as features. The features are all a dark brown (10YR3/3) silty loam, and they each measure approximately 10 cm in diameter. They are placed atop one another, suggesting post replacement or rebuilding. Features 212 and 213 were located approximately 10 cm west of these three small features, and their conjoined status suggests they represent rebuilding episodes/replacement of posts. Together, their diameter was approximately 30 cm and consisted of a dark reddish grey (10YR4/2) silty loam. The soil in Zone 22 also became sandier and more yellow in color. Within this zone were FCR, tool fragments, a grit-tempered ceramic disk, and multiple sherds (two plain shell and grit-tempered sherds, possibly stamped; one grit-tempered Pisgah rim sherd, one shell, grit and grog residual sherd, and four shell and grit-tempered residual sherds).



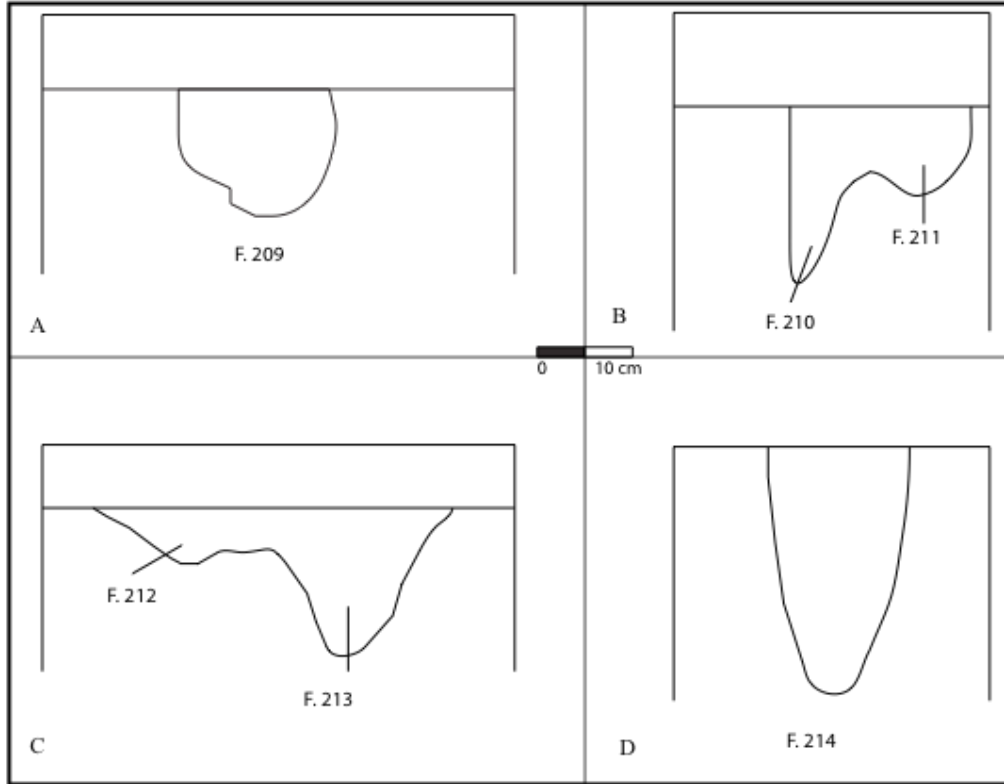
**Figure 5.41. Block 3, Occupation Area 2, Test Unit 172N plan view showing Feature 201 in Zone 19.**



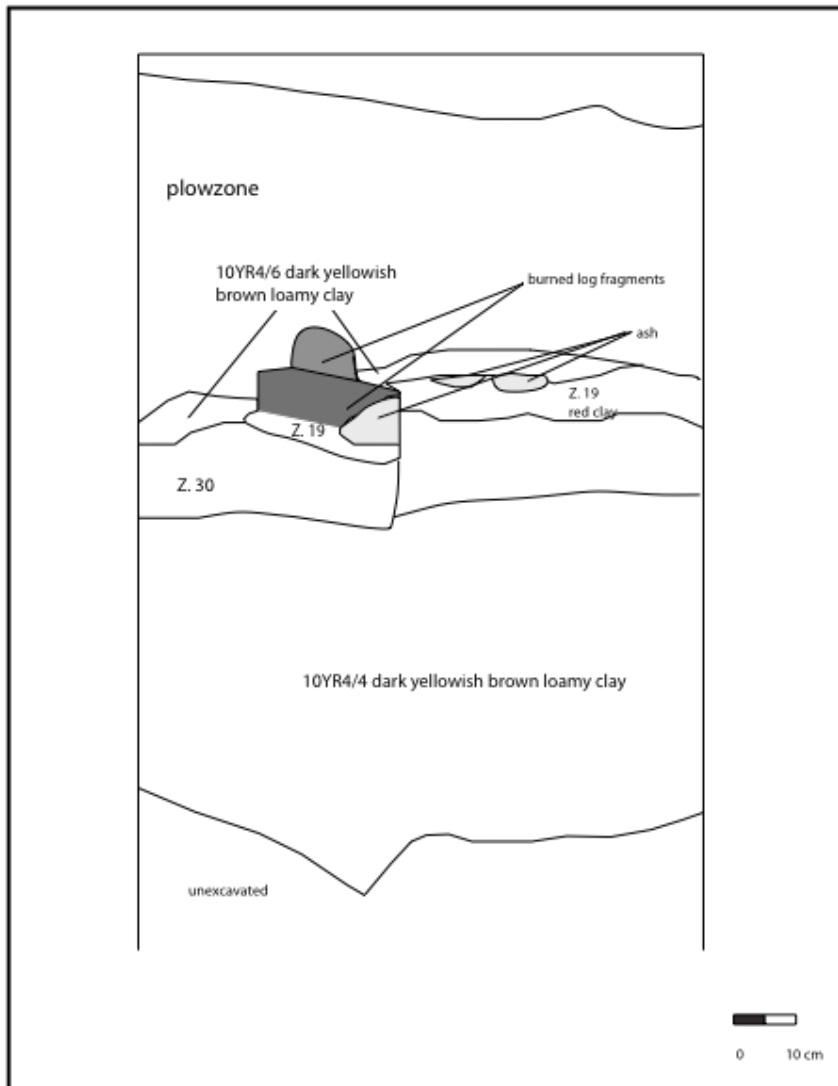
**Plate 5.6. Block 3, Structure 2, eastern edge showing Feature 201 pre-excavation.**

Below this was Zone 30, a dark brown (10YR3/3) loamy clay with charcoal but no daub. Six additional postholes (Features 208, 209, 210, 211, 212, and 213) (Figure 5.42) were uncovered as Zone 30 was removed. Cut shell fragments, limestone fragments, two tool fragments, daub fragments and flakes were recovered from this zone. Below this zone was Zone 32, a zone associated with a burned log that may be related to Zone 28. Zone 32 contained 5 shell, grit and grog-tempered residual sherds and one plain sherd, 1 shell and grit-tempered plain body sherd, tool fragments, chert cores and flakes, and daub fragments. Just north of Zone 32 was Zone 38, a deep pit feature with a depth of 17 cm. Below these zones was subsoil (Figure 5.43 and 5.44)

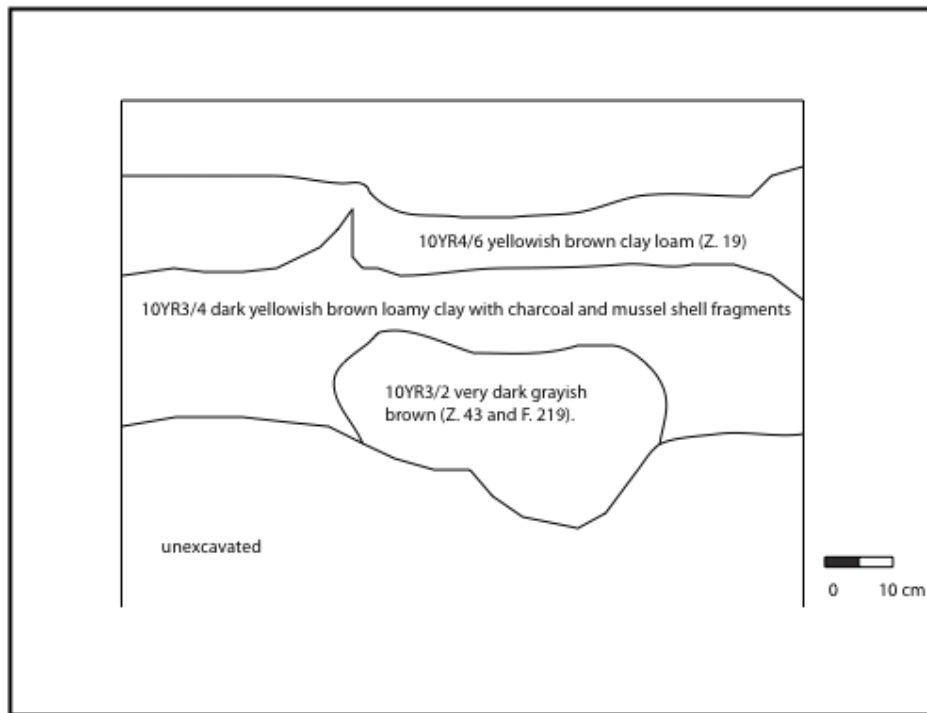
Feature 201 appears to be a hearth feature associated with the upper occupation of Structure 2. Under this feature are multiple posts with artifacts similar to those found in Levels 4 and 5 of Test Units 8W1/2, 9, and 163E, suggesting these represent the same time period. The yellow soil at the bottom of this zone may represent the yellow clay cap found in other test units of Block 3. Lying below this was found additional posts and a pit, which may be part of Level 5. Below this was subsoil, possibly indicating that this portion of Block 3 was not occupied during the earliest periods of use represented in Test Units 8W1/2 and 9. Similar to Feature 106 found in Block 1, there were multiple shell beads and bead fragments associated with this feature. This suggests that this area may have been associated with craft production, although the larger amount of animal bone found in Feature 201 indicates it was also used as a hearth. As compared to Norris Basin sites with hearths, many are larger, but like that seen in Occupation Area 4, there is precedent for the smaller hearths seen in Block 3.



**Figure 5.42. Block 3, Occupation Area 2, Test Unit 172N, east wall profile of Feature 209 (A); south wall profiles of Features 210 and 211 (B); 212 and 213 (C); and 214 (D).**



**Figure 5.43. Block 3, Occupation Area 2, east wall profile of Test Unit 172N.**



**Figure 5.44. Block 3, Occupation Area 2, west wall profile of Test Unit 172N.**

### **Summary of Block 3**

There is evidence of three main occupations occurring in Block 3. The first occupation may be a wall trench occupation represented by Levels 5 and 6 in Test Units 8W1/2 and 9. Two building episodes were represented here. The earliest contained possible evidence of a wall trench, and its associated midden was Level 5 lower. The second occupation was represented by the Level 5 upper midden, and probably by three postholes whose soil texture and color suggested they were not contemporaneous with other early postholes.

The second occupation occurred after the second wall trench occupation level was burned, as evidenced by the presence of a thin ash lens, and a yellow clay cap placed atop the burned remains of the structure. This second occupation was represented by a deep midden, Level 3. There was evidence of two structures at this level. A pit was present in the lower part of the midden and intruded into the sterile clay cap. The upper midden contained a posthole in TU 8W1/2. Above the Level 3 midden there was a thin ash lens, suggesting that this structure was burned. However, there is no evidence of another clay cap after this burning. This clay cap is present in Test Units 8W1/2, 9, 163E and 172N. Test Unit 172N contains a pit and multiple postholes at this level, further evidence of rebuilding, although the thin ash lens was not present here. Artifacts recovered from this level were predominantly shell-tempered, or shell mixed with grit, grog, or grit and grog. Pisgah-style rims and stamped sherds were recovered here as well as beads, chunky stone fragments, cut shell, tools, and drills.

The third occupation was represented by Level 2. This level included midden as well as burned wood fragments, ash, charcoal, and structural features in all test units. These features included five posts of similar size. A hearth was associated with this most



recent structure. It was underlain by small posts and midden from Level 3, suggesting that the hearth in this part of the structure was relatively recent. Fragments of burned wood from this uppermost level returned radiocarbon dates of 533 $\pm$ 37 (AA 80786; wood charcoal; $\delta^{13}\text{C}=-24.3\%$ ) (cal A.D. 1316-1355 2 $\sigma$  [cal A.D. 1400-1429 1 $\sigma$ ]), (TU 14) and cal. A.D. 1394-1446 2 $\sigma$  (A.D. 1408-1436 1 $\sigma$ ) (TU 8W1/2). However, the depth of deposits in Block 3, and the evidence for continual occupation of this block, suggest that occupation in this area may have occurred during mound construction and certainly during mound use. The early structure, whose age is based on its possible wall trench architecture, may have been contemporaneous with Structure 3. If this upper level represents the last occupation in this location, this coincides with the end of the site's occupation. The fact that the structure in this occupation area burned and there is no evidence of a clay cap atop the burned remains suggests that the abandonment of this occupation area co-occurred with the abandonment of the site.

### **Discussion and Conclusion**

The presentation of architectural data in this chapter had two goals. First, to identify archaeological correlates at the site that would identify the site's inhabitants as either Mississippian or Radford, and second, to examine the use of the site over time, particularly with regard to its frontier location. Using the data described above, each of these goals is discussed here.

The question of cultural identity of the site's occupants specifically asks was the site inhabited by people related to Mississippian chiefdoms in eastern Tennessee or was it inhabited by people from nearby southwestern Virginia Radford cultures? Answering this question relied on an examination of site architectural grammar. Architectural grammar

refers to the design element rules used in architectural expression (Lewis et al. 1998:2).

The architectural grammar was examined on two scales: that of the entire site layout, and that of individual structures.

Mississippian village architectural grammar has been defined (Lewis et al. 1998) as including a mound flanked by an open plaza surrounded by houses in a semi-circular arrangement facing the mound and plaza; a palisade often encloses the entire village. Mississippian houses also have distinctive architectural grammar (Gougeon 2006). They tend to be rectangular in shape, with specific areas for cooking and sleeping, usually divided by gender, and age groups defined by artifact groupings. In terms of architectural style, earlier Mississippian houses (AD 1100-1250, approximately) were wall trench structures whereas houses dating to the later Mississippian period (A.D. 1250-1550) were single-set post structures; both styles were rectangular in shape.

In contrast, the local southwestern Virginia Radford village architectural grammar included houses arranged in a circular pattern around an open plaza area, usually surrounded by a palisade; no mounds were present. Some sites contain bastions at palisade corners and occasionally gatehouses at village entrances (Egloff 1992). Radford houses were made of single-set posts arranged in a circle. Sleeping and cooking areas were located within the structures, although no studies to date have identified activity areas restricted by age or gender.

The presence of the mound, combined with the shovel test and block excavation data, suggests that the site inhabitants utilized a Mississippian architectural grammar. The mound is flanked by a plaza on its east side. There is limited evidence that during the initial site occupation this plaza may have been smaller, or possibly was not present;

however, it was present shortly thereafter, based on a lack of artifacts combined with deep A horizons found in shovel tests in this area. During initial site occupation, there is some evidence that a structure, represented by a hearth and multiple postholes, was present on the southern mound flank. This suggests that either early on, no mound was present, or it was much smaller initially. The mound itself was built fairly quickly, in two major building episodes. Geophysical tests indicate a structure was located atop the mound, at least on its upper level, and that a ramp facing the plaza was likely present. Structures, represented by remains found in the three blocks as well as artifacts and features encountered across the site during shovel testing, appear to have been placed around the site and likely faced the plaza. Overall, the site's architectural grammar is clearly Mississippian, suggesting the site was occupied by Mississippian groups, likely from eastern Tennessee (although ceramic data examined in the following chapter will examine evidence for this in more detail).

In terms of structural architectural grammar, the data are less clear. There are definitely four domestic occupation areas present, but it is less clear if these four areas were the sites of structures. There is limited evidence of two types of architecture: wall trench and single-set post. The most complete wall trench structure excavated was Occupation Area 3, and a possible trench is visible in the bottom level of Occupation Area 2. For the latter, other than the presence of the possible trench line and some associated postholes, too small of an area was exposed to provide more definitive information. For Occupation Area 3, approximately one-fourth of the building was exposed. It does share some architectural similarities with Mississippian wall trench structures, such as those found in the Norris Basin. There are similarities in feature

location and size; however, the irregular nature of the postmolds, the relative scarcity of posts within the trench, the narrowness of the trench, and the clean floor create an uncertainty about the nature of this occupation area. It may have been a domestic living area, but more excavation is needed to better identify this. It is clear, though, that craft production materials are present (described in Chapter 7) and that this area is located close to the mound and plaza, indicating it was used for a special function or person(s).

There may be the remains of three single-set post structures present at the site: Occupation Area 1, Occupation Area 2 (upper and likely middle levels), and Occupation Area 4. Beginning with Occupation Area 2, excavations appear to have uncovered the center of the structure of the upper level of excavation, but additional excavation is needed to fully identify a structure outline. There are five large posts present, which may represent interior posts, a common feature of Mississippian single-set post house styles that are not present in Radford-style houses; however, their pattern is unclear. If the center of the structure was uncovered, there may be some deviation from Mississippian style. Posts in traditional Mississippian houses surround a hearth, whereas the upper level of Occupation Area 2's hearth is located east and outside of the large posts. Occupation Area 2 also contains a middle structural layer that may have been a structure of single-set post design. There is evidence of a clay cap placed between these two structures, a trait found in some Mississippian houses that represents evidence for rebuilding. These are most commonly found in mounds, and it should be noted that Occupation Area 2 is located atop a small rise. Additional testing is needed to determine if the topographic rise is the result of natural or cultural forces.

Occupation Area 4 located in Block 1 may be a single-set post structure. If so, it appears that its northern and western walls, as well as its entranceway and a small portion of the southern wall, were exposed. This appears to be a square building with at least three interior posts and a central hearth surrounded by the posts. An entranceway is located on the southwest corner, and partition lines connect the entranceway to the central hearth area. Occupation Area 4's central floor to total floor area ratio is 50 percent, somewhat large as compared to Mississippian structures excavated at the King site (Hally 2008). Occupation Area 4 is more clearly Mississippian in style as compared to the other exposed occupation areas, but the large amount of central floor space may indicate a divergence in style. This may be a result of calculation error, as the entire floor was not exposed, or it may reflect a difference in the way space was sanctioned into public and private areas at the frontier.

Occupation Area 1 in Block 1 is the third possible single-set post structure found at the site. Only its northern half was uncovered. Multiple posts are located in the interior part of the structure, and suggest a total central floor area of 16 m<sup>2</sup>, which accounts for approximately 48 percent of the total floor area. In addition to the posts, there is one large burned area and a smaller burned area/possible hearth within the structure. The large burned area, Feature 100, is located at the southern edge of the structure. The large amount of daub found here, combined with the relative lack of animal bone, suggests that it may not be a hearth, but rather a wall or possibly an entranceway that burned. Postholes are present beneath the burned area. Postholes are also located below the smaller burned area and it lacks significant amounts of animal bone. It does contain, however, beads and bead fragments as well as drills. It is possible this area was used for the production of

beads. If so, it is not clear where the hearth is located in this structure, and additional excavation is needed to more fully understand this structure's design.

The evidence reviewed here suggests that at the macro (site) level, Carter Robinson was settled by Mississippian people. The site follows a Mississippian architectural grammar with a mound fronted by a plaza, and surrounded by domestic occupation areas. At the micro (structure) level, this is less clear. The site's occupation spanned a period when Mississippian house styles in eastern Tennessee changed from wall trench to single-set post. At Carter Robinson, the occupation area evidence suggests this occurred at about the same time (Table 5.6). This approximately contemporaneous change indicates that the inhabitants of Carter Robinson were in frequent contact with their group of origin in Tennessee, adopting different architectural styles as they changed. These changing styles required specific building knowledge, which further indicates that these groups were in close contact. Indeed, the inhabitants of Carter Robinson continued in a Mississippian architectural grammar style rather than incorporating Radford architectural styles, a strong indication of a continuation of Mississippian identity over time and space. The changes in ceramic temper and surface decoration are further evidence of this continued interaction.

<b>Table 5.6. Radiocarbon Dates from Carter Robinson.</b>					
<b>Sample Number</b>	<b>Sample Type</b>	<b>Site Area</b>	<b>BP age</b>	<b>2 sigma range</b>	<b>1 sigma range</b>
AA80784	Wood charcoal	Occupation Area 1	641+/-38	1279-1404	1288-1320
AA80785	Wood charcoal	Occupation Area 2	512+/-37	1325-1345	1408-1436
AA80786	Wood charcoal	Occupation Area 2	533+/-37	1316-1355	1400-1429
AA80787	Wood charcoal	Mound-east side	628+/-36	1282-1407	1293-1325

AA80788	Wood charcoal	Mound-east side	722+/-36	1254-1299	1268-1287
AA80789\	Wood charcoal	Mound-South side	649+/-36	1278-1400	1287-1315

Having established that the site is Mississippian, the focus turns to the function of the site, how that function may have changed over time, and the form those changes may have taken. The site is located in an area that would have been a frontier for Mississippian groups in eastern Tennessee. It was also located in an area already occupied by other groups, namely, the Radford culture of southwestern Virginia. Based on the architectural and ceramic evidence for continued interaction with Mississippian groups during the site's occupation, it is unlikely that the move into southwestern Virginia was a result of inter or intra-group hostilities. Rather, the move seems to have been for a specific purpose, possibly for the procurement of natural resources and craft production. These resources may have included salt, which is found nearby, and cannel coal, used in the production of beads and pendants. In addition, also at this time, a burgeoning trade in shell goods, notably gorgets, was occurring about 100 miles southeast of Carter Robinson at the Saltville site (Barber and Barfield 2000). These gorgets were being traded into eastern Tennessee. It is possible that Carter Robinson was occupied to ensure a more direct participation in this trade. The evidence for craft production is discussed in more detail in Chapter 7. Here, I present evidence that may reflect the site's role as a frontier occupation.

First, it would have been advantageous for the initial occupants of Carter Robinson to establish some type of relationship with the local Radford groups. Evidence of such a relationship may be seen in the presence of limestone-tempered sherds in two

parts of the site (seen in Figure 5.4). Limestone-tempered sherds were the predominant ceramic type of Radford groups at this time. Additional ceramic and shovel test data suggest that these two areas were occupied for the duration of the site and may indicate structure locations. If so, the restriction of limestone-tempered sherds in these two areas suggest that first, the Carter Robinson inhabitants had established contact with Radford groups early in the site's occupation and second, this contact may have been restricted to certain persons.

One of the concentrations of limestone-tempered pottery is directly south of the mound, near where structural remains were found in TU 19. In addition, the other early temper type used at this time, grit-and-grog temper, is found in four concentrations. One of these is in the same area as where the limestone-tempered sherds occur, but the concentration of limestone-tempered sherds near the mound lacks grit-and-grog-tempered sherds. Access to and use of this exotic (to Mississippian groups) ceramic type may have been used as a symbol of certain individual's relationships with local groups. A relationship like this may have afforded those same individuals access to natural resources and trade goods found in the region.

After shell temper is introduced, it was usually mixed with grit, grog, or both. Across the site, shell-and-grit-tempered ceramics are more restricted than shell, grit and grog-tempered sherds (found across the site) or shell-and-grog-tempered sherds (also found across the site, although in more defined concentrations). Shell-and-grit-tempered ceramics are limited to the western part of the site, and are especially concentrated south of the mound, in the same location as the limestone-tempered ceramics of the earlier period. This coincides with the occupation of the mound, and may indicate that certain



ceramics were used on or near the mound at this time. Finally, during the latter part of occupation, when shell-temper is used, it is distributed across the site, but more so north of the mound rather than at the mound itself. This coincides with the use of Occupation Area 1. It may also indicate that ties with Mississippian groups in eastern Tennessee were reinforced through restricted access to shell-tempered pottery.

The occupation areas themselves provide some indication that changes occurred over time. Initially, wall trench structures may have been used, and based on Occupation Area 3, appear to conform to Mississippian house style. Over time, single-set post structures may have been introduced. While similar in shape to Mississippian houses, their central floor areas may have been larger. Additionally, the placement of the hearth may have been different. As occupation of Carter Robinson continued, the Mississippian house style appears to have been altered while still maintaining the basic outline of the Mississippian house and the site's architectural grammar.

Finally, there is evidence of craft production, specifically of shell and cannel coal beads, particularly in the upper level of Occupation Area 2 and in Occupation Area 1. These are also the two occupation areas with atypical hearth placement. Some changes in use of domestic space at Carter Robinson may have been a result of craft production needs. Larger hearths, or additional, smaller hearths may have been necessary, hearths whose sole or main function was for processing shell and/or cannel coal. Also, these two areas are located in places where shell-tempered pottery is restricted. In addition, the only Pisgah-style sherds are found in Occupation Area 2's upper level. These may indicate interaction with groups to the south, in western North Carolina, and as such may indicate a broadening of trade networks during this period of site occupation. The lack of Pisgah-

style ceramics in Structure 1 suggests that only certain inhabitants of the site were able to establish these relationships.

In sum, the architectural grammar of the site, primarily at the site level, shows that Carter Robinson was occupied by inhabitants maintaining a Mississippian cultural identity. The probable changes over time in structure style suggest that the relationship with other Mississippian groups continued over time, and that the establishment of this mound site in this location was purposeful, likely for the procurement and production of natural resources and crafts for trade. Ceramic data suggest that interactions with local groups was limited to certain individuals at the start of occupation; by the end of occupation, access to more traditional shell-tempered Mississippian ceramics was limited to other individuals. House style may have changed over time to reflect the role of Carter Robinson as a procurement and production center, although more excavation is needed to verify this. Toward the end of occupation, inhabitants in Occupation Area 2 appear to have increased their trade networks, as indicated by the restricted presence of Pisgah-style ceramics in this structure. This overview shows power was accumulated by different individuals as a result of their interactions with both local and Mississippian groups, and that the control of this power changed over time. Chapters 6 and 7 examine the ceramic and craft production evidence in more detail to better understand these changes.



## **Chapter 6. Analysis of Ceramics from the Carter Robinson Site**

Although the preceding chapter used archaeological data to reconstruct the occupation and settlement of the site, specifically with regards to structures and their architecture, other information is necessary to reconstruct the activities that occurred within the structures. Ceramics from the Carter Robinson site, presented and discussed here, were analyzed to better define the identity of the Carter Robinson occupants. Ceramic attributes are often an expression of a culture's identity, whether consciously or unconsciously; the differences between types of ceramic attributes and morphology can help distinguish groups from one another. A second goal of the ceramic analysis was to better understand their use within the culture by identifying their context. It is not just the presence of Mississippian or Radford ceramics that marks identity, it is the quantity and the contextual use of those ceramics. Through reconstructing context, we can compare the use of ceramics from Carter Robinson to other Mississippian and Radford sites, to help identify site occupants. However, context is also a venue for the expression of identity; therefore, variation is to be expected, although possibly less so at initial settlement as compared to later. Third, ceramics can be used to reconstruct different activities occurring at the site. Specifically, this is used to identify differences in activities within occupation areas, which indicate differences in the roles of area occupants. Individuals of a certain status may have had access to certain types of ceramics used only in restricted activities. Related to this, ceramics may be used to reconstruct exchange routes and individuals' access to those routes. At the least, different types of ceramic attributes can be identified as local or non-local, and the context in which these are found,

i.e., in all households or only some, may provide information about who controlled certain resources.

This chapter will first review how the style of ceramic types is a marker of identity and exchange. Next, I discuss Mississippian and Radford ceramic traditions, as well as other (primarily Pisgah) ceramic traditions, and analyze the temper and surface decoration of the Carter Robinson ceramic assemblage to determine the cultural identity of the Carter Robinson site occupants. Once identity is determined, the second question addressed is identification of the site as a frontier. To address this, frequencies of different types of ceramic temper and surface decoration are examined to identify changes over time in these attributes at the site. Specifically, differences in frequency of temper and surface decorations, local and nonlocal, are analyzed to identify any evidence of exchange relationships. Third, I examine how power may have changed at Carter Robinson over time. To do this, I used the ceramic assemblage to identify domestic household occupations at the site, and examine the nature of ceramic deposits within those household occupations, specifically to identify any differences in access to ceramic resources that suggest the presence of a power differential among households at the site. If power differential is present, and is a result of trade relationships, nonlocal ceramics should be present at local sites in approximately the same frequencies as nonlocal ceramics at Carter Robinson.

### **Regional Ceramic Styles**

The relevant ceramic style zones primarily include three categories: Mississippian, or shell-tempered; Radford, which tends to be limestone-tempered; and Pisgah, which tends to be a grit, and often more specifically, a quartz-tempered ceramic type. Each of these is described in detail, including vessel form, paste (composition), and

surface decoration. These descriptions should be interpreted as basic guidelines for identifying these ceramic types. Much variation occurred in the area, which is to be expected at a frontier site. The meaning of this variation is explored in the results section following these descriptions.

### **Mississippian Ceramic Style**

The Mississippian culture, as described in Chapter 2, covers a wide geographical area. It was defined, in part, by differences in ceramics that included specific temper (predominantly shell), surface decoration (complicated stamped and incised), and vessel form (increased variety of cooking, storage and serving vessels) that differentiated these ceramics from those of the earlier Woodland period. In general, these differences are visible across the region, beginning as early as A.D. 900 at sites like Cahokia, and sometimes as late as A.D. 1100-1200 at sites in eastern Tennessee. Within the region, differences in temper and surface decoration, and to a somewhat lesser degree, in vessel form, are present. It is important to note that it is the combination of differences in manufacturing and decoration that define the ceramics as Mississippian.<sup>10</sup>

For this study, the Mississippian ceramic style of eastern Tennessee is described, based primarily on Griffin's work at the Norris Basin (1938), and somewhat further afield, Polhemus's (1987) work at Toqua. The Norris Basin assemblage is composed of ceramics from over twenty sites collected during a survey of this project area in anticipation of dam and lake construction. Griffin (1938) presents synopses of ceramics from approximately fifteen sites. In these, he provides much detail on vessel morphology and temper, but provides little or no detail about surface decoration, except for fabric-

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<sup>10</sup> For example, recent work by Feathers and Peacock (2008) demonstrated that shell tempering was present during the Middle Woodland period, and perhaps earlier, but not in conjunction with changes in surface decoration and vessel morphology.

impressed salt pans. Griffin's analysis was done prior to the formation of ceramic typologies for the eastern Tennessee region, and as such, are not as explicit as later typologies developed by Lewis and Kneberg. On the other hand, the Norris Basin sites are the closest Mississippian sites to Carter Robinson.

Shell-tempered pottery was the predominant pottery found at Norris Basin sites, described by Griffin as "abundant" at eight sites, "medium" at one site, and "present" at two other sites<sup>11</sup> (Griffin does not provide exact quantities of sherds). Four sites contain limestone-tempered pottery; two sites contain sandstone or steatite-tempered ceramics, and two sites contain sand-tempered pottery.

Ten sites contained shell-tempered pottery with specified surface treatments (Table 6.1) Of these, plain shell-tempered pottery is present at two sites, and cordmarked pottery is present at six sites. Fabric-impressed pottery is present at three sites. Finally, all three types of surface treatment are present at three sites. Of note, red-filmed sherds are present at Site 10, the Ausmus Farm Mound site located close to Carter Robinson, and incised sherds are common at Site 11, a village site.

For vessel morphology, Griffin identified salt pans, bowls, and four jar shapes: pointed rim jars, wide-mouth jars with rim bosses, and jar-shapes "A" (jars with "a straight or slightly flaring rim, the upper segment of which is rather sharply curved outward so that the lip is practically perpendicular" [Griffin 1938:272-273]) and "B" (flaring rims [Griffin 1938:274]). Griffin found that salt pans were present in all of the valley sites, and notes the presence of fabric impression, a common surface treatment of

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<sup>11</sup> These totals were calculated from charts created by Griffin for each site, and are listed on pages 310-358 in Griffin (1938).

<b>Table 6.1. Type of Shell-Tempered Pottery Treatment at Norris Basin Sites.</b>				
<b>Site Type</b>	<b>Shell-Tempered Pottery Treatment Type</b>			
	<b>Plain</b>	<b>Cordmarked</b>	<b>Fabric-Impressed</b>	<b>All Types</b>
<b>Mound</b>				Site 2
<b>Mound</b>		Site 4		
<b>Village</b>				Site 5
<b>Mound</b>				Site 7
<b>Mound</b>	Site 9		Site 9	
<b>Mound</b>		Site 10	Site 10	
<b>Village</b>		Site 11	Site 11	
<b>Burial Ground</b>	Site 15	Site 15		
<b>Mound &amp; Village</b>		Site 17		
<b>Cox Mound</b>		Site 19		

all salt pans in the study area. This is in contrast to the lack of fabric impressions on salt pans found along the southern edge of the Fort Ancient culture area located to the north of the Norris Basin. Bowls are present at many sites, with minor variation in thickness and decoration. Pointed rim jars commonly exhibit a rounded node, and tend to be cordmarked. Wide-mouth jars with rim bosses were found in the same areas as the pointed-rim jars; these jars had cordmarked shoulders. According to Griffin (1938:300), “the determining feature of this type of jar is the row of bosses about the outer rim. These bosses or teats were located a short distance below the lip and were rarely coextensive with it.”

Another Mississippian site, Toqua, is located farther from the Carter Robinson site than Norris Basin, and is approximately 125 miles southwest of Carter Robinson. Its occupation dates to the mid-to-late Mississippian period. It also contains three occupation sequences: a Middle Woodland occupation, followed by Hiwassee Island and Dallas occupations. The Middle Woodland occupation is represented by limestone and sand-tempered pottery types, which are similar to the Candy Creek complex (A.D. 200-A.D.



600) (defined by Kneberg 1961), which preceded the limestone-tempered Hamilton period (A.D. 600-A.D. 900) (Schroedl et al. 1990:178). Reed (1987:651) notes that “minor occurrences of sand tempered cord impressed, simple stamped and check stamped sherds and limestone tempered simple stamped and complicated stamped sherds provide the basis for the identification of a Late Middle Woodland component (sic).”

There are two Early Mississippian-period components present at the site. The earlier Mississippian I, also known as Martin Farm period (Kimball 1980) (A.D. 900-1000)<sup>12</sup> is known from limestone-tempered red-filmed sherds and sand-tempered complicated stamped sherds. The second component is known exclusively from shell-tempered sherds (Reed 1987:652), and is a Hiwassee Island component (A.D. 1000-1300). At Toqua, 225 red-filmed sherds were recovered, as well as “a small number of shell tempered plain rims also with downturned lugs (sic)” (Reed 1987:652) which may be associated with this component.

The Dallas phase component (A.D. 1300-1600) is the best-represented component at the site, with over 162,000 shell-tempered sherds; of these, over 146,000 (90 percent) are shell-tempered and plain. However, cordmarked, incised, appliqué fillets, fabric impressed, polished, punctated, negative painted, and slipped types occur in minor amounts (Reed 1987:653). Reed (1987:653) notes that the proportions of cordmarked and plain shell-tempered sherds change drastically over the period of site occupation. Plain shell-tempered sherds account for approximately one-third of the assemblage during the

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<sup>12</sup> The Martin Farm phase was defined by Kimball and later Schroedl, et al. (1990:185) and contains limestone-tempered plain (30-35%), limestone-tempered cordmarked (20-25 percent), and shell-tempered plain (35-40 percent) with some minor amounts of other types. Limestone-tempered loop handles are found. It is differentiated from Hiwassee Island ceramics in its assemblage composition and its inclusion of limestone-tempered loop handles. Hiwassee Island contains a much greater amount of shell-tempered plain sherds (65-85 percent by comparison).

beginning of the Dallas period, but 85 percent of the assemblage by the end of the period, while cordmarked sherds decrease from 61 percent of the earlier assemblage to 3.5 percent of the later assemblage. Polished wares appear to date later in the occupation, while incised wares are found throughout the Dallas occupation, although bold incising appears during the latter part of the occupation. Reed (1987:654) notes that similar components were found at sites in the Tellico Reservoir, including Citico (Salo 1969), Tuskegee (Guthe and Bistline 1978), Chota (Bates 1982) and Martin Farm (Schroedl et al. 1981).

Based on the ceramic analyses of collections from these two regions, some commonalities emerge. First, pre-Mississippian pottery in the region was limestone-tempered, although sand-tempered pottery was also present at Toqua. The Mississippian period began with the emergence of almost exclusively shell-tempered pottery. This early Mississippian period, Hiwassee Island, contains utilitarian and fine wares in some areas. Surface treatment is mostly plain, although cordmarking increased in popularity over time. Red-filmed pottery is diagnostic of Hiwassee Island. At Toqua, an earlier emergent Mississippian type, Martin Farm, combines limestone tempering with red-filmed surface decoration, and also includes sand-tempered complicated-stamped sherds. The later Mississippian period, Dallas, is identified by shell-tempered ceramics. Cordmarking became less frequent during the Dallas phase, replaced in large part by plain ceramics. Strap and lug handles replace earlier loop handles, and incising, as well as filleting and notching, and complicated stamped designs are common.

At Toqua, negative-painted designs appear at this time, and incising became bolder toward the end of the late Mississippian period. The Norris Basin sites share most

of these characteristics; however, Griffin identifies specific vessel forms for this region, including salt pans and bowls (found at Toqua and Hiwassee Island) and three types of jars with distinct morphology.

### Radford Ceramic Style

The Radford pottery style is indigenous to southwestern Virginia during most of the Middle and Late Woodland periods (A.D. 800-contact). Prior to the Radford period during the Early Woodland period, a number of types were used in the region, and their attributes are listed in Table 6.2.

