CATAWBA HOUSEHOLD VARIATION IN THE LATE EIGHTEENTH CENTURY

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ABSTRACT

David James Cranford: Catawba Household Variation in the Late Eighteenth Century
(Under the direction of Vincas P. Steponaitis)

This dissertation is an archaeological investigation of Catawba households occupied between ca. 1762 and 1800. The focus of this study is to identify the material signatures of Catawba household life and investigate the strategies Catawba people pursued during the late 18th century and how they changed through time. I examine archaeological data from three Catawba domestic sites, Old Town (RLA-SoC 634), Ayers Town (38YK534), and Nisbet (RLA-SoC 638), to identify patterns of household variability within and between these communities at multiple scales. I rely on three central aspects of household archaeological data: (1) the organization and layout of architectural remains and activity areas, (2) the patterned distribution of material culture, particularly Catawba-made colonoware ceramics, (3) and variation in Catawba foodways.

By combining a critical examination of historical and ethnohistorical documentation with archaeological analysis, I demonstrate that Catawba households, far from being homogenous entities, experimented with a variety of creative solutions that contributed to different material outcomes for households at each site and even within the site. I argue that the diversity of household strategies reflects both the presence of persistent internal tribal divisions that produced discrete communities of practice and a pragmatic approach to economic and cultural survival in which individuals, notably Catawba women, redeployed traditional skills and knowledge to novel economic niches. This analysis of Catawba household variability between ca. 1760 and

1800 is informed by, and builds on, previous archaeological studies of historic Catawba lifeways immediately preceding and following this period. These studies describe starkly different lifeways and cultural practices that belie the direct cultural continuity and relatively short temporal interval between them. The present work attempts to bridge the gap between these seemingly disparate communities.

For Beth and Jesse

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CHAPTER 1: INTRODUCTION

The year 1759 was a watershed moment for the Catawba Nation marking the near collapse of this small but fierce southeastern Native society. In October of 1759, the revered Catawba chief, King Hagler, sent a letter to the colonial Royal Governor of South Carolina William H. Lyttelton reassuring him of the Catawba's continued support for the British in the French and Indian War. In the same letter, Hagler also acknowledged that some of his returning warriors had brought back with them a "bad disorder" that he identified as smallpox (Merrell 1989:fig. 6). Hagler was "determined to keep our people togeather [sic] as much as possible," but little did he know the scale of the impending epidemic that would erupt. In the following months, a staggering 50-75% of the Nation's population died. So severe was the loss of life, an observer noted that "the woods were offensive with the dead bodies of the Indians; and dogs, wolves, and vultures were so busy, for months, in banqueting on them, that they would scarcely retreat from their prey, when approached by any one" (Schoolcraft 1853:295). Overwhelmed by the enormity of death around them, the survivors abandoned their homes and towns around Nation Ford and retreated into the woods and surrounding countryside. In the months and years that followed, King Hagler eventually pulled the remnants of his people together and led a return to their ancestral lands in the lower Catawba River Valley. Here, they persisted and ultimately survived, but they were a changed people.

This tragic and traumatic episode permanently altered the composition and character of this community, but it was just one event within the context of a broader colonial experience. The Catawba Nation had only just emerged as a coherent political entity during the first half of

the eighteenth century. This small but potent militaristic confederacy comprised as many as 20 distinct Indian communities from the Carolina piedmont and beyond. The Catawba's geographic position in the South Carolina backcountry, as well as their political and military prowess, led to a strong alliance with the British that for a time elevated them to significant players on the continental stage. Eventually the effects of multiple wars and near-constant threats of violence, several catastrophic waves of smallpox and other Old World diseases, food shortages and easy access to alcohol, numerous settlement relocations, and increasing numbers of settlers encroaching on tribal lands took their toll on the Nation. By 1820, the Catawba had become a largely ignored community living on the margins of the South Carolina backcountry composed of only a handful of families, known mostly as transient landlords and itinerant potters.

What happened in the intervening 60 or so years between 1760 and 1820? How did the Catawba respond and adjust to the pressures brought on by severe population loss, encroaching white settlers, emerging capitalist markets, and rapidly changing geopolitics? Did all Catawbas respond in the same ways? What strategies did the Catawba employ and to what extent were these successful? How did these changes affect the everyday lived-experience of Catawba people? Why did the Catawba Nation survive when so many other southeastern Native communities did not?

Until relatively recently, answers to these kinds of questions have been informed almost exclusively by the historical record. Despite offering inherently fragmented, one-sided, and incomplete snapshots of the past, the surprisingly rich colonial record of North America has given historians and ethnohistorians the means to construct compelling narratives of the past. In fact, much of what we know about the emergence and development of the Catawba Nation is derived from their work (Baker 1975; Blumer 2007; Brown 1966; Hudson 1970; Merrell 1989).

However, these historical narratives provide inadequate and at times inaccurate understandings of the past, particularly of Native American communities. First, historical documents often give biased, one-sided perspectives of happenings in the past. The majority of historical documents related to the Catawba, and most Native groups for that matter, were produced by and for non-Natives and rarely provide insight into the agency of these communities or their members. Second, documents typically reflect extremely brief encounters with one or just a few Catawba individuals, most commonly Catawba leaders or warriors who were generally men. This means that Catawba women and children are in many respects invisible and often overlooked in historical narratives. Third, historical documents tend to record major events, but rarely preserve details about how Native peoples responded to those events. As important as individual events, such as a smallpox epidemic, are to the trajectory of a particular group the political and economic strategies enacted in everyday practice are far more important to understanding how societies deal with those events.

Archaeological investigation is one potential means to address the absence of certain types and resolutions of data in the documentary record and has been used effectively to examine the complex transformations many Native peoples experienced as a result of the colonial encounter. By examining the intersections between physical space, material culture, and historical inference, historical archaeologists have been able to construct more inclusive and compelling narratives about Native communities in the past (Rubertone 2000).

The persistence of the Catawba Nation, I argue, is a product of creative economic, political, and cultural strategies on the part of individuals, households, and the Catawba community as a whole. While individuals are notoriously difficult to distinguish in archaeological assemblages, their collective, lived experiences as members of *households,* which

are themselves embedded in broader communities of practice, are particularly well-suited to archaeological investigations. Scholars have long recognized the household as one of the most basic and universal institutions of human society and a productive unit of analysis for archaeology (Barile and Brandon 2004; Blanton 1994; Hirth 1993; Lightfoot et al. 1998; Marcoux 2008; Muller 1997; Pluckhahn 2010; Riggs 1999; Wilk and Netting 1984; Wilk and Rathje 1982). Considering this, I take the household as the basic unit of analysis for this study. Here, households are not just represented by the physical form of a dwelling, but include the accumulated residues and products of everyday life, which are a reflection of the complex cultural values, ideas, identities, strategies, etc., that create a community.

Households were no doubt always important facets of Catawba identity, but perhaps more so in the aftermath of the 1759 demographic crash which likely disrupted traditional and community-scale institutions and robbed the Nation of valuable social and cultural capital. I argue that Catawba households were vital to the ultimate success of the Catawba Nation because it was within the context of households where daily activities and practices served to not only maintain and reinforce social and cultural norms, but also provided an arena to experiment with new economic and political strategies (following Bourdieu 1977). I suggest that by examining Catawba household organization, production, and variability it will be possible to understand better how the Catawba Nation coped with and responded to social, economic, and political changes that took place during the late eighteenth century.

Theoretical Frameworks for Understanding Catawba Household Variability

Scholars have long recognized the household as a basic unit of human society and a productive unit of analysis within anthropology. The term has been notoriously difficult to define, though many have agreed that households are a social formation that engages in some combination of production, distribution, transmission, coresidence, and social as well as physical

reproduction (Ashmore and Wilk 1988; Netting et al. 1984; Wilk and Rathje 1982). While this definition is necessarily broad in order to account for the range of known ethnographic and historical forms, it can present challenges for archaeologists who, as it has been pointed out, do not actually excavate households, but rather the remains of dwellings (Wilk and Rathje 1982). Ethnographic examples of households remind us that not all residences are households, not all households coreside, and not all members of a household are kin, demonstrating that coresidence, kinship, and households are not always neatly correlated.

Acknowledging this intrinsic problem, I accept Nash's (2009:224) archaeologically pragmatic definition of household as being a "…coresidential group that used the occupation surface, features, and the artifact assemblage of a dwelling," with dwelling referring to "one or more structures and includes indoor and outdoor space." Archaeologists concerned with households have also recognized the importance of considering the effects of occupation span and dates of occupation, household size and structure function, household lifecycle, and various formation processes (Wilson 2008:5).

Despite these potential problems, archaeologists working in the Southeast have successfully used the household concept to address various dimensions of household variability such as production and consumption, status differentiation, agency and power, gender, identity and ethnicity, among others (Pluckhahn 2010; e.g., Marcoux 2008; Riggs 1999; Wesson 2008). Many of these dimensions of household variability can be difficult to distinguish in the archaeological record principally because they are very often interconnected and their material expressions are rarely mutually exclusive.

Implementing a Household Archaeological Approach

This dissertation is guided by several specific research questions:

1. How were Catawba households materialized in the archaeological record during the late eighteenth century?
2. What is the range of variation that existed between households within individual communities/sites and what is the range of activities associated with them?
3. How did households change through time and what does this suggest about changes in the Catawba Nation more broadly?

The focus of this study is to investigate how the various strategies pursued by Catawba people in the late eighteenth century are manifest in the archaeological record and how they changed through time. To do this, I combine ethnohistoric and documentary evidence with archaeological data from several late eighteenth century Catawba domestic sites to identify patterns of household variability within and between these communities at multiple scales. I focus on three central aspects of household archaeological data: (1) the organization and layout of architectural remains and activity areas, (2) the patterned distribution of material culture, particularly Catawba-made colonoware ceramics, (3) and variation in Catawba foodways. I demonstrate that individual Catawba households pursued and experimented with multiple and differing strategies that varied through time and between divisions within the community.

While the constellations of architectural features and the spaces that surround them form only part of a wider cultural landscape in which households existed and functioned to meet their basic needs and to make meaning of the world around them, these broader cultural landscapes can be difficult for archaeologists to document and interpret. The physical remains of structures and activity areas are often the only evidence of the complex social relationships associated with a household and its members. Dwellings (*sensu* Nash 2009) are reflections of the cultural ideas

and norms within a community as well as mediums for communication and performance that are expressed both in the types of structures that are constructed, their arrangement, and how they are used. I would add that it is productive to remember that households, even those dispersed on the landscape, are embedded within communities that are defined as the complex interplay between people, identity, place and material culture.

A Brief Historical and Cultural Overview of the Catawba Nation

Before discussing the archaeological evidence for Catawba household organization in the following chapters, it is worth briefly summarizing the historical trajectory of the Catawba Nation by highlighting the major events and themes related to the formation, coalescence, and persistence of this community. My intention here is not to provide a comprehensive accounting of Catawba history, which has been expertly done elsewhere (e.g., Brown 1966; Beck 2013; Hudson 1970; Merrell 1986), but rather to provide a historical overview for the ethnohistorical documents and archaeological data discussed in later chapters.

Derivations of the name "Catawba" have found their way into the documentary record for nearly 450 years, though their usage and meaning has changed drastically over that time (Fitts 2006). The emergence of the political entity that existed in the late eighteenth century as the Catawba Nation is directly tied to the pre-colonial and colonial histories of the Southeast and has its beginnings with the various Spanish entradas of the sixteenth century (Beck 2013; Davis and Riggs 2004). Nearly a century after these short-lived Spanish colonial attempts, English explorers and traders (e.g., Lederer 1672; Lawson 1967 [1709]) moved into the area, by which time extensive demographic and population shifts were already taking place in the Catawba Valley (Beck 2009; Davis 2002; Moore 2002). With the arrival of traders from Virginia and South Carolina in the late seventeenth century, a time of largely sustained interaction between English and Catawba-related groups began and lasted until the American Revolution. Relations

with South Carolina continued until 1840 when Catawba reservation lands were ceded to the State of South Carolina.

This span of time can be divided roughly into six periods (following Davis and Riggs 2004). The early English Contact period (c. 1675-1715) was marked by intensive colonial trade centered around the lucrative deerskin and slave trades (Gallay 2002). When John Lawson visited the Catawba-Wateree Valley in 1701, he encountered large native populations such as the Sugerees, Waxhaws, Kadapaus, and Esaws; the latter described as "a very large Nation" living along the Great Trading Path (Lawson 1967[1709]:46). Tensions between traders, colonial governments, and Native groups eventually culminated in a number of conflicts including the Tuscarora, Yamasee, and Cheraw Wars, which, coupled with periodic waves of disease and raids by hostile northern tribes, resulted in the near abandonment of the Carolina piedmont by 1720 and accelerated the process of consolidation and coalescence among the various Native groups living there (Davis 2002).

During the Coalescent period (1715-1759), many of the Siouan-speaking groups that fled the North Carolina interior eventually found refuge among the Catawba/Esaw settlements. While some of these refugee groups were likely sufficiently diminished so as to be simply absorbed by their host communities, others retained some measure of autonomy and cohesion. These groups banded together and a confederacy developed with 'Catawba' emerging as the dominant collective identity. By 1743 the Catawba Nation, as it came to be known, was described as having more than 20 dialects represented with "Katahba" as the standard vernacular (Adair 2005[1775]:246). Through a strategy of consolidation and coalescence, ethnic distinctions began to fade as these groups projected a collective political identity, though even as late as 1756, Catawba town names (e.g., Nassaw, Weyapee, Sucah, Noostee, Cherraw) suggest that some

aspects of ethnic identity persisted and were being maintained. The Catawba's close trade relations with English colonists in Charleston helped forge a military alliance with the British who deployed Catawba warriors to various battles and used their settlements as a buffer from marauding northern tribes. By the mid-eighteenth century, the Catawba Nation struggled to maintain their power and influence over the Carolina trade due to their declining population from violence and disease as well as changing dynamics within colonial trade.

In 1759, Catawba warriors returning home from battles associated with the Seven Years War brought with them small pox. The ensuing epidemic claimed more than half of the Nation's population (Brown 1966; Merrell 1989; McReynolds 2004). By all accounts, this event was a watershed moment for the tribe. Many of the survivors retreated and regrouped at Pine Tree Hill, now present-day Camden, SC. With their population already greatly reduced and threatened by an ever-growing number of land-hungry white settlers, the Catawbas agreed in 1760 to the Treaty of Pine Tree Hill, in which they abandoned their claim to their ancestral territory in return for a guaranteed 15-mile square reservation (Merrell 1989). With the promise of guaranteed title to a reservation on their ancestral lands, the remnants of the Nation moved back, which marks the beginning of the Late Colonial period (c. 1760-1775).

As the tribe established new settlements, the identities associated with the six towns that had comprised the Nation just a couple years before disappeared from historical records. In their place, the Catawba established at least two new villages that likely also included a dispersed patchwork of surrounding farmsteads. With their numbers greatly reduced, the Catawba's influence and usefulness to the colony of South Carolina also diminished which shaped English attitudes and interactions towards the Catawbas. One result was that the diplomatic gifts from Charleston that had once been an expected and depended-upon source of income started to dry

up as South Carolina officials increasingly saw the Catawbas as beggars and their unannounced visits to acquire "presents" as a financial burden and a nuisance (Merrell 1982:523-25). During this period, Catawba households gradually began to rely less heavily on subsistence horticulture and the community's dependency on European goods and the cash economy increased, in turn necessitating new sources of income.

A growing demand for inexpensive alternatives to English ceramics by the growing population of Scots-Irish settlers living on or near the reservation led many Catawba potters, probably mostly women, to produce copies or interpretations of common English forms such as cups and soup plates, as well as new decorative techniques like painted designs using colored sealing wax (Riggs 2010; Riggs et al. 2006). While the adoption of these new forms and styles appears to have happened extremely quickly, the reliance on pottery production as an economic strategy was probably far more gradual. By the 1800s, however, Catawba potters had emerged as itinerant craftsmen traveling as far away as Charleston to sell their wares (Plane 2011). Another strategy that emerged during the Late Colonial period and slowly became an important economic tool was the leasing of reservation land to an ever-growing number of white settlers (Pettus 2005). Land lease payments provided an additional source of income, though records from the time suggest that collecting on rent was sometimes difficult (Brown 1966:296). The Catawbas continued to lease tracts of their land until 1840 when the Catawba Nation signed the Treaty of Nation Ford, by which point one observer noted that almost the entire reservation had been leased out to white settlers (Mills 1826).

At the beginning of the Revolutionary Period (1776-1781), the Catawba Nation broke their long-standing political and military alliance with Britain in favor of the American patriots. The Catawbas served as soldiers and scouts for the rebels and even used their reservation lands

to hide and shelter General Sumter and 500 of his men in 1780. In mid-1780, however, the Catawba Nation was forced to flee to Virginia as British forces under Lord Cornwallis marched through their towns, destroying everything (Brown 1966:270). They returned to their homeland in the fall of 1781 following the Battle of Yorktown. The fact that Catawba soldiers fought alongside South Carolina troops from the very onset of the war proved fruitful in the long run as the newly formed state of South Carolina honored Catawba rights, privileges, and claims to their reservation lands.

The beginning of the early Federal period (1781-1820) is marked by the Nation's return from Virginia, where many Catawba families had fled to escape the advancing British forces during the previous year. The shift away from subsistence horticulture toward the dependence on the cash economy through pottery sales and land lease payments continued during this period. It is also at this time that we have the first references to Catawba settlements on the west side of the Catawba River (Feltman 1853). Before this period, Catawbas had resided exclusively on the eastern banks of the river (Brown 1966), and the political elite within Catawba society remained on the east side until about 1820, perhaps represented by Old Town and the later New Town settlement (Liston 1797; Jones 1815). A 1797 account indicates that the Catawba Nation was organized into 3 main towns, a possible indication that some level of internal division existed. It remains unclear, however, if these segments of Catawba society reflect deep-rooted divisions or more recent products of differential engagement with Euro-American society.

During the Late Reservation period (1820-1840), the Catawba Nation was perceived by outside observers as in utter decline and nearing certain extinction (Mills 1826). By 1820, the majority of Catawbas appeared to be living on the west side of the River, continuing to survive as itinerant potters, landlords, and day laborers (Mills 1826). Two decades later, Catawba leaders

were pressured into signing away the rights to their reservation for a small sum of cash and the promise of a new reservation among the Cherokee; a promise that never came to fruition. Despite predictions of their inevitable and impending demise, the Catawba Nation persisted and today are the only Federally recognized Indian community in South Carolina.

To be sure, 1759 was a defining and transformational year for the Catawba Nation, but it was not the death knell that many observers at the time thought it to be. Nor was it the last substantial threat to their existence as an Indian people. Though diminished, the community's persistence and survival into the present day underscores the resiliency of the Catawba people and their ability to find and enact creative political, economic, and cultural solutions in everyday life. The Catawba's establishment of new towns near the mouth of Twelvemile Creek around 1763 represents an important archaeological horizon that can be used to document the unique ways this community pulled itself back from the brink.

Organization of the Study

This study is organized into seven chapters. In Chapter 2, I discuss the ethnohistorical evidence for Catawba social organization during the late eighteenth century. I explore how demographic changes, settlement organization, kinship, and other social factors affected household organization. Chapter 3 describes the University of North Carolina's excavations at the three Catawba town sites that form the core of this study: the Nisbet site, Old Town, and Ayers Town. For each site, I present descriptions of geographic and topographic setting, excavation history, and occupation history. The Ayers Town excavations have been previously reported (Davis et al. 2015) and will only be summarized here.

Chapters 4-6 present the primary data used to analyze Catawba households. In Chapter 4, I begin by summarizing ethnohistoric and documentary descriptions of architectural types used by Catawba and affiliated groups and then review relevant archaeological evidence of domestic

architecture from the Carolina Piedmont as well as similar colonial contexts. I then use architectural and spatial evidence from Old Town, Ayers Town, and Nisbet to identify specific domestic structures and activity areas that constitute individual household complexes at each site. Finally, I compare these household complexes and consider the implications of different architectural arrangements on the structure of social organization within the Catawba Nation.

Chapter 5 considers what material culture can reveal about Catawba household strategies and how uniform these strategies were within and between sites. I start by summarizing the material assemblages recovered from each site. I follow Davis et al. (2015) by using a modified organizational framework pioneered by Stanley South (1977) that groups classes of artifacts based on their inferred function. In the second part of the chapter, I focus primarily on Catawba-made colonoware pottery and pottery production tools in order to evaluate the extent to which each household was involved in colonoware production.

In Chapter 6, I discuss the distribution of plant and animal remains recovered from the various household units at Old Town and Ayers Town and interpret the differences in foodways patterns among household within and between sites. First, the methods and results of archaeobotantical and archaeofaunal analyses are summarized. Though these data have been previously reported (Blewitt 2016; Fitts 2015; Whyte 2015), I offer a reanalysis using the household units I define in Chapter 4. I find new patterns that suggest Catawba household foodways were not uniformly similar.

Finally, in Chapter 7 I summarize the results and interpretations from the preceding chapters and examine the changing household patterns in regional and temporal context.

CHAPTER 2: DEFINING THE CATAWBA NATION

This chapter introduces the Catawba Nation as a social and political entity and discusses how changes to social structures affected the context in which households were established and maintained throughout the late eighteenth century. In this chapter, I rely on historical and ethnohistorical sources to reconstruct, as much as possible, socio-political organization of the Catawba community as it was on the eve of 1759 and how the community changed in the following decades. What were the long-term effects of the Catawba Nation's strategy of political consolidation and coalescence? To what extent did ethno-linguistic diversity, kinship and descent patterns, and severe demographic declines play a role in the reorganization of the Catawba community after 1760? How may these things have affected the way households were reconstituted and maintained?

That Catawba society underwent substantial changes throughout the eighteenth century is perhaps not surprising to anyone with an awareness of indigenous colonial histories, but documenting the nature of those changes is far from straightforward. Despite experiencing some of the earliest episodes of contact as well as sustained interactions with Europeans of almost any North American Native group, the Catawba did not see detailed ethnographic fieldwork until the late nineteenth and early twentieth centuries (Mooney 1894; Speck 1913, 1934, 1938, 1939, 1944, 1946; Swanton 1946). The Catawba community that Speck and others encountered had changed a great deal from what it looked like at the end of the eighteenth century, making these sources important as snapshots of a particular historic moment but not particularly useful for defining Catawba society during the period of interest for this study.

While utilizing source material from the late eighteenth century and earlier provides more temporally appropriate snapshots of the Catawba, these documents rarely recorded details about their social-political organization, cultural rules of kinship, or household strategies. Topics such as these were likely of little interest to most traders, colonial officials, and surrounding white settlers. The nature of most interactions with Catawba people, being generally brief encounters and heavily skewed toward male-dominated activities, also limited how much these topics were visible to white observers. Consequently, the documents from this period of Catawba history, while still incredibly valuable, must be read with more caution and require more effort to properly interpret.

The concept of coalescence is particularly important for understanding late eighteenth century Catawba community identity and social organization. Identity is one of the most difficult dimensions of household variability to distinguish in the archaeological record due to the complicated and intrinsic interrelatedness between material culture and identity, though attempts to detect it have been successful in some cases (Diaz-Andreu et al. 2005; Jones 1997; Shennan 1994). Historical archaeologists in particular have dealt with these issues especially when idealized racial and ethnic categories become blurred. Several models have been proposed that attempt to explain the mixing, blending, and/or construction of whole new ethnic/national identities, including ethnogenesis, creolization, fusion, hybridity, coalescence, and parallel existence (Casella and Fowler 2005; Deagan 1983; Ferguson 1992; Groover 2000; Voss 2008). A key aspect of many of these approaches is the explicit recognition that the meaning of material culture, like identity, is often plural, relational, and dynamic. Coalescence, one possible mechanism of ethnogenesis, is particularly useful in understanding the development and

historical trajectory of many historic southeastern Native communities, including the Catawba Nation during the eighteenth century.