<b>Table 6.2. Early and Middle Woodland Pottery Types for Southwestern Virginia (based on Egloff 1987:6-8).</b>				
<b>Pottery Type Name</b>	<b>Period</b>	<b>Temper</b>	<b>Surface Decoration</b>	<b>Morphology</b>
Swannanoa	c. 600 B.C.	Crushed quartz & sand	Plain, some cordmarked	n/a
Long Branch Fabric Marked	350 B.C.	Limestone	Fabric marked	n/a
Mulberry Creek Plain	n/a; associated with Wright Check stamped & Bluff Creek Simple Stamped	Limestone	Plain	n/a
Wright Check stamped	A.D. 302	Limestone	Check stamped	n/a
Bluff Creek	Associated with Wright Check stamped	Limestone	Simple stamped	n/a
Connessee	A.D. 100-600	Sand	Simple stamped (or brushed); plain; cordmarked	n/a
Candy Creek Cordmarked	A.D. 100-900	Limestone	Cordmarked (predominantly) & plain	Vertical undecorated rims

Egloff (1987:8) notes that the multiple Early Woodland types suggest much regional interaction between southwestern Virginia cultures and those living to the west and south. However, “Swannanoa ware, mainly fabric impressed, followed in time by Long Branch Fabric Marked Type and Candy Creek Cordmarked Type represent the earliest Eastern Woodland Tradition pottery in southwest Virginia.” By contrast, the Southern Appalachian stamped tradition, exemplified by Wright Check Stamped, Bluff Creek Simple Stamped, and Connestee wares, are examples of what Egloff (1987:11) terms an “intrusive expression of ceramics” into the region. Moreover, Connestee Ware, which is found in southwestern Virginia in association with polyhedral cores and blades as well as cut mica (the latter not native to Virginia), may represent “the actual movement of people into southwest Virginia” (Egloff 1987:11). Dickens (1980:34-46), writing about the same period in western North Carolina, suggests the diversity in ceramics found across the region, including southwestern Virginia, indicates a “highly dynamic period” (Egloff 1987:11).

During the Late Woodland period, the diversity of ceramic styles declines somewhat, and Radford, first identified by Evans (1955:64-68), became the dominant type. Evans originally identified five types of this limestone-tempered ware: knot - roughened and net-impressed, cordmarked, fabric-impressed, plain, and Page cordmarked. Holland (1970:64-67), based on regional survey results, added Scraped and Stamped types as indicative of this time. Egloff (1987) revised Evan’s original types. First, Page Cordmarked is a different ware than Radford. It is found farther north, along the James and Shenandoah Rivers. It also has only cordmarked surfaces; Radford has both cordmarked and net-impressed exteriors. Page also contains rim strips that form

cordmarked collared rims, whereas Radford rarely contains thickened rims, and never cordmarked rims. Finally, Egloff (1987:11) states that Radford Fabric Marked type is the equivalent of Long Branch Fabric Marked type (which is earlier) and therefore “should not be included within the Radford Ware.”

Radford ware is limestone-tempered. Surface treatment is a combination of net-impressed and cordmarked surfaces on the vessel bodies. Vessel morphology includes constricted necks and strap handles with limited decoration (Egloff 1987:11). It is found along the New and Tennessee River drainages in southwestern Virginia, and dates to between A.D. 1000 and A.D. 1700. Some variation in Radford occurs east of this area, where net-impressed limestone-tempered and sand-tempered ceramics are more common, likely reflecting their proximity to the Dan River region. Toward the west, along the Tennessee River drainages, net-impressed limestone-tempered wares decrease in frequency. One type of Radford ware, Corncob Impressed, is found during the latter portion of the Late Woodland period (A.D. 1500-1700).

Egloff notes (1987:11) that limestone-tempered net-impressed vessels are found during the late Middle Woodland period in the Watauga Reservoir of eastern Tennessee; however, “in the Clinch and Powell river drainages, there is no firm evidence for net-impressed surface treatments (Radford ware and Wythe variant Dan River ware) until the Late Woodland period” (Egloff 1987:11).

Also found in the region is the Wythe variant of the Dan River ware. Located west of the Blue Ridge escarpment, it is sometimes found along the Clinch River (a Tennessee River tributary). Dan River ware is a sand-tempered pottery found along the border of central and west-central North Carolina, and dates to A.D. 1300-1700. The

Wythe variant has more variety in its temper, including sand and crushed quartz. It is found along the Clinch River in Russell, Scott and Tazewell counties. Surface treatment includes cordmarked, net-impressed and plain. Egloff (1987:12) suggested “the preponderance of net and plain surface treatments [in the Wythe Variant] may date to post A.D. 1500.”

In addition to Radford ware, some shell-tempered wares are found in the region during the later Late Woodland period. Originally, Evans (1955) and Holland (1970) combined all shell-tempered wares into one series known as New River. Egloff (1987:12-13) identified four wares with shell temper. Limestone mixed with gastropod shell-tempered ware, found at Site 44TZ1 (Crab Orchard, near the West Virginia border), is similar in surface treatment and frequency to Radford ware at this site; Egloff thinks both were made by the same people. Gastropod shell-tempered ware is not as early as Radford ware. It is similar to Radford and the limestone/gastropod shell-tempered ware in terms of surface treatment, frequency and distribution at the Crab Orchard site. Egloff (1987:15) states “it was commonly used relatively late in the Late Woodland period and declined in popularity with the introduction of mussel shell ware.” This ware was identified by Egloff at seven sites in Russell County, two sites in Scott County, and three sites in Tazewell County, and he thinks it was made by the same people making limestone- and/or gastropod shell-tempered wares. He notes that the preference for the two different tempers varied through time, but does not elaborate.

Two other wares used at this time are Dallas and Mussel shell ware. Dallas ware is mussel shell-tempered with either plain or cordmarked surfaces. Identified by Lewis and Kneberg (1946:94-102) and described above, it includes strap handles, lugs, incising

and notched fillets, and it dates to A.D. 1300. Egloff identified it at three sites in Lee County, including Carter Robinson (Egloff 1987:15). Mussel shell-tempered ware is tempered with mussel shell and decorated with net or corncob impressions (although it is predominantly plain)<sup>13</sup>. It is distinguished from Radford, Limestone/Gastropod Shell-tempered, and Gastropod Shell-tempered wares with the same surface decoration types on account of the different temper.<sup>14</sup> Egloff (1987:15) suggests that historic Cherokee sites along the Little Tennessee River are predominantly (80 percent) mussel shell-tempered with plain or burnished surface treatments, with minor amounts (5 percent) of cordmarked surface treatments, and that “this tradition reached even the headwaters of the Clinch River during the latter stage of occupation at the Crab Orchard site (44TZ1).” He dates the ware to A.D. 1300-1700. It was identified at six sites in Russell County, three sites in Scott County, and two sites in Tazewell County.

In sum, a variety of limestone-tempered wares are present in the region during the Early and Middle Woodland periods. The presence of some of these wares suggests an increase in cultural interaction and possibly a movement of people into the region. During the initial Late Woodland (A.D. 900-A.D. 1000) period, the diversity of wares is largely replaced by the use of one ware, Radford, a limestone-tempered pottery with cord or net-impressed surface treatment, and undecorated rims. After A.D. 1300, other wares appear in the region, including Dallas ware from eastern Tennessee and sand-tempered Wythe variant of the Dan River series from east/southeast of the region. A variant of Dallas ware is gastropod shell-tempered ware, which may have been a local adaptation of the mussel

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<sup>13</sup> It is not clear what distinguishes Mussel shell-tempered plain ware from Dallas plain ware. Further, Egloff (1987:15 [Figure 14]) shows a Mussel shell-tempered incised ware, and it is not clear how this is different from Dallas Incised wares.

<sup>14</sup> It can be difficult to distinguish gastropod and mussel shell-tempered wares if the shell is finely crushed, a manufacturing technique which masks the distinguishing characteristics of each shell type.

shell-tempered Dallas wares. At times, it is mixed with limestone temper. Some gastropod and mussel shell-tempered wares are decorated with net-impressed or cordmarked surface treatments, suggesting a mixing of styles was occurring in the region.

### **Pisgah Ceramic Style**

Inhabitants of western North Carolina, located just south of the study region, produced a certain ceramic type known as Pisgah during the Middle Mississippian period that is important to this study because it is found at multiple sites in the southwestern Virginia region. First identified by Holden (1966), it was later more completely defined by Dickens (1976) as a ware found in the Appalachian Summit area. It dates from ca. A.D. 1000 to 1450. It is sand-tempered, and this tempering ranges in texture from fine to coarse. There are four surface decorations associated with this type: Rectilinear, Curvilinear, Checkstamped, and Plain. Of note, Pisgah rims tend to be thick and decorated with parallel rows of short diagonal punctations or chevrons (Egloff 1987:12). Chevrons can face right or left; there does not seem to be any significance to their orientation.

Pisgah was formally identified based on ceramic collections from the Warren Wilson and Garden Creek sites excavated by Dickens (1976). Ward and Davis (1999:166) note two traits that distinguish Pisgah from other pottery used in the Appalachian Summit area: collared rims and rectilinear complicated-stamped vessel surfaces. Collared rims are predominant, and often are decorated with punctations, incisions, and castellations. Interestingly, Ward and Davis (1999:166) point out that “this type of rim treatment has no precedent in western North Carolina or the surrounding area; however, similar forms have been found in the Iroquois area of western New York State



and southwestern Ohio.” They display no morphological similarities to earlier Connestee phase pottery or Swift Creek complicated-stamped pottery from Georgia. The rectilinear complicated-stamped designs, however, are similar to those found on Napier, Etowah and Woodstock ceramics in nearby north Georgia. Ward and Davis (1999:166) state “the roots of later and more varied Pisgah designs, including curvilinear stamping, may be found in the Wilbanks and Savannah-Irene traditions of Georgia.” Pisgah potters were influenced by traditions both north and south of their region.

In the mountains of northwestern North Carolina, the area closest to southwestern Virginia, Pisgah pottery is particularly affected by these influences. Here, vessels are both fabric and net-impressed, and temper tends to be composed of large fragments of quartzite and steatite (Purrington 1983). As Ward and Davis state (1999:169), “apparently the influences from the south that resulted in complicated stamped surface treatments did not penetrate beyond the central mountains. Instead, the rim forms originating in the Midwest were grafted onto a local ceramic tradition in the northwestern mountains.”

Dickens, based on his study of Pisgah ceramics from multiple sites in western North Carolina, identified early and late subphases of Pisgah. The early subphase (A.D. 1000-1250) is characterized by fine-element, rectilinear complicated-stamped designs (Ward and Davis 1999:169), which reflect relationships with groups from the Etowah site in north Georgia. The late subphase (A.D. 1250-1450) is identified by the presence of bold and more varied rectilinear complicated-stamped designs and curvilinear designs. The latter are similar to those found in the Wilbanks, Savannah, and Pee Dee series of Georgia and South Carolina. Other changes over time include a decrease in popularity of

thickened or collared rims. In addition, “inslanted cazuela-like rims with incised decorations were introduced during the last half of the Pisgah phase” (Ward and Davis 1999:196), which together suggest continued influence from the south. Over time, Lamar phase ceramic attributes combined with local Pisgah attributes to form the Historic Cherokee Qualla phase by the end of the Mississippian period.

Of the rectilinear and curvilinear stamped designs, there are six rectilinear designs (A narrow, A broad, B first variety, B second variety, B third variety, and C) and two curvilinear designs (A and B) (Figure 6.1) (Dickens 1976:175). According to Dickens, rectilinear stamping is present on 80 to 90 percent of sherds from western North Carolina. These types vary in distribution across the region. Rectilinear A narrow is earlier than the broad variety, and is less common in western North Carolina. It is usually found on small jars with unmodified or thickened rims (Dickens 1976:177); however, in Tennessee and parts of South Carolina, the narrow variety is more common and is found on small to medium-sized jars with unmodified or thickened rims. The bold variety is most common in the upper French Broad and Pigeon River basins of western North Carolina. Rectilinear Design B is found more commonly in western North Carolina, and infrequently in Tennessee or South Carolina (Dickens 1976:177). Rectilinear Design C is not identified outside of western North Carolina, and was found on only one percent of the total sherd assemblage. In terms of vessel morphology, globular jars and open bowls are found (Dickens 1976:181), and vessel size increases during the later part of the Pisgah phase. Of note, loop handles are usually notched, incised or punctuated, and are common on thickened rims but rare

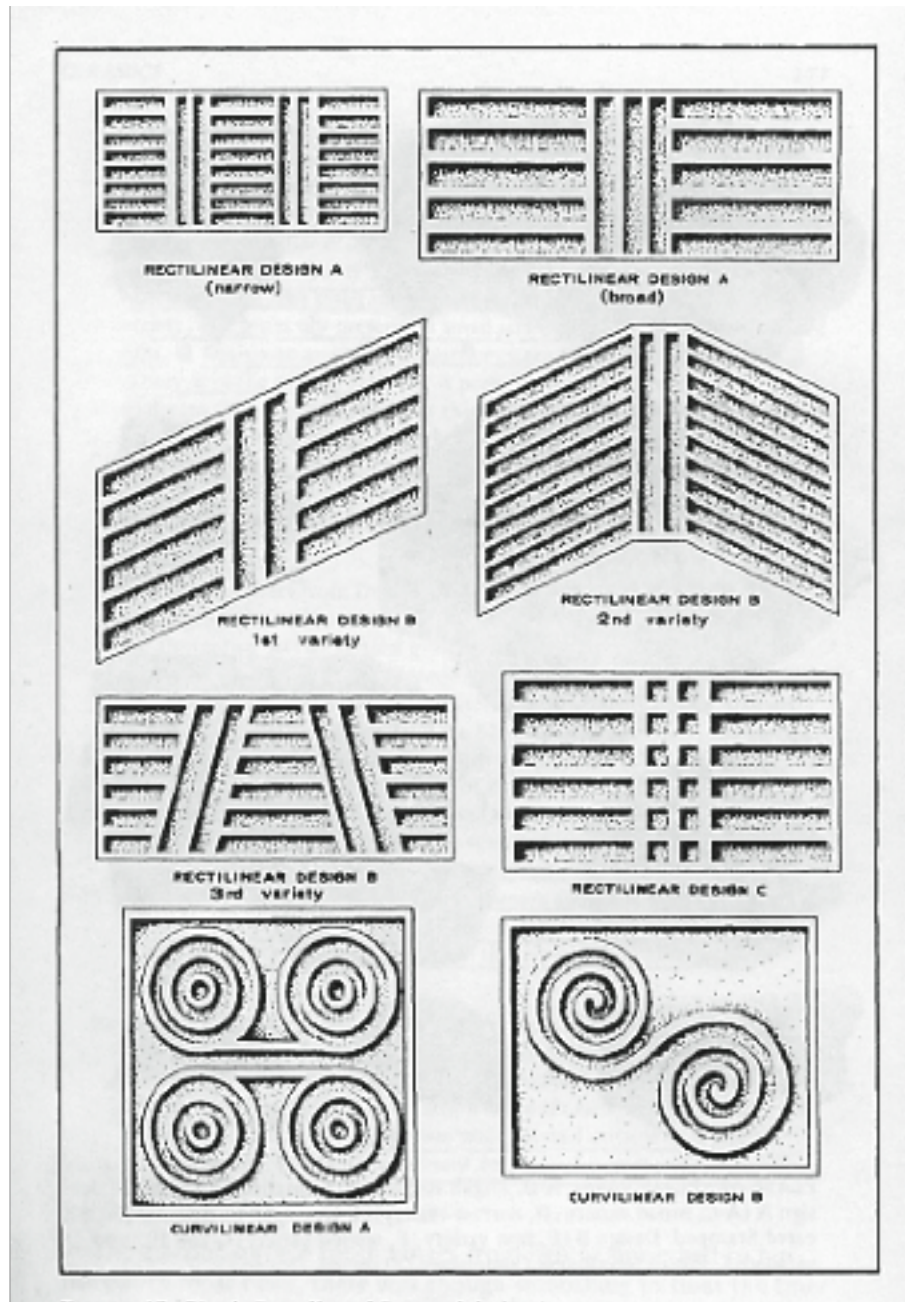


Figure 6.1. Pisgah ceramic styles (after Dickens 1979).

on collared rims (Dickens 1976:183). Strap handles are rarely found on Pisgah vessels.

Curvilinear-stamped designs are found on only 1 to 2 percent of Pisgah sherds and are later than the rectilinear-stamped sherds. The two designs, A and B, differ as follows: Design A “consists of a pair of concentric circles separated from an identical adjacent pair by a single groove” (Dickens 1976:183) while Design B “consists of concentric circles in a scroll-like pattern” (Dickens 1976:183). Rims associated with curvilinear stamped vessels have punctuated collars or pinched, straight rims. Thickened rims are not found in association with curvilinear stamping.

On Pisgah Check Stamped vessels, the entire vessel surface is covered with a check design. This type was found on 8 to 10 percent of Pisgah vessels in western North Carolina as well as Tennessee and South Carolina. According to Dickens (1976:185) “vessels with small checks usually have thickened rims; vessels with large checks usually have collared or unmodified rims.” Finally, Pisgah Plain is found on 1 to 3 percent of sherds from western North Carolina; however, some sites in northwestern South Carolina have much higher frequencies of plain surface decoration.

Holland (1970) identified Pisgah sherds in southwestern Virginia, but renamed them the Lee series. Dickens (1976:192) regarded these as the northernmost extension of Pisgah ceramics. During Holland’s survey, he identified Lee series sherds at four sites in Scott County and two sites in Lee County; at both Lee County sites and at one Scott County site, the Pisgah sherds accounted for more than 25 percent of the ceramic assemblage. Pisgah sherds have been identified in Tennessee along the Clinch and Holston Rivers, but none are found below the junction of the Holston and French Broad rivers (Dickens 1976:191). At one site below Kingsport, the ceramic assemblage was

composed of 70 percent Dallas and 30 percent Pisgah sherds. Finally, Pisgah ceramics have been found as far from southwestern Virginia as the Town Creek mound in North Carolina; the Nacoochee Mound in northwest Georgia, and the Angel site in southern Indiana (Dickens 1976:192).

In sum, Pisgah is a primarily sand-tempered pottery with distinct rim features and stamped surface decoration that was present in western North Carolina from A.D. 1000 to 1450. During the early Pisgah period, rectilinear stamping and thickened chevron-incised rims were common. During the later Pisgah period, curvilinear stamping replaced the earlier rectilinear stamped designs, and rims were more likely to be plain. Pisgah surface decorations appear to be a combination of northern (i.e. Iroquois or Fort Ancient) styles, as seen in the rims, and southern styles (primarily Georgia) as evidenced by the stamped designs. Pisgah is present in eastern Tennessee along the French Broad River, and in southwestern Virginia along the Clinch and Powell Rivers. Toward the north, temper changes from sand to crushed quartz. Pisgah ceramics have been found as far south as South Carolina and as far west as the Angel site in Indiana.

#### **Analysis of Ceramics from Site 44LE10**

A total of 9,369 sherds were analyzed from the Carter Robinson excavations, and include body, rim, handle, base, disk, and residual sherds (Table 6.3). Most sherds are vessel sherds; however, other kinds of ceramic artifacts were found at the site including beads and disks, and these are discussed in Chapter 7. Because the research questions were aimed, in part, at determining if the Carter Robinson site was a frontier, and if so, identifying what type of frontier it was and its interactions with surrounding

<b>Table 6.3. Count and Percentage of Sherd Types Present in the Carter Robinson Ceramic Database.</b>		
<b>Sherd Type</b>	<b>Count</b>	<b>Percentage</b>
Body	3773	40%
Rim	325	3%
Appendage	41	.04%
Base	10	.01%
Lug	21	.02%
Neck	6	.006%
Handle	12	.01%
Disk	57	.06%
Other	20	.02%
Residual	5185	55%
<b>Total</b>	<b>9369</b>	

groups, use of existing typologies to identify the ceramic assemblage would limit my ability to answer these questions. Instead, an attribute analysis of these ceramics was undertaken. The attribute analysis recorded selected attributes of texture, surface treatment/decoration, and vessel morphology (Appendix C) and then analyzed this information across time and space. For all sherds, the following information was recorded: temper, type of sherd (rim, body, base, etc.), and surface decoration. For rim sherds, additional attributes were recorded because they often exhibit information about vessel morphology which body and residual sherds lack. In addition to texture and surface decoration, rim sherd attributes recorded include hardness, color, core type, rim form, rim decoration, wall thickness, rim thickness, orifice diameter (if available), throat diameter (if available), rim angle, (if available) and shoulder angle (if available) (Appendix C). In addition, certain body sherds were selected for additional analyses based on their surface decoration. Incised and stamped sherds are typological markers;

when present, these sherds were analyzed to collect additional data about temporal occupation and possibly the use of different contexts across the site.

Three questions are addressed with these data. First, what is the pottery tradition (i.e., Mississippian or Radford) used at Carter Robinson; second, do the ceramic data indicate a frontier occupation; and third, do the ceramic data indicate differences in household activities at the site, and if so, are these differences indicative of power differences across households. In this section, I present the data from the entire ceramic database by examining three main attribute categories: temper, surface treatment/decoration, and vessel morphology. Next, I present the results of the rim analysis, and finally, the analysis of incised and stamped sherds to answer these three questions.

### **Question 1. Identifying Pottery Tradition**

#### **Temper**

Tempering agents used by potters changed over time and, less frequently, space during the late prehistoric period in Southeastern North America. As described above, in general in the southwestern Virginia region during the middle Mississippian period, limestone temper is indicative of Radford pottery; shell temper indicative of Mississippian pottery; and sand temper indicative of Pisgah pottery, or possibly Dan River pottery. At the Carter Robinson site, three main tempers dominate: shell, grit, and limestone. Minor tempers also present include grog, mica, quartz, and sand (Table 6.4). Of the three predominant tempers, shell accounts for 81 percent of primary temper material, followed by grit (11 percent) and limestone (6 percent). These numbers suggest that although limestone and grit, which each likely represent Radford and Pisgah or Dan

River pottery, are present, it is shell tempering which was overwhelmingly the favored choice for temper by potters.

<b>Table 6.4. Primary Temper Type Count and Percentage of Ceramics at Carter Robinson.</b>		
<b>Primary Temper Type</b>	<b>Count</b>	<b>Percentage</b>
Grit	1027	11%
Grog	60	.06%
Limestone	602	6%
Mica	3	----
Quartz	15	----
Sand	62	.06%
Shell	7559	81%
Residual (UID)	41	-----
<b>Total</b>	<b>9369</b>	

The above count of sherds by primary temper type includes grit as a tempering agent. However, the inclusion of grit may bias these results because grit can be an accidental inclusion in clay, unintentionally added during the manufacturing process. For example, small pieces of grit may have been present in the clay without the potter's knowledge. Other temper types found in ceramics at Carter Robinson include shell, limestone, grog, sand, and quartz. These tempers are more likely to have been deliberate inclusions by the potter. Grog, bits of previously fired pottery from other vessels, is obviously intentionally added because it had to be retrieved and broken by the potter before being added to the matrix. Shell, either mussel or gastropod, also had to be procured by the potter, and usually ground up before adding to the paste. Likewise, limestone had to be procured and broken up before manufacture. It could be argued that sand and quartz may also have been accidental; however, in this analysis, sand was recorded as a temper if it constituted more than 10 percent of the paste, suggesting it was not accidental. Quartz was recorded as a temper if it was large (over 1 mm) and its edges



were sharp (rounded edges would suggest waterborne gravels accidentally included in the paste), indicating intentional breakage by the potter. Because the presence of grit may bias the analysis of temper inclusions, the dataset on which the following analyses are based are calculated without grit, except in cases where grit is the only temper. As a result (Table 6.5), shell is still the predominant temper choice, but is now followed by grog (7 percent) and then limestone (6 percent). Sherds with only grit temper, which suggests their addition was deliberate, still account for 5 percent of the total assemblage, however.

<b>Table 6.5. Count and Percentage of Primary Temper of all Sherds at Carter Robinson (sans grit).</b>		
<b>Temper</b>	<b>Count</b>	<b>Percentage</b>
Grit	423	5%
Grit/quartz	3	----
Grit/sand	3	----
Grog	644	7%
Limestone	604	6%
Mica	3	----
Quartz	17	----
Sand	70	1%
Shell	7556	81%
Residual/UID	41	----
<b>Total</b>	<b>9369</b>	

Because the site is located in a frontier region, one with little or no settlement evidence of a hostile frontier (e.g. palisade), a mixture of tempers is to be expected. Mixing tempers may have been done for multiple reasons. First, mixing temper types at a frontier area that differs from temper types seen in non-frontier areas may have been functional. Certain materials present at the core may not be available at the frontier, and frontier residents would need to adapt to these differences by adding to or substituting temper to maintain a desired consistency and quality of pottery. Second, potters at the

frontier may have chosen to mix tempers as a way to differentiate themselves from the core, as a physical symbol of their different identity. Third, mixture of tempers may have been an adaptation to cohabitation in a new area with other cultures. Mixing exotic (shell) and local (limestone or sand/grit) tempers could have served as a way to smooth over differences between multiple groups. Combining temper types may have reflected partnerships or trade relationships between new and old groups. If the latter is true, then other changes in surface decoration and vessel morphology, discussed below, would be expected in conjunction with mixture of tempers.

Sherds contained between one and three types of temper additions. Sherds with only one temper type were the most popular, accounting for 67 percent of the total number of sherds, while sherds with two temper types account for 33 percent. Only 1 percent of the total number of sherds contained three temper types. For all sherds, regardless of the amount of different temper types present, shell was the predominant primary temper (see Table 6.5), followed by grog, limestone, and grit, respectively; however, the latter were present in very small amounts. Four other types of primary temper were used, but in miniscule amounts. Finally, 41 sherds were so eroded that temper could not be identified.

Sherds that contained only one temper were predominately shell-tempered (Table 6.6), although minor amounts of sherds with only grog or grit temper were present, and much smaller amounts of sand.

Sherds that contained two tempers were overwhelmingly shell and grog (Table 6.7), with shell and limestone, shell and sand, and limestone and grog tempers present in small (less than 10 percent) amounts. Present in minor amounts were limestone and sand;

<b>Table 6.6. Count and Percentage of Single-Tempered Sherds.</b>		
<b>Temper 1 (only)</b>	<b>Number</b>	<b>Percent</b>
Grit	423	6%
Grog	638	10%
Limestone	509	8%
Quartz	17	---
Sand	59	1%
Shell	4559	73%
Residual/uid	41	1%
<b>Total</b>	<b>6246</b>	

<b>Table 6.7. Count and Percentage of Primary and Secondary Temper of Sherds with Two Tempers.</b>		
<b>Temper 1 and 2 (only)</b>	<b>Number</b>	<b>Percent</b>
Limestone and grog	47	2%
Limestone and sand	1	---
Mica and limestone	3	---
Sand and grog	8	---
Sand and quartz	2	---
Shell and grog	2689	87%
Shell and limestone	240	8%
Shell and mica	9	---
Shell and quartz	1	---
Shell and sand	77	3%
<b>Total</b>	<b>3077</b>	

mica and limestone; sand and grog; sand and quartz; shell and mica; shell and quartz; and shell and sand. Altogether, although shell and grog predominate sherds with two tempers, there were ten varieties of two-tempered sherds present.

Sherds that contained three tempers were rare ( $n = 28$ ), and of these, most ( $n=17$ ; 61 percent) were composed of shell, grog and limestone. Ten sherds (36 percent) were tempered with a combination of limestone, grog, and sand. One sherd contained a mixture of shell, grog, and mica tempers.

Analysis of these temper combinations indicates two things. First, in all temper combinations, shell is always a dominant or majority temper type, either singly or when combined. Other tempers included are grit, grog, limestone and sand. When two tempers are used, shell combined with grog is the favored choice, with smaller amounts of shell and limestone and shell and sand present, and interestingly, limestone and grog as well. Finally, when three tempers are combined, the favored choice is limestone, grog and shell, although a combination of limestone, grog and sand is present in one-third of these sherd types. The favored use of shell whenever there are multiple tempers used suggests that the inhabitants of this site had Mississippian origins, and brought their shell-tempering technology with them when they relocated.

The second thing to note is that the temper is not exclusively shell. Instead, approximately 20 percent of all sherds in any temper category are either non-shell or a combination of shell with other types. These are most likely first to be grog; however, limestone and sand are used too. Their combination with shell, when seen in sherds with multiple tempers, and their presence in addition to shell, when seen in sherds with one temper, suggests interaction occurred between groups at the level of pottery manufacture. This may have been a strictly functional need, that is, other tempers were used because they were available. It is known that mussel shell was present prehistorically in Lee County (Ortmann 1918; Dennis 1981; Wolcott and Neves 1994), and it is difficult to know if the mussel shell that was used was native to Virginia or Tennessee. But, considering the low frequency of non-shell tempers, it is possible that shell was brought into the region and that it was at times purposely combined with other, local temper types.

## **Surface Treatment/Decoration**

Like temper, surface treatment and decoration is associated with certain ceramic traditions. Limestone-tempered and cordmarked or net-impressed pottery belongs to the Radford type. Plain, incised, or stamped pottery, either shell or sand, belongs to a Southern Appalachian Mississippian tradition, either eastern Tennessee (for shell-temper) or western North Carolina (for sand or quartz temper). In this section, the different types of surface decoration and their frequencies are presented and these data are discussed.

Table 6.8 shows the amount of each type of surface treatment/decoration found at the Carter Robinson site. The most common types are cordmarked (37 percent) and plain (44 percent). Both of these types are common Mississippian surface decorations. Like shell-temper, they are the overwhelming choice for potters, together accounting for 81 percent of the surface treatment/decoration of ceramics. The remaining 19 percent of sherds are dominated by those decorated with net impression (7 percent), a Radford ceramic attribute. Also present are cross cordmarked (5 percent); stamped (3 percent); incised (2 percent), and checkstamped (1 percent) surface treatments, as well as a handful of other types present in very small amounts. Overall, the surface treatment/decoration indicates site inhabitants followed the Mississippian cultural tradition of pottery production .

It is necessary, though, to look at the temper and surface decoration in tandem to truly identify the ceramic tradition used. Of the plain sherds, 71 percent are shell-tempered; of the cordmarked sherds, 86 percent are shell-tempered. This suggests the ceramic tradition used at the site was Mississippian. However, there is variation in temper with regard to the use of surface decoration; this variation is discussed below.

**Table 6.8. Count and Percent of Surface Treatment/Decoration Types Present at Carter Robinson Site.**

<b>Decoration</b>	<b>Total</b>	<b>Percent</b>
black filmed	2	---
Blackslip	2	---
Brushed	1	---
Burnished	11	---
checkstamped	36	1%
Complicated stamped	6	---
Cordmarked	1535	37%
Cordmarked & incised	2	---
Cordmarked & smoothed	1	---
corncob impressed	7	---
cross cordmarked	202	5%
cross cordmarked & brushed	1	---
cross-incised	4	---
fabric impressed	2	---
Incised	88	2%
knot tempered & net impressed	1	---
net impressed	285	7%
net impressed & incised	2	---
Pisgah	8	---
Plain	1832	44%
possible slip	3	---
Punctuated	4	---
red-filmed	1	---
Scraped	2	---
simple stamped	6	---
Smoothed	1	---
Stamped	142	3%
<b>Grand Total</b>	<b>4186</b>	

## **Question 2: Identifying a Frontier**

As shown above and in Chapter 5, the occupants of the site were Mississippian, based on their material culture. They appear to be an intrusive culture that moved into the region and lived on the frontier of the Norris Basin Mississippian cultural area. This section will better define the nature of this frontier.

Primary to the definition of this frontier is determining whether the frontier was hostile or friendly to outsiders. The fact that up to 20 percent of the tempers and surface decorations present at the Carter Robinson site were non-Mississippian suggests that the frontier was friendly. However, additional, more in-depth, analyses of the mixture of tempers and surface decoration may provide specific information as to the nature of relationships at the frontier. In order to do this, an understanding of what style is and how it is used in ceramics is needed.

Social identity, the way in which a group of people identify themselves as a group, and how their self-identity is in part defined by this group identity, is often but not exclusively expressed in material goods. The role of style within cultures, particularly with regards to social identity, has been of interest to archaeologists. Wobst (1977) suggested that the primary role of style was to convey information. This is done most effectively over long distances, when exchanged with a large number of people, and when the styles were visually simplistic, allowing them to be more readily understood. Ceramics are one class of material goods that act as a useful marker of social identity, because the three components of ceramics, composition, form, and decoration, can all be used to denote social identity. Shared cultural or social ideas are expressed in similar ways, so that similarities in pottery styles reflect these shared reflections.

Often a reason for one group to move into a frontier area is the desire to acquire natural resources for trade (Parker 2006). If the incoming group is acquiring natural resources and taking them out of the region, some other item or items needs to be introduced to trade for these resources. Mississippian ceramic vessels because they were shell-tempered, were sturdier than Radford pottery. In addition, Mississippian vessels were more variable in terms of surface decoration and morphology. As such, Mississippian pots may have been ideal trade goods used in exchange for natural resources with local groups.

If ceramics were used for trade purposes, then Mississippian pottery should be present at contemporaneous sites in southwestern Virginia; Chapter 2 discusses in detail these sites. Ceramic assemblages from many of these sites were examined to provide a comparative database for this project. First, sites from three counties in the region (Lee, Russell, and Scott), first identified by Holland in 1962, with ceramic assemblages stored at the Smithsonian Institution, were examined by the author, and attributes including temper and surface decoration were recorded. Fall-off curve analyses have shown that the farther away from the original location of an exchange item, the fewer types of that item are expected to be found (Cobb 2000). For this study, the Carter Robinson site, along with the Ely Mound, were likely centers of exchange in the region for Mississippian items, including ceramics; therefore, the farther east one heads away from these sites, the fewer Mississippian items expected. Two sites were examined for Lee County, five sites for Scott County, and nine sites for Russell County; each of these areas is located increasingly to the east of Carter Robinson.



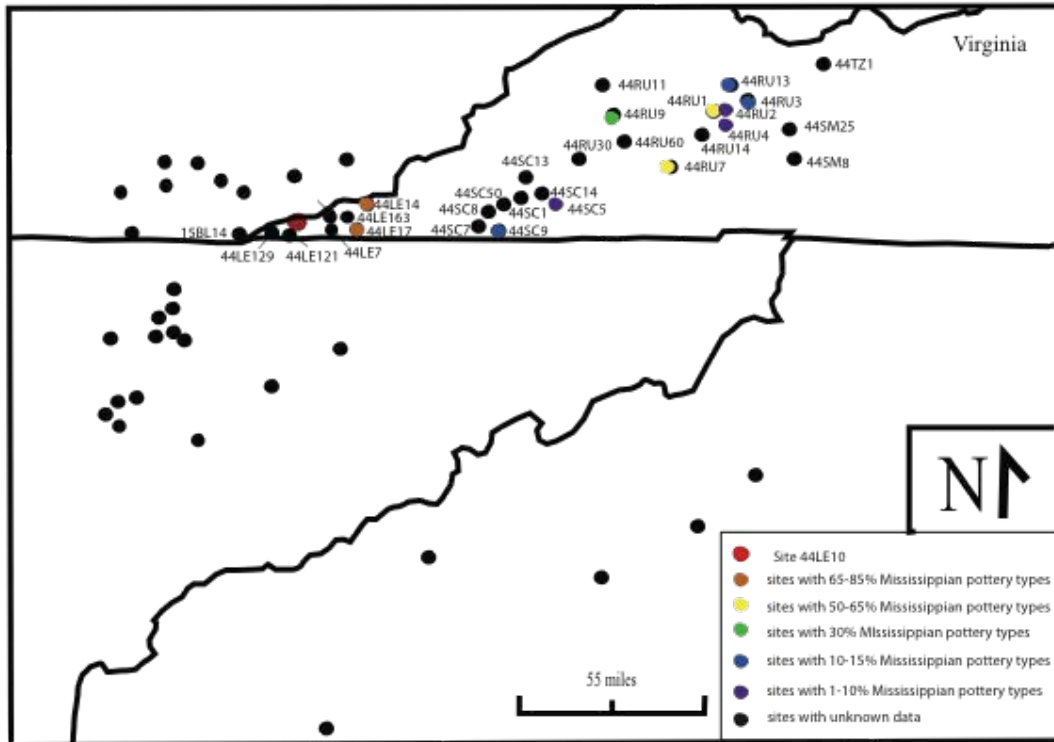
Table 6.9 shows the amount of different types of diagnostic ceramic attributes found at sites in southwestern Virginia. The sites with the highest amount of Mississippian pottery, as defined by the presence of shell-tempered cordmarked and plain sherds, are found in Lee County, at Sites 44LE14 and 44LE17 (Figure 6.2). Both sites are located near Site 44LE10; Site 44LE17 may have a small mound present. There is slightly less Mississippian pottery here as compared to Carter Robinson: 65 percent at 44LE14 and 70 percent at 44LE17. When combined with grit and grog-tempered wares, which are likely early Mississippian wares, this increases the presence of Mississippian pottery at these sites by 81 percent and 74 percent, respectively, which is similar to that seen at Carter Robinson. Based on frequencies of these types, all three sites may have been part of a similar exchange system.

In Russell and Scott Counties, there is a decreased Mississippian ceramic presence. Site 44RU11 has the highest amount of Mississippian pottery, 65 percent. Sites 44RU1 and 44RU7 have approximately the same percentage of Mississippian pottery, 51 percent and 63 percent, respectively. This suggests that pottery was traded in large amounts or more likely, that there was some Mississippian expansion into this part of the county. The ceramic assemblage at Site 44RU9 contained 31 percent Mississippian wares, suggesting active exchange occurred with this site as well. Ceramic assemblages at Sites 44RU3, 44RU13, and 44SC9 contained 15 percent, 17 percent, and 10 percent, respectively, of Mississippian ceramic types. This is approximately the inverse of the amount of Radford ceramic types found at Carter Robinson, which suggests that these sites were engaged in a trade relationship. Finally, Sites 44RU2, 44RU4, and 44SC5 have

**Table 6.9. Frequency of Diagnostic Temper and Surface Decoration at Sites in Lee, Russell, and Scott Counties.**

Temper	Surface Decoration	LE 14	LE 17	RU 1	RU 11	RU 13	RU 2	RU 3	RU 4	RU 7	RU 9	SC 5	SC 9	Grand Total
<b>Shell</b>	Plain	5	62	6	50	4	3	14	0	3	28	0	0	<b>175</b>
	Cordmarked	9	16	3	0	3	1	20	0	15	1	0	0	<b>68</b>
	Incised	1	15	0	0	0	0	1	0	0	1	0	0	<b>18</b>
	Punctuated	0	3	0	0	1	0	0	0	0	0	0	0	<b>4</b>
	Corncob impressed	9	12	0	0	0	0	0	0	0	0	0	0	<b>21</b>
	Pisgah	0	1	0	0	0	1	0	0	0	0	0	0	<b>2</b>
	Crossed-over cordmarked	0	1	0	0	0	0	2	0	0	0	0	0	<b>3</b>
	fabric impressed	0	0	0	0	0	0	0	0	0	0	0	5	<b>5</b>
	knot roughened and net-impressed	0	0	4	13	3	0	1	0	3	2	0	0	<b>26</b>
<b>Shell Total (Count)</b>		<b>24</b>	<b>110</b>	<b>13</b>	<b>63</b>	<b>11</b>	<b>5</b>	<b>38</b>	<b>0</b>	<b>21</b>	<b>32</b>	<b>0</b>	<b>5</b>	<b>322</b>
<b>Shell Total (Percent)</b>		<b>65%</b>	<b>69%</b>	<b>18%</b>	<b>64%</b>	<b>17%</b>	<b>1%</b>	<b>13%</b>	<b>0%</b>	<b>64%</b>	<b>31%</b>	<b>0%</b>	<b>10%</b>	<b>23%</b>
<b>Limestone</b>	Cordmarked	4	6	7	11	8	24	39	0	4	2	0	5	<b>99</b>
	Corncob impressed	0	1	0	0	0	0	0	0	0	0	0	0	<b>1</b>
	Incised	1	2	1	1	0	5	5	0	0	1	0	0	<b>15</b>
	Net-impressed	1	4	0	0	16	85	63	0	1	1	0	4	<b>175</b>
	knot roughened & net impressed	0	0	38	0	18	125	81	0	3	0	0	0	<b>265</b>
	Pisgah	0	3	0	0	0	0	0	0	0	0	0	9	<b>12</b>
	Plain	1	27	15	18	11	254	56	0	4	66	2	18	<b>454</b>
	simple stamped	0	0	0	6	0	0	0	0	0	0	0	10	<b>10</b>
	Smoothed-over cordmarked	0	1	0	0	0	0	0	0	0	0	0	0	<b>1</b>
<b>Limestone Total (Count)</b>		<b>7</b>	<b>44</b>	<b>61</b>	<b>36</b>	<b>53</b>	<b>493</b>	<b>244</b>	<b>0</b>	<b>12</b>	<b>70</b>	<b>2</b>	<b>46</b>	<b>1032</b>
<b>Limestone Total (Percent)</b>		<b>19%</b>	<b>28%</b>	<b>82%</b>	<b>36%</b>	<b>83%</b>	<b>99%</b>	<b>87%</b>	<b>0%</b>	<b>36%</b>	<b>67%</b>	<b>100%</b>	<b>90%</b>	<b>76%</b>
<b>Grit</b>	Pisgah	1	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>
	Plain	1	0	0	0	0	0	0	0	0	1	0	0	<b>2</b>
<b>Grit Total (Count)</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>

<b>Grit Total (Percent)</b>														
<b>Grog</b>	Pisgah	2	0	0	0	0	0	0	0	0	0	0	0	2
	Plain	2	4	0	0	0	0	0	0	0	1	0	0	7
	Smoothed-over cordmarked	0	1	0	0	0	0	0	0	0	0	0	0	1
<b>Grog Total (Count)</b>		<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>
<b>Grog Total (Percent)</b>		<b>11</b> <b>%</b>	<b>3%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>1%</b>	<b>0%</b>	<b>0</b> <b>%</b>	<b>1%</b>
<b>Grand Total</b>		<b>37</b>	<b>159</b>	<b>74</b>	<b>99</b>	<b>64</b>	<b>498</b>	<b>282</b>	<b>0</b>	<b>33</b>	<b>104</b>	<b>2</b>	<b>51</b>	<b>1354</b>



**Figure 6.2. Frequency of Mississippian pottery at sites contemporaneous with Site 44LE10.**

little or no Mississippian pottery, suggesting they were not engaged in any type of trade relationship with Mississippian groups.

The sites with the most Mississippian goods are located along waterways. Of note, Sites 44RU1, 44RU3, and 44RU13 are located just north of Saltville, while Site 44RU7 is located due west of Saltville. Site 44SC9 is located approximately halfway between Carter Robinson and Saltville. The presence of significant numbers of Mississippian goods at these sites, and their location in relation to Saltville, suggests that trade with Saltville was a priority. Saltville was creating its own shell gorget design (Muller 1966), which would have been a valued commodity by Mississippian groups in Tennessee.

In addition to exchange of material goods, there is evidence that people may have been exchanged as well. Although there is scant ethnohistorical evidence, what is available (Murdock and Provost 1973; Arnold 1985; Swanton 1946:549-55; 710; Holmes 1903: plate 28; Thomas 2001) suggests women were likely the primary potters in Southeastern societies. The ethnohistorical evidence suggests this was true in the Southeast; the cross-cultural evidence indicates this was likely true for horticultural tribal societies like Radford. If women were potters, it follows that they learned how to make pottery from older women within their group. Gosselain (2000) in a study of pottery learning techniques in Cameroon, found that technical choices in making pottery are a result of the learning process; they can also be part of the social identity. As stated previously, there is evidence that entire pots were first exchanged between Mississippian and Radford groups. Over time, this may have included the exchange of women.

Southeastern Mississippian groups are believed to have practiced matrilineality, a system where the clan membership is traced through the family line. It is also believed, based on ethnohistoric documents and practices, that they practiced matrilocality; that is, after marriage, the man moved into the wife's family's house with her. Murdock and Provost's (1973) work shows that most horticultural tribal societies also practiced matrilineality and matrilocality. In this system, then, Mississippian men may have married into Radford towns and moved there; likewise, Radford men may have married Mississippian wives and moved to Carter Robinson. If so, these marriages may be indicated by the presence of entire Radford vessels in Mississippian contexts and vice versa; however, the mixing of pottery manufacturing traits, like design and temper, would not have occurred because women were the potters within this society.

However, the data show that there is a mixture of pottery types, primarily at Carter Robinson, and to a lesser extent at Radford sites. Two scenarios may explain this. First, Hally (2008) discusses the evidence showing that Mississippian chiefdom leaders lived in houses atop platform mounds; such a practice "is consistent with the political power, social rank, and divine nature of these polity chiefs, and it implies that the chief resided in his own household and not that of his wife" (Hally 2008:512-513). In other words, the chief did not practice a matrilocal residence pattern. Further, Hally (2008:513) concludes that "the town chief's status in the King site community was quite distinct and elevated and that members of his matrilineal descent line enjoyed a special status as well." This status is indicated by the location of a chief's house atop or near platform mounds; as has been discussed in Chapter 5, Occupation Area 1 is located adjacent to the mound and its location and size indicate its occupants held an elevated status.

Further, there is ethnohistorical evidence that women were given to Southeastern chiefs as indicators of chiefly status (Smith and Hally 1992). Smith and Hally (1992:105) provide examples of women provided to the Spanish by Southeastern chiefs, but state “we will probably never know the rules that guided Indian behavior with respect to the exchange of women. In some instances, chiefs may have been attempting to establish marriage alliances or fictive kin ties with DeSoto by offering him female relatives as “wives.” In other instances, the women given to the Spaniards may have been drawn from a special social category, such as war captive or slave.” Indeed, in the account by the Gentleman of Elvas of the De Soto expedition, there are repeated mentions of women given as slaves (Clayton et al. 1993).

Based on both archaeological and ethnohistorical evidence, it is reasonable to assume that Radford women may have been given to Mississippian elite at Carter Robinson in marriage as part of an alliance; it is also possible that women were given as slaves (or were taken as slaves). If so, and if Radford women practiced matrilineality and matrilocality, they learned pottery techniques from their mother. Once brought into the Mississippian town, they may have combined techniques to produce the mixed pottery types present during the later part of site occupation at Carter Robinson. If exchanged to solidify relationships, women would have initially brought their traditions with them (Latta 1991). However, DeBoer (1990) studied how pottery changes styles in Ucayali groups, and found that style is constantly changing. The basic designs are learned in childhood, but the size of settlement, whether women were local or immigrant to the population, and familial harmony also greatly affected the pottery style. He concludes that there can be levels of style relevant to differences present in group interactions. I

suggest that the changes in pottery style present at the site indicate that women were used to solidify alliances with the Mississippian elite. It is also possible that Mississippian women were used to solidify alliances with Radford leaders, although to a lesser extent, as leadership in Radford societies was not as hierarchically based as that found in Mississippian societies. The decreased amount of mixed pottery styles, although still present in some quantity, at Radford sites, is evidence that some exchange was occurring between the groups, albeit at unequal levels.

A second scenario for explaining the mixed pottery present is that women acted as traders. Engelbrecht (1974) suggested the increasing heterogeneity in pottery designs among the Iroquois was a result of women acting as traders. Specifically, he suggests that because women had more contact with other villages after the formation of the League of the Iroquois, they were exposed to more varieties of pottery. In the latter example, there are ethnohistoric records of women traders. This second scenario also fits well within a frontier. Here, new forms of social organization and exchange, one in which women are traders, should be expected.

Either if exchanged as wives, or working as traders (or possibly both scenarios existed), it is likely that a mixture of pottery styles would have emerged, where limestone-tempered pottery was decorated with Mississippian designs, and shell-tempered pottery with Radford designs (net-impressions). A mixture of tempers may have occurred as well. The data presented above shows that a mixture of tempers occurred at Carter Robinson in approximately 15 percent of the ceramic goods recovered. Specifically, shell-tempered (Mississippian) pottery with knot-roughened-and-net-impressed or net-impressed surface designs (a Radford ceramic attribute); limestone-



tempered pottery with the following surface designs: cordmarking, cross cordmarking, incising, plain, or stamped; and a combination of limestone with shell, grit, and/or grog tempers and the following surface designs: cordmarking, cross cordmarking, plain, stamped, incising); all indicate a mixture of ceramic traditions as a result of exchange of individuals (as opposed to exchange of material goods).

At Carter Robinson, 8 percent of all shell-tempered sherds are decorated with net-impressions; two of these are incised, and additionally, one knot-roughened and net-impressed decorated sherd is present. Ninety-five percent of the limestone-tempered sherds are decorated with either cordmarking (41 percent); cross cordmarking (3 percent); plain (51 percent); or stamping (5 percent). Sherds in which limestone temper is mixed with either grit, grog, or shell and exhibit Mississippian surface designs constitute 4 percent of the assemblage, whereas sherds tempered primarily with shell and combined with either grit, grog, limestone, mica or sand and decorated with Mississippian designs account for 57 percent of the ceramic assemblage with identifiable surface decoration. This suggests that shell was the preferred temper, but it may not have been as readily available in the region, and so was mixed with local tempers. However, the presence of limestone-tempered pottery almost always decorated with Mississippian designs indicates that exchange of people likely occurred. That is, women married into the Carter Robinson population and as a result, ceramic tempers and surface decorations were mixed together. As compared to, for example, pottery from Mississippian-period sites in the Norris Basin, there ceramics are consistently “Mississippian” i.e., they are shell-tempered and plain or cordmarked, primarily, throughout the Late Mississippian period. Importantly, their tempers are not mixed, and surface treatments are Mississippian in style.

At other sites in southwestern Virginia, there is some evidence of intermarriage as well. At the two Lee County sites, there are no shell-tempered sherds with net-impressed or knot-roughened and net-impressed designs. However, there are 44 limestone-tempered sherds present, of which 43 exhibit Mississippian surface designs. Limestone mixed with shell-temper is also present, predominantly at Site 44LE17, and includes only Mississippian surface designs. Eleven sherds were tempered with shell and limestone, and are plain and incised. These data suggest there was some mixture of tempers, and when limestone temper was used in this mixture, Mississippian surface designs were the only type of design applied, suggesting some intermarriage occurred. The lack of shell-tempered sherds with non-local surface decoration suggests it may have occurred to a smaller degree at these sites as compared to Carter Robinson (however, the number of sherds available for analysis from these two sites differs greatly).

At the Russell County sites, shell-tempered sherds exhibiting non-Mississippian designs (net-impressed) are present at all of the sites here, but especially at Sites 44RU1, 44RU3, 44RU7 and 44RU11. Limestone-tempered sherds that exhibited Mississippian designs, including cordmarking, incising, and plain surface treatments, are present at all of the sites, but especially at Sites 44RU2, 44RU3, and 44RU9. Finally, sites that contain a combination of limestone and shell tempers that exhibit Mississippian designs are not found at Sites 44RU1 and 44RU7; they are most common at Sites 44RU3, 44RU2, and 44RU11. The presence of these types of ceramics at certain sites in Russell County suggests that Sites 44RU1 and 44RU7 engaged in mate exchange or, as discussed above, that women were traders in the region. The larger amount of shell-tempered pottery with net-impressed or knot-roughened and net-impressed surface treatments, as compared to

sites in Lee County, and particularly as compared to Carter Robinson, suggests that there may have been an exchange of Mississippian women into local communities. Other sites had lower frequencies of this combination of attributes, and this may indicate that their pottery style was influenced by Mississippian styles. Combining styles may have been used as a marker to demonstrate the actual trade relationships.

Finally, Scott County sites did not contain any shell-tempered sherds with non-Mississippian surface decorations. At Site 44SC9, most of the limestone-tempered sherds were decorated with Mississippian surface treatments (88 percent). Only three sherds were tempered with limestone and shell, and these were also decorated with Mississippian designs. As compared to sites in Russell County, there are fewer mixed temper and mixed design sherds present in Scott County, indicating a material exchange relationship combined with local potters simulating some Mississippian ceramic attributes occurred.

In sum, there is evidence for two types of exchange occurring between Carter Robinson and surrounding sites. First, there is evidence of a material goods exchange, specifically, Mississippian pottery. This is more pronounced at some sites in the region, specifically a few located west and north of Saltville. Second, there is evidence of exchange of persons, likely women for purpose of marriage. Such an exchange would more formally cement a trade relationship by combining trade and kinship. This exchange is indicated by a mixture of ceramic attributes, both temper and surface designs, found at Carter Robinson and at some sites in the region. Finally, some sites have ceramics that demonstrate a mixture of attributes at much lower frequencies, suggesting they were simulating Mississippian designs; in other words, their potters were

influenced by the Mississippian ceramic style and adopted some of this style. The presence of these low frequencies of mixed attribute ceramics may also reflect trade of such ceramics among native groups after mate exchange had occurred.

The ceramic assemblage provides evidence that the frontier at Carter Robinson was formed for purposes of exchange. Chapter 7 identifies the types of goods and natural resources exchanged, but the data presented here suggest that Mississippian ceramics were one exchange good. In addition, it appears that exchange of mates, specifically women, occurred as a way to cement trade relationships by tying them into existing kin groups. This mate exchange appears to have occurred in both directions; that is, women from local Radford groups married into Mississippian groups at Carter Robinson and possibly other Mississippian sites in Lee County, and Mississippian women married into Radford groups likely located near the town and trading center of Saltville.

### **Question 3: Identification of Households and Changing Power Relations within the Site**

It has been established that the occupants of the Carter Robinson site were part of the Mississippian culture, and the site itself, based on its location in a geographical frontier, and based on the distribution of local and non-local ceramic wares at the site and across the region, was situated on a cultural frontier as well. It is likely that trade was the reason for the movement to this frontier, and evidence for trade is discussed both above and in Chapter 7. Here, the ceramic data will be used to better define activity areas within households, and to identify changes in those activity areas and households over time. The point of this is to identify if certain households increased their power over time as a result of their activities at the frontier. First, a review of household occupation areas, evidence of which was presented in Chapter 5, will be briefly reviewed. Second, evidence for

activity areas within household occupation areas is presented, using both a zonal analysis of selected features in each household and a morphological analysis of vessels in each household. These data are then used to identify any changes over time in activity areas at the site.

### **Review of Household Occupation Areas**

Evidence is present at the site for at least four domestic occupation areas, and probably more, based on the shovel test data. First, excavations in Test Unit 19, on the southern mound edge, identified a hearth and postholes below mound level, indicating a structure was present here before the mound was built. Second, shovel test data show that restricted clusters of artifacts of approximately equal size are located south, southeast, north, and northeast of the mound. The latter locations are likely part of the remains of occupation areas found in Blocks 1 and 3. Third, remains of occupation areas were identified in three blocks. Block 1 contained remains of two areas, 1 and 4; Block 2 contained partial remains of a possible wall trench structure; and Block 3 contained partial remains of a probable rebuilt structure. None of the remains were complete enough to definitively identify structure outlines; however, the three sets of remains, as well as the structural remains found in Test Unit 19, contain comparable features, which allow for a comparison of activity areas within these structures.

### **Zonal Analysis**

As described in Chapter 5, the features present in the occupation areas were excavated in zones. This excavation method allowed for a clearer picture of the depositional accumulation of the feature fill, which can be indicative of their use. If features were used on a daily or almost-daily basis throughout the life of the structure,

these features should contain multiple zones represented by visible strata. If features were used less frequently, then there should be fewer zones. If features were used once, no discernible zones should be present. Related to this, features used during the life of the structure are more likely to be larger and deeper than those used less often. Features that contain the remnants of a single activity may have a wide diameter, if feature use reflects discard by a population larger than the single household. Table 6.10 compares the number of zones per features found across the site; these are identified by their occupation area and their feature type.

<b>Table 6.10. Number of Zones Per Feature in Occupation Areas.</b>		
<b>Area</b>	<b>Feature</b>	<b>Number of Zones</b>
1	106	10
1	100	7
4	53	8
Outside 1 & 4	94	1
2	201	14
3	1	1
Mound-TU 19	Various hearths & postmolds	1

Based on the data presented in the table, it would appear that first, the structure present in the lowest levels of Test Unit 19, located on the edge of the mound and occupied before the mound was built, was used for a short period, based on the single deposition stratigraphy represented in the features found here. Second, Occupation Area 3's feature, located outside of the structural remains, suggests a single episode of use. The feature is large, but shallow. Collectively, these characteristics may indicate that the feature was used for disposing of refuse from multiple people, because of its large diameter. Its shallow depth, however, suggests single episode use. Third, Feature 53, a

hearth in Occupation Area 4, contained eight zones, suggesting it was used for daily activities. Fourth, Feature 100 (Occupation Area 1) contained a comparable number of zones, seven, suggesting it was also used for daily activities. Feature 106, also located in Occupation Area 1, contained ten zones, indicating it was used longer or more frequently than the other features described above. A feature outside of Occupation Areas 1 and 4, Feature 94, was large (99 cm in diameter) shallow, and contained only one depositional episode. Like Feature 1, its size and depth suggest a single episode use for multiple people. Finally, the hearth in TU 172N, (Feature 221) contained fourteen zones. Compared to features like Feature 94, it was narrow (approximately 50 cm in diameter), suggesting it was used by fewer people. Although the hearth was located only in the upper structural level of Occupation Area 2, it contained a large number of zones. Its size, depth and context indicate it was used more frequently by fewer people, suggesting daily or at least frequent use by the members of the household.

To better assess the use of these features, the types of artifacts found in each one were quantified (Table 6.11). The data in the table suggest that first, Feature 100 may have been associated, particularly toward the end of its use, with an area where beads were manufactured. However, only one drill and one bead fragment were identified here, so more evidence is needed to support this interpretation. The presence of hematite fragments in its middle zones suggests that it may have been used for ritualistic or non-secular purposes. Only ceramic material was found in Feature 106, indicating its fill is attributable to general domestic activity. For Feature 53 in Occupation Area 4, cannel coal fragments are present, as well as a graver farther down; a chisel was also found, but its zonal provenience is unknown. Like Feature 100, these artifacts suggest some type of

<b>Table 6.11. Non-Ceramic Artifacts found in Zones in Occupation Areas.</b>		
<b>Feature</b>	<b>Zone</b>	<b>Non-Ceramic Contents</b>
Occupation Area 1 F. 100	1	Drill; stone bead
	16	Hematite fragments
Occupation Area 1 F. 106	None	None
Occupation Area 4 F. 53	None	Chisel
	8	Cannel coal
	20	Graver
Occupation Area 1 or 4 F. 94	1	Chisel
Occupation Area 2 F. 201	None	Scraper
	19	2 Shell disk beads; cannel coal
	20	Drilled chert pendant fragment; drilled shell pendant fragment
	21	Quartzite stone discoidal; 2 1 shell disk bead; 1 shell barrel bead
	28	Limestone fragments
Occupation Area 3 F. 301	None	None

manufacturing of cannel coal artifacts was occurring here, but more evidence is needed.

In contrast to these features, Feature 201 in Occupation Area 2 contained a scraper with no zonal provenience, along with shell disk beads, cannel coal, drilled pendant fragments, and stone discoidals in Zones 19-20, suggesting this feature contains the remnants of production of non-domestic use goods. Finally, Feature 301 in Occupation Area 3 also lacked any non-ceramic artifacts diagnostic of a specific activity. However, most of this structure was cleaned before it was abandoned, so it is unclear what, if anything, this absence signifies about the use of this feature.

For diagnostic purposes, temper types of ceramics from the features were tabulated and compared (Table 6.12). Based on the amount of tempers present in each zone, it would appear that Feature 94 represents a one-time episode, as few artifacts were



<b>Table 6.12. Temper Types of Sherds Per Zones of Features in Occupation Areas 1, 2, 3 and 4.</b>										
<b>Feature</b>	<b>Zone</b>	<b>Shell</b>	<b>Shell &amp; grit</b>	<b>Shell &amp; grog</b>	<b>Shell, grit &amp; grog</b>	<b>Grit</b>	<b>Grog</b>	<b>Shell, limestone &amp; grog</b>	<b>Shell &amp; limestone</b>	<b>Total</b>
<i>Occupation Area 1 F. 100</i>	<i>1</i>	17	4		13	3				37
	<i>2</i>				1					3
	<i>11</i>	6	1		6					13
	<i>15</i>	4			4					8
	<i>16</i>	2								2
	<i>17</i>			1						1
<i>Occupation Area 1 F. 106</i>	<i>18</i>	9	72	22	61			1	21	186
	<i>22</i>		6	2		1 (Pisgah)			2	11
<i>Occupation Area 4 F. 53</i>	<i>5</i>	3	3		3					9
	<i>8</i>		2		10					12
	<i>10</i>	4			2					6
	<i>12</i>	1								13
	<i>14</i>				1					1
	<i>19</i>									0
<i>Outside Occupation Areas 1 and 4 F. 94</i>	<i>1</i>	1			11					13
<i>Occupation Area 2 F. 201</i>	<i>19</i>	1			5	1 (Pisgah)				7
	<i>20</i>	2				1				3
	<i>21</i>									0
	<i>22</i>		6		1	1 (Pisgah)				8
	<i>28</i>		4							4
	<i>32</i>		1		6					7
<i>Occupation Area 3 F. 301</i>	<i>1</i>						2			2

found there, and were only shell or shell, grit, and grog-tempered. This temper mixture suggests use during the middle or later part of site occupation. Feature 301 in Occupation Area 3 contains only a few grog-tempered sherds. The temper type reflects its occupation

during the early period of site use, and the presence of only a few sherds suggests that the structure was cleaned before abandonment.

In Occupation Area 1, Feature 100 contains four varieties of temper, which change from shell and grit (in the lower strata) to a heavier emphasis on shell and shell, grit, and grog tempered pottery (in the upper strata). Interestingly, the only grit-tempered sherds are present in the upper zone of the feature. These may be Pisgah sherds that represent access to more trade networks during the latter part of site occupation. Temper type again reflects a middle to late site occupation period; an increase in the number of sherds in the later zones suggests a change occurred in the use of the feature over time.

In Feature 106, only two zones are present; the lower zone contains four temper types, and the upper zone, six temper types. Overall, there is a substantial increase in the number of sherds over time, suggesting either that the feature's use changed over time, or the number of people who used the feature increased over time.

Feature 53 in Occupation Area 4 shows an increase in the amount of ceramics deposited over time, as well as an increase in the variety of types present. This could indicate a change in use over time, or reflect a change to a more intensive use.

Finally, Feature 201 in Occupation Area 2 contains the most Pisgah sherds. This may mean occupants of this household had increased access to other trade networks; however, the increase is not substantial, so more data is needed to assess this claim. Additionally, the amount of temper types varies over time. This reflects changes in the structure that were occurring, specifically rebuilding of the structure.

Based on the number of stratigraphic zones, the number and type of tempers present, and the number and type of non-ceramic artifacts present within the different

zones of each feature, their functions are somewhat clearer. In Occupation Area 1, Feature 106 appears to be a multi-use domestic feature, while Feature 100 appears related more toward craft production. The increase in the number of sherds in both of these features suggests that the use of this structure changed over time, to accommodate more people.

Feature 53, in Occupation Area 4, is similar to Feature 100. It was primarily used for domestic purposes, but it also appears to have been used for craft production purposes. There is a decrease in the number of sherds in the upper zone, indicating less use of this feature toward the end of site occupation.

Feature 94 represents a single-use episode. It contains few sherds or non-ceramic artifacts; those present suggest middle to late occupation use. There is an absence of craft production artifacts, such as beads or drills, associated with this feature, which lends further evidence to its use during a single episode.

The function of Feature 301 is unclear, largely because the area was cleaned before abandonment. The grog-tempered sherds found in association with it corroborate an early occupation in this structural area. No craft production artifacts were found in any of the zones associated with Feature 301, but they were present in the midden deposition above the feature (see Chapter 7 for further discussion).

Finally, Feature 201 in Occupation Area 3 contains ceramic tempers that indicate middle-to-late period of craft production and possible ties to trade networks in western North Carolina.

## **Vessel Morphology**

In order to better understand the changes over time suggested by the temper data in Features 100, 106, 53 and 201, as well as to better identify what types of activities may have been associated with these structures, a vessel morphology analysis was done on 225 rim sherds from all contexts across the site. Because rim sherds often provide information that can be used to identify vessel shape, additional attribute data was recorded that would provide information about differences in vessel manufacture. Combined with surface decoration and context, this can provide information about differential use of vessels across the site. The additional attribute information recorded for rim sherds is provided in Appendix 6.2.

To identify differences in activities within occupation areas, the location of vessels within the occupation areas was compared. Table 6.13 shows the different types of vessels found in these areas. Occupation Area 1 contained the most vessel forms, and not surprisingly, the greatest variety of vessel forms, but in particular contains a large number of bowls. Occupation Area 4 has the next highest frequency of vessel forms. Types of forms present are similar to those found in Occupation Area 1, although it contains only one plate, no pans, and it also has slightly more carinated/collared jars. Occupation Area 3, the wall trench structure, contained only bowl vessel forms. Finally, the upper level of Occupation Area 2 contained only three vessel forms--one bowl and two simple silhouette jars.

Although the differences between the number of vessel forms present in these structures can be partially explained by difference in structure size and excavation block size, there does appear to be more vessels and more variety of forms in Occupation Area

<b>Vessel Form</b>	<b>Occupation Area</b>				<b>Total</b>
	<b>1</b>	<b>3</b>	<b>4</b>	<b>2a1</b>	
Bowl	25	3	8	1	<b>37</b>
Bowl or Jar	1				<b>1</b>
Bowl, possibly	4				<b>4</b>
Bowl, possibly pipe		1			<b>1</b>
Carinated/Collared Jar	4		5		<b>9</b>
Jar	2				<b>2</b>
Necked Jar	1				<b>1</b>
Pan	2				<b>2</b>
Plate			1		<b>1</b>
Plate or Pan	1				<b>1</b>
Simple Silhouette Jar	4		3	2	<b>9</b>
<b>Total</b>	<b>44</b>	<b>4</b>	<b>17</b>	<b>3</b>	<b>68</b>

1, particularly as compared to Occupation Area 4. The upper level of Occupation Area 3 may lack vessels in general and variety in forms in particular because only the center of the structure was excavated; however, this center is larger than Occupation Area 4's entire structure, suggesting different functions for these structures.

Vessel rim fragments from within the features analyzed above were also compared. These were present only in Features 100, 107 and 201. For Feature 100, the upper zone (Zone 1) contained vessel fragments of four bowls. Zone 4 contained one jar fragment, and Zone 17 contained a plate/pan fragment. The increase in number of vessels and especially in bowls suggests that a change in function occurred over time. However, the presence of a plate/pan fragment in Zone 17 indicates that craft production, possibly of salt, also occurred at this feature in a lower zone. Feature 107, a postmold in the base of Feature 106, contained portions of three bowls, indicating domestic use.

Finally, Feature 201 contained a jar fragment in Zone 18, a bowl fragment in Zone 19, and Zones 19 and 22 each contained jar fragments. Again, this may show, like

the nonceramic artifacts described above, that a change in activity occurred over time, related to the rebuilding of structures. More data are needed to better understand these changes.

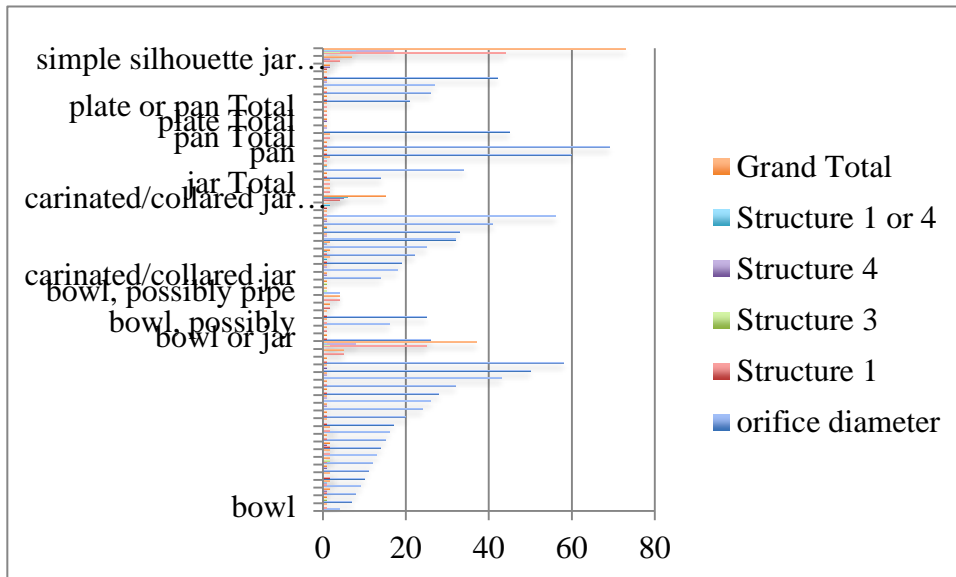
A comparison of the rim orientation, modification, and shape for all structures is shown in Table 6.14. First, this table shows that for rim orientation, direct rims are the most common of all rim types regardless of structure location, and are most predominant in Occupation Area 1. Of the direct rims, rounded, followed by beveled and then tapered are the most popular types. Direct rounded rims are popular on all structures suggesting this type was the most popular during the entire site occupation. Everted rounded rims are most common in Occupation Area 3, suggesting these may have been an early type; however, they are found in significant amounts in Occupation Area 1 and 4 as well, suggesting their popularity continued for some time. They are not present in the upper level of Occupation Area 2, indicating that they may have declined in use by the time this part of the site was occupied. Inverted rims, beveled and rounded, are found only in Occupation Areas 1 and 4, suggesting these structures had exclusive access to this type of vessel. Also, Occupation Area 1 had the most varied types of rim treatments, indicating access to a wider array of vessels as compared to other structures.

Functional attributes of vessels include hardness, orifice diameter, rim diameter, and wall and lip thicknesses. Chart 6.1 shows the range of orifice diameter for vessels found in each of the later-occupied structures. Occupation Area 1 has a greater variety of orifice diameters, which reflects its greater variety of vessel forms or sizes. There is a bimodal distribution pattern to Occupation Area 1's vessels. They tend to have orifice

**Table 6.14. Comparison of Rim Orientation, Modification, and Shape Per Occupation Area.**

<b>Rim Morphology</b>			<b>Occupation Area</b>				<b>Grand Total</b>
<b>Orientation</b>	<b>Shape</b>	<b>Modification</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>	
<b>Direct</b>	<b>Beveled</b>	<b>Bolstered</b>	5	2	1	1	<b>9</b>
		<b>Folded</b>	1	1	2		<b>4</b>
		<b>Indeterminate</b>	6		1		<b>7</b>
		<b>None</b>		1			<b>1</b>
		<b>Thickened</b>	8	1	2		<b>11</b>
	<b>Beveled Total</b>		<b>20</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>32</b>
	<b>Indeterminate</b>	<b>Folded</b>	1				<b>1</b>
	<b>Indeterminate Total</b>		<b>1</b>				<b>1</b>
	<b>Rounded</b>	<b>Bolstered</b>	9	3	1	1	<b>14</b>
		<b>Folded</b>	3	1	1		<b>5</b>
		<b>Indeterminate</b>	10		3	1	<b>14</b>
		<b>None</b>		2			<b>2</b>
		<b>Pinched</b>		1			<b>1</b>
		<b>Thickened</b>	7	1	1		<b>9</b>
	<b>Rounded Total</b>		<b>29</b>	<b>8</b>	<b>6</b>	<b>2</b>	<b>45</b>
	<b>Tapered</b>	<b>Bolstered</b>	4		1		<b>5</b>
		<b>Folded</b>	4				<b>4</b>
		<b>Indeterminate</b>			1		<b>1</b>
		<b>Thickened</b>	6	2	2		<b>10</b>
	<b>Tapered Total</b>		<b>14</b>	<b>2</b>	<b>4</b>		<b>20</b>
<b>Direct Total</b>			<b>64</b>	<b>15</b>	<b>16</b>	<b>3</b>	<b>98</b>
<b>Everted</b>	<b>Beveled</b>	<b>Bolstered</b>	1	1	1		<b>3</b>
		<b>Folded</b>	1				<b>1</b>
		<b>Indeterminate</b>	1		2		<b>3</b>
		<b>Thickened</b>	1		2	1	<b>4</b>
	<b>Beveled Total</b>		<b>4</b>		<b>5</b>	<b>1</b>	<b>11</b>
	<b>Indeterminate</b>	<b>Bolstered</b>			1		<b>1</b>
		<b>Indeterminate</b>	1				<b>1</b>
	<b>Indeterminate Total</b>		<b>1</b>	<b>1</b>			<b>2</b>
	<b>Rounded</b>	<b>Bolstered</b>	7		1		<b>8</b>
		<b>Folded</b>	3		2		<b>5</b>
		<b>Thickened</b>	4	2	1		<b>7</b>
	<b>Rounded Total</b>		<b>14</b>	<b>2</b>	<b>4</b>		<b>20</b>
	<b>Tapered</b>	<b>Bolstered</b>	1				<b>1</b>
		<b>Folded</b>	1				<b>1</b>
<b>Thickened</b>		1				<b>1</b>	
<b>Tapered Total</b>		<b>3</b>				<b>3</b>	
<b>Everted Total</b>			<b>23</b>	<b>3</b>	<b>9</b>	<b>1</b>	<b>36</b>
<b>Indeterminate</b>	<b>Indeterminate</b>	<b>Bolstered</b>			1		<b>1</b>

	<b>Indeterminate Total</b>			1			<b>1</b>
	<b>Tapered</b>	<b>Indeterminate</b>	1				<b>1</b>
	<b>Tapered Total</b>		1				<b>1</b>
<b>Indeterminate Total</b>			<b>2</b>	<b>1</b>	<b>1</b>		<b>4</b>
<b>Inverted</b>	<b>Beveled</b>	<b>Bolstered</b>	3				<b>3</b>
	<b>Beveled Total</b>		3				<b>3</b>
	<b>Rounded</b>	<b>Bolstered</b>	1		2		<b>3</b>
		<b>Thickened</b>	5		1		<b>6</b>
<b>Rounded Total</b>		6		3		<b>9</b>	
<b>Inverted Total</b>			<b>18</b>		<b>6</b>		<b>24</b>
<b>Grand Total</b>			<b>107</b>	<b>19</b>	<b>32</b>	<b>4</b>	<b>162</b>



**Chart 6.1. Distribution of Vessel Orifice Diameter (horizontal axis)**

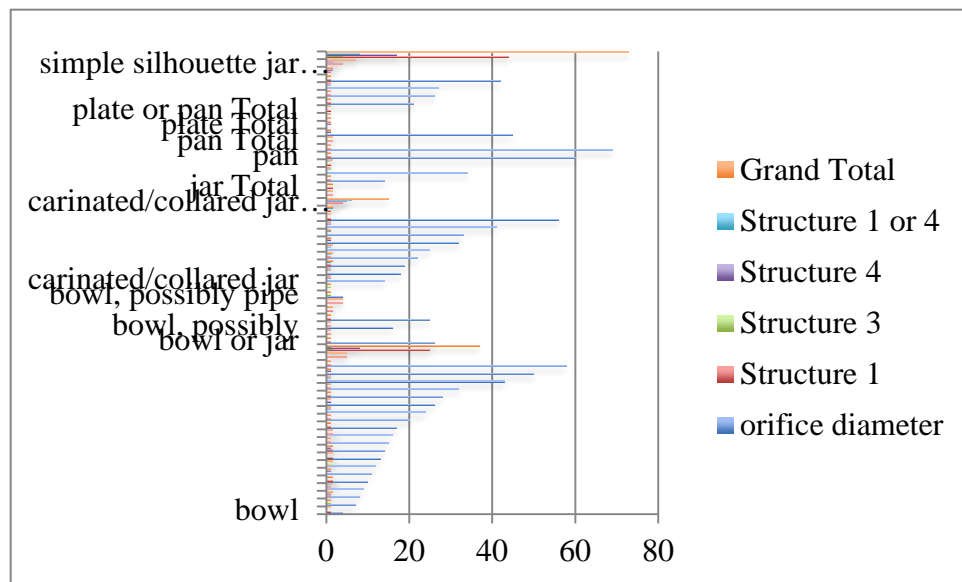
**Per Occupation Area by Vessel Form.**

diameters less than 24 cm, reflecting the presence of bowls (Rice 1987:222-224; Froese 1985), or orifice diameters greater than 56 cm indicating storage vessels are also present. It is also possible that these larger orifice diameters represent large serving plates. For Occupation Area 4, there are some smaller vessels present, although not as many as are present in Occupation Area 1. Unlike Occupation Area 1, Occupation Area 4 has more middle-sized vessels present, between 22-55 cm in diameter, suggesting cooking rather



than storage vessels were more common here. Occupation Area 3 has few vessels, and these tend to be smaller, indicating bowls; possibly one cooking vessel is present, and no storage vessels. Finally, the upper level of Occupation Area 2 has few vessels present, but these appear limited to one bowl and a few cooking vessels; it is possible that one of the latter is a smaller storage vessel.