Though the term coalescent society has been used to describe particular kinds of social formations that arose in both prehistoric and colonial contexts, it has been most commonly applied to Southeastern polities of the seventeenth and eighteenth centuries that formed "from remnant or refugee groups under pressure of demographic collapse, especially in the English-dominated areas under the pressure of the slave trade" (Kowalewski 2006:95; Ethridge and Hudson 2002; Galloway 1995; Hickerson 1997). The disruptive effects of epidemic diseases, colonial competition, the deerskin trade, and widespread slave raiding have been cited as forces that created a "shatter zone" throughout the eastern woodlands and contributed to large-scale population migrations, extinctions, and new coalescent societies (Ethridge 2006; 2009; Marcoux 2010:20). Kowalewski (2006:104) argues that several conditions typically coincide with coalescence including "[1] abandonment of large areas, [2] consolidation of populations under duress into new towns, [3] changes in the technology and social organization of production, [4] the ability to absorb linguistically distinct groups and [5] the adoption of new integrative and governing institutions". While the concept of coalescence applies most directly to community-scale transformations, I suggest that it can be integrated within a comprehensive household archaeological approach.

While Kowalewski's description of coalescence is presented as a singular process, I suggest that at least within the historical context of the Catawba, it is possible to understand the process of coalescence as having three phases: political integration, confederacy, and household coalescence. Many of the communities that eventually coalesced into the Catawba Nation were distantly related to one another and shared a deep ethno-linguistic heritage that likely facilitated

at least periodic interactions throughout prehistory. The political ties between some Piedmont communities can be traced to various Mississippian polities, such as Cofitachequi, Joara, and Guatari, that linked the piedmont in a system of regional tributary hierarchies (Beck 2013). During the political integration phase, roughly corresponding to the English Contact period (c. 1675-1715), the longstanding networks of political and social alliances were maintained and reaffirmed following the decline of Mississippian polities in the Carolina piedmont. This phase of Catawba coalescence was defined by interaction between politically autonomous communities or tribes. While some tribes may have been small enough to only constitute a single town, others appeared to represent several bands that resided in numerous towns. Evidence of this political integration can be seen on the deerskin map (Figure 2.1) presented to Governor Nicholson in 1721; it shows, from a Native perspective, the political landscape in relation to the Nasaw/Esaw (Catawba) even though many of the groups depicted were still widely spaced geographically and politically autonomous.

These connections likely became critically important in the aftermath of the Yamasee War of 1715 when Native groups evacuated the piedmont, many retreating to the relative safety of the Catawba/Esaw settlements along the lower Catawba River. This phase mostly closely resembles Kowalewski's use of coalescence so it comes as no surprise that it corresponds to what Davis and Riggs (2004) describe as the Coalescent period (1715-1759). The geographic consolidation of politically allied groups around the core Catawba settlements is what I call the confederacy phase and is marked by the importance of the town as the defining corporate unit of the Catawba polity. While smaller groups likely integrated into existing Catawba settlements, some of the larger refugee groups established their own towns, as seen in John Evans' 1756 map (Figure 2.2). Despite retaining tribal affiliations, these towns became increasingly incorporated

into the emergent Catawba political identity. The geographic proximity of the confederated groups would have facilitated even greater interaction among them, leading to blurring of some ethnic distinctions though it may have also served to sharpen others. Certain cultural institutions would have needed to be relaxed, modified, or replaced altogether in order to successfully integrate the influx of new groups into the existing Esaw/Catawba community. This may have included political networks, access to agricultural and hunting lands, marriage and residence customs, among others. The fact that some incoming communities (e.g., Charraw) maintained their own towns may have allowed some elements of domestic life to remain distinctive for longer.

Catawba towns do not seem to have been organized as formally as other southeastern tribes (e.g., Creek, Cherokee, Chickasaw, or Choctaw) which were organized around particular types of shared public ceremonial facilities including the town house, plaza, square grounds, and ball grounds (Ethridge 2003; Galloway and Kidwell 2004; Knight 1990, 2010; Piker 2004; Rodning 2004). Although Spanish explorers Hernanado de Soto and Juan Pardo observed public architecture within towns in the Catawba homeland during the sixteenth century, by the mid-eighteenth century Catawba towns functioned without them. The absence of large public architecture on later Catawba sites signals that the institutions that relied on these types of constructions no longer functioned in the same way within Catawba society or even existed at all by this point. It is also important to consider that some of the Catawba's constituent groups did not descend from Mississippian polities and likely never used the types of public facilities Soto and Pardo observed. The importance of town identities can be seen in various commissions given

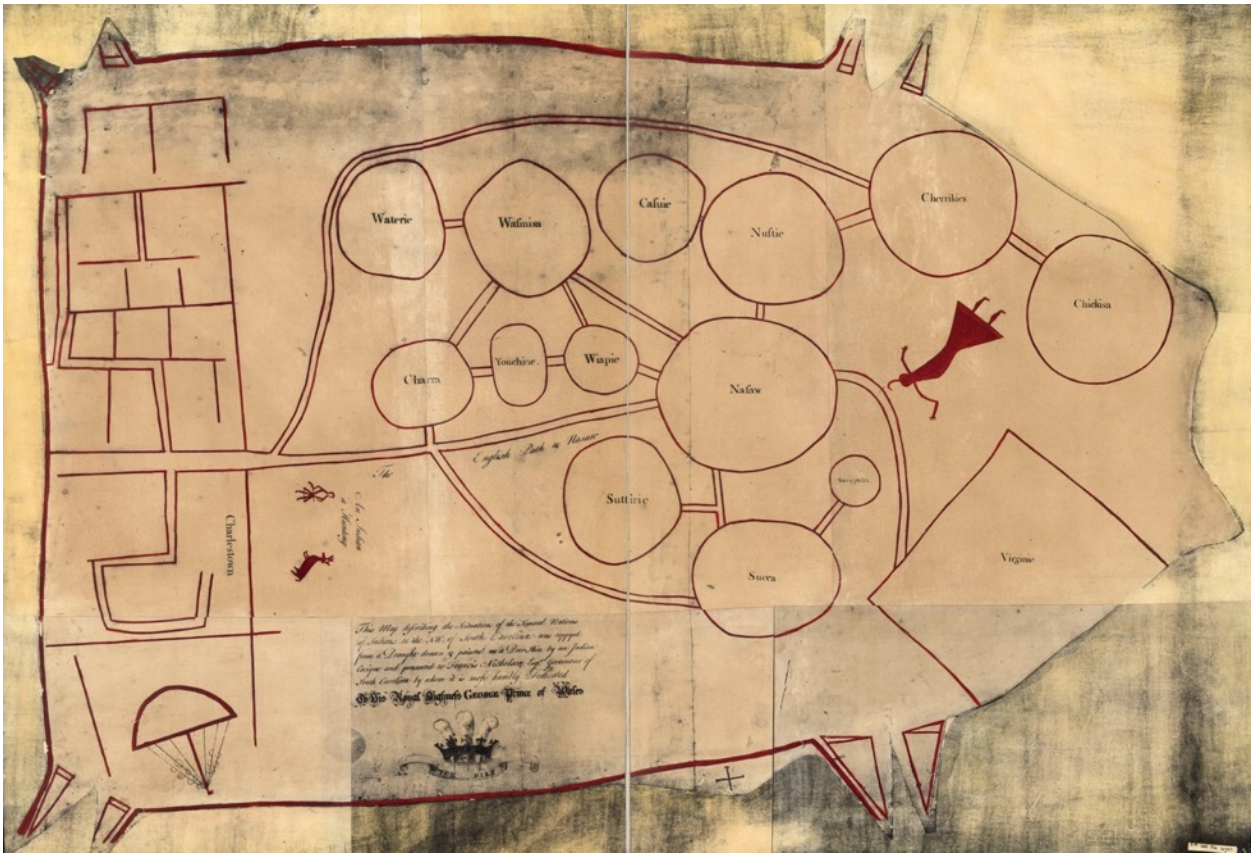


Figure 2.1. Copy of the Catawba deerskin map (Anonymous ca. 1721, Library of Congress photo, G3860 1724 .M2 1929).

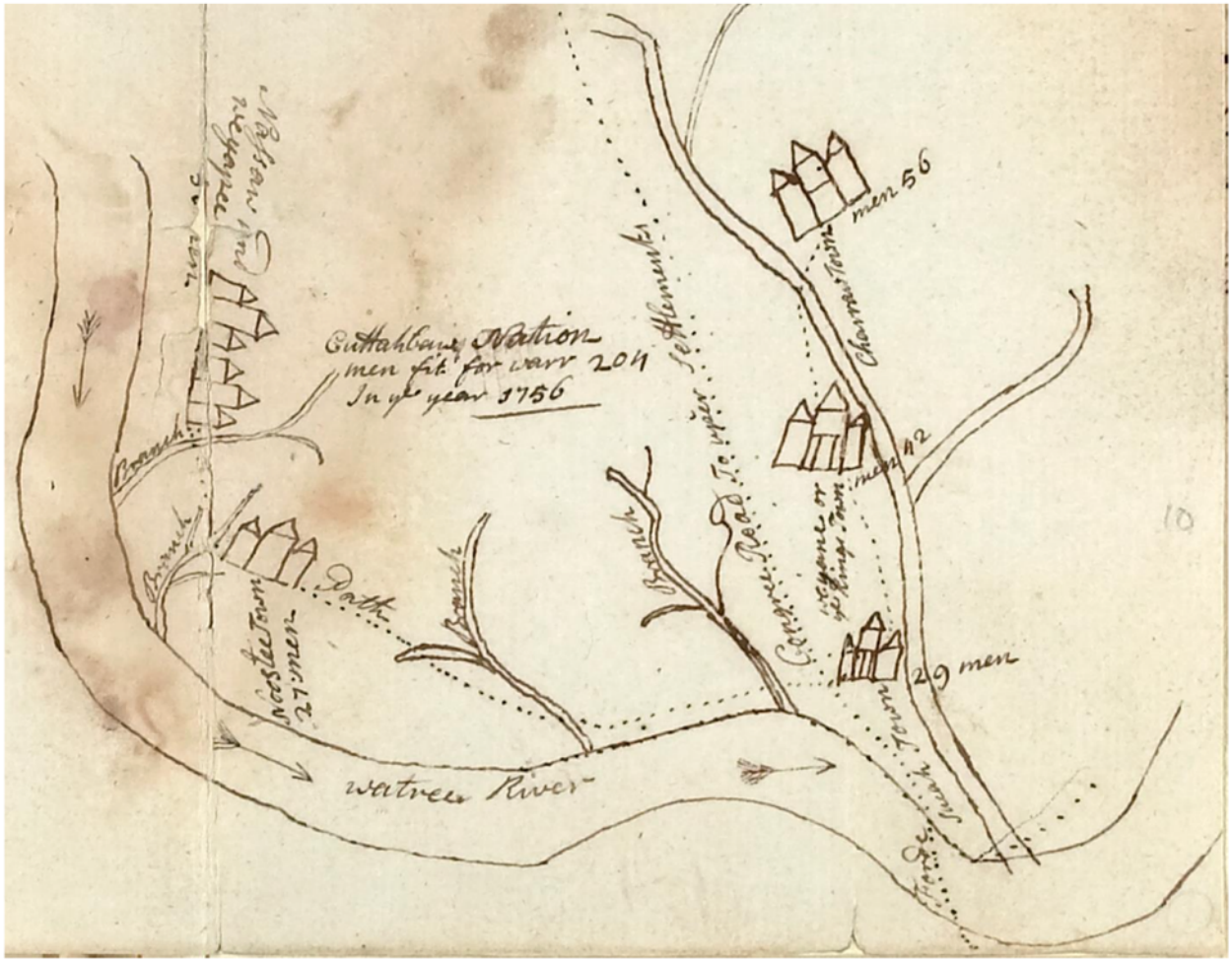


Figure 2.2. A portion of John Evan's 1756 map depicting towns comprising the Catawba Nation (National Records of Scotland, GD45/2/104).

to Catawba Headmen by colonial officials in South Carolina in the 1730s and 1740s: Capt. Harris of Sugar Town; Capt. George of Nasau Town; Capt. Peter of Sutero Town; Eno Jemy Warrior of Charraw in the Catabau; Suger Jemey of Sugar Town; Capt. Jack of Soutry Town; and Capt. Jeamy Harris of Old Sugar Town (Brown 1966:220-228).

The period following the 1759 smallpox epidemic has typically been interpreted as essentially "post-coalescent" due to the near collapse of the Catawba Nation which led to the further consolidation of the number of Catawba towns and the apparent abandonment of ethnically distinctive town names. I argue, however, that it is more appropriate to conceptualize the time between 1760–1800 (Late Colonial-Early Federal periods) as a different phase of coalescence in which households became the principal social unit of Catawba society. I do not mean to suggest that Catawba towns disappeared altogether. To be sure, discrete Catawba towns continued to exist into the nineteenth century (Mills 1826), though the near collapse of Catawba society in 1759 changed the relationship between town identity and Catawba identity. Following the smallpox epidemic and the severe loss of life, I suggest the household emerged as the most durable social unit from which new settlements were established. I believe conceptualizing Catawba coalescence in this way, as a series of phases rather than a singular process that abruptly ended in 1759, better accounts for the ongoing processes of ethnogenesis and community making.

Ethnic and Linguistic Make-up of the Catawba Nation

The history of the Catawba Nation is a history of Piedmont Indians. The composition and make-up of the Catawba community at different points in its history has important implications for how the community eventually organized itself during the late eighteenth century. The Catawba Indian Nation of today is the product of a complicated set of unique colonial histories of a number of different Native communities that can trace their pre-Columbian roots from all

over the Carolina Piedmont region and beyond. These communities represent largely, though not exclusively, Siouan-speaking peoples and includes groups who practiced different ways of life such as the South Appalachian Mississippian lifeway as well as the Eastern Woodland pattern (Ward and Davis 1999).

While the de Soto chronicles provide the first snapshot of the socio-political landscape of the Carolina Piedmont, descriptions of particular groups that are immediately recognizable as ancestral to the Catawba are few (Clayton et al. 1993; Swanton 1985). Even though his route across the Carolina Piedmont placed him squarely within what would become the Catawba heartland, de Soto mentions only a few names: Cofitachequi, Chalaque, Guaquili, and Xualla. Juan Pardo's scribe (Hudson 1990:283) describes the Yssa as a large multi-settlement polity spread out over more than 3 leagues (6-9 miles) under a community leader or headman called Yssa Orata. The Yssa, known in later times to the English as the Esaw, Nauvasaw, and Nassaw, formed one of the core groups around which the Catawba Nation developed in the first quarter of the eighteenth century. Pardo's account also records a close but distinct relationship between Yssa Orata and Cataba Orata. On two separate occasions these leaders were together when they presented themselves to Pardo. Following the destruction of Pardo's network of forts in 1568, direct Spanish involvement in the Carolina interior ended and over a century passed until the next series of encounters were recorded, this time with the English.

In 1701, John Lawson (1967[1709]:46-49) described the Esaw as "a very large Nation containing many thousand People" with their "Towns being very thick hereabouts." Lawson's description makes clear that the Esaw constituted a polity that included multiple towns. After passing through many towns and settlements that he attributed to the Sugeree Indians, Lawson arrived at the Kadapau community that would eventually lend its name to the Catawba Nation. It

is apparent from Lawson's description that even though the Kadapau had their own king, this group of Indians did not rival the Esaws in number of towns or population. Other communities that Lawson encountered, including the Congerees, Waterees, Enoes, and others are mentioned again by James Adair when he visited the "Katahba" in 1743. Adair described the polyglot Nation as consisting of "almost 400 warriors, of above twenty different dialects… the Katahba, is the standard, or court-dialect, the Wataree who make up a large town; Eenoe, Charaw, Chowan, Canggaree, Nachee, Yamasee, Cossah, &c." (Adair 1775). The latter three are clearly not Piedmont Siouan speakers.

Establishing the exact number, distribution, and ethnic or tribal affiliation of various Catawba towns is difficult to track reliably prior to the 1750s. However, based on maps depicting the Catawba Nation and multiple travelers' accounts, the Catawba Nation has always constituted a polity with many internal divisions and factions which influenced settlement patterns. Despite Adair's description of 20 or more dialects spoken in the Catawba Nation, he provides no clarity on how many towns that linguistic diversity represented. The 1721 Catawba deerskin map shows 11 circles representing various tribal identities, though it is not clear if each circle is a literal depiction of a discrete town or simply an idealized socio-gram that acknowledged the presence of constituent social groups (Fitts 2006; Waselkov 1989).

One of the last groups to join with the Catawbas were the Charraws. In fact, the Charraw likely joined the Catawbas in several waves beginning as early as the 1730s. Fitts (2015a) has shown that multiple bands of Charraw and Pedee Indians slowly accepted a subordinate position within the Catawba Nation. The Charraw Indians were a Piedmont Siouan community with roots along the Dan River near Virginia who eventually moved south and established settlements below the fall line of the Pee Dee River. They had pursued their own strategy of political

consolidation by incorporating refugee groups and were a coalescent society in their own right (Fitts 2015a). Their reluctance to join the Catawba right away likely derived from their desire to maintain their autonomy as well as the fact they had accepted several groups who were former enemies of the Catawbas, including the Waxhaws who the Catawbas nearly wiped out following the Yamasee War.

After joining the Catawbas around 1737, the Charraws likely assumed a somewhat subordinate political position as newcomers; however, the Charraws continued to assert a certain level of independence. In 1746, the Charraws and a group of Pedees intended to leave the Catawba Nation and were only persuaded to stay following the intervention by South Carolina Governor James Glen, who argued they were stronger together as a Nation than apart. Despite substantial population losses due to war and disease, the Charraw maintained their own village and even their own king until 1759 (Cranford and Fitts 2012). In the 1750s, the Charraws represented the single largest segment of the Catawba Nation. The 1756 John Evans map depicted "Charraw Town" as one of six communities comprising the Catawba Nation, located at the northern periphery of the core Catawba settlements.

The last reference to the Charraw as a distinct group came in a letter dated 1767 from the Reverend Elam Potter. In addition to his brief accounts of the Cherokees, Chickasaws, Choctaws, and Creeks, Potter mentions the Catawba and Charraw separately and describes the latter by saying "They were formerly a considerable Nation, but of late have been so depopulated by wars and sickness, that they have fled to the Catawbas for protection, and now live amongst them. They consist of 50 or 60 souls." That they merited their own description speaks to the Charraw's former status in the area, and Potter's ability to discriminate them from the Catawba suggests that some level of group cohesion still existed shortly after 1760. By the 1840s, the

Charraw were still said to represent half the Nation and distinguishable from Catawbas by language, if nothing else (Schoolcraft 1853:295). Other linguistic evidence suggests that some of the informants used to document the Catawba language in the early 20th century may have in fact spoken the Charraw dialect (Brasser 1964:279; Merrell 1983:250; Siebert 1945).

Demographic Trends

The Catawba people were under enormous stress throughout much of the eighteenth century. Epidemic diseases, warfare, food shortages, and the deleterious effects of alcohol have all been identified as causes for the steep demographic declines felt by the Catawba people over the course of their history. Theresa McReynolds (2004) used ethnohistoric sources to estimate the changing Catawba population through time. Based on her research, McReynolds showed while the Catawba Nation experienced several previously devastating epidemics, the 1759 smallpox event was catastrophic for the community, dropping the community from around 750-1000 individuals to about 150-250 people. In order to address this population loss, the Catawba Nation actively pursued a strategy of coalescence in which they accepted and incorporated other groups into their community in order to bolster their shrinking population.

Several sources also hint at a lowered birth rate in the decades after the 1759 small pox epidemic. Hutchison (1843) noted that for several years after the Revolution, Catawba men were periodically recruited to catch runaway slaves in the low country of South Carolina and since they would be gone for extended periods of time, some women traveled with them. Hutchison observed that during these slave-catching trips the women appeared to have contracted some infectious disease that affected child birth. According to Hutchison, for at least 10 years, Catawba women had few children born and fewer to survive. It is unclear what disease Hutchison was describing or if the effect on birth rates was real; however, any negative health impacts on women and children could have further exacerbated population declines and

household stability. When visiting the Catawba Nation in 1815, Calvin Jones also noted that "Women have but few children, many none. Children die - all suffer from too much whisky and too little bread." Jones does not attribute this pattern to a particular disease, but rather to social ailments white observers commonly assigned to Native people.

One potentially important factor in the Catawbas' dramatic demographic declines in the late eighteenth and early nineteenth centuries that has not received much attention from scholars is household out-migration. In this case, household out-migration was a process by which single or multiple household groups left the Nation, effectively disappearing from the documentary and archaeological records. Though the Catawba Nation normally provided a secure and reliable social network, some families may have left the Nation during periods of crisis such as war, famine, or epidemic. The reasons a household might have for leaving the presumed security and stability of their home community no doubt varied from household to household, but may have included economic, political, religious, or safety concerns. This phenomenon was documented when a number of Catawba families headed west with Mormon missionaries during the late nineteenth century, and they now constitute the informal Western Catawba (Thayne 2016). I suggest that this process may have been a factor during the late eighteenth century as well, though evidence is predictably scant. Unlike demographic losses from perpetual violence, warfare, and disease which are more likely to be noted in historical records, household out-migration may have represented a hidden and more subtle population crisis for the Catawba.

Catawba Kinship and Sociopolitical Organization

Not much is known for certain about Catawba kinship and descent patterns in the late eighteenth century, though this is a critical issue for determining how household groups may have been organized. It is generally accepted that many, though not all, southeastern Native communities practiced an exogamous matrilineal descent pattern whereby multiple related matrilines were organized into a series of ranked clans. These corporate lineages and clans were often used to determine access and use rights to community fields and garden plots, among other things. No evidence of a Catawba clan-based kinship system survived into the ethnohistoric record. Based on the ubiquity of the matrilineal clan system in the eastern woodlands (Hudson 1976), it would not be a stretch to suggest that such a system could have been present in some or all of the constituent Catawba groups prior to joining the Nation. It appears that due to the severe population loss experienced by these groups and the need to integrate numerous disparate groups as part of a coalescent political strategy, the ability to maintain a clan system did not survive (if one even existed among the Esaw or Kadapau). Despite the absence of a formal clan system, kinship was certainly still an important component and organizing principle of Catawba social identity.

Many matrilineal societies also practiced matrilocal residence patterns following marriage wherein a husband went to live with the wife's family, and it was the wife who owned and maintained the home. As the Catawba were primarily composed of southeastern Siouan-speaking peoples, it would not be unreasonable to attribute this pattern to them. Unfortunately, there is very little direct evidence to support the existence of a matrilineal kinship system or clans among the Catawba.

The first formal ethnographic study among the Catawba occurred in the late nineteenth and early 20th centuries by Frank Speck and others. Speck challenged the traditional notion that

Catawbas were matrilineal, saying that "no evidence of a specific character exists, either in past or present sources of information, to support the assumption of a matrilineal social sib system among the Catawba" (Speck 1938:1). His Catawba informants could not remember any vestige of clan organization and readily acknowledged that families mostly followed a patrilineal pattern, including passing surnames through the father. In a later paper, Speck and Schaeffer (1942) observed a patrilocal settlement pattern in operation on the Catawba reservation. It is important to note, however, that Speck's key informants lived over a century and a half after the 1759 smallpox epidemic and after most Catawbas had converted to Mormonism, with the latter contributing to changes in Catawba society (Thayne 2016). James Merrell (1983) offered a withering critic of Speck's methodological approach and conclusions. Speck's thinking was deeply embedded in the social evolutionary paradigm of the day which led him to the view that "the Catawba had not reached the stage of developing or acquiring a matrilineal maternal clan system by association with more complicated societies on their western frontiers, rather than a conclusion that they originally possessed it and lost it" (Speck 1938:4). I suggest that Speck did not fully consider the extent to which Catawba history had shaped their social organization at that particular moment in time.