Chart 6.2 shows the variety of wall thickness found at later-occupied structures at the site by structure. Wall thickness is usually an indication of vessel function (Rice 1987:227). Cooking and storage vessels often have thicker vessel walls as compared to serving vessels, in order to withstand stresses such as heat and long-term storage (Rice



**Chart 6.2. Variation in Vessel Wall Thickness (horizontal axis) Per Occupation Area.**

1987:227). Occupation Area 1 again has the widest variety of wall thicknesses present, and in general, there is a trimodal pattern of vessel wall thickness that includes thin-walled vessels (less than 12 cm), likely representing serving vessels, a smaller number of intermediate-thick vessels (12-20 cm), and some thicker vessels (more than 20 cm). The

latter categories likely correspond to storage rather than cooking vessels, and the range of thicknesses may indicate a range of storage needs. Occupation Area 4 contains a few thin-walled vessels (less than 4.5 cm), as well as a few (n=8) vessels of medium wall (5.5-8 cm) thickness, indicating some serving and storage functions; it also contains more thick-walled vessels, suggesting more cooking needs. Occupation Area 3 has few thin-walled vessels; rather, it has a fair amount (n=17) of medium- and thick-walled vessels, suggesting cooking and storage needs. Finally, only one vessel fragment for the upper level of Occupation Area 2 was large enough to measure, so no conclusions can be drawn about the type of vessels present here.

Only seven rim fragments were recovered from the shovel test excavations. Of these, only two were identifiable to form. One jar fragment was recovered from STP EE2, and one bowl fragment from STP LL8. Because of the scarcity of vessel form information available from the shovel test data, no morphological analyses were done of these data.

In addition to vessel form, handles, a temporal marker, were investigated for patterns in their temporal and spatial distribution. Aside from three handles in the mound test units, which included grog-tempered lug handles in Levels 5 and 7, and one grog-tempered strap handle from Level 7, the other handles were all shell-tempered and were recovered from structures at the site (Table 6.15). The majority of handles were lug type (74 percent) followed by strap (16 percent) and loop (10 percent). Loop handles are found in early Mississippian contexts, and are usually followed temporally by lug and strap handles. Lug handles are particularly prevalent in Late Mississippian sites such as Toqua. Loop handles are generally associated with wall trench structures, but Occupation

<b>Table 6.15. Handle Types Found in Occupation Areas.</b>				
<b>Occupation Area</b>	<b>Handle Type</b>			<b>Grand Total</b>
	<b>Loop</b>	<b>Lug</b>	<b>Strap</b>	
1	2	17	3	<b>22</b>
2		2		<b>2</b>
3		1	1	<b>2</b>
4	1	4	2	<b>7</b>
1 or 4	1	3		<b>4</b>
<b>Grand Total</b>	<b>4</b>	<b>28</b>	<b>6</b>	<b>38</b>

Area 3 contained one lug and one strap handle. This strap handle, however, was recovered after the area was abandoned, as it was found at the top of Feature 104, the filled-in postmold.

The presence of loop handles in Occupation Areas 1 and 4 suggest that they may have been occupied while Occupation Area 3 was still in use, or they may have retained and used over time, even after the style changed. Strap handles are also found in Occupation Areas 1 and 4, and lug handles are found in all structures, but especially in Occupation Area 1. Only one handle was recovered from Zone 1 in Feature 100, so handle data was not useful for discerning feature activity.

### **Discussion and Summary**

The goal of this chapter was to answer three questions. Based on the ceramic assemblage, first, what was the cultural identity of the people who lived at the Carter Robinson site, second, what type of site was it, and third, were there differences in access to resources among the excavated households that would indicate the presence of a power differential among the site inhabitants.

To answer the first question, I examined the temper and surface decoration of ceramics from the site. The combined attribute analysis shows the assemblage is

representative of a Mississippian ceramic tradition. However, there is some variation from traditional Mississippian pottery assemblages, and it is in examining this variation that we can begin to address the second question.

Table 6.16 a comparative chart of Dallas, Radford, and Carter Robinson ceramic attributes. This chart shows that the Carter Robinson assemblage contains more Mississippian traits than Radford traits, yet there are differences. The attribute data suggest that site occupation occurred during the transition between Hiwassee Island and Dallas; radiocarbon dates and architectural data support this.

However, the presence of approximately 20 percent of non-Mississippian pottery at the site, or really, of pottery that is either not shell-tempered or is a combination of shell and other local tempers such as limestone, or local surface decorations, suggest that there was contact with local Radford potters. At the same time, Mississippian pottery (either identified as such by temper or surface decoration) is present in varying amounts at sites in the region. The highest percentages of Mississippian pottery (ca. 20 percent) are found in sites around Saltville. Lesser amounts, 5-10 percent, occur at sites located between Saltville and Carter Robinson. This suggests two things. First, sites with smaller percentages of Mississippian pottery were engaged in trade with Carter Robinson occupants, and this is indicated by the presence of Mississippian pottery at these local sites, and the presence of Radford pottery at Carter Robinson. Second, occupants of some sites, namely those located around Saltville, were engaged in more than trade with Carter Robinson occupants. The presence of a mixture of tempers and/or surface decoration suggests that potters were combining two ceramic traditions. As women were historically the potters in this region (Swanton 1946; Thomas 2001; Journey and Pertulla 1995), it is

<b>Table 6.16. Comparison of Ceramic Attributes of Mississippian and Radford Ceramic Traditions with the Ceramic Assemblage at Carter Robinson.</b>					
<b>Ceramic Attribute</b>		<b>Mississippian</b>		<b>Radford</b>	<b>Carter Robinson</b>
		<b>Hiwassee Island</b>	<b>Dallas</b>		
<b>Temper</b>	<b>Limestone</b>	None	None	Majority	6%
	<b>Grit</b>	None	Minor	Minor	5%
	<b>Grog</b>	None	Minor	none	7%
	<b>Shell</b>	Majority/all	Majority	Minority/none	81%
	<b>Sand</b>	Minor	None	Minor	1%
<b>Surface Decoration</b>	<b>Plain</b>	Majority	Majority	Some	Majority
	<b>Cordmarked</b>	Increases over time	Decreases over time	30-50%	Majority
	<b>Incised</b>	None	Minor	None	Minor
	<b>Red-filmed</b>	Present	None	None	Minor
	<b>Net-impressed</b>	None	None	Majority	10-20%
	<b>Pisgah</b>	None	None	Minor	minor
	<b>Slipped</b>	Minor/none	Present	Minor	Minor
	<b>Stamped</b>	Present	Present	Minor	5-10%
<b>Vessel Morphology</b>	<b>Punctations</b>	None	Present	Minor	present
	<b>Loop handles</b>	Present	None	None	Present
	<b>Excurvate rim jars</b>	Present	Minor	None	Present
	<b>Shallow bowls</b>	Present	Present	Present	Present
	<b>Salt pans</b>	Present	Present	None	Present
	<b>Strap handles</b>	None	Present	Present	Present
	<b>Lug handles</b>	Downturned	Present	Present	Present

likely that women were exchanged as mates in the region to solidify trade relationships through the creation of kin networks. It is significant that the sites with the highest percentage of mixed pottery are located around Saltville. At this time, Saltville was emerging as an important trade center for salt, and it was also engaging in the trade of shell and the production and trade of shell gorgets (Barber and Barfield 2000). These ceramic data suggest that the Carter Robinson site was not only a geographical frontier,

but a cultural frontier as well, located at the edge of the Mississippian world to engage in trade with local groups. It is possible, as Engelbrecht (1974) found for Iroquois women, that they acted as traders in the society. Engelbrecht notes that this results in an increase in changing pottery styles. It could be that the changes in pottery in southwestern Virginia are because women of both cultural groups married into the other and incorporated their own cultural styles into their new kin groups. Women could have been traders, exposed to different styles and they incorporated these differences into new pottery. Such an incorporation may have aided trade partnerships by creating a material symbol of cohesiveness. Women could have been both wives and traders in this society as well. Low (2005:67), in a crosscultural overview of factors affecting women and marriage, notes that “in societies in which men’s sources of power are unpredictable, and women have sufficient resources to be independent, men cannot always control women.” Women, she notes, often form coalitions as a way to gain and maintain power. In frontier societies, men may have had more unpredictable sources of power than they had at the core. As a result, women may have been able to enlarge their traditional roles.

The third question examined using ceramic data was the identification of differences in households with regard to their activity areas. The point of this examination was to identify if there was unequal access to resources across the households that may have contributed to the rise of a power differential among site inhabitants. In order to do this, zonal analyses of compatible features from the four household areas were compared, and a morphological analysis of vessels within the household areas was done. The zonal analysis showed the presence of different types of features at the site. First, in Occupation Area 1, Features 100 and 106 appear to have

served different functions. Feature 106, based on the multiple zones present, the amount of ceramics within the zones, and the lack of non-ceramic artifacts, appears to contain the remnants of regular household waste. By contrast, Feature 100 contained half the number of zones as Feature 106, suggesting it was not used as often. Based on its ceramic assemblage, it is possible it was used more recently. Also, the presence of some tools and beads in the feature suggest it was not related, or not entirely related, to household use, but was used at least in part for craft production activities. Feature 94, located outside of Structures 1 and 4, was a wide narrow trash pit containing only one zone. This indicates it was used once, but its size suggests that it represents the remains of many people. Ceramics from this pit indicate middle to late occupation use. Feature 53, located in Occupation Area 4, is very similar to Feature 100 in terms of number of zones and ceramic assemblage, indicating it was occupied during the mid-to-late part of site occupation, and it may have also been associated with craft production as well as domestic activities. Feature 301, the wall trench, did not contain multiple zones nor did it contain many artifacts. This lack of artifacts may reflect a ritual cleaning of the structure when it was abandoned. In comparison to the other structures, which did contain many artifacts, it would appear that the lack of artifacts in and around Feature 301 was intentional. Finally, Feature 201 in Occupation Area 2 contained the highest amount of non-ceramic artifacts, suggesting it was used for non-domestic purposes. Other artifacts associated with this feature (e.g., drills, shell waste, and shell beads) indicate that one of these purposes was probably craft production. primarily for craft production.

These differences in features suggest site inhabitants may have had differential access to resources. It is unknown what type of access Occupation Area 3 inhabitants had

based on this analysis, but it appears that those people associated with Occupation Areas 1 and 4 had similar access, although Occupation Area 4 may have been occupied longer, based on the multiple features present there and the depth of Feature 106. Some craft production was occurring near both features, but it may not have been the primary concern, or appears to have been done in conjunction with other household tasks. By contrast, in Occupation Area 3, Feature 201 appears to have been used primarily for craft production based on the presence of craft production items combined with the absence of domestic items, especially ceramics and food remains. Combined with the increased number of Pisgah ceramics present in this feature, this suggests that the inhabitants of Occupation Area 3 had access to a greater variety of trade goods as compared to the inhabitants of Occupation Area 1 and 4.

A comparison of vessel morphology represented in these household areas was done as well, and data on vessels from other areas of the site were also used in this comparison. Overall, Occupation Area 1 contained the greatest variety of vessel forms, and in particular, the greatest number of bowls. Occupation Area 4 contained the next greatest number of both vessels and bowls, followed by Occupation Area 3, Occupation Area 2 (the upper level) had the least amount. The variety of vessels present in Occupation Area 1 suggests that its inhabitants were storing, preparing, and serving food. Combined with the presence of the wide size (but narrow depth) of Feature 94 and the long history of Feature 106, this indicates it may have been used for both domestic purposes, especially initially, and then over time its function changed to one of feasting and serving large numbers of people. In fact, the proximity of Occupation Area 1 to the mound suggests that this location was related to this function. Craft production appears to



have played a role in differential status for the occupants of Occupation Area 1, but this was not the only role for the inhabitants of this occupation area. Occupation Area 4 inhabitants may have been related to those in Occupation Area 1, which would also explain the variety of vessels there, and its close location near the mound. In a sense, Occupation Area 4 inhabitants held a secondary status to those in Occupation Area 1. It is possible, based on the vessels in Occupation Area 3, that the precursors of Occupation Area 1 inhabited this location. Indeed, when Occupation Area 3 was abandoned, it was purposefully cleaned and the center pit was topped off with a shell-tempered, cordmarked sherd with a strap handle, one more likely to be found in Occupation Area 1. It is possible that the inhabitants of Occupation Area 3 held a similar, though lesser, role, as those in Occupation Area 1. As trade relationships with local groups solidified, most likely through the exchange of mates, the status of these household occupants may have increased, precipitating the move to Occupation Area 1, closer to the mound, and the expansion into two structures (as the kin group increased in size).

Occupation Area 2, however, differs from the other occupation areas in its lack of vessel variety. Inhabitants appear to have increased their access to resources, as compared to inhabitants of Occupation Area 1, but this did not expand into a more public role. In Chapter 5, I suggested that Occupation Area 3 may have been associated with the early stages of mound construction. The increased craft production in its upper level, signaling increased access to trade networks, would have contributed to this increase in power. However, if this occurred, it was in early stages where a transition in the location of public feasting had not occurred before the site was abandoned.

In sum, this chapter has used ceramic data to show that first, the inhabitants of the Carter Robinson site were Mississippian. Second, the site was a frontier trade site. Third, trade networks were facilitated through the exchange of ceramic goods, and in some cases, the exchange of women but only with particular sites—those located near the trade center of Saltville. Fourth, there were differences among household areas with respect to access to resources. It appears that a change in power occurred first at Occupation Areas 3, 1 and 4, and by the end of site occupation, at Occupation Area 2. The next chapter more closely examines the presence of trade goods and indicators of craft production to better identify how trade changed the nature of power at this frontier town.

## **Chapter 7 The Role of Craft Production and Trade of Goods in Power Formation & Maintenance at the Frontier**

Parker (2006) identifies several reasons for the formation of frontiers, and one primary reason is resource extraction. This can be particularly true of mountain environments, of which Parker (2006:83) states, “such ecological zones might harbor resources desirable in the core polity.” Frontiers themselves become a resource to a core region because they can extract the natural resources and in some cases, craft valued goods from the resources. Because they are located far from the core these resources and/or goods need to be transported to the core, and transportation incurs costs. In addition, frontier settlements may be formed not so much to extract natural resources and/or craft goods, but rather, to exert control over existing extraction and production strategies. The latter could be accomplished through force or trade. Force, though, would require a significant military presence in an unknown region far from the core, all of which necessitate high costs in terms of resources and human labor (e.g. Stein 1998). Trade is less costly and therefore the more likely scenario in a Mississippian chiefdom. In sum, frontier settlements have two onuses: the extraction of natural resources and related to this, the production and trade of goods made from those resources. A consequence of a frontier settled for natural resource extraction and trade good production is an increasing lack of control by the core over the frontier. As a result, the frontier may experience increasing power by controlling extraction, production, and the actual exchange of goods.

The previous chapter used ceramic data to identify the Mississippian cultural identity of the site occupants, identify that the site was a frontier for trade purposes, and examine changes in use of households to identify activity areas and changes over time.

After a discussion about the nature of craft production, this chapter examines evidence for resource extraction, craft production, and exchange of goods at Carter Robinson. By identifying changes, particularly contextual changes, in these activities over time this chapter will address the change in power relations as related to resource extraction and craft production at the frontier.

### **Craft Production and Craft Specialization**

Craft specialization has been viewed as a marker of state-level formation (Helms 1992). In such situations, craft specialists are defined as persons employed in the production of particular crafts on a full-time basis. These persons are dependent upon their craft production for their livelihood. As such, they are often under the control of elites who then own these goods, often trading them or using them in sacred rituals; both of these latter activities increase chiefly power and increase specialist dependence on the chief. This traditional view of craft specialization has changed more recently, as archaeologists have recognized that a range of specialization is present in pre-state societies (Brumfiel and Earle 1987; Costin 1998), although other researchers (e.g. Muller 1984) more strictly define craft specialization.

Cobb (2000: 36) suggests that because there is now recognition of the variety present in specialization, craft specialization needs to be understood in the broader context of a culture's political economy. Related to this is the idea that specialization is a form of production and as such "it must be examined within the wider arena of social relations that constitute the labor process" (Cobb 2000:36). Fully understanding the labor process and social relations means also examining exchange and consumption of goods.

This in turn means recognizing that multiple types of production occur simultaneously, and are often interrelated.

Although control of natural resources for exchange is recognized as a major reason for frontier settlement (Parker 2006), the issue of craft specialization at frontiers is not addressed in any great detail. Hirth (1978) has recognized that gateway communities can emerge in areas of trade, usually at frontiers, and can gain power by co-opting or controlling trade movement. Schortmann and Urban (1992) note that in using frontiers as a means of controlling exchange, core areas often lose control of those same areas as frontiers increase in power through direct control of exchange. Stein (1998) suggests a distance-parity model that describes this loss of control at the core, and unlike world-system approaches, does not result in an asymmetrical relationship between core and frontier. Instead, peripheries play an increasingly instrumental role in the formation of interregional exchange networks. However, few studies have examined how frontiers control production, including production of specialized goods and exchange of those goods, and how this control of production and exchange affects power relations within frontiers. This is particularly important in light of the fact that frontiers are areas where identity is more malleable and is often redefined. The question then is, is power structured differently at the frontier, and if so, what role does control over production and exchange of goods play in the structure of power?

Examining the production of crafts necessitates defining the difference between craft production and craft specialization. Craft specialization, discussed above, is the view that full-time specialists are employed in the production of crafts and this production is directly controlled by one person, usually the chief. Because making crafts

is the sole duty of the specialist, the resources (i.e., food, water, shelter) needed to maintain that specialist are provided by other people, and are usually paid for by the chief in exchange for the labor of the craft specialist. As noted above, however, archaeologists are beginning to recognize the range of variation present in craft specialization, but beyond acknowledging variation, no formal typology of variation has been defined. Craft production is the production of crafts on a part-time basis. The labor involved to make crafts may or may not be controlled by another individual, although it is likely that a chief profits in some way from the production of crafts. Craft production is done in conjunction with other tasks, such as obtaining food, water, and shelter, and therefore it does not need to be full-time. In agriculturally-based societies, it can be seasonal so as not to interfere with food production. In addition, it may involve additional members of the household, or it may involve members of other households tied by sodalities or kinship. Craft production entails decreased control by a central leader and increased control by individuals or households, as compared to craft specialization. It may be an ideal way to manufacture goods at a frontier, because distance from the core results in a lack of centralized control. It is necessary to formally define craft production in this way because expressing it as a variety of craft specialization presupposes full-time attached specialists overseen by a leader. I would argue that craft production is not a subset of specialization, but rather a different type of production. It can, but does not have to, lead to full-time specialization. Understanding craft production as a different way of making goods helps us better understand how the political economy of such societies, particularly frontiers, operated within the culture.

In order to identify craft production in its cultural context, the stages of production must be identified. The first stage is extraction of natural resources. The location of valued natural resources in the region must be identified, recognizing their eventual utility as prestige and utilitarian goods. Next, the production of goods is recognized by identifying the location of production, and the waste products of production. Production areas may be separate or may be part of households (see below). Finally, the use of goods is defined, acknowledging that use refers to both domestic use and exchange. For the latter, it is important to identify the location of goods used domestically, and the location of goods received in exchange for crafts produced onsite.

### **Organization of Labor**

As discussed above, the three stages (extraction, production, and use) are different types of labor. For example, extraction often entails groups of people organized by a leader, whereas production is usually done by an experienced craftsman. Use of a craft object may involve singular or multiple persons, depending on context. Understanding how each stage or labor was accomplished within the culture means understanding the culture's organization of labor. By doing so, power inequalities can be recognized.

In pre-state societies, including for this discussion hunter-gatherer societies, labor is based in the household. Chayanov (1966) recognized that the level of production exerted by the members of a household is determined by the costs and the gain of that labor (Donham 1999). As a result, households are organized according to this principle. Chayanov was speaking from a purely economical perspective; Sahlins (1971) revised Chayanov's theory to allow for the effects of culture on the organization of household labor. Sahlins recognized that households are connected to one another within a culture

through various means (kinship, circulation of goods, sodality groupings, etc.) and these encompass other aspects of culture, such as social, religious, and political, that affect how the household labor is organized. This domestic mode of production was seen by Sahlins as rather limited because domestic households would labor only so far as what they needed for use. Sahlins limits mode of production by what households need for their immediate uses; Chayanov limits it by what they are physically able to do, the amount of work they are capable of doing. (Donham 1999). Neither is able to identify the forces set in motion (and the means by which they are they set in motion) to transform a domestic mode of production into production that is supra-domestic. Donham (1999), in analyzing these differences, identifies that historical context is key to understanding how mode of production operates. Researchers now believe that households are not limited by what they need (Roscoe 2000; Diehl 2000), but that egalitarian societies are not truly egalitarian, in the sense of maintaining equality without institutionalized rank or status among households. Diehl (2000:15) notes that human foraging societies use repetitious acts of generosity, which over time creates social debt. If such debt can be adequately repaid, a heterarchical society remains in place. If, through other factors such as unequal land distribution, some social debt accumulates that cannot be repaid in full or adequately, then the situation is more amenable to aggrandizement.

Hayden (1995) outlines in detail the different types of social debts that can accumulate in tribal societies, such as through marriage and coming of age ceremonies. At the individual household level, the members of a household must work together to provide enough for their survival, and that survival can also mean the repayment of social debt. Labor then can be organized by household members to meet these needs. If a



household fails to meet these needs, social debt can be repaid through transferring the power of labor organization of one household to members of another household. In this way, an aggrandizer can take advantage of social debt through controlling the mode of production of more than one household. That households are linked in various ways plays into this as well. Overseeing the mode of production of one household may mean actually overseeing it in multiple households depending on how those households are linked. This may be particularly true if their social debt is linked throughout the culture, as is to be expected.

The different stages of production necessitate a different organization of labor. Extraction of natural resources may be possible by single individuals particularly skilled at say, obtaining cannel coal fragments. Most extraction tasks, though, require the organization of multiple persons in some way. Leadership of some type is required to organize parties, lead excursions, collect materials, and return for production tasks. Production may or may not have been a singular task. If one person was particularly skilled in creating goods, and could create sufficient goods to meet their needs, it may have been done by only a handful of people in the entire community. If production involved multiple stages, each with different, specialized tasks, it could have involved entire households or supra-household groups. For example, salt extraction was a multi-staged task that likely included multiple people.

It is important to remember that production of a single good was probably not happening; rather, multiple goods may have been produced simultaneously. Drilling of shells and cannel coal were likely done at the same time. Procuring cannel coal and salt

also could have been done simultaneously. Indeed, extraction of certain resources and production of goods from those resources may have been done together.

It is also important to remember that both extraction and production are largely determined by intended use of the finished product. Use is generally either utilitarian or non-utilitarian. Salt used for utilitarian purposes may not have been as pure as that used for ritual purposes, and so would have entailed differential extraction and production. The same is true of finely made ceramics. Bead production likely differed depending upon who was using the beads and their context of use. At a frontier site, trade of finished goods as well as raw materials was a main type of use, as frontiers are often settled for this reason.

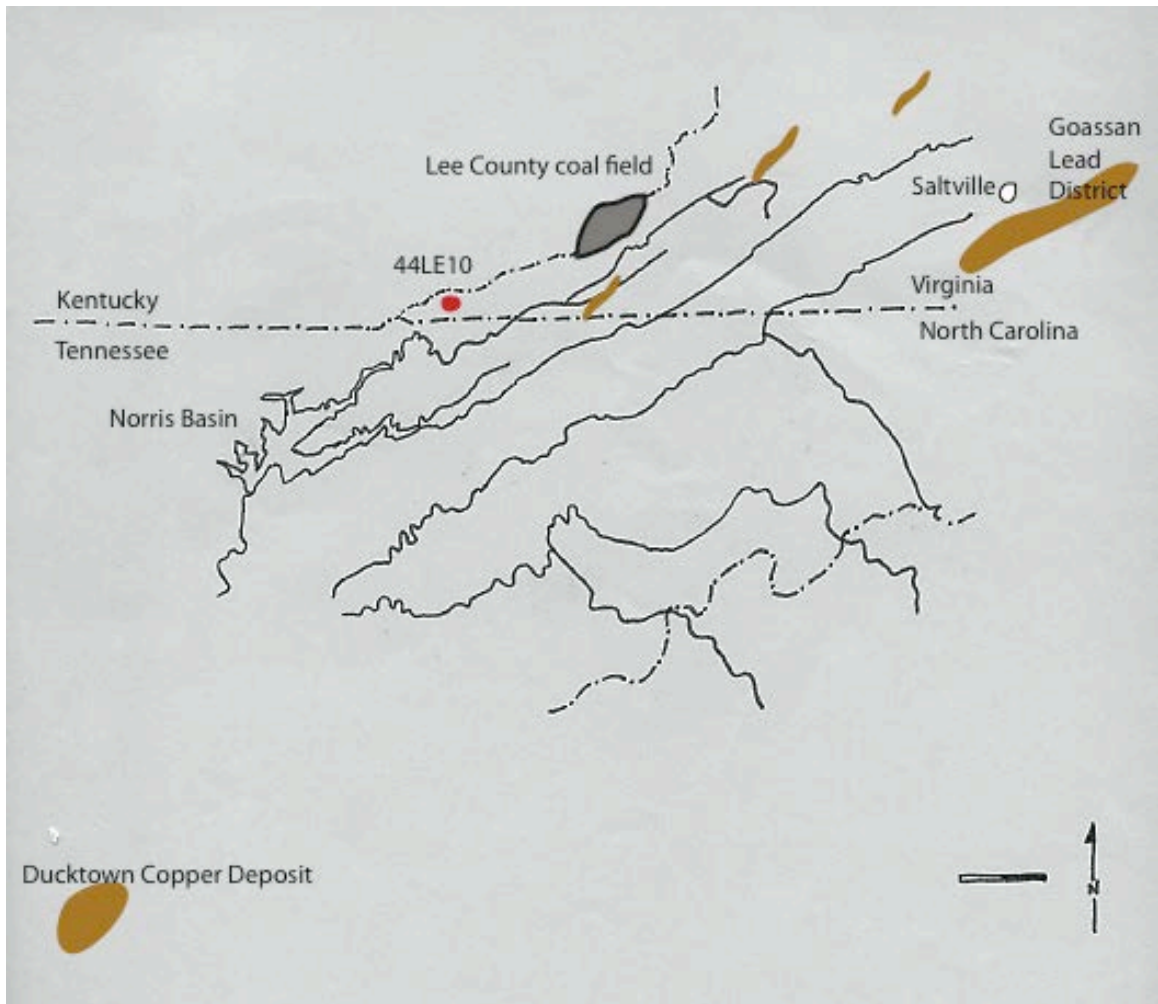
### **Evidence of Craft Production: Procurement of Natural Resources**

Reconstructing the procurement of natural resources means identifying the sources of resources near the site. Four main resources may have been associated with craft production at the Carter Robinson site: cannel coal, salt, shell, and copper (Figure 7.1). The source location of each of these is discussed here.

#### **Cannel Coal**

Cannel coal is a bituminous coal, usually black and shiny and easy to shape and polish, although not banded. It is found throughout the world, and was used in prehistoric Europe as a material to make jewelry and other artifacts which were often traded (Smith 2005). Within the eastern United States, cannel coal is found in Ohio, Pennsylvania, Virginia, Kentucky, Illinois and Indiana. It was used at least as early as the Woodland period for the production of different artifact types, usually of a non-utilitarian nature.

According to Boyd (1881:215), Lee County “contains some of the finest known veins of bituminous, splint, and cannel coals...the quantity of the ordinary flaming



**Figure 7.1. Location of Coal Fields Salt, Gossan Lead Vein (copper), Ducktown copper deposit, and smaller copper deposits in relation to Site 44LE10.**

bituminous coal is without limit.” Within Lee County, coal seams are located in the northern part of the county, while the Carter Robinson site is located at the southern end. Boyd (1881:215) states there are between fifteen and eighteen coal seams, and in the southern part, there are isolated areas where cannel coal crops out at the surface near the site (Crockett personal communication 2007; Hutton and Howell 1999). In larger amounts, cannel coal is found approximately 50 km from the site (Baker 1925). These locations are fairly easy to reach. The relatively flat valley in which the site lays can be easily followed north to the coal outcrops. Regional waterways can be used to access the coal as well. Cannel coal is also located north and west of the site in Kentucky, and southwest of the site in Tennessee, both locations of about the same distance.

Figure 7.1 shows the location of coal outcrops in Lee County in relation to the Carter Robinson site. The historic period mining of this coal began in 1905. In 1923 alone, 1,024,668 tons of coal were produced (Giles 1925), although only a portion of this was cannel coal. Cannel coal, as stated, is exposed at the surface, and therefore requires little or no underground mining techniques to obtain it. Because it was used primarily for non-utilitarian items which tended to be small (i.e., beads, pendants, etc.) (see discussion below), not much cannel coal was required to make many artifacts. As a result, transportation costs of procurement were fairly low in terms of labor and time.

Archaeological evidence for prehistoric cannel coal procurement has not been identified (or investigated), but historic mining in the twentieth century likely destroyed any traces of prehistoric mining (if such traces could be identified) (Hutton and Hower 1999). It should be noted that most work on prehistoric use of coal has been done on sites in Europe, and these focus on coal sources and trade of finished products. Unlike mining

of native copper, where archaeological evidence is sometimes present, no studies have investigated archaeological evidence for prehistoric coal mining. Some work has been done on sourcing coal using petrographic methods; this is discussed in more detail below.

### **Salt**

Within the Mississippian Southeast, large salt sources were limited to southeastern Alabama, southern Florida, Mississippi, Louisiana, and Texas. Two smaller sources are located in the interior: one, in central Tennessee and another at Saltville, Virginia (see Figure 7.1); the latter is regarded as a “major salt deposit” (Salt Institute 2003), while the former is not. Salt for sites like Cahokia and Moundville was more readily available from the large Gulf Coast deposits. Salt for interior chiefdoms like Coosa and Cofitachequi in central South Carolina was more accessible from Saltville. Salt deposits at Saltville are present in salt wells in the Preston Salt Valley at a depth of 200 feet. One boring, done in the early nineteenth century, encountered “more than 300 feet of rock salt...without tapping any brine or water at all” (Rogers n.d.).

Archaeological evidence for salt production in the Southeast comes primarily from two sources: Muller’s (1984) work at the Great Salt Spring site in southern Illinois and Early’s (1993) work on Caddoan saltmakers in the Ouchita River Valley. Muller (1984:489) identified Great Salt Spring as a “true limited activity site” where salt was procured through seasonal or part-time production on a small scale (1984:504). Early (1993:233) found similar results at the Caddoan site.

Salt production and exchange that was done on a full-time basis is present in state-level societies like the Maya (McKillup 2002). Here, specialized production of salt was done in the Punta Yeacos Lagoon area, which McKillup (2002:223) suggests was used along the coast in southern Belize and for inland trade. The presence of exotic trade

items within the lagoon indicates extensive trade. In addition to these specialized full-time production sites, McKillup also found evidence of “incidental and infrequent” salt-making in small inland communities. Evidence of specialized salt production includes large quantities of “large, thick-walled jars averaging 24 cm in diameter or thick-walled, open bowls,” the latter which were filled with brine and placed above fires on clay cylinder supports (McKillup 2002:221). Similarly-shaped bowls were recovered from Mayan salt-producing sites.

In contrast to seasonal salt production at Great Salt Springs and the Ouchita Valley, Barber and Barfield (2000) suggested there is archaeological evidence of a chiefdom at Saltville whose economy was based on the production and exchange of salt. Saltville is located approximately 100 miles east of Carter Robinson. Site 44SM25, located in the interior Saltville Valley, is directly atop natural salt deposits. Barber and Barfield (2000) suggest this site controlled both the procurement of salt and access to the valley itself from northern and eastern entry points. Defense on the west and south was provided by four additional sites in the valley. An exterior line of contemporaneous sites is located on travel routes into the valley. A major trade center at Chilhowie, Site 44SM8, was located 10 km from the valley, and sites located between the procurement site and the trade site protected access to both. These data suggested to Barber and Barfield that salt was mined at the procurement center, 44SM25, and then moved to the major trade center at Chilhowie; from there it was traded south and west. The presence of shell gorgets, many with Southeastern Ceremonial Complex motifs, have been found at and around Chilhowie in large numbers (see Muller 1966), and Barber and Barfield suggest these are evidence of exchange of salt with Mississippian groups.

It is unclear if there are small salt deposits near the Carter Robinson site. Boyd (1881) lists small salt deposits present in Smyth, Washington, Tazewell, Russell, Scott and Buchanan counties; of these, Russell and Scott are adjacent to Lee County. For example, in Scott County, he states “the existence of salt may be regarded as certain in the coal area” but needs more investigation (Boyd 1881: 206). At least one salt source may be located approximately ten miles from Carter Robinson. Gap Cave, also known as Cudjo Cavern, was used during the Civil War as a source of saltpeter, and there is documentation of its use as early as the beginnings of the nineteenth century. This cave is in a restricted location within the Cumberland Gap National Park and has not been investigated for evidence of prehistoric salt mining. Somewhat farther east, a small salt mine was located in Letcher County, Kentucky, approximately 100 miles northeast of Carter Robinson (the same distance from Carter Robinson to Saltville) (Brown 1980).

## **Copper**

Native copper is present in the region (Stose and Stose 1957). Goad (1978) noted that the source of copper used for production of goods during the middle Mississippian period changed from the Lake Superior region to the Appalachian region. She identified one copper artifact as made from ore originating in Ducktown, Tennessee. Historic mining of copper at Ducktown began in 1847, and copper mining in southwestern Virginia began soon thereafter (Stose and Stose 1957). Mining of copper during the latter part of the nineteenth century was concentrated along the main Gossan Lead vein;(see Figure 7.1) by 1854-55, there were eight operating mines on the Gossan lead vein and during the first half of 1855 they produced “1,545,363 pounds of copper ore” (Stose and Stose 1957:186).

The Gossan Lead District contains multiple minerals and rocks, including barite, limonite, kyanite, magnetite, zinc, lead, soapstone, limestone, and copper minerals (chalcocite and chalcopyrite) (Stose and Stose 1957:184). Stose and Stose (1957:184) describe its general distribution:

“the Gossan Lead consists of several ore veins or bodies, arranged en echelon, in a mineralized zone which extends from the Betty Baker Mine, 5 ½ miles north of Hillsville, southwestward for a distance of 20 miles across Carroll and Grayson counties to New River, southwest of Oldtown. The ore zone continues southwestward to the North Carolina line.”

Copper minerals within the Gossan lead deposits include chalcocite, the richest source of copper (Stose and Stose 1957:186), and associated copper minerals of malachite, chrysocolla, cuprite, and a small amount of native copper (Stose and Stose 1957:186-187).

The Gossan lead deposit is located northwest of the Carter Robinson site, at a distance of approximately 125 miles in Grayson County, Virginia (Grayson is located adjacent to and east of Smythe County, the location of Saltville). Other deposits are located further northeast along the New River. It is very likely these deposits were mined for copper that was traded east to the Monacans and ultimately to the Powhatan Confederacy (Hantman 2001); however, no evidence of prehistoric copper mining has been found. Like cannel coal mining, this is likely because historic mining activities have adversely impacted any traces of prehistoric mining.

According to Boyd (1881), native copper is present in small quantities in Wythe, Smythe, Washington, Giles, Tazewell, Russell, Carroll, and Grayson Counties, as well as Ashe County, North Carolina. The largest copper deposit in the Southern Appalachian region is the Ducktown deposit in southeastern Tennessee, approximately 160 km south



of the site, east of Chattanooga, Tennessee, and located on the Tennessee-Georgia state line. The Gossan lead deposit is a continuation of this deposit, albeit in smaller quantities (see Figure 7.1).

## **Shell**

Two types of freshwater shell found in Lee County, gastropod and mussel shell, were used by Native Americans for ceramic production. Shell was also used to make beads, but it is not clear which types of shell were used. Besides beads, a shell pendant fragment was the only other non-utilitarian shell artifact recovered from the Carter Robinson site.

Other contemporary sites in the region did contain more types of non-utilitarian shell artifacts. At the Ely Mound, located approximately 10 km northeast of Carter Robinson, a shell gorget with incised motif was recovered from a mound burial, as well as shell earplugs. It is unlikely, based on the size of these artifacts, that they are of local, freshwater origin. Other artifacts made of shell were identified in the C.G. Holland Survey collection at the Smithsonian, and include a shell spoon. In addition, whole gastropod shells were recovered; both of the former are from Washington County. The whole shells were examined by an archaeologist trained in malacology and identified as originating off the Florida or Carolina coasts (Stokes personal communication 2005). Finally, Muller (1966) identified multiple shell gorgets from the region. Again, their size suggests a non-local origin for the shell.

Small gastropod and mussel shells are located in freshwater creeks and larger rivers near the site, including Indian Creek and the Powell River, and were easy to obtain. The snails may have been used as a food source before use as a ceramic tempering agent.

### **Evidence of Craft Production: Production of Non-Utilitarian Goods**

Examining the production of goods entails identifying how the labor of production is organized, both within and between households. Related to this is understanding that multiple goods may have been produced at the same time. Second, it involves at least acknowledging that the intended use of an object was a major determining factor in its production.

Identifying the organization of labor within households includes identifying artifacts directly involved in production, identifying their location within households, and comparing these artifacts and artifact locations between households. Gougeon (2006) has successfully identified different activity areas in Mississippian households at the Little Egypt site in northwestern Georgia. Using ethnographic analogies, he identified the location of activities and suggests these activities are restricted by age and gender. Gougeon (2006:185) identified activity areas “by the co-occurrence of artifacts related to the completion of particular tasks in spatially discrete areas.” One example he provides is an area with cooking and serving vessels, “refined” plant food remains (i.e., kernels and seeds rather than plant parts) and a low amount of lithic debitage, which is interpreted as an adult female activity area (Gougeon 2006:185).

Other areas containing percussion and grinding tools, a variety of flaked-stone tools and debitage, and large sizes of nutshell and plant parts, were identified as an initial materials processing area. Gougeon (2006) found that many activity areas were subdivided into use areas by adult males and females, and that of three households he investigated, activities within them were very similar. He (Gougeon 2006:185) concluded “all households were responsible for the completion of their own day-to-day domestic production tasks, regardless of the status of the household.” There was no evidence of

extensive provisioning of elites, as all households contained evidence of both initial food processing and preparation.

Gougeon (2006:186-187) did find differences between households, however. Elite households were larger, and there was more space allotted per person. He suggests provisioning of unprocessed food stuffs to elites would account for the similar archaeological evidence found in such households. There is a greater quantity and variety of foods in elite households, suggesting this may be the case. Additionally, pigment materials (graphite, hematite, magnetite) were located only in elite household. Gougeon (2006:188) suggests such pigments were probably used for body paint, and “if this household was closely related to the chief, as is presumed, it is possible they would have had more opportunities for the use of body paints.” Gougeon (2006:189) suggests that the similarities in household organization across the site indicate a need to mask differences between elites and commoners, but that other, more subtle, means were used to emphasize power differentials. Specifically, a communal culture was promoted at the local level, to promote social integration; differences in power may have been more important at the regional level. Coupland et al. (2009) found similar results in an analysis of Northwest Coast plank houses.

The architectural grammar of the four domestic occupation areas at the site has been discussed in detail in Chapter 5, and that data will be used here in conjunction with location of artifacts to analyze how production was organized within these households. Finally, understanding that although production is greatly influenced by the intended use of the object, it is difficult to identify this intent archaeologically at the production stage.

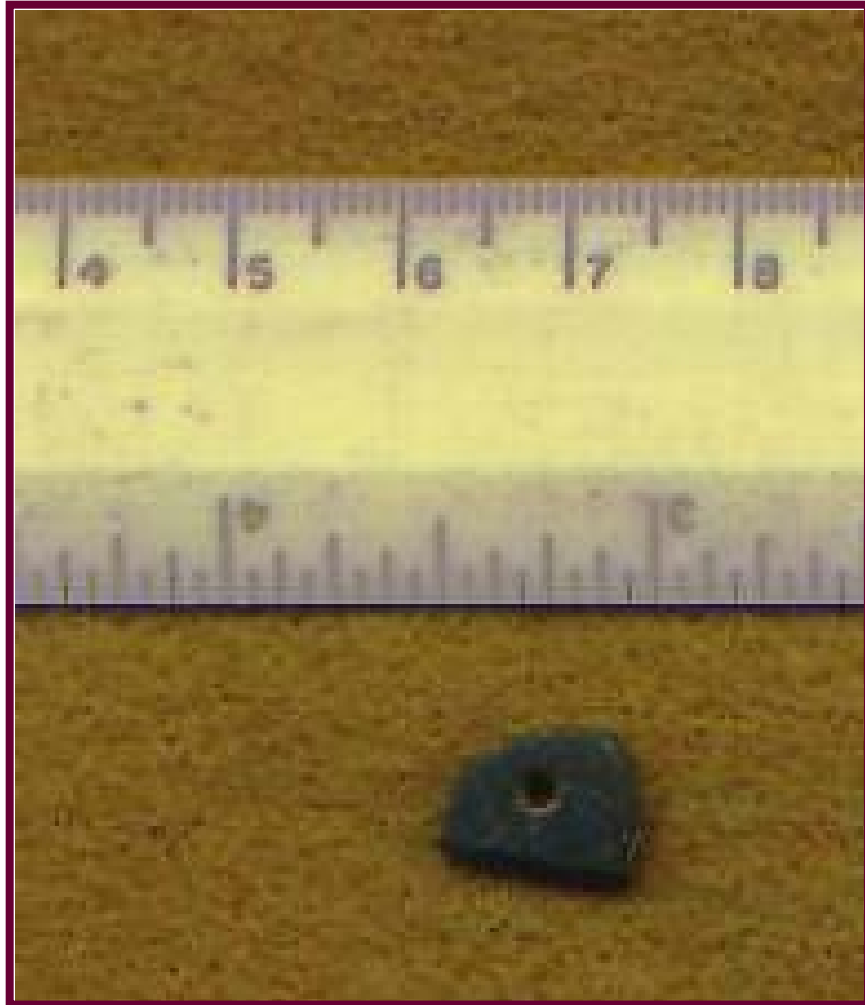
For this section, each resource described above is discussed in turn. Within each resource section, the location of the resource within households is presented.

### **Cannel Coal**

Both unworked cannel coal fragments and a piece of worked cannel coal (Plate 7.1) were recovered from the site. These were recovered from Occupation Area 3 and the mound (Test Unit 19, Level 8). The coal was analyzed petrographically to identify 1) whether it was cannel coal and 2) its source area, if possible (Hower personal communication 2010). The presence of unworked cannel coal fragments and a drilled and polished pendant fragment in Occupation Area 3, the wall trench structure, and the presence of unworked fragments in Level 8 of the mound suggest cannel coal was used primarily during the initial site occupation. Two cannel coal fragments are located in the center of the Occupation Area 3 and in its western half. In addition, part of a cannel coal pendant was recovered from the western part of Occupation Area 3.

The petrographic analysis of the cannel coal from Carter Robinson revealed petrographic resemblance to cannel from Bell County, Kentucky. According to Hower, this is the closest location of cannel to the site. The coal is also similar to that found in Newcomb County, Tennessee, somewhat farther than Bell County.

Other analyzed samples of note include a fragment of isotropic coke from Feature 201 in Block 3, which Hower notes is a “remnant of a burning of coal” (Hower, personal communication, 2010). Its presence may suggest additional working of coal or it may be an accidental or natural inclusion. A second sample, recovered from Occupation Area 3 is a fragment of glassy slag with fine mineral inclusions. It may be a byproduct of working cannel coal in fire.



**Plate 7.1** Fragment of drilled and polished cannel coal pendant.

The presence of cannel coal fragments and artifacts in Occupation Area 3 and the lower level of the mound suggest inhabitants were producing cannel coal artifacts during the initial occupation. Further identifying such production areas requires looking at other artifacts involved in production, namely drills. Because drills may have been used for both cannel coal and shell artifact production (as well as other things), the analysis of drills, particularly with regard to their location in structures and the location of shell and coal debris, is included after the shell artifact and debris analysis section, below.

### **Shell**

Twenty-one shell beads were recovered from the Carter Robinson site excavations (Plate 7.2). In addition, 34 shell blanks (all gastropod), 44 cutting edge tools (gastropod and mussel), 12 debris fragments with cutmarks (all mussel), 23 shell tool fragments, and 1 fragment of shell debris with a drilled hole (mussel) were recovered. The majority of tools and beads were found in Occupation Area 1 (85 percent), and much smaller amounts were found in Occupation Area 2 (8 percent), 4 (5 percent) and 3 (1 percent). Another 3 percent were found during cleaning of Block 1, and could not be assigned to an occupation area.

Occupation Area 1 contained large amounts of all stages of shell bead manufacture, from blanks to beads, and the most shell tools and blanks of any of the structures. Beads included some broken but mostly intact specimens. Although shell



**Plate 7.2 Shell beads recovered from Carter Robinson excavations.**

artifacts were found in all parts of Occupation Area 1, they were concentrated in the northwest quadrant (56 percent); the other three quadrants contained the same amount of shell artifacts and debris (15 percent). There are differences in where the different types of shell artifacts were found in the structure. Beads were located overwhelmingly in the northwest quadrant, with one specimen in the northeast quadrant. Tools were located in almost equal amounts in the northeast and northwest quadrants, and there were also high amounts in the southwest quadrant (n=7) and some in the southeast quadrant (n=3). Bead blanks were concentrated in the southeast and northwest quadrants, and present in small numbers in the other two quadrants. Finally, shell debris was found in small numbers in the northwest and southeast quadrants.

The presence of all four types of shell artifacts in high numbers in the northwest quadrant suggest this was a locus for shell production; however, some initial production appears to have occurred in the southeast quadrant, based on the presence of large amounts of blanks and some tools and waste. More tools, but no waste, were found in the northeast quadrant, along with two blanks and one bead; this area may have been used for secondary processing.

Occupation Area 2, on the rising, contained a less complete array of manufacturing evidence, but this included five blanks, four cutting edge tools, one tool fragment, and shell debris, but no beads. The tools and blanks, along with some debris, are concentrated in the southeast quadrant, while blanks and debris are also found in the southwest quadrant. Finally, one blank and one tool are located in the northwest quadrant, and no shell artifacts were recovered from the northeast quadrant. This suggests some



initial processing of blanks was occurring here, and its locus was the southeast part of the structure.

Occupation Area 4, adjacent to Occupation Area 1, contained some shell manufacturing evidence in the form of six cutting edge tools and one tool fragment, and although no beads were found within this structure, one cut fragment of shell was found directly outside the entrance of Occupation Area 4. Most of the tools were recovered during general floor clearing of the structure, so their location within the structure is not known, although one tool did come from the northeast quadrant, and shell debris in small numbers was recovered from the northwest quadrant.

Occupation Area 3, the possible wall trench structure, contained only one blank and one broken bead, along with large amounts of waste. The bead, blank, and half of the waste was located outside the structure on its western edge. The bead was broken; Collectively, these artifacts are suggestive of shell artifact production here. More waste, but no tools or beads, was recovered from the center of the structure; without additional excavations, it is not clear what this may represent.

The mound test units contained no evidence of shell artifact manufacturing. This is probably because of the small area excavated around the mound.

The shell artifact evidence suggests that manufacture of shell items was done within Occupation Area 1, particularly in the northwest quadrant, but that initial production may have occurred in the northeast and southeast areas as well. Occupation Area 2 has evidence of shell artifact production in the southeast and to a lesser extent, the southwest and northwest quadrants, but contains no finished shell artifacts; most of this evidence was in the upper levels of the structure, suggesting it was a later activity for

occupation here. The possible wall trench structure has minimal evidence of shell artifact manufacturing, and most occurred outside the occupation area on its western edge.

Occupation Area 4 has some waste and some tools, indicating it was minimally engaged in shell artifact production, if at all.

### **Copper**

No remains of copper artifacts or debris were found during any of the excavations. It is possible that some stone tools (see below) could have been used for the manufacture of copper artifacts, but the lack of copper artifacts or debris suggests, based on the available evidence, that no manufacture of copper artifacts occurred at the site.

### **Salt**

The primary archaeological evidence for salt processing has been the presence of salt pans (Holmes 1903; Bushnell 1914; Fairbanks 1940; Brown 1980). Brown (1980:20) identifies two salt pan shapes: one has “a flat or rounded base and is adorned with textile impressions on the exterior and sometimes on the interior surface” while the other, “also circular with thick, heavy walls, differs in that it has a smooth or merely roughened exterior surface.” The second type is usually basin-shaped with a round bottom, although sometimes flat-bottomed smoothed vessels have been identified (Brown 1980:20). Both types are usually found together. The salt pans are significant in part because of their size. Brown (1980: 22) examined the literature and identified a diameter range between 20-32 in (50.8-81.28 cm), although smaller ones were identified by Griffin (1938:284-286) at a Norris Basin site in northeastern Tennessee. Other pans found are larger than 32 inches in diameter. The depth of the pans ranges between 8 in (20.32 cm) to 12 in (30.48 cm) (Brown 1980:22), although again, variation exists. At Norris Basin (Walters Farm Village site), some specimens were only 6 in (15.24 cm) deep (Griffin 1938:266-270).

Rim thickness ranges from 0.5-1.5 in (1.27-3.81 cm) which is greater usually than wall thickness; Brown (1980: 22) notes that “Indians often added an extra layer of clay around the exterior rim, probably to facilitate lifting the vessel” which provided extra protection of that portion of the vessel which stuck out of the ground. Some archaeologists have used these data to estimate volume of salt pans; this can range from 12-15 gallons (Thruston 1973) to 110 gallons (Dowd 1972), although Brown (1980:23) notes that the latter would have been an extremely large vessel.

Most salt pans exhibit a fabric-impressed exterior surface treatment. Plain twining is common, particularly at sites like the Lea Farm Village in the Norris Basin, where it is the only weave present (Griffin 1938:296); it is also found at other sites in the Norris Basin including Ausmus Mounds, Irvin Village, and Harris Farm mounds. Twilled twining is the second-most common weave, and is found at the Walters Farm Village, Ausmus Mounds, Irvin Village and Harris Farm Mounds in the Norris Basin (Griffin 1938). Usually, fabric-impressions are present up to the lip, although at times the outer rim is smoothed (Brown 1980:24). Sometimes punctations or other decorations are found (Brown 1980:24-25), and occasionally salt pans are slipped or red-painted.

Of note, salt pans have been found in “considerable quantities” (Brown 1980:27) at sites in the Norris Basin, and at the Hiwassee Island and Dallas phase sites, although the so-called “core area” of salt pan sherds is located in east-central Missouri, southern Illinois and Indiana, north Tennessee, and Kentucky, where large salines are also located. They are not common at Mississippian mound centers like Moundville and Cahokia, and they occur in small amounts at Macon Plateau site in central Georgia (Fairbanks 1956) and the Mississippian Little Egypt site in northwest Georgia (Hally 1979). However,

Brown (1980:27) notes that while there is a “loose fit” between salt pan distribution and Mississippian sites “they are not always found at salines” suggesting that their function should be further examined.

Brown (1980:28) provides a description of salt production:

“Brine water was carried from the springs and poured into the embedded pans. Stones (often sandstone) were heated in nearby fires and dropped into the pans to speed up the natural evaporation process. At some sites stones have even been found within the pans. The crystallized salt was then scraped off the interior base and walls of the pan and the process began anew.”

It is important to note, though, that there is a lot of evidence that salt pans “were often used in manner unrelated to salt production” (Brown 1980:29); they may have been used to bake bread or as stationary large cooking vessels.

The salt pans, as stated, were often fabric-impressed, although these impressions were often smoothed over. This is a result of the way in which they were made. Brown (1980: 32) describes this as following: “Textiles were first laid down over the basin-shaped depression. Clay was packed on the textiles and, when dry, the pan was lifted out of the mold by using the textiles.” So-called baked clay “fire basins” recorded at many Mississippian sites may be pan molds. Other evidence suggests that in some areas, a wooden or clay mold was used, with the salt pan inverted over the mold, and fabric draped over it. One possible mold was found in Crittenden County, Kentucky (Webb and Funkhouser 1931). In such a set-up, fabric would have been draped on the mold and on the salt pan, leaving impressions on both the interior and exterior of the vessel. The fabric was used to make it easier to lift the finished vessel out of the mold without breaking it.

Other artifacts associated with salt production include containers to carry brine to the pans, tools to scrape salt from the pans, heated stones to aid in evaporation, and

possibly shell spoons to scrape the salt from the containers (Brown 1980:37). Brown (1980:65) examined ethnographic examples of salt production and found that many contained burnt clay objects in cylindrical bar form and other angular shapes; together these artifacts are known as *briquetage*. *Briquetage* usually includes large boiling pans, ceramic molds, and cylindrical clay objects which were used to support the molds while the salt dried (Brown 1980:66). These clay objects, or pedestals, are similar cross-culturally: “their upper ends are either cupped or have two or three horns, and the lower ends are either flat or pointed....the pedestals had to either sit on the ground or stick in the ground, and they had to support other objects. The similarity in the size of the *briquetage* are thought to have been that this size achieves optimum evaporating temperatures. To evaporate or dry the salt correctly, the containers have to be a certain height above the fire. If intensive heat is used, violent evaporation of the salt blisters it and loosens it” (Brown 1980:73). After the salt dried, it was often scraped into small molds or *augets*; often they have slits on the side to drain off liquid.

Brown (1980) examined some sites in the Southeastern United States and found possible evidence for pedestal supports and small clay molds; the latter, along with ladles, which could have been used to scoop out salt, have often been misidentified as children’s toys. Brown (1980) also identified temporal changes in salt production. He identified regional changes across the Mississippian culture area; within the Norris Basin region, fabric-impressed salt pans are used during the earlier Hiwassee Island period, and are replaced by smoothed-surfaced salt pans during the later Dallas period. This change may reflect a change in production technology, where a new method was used that necessitated the use of *briquetage*. This new method involved the artificial evaporation of

brine in utilitarian bowls (like those used for other activities) over low fires; the bowls were supported by clay pedestals. Once dry, the salt was scraped into miniature bowls for drying and transporting. Archaeological indicators of this new method would not be very visible, as utilitarian bowls were used for salt production; the miniature bowls very likely were traded away from the production site, and the clay supports, which were expedient tools and therefore poorly fired, would not have survived for long.

At Carter Robinson, one definitive salt pan vessel portion was recovered, and there is some evidence of additional salt pans. A survey of rim thicknesses of rims larger than body thicknesses, a characteristic Brown (1980) identified for salt pans, revealed 39 (of 225 total rims) examples; of these, 40 percent (n=16) have thickened rim modifications. Table 7.1 shows the occupation area location for these rims, and compares the percentages per area with the percentage of all rims found per area. Included in this table are rim locations found that were not associated with occupation area (i.e., rims found in shovel tests) and rims found in the mound test units. There were fewer potential salt pans rims in Occupation 1; the middle level of Occupation Area 2 (no potential salt pan rims); mound (no potential salt pan rims); the area outside Occupation Area 4, and the area between Occupation Areas 1 and 4; the latter three areas had slightly less potential salt pan rims, and overall, had few rims. The results for Occupation Area 1, the area between Occupation Areas 1 and 4, and the area outside Occupation Area 4 are not surprising. It is noteworthy that neither the mound nor the middle layer of Structure 2 contained any potential salt pan rims, suggesting that during this earlier period of occupation, salt production was not important, or at least was not associated with mound activities. Occupation Area 3 was occupied about this same time, and shows no

<b>Table 7.1. Number and Percentage of Rims with Rim Thickness Greater than Body Thickness and Comparison of Percentage with Entire Rim Assemblage by Occupation Area.</b>			
<b>Occupation Area</b>	<b>Number</b>	<b>Percentage of Larger Rim Thickness</b>	<b>Percentage of Entire Rim Assemblage</b>
1	17	44%	43%
1 or 4	4	11%	6%
Upper level of 2	6	16%	9%
Middle level of 2	1	3%	7%
3	3	8%	8%
4	2	5%	2%
Outside 4	1	3%	4%
Mound	0	0	7%
No occupation area	3	8%	4%

difference between the amount of potential salt pan rim sherds and its entire rim assemblage, suggesting that salt rim production, if occurring there, was not an overly significant activity.

There are a few areas where there are considerably more possible salt pan rims. These include Occupation Area 1 and the upper level of 2 (slight increases), Occupation Area 4, and areas not assignable to structure location; the latter two show a double percentage of potential salt pan rims compared to the entire rim assemblage for these structures. Occupation Area 1 shows a slight increase likely because its occupation dates to the latter half of the site's occupation. This may indicate an increase in salt pan production over time. Combined with a slight increase seen in the beginning of the upper level of Occupation Area 2, this could indicate a shift during the early-to-mid thirteenth century toward salt production activities. Finally, the upper most part of Occupation Area 2 contains twice as many potential salt pan rims. This suggests that by the second half of

occupation, salt production increased and possibly moved to Occupation Area 2 on the rising. Finally, the presence of twice the number of potential salt pan rims in areas not associated with any structures, i.e., identified in shovel tests, suggests that salt production also was occurring in other areas of the site.

Rims with large orifice diameters are present. According to Brown (1980), orifice diameters of salt pans typically range between 50-81 cm, although in areas like the Norris Basin they were smaller, around 27 cm. At Carter Robinson, five rim diameters fall between 50-69 cm, and account for 4 percent of the total number of rims with recorded diameters. Another seventeen (21 percent) fall between 28 and 45 cm. Seven rims measure between 28 and 33 cm, and another seven measure between 41 and 45 cm in diameter, suggesting at least two size groupings were present. Comparing rim diameter with rim thickness greater than body thickness, two rims have rim diameters 28 cm or larger. Both are located in Block 1, in areas not associated with Occupation Area 1 or 4, and they have rim diameters of 42 cm and 28 cm, respectively.

In terms of surface treatment, only two fabric-impressed sherds were identified. Other fabric-impressed sherds may be present, but the exterior of many sherds were so smoothed over that it was difficult to identify the underlying surface treatment. One sherd was located between the eastern edge of the Occupation Area 1 and the western edge of Occupation Area 4, and a second sherd was not associated with any occupation areas. The lack of fabric-impressed sherds may also indicate that salt production was not intensive during the early part of the occupation, which the above data also support. Later production methods, as described by Brown (1980), may not leave obvious



archaeological indicators, as plain or smoothed vessels became more commonly used for salt production.

Finally, a comparison of the location of possible salt pan fragments (based on rim thickness) within occupation an area was done to see if differences existed between households in possible salt production. Occupation Area 1 contains such sherds in all four quadrants, but these are most numerous in the southeast quadrant (n=4). If these represent salt pan fragments, they are located away from what may be the private residence area of the occupation area. For the first occupation of the upper level of Occupation Area 2, one sherd was located in the southeast quadrant. The succeeding occupation there contained four sherds located in the northwest quadrant, and one each in the southeast and southwest quadrants, suggesting that if salt production occurred here, it was focused on the northwest side of the occupation area. For Occupation Area 3, one possible salt pan sherd was found, and two were directly outside the occupation area on its west side. Occupation Area 4 contained only one such sherd in the northeast quadrant. Outside and south of Occupation Area 4 were three such sherds, and another sherd was found on the north side of Occupation Area 4.

For other archaeological indicators of salt production, five fragments of small bowls may be present; these are so small that they may be either small bowl or pipe bowl fragments. A plot of their location per occupation area places one in the northwest quadrant of Occupation Area 1, two in the northeast quadrant of Occupation Area 4, and one each in Occupation Area 4's northwest and southeast quadrants, respectively. Other archaeological indicators of salt production such as clay supports (part of *briquetage*)

were not recovered from any contexts at the site. However, these artifact types represent an innovation in salt production which may not have been present at Carter Robinson.

**Tools**

Four major types of possible trade objects are identified in this chapter. However, it is difficult to identify recovered tools with a particular craft production type, as the same kind of tool could have been used to craft, for example, both shell and cannel coal beads or pendants. The location of tools will be analyzed for activity patterns.

Multiple types of tools were recovered at the site, including drills, celts, chisels, and gravers (Table 7.2). Many of these, such as chisels, and gravers, could have been used to incise objects.

<b>Table 7.2. Tool Types Per Occupation Area</b>					
<b>Tool Type</b>	<b>Occupation Area</b>				<b>Grand Total</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	
Celt	2	1	0	0	<b>3</b>
Celt or Chisel	2	1	0	0	<b>3</b>
Chisel	13	7	6	1	<b>27</b>
Drill	30	3	13	0	<b>46</b>
Point/Drill	7	3	3	0	<b>13</b>
Graver	2	8	1	1	<b>12</b>
Hammerstone	4	3	2	0	<b>9</b>
Bannerstone	0	0	0	1	<b>1</b>
Mortar & Pestle	0	1	0	0	<b>1</b>
<b>Grand Total</b>	<b>60</b>	<b>27</b>	<b>25</b>	<b>3</b>	<b>115</b>

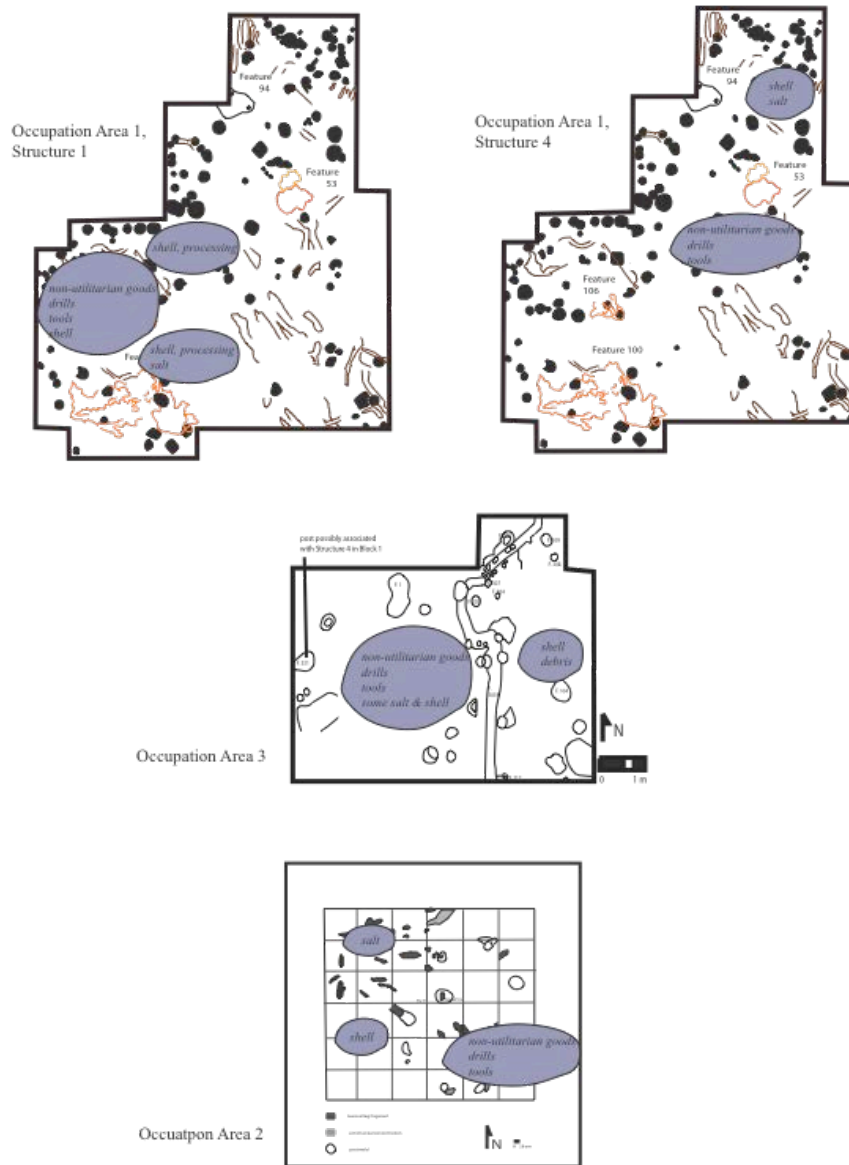
Occupation Area 1 contains the greatest variety and quantity of tool types, while Occupation Areas 3 and 4 contain about the same amount, and Occupation Area 4 contains the smallest amount. Specifically, Occupation Area 1 has the most drills, point/drills (drills created from pre-existing points), celts, chisels, and hammerstones. The assemblage of these particular tool types suggest that crafts were being produced in

Occupation Area 1, and the large number of these tool types suggests that Occupation Area 1 was creating a larger amount of crafts than the other structure occupants. However, gravers were absent from Occupation Area 1. These are concentrated in Occupation Area 2, along with approximately half the amount of chisels, celts, and drills, and slightly lesser hammerstones, as compared to Occupation Area 1. This may indicate that engraving of objects was more important earlier in the occupation. Occupation Area 3 contains approximately half the drills of Occupation Area 1, as well as half the chisels; one graver and two hammerstones are present. Considering how much less area of Occupation Area 2 was excavated, this suggests that craft production was important in Occupation Area 2. Finally, Occupation Area 4 contained almost no tools: one chisel and one graver. In addition, a bannerstone was present. The presence of the bannerstone and the mortar and pestle suggest that domestic activities were occurring in Occupation Areas 2 and 4; the lack of such objects in Occupation Area 1 indicates its use was tied more directly to craft production.

### **Summary of Craft Production Evidence**

The evidence for craft production in domestic occupation areas at the site is suggestive but not definitive. There is evidence for the production of salt, cannel coal artifacts, shell artifacts, and a variety of non-utilitarian goods. Manufacturing evidence includes shell tools, stone tools, primarily celts and chisels, and chert gravers and drills. Each of the four domestic occupation areas contains evidence of production but the nature of that production differed across the site (Figure 7.2).

Occupation Areas 2 and 4 are similar to one another in the location of production items, while Occupation Areas 1 and 3 more closely resemble one another in this aspect.



**Figure 7.2. Location of Craft Production Evidence in Excavated Structures at Carter Robison**

For all resource and artifact types, and all tool types for Occupation Areas 2 and 4, these items are concentrated on the eastern side of these areas. For Occupation Area 2, this tends to be the southeast side. However, the southwest side was used for some shell artifact production. Additionally, there is some evidence that salt production was occurring during the latter part of the occupation on the northwest side. For Occupation Area 4, non-utilitarian goods, tools and drills are concentrated in the southeast quadrant. There is minimal evidence for shell artifact and salt production but what is present indicates production activities occurred on the northeast side; again, however, this is based on very few artifacts and therefore is speculative.

Occupation Areas 1 and 3, by contrast, have evidence of artifact production on the west side of the areas. In Occupation Area 3, evidence for non-utilitarian good production and cannel coal, as well as tools and drills, is located outside the area on its western edge. There is minimal evidence for salt and shell artifact production, but it too is located on the western edge. Some shell debris is located inside the occupation area, in the center, but without additional excavations it is not clear what this signifies. Overall, as compared to the other areas, craft production was not a major activity for the inhabitants of Occupation Area 3.

Occupation Area 1 also has evidence of almost all craft production concentrated on the west side, specifically the northwest side. It also has the most evidence for all types of craft production activities. Non-utilitarian goods, tools, and drills are concentrated in the northwest quadrant. Shell artifacts are also concentrated there, although there is evidence for initial processing of shell in the northeast and southeast quadrants, and possibly the southwest quadrant. Finally, there is evidence for salt

production concentrated in the southeast quadrant, although all four quadrants have some evidence.

The data presented here provide a picture of changes in craft production over time at the site. Occupation Area 2, lower level, and Occupation Area 3 are the earliest domestic areas uncovered at the site, based on their architectural style. However, only a portion of Occupation Area 2's early and middle layers were uncovered, and no craft production evidence was found there. This could either indicate that craft production was not important early on, or that there is not enough excavation evidence to determine the extent of craft production during the early and middle periods. For these reasons, data on initial craft production at the site is based only on Area 3's remains. Previously, in Chapter 5, I discussed the possibility that Occupation Area 3's inhabitants held a differential status based on certain features, namely, continuous wall trench lines and a clean floor. Occupation Area 3 is also located very close to the mound. Analysis of test excavations from the mound show that at least one domestic occupation was located there during the initial site settlement, and it was subsequently dismantled and the mound built in one episode. The middle layers of the mound contain some evidence of craft production, namely a sandstone discoidal fragment and cannel coal fragments. Occupation Area 3 contains the largest amount of cannel coal at the site, including a cannel coal pendant fragment. Later occupation areas have minimal amounts of cannel coal. I suggest that cannel coal artifacts were produced in greater quantities during the initial site settlement. Occupation Area 3 contains the second highest number of drills found at the site, and drills would have been necessary for cannel coal artifact production. There is minimal evidence for the production of salt and shell artifacts in Occupation

Area 3. Based on these data, I think Occupation Area 3 was the household of a person or persons with elevated status, which allowed that person to live close to the mound. It is possible the household members were of an elite status. Craft production was associated with this household, and specifically occurred outside its western edge. Cannel coal and some other non-utilitarian goods such as ceramic beads were produced here at this time.

At some point, Occupation Area 3 was abandoned and Occupation Areas 1 and 4 were built nearby, and Occupation Area 1 was located even closer to the mound. Initially, Occupation Areas 1 and 4 were about the same size. While Occupation Area 4 was standing, its inhabitants engaged only minimally in craft production. There is evidence for cannel coal and non-utilitarian goods production on the southeast quadrant, and tools and drills are also found here. There is minimal evidence for shell goods production and salt production on the northeast side. This may indicate that before Occupation Area 4 was abandoned, there was a change in craft production: salt and shell artifacts were introduced. Related to this, the location of craft production may have changed, from the eastern portion of the structure to the northwestern portion. Cannel coal goods and non-utilitarian goods required the use of stone tools, and may have been limited to a certain group of individuals, possibly males. Salt production required the use of specialized pottery, and ceramic production was generally the domain of females in the Southeast. Salt and shell production, because they were introduced together, may have been produced together. Shell was also needed to make salt pans, and burned shell is easier to crush for temper in pottery. Further, salt production can be a seasonal activity. McKillop (2002) showed that in Mayan chiefdoms, salt production was a craft production activity amenable to agricultural activities because it could be done seasonally, that is, during

winter when agricultural activity was low. If this is true for Carter Robinson, and if shell and salt production were paired for expediency reasons, both men and women may have participated in these crafts.

Occupation Area 1 was built at the same time Occupation Area 4 was erected, after the abandonment of Occupation Area 3. Occupation Area 1 when initially built may have been about the size of Occupation Area 4 or slightly larger. It may have been a private residence, like Occupation Area 4. However, craft production activities were always associated with this structure. Some cannel coal waste is present in the southeast quadrant; however, it is to a much smaller degree than in Occupation Area 3. Combined with the lack of finished cannel coal products, this suggests that cannel coal craft goods production may have been declining. Also in this area, though, are the only remains of saltpans from the entire structure, and evidence for initial processing of shell fragments. Unlike the cannel coal, there are finished shell products present in the occupation area: twelve beads found in the northwest section. Also in the northwest quadrant are the majority of tools and drills, as well as non-utilitarian goods. Like Occupation Area 2, the main activity area appears to be on the west side. Notably, this structure has the most evidence of craft production, consisting of all stages of craft production, as compared to any other structure. It is also located closest to the mound, and its enlargement suggests that it was used for more than private residence purposes. The residents of this occupation area had a different kind of status than other areas, and the presence of multiple craft activities suggests this status was tied to a control of craft production.

Occupation Area 2 has evidence of long-term occupation, but the lower levels of occupation were minimally excavated, and provide little information about craft



production. No nonutilitarian goods were recovered from these lower levels, but until more of the lower level is excavated, no assumption about craft production can be made. There is evidence of craft production in the upper level. First, most of the craft production-related artifacts are located on the southeastern side of the occupation area, with some on the southwestern side or northwest side of the structure, which is similar to Occupation Area 4 but dissimilar to Occupation Areas 1 and 3. These artifacts include cannel coal fragments recovered from the initial occupation of the upper level of Occupation Area 2. Three possible salt pan fragments are also located in the final occupation layer of Occupation Area 2. Overall, possible salt pan fragments and cannel coal fragments are present during the initial occupation layer. During the succeeding occupation, drills, tools, and non-utilitarian goods are located on the southeast side of the occupation area and are present. Their presence may suggest that a change in production occurred here, as more tools and more varied types of goods appear. Also, there is evidence of shell artifact processing; blanks and cutting edge tools are present. Some of the shell artifact production was found in the western side of the occupation area. Additionally, possible salt pan fragments were found in the later occupation in the western part of the occupation area. Occupation Area was involved in craft production activities as these diminished in Occupation Area 3. Occupation Area 2's craft production appears contemporaneous with the occupation of Occupation Areas 1 and 4. Later, toward the end of the first occupation of the upper level of Occupation Area 2, production expanded to include more stages of production, as evidenced by the presence of tools; a greater variety of crafts, as evidenced by more types of nonutilitarian goods; and possibly a change in the way shell and salt was produced, as these activities moved to another part

of the structure. Note that Occupation Area 1 and 4, those located closest to the mound, focused their craft activities on the western side of their structures. Occupation Area 2 appears to have undergone a change from minimal craft production located on the structure's east side to a more intensive and more varied production, some of it moving to the west side of the occupation area. This expansion of Occupation Area 2 occurred after the main occupation of Occupation Area 1. This indicates a change in the status or role of the inhabitants of Occupation Area 2, one that was becoming more like that of the inhabitants of Occupation Area 1 and 4.