Merrell points out that "evidence from the nineteenth century suggests that matrifocal tendencies were predominant on the reservation at a much earlier date. Outsiders—Cherokees, Pamunkeys, and others—who married Catawba women moved to the Nation, women kept their own names after marriage, and if a child's mother was Catawba, that child was automatically considered one of the tribe" (1983:260 n.7). One of Charles Hudson's Catawba informants stated that "before 1910 Indian status could only be obtained through having an Indian mother. Thus, the children of a white man and a Catawba mother would be included on the tribal roll; the

children of an Indian man and a white woman would not" (Hudson 1970:76). In her recent dissertation examining the lives of Catawba women during the eighteenth and nineteenth centuries, Brooke Bauer (2016) addresses Catawba kinship in depth. Using linguistic evidence and documentary sources, as well as her personal knowledge of the Catawba community, Bauer makes the case that the Catawba did have a matrilineal descent pattern.

Political Organization

The eighteenth century Catawba Nation developed in the context of a shattered political landscape with roots in both Eastern Woodland and Southern Appalachian Mississippian lifeways. Early Spanish chroniclers from the de Soto and Pardo expeditions recorded a complex regional hierarchical tributary system organized under hereditary paramount chiefs (micos) and village chiefs (oratas). Based on the locations where certain Native leaders visited and paid tribute, Robin Beck (2013) was able to reconstruct the political landscape of the western Carolina Piedmont. According to Beck, the transformation observed in Southeastern polities, from Mississippian chiefdoms to coalescent chieftaincies, was fundamentally a shift in political economy driven by the commodification of guns, slaves, and hides that rendered the prior tributary surplus-based system untenable and obsolete.

By the mid-eighteenth century, Catawba political authority was centered around the Catawba "king" and his various headmen and war captains. The king was selected by a council and eligibility was likely determined by matrilineal descent (Bauer 2016). The most famous Catawba leader was King Hagler who led the Nation from about 1749 until his violent death in 1763. Although King Hagler's authority was not as absolute as his title would suggest, Hagler was known for dispensing harsh punishment to his own people when they committed acts against whites. In speaking to the Chief Justice of North Carolina in 1756, Hagler said "Should any of my people do any mischief to the White people I have no strong prisons like you to confine them

for it, Our only way is to put them under ground and all these men (pointing to his Warriors again) will be ready to do that to those who shall deserve it" (B. P. R. O. North Carolina. B. T. Vol. 12. C. 106; http://docsouth.unc.edu/csr/index.html/document/csr05-0210). Despite this rather stern image, Hagler seems to have relied primarily on his powers of persuasion and his natural political savvy to negotiate with colonial officials, other tribes, and his own people. His ability to extract diplomatic gifts, presents, and even food stuffs from the often-competing colonial interests in South Carolina, North Carolina, and Virginia likely bolstered his legitimacy. Presents also likely increased the material wealth and standing of his headmen and warriors who were often on hand when official gifts were given.

Following Hagler's death on August 30, 1763, the Catawba warrior Colonel John Ayres was briefly elected to lead his tribe. He successfully represented his people at the Treaty of Augusta in 1763 which formalized the reservation agreed on at the Treaty of Pine Tree Hill in 1760. For reasons that are not clear, Col. Ayres was rejected the next year in favor of King Prow. Despite his demotion, Col. Ayres appears to have maintained an elevated position within the tribe. King Prow led the Catawba with little fanfare until the Revolutionary War. The new Catawba chief and renowned warrior, New River, abandoned the honorific title of "king" in favor of the military title of General, no doubt in deference to their new patriot allies who despised the monarchy. General New River was very respected among the Catawba people and served until his death around 1801.

Prior to the 1750s, Catawba headmen were often associated with particular town identities and thus may have represented the various ethnic divisions with the tribe. We know a few of their names because they were either awarded colonial commissions or listed on treaties with the government. Rarely would a Catawba chief meet or negotiate with colonial officials

without some portion of his headmen signaling their importance in the political organization of the Nation. It is not entirely clear how headmen were selected or even if specific criteria existed, but it is likely that war honors and fighting experience, family lineage, tribal affiliation, or some combination of these factored into these positions.

CHAPTER 3: THE ARCHAEOLOGICAL INVESTIGATIONS AT AYERS TOWN, OLD TOWN AND NISBET SITE

The establishment of new Catawba settlements near the confluence of Twelvemile Creek and the Catawba River around 1762 marks an important historical moment for the Catawba Nation as well as a unique archaeological horizon. Through the work of UNC archaeologists, the archaeological discovery and investigation of sites associated with these Twelvemile Creek occupations provide valuable insights into the cultural and societal changes that coincided with this pivotal event. This area, eventually including portions on the west side of the Catawba River as new settlements were established after the American Revolution — referred to here as the Twelvemile Creek Locality— became the new core of the Catawba Nation for the next 80 years. In this chapter, I discuss the excavations at three Catawba domestic sites occupied in the decades following the 1759 epidemic: the Nisbet site, Old Town, and Ayers Town.

These represent just a few of the sites investigated as part of the Research Laboratories of Archaeology's long-term research effort known as the Catawba Project (Davis and Riggs 2004; Davis et al. 2015; Riggs 2010; Riggs et. al 2006; Plane 2011; Shebalin 2011; Fitts 2006, 2015a). In 2001 the Catawba Project was launched by Steve Davis and Brett Riggs with the aim to "trace the evolution of native societies in the Carolina piedmont through the eighteenth and early nineteenth centuries" and specifically "illuminate the emergence of the modern Catawba Nation in the early eighteenth century, and to document the creative adaptations that have enabled the endurance of the Catawba people in their ancient homeland" (Davis and Riggs 2004:1-2). This research was designed to mirror and grow out of UNC's two-decade-long Siouan Project, which

sought to document late precontact and early contact Native communities living on the North Carolina Piedmont (Dickens et al. 1987; Ward and Davis 1988, 1991, 1993). Nearly all of the Siouan-speaking groups that had been the focus of the Siouan Project abandoned the North Carolina Piedmont by the beginning of the eighteenth century due to a variety of factors including epidemic diseases, intertribal slave raiding, and Indian-Colonial wars. Of these, the Indian slave trade likely contributed the most to destabilizing the region, creating what has been called a "shatter zone" (Ethridge 2006). Many of the communities escaping the Piedmont eventually sought the relative safety and mutual protection afforded by greater numbers by coalescing around the Esaw settlements of the Lower Catawba River Valley. The Catawba Project sought to continue the research threads begun with the Siouan Project by documenting the impact of the colonial encounter on Native communities in the context of the newly emerged political entity known as the Catawba Nation.

Between 2003 and 2014, Steve Davis and Brett Riggs directed archaeological investigations focused primarily within the old Catawba reservation. This 15-mile square tract of land just south of modern-day Charlotte, NC, was originally promised to the Catawbas in the Treaty of Pine Tree Hill (1760) and formally designated in the Treaty of Augusta in 1763 (Brown 1966). Of the sites identified through survey as part of the Catawba Project, eight have been the focus of subsequent archaeological excavation: Spratt's Bottom (38YK3), Nassaw/Weyapee (38YK434), Charraw Town (38YK17), Old Town (RLA-SoC 634), Ayers Town (38YK534), Nisbet (RLA-SoC 638), New Town (RLA-SoC 632/635), and Bowers (38LA483). With the exception of Spratt's Bottom, which was probably occupied in the first half of the eighteenth century, these sites span nearly 70 years between 1750 and 1820, and represent a nearly continuous occupational record of at least some elements of the Catawba Nation.

The locations of these sites are not evenly distributed within the old Catawba reservation but are clustered into two primary archaeological precincts, the Nation Ford and the Twelvemile Creek localities (Figure 3.1). The Nation Ford locality, situated near the center of the reservation, takes its name from the ancient crossing spot across the Catawba River near modern day Fort Mill, SC. The sites associated with the Nation Ford locality represent villages of the Catawba Nation primarily occupied during the 1750s and probably several decades earlier. The sites of Nassaw-Weyapee and Charraw Town both appear on the John Evans map drawn in 1756, which show a total of six Catawba towns, and both were presumably occupied until the 1759 smallpox epidemic.

The Twelvemile Creek locality (Figure 3.2) encompasses not only the area immediately surrounding the confluence of Twelvemile Creek on the eastern side of the Catawba River, but also includes portions of both sides of the Catawba River. This location was probably chosen for its proximity to both the boundary of the reservation as well as the major road connecting Charleston and Camden to the south with Charlotte and Salisbury to the north. Twelvemile Creek was also the location chosen for a fort South Carolina commissioned for the protection of the Catawba Nation. In the remainder of this chapter, I will discuss the RLA excavations at Old Town, Ayers Town, and Nisbet in more detail.

Old Town (RLA- SoC 634)

The Old Town site is located on the eastern side of the Catawba River, in northwestern Lancaster County, South Carolina (Figure 3.3). The site area is situated along an ancient alluvial

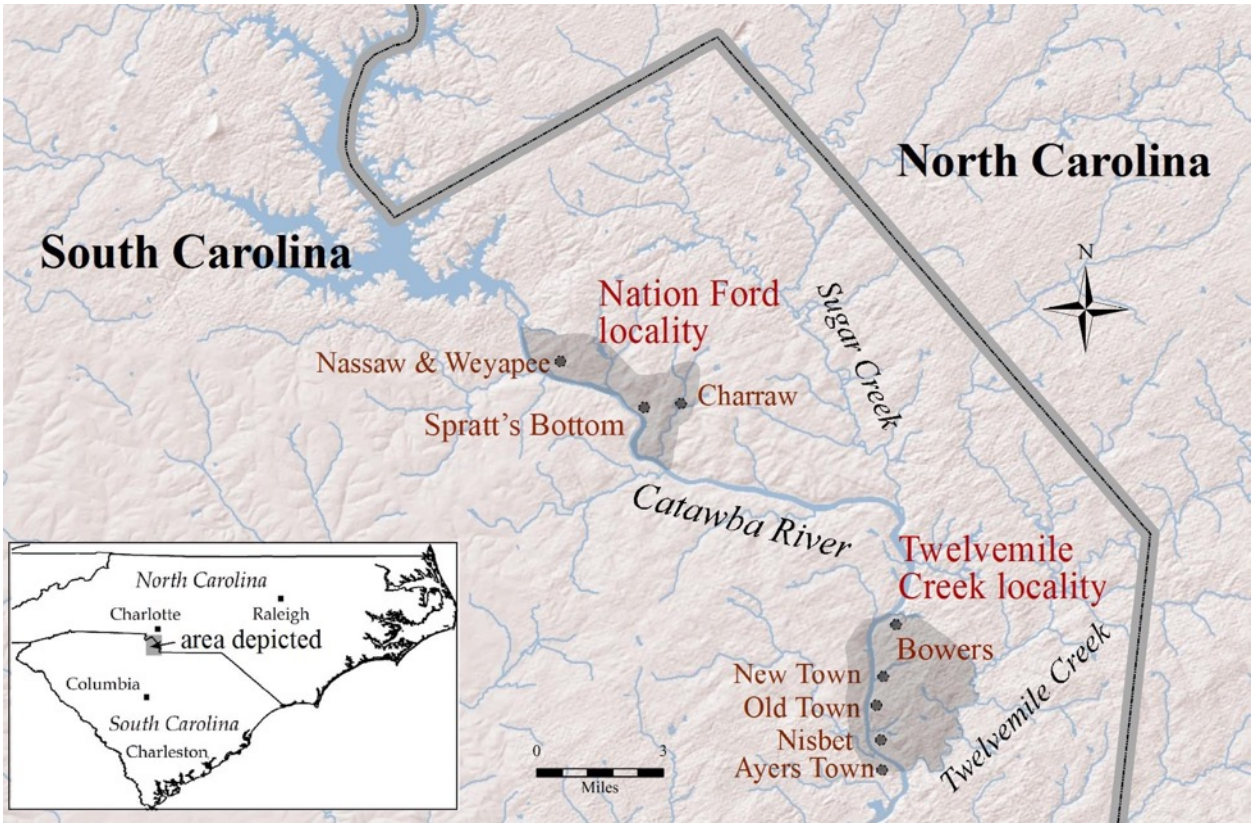


Figure 3.1. Map of the old Catawba Reservation showing the Nation Ford and Twelvemile Creek localities and the locations of eighteenth and early nineteenth-century Catawba sites investigated by the UNC Catawba Project.

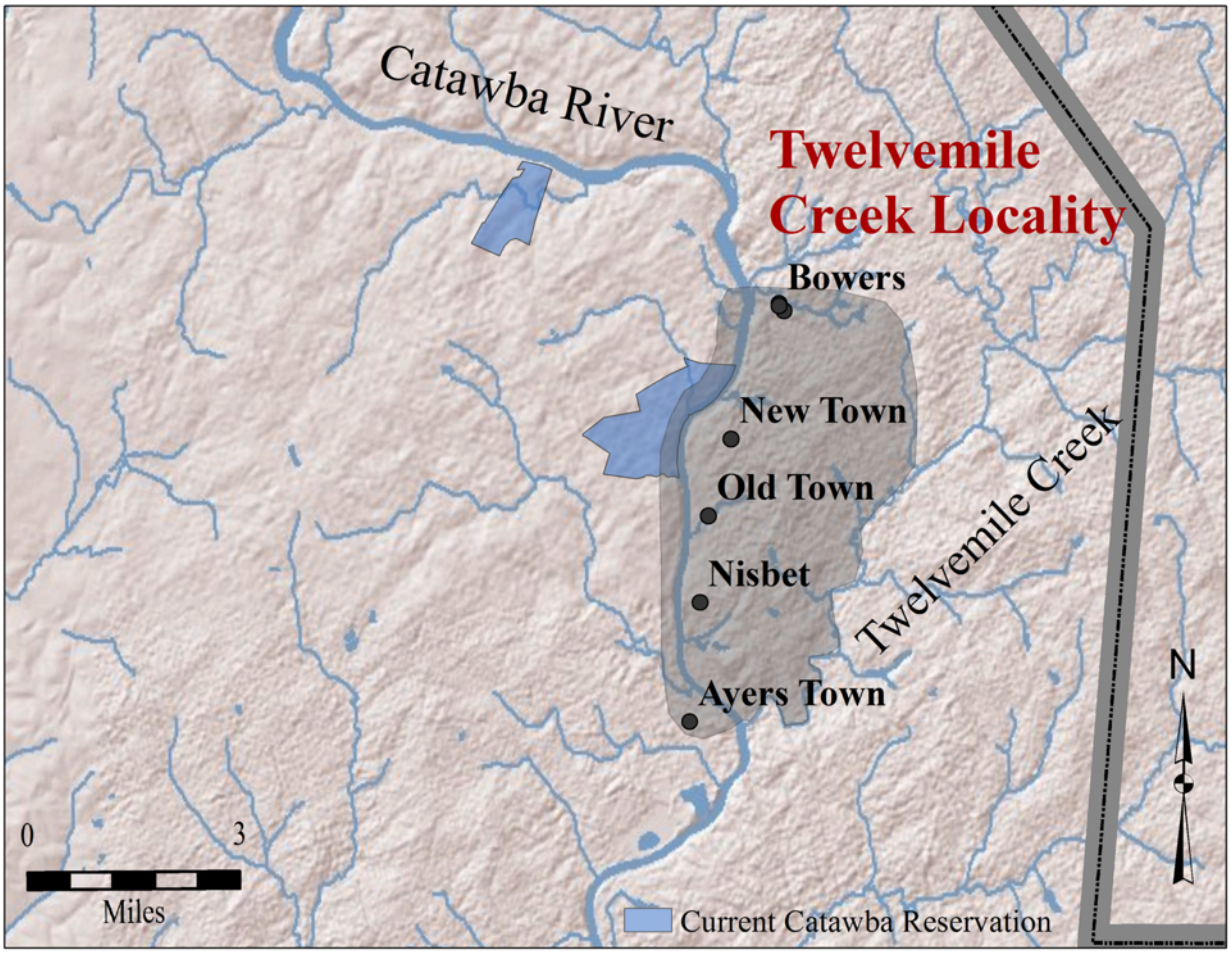


Figure 3.2. Close-up of a portion of the old Catawba Reservation showing the Twelvemile Creek locality and the corresponding archaeological sites. The modern Catawba Reservation lands are indicated in blue.

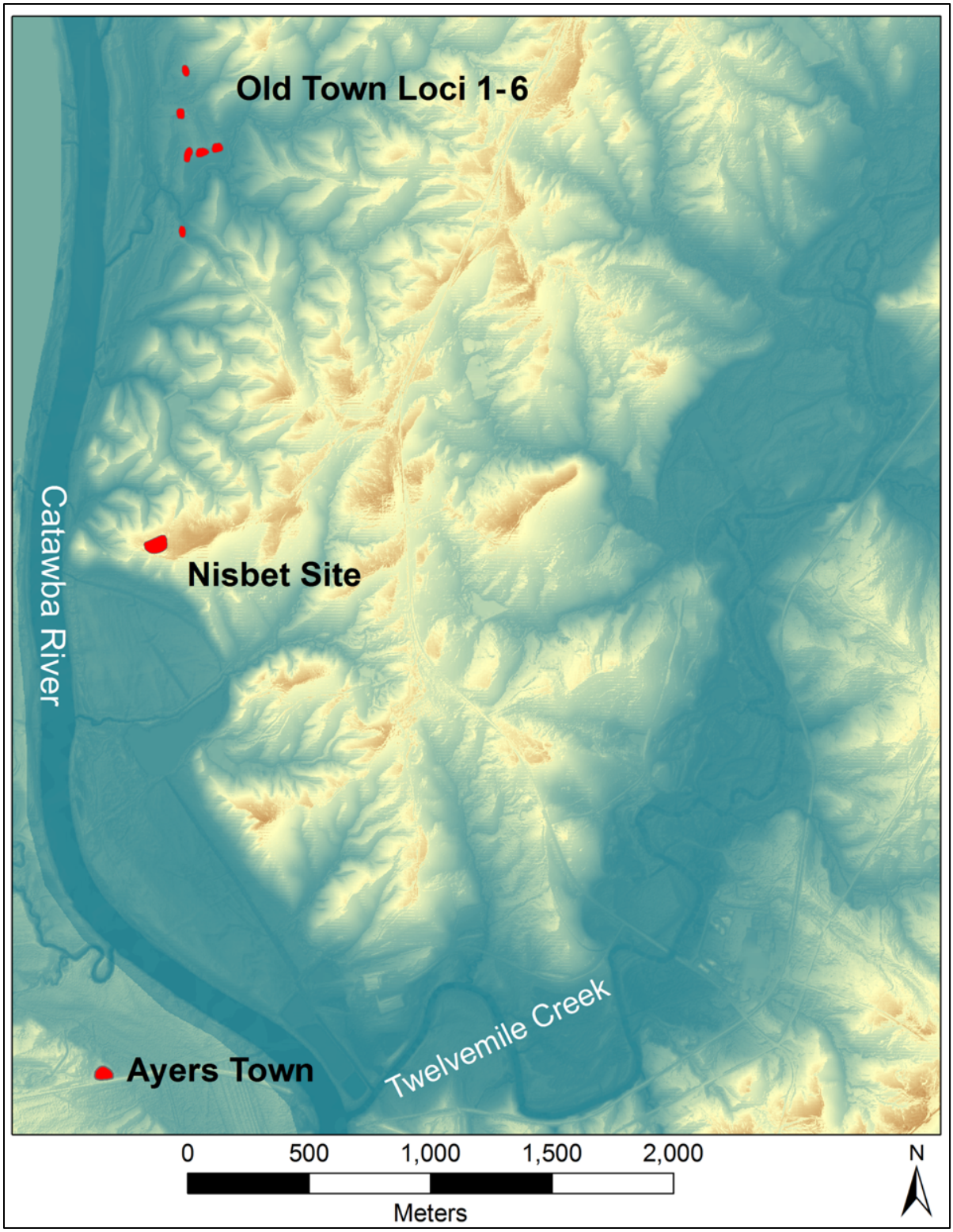


Figure 3.3. A LiDAR based map of the area surrounding Twelvemile Creek showing the topographic settings of Ayers Town (38YK534), Old Town (RLA-SoC 634), and Nisbet (RLA-SoC 638).

terrace remnant of the Catawba River and directly adjacent to the active T1 terrace, sitting approximately 8.2 meters above the normal river level. This location is protected from periodic flooding as it is on the edge of a rise of high ground surrounded by the 1% annual chance flood (100-year flood) zone (FEMA Flood Map Service Center). The site is .4 km from the current river channel and 4 km north of the confluence of Twelvemile Creek with the Catawba River. This location, roughly 85 km from where the Catawba River crosses the fall line at Camden, places the Old Town site within the Piedmont physiographic province with relatively easy access to multiple ecotones.

Old Town was initially identified in 2003 by Drs. Steve Davis and Brett Riggs as part of initial surveys for the Catawba Project (Davis and Riggs 2004). The site name is derived from the small stream that flows along the southern portion of the site which is identified on an 1843 land plat as "Old Town Branch" (Figure 3.4) (Davis and Riggs 2004:8; Davis et al. 2015:41). The name "Old Town Branch" is a presumed reference to the abandoned Catawba town nearby and indicates that some awareness of the town still existed into the 1840s. It is not known, however, if the old town was still visible in any physical sense on the landscape or if local memory was what survived. Eighty years earlier, this same stream is depicted on Samuel Wyly's 1763 map of the new Catawba Reservation as "King's Creek," an apparent reference to the renowned Catawba chief, King Hagler, who led the Nation until he was killed by a Shawnee raiding party the same year near the Catawba settlements (Figure 3.5). Wyly's map shows two Catawba settlements within the newly constituted reservation. The larger of the two was located at the mouth of Twelvemile Creek near the recently constructed fort which Wyly himself supervised the construction of on behalf of South Carolina (Brown 1966:242). The other—Old

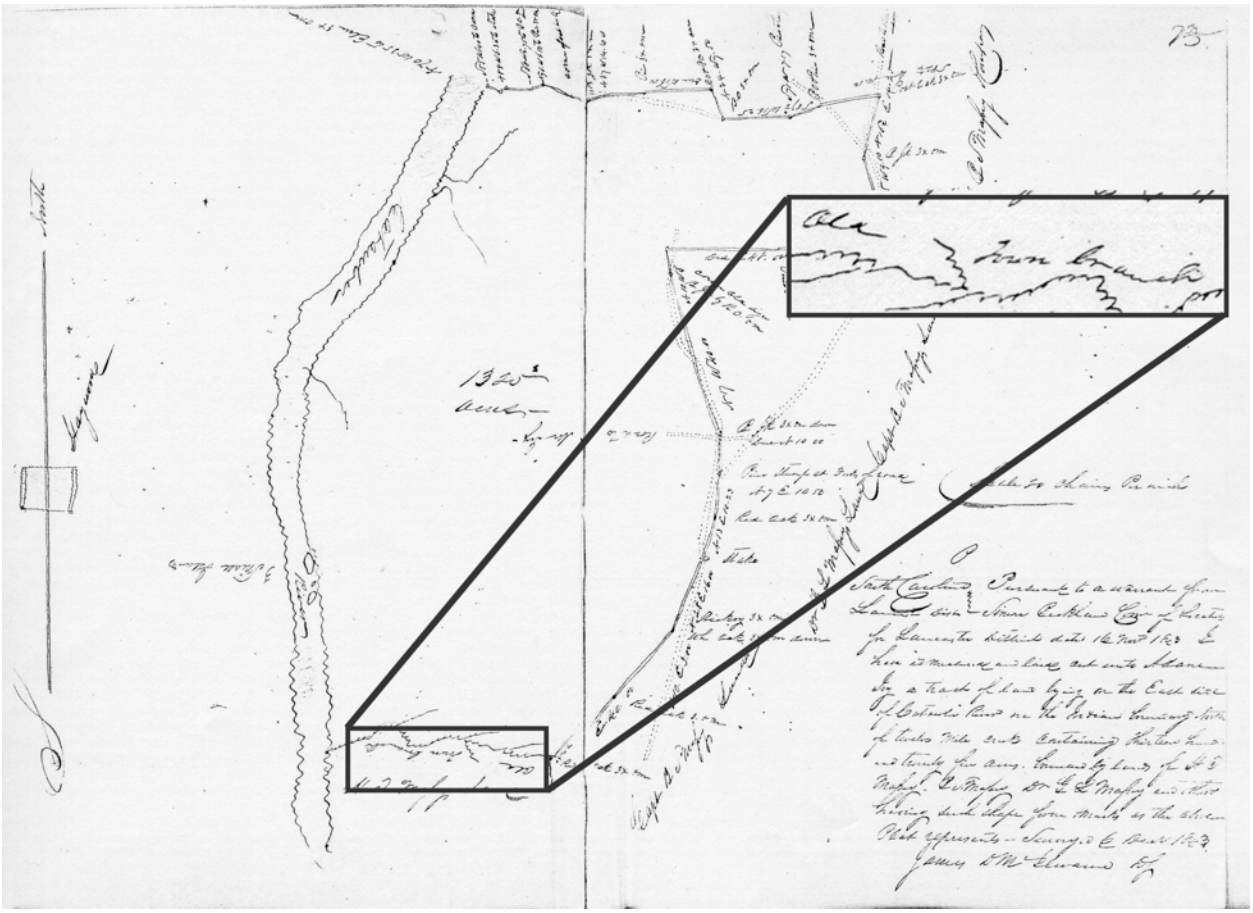


Figure 3.4. Portion of the 1843 plat map for land in the vicinity of the Old Town site. Note the inset box (rotated 180°) shows the stream labeled “Old Town Branch.”