There is some evidence of craft production in other parts of the site from the shovel test data. There are three areas where craft production related activities cluster. There is evidence of long-term production in two of these clusters. First, shell fragments were recovered from the second level of STP II8. This area is located on the edge of a cluster area with additional, later craft production artifacts. The second area with early period artifacts is STP KK3, where gravers were found in Levels 1, 2 and 3. No other shovel tests with craft production related artifacts are located around STP KK3; however, the number and depth of STP KK3's artifacts qualify it as a one of the three clusters, albeit a small one. These artifacts suggest this was the location of a possibly isolated activity.

Following these early occupation artifacts, more craft production related artifacts are recovered in STPs on the northeast side of the site where cannel coal was found in earlier levels (Table 7.3). These include a graver, multiple drills, shell debris, especially in STP II8, and a stone discoidal in STP HH9. These shovel tests are located near

<b>Table 7.3. Possible Craft Production Activity Artifacts from Shovel Tests.</b>			
<b>Shovel Test</b>	<b>Level</b>	<b>Artifact</b>	<b>Number</b>
BB2	1	Tools	2
BB4	1	Drill	1
BB4	1	Tool	1
DD4	1	Pipe fragment	1
EE2	1	Shell debris	----
FF3	1	Shell debris	----
FF4	1	Tool	1
FF4	1	Drill	1
FF4	1	Shell debris	1
FF5b	1	Drill	1
GG4	1	Shell debris	----
HH9	1	Stone discoidal	1
HH11	1	Drilled pendant fragment	1
II8	1	Shell debris	4
II8	2	Shell debris	2
JJ10	1	Graver	1
JJ12	1	Shell debris	1
KK3	1	Graver	1
KK3	2	Graver	1
KK3	3	Graver	1
KK9	1	Drill	1
LL8	1	Drill	1

Structure 2. The presence of some craft production related artifacts, notably cannel coal, followed by more artifacts in the later occupation levels, notably tools, suggests that in general, craft production activities were moving toward this area of the site during the latter half of occupation.

The third cluster area is located south and southwest of the mound. Artifacts found here include shell debris, some associated with tool and drill fragments, a pipe fragment, and, somewhat farther west/southwest, multiple tools and a drill fragment. It appears, based on the amount of shell debris associated with tools, some craft production was occurring here. Although most of these artifacts were recovered from Level 1, the

plowzone in this part of the site is rather deep, and difficult to distinguish from lower levels. Therefore, it is not clear if the artifacts here are from an early or later occupation. However, their proximity to the mound may be indicative of occupation period. On the outskirts of the mound, one drill fragment was recovered, and in general, this third cluster is located near Test Unit 19. The bottom layer of this test unit contained structural remains. Stratigraphic analysis of Test Units 18 and 19 suggested that shortly after this initial occupation, the mound was built, mostly or wholly in one stage. In the lower levels of Test Unit 19, just above the structural remains, one cannel coal fragment was recovered. In the mound fill, a possible chunky fragment was found, and in the upper layers, a drill was recovered. The cannel coal is present during early occupation, so it is possible that this cluster is also associated with the same temporal occupation; however, more data are needed to verify this.

Finally, a few craft production related artifacts were recovered from Test Unit 18, located on the west side of the mound. In the bottom layer, a ceramic disk was recovered, and another ceramic disk was found slightly above this. In the middle of the mound fill layers, a thin handle or possible figurine fragment was found. Above the mound fill, a block of burned hematite was found.

In sum, there is evidence for craft production at Carter Robinson. During the initial occupation, it appears to have been limited to and focused on cannel coal. Over time, production of cannel coal stopped, while production of other goods increased. Shell production increased significantly, and salt production may have begun. In addition, other nonutilitarian goods were present, but it is not clear if these were locally made or imported.

The locus of craft production shifted over time. Initially focused on the southern flank of the mound, and north of the mound in Occupation Area 3, it moved to Occupation Area 1, after the mound was built. Toward the end of occupation, however, craft production moved to Occupation Area 2. Of note, in households where craft production is concentrated, production is located on the western part of the domestic occupation area. In households with minimal production, it is located on the eastern half of the domestic occupation area. The increase in the scale of craft production, especially in Occupation Area 1, indicates it was intended for more than the Carter Robinson site population. It indicates a greater participation in trade, which is discussed below.

#### **Evidence for Trade at Carter Robinson**

As discussed at the start of this chapter, reconstructing trade involves reconstructing the source and production of the materials traded, and understanding the intended use of the crafted goods. Source and production have been discussed above. Intended use is somewhat unknown. The location of finished crafts in certain households suggests their use was limited to certain people. The relative paucity of shell beads, in relation to the amount of shell debris and associated tools recovered, suggests that use of shell items was off-site; the same is true of cannel coal items. Salt is difficult if not impossible to trace in the archaeological record, and no copper artifacts or debris were recovered. Other, non-utilitarian goods were recovered, however, and there is minimal or no evidence of much of their manufacture in the same contexts as shell, cannel coal, and possibly salt.

The evidence presented here suggests: 1. The production of certain goods was restricted to certain households; 2. The use of finished products was restricted to those same households; 3. Households with evidence for craft production activities are located

closest to the mound, and in one case, are significantly larger than other households; 4. The expansion of this larger household occurred as craft production activities increased in volume and variety of goods; 5. Toward the end of occupation, craft production may have moved to Occupation Area 2 on the rising.

Evidence for trade would need to include evidence of craft production, which is present, evidence of finished, probably non-utilitarian goods made of nonlocal materials; a restricted location for those goods which may coincide with a restricted location of craft production areas; a paucity of finished locally made goods; and possibly caches of nonlocal raw material (such as marine shell).

An important part of craft production activities at Carter Robinson is that within households, multiple types of goods were crafted at the same time. This may not have been the case initially. Cannel coal was a raw material used during initial occupation. There is some evidence that a minimal amount of shell goods were made at this time. By the middle part of occupation, which was the middle of the thirteenth century, cannel coal is no longer used as a raw material, and is largely replaced by shell. At the same time, salt production may have begun. It appears to have been concentrated in Occupation Area 1, and minimally present in the other domestic occupation areas. Also, as craft production of shell items increases, there is an increase in the amount of tools and of non-utilitarian goods, many of them made from nonlocal materials.

The organization of craft production was at a household level; however, it was restricted to certain households. These were located closer to the mound, and in one case, were larger than other households. Trubitt (2005) thinks craft production was restricted to elite households, possibly done by the elites themselves, at Cahokia. At a frontier site,

production of craft goods for exchange would have allowed elite access to contacts with other groups, which may have been used as a way to increase power.

A temporal overview of craft production at Carter Robinson suggests that it is tied to elite status. Craft production in and of itself is usually not the means for elites to acquire power; it is the control of the production of crafts and the control of their trade that allows elites to accumulate power. At Carter Robinson, there were initially four occupation areas. In one area, the domestic occupation areas located there were replaced by a mound which may have been built in one or two building episodes. There is evidence of craft production activities associated with initial mound layers and located over the initial structure. About the time the mound was built, Occupation Area 3, the wall trench structure, was constructed. Here, craft production was present but minimal, and focused on the west side of the occupation area. There is some evidence that Occupation Area 2 may have held occupants of a special status or was used for special purposes. Craft production may have been one of these purposes. Occupation Area 2's location near the mound is a further indication that its occupants held elevated status.

During the mid-thirteenth century, occupation moved adjacent to and west of Structure 3. Here, two domestic areas were built, but only one contained significant evidence of intensive craft production activities. In addition, it is located closer to the mound than Occupation Area 3. Craft production material at this time changed from cannel coal to shell, and possibly salt, and also at this time non-utilitarian goods, some possibly non-local, are present. The inhabitants of Occupation Area 1, based on the location and size of the structure and the amount of craft production activities occurring in the structure, appear to have held an elevated status within the community. Occupation

Area 4's inhabitants do not have much evidence of craft production, although its proximity to Occupation Area 1 may indicate its occupants were related to those in Occupation Area 1.

By the end of the thirteenth century, craft production moved to Occupation Area 2, which was located away from the mound. Shovel test data combined with Occupation Area 2 excavation data suggest that this became a new center of craft production. There is evidence that this craft production was at first minimal, and then increased over time. It appears that Occupation Area 2's inhabitants' status changed at this time, and this change was tied to craft production, but it is unclear if control of craft production precipitated the change or was a result of it. The evidence for minimal craft production located on the east side of the structure that changed to greater production on the west side, which mimics Occupation Area 1's production layout, suggests that it played a role. Additionally, Occupation Area 2 is located on a rising, which may have been the beginnings of a mound. Other evidence, discussed in Chapter 5, also suggests mound building. Occupation Area 2 has more nonlocal goods than Occupation Area 1 (including Pisgah pottery and mica), suggesting access to trade increased. It could be that Occupation Area 2's inhabitants were related to or the same as Occupation Area 1, but some change necessitated the building of a new mound. More likely, they were different occupants. Mound-building is an example of power accumulation through control of labor, and if Occupation Area 2 is located atop a small mound, this suggests that power shifted during the late thirteenth century at the site.

It appears that the site was first occupied as a frontier site for trade purposes. Initially, cannel coal was mined and worked, and probably traded. One problem with

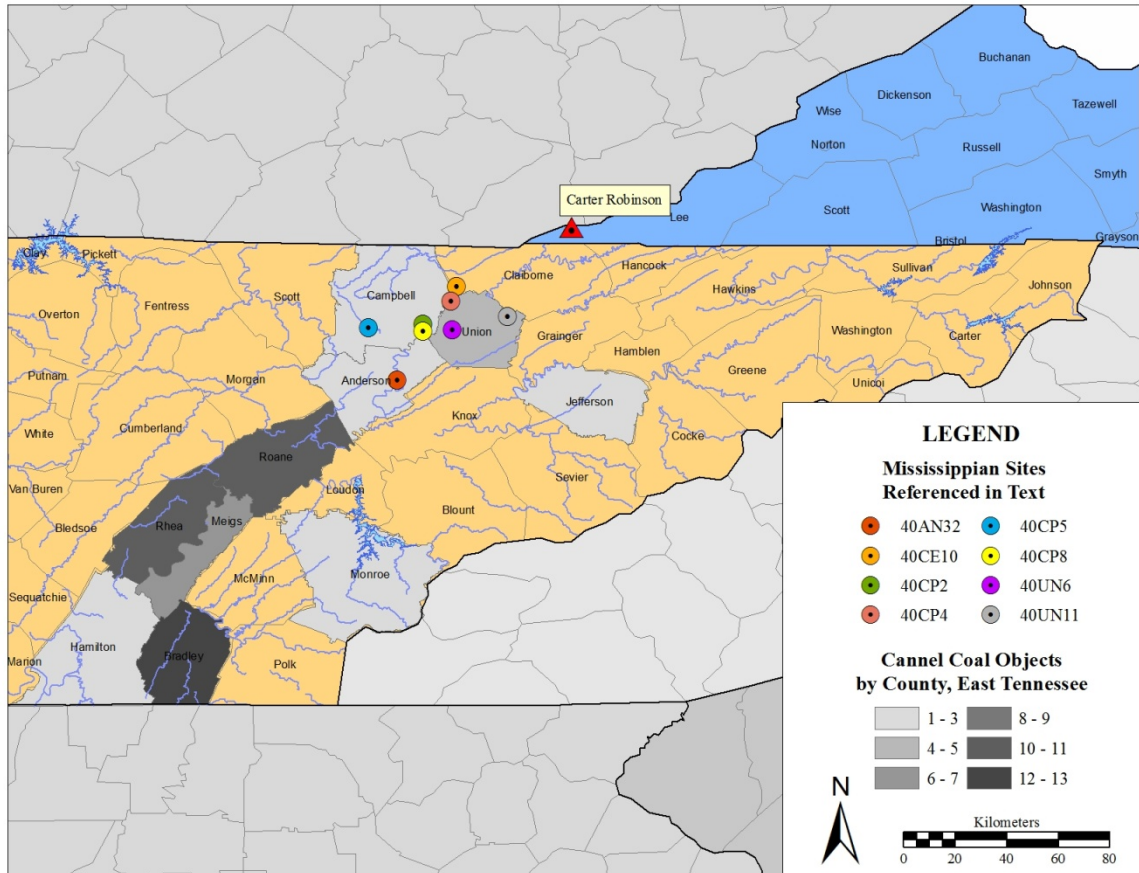


cannel coal is that it is not often identified, particularly the waste, and so it is difficult to understand the extent to which it may appear at other sites in the region. For example, in Virginia, cannel coal artifacts are not reported (M. Barber, personal communication, 2010), with one exception—a site located about five miles south of Site 44LE10 contained a cannel coal bead.

In Tennessee, a handful of cannel coal artifacts were recorded at the Norris Basin sites and farther south (Figure 7.3). Here, cannel coal objects are located in ten counties in eastern Tennessee, with the heaviest concentration in Roane and Bradley counties. Eight of these ten counties are located along a trade route to northwestern Georgia. Two other counties, Jefferson, and Monroe, farther south, are located east of this main cluster, and lead into western North Carolina. Of note, three other counties (Shelby, Stewart and Henry) contain cannel coal artifacts, but these are located in the western part of the state, and cannel coal found here likely originated in Indiana.

Another problem with identifying cannel coal artifacts as trade goods is the fact that they may be able to be sourced to location, but no one has attempted to do so. So, although it is known that cannel coal artifacts are found in places such as Angel Mounds in Indiana (Black 1967) and Etowah's Mound C in Georgia (Hurst and Larson 1958), identifying the source of the cannel coal is not possible. For the Angel site, a large cannel coal seam is located nearby (Howell et al. 1986), so likely this coal is from local sources; for Etowah, it is not clear where this coal originated.

At some point during the mid-thirteenth century, trade changed from a focus on cannel coal to one emphasizing salt and shell. It should be noted that this signifies a change from black to white objects, but the cultural significance of this is unknown.



**Figure 7.3. Location of Cannel Coal Artifacts in northeastern Tennessee (figure drafted by T. Bissett).**

White was generally a sign of peace in historic Southeastern chiefdoms, and indeed, these groups were usually divided into two moieties: red (war) and white (peace) (Hudson 1976). The change to white objects could indicate an increased period of peace in the region. This would coincide with an increase in trade between chiefdoms in Tennessee and Georgia at this time (King 2003).

There may have been an increased need for salt at this time, as societies became increasingly dependent on maize agriculture. At the same time, it is possible salt was the main reason for the Mississippian settlement of the frontier, and cannel coal exchange was used as a way to enter into local trade networks. It also appears that marine shells, likely from the Carolina coast, were exchanged for salt from Saltville (Barber and Barfield 2000). Muller's (1966) work on shell gorgets identified a Saltville style indigenous to the region, which appears in the area around the late thirteenth century. Saltville gorgets are present in southwestern Virginia and eastern Tennessee. At the same time, Barber and Barfield's (2000) analysis shows that the area around Saltville became populated with towns they suggest acted as gatekeepers or protectors for the salt mining site. As salt was exported, it is probable that shell blanks were imported in exchange for the salt, worked into gorgets, and then these were exchanged south toward Tennessee. Based on the frequency of Mississippian ceramics found at these gatekeeper sites around Saltville (see Chapter 6), and at selected sites west of Saltville (between Saltville and Carter Robinson), it appears that Mississippian pottery from the west was exchanged for salt and shell gorgets. Carter Robinson appears to have played a pivotal role in this exchange. In addition, the inhabitants of Carter Robinson may have been exchanging both finished products and raw materials, from which they produced beads and pendants,

further west into Tennessee (and likely Kentucky, West Virginia and North Carolina); certainly there is evidence that they were contributing to the bulk of materials exchanged by making beads and pendants on site.

As the trade changed from cannel coal to salt and shell there were effects of this exchange within the Carter Robinson. Procurement of raw material and production of finished goods occurred at the site during the entire occupation, although as shown, the type of raw material and consequent finished good changed over time. It appears too that a change in power occurred at the site as a result of control of production of these goods. Early on, Occupation Area 2 inhabitants seem to be in charge of cannel coal goods production, and likely had the best access to natural resources and/or exchange relationships to obtain cannel coal. This unequal access to resources resulted in an advantage in creating and controlling the trade of goods. Over time, power increased, as evidenced by the abandonment of this structure and the movement of its inhabitants into multiple structures closer to the mound. Here, cannel coal goods production decreased while manufacture of shell objects and salt increased, suggesting that trade routes widened. The ceramic evidence suggests that this widening, and likely solidifying of trade routes, occurred through an exchange of women as mates. Women may have been able to exercise more power at the frontier because it was a frontier. As such, they may have acted as traders in the frontier, and this increased power role may be seen in the combination of ceramic attributes from different cultures. Spielmann et al (2006) show that in contact societies, the extent of women's power directly influenced the way in which they decorated pottery during the seventeenth century in the Salinas province. In addition, women may have been married into other groups in the region. It is not clear if

they married into other groups as a result of increased power, or if power was a result of intermarriage. Low (2005), with her emphasis on the power of female coalitions, suggests the latter scenario is more likely. However this happened, it enabled Mississippian groups to form kinship ties with local Radford groups.

As a result, the power of the inhabitants of Occupation Areas 1 and 4 increased. However, at some point, production began to increase at Occupation Area 2, while it decreased at Occupation Area 1 and it appears Occupation Area 4 was abandoned. Occupation Area 2 also contains the most evidence of exchange with western North Carolina groups, based on the presence of Pisgah pottery found there. This indicates that exchange routes had widened even more, and it may have been coincident with a change in power at the site. In the next chapter, the conclusion, I will bring together the evidence presented in these three chapters to sum up what is known about the site occupation, its role as a frontier, the changing power at the frontier, and how this role and the concomitant changes may be tied to other changes in the region at this time.

## **Chapter 8 Conclusion**

This dissertation has examined a Mississippian frontier in southwestern Virginia. As stated in Chapter 4, this research sought to answer three questions. First, what was the cultural origin of the site's inhabitants; second, how did the site function as a frontier; and third, was there differentiation in households across the site that indicated a change in power and status had occurred there for some individuals. This chapter summarizes the data used to answer these questions. In addition, this chapter addresses the importance of this work and presents ideas for future research.

### **Question 1. Site Origins**

This most primary question of this research was identifying the site occupant's cultural origins. Two data sets were used to answer this question: architectural grammar and ceramics.

The architectural grammar of the site included a mound, plaza, and domestic occupation areas. Four of these domestic occupation areas were intensively investigated, and others were identified from less intensive shovel test survey. The layout of the site conforms to a Mississippian architectural grammar. At the scale of the house, this is less clear. Possible wall trench and single-set post structures were present, but structure remains were not definitive with regards to architectural style.

Occupation Area 3, the possible wall trench structure, in containing a wall trench, exhibits a definitive early Mississippian architectural style; however, this wall trench is different from more typical Mississippian wall trench houses. In particular, it is narrower

and lacks posts of a similar size arranged in a systematic manner within the trench. The lack of artifacts associated with this structure, particularly with the interior of the structure, may be an indication that this was not used as a domicile.

Occupation Area 4 most resembles a typical Mississippian structure, with three and probably four interior posts, partition walls, entrance ways, and a basic rectangular shape; however, this shape is not definite. If this is a later Mississippian single-set post structure, it is about the same size as a typical Mississippian structure.

Occupation Area 2 contains possible remains of both wall trench and single-set post structures. Perhaps more important in terms of architecture with regards to this possible structure is the evidence of rebuilding of structures. Rebuilding episodes appear separated by sterile clay caps. This latter feature is indicative of mounds in other Mississippian sites.

Occupation Area 1 is a large single-set post building; however, its shape is not definite, which precludes its cultural identification. It has two features within it that appear to have been hearths, but the presence of non-utilitarian goods in association with different levels in these features suggests that non-domestic craft production occurred here. This occupation area is the largest of all occupation areas identified at the site.

Occupation Area 1 is also closest to the mound. Together, these data indicate that Occupation Area 1 was the site of activities different from other areas at the site.

In sum, the architectural grammar demonstrates a Mississippian cultural affiliation for the inhabitants of Carter Robinson. It appears that during the late thirteenth century there was a movement from out of the Norris Basin region into southwestern Virginia. However, there is obviously variation present in the excavated structure. This

variation should be expected because the site is located in a frontier region. Variation may be a result of environmental constraints or cultural interaction, or both.

Ceramic data, discussed in Chapter 5, provided further evidence of this Mississippian intrusion. The ceramic assemblage during initial occupation was mostly grit-tempered, similar to Norris Basin site ceramic assemblages at this time. This temper was gradually mixed with shell, and by the middle of site occupation, approximately 80 percent of the assemblage was shell-tempered. Surface treatment is also overwhelmingly plain or cordmarked, with minor Mississippian decorative motifs such as incising and stamping present. Overall, the ceramic assemblage indicates a Mississippian cultural affiliation for Carter Robinson inhabitants.

## **Question 2. Carter Robinson as a Frontier**

The second major question this research addressed was identifying whether or not Carter Robinson was a frontier site, and if so, what type of frontier site. First, identifying the inhabitants of the site as Mississippian meant that this site was a Mississippian frontier during the thirteenth century. Analyses of different data sets, consisting of both ceramic and non-ceramic artifacts, were used to identify what type of frontier this site represented. Most frontier sites, if they are not hostile, militaristic frontiers, are established for purposes of trade. Carter Robinson, and more generally, sites in the region surrounding it, lack indicators of militaristic frontiers such as palisades or other social and physical barriers. However, there was evidence for trade in the region, both in the form of ceramic and non-ceramic artifacts.

Analysis of ceramics indicated trade occurred on two scales. On one scale, trade of Mississippian ceramics was done with a limited amount of sites located east of Carter



Robinson. These sites contain a minimal (5-10 percent) amount of Mississippian vessels. In turn, Carter Robinson contains a minimal (5 percent) amount of non-Mississippian vessels, suggesting trade of ceramics was occurring at a small scale. The uneven exchange of vessel types suggests, however, that other goods were exchanged for Mississippian vessels. The presence of cannel coal waste and goods, shell waste and goods, and possibly salt pan fragments suggests these goods were traded for Mississippian ceramics.

The significance of this trade, however, appears to have been relatively minor. There is evidence of a second type of trade that may have been larger in scale because of its nature. Approximately 20 percent of ceramics at Carter Robinson and at selected sites around the major center of Saltville contain a mixture of Mississippian and Radford temper and surface decorations. I suggested this mixture indicates that potters, who were likely women, moved between certain key sites. The women likely represent mates who were exchanged between members of these communities to establish kinship ties between Carter Robinson, a key Mississippian site, and Saltville, a key trade site that enabled access to salt and shell.

This secondary trade was established during the second part of site occupation. Cannel coal was more popular during the early part of occupation, and was replaced by shell and salt. It could be that shell and salt were the ultimate objective of the incoming Mississippian groups, but it took time to establish trade relationships and ultimately kin relations between Mississippian and Radford groups. By the end of site occupation, trade relationships may have expanded to the south, into Pisgah territory, and this may have changed or threatened the established trade patterns in the region. Access to trade with

Pisgah groups may have meant that the need for shell from Saltville was less important, and may have strained the established trade relationships.

In sum, Carter Robinson was established as a frontier for the purposes of trade. Initial trade relationships appear to have been on a small scale for cannel coal, a local source. As trade relationships expanded east toward Saltville, important trade goods shifted from cannel coal to salt and shell. To guarantee these more valued trade items, ceramic evidence suggests that women were exchanged between Carter Robinson and sites surrounding Saltville. Such an exchange would have created kin relationships between these two groups, more formally solidifying trade relationships. Toward the end of site occupation, trade relationships appear to have changed again, to include Pisgah groups from western North Carolina. These expanded relationships may have threatened established relationships, especially if the source of shell changed.

As these trade relationships changed over the course of site occupation, the nature of households at the site changed as well. The last question examines this change in households and sought to identify differences in power among occupation areas at the site with regard to the status of Carter Robinson as a frontier town.

### **Question 3. Household Differentiation and Power**

The domestic occupation areas are likely structural remains of households, and will be treated as such here. Differences in households with regard to status can manifest in multiple ways archaeologically. One primary way is architecture, which includes the structure itself (its size and layout) and also its spatial location within the town. As a Mississippian town with a mound, this means that occupation areas closer to the mound denote higher status. The ability to incur public debt through actions like feasting is also

an indicator of increasing status because it shows that the host can afford to feed large amounts of people and indebted them to him/her for later obligations such as labor. Public feasting may be indicated by an increased number of serving vessels. Finally, because this was a Mississippian frontier trade site, trade goods are a likely indicator of status. However, the control of production of goods was, as discussed in Chapter 7, an important component to trade. Therefore, control of goods is indicated by the presence of production tools and waste, and such items of production denote control of trade itself.

In Chapter 5, the data showed that there were multiple households located across the site. Of those excavated, Occupation Area 1 was the largest and was the closest to the mound. Occupation Area 3 was occupied earlier than Occupation Area 1, and was also located close to the mound. In fact, it was the closest structure to the mound at the time of its occupation. Occupation Area 2 was also occupied early, and has evidence of multiple building stages, separated by sterile clay caps, that may indicate the beginnings of a mound in this location. It, however, is located far from the mound. Occupation Area 4 is a small structure but it is located close to the mound and Occupation Area 1.

Ceramic analysis shows that the earlier occupation area, 3, contained almost all Mississippian ceramics, with little indication of trade of ceramics or mixture of ceramic attributes. Early levels of Occupation Area 2 are similar in their ceramic assemblage. Occupation Area 1, by contrast, contains a small (5-7%) percentage of Radford pottery, and approximately 20 percent of mixed pottery (either temper, surface decoration, or both). This pottery assemblage, when viewed in context with the variation seen at sites within the region, indicates that the inhabitants of this occupation area were engaged in trade with Radford groups. As compared to Occupation Area 3, this indicates that trade

with local groups increased over time, and solidified to the extent that women were exchanged as mates. However, this is only seen at Occupation Area 1. Occupation Area 2, on the rise, contains pottery in its upper level with some mixing, but less than that seen in Occupation Area 1. However, Occupation Area 2 does contain the highest amount of Pisgah pottery, which accounts for about 5 percent of its total ceramic assemblage. This indicates that toward the end of site occupation, the inhabitants of this area expanded their trade alliances toward western North Carolina. The lack of Radford or mixed ceramics in the assemblage here also suggests that the inhabitants of this area were not engaged in trade with Radford groups to any great extent.

Ceramic morphological analyses showed that there were more bowls in Occupation Area 1 as compared to the other areas. This suggests this area served a public function. This function may have included feasting at the site level, but because there are indicators that trade was tied most prominently to Occupation Area 1, it seems that these feasts may have also entailed members of local groups.

Both non-ceramic trade items and indicators of craft production are present in the occupation areas, but these are found most concentrated in Occupation Area 1. There appears to be an increase in craft production over time, as tools and materials increase in quantity from Occupation Area 3 to Occupation Area 1. Material changes from cannel coal to shell and possibly salt, which indicates that trade networks were expanding between Lee County into the wider region. By the end of occupation, trade items such as mica may have been traded from western Carolina, but the control of this western Carolina trade appears to have shifted to the occupants of Occupation Area 2. There is little indication, however, that this shift was anything but a minor trade rather than the

more formalized trade relationships occurring with Radford groups. That is, there is no ceramic mixture of Pisgah and Mississippian pottery, and there are no large mica fragments indicating working of mica. There is a larger concentration of Pisgah pottery at Site 44LE14, located a few miles south of Site 44LE10, and it may be that this possible mound site had more control of trade with western Carolina groups, possibly to the detriment of Carter Robinson and its Radford alliances.

In addition to these indicators of status, other non-utilitarian goods were recovered from the site that are likely indicators of elite status. Table 8.1 shows the location by occupation area of different types of non-utilitarian goods. The data show that Occupation Area 1 has the most beads, pendants, groundstone fragments and ceramic disks of any of the areas. However, Occupation Area 2 has the second-highest quantity of beads, groundstone fragments, and ceramic disks, and also contains the most pipe fragments and stone discoidals. Of these, a few were decorated (incised) and two are similar to stone discoidals found at the Hiwassee Island site in eastern Tennessee. I suggest that these may be trade items from Tennessee for salt and shell from southwestern Virginia. If so, their presence at Occupation Area 2 is further evidence that the inhabitants of this area were increasing their power over time, possibly as a result of their ties to western Carolina Pisgah groups. The high number of beads in Occupation Area 1, along with the large quantity of shell waste found there, suggests that craft production was a greater concern here as compared to Occupation Area 2. However, it should be noted that there is a difference in the volume of excavated soil from each occupation area, which may be skewing these results. Pipe fragments may be indicative

<b>Table 8.1. Occupation Area Location of Non-Utilitarian Items at Carter Robinson.</b>						
<b>Occupation Area</b>	<b>Beads</b>	<b>Stone Disks</b>	<b>Pendants</b>	<b>Pipe Fragments</b>	<b>Groundstone Fragments</b>	<b>Ceramic Disks</b>
<b>1</b>	20	2	5	2	26	24
<b>2</b>	13	7	2	4	10	12
<b>3</b>	6	1	1	2	10	1
<b>4</b>	0	0	0	1	3	4
<b>Mound</b>	0	1	0	0	0	1
<b>Other</b>	1	0	0	1	5	6
<b>Total</b>	<b>40</b>	<b>11</b>	<b>8</b>	<b>10</b>	<b>54</b>	<b>48</b>

of ceremonial uses or ritual activities, and it is noteworthy that most fragments are found in Occupation Area 2. This may mean that certain Mississippian ceremonies were more important earlier in the occupation, before kin ties were established with Radford groups.

Overall, the table shows that Occupation Area 1 contained the most goods associated with elites. Combined with its location near the mound, its size, and the evidence for trade there, this suggests that Occupation Area 1 was not a regular domestic structure. In the following section I discuss other functions that Occupation Area 1 may have served.

### **Site Occupation and Change of Power**

Using all of the data, I can begin to reconstruct site occupation. First, sometime around A.D. 1275, the site was inhabited by a group of Mississippian people likely from the Norris Basin region of Tennessee. They appear to have moved to this area in order to move closer to natural resources, primarily cannel coal at this point. A handful of structures were built. One was located on the south side of what would become the mound; another was Occupation Area 3; a third may have been Occupation Area 2, and probably at least two more were located southwest and southeast of the mound. A plaza does not appear to be present, and indeed, there may have been a small occupation area

near the front of what became the mound. Within a short time, by A.D. 1290, the structure south of the mound was gone, and replaced by the mound. Occupation Area 2 and 3 remained occupied, as did the other occupation areas. Occupation Area 3 appears to have engaged in producing cannel coal goods, suggesting that some trade relationship had begun between Carter Robinson and nearby local groups. Most of the mound was built in one stage, although a smaller, second stage was added during the first quarter of the fourteenth century. At that time, a structure and ramp were located on top of the mound. The plaza was set aside as a separate area about the time the mound was built. Shortly after the mound was constructed, and while it was in use, Occupation Area 3 was abandoned. Occupation Area 2 was burned, covered with a yellow clay cap, and another structure built atop the same area. Occupation Areas 1 and 4 were built closer to the mound.

After Occupation Area 1 was built, the second mound stage was likely constructed and occupied. Trade appears to have changed in terms of both distance, as far east as Saltville, and type, changing from an emphasis on cannel coal to one on shell and possibly salt. Trade expanded in part because mate exchange was part of the trade. Ceramic data indicates that both Radford and Mississippian women were involved in this exchange and combined their ceramic knowledge in making pottery. It is possible that craftsmen were traded as well. In fact, the trade of craftspeople skilled in, initially, making cannel coal objects and later, shell items, may have precipitated the exchange of women. Trading women, however, would have formalized kin relations as part of the trade relationship.

At this time, Occupation Area 1 appears to have been both a craft production area and a public space, as indicated by the increased number of bowls found there as compared to other occupation areas. However, it may not have been a domestic occupation area, or it may have been an occasional domestic area, one used to house visiting guests. Blanton (1995: 179) notes “formal entertaining of guests traveling long distances is one aspect of monopoly control of network ties.” Cross-culturally, he finds what he terms “specialized guest quarters” (Blanton 1995:179) in peripheral regions. He states “the important point to be learned from the observation about guest entertaining is the fact that a potential exists in peripheries for wealthy households to monopolize network ties to distant outsiders and that these ties can produce material advantages.”

An example of such quarters is found in the De Soto chronicles. When De Soto and his army come to Mauvila, where the chronicles note that the houses of this town “had been erected as a frontier and strong place and for displaying the power of the lord, they were very handsome” (Clayton et al. 1993:331). DeSoto was lodged by the governor in a large house. If Occupation Area 1 was used as a guest house, this may explain the different types of features found there. Part of the structure may have been used in this domestic sense, which would explain the multiple zones in Feature 106. The greater amounts of non-utilitarian goods found in Occupation Area 1 appear to be material correlates of these advantages afforded to wealthy households. However, the structure was also used for craft production, which explains the presence of production debris in both Features 100 and 106. Finally, if the structure was also used for public gatherings, features such as Feature 94 should be expected, signifying large, singular feasting events.



By the end of the fourteenth century, a shift had occurred in trade and power at the site. It is possible that at this time occupation of the mound ceased, although more data are needed to fully assess this. It appears that power was shifting to Occupation Area 2, which had burned after being rebuilt earlier, and then a second clay cap was placed over the burned structure, and another structure built. In this upper occupation layer there is evidence of trade with Western Carolina Pisgah groups and with those in East Tennessee. However, there is little to no evidence of trade with Radford groups. In addition, there is less evidence (although more excavation is needed) for the use of Occupation Area 2 as a public gathering place. It lacks significant numbers of vessels, and it is located far from the plaza.

Understanding that this site was tied into a larger Mississippian region, we may better understand the changes occurring at Carter Robinson using a regional perspective. During the Middle Mississippian period (A.D. 1200-1375) during which this site was occupied, changes occurring as far away as Etowah may have affected this site. Here, King (2003) argues that leadership strategies changed from corporate to network, and in so doing, emphasized long-distance trade as a means for chiefs to gain power. An increase in mound-building also occurred. This can be seen in the Norris Basin region, as mound-building and settlement expanded northeastward up the Powell and Holston River Valleys at this time (Meyers 2006). Leadership strategies became less centered on public participation and became more exclusive. This may have been occurring at Carter Robinson, as Occupation Area 1, a symbol of control of craft production, trade ties, and importantly, public participation in town life, changed. As Occupation Area 2 occupants began to increase their power, public participation and control of craft production became

less important. Indeed, these two key parts of power in the early occupation of Carter Robinson were likely tied together, as craft producers may have been local Radford inhabitants, and may have precipitated the exchange of women.

Such a path to power is one based on building coalitions. As power shifted, though, these coalitions were not maintained; rather, trade relationships with Pisgah groups may have become more important, but also do not appear to have been formalized through kin relations. King (2003:129) notes that there are two consequences of a change to a network strategy:

“First, it likely created impressive leaders who may have been able to lure followers away from weaker chiefs. Also, those strategies, because of their exclusionary nature, created competition for access to sources of power and leadership positions. Under these circumstances, competition for access to labor (followers) and prestige items may have led to a concentration of authority in fewer and larger polities, as smaller and weaker ones were incorporated into larger chiefdoms and ineffectual leaders were abandoned in favor of powerful chiefs”.

Carter Robinson’s sudden end after the transition of power may have occurred because it was a smaller and weaker chiefdom, possibly incorporated into a larger chiefdom, although it is not clear what larger chiefdom. As the demand for cannel coal had decreased, and because shell could be traded to east Tennessee through western North Carolina, these western Carolina groups are one possibility. Another is that Carter Robinson inhabitants were phased back into Norris Basin polities. If tensions with Radford groups and/or western Carolina groups escalated as power shifted at the site, movement to a less-hostile environment makes sense. Additional regional survey may in the future clarify the abandonment of the site and the ultimate whereabouts of its inhabitants.

## Structure Use over Time

The presence of Occupation Area 1, a unique structure, suggests some ideas about the use of structures over time in the Southeast. Blanton (1995), in a comparative analysis of households, identified differences between what he terms “core” and “periphery” houses and households. He states that:

“‘costly’ houses in the periphery communities tend to be larger, more integrated, and more spatially complex than their counterparts in the core communities. Because the number of basic houses in these communities is always greater than the number of costly houses, I interpret this to mean that, overall, periphery households may be materially disadvantaged relative to core households, but that within periphery communities there are some households residing in exceptionally large and complex dwellings.” (Blanton 1995:163).

Within the Mississippian Southeast at this time, some sites contain unusual buildings. One such site is Etowah, where Structure 3 was located along the western edge of Mound B, and excavated by Kelly (King 2003:64). This building was rebuilt three times, and was large, almost 13 m on a side (King 2003:64), and may have lacked a roof. King (2003:66) states “the large size of Structure 3 suggests that it was designed to accommodate a fairly large group of people.” The building was enclosed in a palisaded compound, suggesting that its use was restricted. Further, copper scraps were recovered from its associated midden “suggesting that the activities taking place inside involved the manipulation of a material intimately associated with elite status in the Mississippian Southeast (King 2003:66). Two smaller domestic buildings were found south of Structure 3, indicating to King that “some portion of this area also served as a residential zone, albeit probably only for individuals with specialized roles in Etowah society” (King 2003:66).