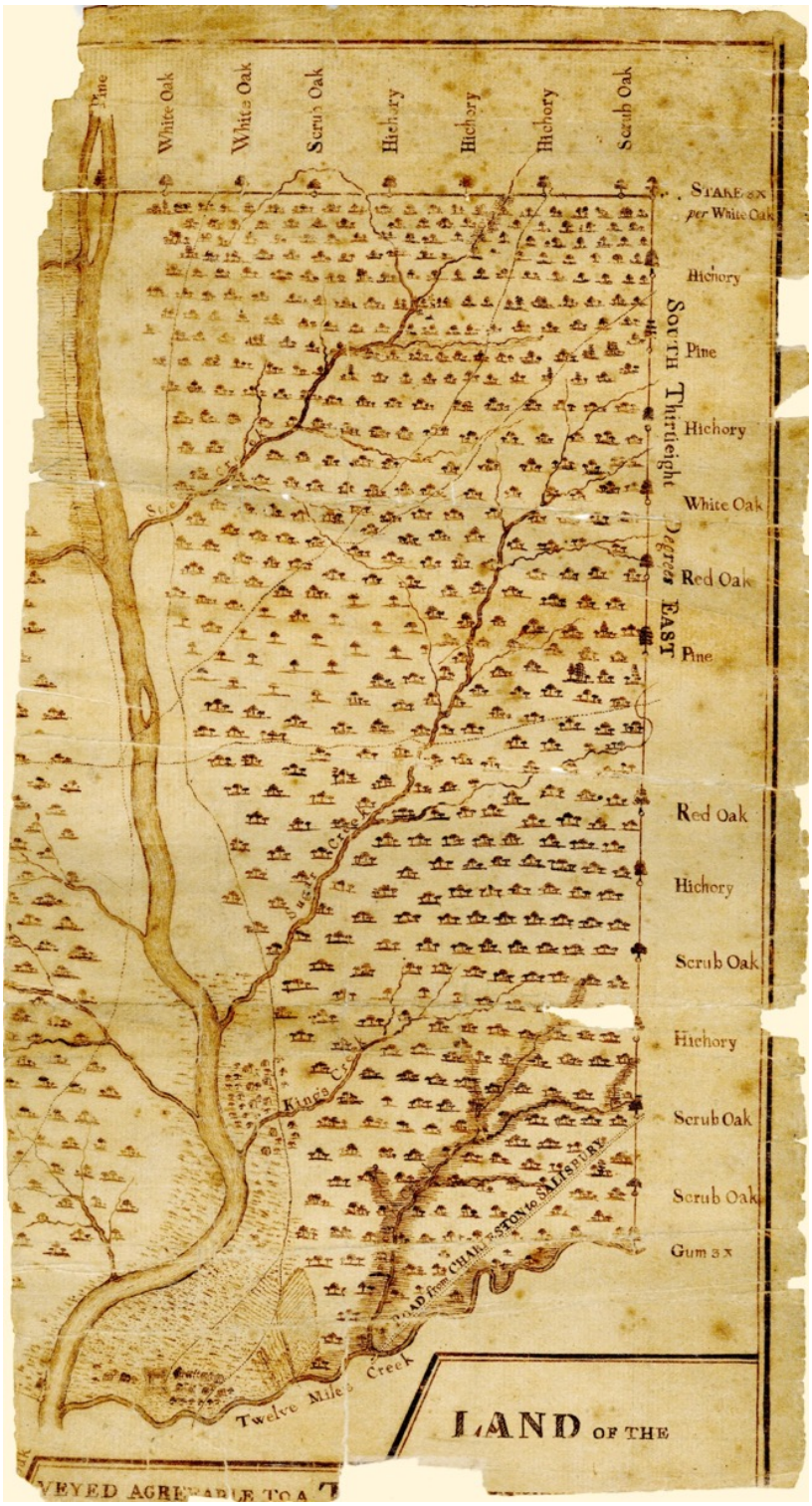


Figure 3.5. Portion of the 1763 Samuel Wyly map of the Catawba Reservation showing two Catawba settlements; one near the mouth of Twelvemile Creek associated with an English-built fort and one located at "King's Creek" (South Carolina Electric Records Archive; "Catawba, Lands, 1764": Map Case 04-07-04.jpeg).

Town—appears as a small, dispersed cluster of houses along "King's Creek," suggesting Hagler himself may have resided here, however briefly given his death in 1763 (Figure 3.6). Nine years later in 1772, two versions of a similar map of the Catawba reservation boundary show the creek labeled alternatively as "King Creek" and "Haglier Creek," a further indication of Hagler's possible association with this community (Figure 3.7 and 3.8).

The site was initially recorded and designated "RLA SoC-634" after eighteenth century metal artifacts were discovered during cursory metal detector prospection. Based on the archaeological reconnaissance to date, the Old Town site comprises at least 6 discrete artifact concentrations (Cabin Loci 1-6) dispersed across 11 hectares and are interpreted to be the locations of individual household cabin clusters (Figure 3.9). The relative position of these cabin areas is remarkably similar to the depiction of cabins on the Wyly map which shows houses on both sides of King's Creek. The area that includes Cabin Loci 1, 2, and 3, which forms the core of the site, was the first to be identified and contains the highest observed density of cultural materials. Scatters of Catawba pottery and other eighteenth century artifacts have been identified in three other locations in the vicinity (Loci 4-6) and were designated as possible cabin loci, but since no systematic testing has yet been done in these areas, their extent and composition are not well defined.

Cabin Loci 1-3 were defined based on the density of eighteenth century material identified following a systematic metal detection survey that covered approximately 9740 m^2 and recovered a total of 500 objects in 376 separate detection events (Figure 3.10). This survey revealed the distribution of metal artifacts formed three clusters of material occupying about one hectare and spread linearly along a generally east/west oriented terrace edge (Figure 3.11). This

Figure 3.6. Close-up of the 1763 Samuel Wyly map showing the Catawba town at the confluence of “King’s Creek” with the Catawba River.

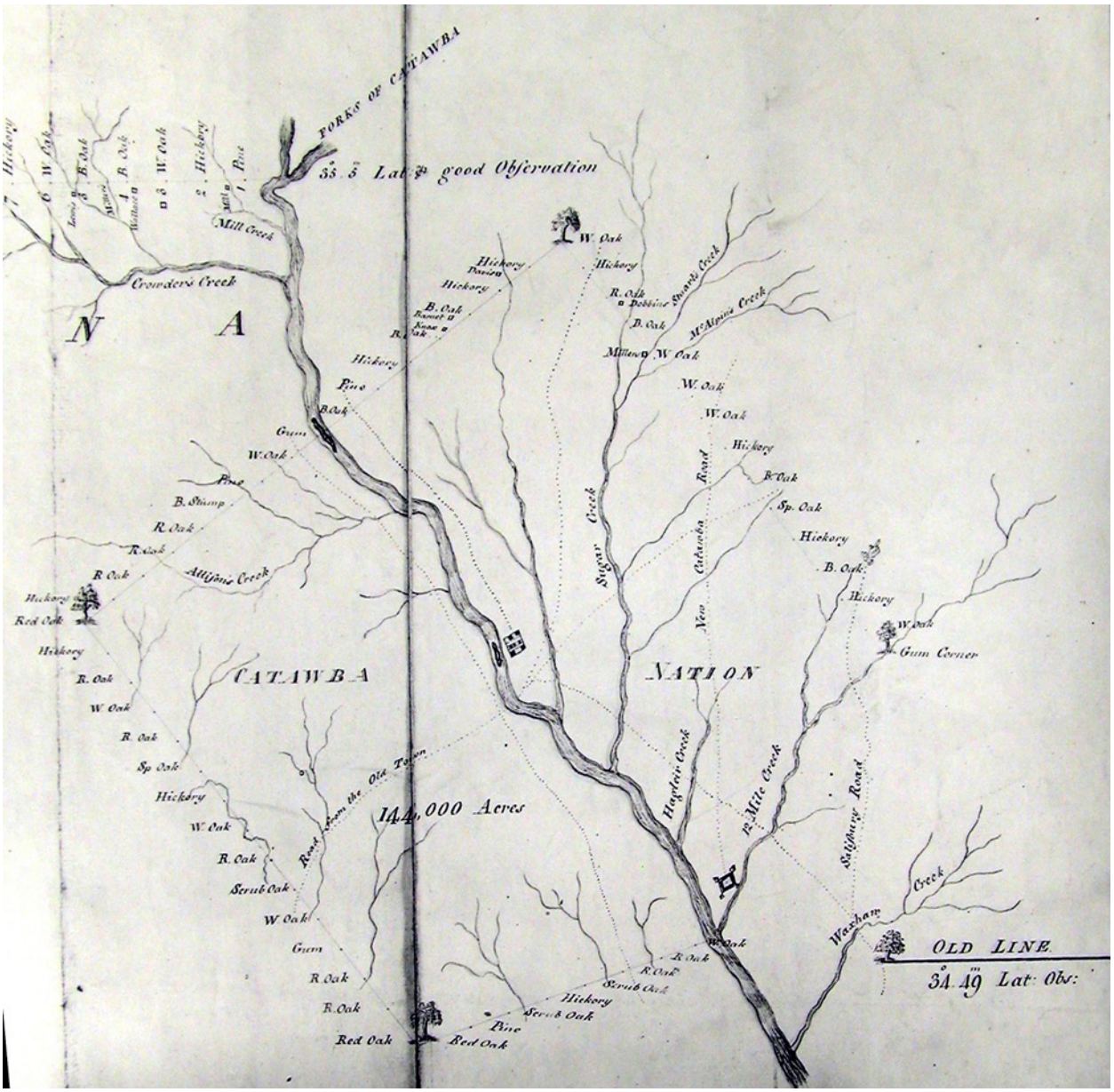


Figure 3.7. A version of a 1772 map of the Catawba Reservation showing Old Town Branch as "Hagleir Creek."

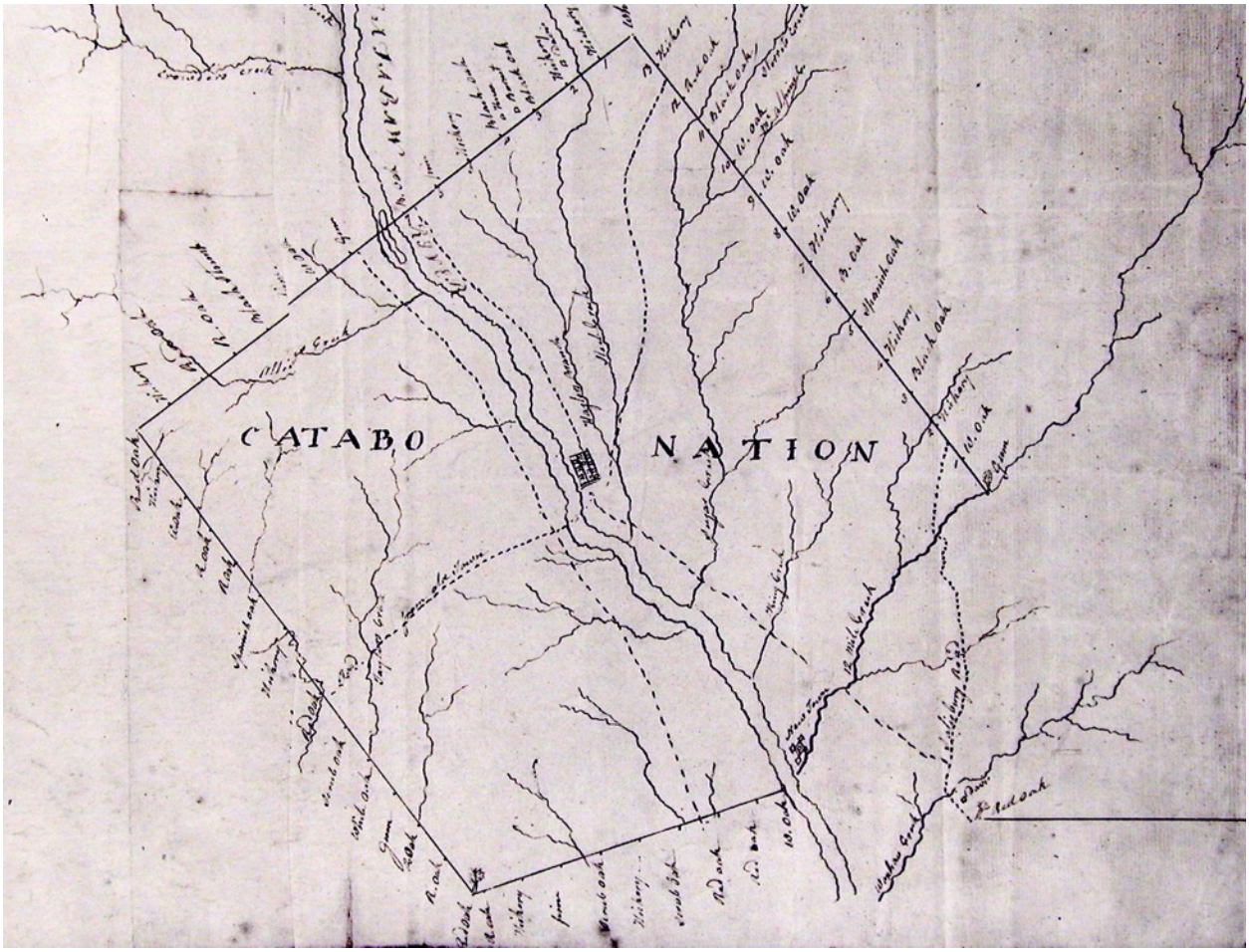


Figure 3.8. A version of a 1772 map of the Catawba Reservation showing Old Town Branch as "King Creek."

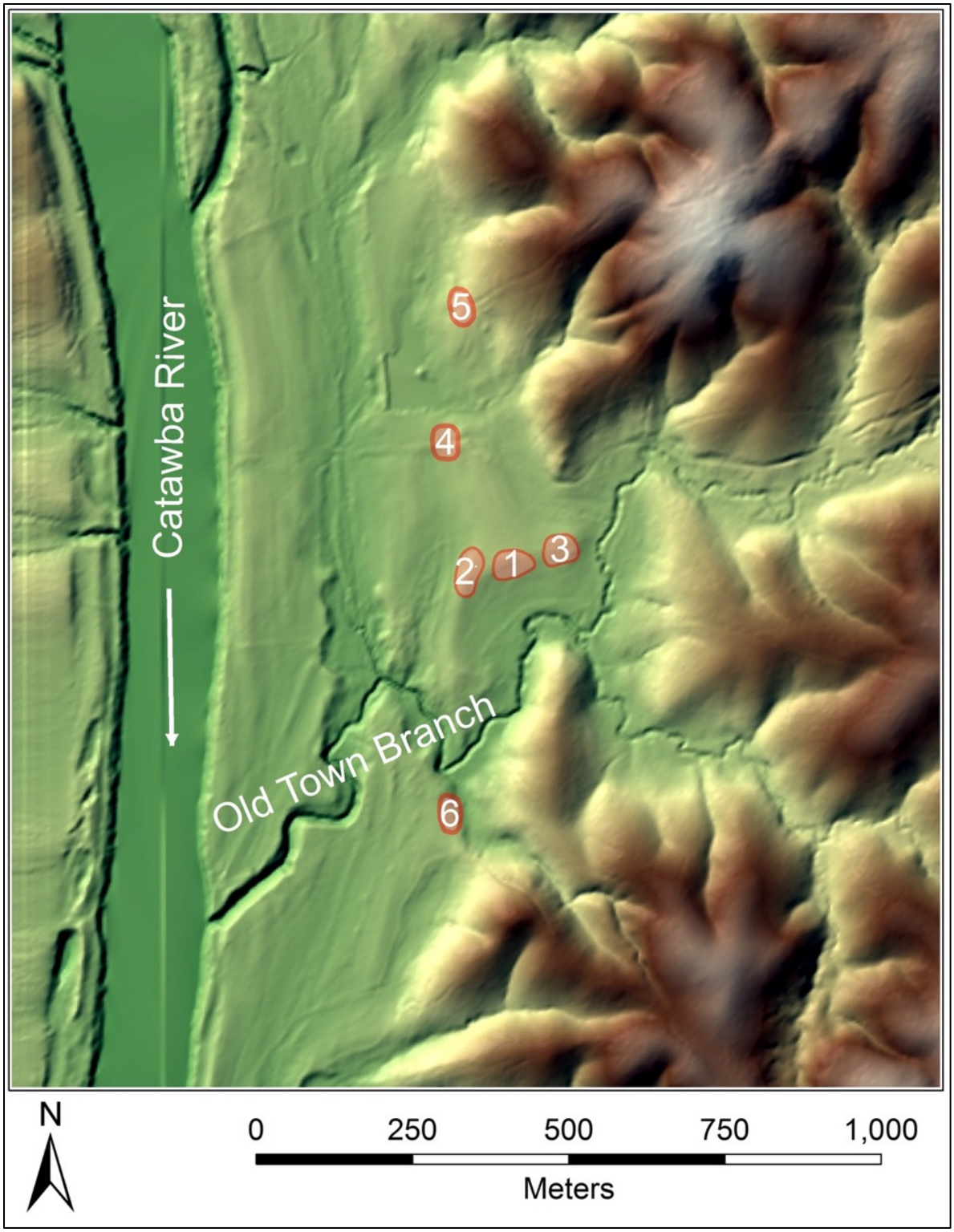


Figure 3.9. LiDAR-based map of the confluence of Old Town Branch and the Catawba River showing the topographic relief of the Old Town site (RLA-SoC 634) and the distribution of the six identified cabin loci.

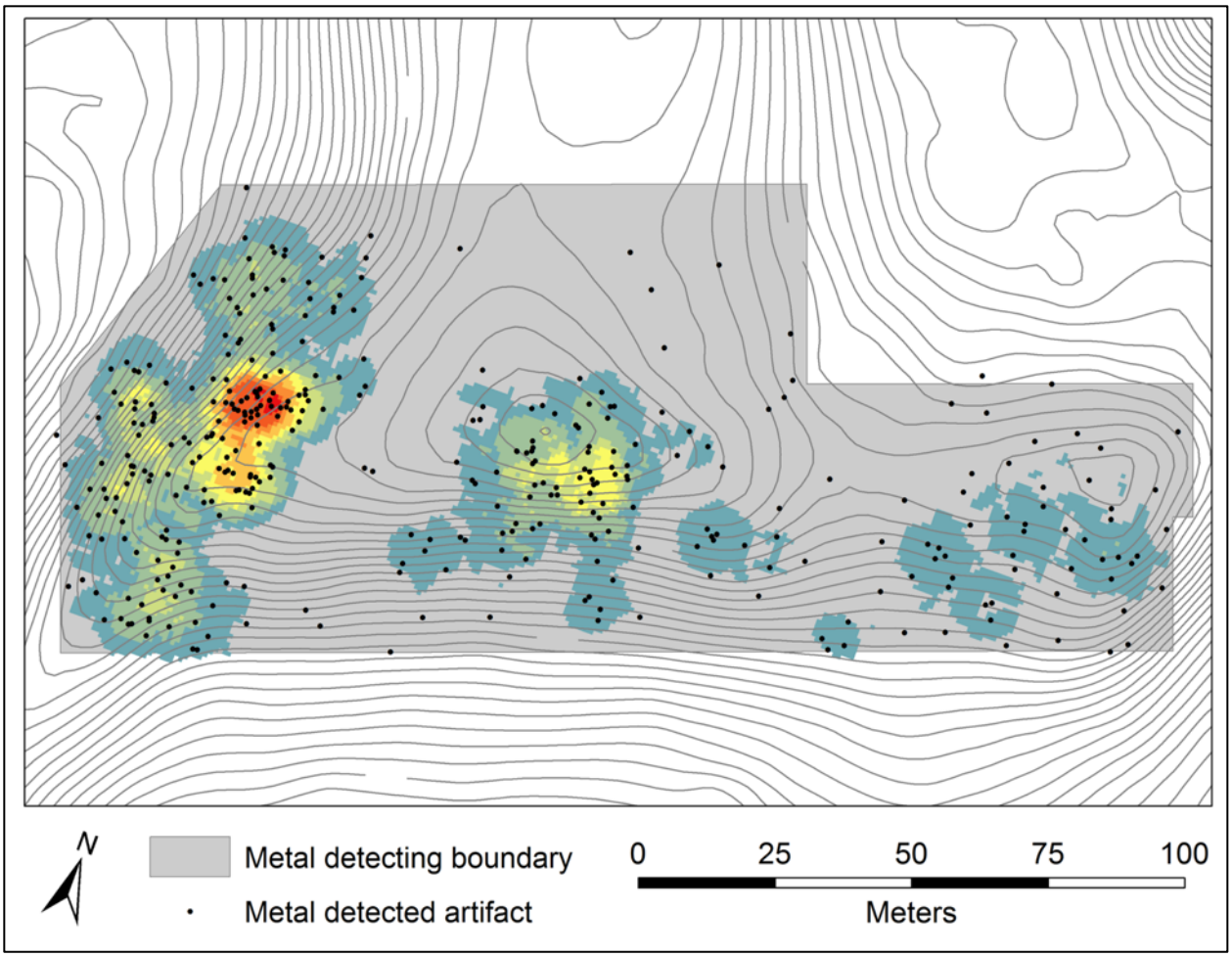


Figure 3.10. A density map showing the concentration of metal artifacts observed at Old Town.

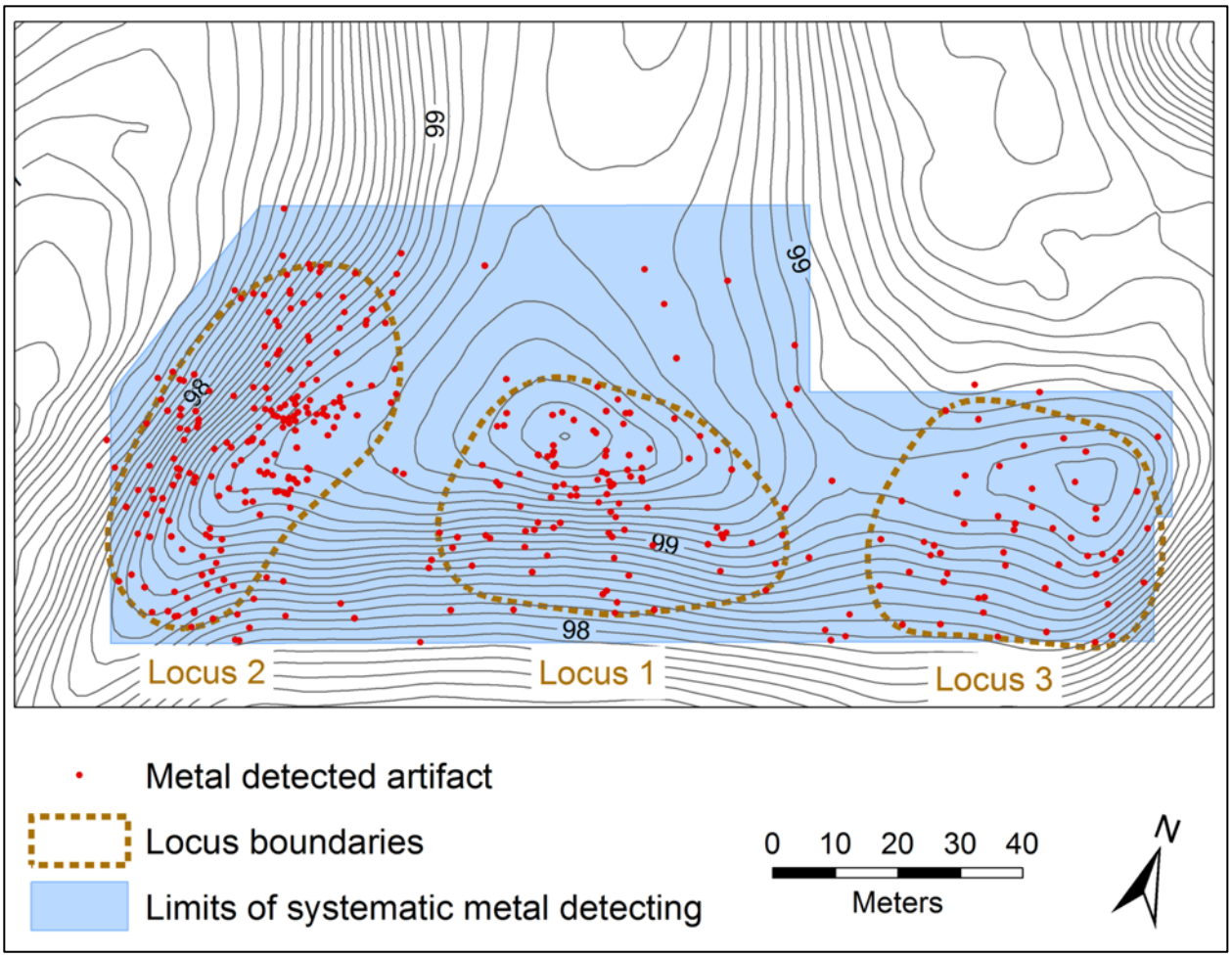


Figure 3.11. Topographic map of Cabin Loci 1-3 at Old Town showing the extent of the systematic metal detection survey and the locations of positive metal events.

terrace remnant forms an island of high ground that would have placed these cabins in a relatively protected spot above the 100-year flood zone.

Cabin Locus 1 refers to the central artifact cluster and occupies the largest and highest level portion of the terrace. Many of the positive metal detection events associated with this Locus were recovered from the southward facing slope, indicating possible refuse dumping in this area by occupants of the cabin(s) as well as likely post-occupational artifact movement due to plowing and soil erosion. Cabin Locus 2 defines the western cluster, and it contained the densest concentrations of artifacts recovered from the metal detection survey while also covering the largest area. The tops of several intact features were encountered at both Locus 1 and 2 during metal detecting and prompted further investigations, discussed below.

Locus 3 is located east of both Locus 1 and 2, and is the smallest of the three with the least dense concentration of metal detection events (n=54). Two 1x1 m units dug in 2017 represent the only formal excavation besides the limited subsurface testing during the recovery portion of metal detecting. These investigations did not encounter any intact cultural features and indicated extensive topsoil erosion. In an attempt to discover additional subsurface cultural features, a gradiometer survey was conducted during the 2014 field season over a portion of Locus 1 and 3. Using a Bartington Grad60 magnetic gradiometer with dual sensors and sampling at half-meter intervals, an east-west transect of six 20 by 20 m blocks were surveyed (Figure 3.12). Though numerous magnetic anomalies were detected, subsequent ground-truthing determined they were not cultural features.

Locus 4 is located approximately 210 m north of Locus 2. It was identified in the initial survey of the site on the basis of three Catawba sherds, a fragment of green bottle glass, and a piece of pearlware found along an eroded farm road track (Steve Davis, personal

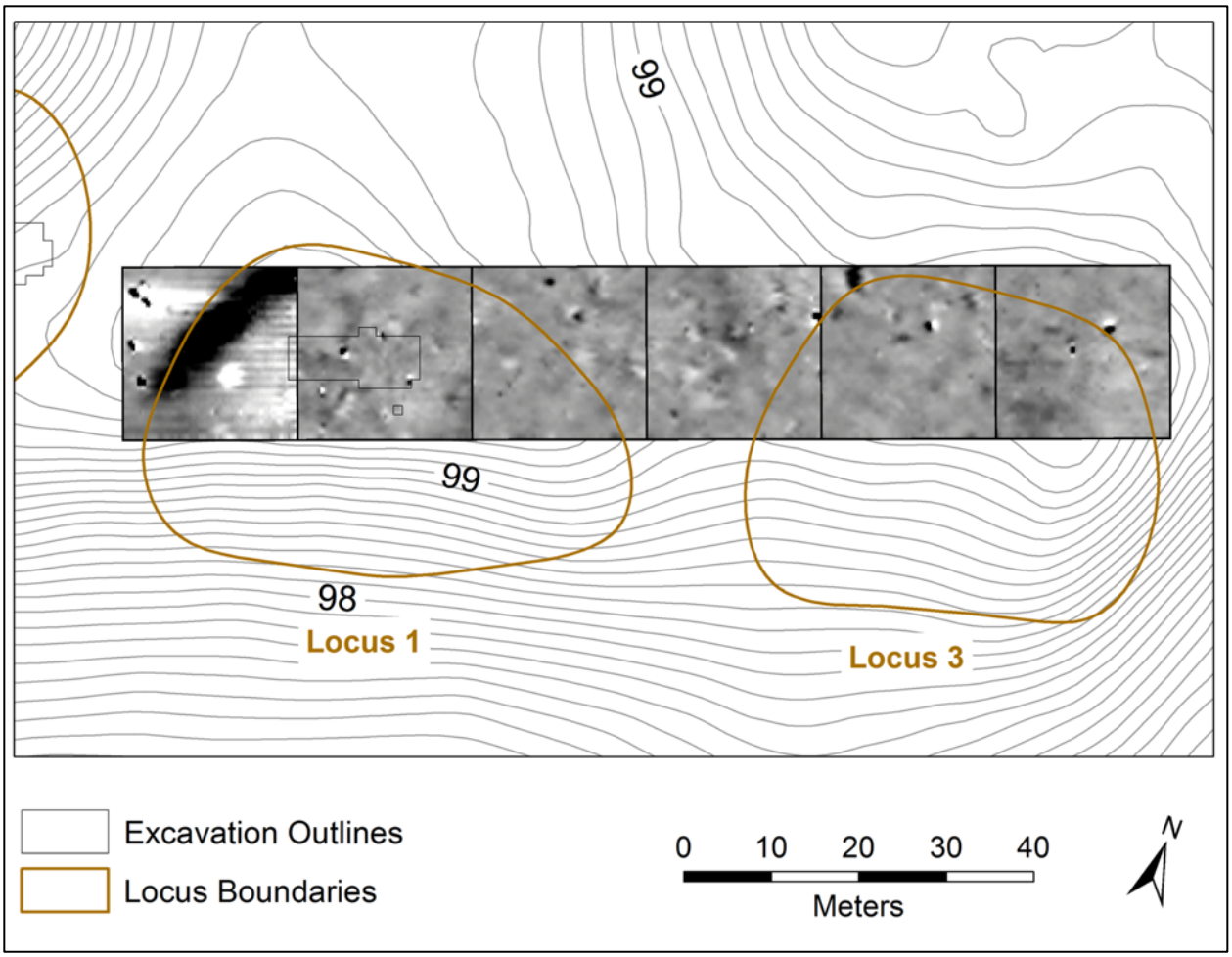


Figure 3.12. Topographic map of Locus 1 and 3 at Old Town with the results of the gradiometer survey overlaid.

communication). Locus 5 is situated 420 m north of Locus 2, near the fence line of the pasture. No material has been collected from this area, but Catawba sherds were observed from both the pasture and a push pile adjacent to a small road cut at the fence line. Locus 6 is located 390 m south of Locus 2, on the south side of Old Town Branch. This site area was identified in 2014 following limited shovel testing, which yielded several Catawba sherds as well as chipped-stone flakes and a soapstone bowl fragment. More work is required in these loci to adequately define their boundaries and confirm their cultural and temporal association with Locus 1 and 2.

Three UNC archaeological field schools, conducted in 2003, 2009, and 2014, targeted Loci 1 and 2 (Feature 3.13)[1]. This work resulted in the hand excavation of a total of 276 m^2, which exposed 65 cultural features and disturbances and recovered over 25,000 objects related to the human occupation at the site. While the vast majority of the cultural material from Old Town can be attributed to the late Colonial and Federal-period Catawba occupations dating to ca. 1761-1800, other artifacts indicate sporadic human presence at the site spanning from the early Archaic period (8000 B.C.) to modern day. A more extensive discussion of the material culture from Old Town can be found in Chapter 5.

At the time of excavation, the site area was kept as pasture land and supported a thin (2-3cm), weakly developed A-horizon. Below this, excavations revealed a plow zone ranging between 7-21 cm at Locus 1 and 5.5-31 cm at Locus 2 indicating differential erosion across the site. Except where archaeological features extended into the subsoil, excavations were concluded at the base of the plow zone, which contained all artifacts, excluding feature fill, and remains of human occupations. Excavators often described the subsoil as stiff, red (2.5YR 4/6) to yellowish-

[1] An additional UNC field school was conducted in 2017 though those data are not considered in this dissertation.

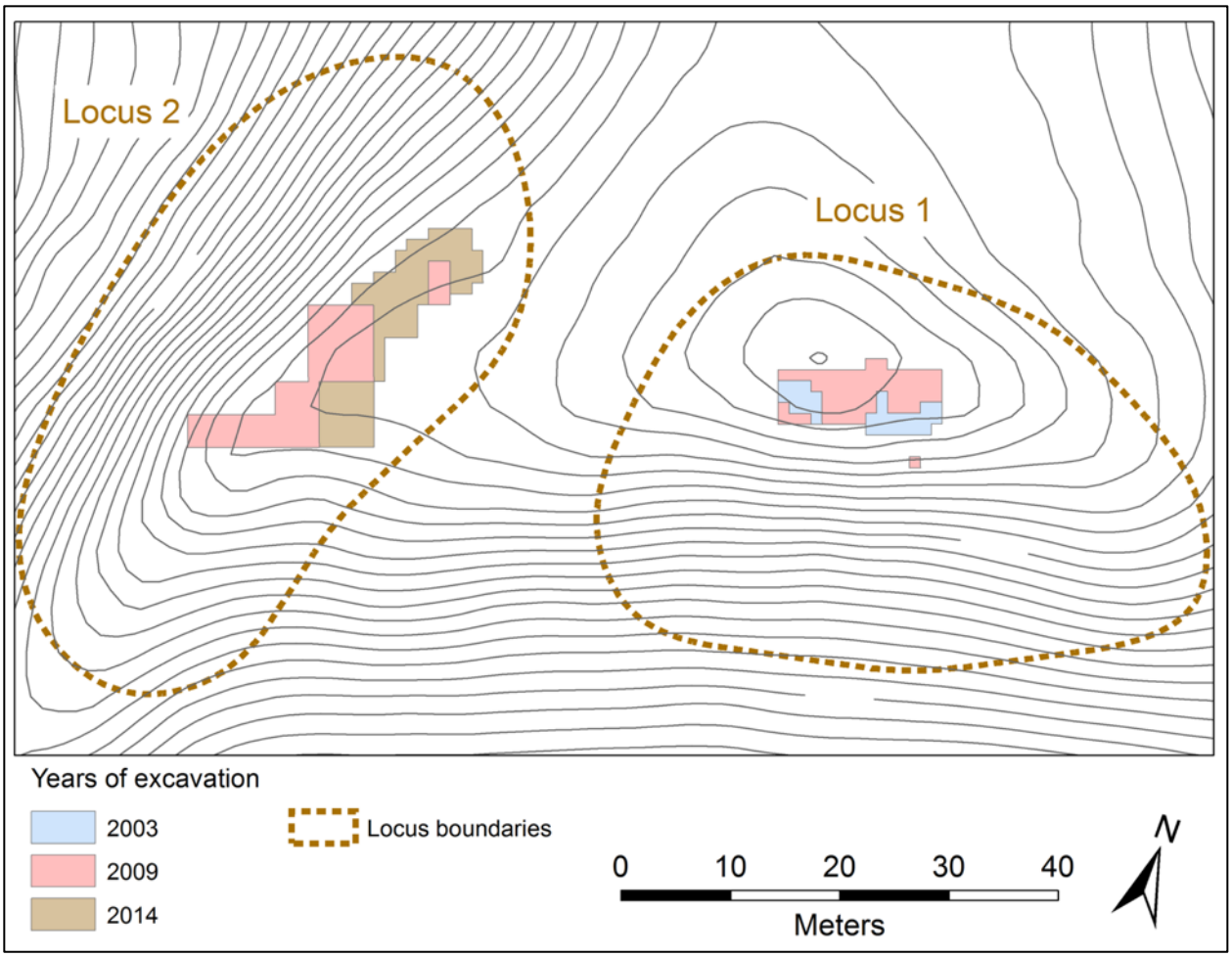


Figure 3.13. Map of Locus 1 and 2 at Old Town showing the excavation extent for each year.

red (5YR 4/6) clay loam that became nearly impossible to trowel if it was allowed to bake out in the sun. The reddish-yellow C-horizon described by Rogers (1973) was only observed at the base of the deepest cellar pits (e.g., Features 14 and 18) and at the tops of the long, narrow sub-rectangular pits interpreted as graves. Graves were easily recognizable based on their shape and distinctively mottled matrix that included this mixed yellow/red clay and brown humus.

The typical soil at Old Town resembles Tatum loam, 10 to 15 percent slopes, eroded (TaD2), though Chewacla, Congaree, and Starr soils (flood plain soils consisting of predominantly silty loam) are prevalent just down slope closer to the river and Old Town Branch (NRCS- Web Soil Survey; https://websoilsurvey.sc.egov.usda.gov/). Tatum soil is commonly found on narrow ridges and slopes and described as a well-drained, strongly sloping and moderately permeable soil on uplands that developed on residuum of weathered sericite schist, phyllite, or other fine-grained metamorphic rocks (Camp 1965; Rogers 1973). Rogers (1973:39) records a representative Tatum soil profile as having a surface layer of light-brown (7 .5YR 6/4) loam about 3 inches thick; the B-horizon is about 27 inches thick transitioning from reddish-brown (5YR 5/4) sandy clay loam in the upper part to red (2.5YR 5/6) clay in the middle part, and red (2.5YR 5/6) sandy clay loam in the lower part. Below about 30 inches (76 cm), the C-horizon ranges from very fine sandy loam to silt loam and becomes reddish-yellow and light-brown (Rogers 1973:39-40).

The original vegetation regime common to Tatum soils would have included oak, hickory, sourwood, and pine trees with an undergrowth of vines, briers, and native grasses (Camp 1965:32). Though this soil is not particularly well suited for agriculture, being low in natural fertility, strongly acidic, and prone to erosion (Camp 1965:4), the Chewacla, Starr, and Congaree soil series found in the adjacent alluvial bottomlands would likely have supported the

Catawba's agricultural fields. The bottomlands immediately north of Old Town, known historically as King's Bottom, were especially productive agricultural fields for the Catawba Nation and were some of the last lands leased away to white settlers (Brown 1966; Pettus 2005). Merrell (1989:239) argues that occupying King's Bottom likely also served to bolster the authority of Catawba leaders due to its association as a burial ground.

Archaeological Feature Types

The archaeological investigations conducted during the three field seasons at the Old Town site identified 65 subsoil disturbances as possible cultural features (Appendix A). After excavation, a total of 60 were confirmed to be of likely human manufacture or containing cultural material; the remainder were determined to be natural disturbances likely caused by tree roots. With the exception of Feature 12a, 39, and 15 possible postholes, which had a dearth of temporally diagnostic artifacts, all of the features can be confidently attributed to the historic Catawba component at the site. Based on their size, shape, and contents, these features fall into one of several discrete functional types. They include: cellar pits (n=9), clay processing pits (n=7), smudge pits (n=8), graves (n=7), postholes (n=26), and other pits (n=3). The patterned spatial distribution and repeated co-occurrence of certain types of features indicate that the occupants of Old Town had and maintained a regular household template at each cabin locus (Figure 3.14 and 3.15). The organization of particular clusters of features related to individual households will be discussed in more depth in the next chapter.

Occupational History

The historic Catawba occupation of Old Town has been divided into two phases, designated Old Town I (ca. 1762 – 1780) and Old Town II (ca. 1781 – 1800). This division was originally suggested by Riggs (2010) who noted a distinction in the pottery recovered from

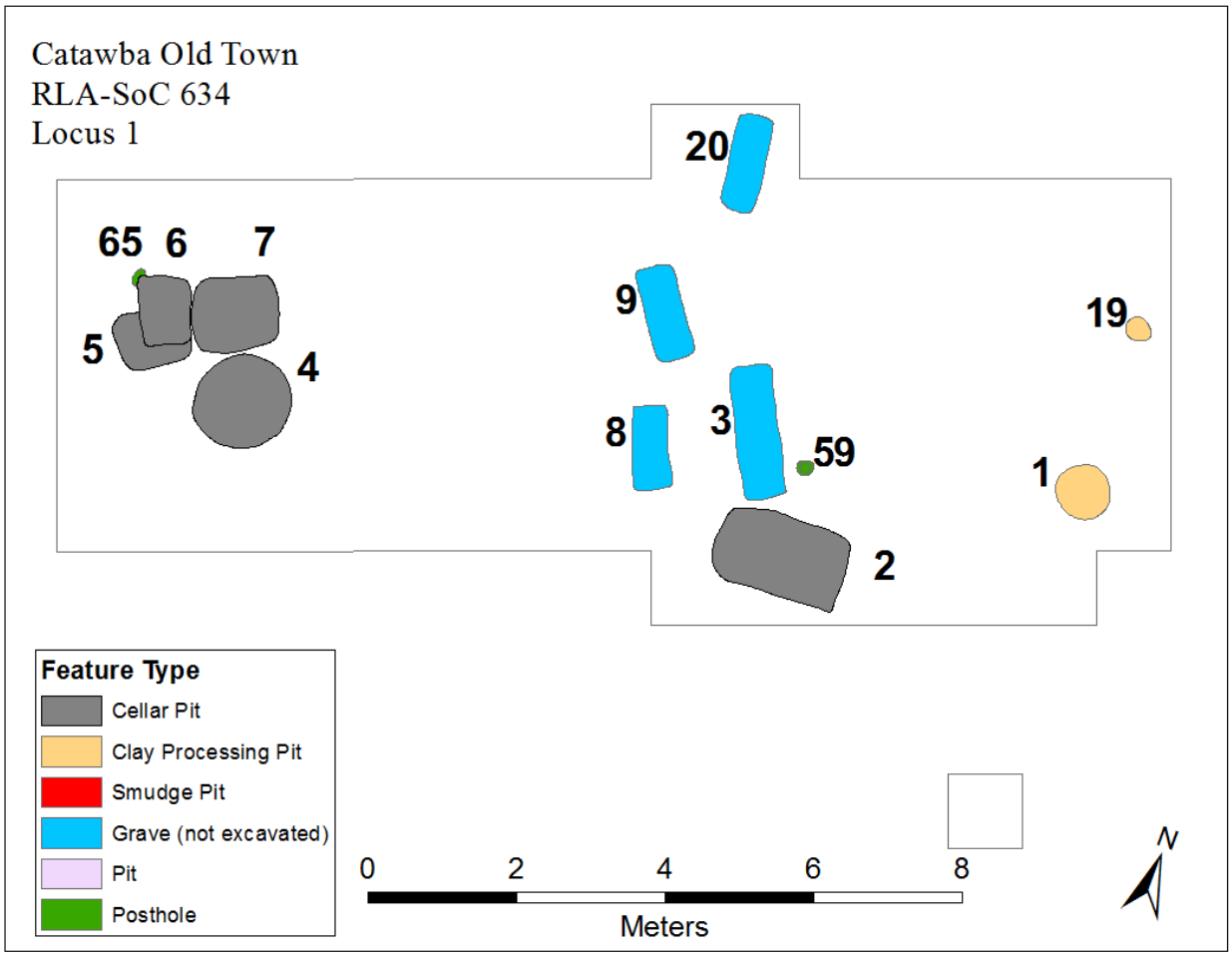


Figure 3.14. Map of feature types from Locus 1 at Old Town.

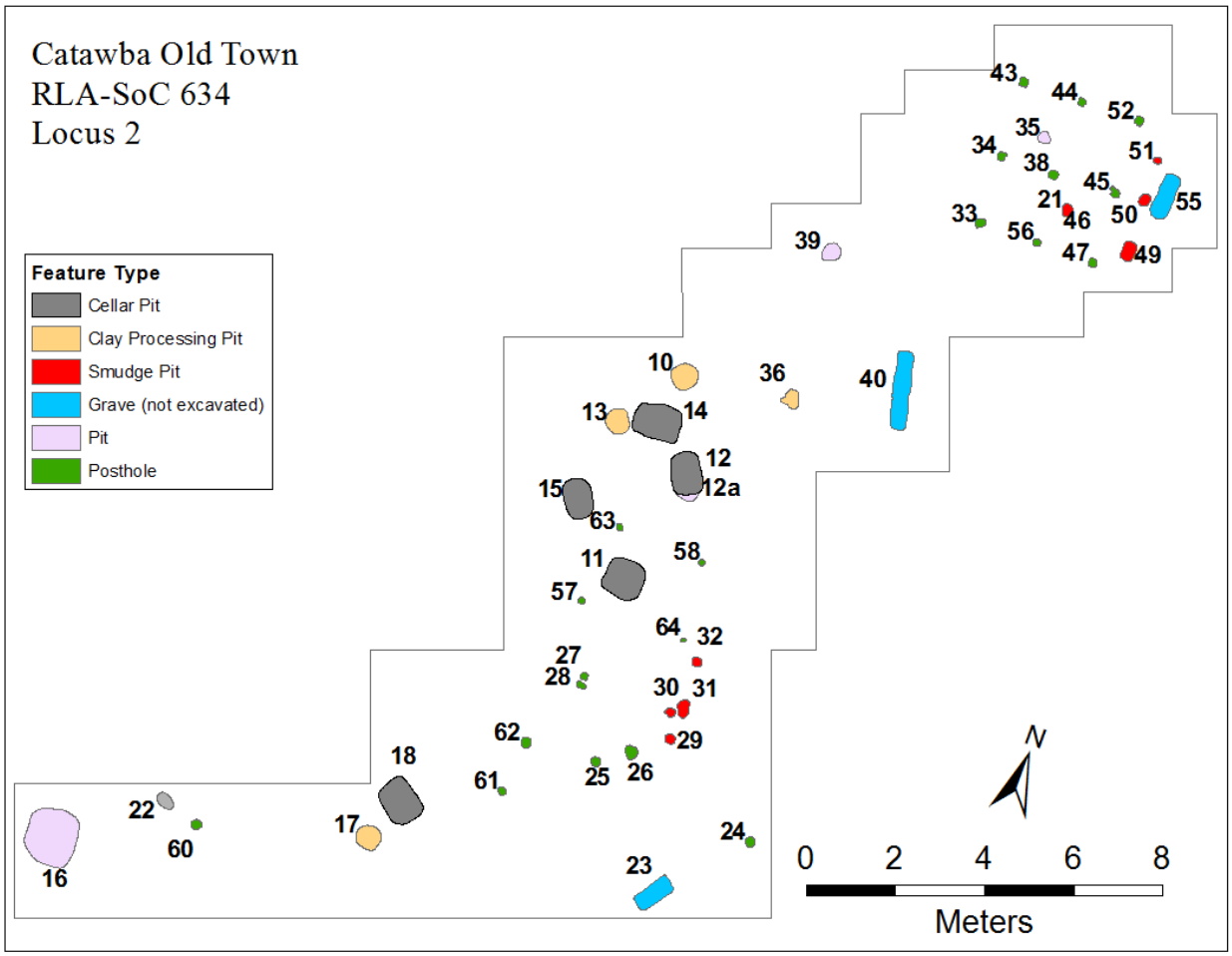


Figure 3.15. Map of feature types from Locus 2 at Old Town.

numerous deep, flat-bottomed cellar pits at Old Town and similarities and differences between the ceramic assemblages from earlier and later Catawba sites. Riggs pointed out that some of the Old Town pits contained a high proportion of sherds with pale clay bodies and some that were painted with dark brown or dark red pigments; other pits yielded pottery with golden brown to red colored exteriors with smudged interiors and the use of bright red/orange sealing wax as pigments, among other attributes. Based on the co-occurrence of small amounts of creamware and pearlware sherds with the latter group, Riggs was able to attribute many of the Old Town features into either the Old Town I or Old Town II components (Figure 3.16 and 3.17).