During the subsequent occupation (the Middle Mississippian Late Wilbanks phase), Structure 3 was not rebuilt; instead, Structure 4, another large structure, was built on a new terrace associated with Mound B. Unlike the earlier structure, Structure 4 contained partitioned spaces. King (2003) thinks both structures were used to host group functions, but the later structure's partitions suggest "some activities were conducted in secret or were designed to include a smaller number of people" (King 2003:74).

Closer to southwestern Virginia, Structure 3 at the Toqua site is a large rectangular single-set post building occupied throughout the Dallas period (Polhemus 1987:257). It is located on the north side of Mound A, and contains increased public floor space and a formal clay altar facing partitioned beds or benches. To Polhemus (1987:258), these attributes suggest a public function for this building. An abundance of tools, debitage, multiple projectile points, worked bone, and shell were common on the structure's floor. Polhemus (1987:259) likens Structure 3 to Structure 1 found at the Little Egypt site in northwestern Georgia (Hally 1981):

"Each structure is set off from village domestic dwellings by location near the foot of the principle substructure mound, by being situated on a platform, by greater size, and to a certain extent by associated contents. Large structure size and the use of interior space as well as placement indicate a public function, yet the range of associated materials includes food remains and tool manufacturing debris in some quantity" (Polhemus 1987:259).

Polhemus (1987) interprets this structure as the location of a single male who lived on the eastern side of the building; the building, though was used at times for public functions.

Other types of non-domestic buildings are found in the greater Southeast as well. At the King site, Hally (2008:132) identified Structure 17 as a public building, which he defines as "a building that was used by a segment of the community larger than a single

household for activities that in some way were of interest to or benefited the community as a whole.” It was twice as large as other structures at the site, and contained eight rather than the more traditional four interior roof supports. Hally likens Structure 17 to other public buildings found at the Mouse Creek Ledford Island site, which contained another large late prehistoric building with possibly multiple interior posts.

During the eighteenth century, Creek towns contained rotundas with eight interior support posts (Hawkins 1848), and were areas for public gatherings, restricted to men. According to Hally (2008:134), Creek structures of this period, some of which have been excavated (at the Fusihatchee site) (Sheldon 1990) resemble Structure 17 in terms of size, floor plan, basin construction, number of interior support posts, and absolute and relative size of central floor space. However, there are differences—which should be present, because Structure 17 is earlier than the historic Creek examples. These include the presence of entrance ramps, more exterior support posts, and a lack of interior partitions or bench support posts. However, as Hally (2008:134) states “this differences may be more apparent than real.” Post-depositional processes may have eroded King’s entranceway and, (at the Fusihatchee site), later Creek, bench supports and partitions as well as exterior posts. Differences among the number of exterior posts may also reflect rebuilding stages. One significant difference, according to Hally (2008:134) is the presence of burials in the earlier (i.e., Structure 17) structure.

Cherokee towns during the eighteenth century usually contained two important public buildings, the townhouse and the pavilion (Schroedl 1986). Hally (2008:135) notes similarities between Cherokee townhouses and Creek rotundas in terms of use; one difference is that women were permitted into Cherokee townhouses (Perdue 1998).

Pavilions were “open-sided shedlike structure(s) located in front of the townhouse. It was apparently used during the warmer months for some of the same kinds of activities the townhouse was used for in winter” (Hally 2008:136).

Hally (2008:137) finds that for both Cherokee and Creek historic structures, some similarities are present. First, eight interior support posts appear to replace the four interior posts used earlier. Second, square structures change to round or octagonal ones. Third, floor area increases over time. Through time, however, one variable remains constant—the large size of these structures. As Hally (2008:137) states “most have dimensions on the order of 48-52 feet (2,300-2,700 square feet). As such they are almost twice as large as the largest reported mound summit structures at sites like Toqua (Polhemus 1987), Dyar (Smith 1994), and Little Egypt (Hally 1980).” He suggests that mound summit structures are smaller because they are elite residences used by few people and/or are sacred spaces rather than public spaces for the gathering of multiple people. Location on the ground made these large structures more accessible to multiple people rather than location on the mound, where accessibility was limited.

Hally (2008:137-138) also notes that multi-staged construction is common in these structures, although this is not seen at the King site’s Structure 17. This rebuilding, which in the case of Coweeta Creek (Rodning 2004) has been shown to be intentional dismantlement and burning, “suggests that the destruction and rebuilding of townhouses was a ritually important event and not just a necessary response to an accident or decay” (Hally 2008:139). Therefore, the fact that Structure 17 was destroyed by fire and not rebuilt indicates to Hally a formal abandonment of the town. That is, the public building is a symbol of the town itself.

Occupation Area 1 is unusual because of its large size, its proximity to the mound, and the type of craft production materials found associated with the structure. Its similarity, especially in these regards, to other structures in the Mississippian region suggests it was not used as a primary domestic structure. Rather, it appears to have had three purposes. First, it was a craft production area, which allowed an elite or group of elites to control craft production. Second, the ceramic assemblage and feature remains suggest it was used as a public gathering space, likely in relation to the plaza. Food preparation and serving were done in this area. Third, it may have served as a guesthouse, a function directly tied into the trade function of the site. The combination of single and multiple domestic use features at the site provide evidence of this last feature, and ethnohistoric documents record such houses in the region.

This type of structure is important in the Southeast for two reasons. First, such structures are more likely found at trade centers. Hirth (1987) calls such centers “gateway communities” because they are areas where much trade and interaction occur. Structures such as Occupation Area 1, and possibly like that found at Etowah, are good indicators of areas where trade was occurring.

Archaeological indicators of trade are difficult to identify because of problems with sourcing materials and quantifying materials accurately over wide regions. A regional analysis of sites with non-domestic structures such as these used during the Middle Mississippian period may more readily identify trade areas, particularly in conjunction with other artifact data.

Second, as the discussion above shows, the nature of these large houses changed over time, to ones with importance based on public governance and inclusivity. In

eighteenth century Cherokee and Creek towns, the public house is located in the center of the town and is vital to town governance, politics, and community life in general. Occupation Area 1 appears to have served a similar need, and Hally (2008) thinks Structure 17 also served such a need at the King site. I suggest, building on Hally's arguments, that these are similar structures, and that they served similar functions across time. In fact, they likely served as trade areas during the initial period of trade, before non-native traders opened mercantile stores in native towns. They continued to serve as guest houses as needed. They may have become more common over time as trade became more important to every Cherokee and Creek town, as the non-natives expanded more and more.

### **Identity**

Much work of late has focused on identity, and it would seem this would be quite applicable to a town located on an edge of two cultural areas. Identity is composed of multiple roles played by individuals within a culture and as a result is flexible. Different identities are expressed in different interactions. Stone (2003) describes ethnicity, a facet of identity, as "situationally mobilized on the basis of the nature of interaction at a particular moment in time." Further, she suggests that ethnicity, and I would argue, identity, "can be viewed within a framework in which historically bound structural constraints and reflexive individual decision-making are present." That is, both *habitus*, as defined by Bourdieu (1977) and agency create a framework in which identity is formed.

For Carter Robinson occupants, we see the material correlates of this framework. *Habitus* is seen in Mississippian material markers such as architectural grammar at both



the structural and site layout scales; ceramics, in terms of attributes and form; and non-utilitarian items such as stone discoidals, pipes, and pendants. But agency is also visible through a historical lens, as we see control of craft production tied to the evolution of trade networks that become solidified through mate exchange and subsequent kin ties. It is also visible as the nature of trade and hence power shifts at the site, and as trade ties change from Radford to Pisgah. In this change, the identity of the frontier town changes, from one aligned with a Mississippian culture to one that changes, through the exercise of agency, to include Radford kin ties and the material correlate changes this entails. It appears that as a frontier, the inhabitants may have been more able to exercise autonomy, and this autonomy was part of their identity. This emerging identity may have resulted in increased power for women as well as men at the frontier because women were more active agents in creating material culture of the frontier, either as in-marrying wives or as traders. The result was a shift in power which appeared to have important repercussions for site inhabitants. Their identity, which grew to include local Radford groups, changed and became less inclusive. The focus of trade shifted toward western Carolina Pisgah groups, and the nature of that trade changed as well, to one that may not have been as inclusive of other groups. In the end, this was less successful, and the site was abandoned.

The examination of the frontier requires an examination of what we mean when we talk about “Mississippian,” “Radford,” or “Pisgah.” As discussed in Chapter 6, these are archaeological constructs applied to material remains of past groups. How real were these constructs to these actual groups? I think, based on work by archaeologists like Wobst (1977) and Sackett (1990), such material remains do act as correlates for groups to

an extent. It is the archaeologist's job to identify to what extent. Here, I suggest that Carter Robinson occupants identified with their place of origin, Norris Basin, and the cultural identity found there, Mississippian. They brought that identity with them as they moved up the river valley. They likely identified the Radford groups as not like them, based on their housing and ceramic styles, and their overall way of life, which did not depend on corn agriculture to the same degree as most Mississippian groups.

At the same time, there were likely similarities in the way these groups acted, particularly in terms of other types of subsistence and kinship. These similarities allowed them to be inclusive to the point of creating important ties with these local groups. Identities merged to some extent, but not completely, which allowed other individuals at Carter Robinson to exercise their agency and pull back from these new ties. Being Mississippian was important, but I would argue that this shift in trade occurred as a result of economics. That is, changing ties from Radford to Pisgah was an economic move that resulted in better trade. Ultimately, this shift also tied back to other Mississippian groups in Tennessee that the Carter Robinson occupants likely were aware of or knew more intimately, so this shift solidified an earlier, existing identity. It is important to note that overall, identity shifts occurred as a result of economic reasons, but also that these reasons were tied to cultural identity. Teasing these apart is not simple or probably wholly possible; rather, recognizing their existences helps us reconstruct the identity of this group at this point in time.

### **Future Research**

This work has been an initial step into understanding more clearly the late prehistory of the Appalachian region. Future research could be conducted at three scales: local, regional, and extra-regional.

Local work would involve, first, continued archaeological investigations at the Carter Robinson site. All of the structures were only partially uncovered, so additional work would first finish uncovering them. Second, all features, particularly postholes, associated with these structures should be excavated. This will allow a much better understanding of the outline, construction methods, and any rebuilding stages associated with each structure. Once structures are fully delineated, then they can be more fully compared in terms of household use of space and activity areas. Third, the structure identified in the southern flank of the mound should be fully exposed to better understand initial site settlement. Fourth, Occupation Area 2 should undergo extensive testing to determine whether or not a mound was present here. Fifth, probable occupation area loci identified by shovel testing should be fully excavated to identify structures. Other possible work includes testing for palisade remains, and further testing of the field south of the mound to identify any remains located there.

In terms of artifacts, ongoing zooarchaeological and paleoethnobotanical analyses, not yet completed, will be used to further understand and identify site processes and activities. In addition, preliminary testing of cannel coal excavated from the site is ongoing, and is the first step in determining the origins of cannel coal artifacts. Depending on these results, these data may be useful in testing other cannel coal artifacts from late prehistoric sites in Virginia, eastern Tennessee, western North Carolina, and possibly more distant parts of the Southeast. Such information will contribute toward re-

creating prehistoric trade routes during this time. Future ceramic analyses may benefit from comparisons with Norris Basin ceramic assemblages to better understand the relations between this area and Carter Robinson. As additional sites are excavated in southwestern Virginia, more analyses can be considered. Ideally, a regional ceramic database could be constructed that would be useful for conducting an attribute analysis of a frontier region.

Following work at Carter Robinson, additional archaeological research in Lee County needs to be undertaken. First, excavations around the Ely Mound are required to be able to understand the relationship between these two mound sites. In conjunction with this, artifacts excavated from Ely in the late nineteenth century, and stored at the Peabody Museum need to be analyzed. Second, Site 44LE14, which Egloff (1987) identified as a possible mound site, needs to be fully excavated. Once done, we can begin to understand the role of these frontier Mississippian sites in the region.

In addition to excavation, large-scale survey of Lee, Russell, and Smyth counties is needed to identify all late prehistoric sites in the Powell and Holston River Valleys. Once this is completed, we can get a clearer understanding of how frontiers operated and the change over time that occurred there.

At a broader scale, work needs to be done systematically within southwestern Virginia. Ideally, Holland's survey of the twenty counties in the region could be repeated using modern methods. Local residents know of many sites in the region, and are eager to learn more. Archaeologists need to take advantage of this local knowledge, and apply systematic research methodologies to begin to understand the complex relationships

occurring here during the late prehistoric period. Ultimately, such work should identify important sites that can then be excavated.

Finally, at a macro-regional scale, this work should incorporate important reanalysis of the Norris Basin cultural material (Braly et al. 2010) that is being undertaken by the University of Tennessee Department of Anthropology. By doing so, we can clarify how parts of the Mississippian world were inter-connected-or not—and better understand how these chiefdoms operated before contact.

### **Implications of Work within Anthropology**

Although this work is, like most anthropology and archaeology, done at a local level, it has the potential to affect larger issues within the field. In terms of southeastern archaeology, this work is important because it identifies a Mississippian frontier town, and further, identifies how trade functioned in this town, thereby contributing the discussion about the role of trade within the Mississippian Southeast. This work is important to the field of archaeology because it is an example of archaeological material correlates of a frontier. Such examples are not numerous (Parker 2006) and this is one of the few explicitly frontier studies in Southeastern North America. For this reason it is also important to the field of anthropology. Frontier studies have and continue to be important to our understanding of cultural interactions, but the majority of these have been conducted as ethnographies. This study adds to this growing body of literature by offering an archaeological example. In so doing, it adds to a more historical framework of frontier studies.

### **Conclusion**

The study of the Carter Robinson site is the start of long-term systematic research in a region that has long been overlooked by Southeastern archaeologists. This study has shown that Mississippian frontier towns were important to other parts of the Mississippian world, and they were affected by this world. Additional work that incorporates this (and hopefully other) frontier studies can begin to see how frontiers affected other Mississippian communities. As Parker (2006:77) states, “nearly all parts of the world were, at some point in their history, in some way connected to, or defined by, a frontier.” Because of this, it is important to study frontiers as a way toward more fully understanding cultures.

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## Appendix A

Block 1, Structure 1 Selected Feature Descriptions:

Feature 100

Feature 106

Feature 107



## **Feature 100 Large Burned Area/Possible Hearth**

Feature 100 is a large burned area that may represent the remains of a hearth. It was first uncovered in 2007. It is located in the southwestern portion of Block 1 and measures approximately 3 meters wide east-west and 2 meters wide north-south. The edges of the feature were not clearly defined from the surrounding matrix, possibly because of disturbance from plowing. Initially, in 2007, the southern edge of the feature was not uncovered. Additional excavations in 2008 uncovered the entire feature (Plate 5.5; Figure 5.26). In 2008, two adjacent 1x1 meter test units located on the hearth's northern edge, TU 20E and 25W, were excavated to subsoil. This was done to definitely identify the feature's northern edge, the feature type, better define its shape, and identify any multiple layers within the feature that would reveal information about the occupation of the structure. Specifically, zooarchaeological and botanical remains recovered were used to reconstruct diet of the occupants of Structure 1.

### **Methods**

Feature 100 was excavated by zones, which were differentiated by soil color and or textural differences. Test Unit 20E was first excavated. Prior to excavation, this area (and all) portions of Block 1 had been scraped with a backhoe and the overlying plowzone cleaned off the floor of the structure (see methods for Block 1, above). Each test unit was then mapped. This cleaning and mapping was done in 2007. During the 2008 field season, the test unit was again cleaned, mapped, and photographed. Different zones present were assigned numerical labels before excavation. Each zone was excavated separate from others zones. Munsell color and texture of the soil was recorded for each zone. A 1L sample of soil was retained for flotation for zooarchaeological and botanical analyses; remaining soil was screened through ¼" mesh screen and artifacts retained and provenienced by zone. No zones exceeded 10 cm in depth, so multiple layers of zones were not recorded.

### **Stratigraphic Composition of Test Unit 20E**

Test Unit 20E contained seven zones. Zone 1 was a very dark grayish brown (10YR3/2) loamy clay that contained lots of charcoal and artifacts. It was a midden with some ash mixed in. This was the remnant of plowzone midden that was found over all test units after initial backhoe excavation; it appeared be deeper in this portion of Block 1. Zone 1 covered the western part of the test unit to a depth of approximately 10 cm. In the southwest corner, orange clay overlay the midden. Below Zone 1, yellow clay was found in the western part of the test unit; in the western center were pockets of black and red burned ash. This same ash type was located in the southern and eastern halves of the test unit. On the southern edge, the midden came down on an orange/red sandy ash and a lighter ash. Midden continued in some spots here to subsoil.

Artifacts in Zone 1 consisted primarily of daub and ceramics, although a chert core and a cut mussel fragment were recovered.

Zone 2, the orange/red sandy ash was adjacent to a red/black burned clay area. Few artifacts were recovered from this thin zone; however, additional Zone 2 was uncovered in other parts of the test unit after Zone 4 was excavated (see below). This zone continues into the adjacent TU 25W. Zone 2 contained ceramic sherds.

Zone 3 is a hard orange clay that overlies some midden and red/black burned clay in the southern parts of the test unit. It appears to be original subsoil disturbed by hearth excavations and/or midden deposition and later plowing. It may be fire-hardened, and appears to be a burned area near the hearth center. Both sherds and animal bones were found in this zone. Zone 3 contained four shell, grit and grog-tempered sherds (one stamped, one cordmarked, one plain and one residual).

Zone 4 is a dark reddish brown (2.5YR2.5/3) loamy soil mottled with reddish black (2.5YR2.5/1) loamy soil. This was a mottled, dark red soil which appeared burned; it also contained a great amount of charcoal. It appears to be a charred part of the hearth, and it continued into TU 25W. It was located on the eastern edge of the test unit, and extended 47 cm into the test unit. As stated above, additional Zone 2 underlay Zone 4. Zone 4 contained ceramic sherds as well as a large amount of animal bone; in addition, one flaked and polished bone tube, and two probable bone beads were recovered.

Zone 6, a dark brown (7.5YR3/4) sandy clay soil was first uncovered in the southeastern portion of the site beneath Zone 1. When Zone 4 was removed, the rest of Zone 6 became visible, and appears, based on soil texture and color, to be an intermediate zone between Zones 2 and 3. Daub and ceramics were found in Zone 6, along with a polished groundstone fragment and animal bone remains.

Zone 7 was a light brownish gray (10YR6/2) ashy clay. It was located in the northern edge of the test unit, extending approximately 38 cm into the center of the test unit. It was underlain by additional Zone 1 midden, and subsoil underlay this midden. This zone continued into the adjacent test unit. It may represent the bottom layer of the hearth center. This zone was not very thick. Zone 7 was located next to a large post. Cut shell fragments, a partially drilled shell, two polished stone fragments, and ceramic sherds were recovered from this zone.

Zone 9 was a strong brown (10YR4/6) clay mottled with a darkish brown (10YR3/3) loamy clay; it is the subsoil. Multiple postholes were present in the subsoil. Two were excavated as part of Zone 1 because it was not apparent they were postholes because of their diffuse boundaries. As Zone 9 was uncovered, a cluster of three postholes were found in the southern wall edge. Zone 9 contained a two sherds, both shell-tempered (one cordmarked, one residual).

### **Test Unit 25W**

Located east of and adjacent to TU 20E, seven zones were uncovered in TU 25W. Like TU 20E, Zone 1, a very dark grayish brown (10YR3/2) loamy clay, was present in

the northeast corner of TU 25W. Similar to TU 20E, multiple zones (2, 4, 11, 15, 16, and 17) overlay parts of Zone 1. Zone 1 was thickest in the northeastern corner of the unit (20 cm) and ranged from 12-15 cm in the rest of the test unit. Zone 1 contained 43 g of daub, three tool fragments, three chert core fragments, a polished bone fragment, a polished antler tip, a possible hammerstone, a stone tool, one probable chunky stone, cut mussel shell fragments, and approximately 400 sherds, of which most were shell and grit (45%) followed by shell, grit and grog (26%), with some minor amount of shell and limestone (7%). One shell-tempered sherd was possibly stamped.

Zone 2 was an orange/red (10YR5/6) sandy ash that continued from TU 20E into the northwest corner of TU 25W and was a thin, uneven layer. Zone 2 contained daub, a possibly incised turtle shell fragment, a broken mussel shell fragment, a chert scraper, and few sherds (n=3 [one grit-tempered, one shell-tempered, and one grit-and-grog-tempered]).

Zone 4, a dark reddish brown (2.5YR2.5/3) mixed with a reddish black (2.5YR2.5/1) burnt loamy soil, is also continued from TU 20E. It appears to meet the edge of Zone 1, the midden, in the northeastern corner, and the edge of Zone 17 (see below) in the lower northeast corner. Additional Zone 17 was found under Zone 4. Zone 4 also abuts Zone 16 in the southwest corner of the test unit. Large pieces of charcoal are present in Zone 4. Zone 4 primarily overlay midden and was approximately 2 cm thick uniformly across the zone. Zone 4 contained 36 sherds, most (50%) were shell, grit and grog-tempered, followed by shell and grog-tempered (33%); shell, limestone and grit-tempered types were also found (17%). Flakes were also recovered from this zone. (NOTE: may not have gotten floats from this yet).

Zone 11 is a dark red sandy clay, a thin (1 cm thick) zone that appeared to be a burnt streak across the test unit. Charcoal was present in the zone. This zone overlay Zone 15 and portions of Zone 4. One limestone axehead was recovered here, as well as one chert flake tool and one shell and grit-tempered cordmarked sherd.

Zone 15 was a 5YR5/8 yellowish red clay ash mixed with a brown (7.5YR6/4) clay ash. It was heavily mottled in parts with midden. This zone was only about 1.5 cm thick throughout the entire zone. It overlay Zone 4, and abuts Zone 16. Within this zone was found two shell disk beads, two bone tube beads, one possible tool fragment, daub, shell-tempered and shell, grit and grog-tempered sherds (four of each type).

Zone 16 is a red-brown (5YR3/2) sandy clay soil with some clay. Charcoal was found at the interface between this zone and Zone 4. This zone may be part of Zone 4; there was a difference in color (Zone 16 was lighter than Zone 4) but not texture, suggesting a different level of heat in this zone. This thin zone was about 1 cm thick throughout. Zone 16 contained two shell-tempered cordmarked sherds and one shell-tempered residual sherd, as well as two shell-tempered sherds (one cordmarked and one residual) and a tool fragment.

Zone 17 was a dark reddish brown (5YR3/2) sandy clay and appeared as a cap over the midden in the eastern center of the test unit. This zone was about 2-3 cm thick and was thickest in its center. It overlay additional Zone 1, midden and was the last of the non-midden zones removed. Within Zone 17 was found small amounts of daub, three plain shell, grit and grog tempered body sherds, one shell-tempered residual sherd, one shell and grit-tempered plain sherd, and one possible graver.

Unlike the adjacent TU 20E test unit, TU 25W did not contain any posthole features.

### **Feature 106 (burned feature) and 107 (posthole within feature)**

Features 106 and 107 were located in the north part of Structure 1, in the western edge of Block 1. Feature 106 is a burned feature, possibly a hearth or craft production area, and Feature 107 is a posthole located within Feature 106. One test unit, TU 23W, was excavated. It was located over the southern part of the feature and provided a bisected view of the feature in order to ascertain its depth and stratigraphic deposition history. Excavation methods of Features 106 and 107 were the same as those used in the excavation of Feature 100.

**TU 23W**

Feature 106 was identified in 2007, during stripping of Block 1. It appeared as a large, circular ashy stain with some red and orange soils. It was assumed that TU 23W contained the remains of burned ash material that overlay the midden. The excavation of the first midden zone that surrounded the ash layer revealed multiple layers of ash were located beneath the midden, along with clusters of FCR. This was now identified as a feature, Feature 106, and excavated in zones in 2008.

The first zone, 18A, was a dark grey (5YR4/1) ashy loam located around a possible burnt hearth area. The ash layer extended from Zone 18A to Zone 18B (see below). The ash itself was grey (5YR5/1). Zone 18A overlay an orange mottled clay layer, and contained many artifacts. These included an a residual grit-tempered sherd, a plain shell-tempered rim sherd, and twelve shell, grit and grog-tempered sherd (one incised, two cordmarked and nine residual). Additionally, two cordmarked shell-tempered sherds, were recovered. Also found were cut gastropod shell fragments, a possible partial shell bead, a core or scraper made of brown stone, possibly jasper, a red jasper flake, and multiple broken gastropod shells.

Zone 18B was also a dark reddish brown (5YR3/2) midden zone similar to Zone 18A but differentiated by color—it appeared to be closer to the hearth and fire-reddened by its proximity to the feature center. It also lay over an orange mottled clay, and was overlain by plowzone. Artifact recovered from this zone include two possible chert scrapers, 25 gastropod shell fragments, one possibly worked, two mussel shell fragments, one possibly worked, animal bone fragments, four FCR fragments, eight lithic flakes, a clump of cannel coal, and 82 ceramic sherds (see Table 1).

**Appendix Table 1. Temper and Surface Decoration of Sherds Recovered from Zone 18B, TU 23W, Block 1, Feature 106.**

<b>Temper</b>	<b>Surface Decoration</b>	<b>Body</b>	<b>Other</b>	<b>Total</b>
Shell	Plain	1		7
	Cordmarked	2		
	Residual	4		
Shell and grog	Plain	8		9
	Cordmarked	8		
	Residual	1		
Shell & limestone	Plain	5		13
	Net-impressed	1		
	Cordmarked	5		
	Cross cordmarked	2		
Shell and grit	Plain	7	2 (1 node, 1 rim)	27
	Cordmarked	11		
	Net-impressed	4		

	Stamped	2		
Shell, grit & grog	Plain	7		26
	Cordmarked	12		
	Net-impressed	3		
	Stamped	1		
	Residual	3		

Both Zones 18A and 18B were located in the southern portion of TU 23W.

Zone 22 was a dark gray (7.5YR4/1) ashy/charcoal midden zone located in the eastern edge of the test unit. This was a small (25 cm-wide) pocket of soil that appeared to be a combination of ash, charcoal and midden. It was located at the eastern edge of Zones 18A and 18B. It was overlain by plowzone, and portions of this zone ran into Zone 23. Zone 22 contained many burned artifacts. These included six residual shell, grit and grog-tempered sherds, three residual shell and grit-tempered sherds, one cordmarked shell and grit-tempered partial ceramic disk, one cordmarked shell and grit-tempered sherd, one burnished (interior & exterior) plain shell and grit-tempered sherd, one chert drill, and one broken polished antler fragment. Also recovered were 100 gastropod shell fragments, 20 mussel shell fragments, 99 g of daub, 174 ceramics, 62 lithics, a bead, a chunky stone, and a tool fragment.

Zone 23 was a yellowish red (5YR 5/8) clay mixed with midden. It was a small triangular-shaped zone located near a postmold (Feature 107) that became visible as Zone 18B and 22 were removed. Zone 23 extends below the post, and overlies more midden. The clay in this zone was around and under the post, and mixed with ash and charcoal; it was compacted in spots. Few artifacts were found in this zone, and included one plain grit-tempered sherd, possibly burnished, three shell, grit and grog-tempered residual sherds, and one cut mussel shell fragment.

Zone 24 was an dark yellowish brown (10YR4/4) ashy clay cap, approximately 4-6 cm deep located near the central ashy burnt section beside the now-excavated postmold. It contained flecks of charcoal. It overlay midden. Within this zone were two possibly cut mussel shell fragments, one chert flake tool, one plain shell and grit-tempered sherd, one incised shell and grit-tempered sherd, and six residual shell and grit-tempered sherds.

Zone 25 was a white (10YR8/1) ash layer, the central and highest ash layer that was surrounded by darker, reddish ash, probably overlaying the midden. The zone was located in the northwest corner of the test unit, and extended into the western wall. The ash on the south side was about 5 cm deep, but petered out to about 2-3 cm deep as it ran north. On the south side, this zone came down on red ash, while on the north side it overlay dark brown midden. A drilled shell blank was recovered from this layer; it showed cut marks at one end. In addition, mussel shell fragments, two residual shell, grit and grog-tempered sherds, and three chert flake tools were recovered.

Zone 26 was a light orange ash that ranged in color from a brown (7.5YR5/4) to a strong brown (7.5YR5/8); it surrounded a darker orange clay. This zone was located in the northwestern corner of the test unit, along and extending into the western wall at its northern edge. Additionally, there were pockets 50 cm south of the north wall and approximately 15 cm east of the west wall, with an additional segment extending from this small pocket north to the central north wall. As this zone was removed, white ash was found 25 cm south of the northwest corner. This was a thin (2 cm) layer that extended 15 cm by 9 cm, and was excavated as part of Zone 26 (the boundary between these two areas was not well-defined). Artifacts in this zone included one cordmarked shell, grit and grog-tempered body sherd and two residual shell, grit and grog-tempered sherds, one grit-tempered possible figurine fragment, shaped like a pointed cone, rounded at the point, and large daub fragments.

Zone 27 was a combination of midden mottled with dark yellowish brown (10YR4/4) ash, located between two pockets of dark orange ash. This very thin layer came directly down on midden, although its depth varied across the test unit. Zone 27 was concentrated along the northwest corner and extended into the north wall. Within Zone 27 were three shell, grit and grog-tempered sherds, two residual and one possibly stamped sherd; one chert flake tool fragment, cut mussel shell fragments, and one possible hammerstone fragment.

Zone 28 was a strong brown (7.5YR5/6) ash located in the northwest corner of the test unit that overlay midden; it was approximately 2 cm thick. Within this zone were large mussel shell fragments, one possible shell scraper, one shell bead, unfinished, one possible shell bead, one possible antler fragment, one quartz fragment, one drill, one residual grit-tempered sherd, two shell and grit-tempered sherds, three shell, grit and grog-tempered sherds (one cordmarked, two residual) and one possible chunky stone blank.

Zone 29 was the final zone excavated in TU 23W. It was a brown (10YR4/3) ashy flow located in the southeast corner of the test unit. It was a grey ashy lump that began in the wall and continued downward, ending in a large burnt rock. It overlay midden and subsoil. This zone was approximately 3-4 cm thick. NO FLOAT SAMPLE YET\*\*\*.

## Appendix B

Description of Excavations of Selected Block 3, Structure 2 Test Units:

TU 8W1/2

TU 9

TU 163E



## Structure 2

### Test Units 8W1/2, 9 and 163E

#### TU 8W1/2

Test Unit 8W1/2 was first opened in 2007 and partially excavated. It was excavated to subsoil in 2008. It is located in the center of Block 3, and is a 1-x-1-meter test unit. Excavations revealed multiple layers with structure remains. When first excavated, the plowzone was removed in 10 cm levels. Below this, layers of burned soil became apparent, so excavation changed to removal of zones. These zones were differentiated by soil color and/or textural differences. Mapping of each zone was done before excavation. Different zones were assigned numerical labels as they were identified and excavated. Each zone was excavated and screened separately from surrounding zones. Munsell color and soil texture were recorded for each zone. A 1L sample of soil was retained for flotation to recover zooarchaeological and botanical remains; remaining soil was screened through ¼" mesh screen and artifacts retained and provenienced by zone. No zones exceeded 10 cm in depth so multiple layers of zones were not used.

#### Stratigraphic Composition of Test Unit 8W1/2

##### Plowzone

The plowzone consisted of a very dark brown (10YR2/2) silty loam mixed with a dark yellowish brown (10YR3/4) silty loam. It was excavated in three 10 cm levels, to a total depth of 30 cm. Below the plowzone a square-shaped feature was identified in the west side of the test unit; it contained a charred log fragment. In the eastern edge toward the bottom of the test unit a plowscar was apparent; it was surrounded by a dark brown soil with charcoal and daub. The soil in general became more red as plowzone was removed, and it contained large chunks of charcoal. Excavation of zones proceeded at this point.

##### Zone 1

Zone 1 was located in Level 4 and was identified at the bottom of the plowzone as a stain running 36 cm east/west and 15 cm north/south. This heavily mottled matrix contained light reddish brown (5YR6/3) (60%), dark yellowish brown (10YR3/6) (10%), yellowish red (5YR4/6) (5%), dark grayish brown (10YR4/2) (15%) and reddish yellow (5YR6/6) (10%). All soil was a clay silt. The northern half of Zone 1 was dominated by an intrusive log. As more plowzone was removed, Zone 1 became apparent in the area south of the log, and a smaller pocket southwest of the log. The zone was approximately 4 cm deep. Below the zone was a reddish brown very compact soil. No artifacts were recovered, as all soil was removed for a 2L flotation sample; five gray flakes were recovered from the processed flotation sample.

##### Feature 1

Feature 1 was a kidney bean-shaped reddish brown area in the south half of the test unit. It was composed of clay silt soil mottled with the following: dark brown (7.5YR3/4) (40%); dark reddish brown (5YR3/4) (40%); yellowish red (5YR5/8) (5%); very dark grayish brown (10YR3/2) (15%), and was intruded upon by a burned wood fragment. It

appeared to be soil surrounding and probably related to this fragment. It was overlain by plowzone and also intruded into by Zones 1 and 2 and surrounded by Zones 1, 2, 3 and 5. Because of intrusions by Zone 1 and 2 this was excavated as a zone. After 4 cm was removed, this zone/feature changed to a reddish brown soil, underlain by a mottled grey soil. The burnt log was left pedastaled.

### **Zone 2**

Zone 2 was restricted to the western half of the test unit, about 40 cm north/south and 25 cm east/west. It displayed heavy mottling, similar to Zone 1, and consisted of the following soil colors: reddish yellow (5YR6/8) (35%); yellowish red (5YR4/6) (40%); yellow (10YR8/6) (10%); and dark brown (7.5YR3/4) (15%); all soil was a clay silt. It was overlain by plowzone and surrounded by Zones 4, 5 and Feature 1. The surface matrix continued for about 4 cm into the zone as it was excavated, but then it became significantly less orange and far more brown (changing to 60-80% dark brown [7.5YR3/4]), although it still contained a great deal of orange and yellow coloring. The mottling decreased significantly with depth. Zone 2 continued to the east under Zone 3, and appeared to go under Feature 1 on the north side of the feature. It overlay Zones 7 and 9.

### **Zone 3**

Zone 3 was an orange and brown burned soil (yellowish red [5YR4/6] (65%); dark brown [10YR3/3] (30%); strong brown [7.5YR5/6] (5%), all silty loam. This zone contained several centimeters of mottled orange and brown soil and came down upon a dark grey soil. This zone was overlain by plowzone, surrounded by Zone 5, and overlay Zones 7 and 8. A possible postmold appeared at the bottom of this zone. A small round chunky stone was recovered during excavation.

### **Zone 4**

Zone 4 was composed of a dark yellowish brown (10YR4/4) (75%) and a dark brown (10YR3/3) (25%) silty clay. It was overlain by plowzone and surrounded by Zone 3. Zone 4 was restricted to the northwest portion of the test unit. As the zone was removed, charred timber fragments became apparent laying east to west; these were surrounded by orange soil.

### **Zone 5**

Zone 5 was an ashy soil that consisted of a very dark brown (7.5YR2.5/3) (60%), dark brown (7.5YR3/3) (20%), dark brown (7.5YR3/4)(10%) and a reddish yellow (7.5YR6/8) (10%); all soil was of a clay silt texture. This zone measured 15 cm wide east/west and 1 m wide north/south. It was overlain by plowzone and intruded by a burnt timber; it was surrounded by Zone 2 and Feature 1. In the eastern portion of Zone 5, a partially burnt and intact log was uncovered. After Zone 5 was removed, small, yellow patches of soil appeared, as well as an orange stain in the northeastern corner.

### **Zone 6**

Zone 6 was a clay silt consisting of dark yellowish brown (10YR3/4) (85%) and a pale brown (10YR6/3) (15%); it contained many charcoal flecks. It was overlain by plowzone and surrounded by Zone 5; it overlay Zones 7, 9 and 10. This zone was not compact in composition. As it was excavated, the amount of charcoal increased in the southern portion of the zone. Below the zone was a dark grayish brown and yellow soil that was also visible across the rest of the unit. Daub and a limestone slab were recovered from this zone.

### **Zone 7**

Zone 7 was a dark yellowish brown (10YR4/4) (90%) silty clay mottled with a yellowish brown (10YR5/8) (10%) silty clay; it contained large chunks of charcoal and burned wood, especially along the western wall of the test unit. Zone 7 was overlain by all previous zones and Feature 1, and it overlay Zone 9; it was surrounded by Zones 8 and 9. Zone 7 was a thin band of soil located in the southwest center of the unit, under the area that had been identified and removed as Feature 1. This zone appears to represent the interface between Strata 3 and 4. One sherd, a shell and grog-tempered plain body sherd, was recovered from this zone.

### **Zone 8**

Zone 8 was an orange soil consisting of burned logs; it consisted of a yellowish red (5YR5/8) (80%); dark reddish brown (5YR3/3) (20%). Zone 8 may be more of Zone 1 and 2 associated with building architecture. The soil was predominately a clay silt with small bits of charcoal. Zone 8 was overlain by Zones 3 and 4, surrounded by Zone 7, intruded by the burned log, and it overlay Zone 9. Excavation of Zone 9 uncovered a burned log fragment in the northeast portion of the test unit.