Both Riggs (2010) and Davis et al. (2015) argue that the Old Town I/II components represent immediately consecutive occupations separated by a brief hiatus that corresponds to the Catawba's temporary removal to Virginia in 1780 ahead of British advances during the American Revolution. Their abandonment and the subsequent destruction of the Catawba towns at the hands of the British army is noted by several documentary sources from the American Revolution. British officer Francis Rawdon appears to have prompted the initial Catawba evacuation from their towns, according to Archibald Murphey:

> The day after Lord Rawdon reached Waxhaw he, with a life guard of twenty cavalry, visited the Catawba Indian towns, six or eight miles distant from his encampment. These towns are situate above the mouth of Twelve Mile creek, on the east bank of the Catawba river. The warriors, headed by their general, New River, had left their towns on the preceding evening to join the troops under general Rutherford. Curiosity alone seemed to have induced Lord Rawdon to visit the towns; but his approach frightened the Indians, who fled from their houses. His lordship discovered two white men and four or five Indians armed, moving briskly down the west bank of the river, and thinking it to be a movement to intercept his return, he hastened at full gallop to his encampment. [Archibald Murphey Papers 1914:217-fn 2.]

That the Catawba towns were burned by the British forces comes from two accounts. An officer in the First Pennsylvania Regiment, Lt. William Feltman, marched through the Catawba

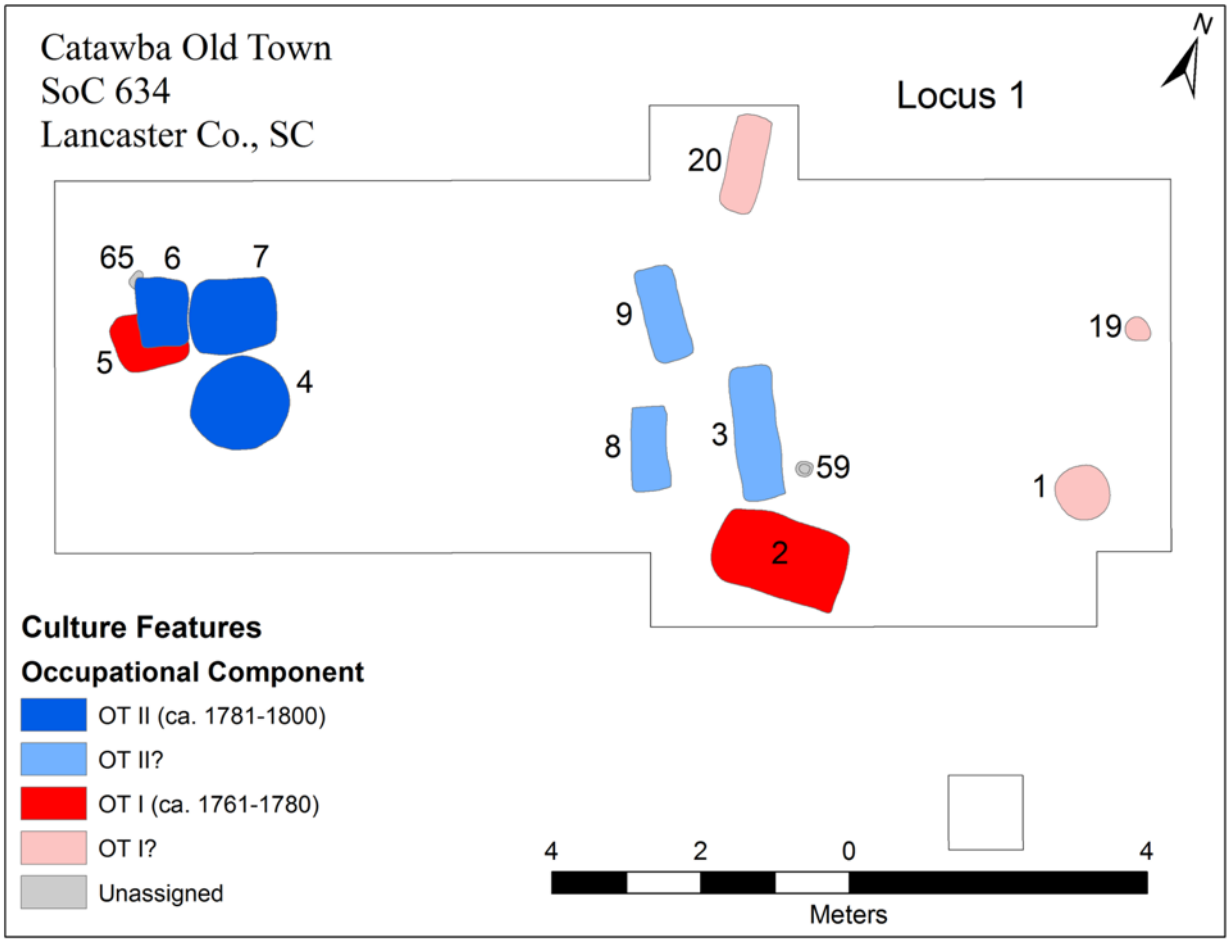


Figure 3.16. Map of Locus 1 at Old Town showing the occupational component for features.

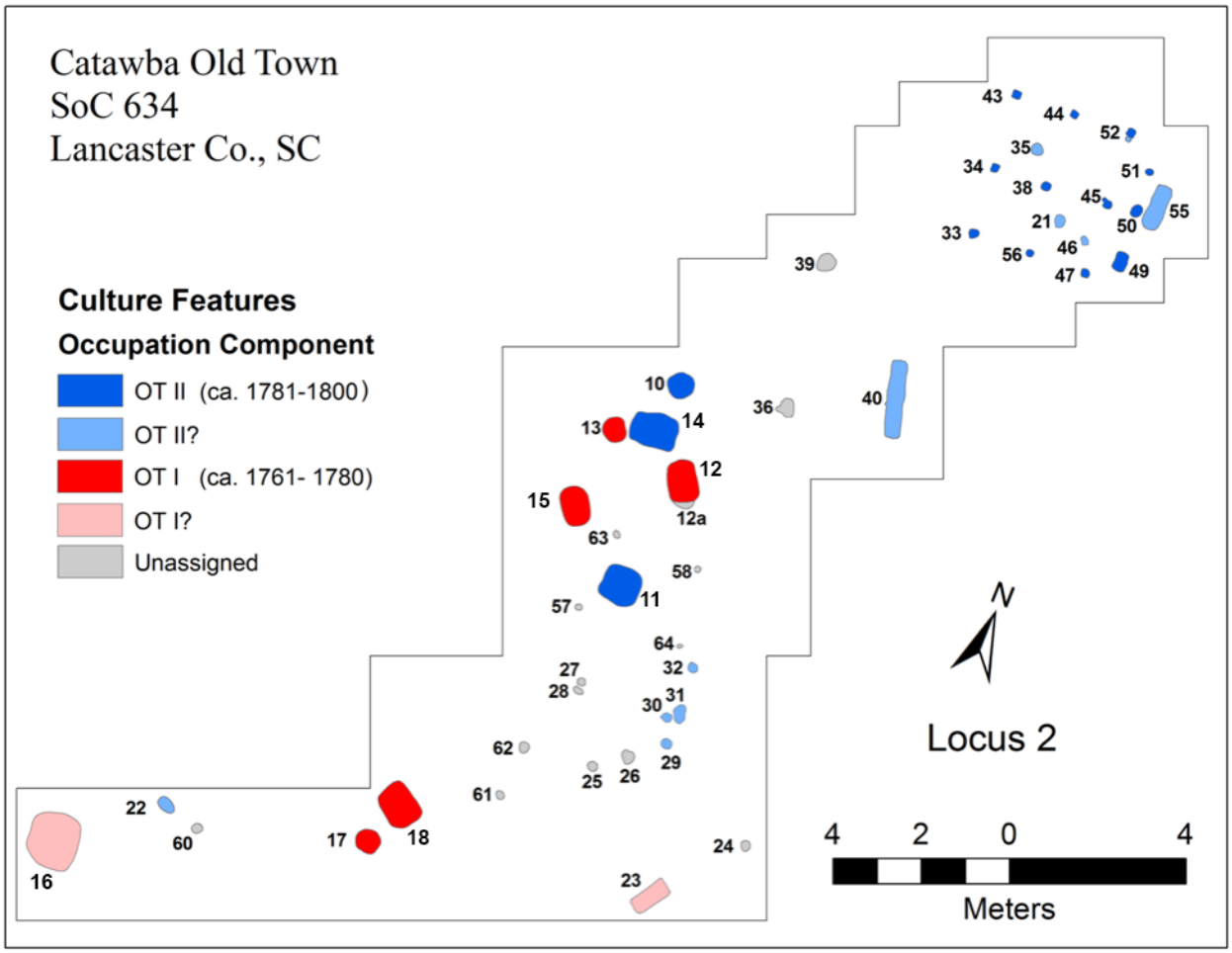


Figure 3.17. Map of Locus 2 at Old Town showing the occupational component for features.

reservation on December 20, 1781 on their way south and recorded his observations in a travel journal.

> Lieuts. Lodge, McKinney, Stricker, Van Court, and self took a ride about four miles from our encampment to see an Indian town of the Catawba Nation. We had a long, tedious, and disagreeable ride, and all small Indian foot-paths and thick woods to ride through. We see one of their towns, but it was only the remains of a town, which was burnt by the British. We rode on half a mile farther, when we found a very fine bottom, but all the old houses evacuated. We see three Indians in a canoe, coming down Catawba River. We hailed them, and brought them to, and asked them several questions. They informed us the town was half-a-mile the other side of the river. We were very desirous of seeing the town, but could not trust our horses on this side for fear they would be stolen. [Feltman 1853:31]

David Hutchison provides another account of the destruction the Catawbas faced at the hands of the British. Writing more than 60 years after the fact, Hutchison's recollections indicate just how traumatic this period must have been.

> When the British advanced, and Greene retreated, they left their Towns and their all, and carried their women and children to Virginia…When General Greene turned South, the Indians brought their women and children from Virginia, and despatched [sic] some of their number to bring word as to the situation of the property which they had left. They received word at Charlotte, about thirty miles from their town, that all was gone; cattle, hogs, fowl, &c., all gone. [Hutchison 1843]

This Old Town I/Old Town II distinction is supported by other lines of evidence including feature superposition and/or alignments, mean ceramic dates, and the correspondence of particular types of glass trade beads. The relatively few instances of intrusive features at Old Town suggest the occupation was not particularly intensive or long-lived, which is supported by the documentary record. The one notable exception is located in Locus 1. Excavation records indicate that Feature 5 was intruded by Feature 6 with their major axes perpendicular to the other. Beside this single instance of feature intrusion, several more cases of features with contradictory alignments and orientations are present that indicate two distinctive occupation components. The best example is the set of paired cellars associated with Locus 2 (Figure 3.17).

Features 12 and 15 share a similar alignment and orientation with each other that is clearly different from the alignment and orientation of Features 11 and 14. If each pair of pits represent cellars on opposing ends of a log cabin, as I argue in Chapter 5, two different cabins are represented in this location.

The presence of temporally diagnostic, imported ceramics from feature contexts also provides some support for the Old Town I/II division. Mean ceramic dates (MCD) are commonly used by archaeologists to estimate the age of a site based on the quantities of specific types of imported ceramics with known production ranges (South 1977:201–236). The MCD for Old Town as a whole, based on all of the dateable imported ceramic sherds (n=274) was calculated to be 1792. When features assigned to occupational components are considered together, the calculated MCD for Old Town I is 1764 (n=35) and Old Town II is 1796 (n=20). The data used to calculate the mean ceramic dates are reported in Table 3.1.

Table 3.1. Mean Ceramic Date Data for all Old Town Imported Ceramics

Ceramic Type	N	Date Range	Median Date	Reference
Transfer-Printed Creamware	1	1783-1820	1802	DAACS 2006
Undecorated Creamware	128	1762-1820	1791	DAACS 2006, South 1977
"Annular Ware" Pearlware	10	1790-1830	1810	DAACS 2006
Transfer-Printed Pearlware	1	1795-1840	1818	Noël Hume 1970
Underglaze Blue Hand-Painted Pearlware	31	1775-1820	1798	DAACS 2006
Undecorated Pearlware	63	1775-1830	1803	DAACS 2006
Rouen Faience	6	1775-1800	1788	Noël Hume 1970
Tortoiseshell Ware	4	1740-1775	1758	DAACS 2006
"Scratch-Blue" White Salt-Glazed Stoneware	1	1744-1775	1760	Noël Hume 1970
White Salt-Glazed Stoneware	24	1720-1805	1763	DAACS 2006
Brown Salt-Glazed Stoneware	1	1690-1775	1733	South 1977
Jackfield-type Ware	2	1740-1790	1765	DAACS 2006
Porcelain, English Soft Paste	2	1745-1795	1770	Noël Hume 1970
Nottingham Stoneware (Lustered)	1	1700-1810	1755	Noël Hume 1970
Total	275			
Mean Ceramic Date	1791.58			

Ayers Town (38YK534)

Ayers Town was the focus of extensive data recovery investigations by UNC archaeologists in 2010-2011. The work completed at this site is detailed in a report by Davis, Riggs, and Cranford (2015), so I will only provide a brief summary of the site and the investigation that took place. Because I deviate from the findings of this report in a few notable ways, I will discuss those differences in more depth below.

Ayers Town is located on the west side of the Catawba River just south of the modern Catawba Reservation (Figure 3.18), approximately 4 km below Old Town and directly opposite the mouth of Twelvemile Creek. Prior to the Revolution, all maps and colonial documents indicate that Catawba domestic sites were exclusively situated on the east side of the river. This changed with the return of the Catawba Nation from Virginia in 1781 (Drayton 1802; Feltman 1781; Hutchison 1843). A section of the 1802 Drayton map clearly depicts two Catawba towns occupying opposite sides of the Catawba River (Figure 3.19).

The only known account describing the Ayers Town community is that of Lady Henrietta Liston who visited in 1797. As the wife of British envoy Robert Liston, Lady Liston was traveling with him from Camden to Charlotte and eventually on to the northeastern states. In her journal entries she states her interest in visiting the Catawba Nation and with her guide, she managed to do just that. Her vivid descriptions of the town's location and the surrounding terrain are consistent with the archaeological site of Ayers Town. Her full journal entry for her visit is as follows:

> The road after we left Camden, became very rocky; but the grounds were prettily waved, though the air was still mild & pleasant & that we experienced the power of an American winter sun, yet the leaves had gradually changed to that dreary season, not even a Pine to refresh the eye. We made a short stage that day and slept at a small house on the road where as generally happened our accommodation was very poor. The following day we reached the Waxhaw Hills and remained all night at a Major Crawford,

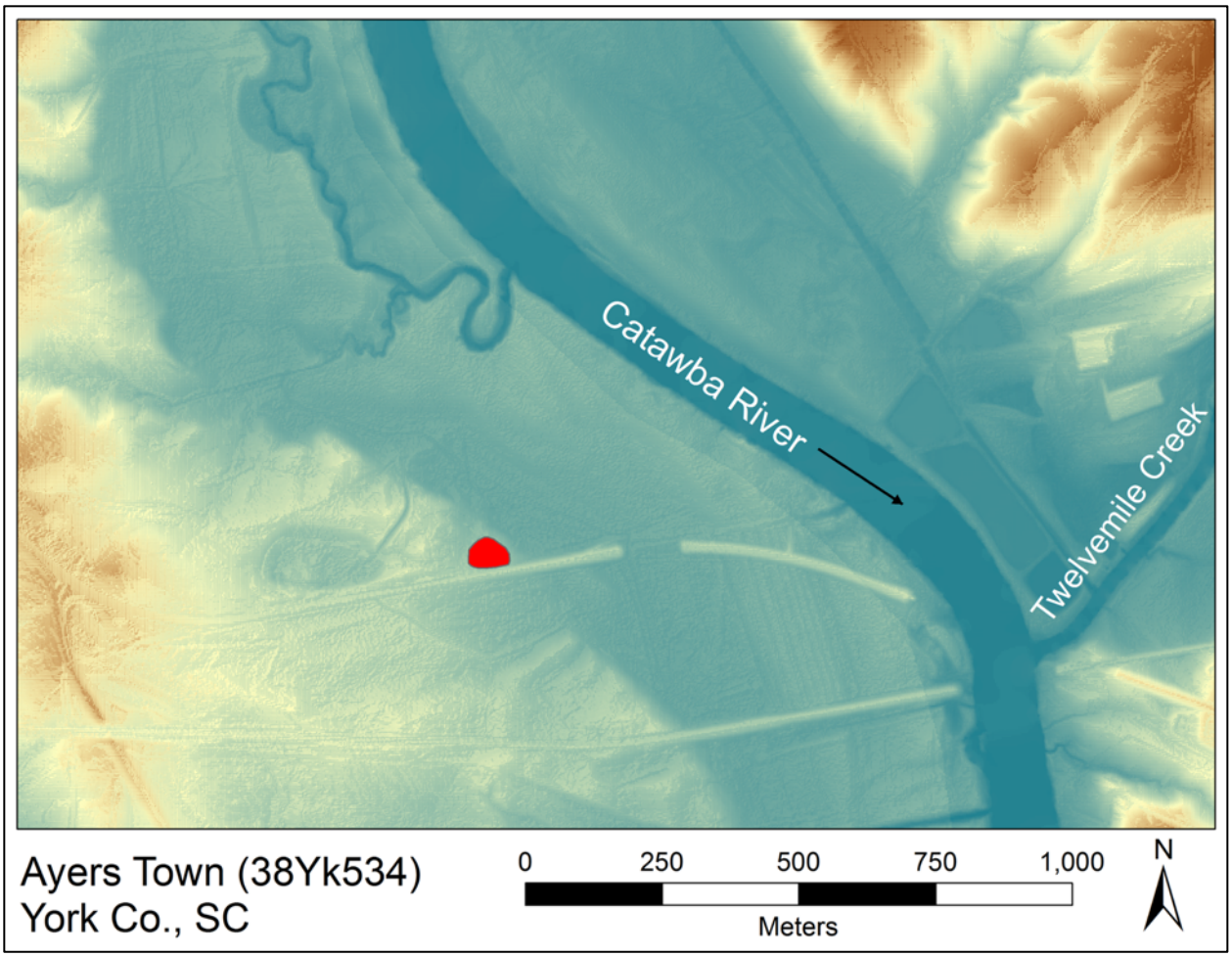


Figure 3.18. LiDAR-based map of the confluence of Twelvemile Creek and the Catawba River showing the topographic relief of the Ayers Town site (RLA-SoC 634) on the opposite side of the river.

Figure 3.19. A portion of the 1802 Drayton map depicting two Catawba towns (Δ) on opposite sides of Catawba River.

having passed through a wild pretty looking country, and over the Waxhaw Creek to his house. This gentleman, like many others, has a considerable farm and entertains strangers for their money. The charges are so moderate and there are so few travelers on the road, that no person could make bread by keeping an Inn or Tavern. The difference between Major Crawford and mine host of last night was that the latter sold spirits to Waggoners [sic] and to all who chose to buy, the former, under the character of a gentleman entertained private travelers only.

Early next morning we set out, accompanied by a guide who was to serve as Interpreter, to visit the Nation, as it is here termed. This is a Tribe of Indians, the remains of the Catawba whose number is now reduced to three hundred. Their territory is fifteen miles square. We proceeded a little way on the high road, then suddenly turned into a wood & crossed the tract through grapes, very difficult for a carriage of four horses. We crossed the Catawba River & at the distance of four miles, from the entrance of the wood, reached one of their Towns, situated in a hollow near the River. The first objects that struck us were two Boys sitting at the door of a Log House, the oldest a Boy about ten had a bow & arrow in his hand, & the younger, about four, a Pipe in his mouth, was smoking with all the gravity of a Philosopher.

The Indians settled in the midst of their natural Enemies – the Whites – are obliged in some measure to adopt their customs & their Vices. Many of them build their Log Houses of the same form, always adhering to one apartment only. They have given up the name of King, in compliance to the Republick & their Chief substitutes a Military title. The General was at another Town, more distant, for they are settled in three Towns. The Col., the next in rank, presides in the one we happened to visit. He is esteemed the most sensible & valliant of his Tribe. Our first respects were paid to him & it being yet early, we found the old Warrior sitting in a Chair, at the side of the fire, with a blanket jacket. His Wife, or as our Interpreter styled her – his Lady, sat on a Stool, with a Savage look squalid & nasty, a woolen Petticoat & a blanket about her naked shoulders her long black hair hanging loose. At one corner of the fire & within the chimney, squatted in form figure & posture a large ape, blind & playing on his teeth with his fingers – This shocking spectacle was it seems an Idiot, almost naked & a quantity of hair hanging over its face, for with this Nation as with some more civilized, these unfortunate objects are not only held sacred (which perhaps they ought to be everywhere) but it is esteemed fortunate to have one in your family.

The Colonel was surrounded with Sons Daughters & grand Children – The young Indian Men are very handsome & the children would be extremely pretty, if they were not often disfigured by Nose jewels. The fine clear dark olive is set off by brilliant black eyes, & there is a characteristic wild sparkling in the eye of an Indian, & a quantity of shining black hair. The Squaws, & all the elder people appear a shade paler, which is no advantage, & the females, except in extreme youth – with their high cheek bones, appeared very ugly. The Col. & a few of the older Men spoke a little bad English. He apologized for the smallness of their numbers saying, the young Men had not yet come in from hunting. We had, indeed, met some of them selling their Deerskins a hundred miles to the South. On the Colonels fire stood a pot, & there was a hoecake on the hearth. I

> asked what was in the Pot, he said Deers flesh for breakfast, but did not offer us any. In another Hut we found Wild Turkey preparing in the same manner. The only cultivation we saw was a small quantity of Indian corn in the vicinity of the Town, cultivated I am told, by the Women, & this is rather for traveling with (when an Indian sets out on a journey the flour of Indian Corn in a bag & pot to boil it in is all his provision) than to use as bread.
>
> In the course of our visits through the Town, we entered several of the Wigwhams (the original form of their Houses). The fire is in the middle. In one of them we found a sick Indian lying half naked, on a Deerskin near the fire, & in all of them the half naked wretches lay indolently on skins round the fire place. In another Wigwham was a Woman lately delivered. She sat at the fire & the child in her lap, which she covered with her blanket at our entrance. I expressed a desire to see it, & with great difficulty the Interpreter prevailed with her to indulge me. I asked the reason for her reluctance & was told, she was afraid lest the eyes of a Stranger should be evil. I assured her that mine though not beautiful, had been very fortunate.
>
> Before departing we again paid our Compliments to the Colonel, who we were told expected to see us. We found that, upon hearing from the Servants who we were, he had drest himself, in an old green cloth Coat with gold binding, which buttoned very imperfectly over his naked body. [Liston 1797:25–28] (North 2014:32-34)

Ayers Town was first identified as part of a cultural resource survey ahead of a proposed bridge replacement over the Catawba River east of Rock Hill, SC (Legacy 2009). According to the management summary

> Archaeological field investigations began on April 20, 2010 and were completed on January 6, 2011. These investigations included: (1) mapping of shovel test pits previously excavated by Legacy archaeologists and comprehensive metal detection survey to identify site limits and determine areas of artifact concentration; (2) remote sensing survey using a gradiometer and soil- auger testing at one-meter intervals to identify subsurface pit features; (3) systematic excavation of 24 1x1-m test pits across the site at 10-m intervals to assess site stratigraphy and sample artifacts from plowed soil deposits; (3) excavation of 87 additional 1x1-m units in 14 blocks to fully expose archaeological features identified in test pits and explore other areas suspected to contain archaeological features; (4) stripping of plowed soil using a mini-excavator and cleaning the exposed top-of-subsoil surface to identify and map archaeological features; and (5) the excavation of all identified archaeological features except graves. [Davis et al. 2015:i]

A total of 191 contexts were identified, including: 31 human internments, 40 postholes, 47 cob-filled smudge pits, and 44 storage pits (Figure 3.20). Of these storage pits, 23 were flat

bottomed and likely represent subfloor cabin cellars. The orientation and spacing of the pits suggest that as many as 12 structures were present.

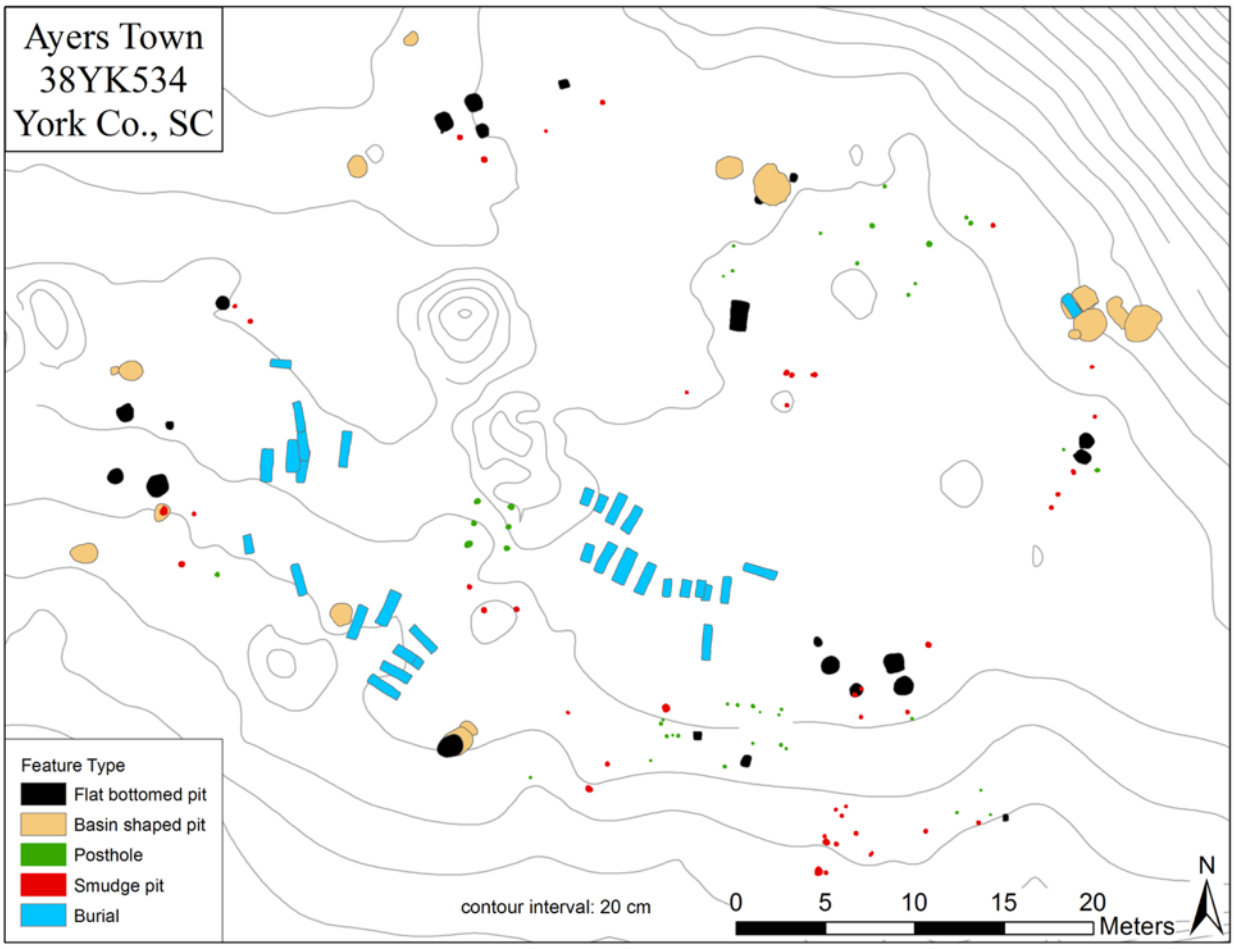


Figure 3.20. Ayers Town map showing the distribution of various feature types.

The Ayers Town site is named for Colonel John Ayres (also known as: Ears, Eayres, Ayers, Aires, Hixa-uraw, Hixayoura), one of two well-known Catawbas who likely called this settlement home. During her visit to the Catawbas, Lady Henrietta Liston likely visited the Ayers Town community and described her encounter with the "Colonel." While Liston does not specifically identify John Ayres as the colonel she meets, colonial records show that until 1801, he was the only Catawba to hold the title of "Colonel" (Watson 1995:93–94). This means that "Colonel" may have started out as a personal moniker rather than a specific tribal position. However, Ayres' honorific title appears to have become formalized by the time of the Revolution when Catawba chiefs adopted formal military titles rather than "King."

Prior to being the Colonel, Ayres served as a War Captain for the Catawba during the French and Indian War and so distinguished himself in battle that he caught the eye of the up-and-coming commander and future first president, George Washington. In a 1757 letter to Governor Robert Dinwiddie, Washington expresses his admiration for this Catawba warrior:

> Among these are three who I must beg leave to recommend to your Honors particular notice—The first is Capt. Aires, about [alias?] Hixayoura; a Cuttawba: He was the Indian that took the scalp which King Hiegler brought to your Honor; and shewed a great desire to encourage his Brethren to go to war again, and *did* go himself with Capt. *Butten* [Bullen] (From George Washington to Robert Dinwiddie, 29 May 1757).

Not only does Washington praise Ayres by name, his letter provides the only reference that connects Aires to the name "Hixayoura". Hixayoura appears to be the same as "Hixa-Uraw" who signed the 1756 Treaty between the Catawba and Virginia. He was one of only three Catawba Headmen asked by the Catawba King to speak on behalf of the Nation, indicating his prominent status. Interestingly, John Ayres was known as Colonel Ayres well before Catawba leadership assumed military ranks in deference to their revolutionary-minded American neighbors, as early as October 1759 (Merrell 1989: Fig. 6). Following the death of King Hagler

in 1763, Col. John Ayres was briefly elected Catawba chief and interpreted (in English) for his Nation at the Treaty of Augusta in 1763. His position as Chief was short lived, however, and he was replaced by King Prow in 1765 due to growing dissatisfaction with his leadership (Brown 1966:252). Despite assuming the role of chief, Ayres never adopted the honorific title of "King" as was the custom before the Revolution, but instead remained Col. Ayres, even after his deposition, until his death around 1801. It may be that his death precipitated the abandonment of the Ayers Town site, as is thought to have been the case for Sally New River and the New Town site (Davis et al. 2015:55).

The other potential notable Ayers Town resident was John Nettles. Also known as Doctor John, Nettles is perhaps best known as the first literate Catawba owing to his unique education at the College of William and Mary as a child (Watson 1995:73-74). The story of his education was recalled by David Hutchison:

> ...a boy by the name of John Nettles was selected, being the most promising boy in the Nation. He was taken to Virginia, placed at the College of William and Mary, and was kept there five or six years. The object was to give him a liberal and finished education, and to send him back to improve his tribe... [Hutchison 1843]

Hutchison goes on to suggest that after returning to the Nation, Doctor John's education set him apart from his fellow Catawbas relegating him to a lower status within his community, stating:

> He was sent back to the Nation well recommended, married, and had a family. It was some years afterwards when I became acquainted with the Indians, and he then ranked among the lowest. I was acquainted with him until his death, which was upwards of twenty years, and he remained the same. His time spent at school had unfitted him for the habits of Indian life, which was to make a support by hunting, fishing, and a small portion of labor, to all of which he was a stranger. In his dress also he differed a little from the Indians, adopting the breeches of the whites instead of the breech-clouts of his tribe. This rendered him contemptible in the eyes of the Nation. In doing business with the Whites at this time, the business was always transacted through the aid of an interpreter; but the Indians would in no instance allow Nettles to interpret for them. From the time I became acquainted with him, he appeared to have lost his education almost entirely. He could read and write, though very indifferently, and I never knew him to have any book except the Testament. [Hutchison 1843]

Hutchison's assessment of John Nettle's social standing seems to be overstated considering he eventually held the rank of Major, third in charge after the General and Colonel, between 1801 and 1812. Likewise, Hutchison's claim that under no circumstances would Nettle interpret for his tribe is directly contradicted by Elkanah Watson, who visited the Catawbas in 1786. During his visit to the "principal" Catawba Town (Old Town?), Watson recalled his meeting with General Newriver, the Catawba leader at the time:

> It was sometime before I could find the residence of their king or chief; New River, ... He spoke no English, and to induce him to send for a person to interpret between us, I intimated by signs, that I had an important communication to make. On this, he dispatched a runner across the Catawba river, for an interpreter. In about an hour his cabin was thronged by the savage warriors, and among them one who had been educated at William and Mary College, a sensible and well-informed person; but a perfect Indian in his appearance and habits. [Watson 1856:257]

As Ayers Town appears to have been the only Catawba community on the west side of the river at the time, it seems more than likely that John Nettles too lived at or near this settlement.

The Nisbet Site (RLA-SoC 638)

Archaeological excavations at the Nisbet site indicate a relatively small and possibly short-lived cluster of houses associated with the historic Catawba Nation. The Nisbet site is located on the eastern side of the Catawba River in Lancaster County, South Carolina, approximately 3 km above the confluence of Twelvemile Creek and about 2 km south of Locus 1 at Old Town. The site is situated at the western edge of a prominent upland ridge that overlooks a large alluvial terrace known locally as Nisbet Bottoms. Nisbet Bottoms is a place that would not only have served as prime agricultural fields for those living at or around the Nisbet site, but is still an important location for contemporary Catawbas as a source for potter's clay (Blumer 2004; Crow 2011).

The site was initially discovered in 2006 by Drs. Steve Davis and Brett Riggs during a pedestrian survey of possible locations of eighteenth century Catawba settlements within the old

Catawba Reservation. Several fragments of Catawba pottery and a kaolin pipe stem were found on the surface of the agricultural field and eroding out of several tree tip-ups in the woods immediately adjacent to the field (Davis and Riggs 2014). A subsequent systematic metal detection survey covering 4,700 m^2 recovered 98 artifacts, the vast majority of which suggested a late eighteenth century component (Figure 3.21). One of these positive metal "hits" exposed an organically enriched context beneath the plowzone; it was designated Feature 1, though further investigation of this feature was not conducted until 2014. The distribution of artifacts identified in the metal detector survey indicates the site may have included an area approximately 4800 m^2, though the density of material was low (Figure 3.22).

Additional testing was conducted at Nisbet to identify other archaeological features, including a soil auger survey around Feature 1 and other locations where clusters of metal were identified, as well as a gradiometer survey that covered 2000 m^2, five 20 x 20 m blocks (Davis and Riggs 2014:7). Although magnetic anomalies of both high and low magnetism were detected in several locations, no additional cultural features were ultimately identified by either method.

A block excavation of 1x1 m units was conducted around the one feature identified during metal detecting. This work exposed a total of 17 subsurface features (Figure 3.23). Of these, 14 were excavated and revealed a pit feature, 10 post holes or possible post holes, and three tree disturbances (Appendix B). As it will be discussed in the next chapter, the spatial distribution of the pit feature and post holes indicate the presence of a single, post-in-

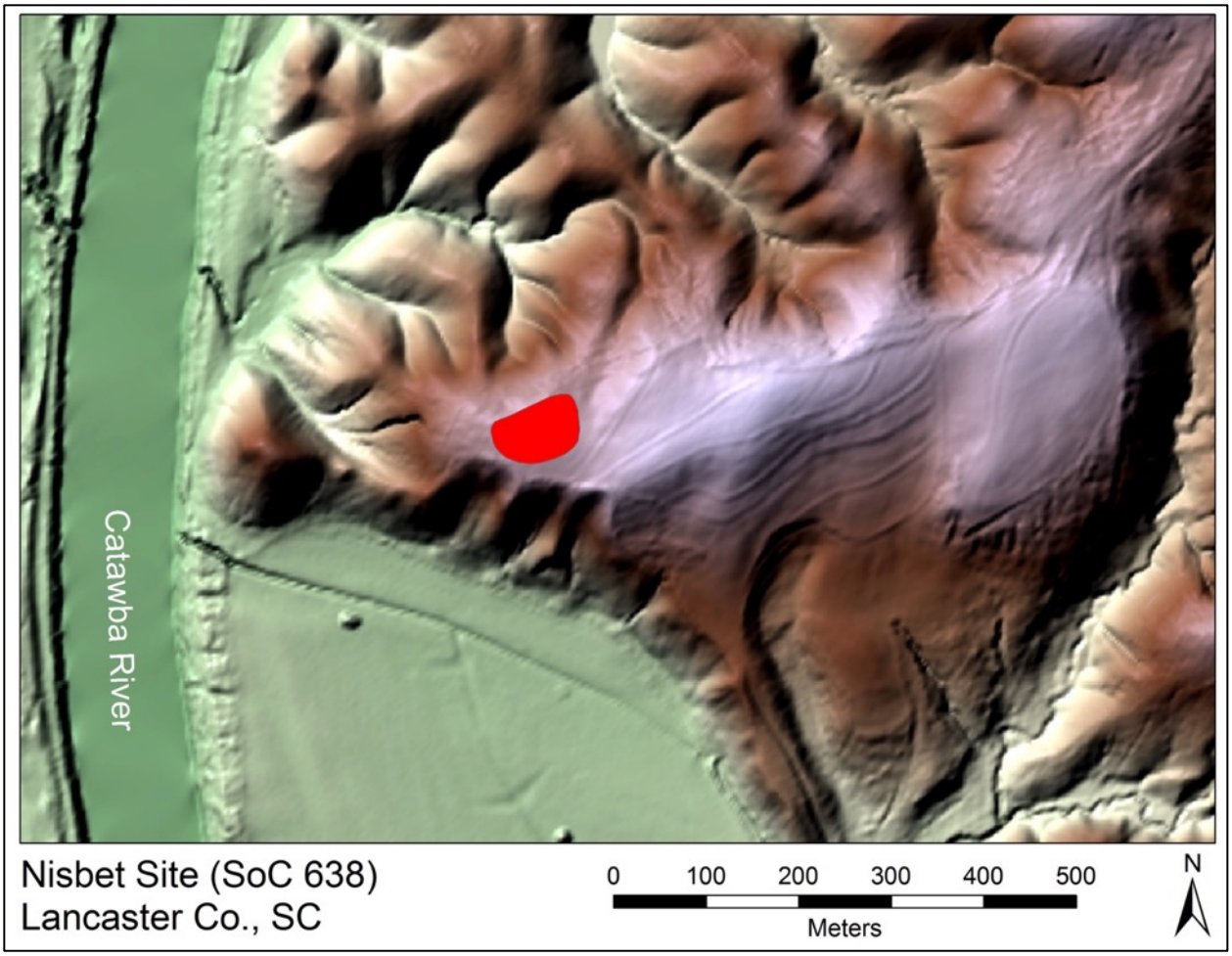


Figure 3.21. LiDAR-based map of the Nisbet site showing the terrain's relief.

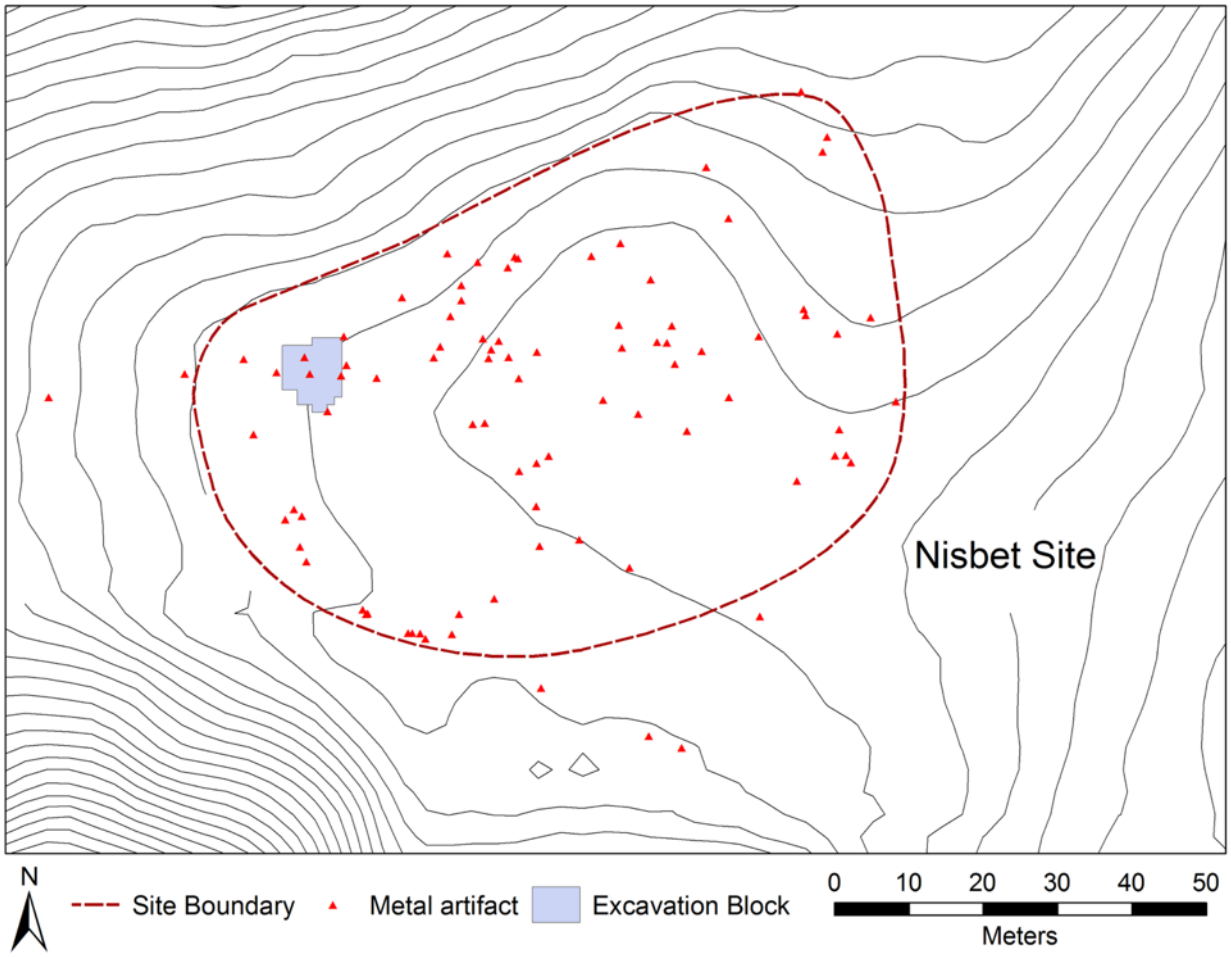


Figure 3.22. Topographic map of the Nisbet site showing the distribution of metal artifacts and the location of the excavation block.

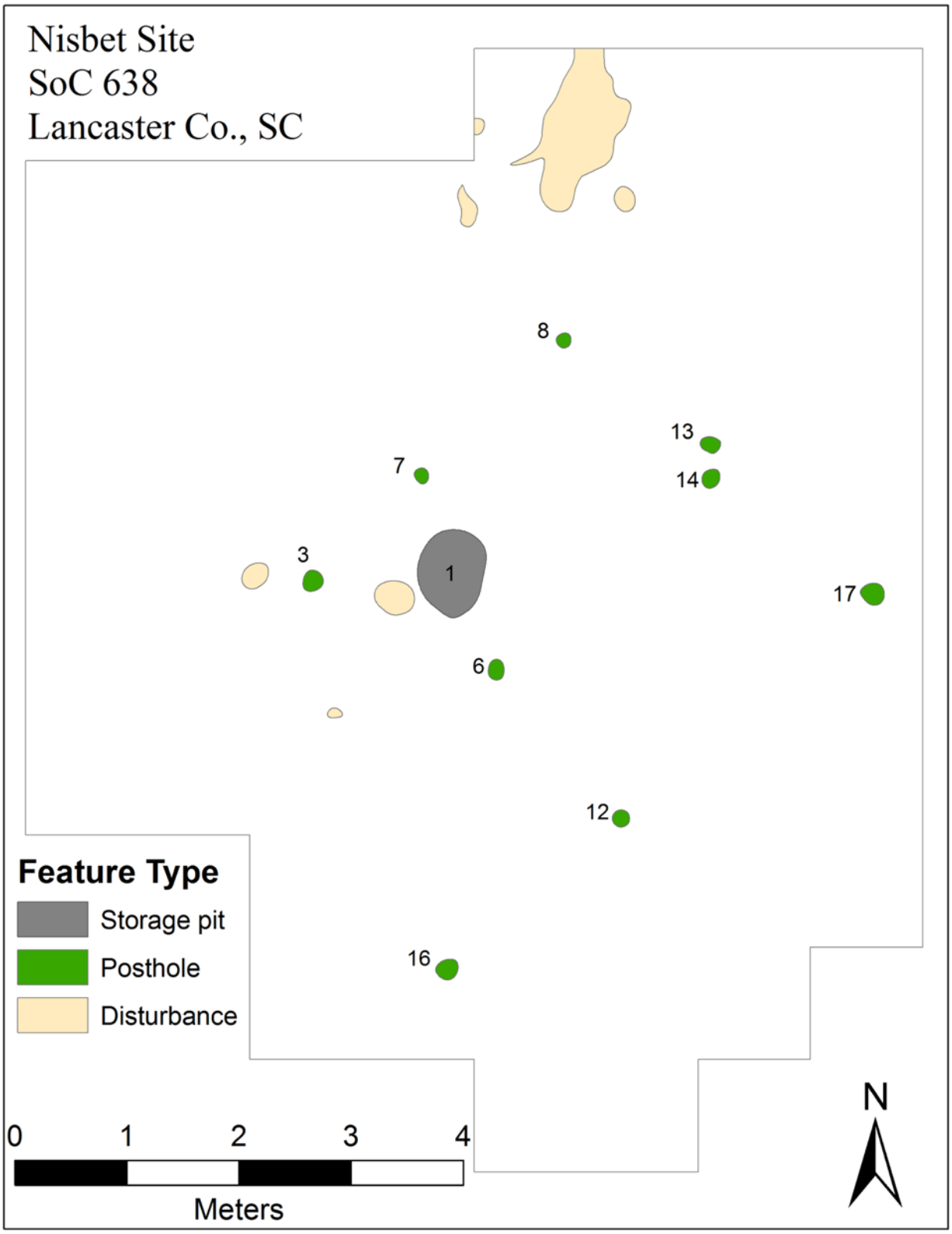


Figure 3.23. Map of the excavation block at the Nisbet site with cultural features labeled.

ground structure in this location. Due to the limited horizontal exposure of the block excavation, it is difficult to discuss the overall site layout or the relationship of this structure to other possible structures at the site.