### **Zone 9**

Zone 9 consisted of a yellowish brown (10YR5/6) (15%), a dark yellowish brown (10YR3/4) (70%) and a very dark brown (10YR2/2) (15%) clay silt; it contained many charcoal flecks. It was overlain by Zones 1 through 8, and it overlay Zone 10; it was intruded by Zone 7 and 8 and surrounded by Zone 10. Zone 9 was easily removed off of Zone 10, and revealed Zone 10 across the entire test unit. This is the clay cap layer.

### **Zone 10**

Zone 10 was an ashy layer composed of a dark brown (10YR3/3) mixed with a dark yellowish brown (10YR4/6) ashy clay. It was overlain by Zones 7, 8 and 9, and it overlay Zones 11, 12 and 13. During excavation a small charcoal chunk (Log 6) was uncovered. This is the ash layer underlying the clay cap. Zone 10 contained mussel shell fragments, two stone bowl fragments, possibly pipebowl, two shell and grit-tempered residual sherds, one shell and grog-tempered residual sherd, and one limestone scraper.

### **Zone 11**

Zone 11 was a very dark grayish brown (10YR3/2) silty clay located on the western side of the test unit; it was slightly darker than Zone 12 located on the eastern side. It was overlain by Zone 10 and overlies Zone 15; it was surrounded by Zone 13. After removal, a brownish grey soil mottled with a yellowish brown soil was uncovered. Within this

zone was recovered one tool fragment, seven polished stone fragments, and two shell-tempered residual sherds.

### **Zone 12**

Zone 12 was a dark brown (10YR3/3) silty clay surrounded by a lighter ashy layer. It was overlain by Zone 10 and overlies Zone 15; it was surrounded by Zone 13. This zone is very similar to Zone 11; however, it was initially darker in color and became lighter and more yellow during removal. Zone 12 contained one thin limestone slab, FCR, flakes, shell, four shell and grit-tempered residual sherds and one shell, grit and grog-tempered residual sherd.

### **Zone 13**

Zone 13 was an ashy brown (10YR2/1) soil located across the eastern part of the test unit. This zone was overlain by Zone 10 and surrounded by Zones 11 and 12. This thin (3 cm) layer of ashy brown soil was removed and revealed a yellowish brown soil, Zone 14, in the same area. This zone contained large daub fragments, shell fragments, grey chert cores and flakes, one tool fragment, one possible chunky stone fragment, five residual and one plain shell and grit-tempered sherds, one shell and grog-tempered residual sherd, two plain and one slipped shell-tempered sherds, and one fragment of polished bone.

### **Zone 14**

Zone 14 was a brown (10YR4/3) silty clay located under the ash covering. It was overlain by Zone 13 and overlies Zone 15; it was surrounded by Zones 11 and 12. After the layer of ashy soil was removed, the soil became darker in color, and more grey and brown. Within this zone were daub and chert cores and flakes.

### **Zone 15**

Zone 15 was a dark grayish brown (10YR4/3) extending over most of the test unit. It was overlain by Zones 11, 12 and 14 and overlies Zone 17; it was surrounded by Zones 16 and 17. The dark soil seen in Zone 14 became lighter and more yellow in this zone. A large rim sherd and charcoal flakes were present in this zone. This zone contained three tool fragments, one bone flake, one possible chunky stone fragment, and one plain and six residual shell and grit-tempered sherds.

### **Zone 16**

Zone 16 was a brown (10YR4/3) silty clay mottled with a dark brown (10YR3/3) silty clay. Darker areas were located in the northeast corner, although this zone is predominately restricted to a circular area in the north center. As the zone was removed, the soil became lighter in color and more yellow, mottled with brown spots. The area in the northeastern part of the test unit expanded to the southern edge of the test unit, although the soil was darker in the southern edge.

This zone contained a large amount of artifacts, including six possible palette or tool fragments, multiple large pieces of daub, two limestone slabs, two iron metal fragments, chert flakes, one possible tubular bone bead, ten shell and grit-tempered (one stamped, three plain, six residual) sherds; nine shell, grit and grog-tempered sherds (all residual),

one plain shell, grit and grog-tempered rim sherd, one plain grit-tempered body sherd, one grit and grog-tempered plain body sherd, and one cannel coal fragment.

**Zone 17**

Zone 17 was a yellowish brown (10YR5/6) mottled with a dark brown (10YR3/3) silty clay. This zone was overlain by Zones 15 and 16. This zone was a yellow soil that was several centimeters deep. It overlay a grayish brown soil that contained charcoal flecks. Zone 17 covered the entire test unit. This zone contained large pieces of animal bone and pottery sherds. Zone 17 contained multiple artifacts, and these are listed in Table 1.

<b>Table 1. Artifacts Recovered from Level 4 of Test Units 8W1/2</b>		
	<b>Artifact Type</b>	<b>TU 8W1/2</b>
Shell & grit	Residual	31
	Plain	7
	Stamped	1
	Cross cordmarked	1
Shell grit & grog	Residual	11
	Plain	3 (rim)
Shell and grog	Residual	2
Shell	Residual	2
	Plain	2
	Slipped	1
Grit	Plain	1
Stone bowl fragments		2
Limestone slab/scrapper		3
Tool fragment		11
Possible chunky stone		1
Polished bone		2
Iron/ferruginous metal fragment		2
Tubular bone bead fragment		1
Cannel coal fragment		1
Daub		Multiple

**Zone 18**

Zone 18 was a dark grayish brown (10YR3/3) silty clay. It was excavated in two levels, and in total was 15 cm deep. It was initially thought that subsoil underlay this zone, and excavation of the test unit ceased for the field season; however, the test unit was covered in plastic before being backfilled so additional excavation of it and adjacent test units could commence the following season. Zone 18 contained a large amount of charcoal and shells, as well as two cut long bone fragments, seven turtle carapace fragments (two mend together), one shell and grog-tempered residual sherd, one shell and grog-tempered plain rim sherd, three shell-tempered residual sherds, two shell-tempered plain body sherds, one shell and grit-tempered cordmarked body sherd, two shell and grit-tempered plain body sherds, two checkstamped shell and grit-tempered body sherds, seven shell and grit-tempered residual sherds, two shell and grog-tempered residual sherds, three

limestone slabs, large daub fragments, two grey chert cores, two possible chert scrapers, and one tool fragment.

### **Level 5**

In 2008, the test unit was reopened for excavation. The lack of rain in 2007 prevented an accurate profile map of the test unit from being made. In 2008, the unit was cleaned for a photo; during this cleaning, it was apparent that multiple horizontal bands were present in the west wall, possibly representing at least two and possibly three living floors. Excavation in 2008 began with removing the remaining portions of Level 5 and 6. Because the unit was excavated in zones in 2007, the starting surface was uneven. Portions of the test unit had been removed as deep as the top of Level 7. In order to see the entire profile of the test unit, the unit was cleaned and leveled off, and excavation started at Level 5.

This level consisted of a very dark grayish brown (10YR3/2) silty loam, and contained a lot of charcoal. Level 5 appeared to be a continuation of Zone 18, and consisted of midden material.

### **Level 6**

This was a dark brown (10YR3/3) silty loam between 1-12 cm thick across the unit (this variance was due to the uneven nature of the test unit). Artifact density in this level was much decreased from Level 5. However, five possible postholes (Features 203, 204, 205, 206, and 207) were identified in this level. This level was intruded by Features 201 and 202

### **Feature 201**

Feature 201 was located in the southeastern corner of the test unit and is visible in the southern and eastern profiles of the test unit. After excavation of the Level 5 midden, portions of the feature were identified as intruding into Level 6. Feature 201 is a pit feature. It began 20 cm below datum (beginning depth is seen in the profile of TU 8W1/2). The feature originates from the midden below Level 3 and intrudes the clay cap. Part of the clay cap was present in the feature fill.

### **Feature 202**

Feature 202 was a posthole that originated in the lower midden (Level 6) and intrudes into subsoil (Level 7); it is composed of a dark brown (10YR3/3) silty loam. This posthole was wide at its origin and narrowed to approximately 22 cm north/south at its base. This is not the true diameter, however, as only the northeast corner of the post is present in the test unit.

### **Feature 203**

Feature 302 was a posthole noted in Level 5 and partially excavated in 2007. Its fill was a very dark grayish brown (10YR3/2) silty loam. Its fill was very loose, suggesting it may be a rodent disturbance rather than a posthole. The feature however was prominent in Level 7 and at that point was determined to be a posthole. It likely originated in Level 5. It was a circular posthole measuring 20 cm north/south and 19 cm east/west, and was

likely associated with Features 204, 205 and 207. In the interests of time, this posthole was measured and mapped but not excavated.

#### **Feature 204**

Feature 204 was a posthole that originated in Level 5 but was not fully defined until the midden strata of Levels 5 and 6 were removed. A small portion of the feature was removed in Level 7 to determine if the posthole was a rodent disturbance or a cultural feature. Its size, shape and depth (into Level 7) suggested it was cultural in origin. This circular feature measured 22 cm north/south and 18 cm east/west. It is likely associated with Features 203, 205, and 207. Its fill was composed of a very dark grayish brown (10YR3/2) silty loam. Gastropod shell fragments and charcoal flecks were identified in the feature fill; however, like Feature 203, this feature was mapped and measured but not excavated in the interests of time.

#### **Feature 205**

Feature 205 was a posthole noted in Level 5 and partially excavated in 2007. Like Features 203 and 204, it was composed of a loose very dark grayish brown (10YR3/2) silty loam, suggesting it may have been a rodent disturbance; however, its depth into Level 7, as well as its shape and size, suggested it was cultural in origin. This circular feature measures 22 cm north/south and 19 cm east/west. It is likely associated with Features 203, 204 and 207, and it was measured and mapped but left unexcavated in the interests of time.

#### **Feature 206**

Feature 206 may have been a portion of a trench connecting Features 205 and 207; however, its color and partial wall profile are also suggestive of a posthole originating from Level 6 and associated with Feature 202, based on their large size. This feature intrudes into Level 7, and is composed of a dark brown (10YR3/3) silt loam fill. It was mapped and measured but not excavated.

#### **Feature 207**

Feature 207 was a small portion of a posthole present in the north wall of the test unit. It originates in Level 5 and is likely associated with Features 203, 204, and 205. This circular feature measuring 5 cm north/south and 18 cm east/west, although these dimensions account for only the portion of the post present in the test unit. The feature fill was a very dark grayish brown (10YR3/2) silty loam.

#### **Feature 208**

Feature 208 was a small pit that originates in Level 3 and impacts Level 4 (the clay cap) and the top of the midden in Level 5. This feature is a small pit partially excavated in 2007 and identified as a pit in the north and east wall profiles of Test Unit 8W1/2. This pit is of unknown dimensions.

#### **Level 7**

This level was a dark yellowish brown (10YR4/6) silty clay loam. Features 202-207 intruded into this level. This level contained no artifacts and was considered sterile and identified as subsoil. Excavation of Test Unit 8W1/2 ceased at this point.



### **Test Unit 9**

Test Unit 9 was also first opened in 2007 and partially excavated. In 2008 excavations continued until subsoil was reached. TU9 is located in the center of Block 3, adjacent to and west of TU 8W1/2; it is a 1-x-1-meter test unit. It was placed here because the log and burned soil remains were identified in TU 8W1/2, and extending excavations in this direction might reveal a pattern of features. Excavations revealed multiple layers with structure remains. Like TU 8W1/2, the plowzone was removed in 10 cm levels. Below this, layers of burned soil became apparent, so excavation changed to removal of zones. These zones were differentiated by soil color and/or textural differences. Mapping of each zone was done before excavation. Different zones were assigned numerical labels as they were identified and excavated. Each zone was excavated and screened separately from surrounding zones. Munsell color and soil texture were recorded for each zone. A 1L sample of soil was retained for flotation to recover zooarchaeological and botanical remains; remaining soil was screened through ¼” mesh screen and artifacts retained and provenienced by zone.

### **Plowzone**

The plowzone layer in TU 9 was excavated in three arbitrary layers. It was a dark yellowish brown (10YR3/4) silty loam. The eastern wall of the test unit appeared somewhat softer and darker than the rest of the unit, no definite stains were visible. Few artifacts were recovered from the plowzone level, and excavation ceased at the bottom of the plowzone because no features were identified.

### **Level 3**

In 2008 the test unit was reopened to further identify the stratigraphic layers present in TU 8W1/2. At this point, zonal excavation was used.

### **Zone 23**

Zone 23 was a dark brown (10YR3/3) silty loam. Zone 23 extended over an approximate one-third of the eastern portion of the test unit. It was overlain by Level 2 and overlies Level 4, the clay cap; it was surrounded by Zones 24 and 26. This zone did not contain any artifacts. This zone is comparable to TU 8W1/2 Level 3 (midden).

### **Zone 24**

Zone 24 was a very dark grayish brown (10YR3/2) mottled with a dark brown (10YR3/3) and a dark yellowish brown (10YR4/6) silty loam. This zone is located in the south central part of the test unit. It was found at the base of Level 2 and cuts through Level 4 into the top of Level 5. It was intruded into by Levels 4 and 5 and Zone 23; surrounding matrices include Zones 23, 25, and 26. This zone may represent a portion of a pit that along with Zone 25 intrudes into Levels 3, 4 and 5 from Level 2. Artifact density was low and included two FCR, chert flakes, and two squared and smoothed stones.

### **Zone 25**

Zone 25 was a dark brown (10YR3/3) silty loam mottled with a dark yellowish brown (10YR4/6) clay. It occurs at the base of Level 2 and terminates at the top of Level 4 (clay

cap). It may be associated with Zone 24 as a pit located below Level 2. It intrudes into Level 3 and Zone 23, and is surrounded by Zones 23, 24, 27 and Level 4. Artifacts recovered from this zone include chert flakes, four fire-hardened cannel coal fragments, one hammerstone fragment, four possible tool fragments, one limestone slab, one chert scraper, and one shell and grit-tempered residual sherd.

#### **Zone 26**

Zone 26 was a gray (10YR6/1) ashy silt loam mottled with a very dark gray (10YR3/2) silty clay loam. This is an ashy midden zone that lay atop Level 4 (clay cap) and Level 5 midden. This zone continued under Zone 29 to the northwest corner of the test unit. It was surrounded by Level 4, Zone 25, Zone 29 and Level 5. Artifacts recovered from this zone include one chert core, one limestone slab, one polished stone fragment, chert flakes, and a tool fragment.

#### **Zone 27**

Zone 27 was a small portion of Level 2 remaining in Level 3. It was a dark grayish brown (10YR 3/2) silty loam. It was overlain by Level 2 and overlies Zone 23 and Level 3; it was surrounded by Zones 23 and 25. This is a portion of the upper level (2) that was deeper than the rest of the test unit, and it continued into TU 8W1/2. No artifacts were recovered from this zone.

#### **Zone 29**

Zone 29 was a dark brown (7.5YR3/2) silty loam located in the northwestern corner of the test unit. This is a shallow basin-shaped zone that overlay Zone 26, composed of red burned soil. It may be a feature, based on its shape, but its shallow depth suggests it could be a zone; it was excavated and removed as a zone. Artifacts recovered from this zone include one daub fragment and two possible tool fragments.

#### **Zone 44**

Zone 44 was a mottled zone consisting of dark brown (10YR3/3), dark yellowish brown (10YR4/6), and yellowish brown (10YR5/6) silty clay. This zone overlaid Level 5 and may be associated with Level 4's clay cap, although it is thicker in the northwestern corner of the test unit. It was overlain by Level 3 and overlay Level 5; it was surrounded by Level 5 and Zone 26. Artifacts found in this zone include pottery, flakes, FCR, and animal bone, and were of a low-to-moderate density.

At this point, excavation changed to levels to match excavation of TU 8W1/2, which was occurring simultaneously.

#### **Level 4**

Level 4 was a dark yellowish brown (10YR4/6) clay. This was the same compact clay level seen in the adjacent test unit. It was approximately 9 cm deep and its artifact density was low and consisted of a few small animal bone fragments and some flakes.

**Level 5 upper**

Level 5 upper was a yellowish red (7.5YR3/2) compact silty loam mottled with dark yellowish brown (10YR4/6) clay (likely from Level 4 above). The presence of these yellowish brown mottles differentiated Level 5 upper from Level 5 lower. This level correlates with Zone 33 in TU 163E. This level was 9 cm thick. Three features were identified in this level, Features 215 and 216, both postholes, and Feature 217, a pit; these are described below. A moderately-high density of artifacts was recovered from this level, and included a chunky stone with inscribed cross, as well as large sherds and animal bone fragments.

**Level 5 lower**

Level 5 lower was a very dark grayish brown (10YR3/2) silty loam of loose compaction. It was differentiated from Level 5 upper on the basis of artifact content, soil color, and the presence of gastropod shells; it was also less compact than Level 5 upper. It was 12 cm thick, and the three features identified in Level 5 upper, above, continued in Level 5 lower. This level contained a high density of artifacts, included large sherds and large fragments of bone as well as a small piece of mica; Table 2 lists the artifact types recovered from Level 5 in TU 9.

<b>Artifact Type</b>		<b>TU 9</b>
Shell & grit	Plain	1
	Residual	4
Shell, grit & grog	Residual	8
	Cordmarked	2
Grit-tempered	Pisgah	1 (rim)
Polished/cut bone fragments		4
Tool fragments		3
Polished stone		1
Drill/drill tips		2
Graver		1
Daub fragments		Multiple
Mica		1
Cut mussel shell fragments		9

**Feature 215**

Feature 215 was a posthole and postmold heavily disturbed by a 6-cm rodent burrow. The posthole was circular in shape and 13-14 cm in diameter, while the postmold was 12 cm

in diameter. The rodent burrow began 8 cm below the feature's point of origin, entered the feature from the west and went straight through the feature into subsoil. The feature was a brown (10YR4/3) loam mottled with a yellowish brown (10YR5/6) sandy clay. The feature intrudes Level 5 lower and underlying subsoil. Pottery, flakes, shell and charcoal were present in the feature fill.

**Feature 216**

Feature 216 was also a posthole and a postmold. A small area on the west side of the feature was disturbed. This disturbance was 3-4 cm in diameter and started at the feature's point of origin and went down 17 cm to the west. This posthole had an irregular surface perimeter about 17 cm in diameter. The poststain was 9-10 cm in diameter and contained charcoal flecks and pieces in the fill. The fill was a brown (10YR4/3) loam containing pottery, animal bone, and shell. A charcoal sample was retained from this feature for future radiocarbon dating.

**Feature 217**

Feature 217 was a probable posthole composed of a very dark grayish brown (10YR3/2) silty loam mottled with a dark yellowish brown (10YR4/6) clay. This feature was located below Zones 24 and 25. In profile, a linear area extended through the feature and was composed of looser fill than the surrounding feature fill. This may be the remains of the posthole. However, it is possible that the feature is a pit and the looser linear area is the remains of a rodent burrow.

**Level 6**

Level 6 was a dark brown (10YR3/3) silty loam midden layer with a low density of artifacts. It was 10 cm deep. The features listed above ended in Level 6. At the base of the level, a trench appeared, connecting Features 215 and 216 and continuing into the west wall. Another post was present in the northwest corner of the test unit. This post is surrounded by clay. A second post surrounded by clay was present in the center of the unit. Below this is a circular feature, possibly related to Feature 202, exposed in the southeast corner. This level was 4 cm thick, and contained a low density of artifacts.

Table 3 shows the stratigraphic sequence of levels present in Test Unit 9.

<b>Table 3. Stratigraphic Sequence of Levels in Test Unit 9.</b>						
<b>Level Number</b>	<b>Depth Below</b>	<b>Munsell Color</b>	<b>Soil Texture</b>	<b>Cultural Layer</b>	<b>Feature Numbers</b>	<b>Artifact Density</b>

	<b>Datum</b>				<b>(if present)</b>	
1	0-59 cm	10YR3/2 (plowzone)	Silty loam	Plowzone	Unknown	Excavated 2007
2	59-71 cm	7.5YR3/2 & 10YR3/2	Silty clay loam	Structure 2 floor	None	Low to moderate
3	71-80 cm	10YR3/3	Silty loam	Midden fill	None	Varies by zone
4	80-89 cm	10YR4/6	Clay	Clay cap	None	Very low
5 upper	89-98	7.5YR3/2	Silty loam	Midden	215-217	Moderately high
5 lower	98-110	10YR3/2	Silty loam	Midden	215-217	High
6	110-114	10YR3/3	Silty loam	Midden	Multiple	Low
7	Not excavated	10YR4/6	Silty clay loam	Subsoil	None	Not excavated

## **Test Unit 163E**

This test unit was placed in Block 3 during the 2008 field season. It was located southwest of TU 9, for the purpose of identifying additional structural remains related to the features identified in Test Units 8W1/2 and 9. The test unit was 1-x-1-meter. The plowzone of TU 163E (composed of Levels 1) was removed by shovel, and then the floor was scraped clean. This was done because previous excavations of multiple test units in Block 3 identified the upper level of soil as plowzone. Excavation by trowel began with Level 2 and proceeded to Level 3. Both Levels 2 and 3 were excavated as 10-cm levels, and represented midden material associated with the upper floor zone. As zones became apparent beneath the midden, and were matched to similar zones present in TU 9, these were excavated by zone rather than by level. All soil was screened through ¼" mesh screen and 10L flotation samples of each zone were retained for macrobotanical and zooarchaeological analyses. Excavation of TU 163E ceased before subsoil was encountered because of a lack of time; however, enough of the test unit had been uncovered to identify similar structural features as the other test units excavated in this block.

### **Level 2**

This was a dark brown (7.5YR3/2) silty clay loam excavated as an arbitrary level to 11 cm below surface. This was composed of a moderate density of artifacts, including bones, flakes, shell, FCR and charcoal. Level 2 comprised the upper plowzone level. No features were identified in this level. Level 2 is composed of midden material associated with the upper living floor of Structure 2.

### **Level 3**

Level 3 was a dark brown (10YR3/3) silty loam with low amounts of charcoal and a low to moderate artifact density that included chert flakes, pottery and two biface fragments. It was excavated as a 10-cm level, and excavation of the level ceased when clay mottling became apparent on the floor; however, this change in stratigraphy coincided with the approximate bottom of the level. Level 3 was also composed of midden material, and was associated with the upper living floor of Structure 2.

### **Level 4**

Level 4 was excavated in zones as cultural zones became apparent in the bottom of Level 3. These included Zones 33, 34, 35, 36, 37 and 40, and these are described below.

### **Zone 33**

Zone 33 was a dark yellowish brown (10YR3/4) silty loam. It was overlain by Level 3 (midden/plowzone) and surrounded by Zones 34, 35, and 36. It overlay Zone 41 and was intruded upon by Zone 34. Zone 33 covered most of the eastern portion of the test unit and extended from the southwest corner to 30 cm west of the northwest corner. Artifact concentration in this zone was moderate, and included large animal bone fragments and pottery sherds, as well as small pieces of charcoal. This zone likely corresponds to Level 5 upper in Test Unit 9.

### **Zone 34**

Zone 34 consisted of a small clay spot in the southeast corner of the test unit. It was composed of a brown (10YR5/3) loamy clay mottled with a dark yellowish brown (10YR4/6) loamy clay. It was overlain by Level 3 (midden) and surrounded by Zone 33; it also appears to intrude Zone 33 and it overlay a mottled disturbed area in the southeast corner of the test unit. This latter stratigraphy suggests it may represent the backfill of a shovel excavated in 2006 that identified multiple cultural layers, including burned layers. Because this was a small zone, all of the material was retained for flotation. No artifacts were found in this flotation material after it had been processed, further evidence that it likely represents the old, backfilled shovel test.

### **Zone 35**

Zone 35 was a very small, clay deposit situated above Zone 36 and adjacent to Zones 33 and 36. It was composed of a dark brown (10YR3/3) loamy clay mottled with a dark yellowish brown (10YR4/6) loamy clay. It was overlain by Level 3, and it overlies Zone 42. This zone is located on the western edge of Zone 33, just west of the center of the test unit, and measures approximately 40 cm north south and 20 cm east-west. This entire small zone was retained for flotation. Artifacts recovered from the processed flotation sample include one tool fragment, two shell, grit and grog-tempered residual sherds, four chert flakes, and one tubular bone bead fragment.

### **Zone 36**

Zone 36 was a dark brown (10YR3/3) loamy clay located west of Zone 35 and beneath Level 3. Zone 36 comprised most of the western portion of the test unit, from the southwest corner north to approximately 60 cm east of the northwest corner. It was surrounded by Zones 33, 35, and 40. It is unknown what it lay over as the test unit was not completely excavated. Zone 36 may represent a pit, based on its depth (at least 85 cm) (tested with a soil probe). The soil core revealed a yellow (10YR7/8) clay beneath the bottom of Zone 36; this soil was very gleyed, indicating an anaerobic environment. Because this zone was so deep, in the interests of time it was not fully excavated so that other zones (41 and 42) could be investigated. Zone 36 contained a low-to-moderate artifact density. Artifacts recovered from this zone include one polished flat stone fragment, one broken grey chert drill, and two shell and grit-tempered residual sherds.

### **Zone 37**

Zone 37 was a small concentration of clay mixed with surrounding matrices that appeared to overlay a clay concentration. Zone 37 was a dark yellowish brown (10YR4/4) loamy clay. It was overlain by Zone 36, and also lay over additional Zone 36. This zone appeared below a thin layer of Zone 36. It may be related to some type of disturbance related to Zone 35. Zone 37 is located 30 cm west and 30 cm north of the southwest test unit corner. It was a shallow zone, and the entire zone was retained for flotation.

### **Zone 40**

Zone 40 was a pocket of clay located between Zones 33 and 36. It was composed of a dark yellowish brown (10YR3/6) clay. It was overlain by Zones 35 and 36, and

surrounded by Zones 33, 36, and 37; it was overlain by Zone 41. Zone 40 extends through the center of the test unit, from the southwest corner to the northeast edge, and was approximately 25 cm wide. Zone 40 appears to be the same as Zone 24 in Test Unit 9. It contained a moderate density of artifacts, including pottery, flakes, animal bone, and a chunky stone.

**Level 5**

Level 5 was a dark brown (10YR3/3) silty loam with some charcoal. It corresponds to Level 5 seen in TU 8W1/2 and 9. It contained a moderate density of artifacts. Two zones and one feature were excavated in Level 5.

**Zone 41**

Zone 41 was a brown (10YR3/4) silty loam midden soil, 10 cm thick. It was located at the eastern edge of the test unit. It is the upper portion of the midden that corresponds with Level 5 upper in TU 9. It was overlain by Zone 33 and surrounded by Zone 36. It overlay Zone 42 and was intruded into by Feature 218. It contained a moderate density of artifacts, including pottery, flakes and animal bones.

**Feature 218**

Feature 218 was a dark grayish brown (10YR4/2) silty clay loam located in the southeastern corner of the test unit within Zone 41. It is circular in shape and measures approximately 8 cm east-west and 10 cm north-south. It was overlain by Zone 33 and surrounded by Zone 41; it intruded into Zone 41 as well. This very shallow (3 cm) feature may have been a post; however, it is in the same location as Zone 34, so it likely represents the bottom of a previous shovel test.

**Zone 42**

Zone 42 was a dark midden zone overlaying the eastern two-thirds of the test unit. It extends across the entire southern portion of the test unit, and 55 cm across the northern portion, extending from the northeast corner. This layer was approximately 5 cm deep and toward the bottom of the zone the soil became yellower and more claylike. Pottery, flakes and animal bone fragments were recovered from this zone.

**Level 6 and Zone 45**

Level 6 was midden a dark yellowish brown (10YR4/6) silty loam mixed with subsoil, a dark brown (10YR3/3) silty loam. It was comprised of Zone 45, and it underlay Zone 42. It lay over subsoil. Although flakes and animal bone fragments were recovered from this level, it had a very low artifact content. Zone 45 was completely excavated to identify subsoil; however, the northwestern portion of the test unit was not entirely excavated due to time constraints. This unexcavated portion was composed of midden material. Excavation of TU 163E ceased with the completion of Zone 45 excavation.

Table 4 shows the stratigraphic sequence of Test Unit 163E.

<b>Table 4. Stratigraphic Sequence of Levels in Test Unit 163E</b>						
<b>Level</b>	<b>Depth</b>	<b>Munsell</b>	<b>Soil</b>	<b>Cultural</b>	<b>Feature</b>	<b>Artifact</b>



<b>Number</b>	<b>Below Datum</b>	<b>Color</b>	<b>Texture</b>	<b>Layer</b>	<b>Numbers (if present)</b>	<b>Density</b>
1	0-70 cm	10YR3/2 (plowzone)	Silty loam	Plowzone	None	Stripped, not screened
2	70-81 cm	7.5YR3/2	Silty clay loam	Structure 2 floor	None	moderate
3	80-90 cm	10YR3/3	Silty loam	Midden fill	None	Moderate
4	90-97 cm	10YR3/4	Silty loam	Midden fill	218	Moderate
5	97-109	10YR3/3	Silty loam	Midden	None	Moderate
6	109-112 cm	10YR3/3	Silty loam	Midden	215-217	low

## **Appendix C**

Ceramic Attribute Analysis

This appendix provides a brief description of the attributes recorded for this analysis and reported in this paper. Below is a description of each attribute and information about measurement and recordation of these attributes, if applicable. Attributes for paste and morphology were recorded; paste attributes are discussed first, followed by morphological attributes.

### **Paste Attributes**

Paste attributes included texture, hardness, temper, size, roundness, shape, color, and core type.

Texture: Texture was recorded based on an assessment of aplastic size and density within each sherd. Texture was recorded on a scale of 1-6, based on visual examination of a freshly broken cross section of the sherd:

- 1 fine
- 2 medium fine
- 3 medium
- 4 medium coarse
- 5 coarse
- 6 very coarse

Hardness: Hardness was measured using the Mohs hardness scale, by scratching with reference minerals on a fresh, broken surface of the sherd

Temper: Aplastic inclusions, or temper, was recorded for each sherd based on a visual examination of a freshly broken cross section. Primary temper, or Material 1, was the most common aplastic material observed in the sherd. A total of six aplastic materials were identified from this collection, and these were coded as follows:

- 1 shell
- 2 grog
- 3 sand
- 4 grit
- 5 limestone
- 6 quartz

Maximum Aplastic Size: Aplastic sizes were recorded with reference to the Wentworth scale (see below). Maximum sizes were recorded and used in the analysis. Unique occurrences of very large grains are not included under maximum aplastic size.

#### Wentworth scale

Fine pebble	4-8 mm
Granule	2-4 mm
Very coarse sand	1-2 mm

Coarse sand	0.5-1 mm
Medium sand	0.25-0.5 mm
Fine sand	0.125-0.25 mm
Very fine sand	0.0625-0.125 mm
Silt	0.004-0.0625 mm
Clay	<0.004 mm

Aplastic Density: Aplastic density was recorded as a volume percent of aplastic visible at 10X magnification (measured using a hand lens), estimated within a 5% range by reference to charts reproduced in Terry and Chilingar 1955:229-234).

Aplastic Roundness: Aplastic roundness was recorded using terms for degree of rounding of grains as seen with a 10X hand lens, based on pictures in Powers (1953:118). These were coded as follows:

- 1 very angular
- 2 angular
- 3 sub-angular
- 4 sub-rounded
- 5 rounded
- 6 well-rounded

Aplastic Shape: Shape of the identified aplastics was classified according to shapes of pebbles published by Zingg (1935). Shape was identified using a 10X hand lens. These were coded as follows:

- 1 oblate
- 2 bladed
- 3 prolate
- 4 equant

Color: Munsell color determinations of paste color were made on freshly broken cross sections. In the presence of firing, cores or color differences between the interior or exterior walls of the sherd, paste color records the color nearest the exterior surface of the sherd. The Munsell colors were recorded as using the Munsell designations, where the first designation (e.g., 10YR) indicates the hue, the second (i.e., 3) indicates the value, and the third (i.e./1) indicates the chroma.

Color was recorded for interior and exterior surfaces, as well as core. In some cases, multiple colors for interior and exterior surfaces and cores were recorded, if multiple colors for these areas were present and distinguishable.

Core Type: Core type was measured using Rye's (1981:116) measurement of different core types. Core type was determined by examining a freshly broken edge of sherd in profile. These types were coded as follows:

### Core Type (Rye 1981: 116)

- 1 oxidized, no core (organics not originally present)
- 2 oxidized, no core (organics may/may not have been originally present)
- 3 oxidized, organics originally present, diffuse core margins
- 4 oxidized, organics originally present, diffuse core margins (core more diffuse and thinner than 3)
- 5 reduced, organics not originally present, diffuse core margin
- 6 reduced, organics not originally present; no “core”
- 7 reduced, organics originally present, diffuse core margin
- 8 reduced, organics may/may not originally present, no core
- 9 reduced, cooled rapidly in air, sharp core margin
- 10 reduced, cooled rapidly in air, sharp core margin
- 11 reduced, cooled rapidly in air, reduced again, cooled rapidly in air, sharp core margins; “double core”

### **Morphological Attributes**

Morphological attributes included the recordation of attributes of basic form, lip form, orifice diameter, sherd thickness, angle of rim and shoulder, and surface treatment. For basic form and surface treatment, the type was recorded as a nominal variable (e.g., plate or bowl for form, cordmarked or smoothed for surface treatment). For lip form, each specific sub-variable (orientation, shape, modification, and appendage [if present]) contained sub-types, and these were given a numerical designation. Orifice and throat diameter were recorded in centimeters, wall and lip thickness in millimeters, and rim and shoulder angle in degrees.

Vessel Form: Vessel Form was identified following Rice (2007) and based on a height to diameter ratio, which were used as general guidelines to allow for variation within vessel form specific to this collection. Four types of forms were recognized in this collection: bowls, jars, plates, and pans. Because the number of identified specimens in the latter two categories were small, and because of the similarity in vessel form (and probably use) of these two categories, plates and pans were combined as one category, plate/pan.

Bowls: vessels having a height:diameter ratio between 1:3 and 1:1; can be as deep as they are tall

Jars: vessels having a height:diameter ratio of ; tall narrow forms, tend to be large and used for storage

Plates/Pans: vessels having a height:diameter ratio of less than 1:5. These forms are not always absolutely flat, but are more open in terms of orifice diameter than either bowls or jars

Lip Forms: Lip forms are characterized by a combination of attributes, including lip orientation, shape, and modification

Lip Orientation: lip orientation refers to how the lip is oriented with regard to the rest of the vessel body. Direct lips contain no angle or curvature; everted lips angle away from the body (greater than 90° angle); inverted lips angle toward the body (less than 90° angle). These were coded as follows:

- 1 direct
- 2 everted
- 3 inverted
- 8 other
- 9 indeterminate

Lip Shape: Lip shape refers to the shape as opposed to the orientation of the actual lip. Lip shapes include rounded, tapered (tapering to an interior or exterior), and beveled, which are angular and sharp tapers. Beveled lip shapes can be flat, or can bevel toward the interior or exterior. Lip shapes were coded as follows:

- 1 rounded
- 2 tapered
- 3 beveled
- 8 other
- 9 indeterminate

Lip Modification: Lip modification refers to any additions or changes made to the lip itself. These can include thickened, which can also further include categories of interior, exterior, or symmetrical; bolstered, which includes a more delineated joint to the rest of the rim, and can be interior, exterior, or symmetrical; folded, where the lip is folded over the rim, and is sometimes identifiable for a crack where the folded lip joins the rim; and pinched, where the band is pinched together creating a series of modifications to the band. These were coded as follows:

- 1 thickened
- 2 bolstered
- 3 folded
- 4 pinched
- 5 other
- 9 indeterminate

Appendages: Appendages refer to aplastic decorations applied to the pot, although they can also be formed from it (i.e., a handle). Appendages include handles; lugs, which are flat handles on the sides of a vessel used to grasp the vessel with one's fingers or hands; castellations, which are points along the lip; supports, which are not usually on the rims themselves; and nodes, or circular ceramic appliqués affixed to the vessel wall (body, rim, or both). These were coded as follows:

- 1 handle
- 2 lug

- 3      castellations
- 4      supports
- 5      nodes
- 8      other
- 9      indeterminate

### **Metric Morphological Attributes**

Orifice Diameter: Orifice diameters of vessels were measured to the nearest centimeter by reference to concentric circles inscribed on a diameter gauge. Small sherds, however, could not be measured in this way (sherds less than 8° in arc). Orifice diameter measurement provides the radius of the curvature for a particular arc, which is then doubled to obtain a diameter estimate.

Lip Thickness: The maximum thickness of the vessel lip or rim was measured in tenths of millimeters using a vernier caliper

Wall or Body Thickness: The maximum thickness of vessel body was measured in tenths of millimeters using a vernier caliper.

Lip Width: Lip width was measured as the maximum distance from the endpoint of the lip to the corner point or point of maximum curvature where the rim joins the vessel neck or body.

Rim Angle: The rim angle was measured as the angle in degrees or the intersection of the line of the exterior vessel wall immediately below the lip with the horizontal. Unrestricted forms are therefore characterized by acute angles and restricted forms by obtuse angles.

Shoulder angle: The angle in degrees between the lines of the exterior surfaces of the neck and upper body at the vessel throat. This measurement was taken on necked forms only.

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- 2004-2005     Research Assistant, Kentucky Archaeological Survey, Lexington, KY
- 2001-2004     Principal Investigator, Gray & Pape, Inc., Richmond, VA
- 2000-2001     Research Associate, Savannah River Archaeological Research Program,  
New Ellenton, SC
- 1998-2000     Principal Investigator, Louis Berger Cultural Resources Group, Richmond,  
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- 1997-1998     Assistant Curator, Fort Frederica National Park Service contract, Florida  
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## Publications

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