The precise occupation span for Nisbet is unclear though it was likely in use sometime between ca. 1762 and 1780. There is no direct documentary record of the Nisbet settlement, but based on its location within the Twelvemile Creek Locality, the site likely represents a post-1759 occupation when the whole Nation relocated from the Nation Ford locality. This settlement is not depicted on Samuel Wyly's 1763 survey map of the Catawba reservation, which suggests either it was overlooked due to its small size or it was established after sometime after 1764. Temporally diagnostic artifacts recovered from the site also support a brief occupation between 1760 and 1780, albeit tenuously. Only six fragments of historic pottery were found at the Nisbet site and of these only three were identifiable to a specific type. A fragment of creamware (Deeper Yellow Creamware) with a production range of 1762-1780 (Noël Hume 1970:126-8) and an indeterminate refined earthenware were recovered from the only identified pit feature (Feature 1). The other two diagnostic sherds ("Scratch Blue" salt-glazed stoneware & annular ware pearlware) were recovered from plowzone contexts and have production ranges of 1744-1775 and 1790-1820, respectively (Noël Hume 1970). The annular ware pearlware indicates a much later post-Revolutionary occupation, though its plowzone context limits its dating potential for the site.

Glass beads recovered from Nisbet also shed some light on the timing of its occupation when compared to the bead assemblages from Old Town and Ayers Town, but like the historic pottery, they do not provide a clear answer. Glass beads are not directly datable, but changing preferences and/or access to specific types, sizes, and colors of glass beads are patterned in the

archaeological record (Davis et al. 2015:151-156; Duffield and Davis 2011). All but 14 of the 99 glass beads recovered from Nisbet were found in Feature 1. It is not surprising that the other 14, found in plowzone contexts, tended to be larger necklace-type beads that were readily recoverable in the ¼" dry screen.

CHAPTER 4: CATAWBA HOUSEHOLD ARCHITECTURE AND COMMUNITY ORGANIZATION

Central to the notion of archaeological households is that of the dwelling. Dwellings, as I use the term (*sensu* Nash 2009), do not refer simply to singular physical structures within which people reside, but encompass a constellation of architectural features, the spaces that surround them, and associated material culture. I acknowledge that these spatially circumscribed constellations constitute only a part of a wider cultural landscape in which households existed and functioned to meet the needs of its members. However, these broader cultural landscapes can be difficult for archaeologists to document and interpret due to their potentially ephemeral geographic distributions and signatures. The physical remains of structures and activity areas are often the most easily recognizable evidence of the complex social relationships that define a household and the community it is embedded within.

Dwellings, then, can be seen as one of the many material outcomes of the cultural ideas, norms, and practices within a community as well as arenas for communication, performance, and negotiation that are expressed through the types of structures that are constructed, their arrangement in relation to other dwellings, and how they are used. It is important to acknowledge that an archaeological approach to households and communities cannot hope to capture every facet of the social dimension associated with these institutions. However, because dwellings are anchored in space, they can provide archaeologists with a starting point with which to investigate the complex relationship between domestic architecture, material culture, identity, and place.

Domestic architecture on late eighteenth-century Catawba sites reflects a combination of new and old construction techniques and forms and is emblematic of the broader societal transformations taking place within the Catawba Nation at the time. At the sites of Old Town and Ayers Town, primary domestic architecture consisted of cribbed log cabins and two types of ancillary structures: elevated corn cribs and covered work areas or arbors. Archaeologically, these structures are represented by the patterned arrangements of flat-bottomed storage pits (cabins), and small pits and postholes (ancillary structures). The single structure documented at the Nisbet site was a single-set, post-in-ground building and resembles earlier architectural modes (Fitts 2015a). In this chapter I present an analysis of architectural features and their spatial arrangements and define 10 archaeological households from these three historic Catawba sites. These 10 households represent the basic units of analysis used in the rest of this study.

I first provide ethnohistoric and documentary descriptions of architecture used by Catawba and affiliated groups as well as descriptions of related colonial frontier construction styles that influenced these groups. Next, I discuss the distribution of architectural elements and patterned constellations of features that I argue represent discrete archaeological households at each site. Based on the spatial organization of these complexes, I argue that Old Town and Ayers Town represent two divergent community strategies; Old Town was composed of dispersed, largely independent households while Ayers Town operated as a more integrated and corporate oriented community.

Ethnohistoric Perspectives of Catawba Architecture

The documentary record of the Catawba Nation is relatively extensive due to the long period of interaction between Europeans and peoples living in and around the Catawba Valley, though descriptions of architecture are not particularly common in many of these accounts. While the outcomes of colonial encounters always reflect the negotiated agency of both parties,

the intrinsically unequal power dynamics often skewed how these encounters played out and are subsequently represented in the historical record. In the case of the earliest encounters between Europeans and Catawba-related groups in the Carolina region, these were heavily influenced by the interests of the Spanish, and later English, who were focused on military intelligence, resource extraction, and potential opportunities for trade. While these early documents rarely included detailed descriptions of Native houses, many do provide intriguing glimpses of other aspects of Native lifeways of the ancestral Catawba communities that eventually coalesced around the lower Catawba Valley.

Traditionally, many southeastern Native societies, especially those associated with the Mississippian lifeway, had a combination of public and domestic architecture. Public architecture took many forms and ranged from larger versions of domestic buildings to monumental constructions and were often central organizing elements of a community's cultural landscape. The earliest descriptions of encounters between Europeans and Native peoples in the southeast occurred in the context of Spanish entradas into the interior Southeast, and these early Spanish accounts noted the presence of both domestic and specialized public architecture associated with communities ancestral to the eighteenth century Catawba Nation. Hernando De Soto (1539 – 1543) and Juan Pardo (1566 – 1568) both made extended expeditions into the southeast that brought them into numerous Native settlements and towns, including many of those groups who would eventually come together to form the Catawba. On several occasions, De Soto's notaries mentioned the presence of specific kinds public architecture such as "temples" or "oratories" on or near earthen mounds as well as specialized storage facilities (Clayton et al. 1993:280). The Pardo documents do not directly address the nature of public architecture aside from pointing out that certain structures were larger than others (Hudson

2005[1990]), though repeated descriptions of specialized storage facilities and other buildings constructed for the Spanish provide insight into what the Spanish saw as important.

Though mound building and use appears to have ceased in the Catawba Valley by the beginning of the seventeenth century, public architecture was still utilized a hundred years later when English traders began making inroads into the Carolina Piedmont. John Lawson encountered many of the prominent Catawba Valley polities, including the Esaws, Katabas, Wisack, etc., and he noted that they shared many characteristics that set them apart from their Piedmont neighbors to the east and the north. Lawson states, "On our Way, we met with several Towns of Indians, each Town having its Theater or State House, such Houses being found all along the Road, till you come to Sapona, and then no more of those Buildings, it being about 170 Miles." (1967 [1709]:46). According to Lawson, these State Houses were larger than ordinary domestic dwellings and were where public and private business could be conducted. In several instances, Lawson mentions that these public building were occupied by the chief or another high-ranking person in the community who was tasked to maintain it. These buildings were also often used to house visitors and traders like Lawson himself (Lawson 1967[1709]). By the mid-eighteenth century, however, descriptions of formal public architecture disappear, suggesting it no longer played a prominent role in Catawba communities. The one exception to this may be chief's houses, which seem to have continued to be larger than ordinary houses and served as spaces where community business was conducted and where visitors to the Nation were received (McDowell 1958:488), even into the nineteenth century (Speck 1946:7).

With the apparent absence of formal public architecture by the late eighteenth century, I focus the remainder of my discussion on domestic forms of Catawba architecture. In the section that follows, I provide ethnohistorical and archaeological evidence for three types of structures

indicated by the archaeological data: (1) the cribbed log cabin; (2) specialized storage facilities; and (3) and arbors, covered areas, and activity areas.

Log Cabins

Most archaeological studies of households in the Southeast rely heavily on the presence and patterning of postholes to interpret architecture (e.g., Boudreaux 2005; Marcoux 2008; Rodning 2004; Steere 2017; Wilson 2005). Though architectural styles and construction techniques varied widely throughout the eastern woodlands and through time, nearly every method for which we have archaeological evidence involved setting at least some vertical wooden posts into the ground. Often these posts delineated the extent of the structure's walls, central supports, and sometimes interior partitions and/or benches. Examining the number, spacing, size, depth, arrangement, etc., can provide valuable details about structure size, shape, occupation duration via rebuilding events, and other insights about the people who occupied them.

During the historic period, however, many Native groups like the Cherokee, Creeks, Choctaws, and others began to adopt variations of European vernacular architecture, namely the cribbed log cabin, of which there were many styles (Jordan 1985; Weslager 1969). The specific style of log cabin that was adopted often reflected the European ethnic origin of the settlers with whom the tribe interacted with most frequently. In the case of the Catawbas, their main European influences were the community of Irish Quakers who settled around Camden (Lewis 2006:18), as well as numerous waves of Scots-Irish and German immigrants, including Moravians, from Pennsylvania, Maryland, and Virginia who increasingly moved south and west looking for land in the early 1700s. The Scots-Irish, like the English did not have their own tradition of log cabins, but adopted the form from their German neighbors in Pennsylvania and applied their own techniques and elements (Weslager 1969:228).

In general, the eighteenth century German/Scots-Irish tradition of log cabin construction involved stacking either hewn or rounded logs horizontally on the ground or on piers that were connected with notches cut into each log. The typical early frontier cabin had one or two rooms, or pens, with a door on the side and usually no windows. The roof tended to be gabled and if it had a chimney, it was normally built onto one of the gabled ends (Weslager 1969).

Log cabin construction leaves little to no trace of its footprint archaeologically, especially in areas that were subjected to later agricultural plowing. This of course presents some interesting challenges for the architectural analysis of cabins. While postholes are largely absent at cabin sites, root cellars and other subfloor storage pit facilities may be preserved where evidence of a cabin's superstructure is absent. Subfloor pits have been documented with many kinds of structures, both during historic and prehistoric times. During the historic period, cellar pits were common feature types associated with slave cabins though Native groups continued to use interior storage pits as well. Cellar pits are thought to have been used specifically for storage of root crops that require cooler temperatures, though they likely served as multi-purpose storage pits as well, including as private personal storage areas (Kimmel 1993; Riggs 1999; Samford 2007).

After a period of use, cellar pits could become sour or funky, which limited their value as storage areas. When this happened, the cabin occupants had several options. They could abandon the pit by backfilling it with household waste and sediment, and then dig a new pit in a different location within the structure. Depending on the size and organizational layout of the building, as well as the length of occupation, this strategy may not always be the best option as space become limited. Evidence of multiple intrusive pits at some sites show that long-lasting and intensive use of a building location did occur (Samford 2007). However, at some point excavating through

previous cellar fills may have become undesirable, both from a structural stability point of view as well as for the potential for re-exposing trash deposits used to fill earlier pits. An alternative option was to extend the use life of the cellar pit by rejuvenating it. This could be accomplished in a couple different ways including adding a layer of "clean" sediment to the bottom of the pit or by digging out the walls and bottom to remove the funky sediment, thereby expanding the pit. These strategies are not mutually exclusive and could have been used at different points within the same pit, though only the former is ultimately recognizable in the archaeological record, as the latter would likely obliterate earlier rejuvenation events.

Like cellar pits, the above ground elements of a log cabin also degrade over time, requiring maintenance and eventually needing to be replaced. Like other types of wooden structures, typical log cabin upkeep includes patching leaky roofs, chinking or daubing walls, and contending with rotting wood and infestation of insects like termites. Estimating how long a cabin was used is difficult. In situations where log cabins were constructed in direct contact with the ground, the cabin's expected use-life was greatly diminished, especially in moist temperate climates like the Southeast. On the other hand, if logs were placed on stone risers or foundations, out of reach of moisture and insects, the structure could last for generations.

The Hans Wagner Cabin, the first structure associated with the early Moravian settlement of Bethabara, NC (South 1999), may provide an appropriate analog for the early cabins erected in the Catawba Nation. Thanks to the meticulous records kept by early Moravians, we know that the cabin was built in 1752 by a German settler and a year later was occupied by Moravian settlers who then added a small potato cellar pit in front of the fire place. Archaeological investigations at the cabin site confirmed the location of the cellar pit and noted the absence of any stone foundation or piers, suggesting the log sills were laid directly on the ground. Moravian

records also note that in 1768 the cabin had become so decrepit that it was torn down, indicating a cabin lifespan of only 16 years. Given the similarity between the climate and environment of Bethabara and the Old Catawba Nation, it is not unreasonable to expect Catawba log cabins to have a similar lifespan before needing to be replaced.

Prior to 1760, domestic architecture used in the Catawba homeland largely conformed to traditional modes of Native architecture found throughout the Southeast, namely single-set, post-in-ground construction. Archaeological investigations at Nassaw Town, a Catawba settlement occupied during the 1750s, exposed a well-defined rectangular post pattern of a domestic structure, along with several other partial post patterns indicating that many if not all Catawba household continued to build traditional forms of houses (Fitts 2015a). However, after the Catawba Nation return from Pine Tree Hill and established new towns at the Twelvemile Creek Locality in the early 1760s, a majority of Catawbas began constructing dwellings in the style of their European neighbors, the cribbed log cabin. The first evidence of log cabin architecture among the Catawba was associated with King Hagler, the famed Catawba leader, who may have had the first log cabin in the Nation as early as 1759 (Merrell 1989:188). During an audience with Governor Littleton of South Carolina, Hagler demonstrated his political savvy by attempting to play South Carolina against North Carolina in the hopes of securing a permanent fort for the protection of his people as well as a little something for himself. Hagler's letter states, "The People of North Carolina undertook to build a Fort in our Nation, for the protection of the Women and Children whilest the Men were at War, and made a beginning but soon left if off, they likewise built a House for me but made no Chimney to it" (Brown 1966:238). His words suggest that the house was built by agents of North Carolina and therefore almost certainly of English design and construction, presumably a log cabin. In a letter to Gov. Lyttelton

dated May 5th, 1759, Samuel Wyly also acknowledged Hagler's missing chimney and stated that it was likely not in his power to find someone to build it for him until the Assembly authorized payment for it (McDowell 1992:486). Hagler's obvious disappointment at the lack of chimney indicates that he was not only aware that this was a common feature to houses of this type, but also that living in a conspicuously English looking house may have been desirable, at least to Hagler. Hagler's adoption of cabin architecture may have accelerated the spread of this type of construction within the Nation due to his position and popularity.

By the 1770s, documentary sources indicate a significant shift had occurred regarding Catawba architecture. In 1772, John F. D. Smyth, an English traveler, visited the Catawba Nation as part of a tour through much of what would become the United States. In his memoirs, Smyth described a night spent in "the principal town" of the Catawba noting, "We arrived at the nation that evening. Our horses were turned out loose, and we lodged in a wigwam belonging to a family of these Indians, in which my guide was very intimate. My bed was a large bear's skin, with a blanket to cover me, and I slept on the ground, before the fire" (Smyth 1784:184). Unfortunately Smyth does not provide a more descriptive account of his host's lodging but we can surmise that this Catawba house did not have a prepared or wooden floor. At first glance, Smyth seems to suggest that this "wigwam" was not a log cabin, a form Smyth would most certainly have been familiar with, but Smyth's use of this term deserves some unpacking.

As Smyth uses it, "wigwam" almost certainly does not refer to the bent-pole style of construction commonly associated with tribes from the Northeast. No doubt he is using it as a colloquial or catchall term for any Native structure and reflects a common practice by Europeans unfamiliar with regional differences in Native architecture. While Smyth may have intended to make a distinction between traditional Native architecture and European forms, in some cases it

is clear that other European observers used “wigwam” to refer specifically to log cabins. For instance, in 1786 Elkanah Watson specifically identified and even entered, “log houses” and “cabins” used by Gen. New River and other Catawbas while later he refers to the same structures as “Indian wigwams” (Watson 1856:257).

Lady Henrietta Liston also used the term “wigwam” while describing Catawba architecture during her visit to the Nation in 1797, though she made an intriguing distinction between cabins and wigwams. Liston observed,

> The first objects that struck us were two boys, sitting at the door of a log house… The Indians settled in the midst of their natural enemies, the Whites, - are obliged in some measure to adopt the customs and their vices, many of them build their loghouses of the same form, always adhering to one apartment only” (Liston 1797).

She added that the Colonel’s cabin even had a chimney. She goes on to say, “In the course of our visits through the town, we entered several of the Wigwhams [sic], (the original form of their houses) the fire is in the middle”. While Liston makes clear she saw distinctly European-style log cabins, she also seems to distinguish another form defined by a central hearth. It is not entirely clear if hearth placement was the only distinguishing feature between Liston’s “Wigwhams” and “log houses”, or if she truly saw an “original form of their houses” (i.e., post-in-ground). Davis et al. (2015:112) suggest that Liston was trying to distinguish between cabins with end chimneys from those cabins without. It is also possible that she was indeed describing post-in-ground architecture, but referring not to the cabins but to the open air arbors near the cabins that were likely also used for cooking and other activities.

In 1792, the Methodist preacher Reverend Thomas Coke visited the Catawba Nation, attempting to proselytize and establish a school for them (Drew 1818). While Dr. Coke ultimately failed in his mission among the Catawba, his short stay was long enough for him to take note of their living conditions which he described as “appearing not uncomfortable, being

far-superior to the cabins of the Irish peasantry. Their household furniture was rather singular. They had chairs in abundance, but not a single table was to be procured from any of their cottages" (Drew 1818:229-230).

By the nineteenth century, all descriptions of Catawba buildings indicate that the log cabin had become the dominant, if not sole, type of domestic architecture. Calvin Jones visited the Catawba Nation in 1815, passing through the community at New Town. Jones first met two prominent Catawbas, Sally New River and Col. Jacob Airs, who he noted as having the only cabins with formal floors. The main community of New Town comprised "6 or 8 houses facing an oblong square" (Jones 1815). Jones does not explicitly describe the houses as cribbed log cabins, but this can be inferred from the fact that he observed that all the houses had chimneys.

Late nineteenth and early twentieth century descriptions of Catawba dwellings continue to indicate that cabin architecture had become an enduring domestic form. H. Lewis Scaife visited the Nation in 1893 and noted "The houses on the reservation were generally small and rudely constructed; most of the dwellings consisted of log huts, widely scattered over the long, high bluff which overlooks the river. These cabins remind one of the typical- negro home in the farming regions of the South" (1896:17). At the home of Chief Harris's widow, Scaife observed that the interior of the one-room cabin, which to him looked more like a corncrib, had an interior loft in which 6-8 bushels of unshucked corn were being stored. Frank Speck summarized his Catawba informants' memories of architecture as follows:

> The Catawba house, of as early a type as could be remembered by any of the older people in their childhood, was a small structure of either plain unbarked, or of peeled and roughly squared logs. From the smallest of these houses twelve by eighteen feet in dimension intended for one small family, they ranged to those seldom more than six feet larger in mean measurements. Lacking windows, having only a door at the leeward end, with hard trodden dirt floors, they had a fireplace at one end, of stone construction, and slat bedsteads on the long sides to accommodate the sleepers…finishing of clay chinking

> between the logs, and the fireplace. The roof is of riven oak slabs laid shingle fashion in two overlapping rows. The ridge-pole rests upon the short at the peak. [Speck 1946:6]

While Speck's informants were interviewed in the 1930s, these descriptions of Catawba cabins probably represent an accurate picture of Catawba architecture from the late eighteenth and nineteenth centuries (Figures 4.1 and 4.2).

Figure 4.1. Photograph of a Catawba log cabin entitled: "Old Catawba House 1918" (Swanton 1946:Plate 6). Note the stick and mud chimney.

Figure 4.2. Photograph of Betsy Crawford's (Catawba) log cabin taken in the late nineteenth century (Blumer 2004:17).

Corncribs and Storage Facilities

The ability to store surplus foodstuffs and other items is a central concern for many households, and there are several strategies for generalized storage, including interior and exterior pits, baskets, ceramic vessels, and shelves. Depending on the scale of storage needed and the type of food needing to be stored (e.g., corn, sweet potatoes), specialized storage facilities may be required. Corn, in particular, needs to be kept dry and free from infestations of insects to avoid spoilage. Two main strategies for storing corn in the Catawba Valley emerge from the documentary record: (1) elevated rooms or compartments within domestic structures; and (2) a stand-alone specialized storage building that was elevated on posts. The latter type is variously described in the documentary record as a granary or corncrib. The archaeological signature of interior storage lofts would be nearly impossible to detect; however, the elevated corncrib's post pattern should be identifiable. I argue that Structure 7 at Old Town and Structure Locality 9 at Ayers Town both represent the remains of elevated corn cribs (Figure 4.3 and Figure 4.4).

Juan Pardo provides the first description of corn storage facilities from the Piedmont. Unlike De Soto's army, which was well-known to have included hundreds of hogs to supplement the soldiers diets, one of the prime reasons Juan Pardo and his command were given their mission was due to a food shortage in Santa Elena (Hudson 2005). As a result, Pardo was hyper-focused on securing surplus foodstuffs at each of the Native towns he visited. After arriving in a new town, Pardo would direct the leader of that community that a certain amount of grain be set aside for the expressed use of his men. The result was a number of specially constructed buildings to house and store this tribute. It is not clear if the storage facilities built exclusively for the Spanish were the same kinds of facilities used in the towns for their own needs, but due to the fact that they were built by Native labor, it stands to reason that they likely mirrored their own.

Pardo recognized both kinds of storage facilities in use during his march through the Carolinas. In the town of Aracuchi, Pardo's notary, Juan de la Bandera, described a "good new wooden house and inside it an elevated room with a certain quantity of maize" which was built specifically for the purpose of storing supplies for the Spanish (Hudson 2005:262). Later, in the village of Guatari, known later as the Watery who join the Catawba Nation, Bandera notes that another large building was erected and presided over by the community's leader Guatari Mico, specifically for the purpose of storing corn for the Spanish. This structure was built of "new wood" and contained two rooms of corn, completely lined with matting (Hudson 2005:263). At yet another town, Ylasi, the Pardo expedition noted a newly constructed "large house" with 2 elevated rooms, each with a supply of corn (Hudson 2005:287). Hudson (2005:144) notes that the Pardo documents indicate that most of the storage rooms they encountered were structures built on posts high above the ground. While attempting to move a load of corn down river toward Santa Elena, Pardo instructed one of his captains to go "in canoes and carry the maize to the place called GuiomaE and there have it unloaded and put in an elevated house which was built in the place for that purpose…" (Hudson 2005:288).

Among the Santee Indians, a community located farther down the Catawba- Wateree Valley but still related to the Catawba, Lawson also identifies the distinctive elevated corncrib, or Granary. These structures were,

> commonly supported with eight Feet or Posts, about seven Foot high from the ground, well daub'd within and without upon Laths, with Loom or Clay, which makes them tight, and fit to keep out the smallest Insect, there being a small Door at the gable End, which is made of the same Composition, and to be remov'd at pleasure, being no bigger, than that a slender Man may creep in, cementing the Door up with the same Earth when they take Corn out of the Crib (Lefler 1967:23)

Lawson describes these structures as "curious," suggesting he was heretofore unfamiliar with this kind of structure, though the Santee were among the first groups he encountered in his

journey through Carolina from Charles-Town, and it is likely he continued to encounter these buildings through much of his expedition.

Interestingly, there are very few descriptions of corncribs in use by the Catawba during much of the eighteenth century. On the one hand, this could indicate that the Catawbas' storage needs or practices during this period did not require the special purpose building. On the other hand, it is possible that many outside observers simply overlooked or omitted the presence of corncribs from their reports, journals, letters, or memories. Whatever the case, by the nineteenth and early 20th century, corncribs were once again an observed component of Catawba domestic architecture. According to Speck, Catawba corncribs had transformed into cribbed log buildings when he noted: "Barns, granaries, sheds are small and invariably of unpeeled log construction" (1946:6). His description also suggests that they no longer were elevated on poles. Speck also mentions the presence of corncribs in Catawba towns in the context of their mortuary practices. His informants recalled that when a Catawba died, it was common practice to abstain from opening the corncrib for three days (Speck 1939).

While there are very few specific references to eighteenth century Catawba corncribs, this type of structure appears to have been widespread in other parts of the Southeast during both prehistoric and historic times. Archaeological examples of corn cribs have been identified at the late Mississippian Toqua site in Tennessee (Polhemus 1987). Among the eight structure types and sub-types observed at Toqua, Polhemus defines Type 5a as:

> …rectangular structures of rigid single set post construction characterized by small size, presence of large posts, surface fired areas, and burials. Type 5a are … here interpreted as open or semi-open sheds utilized for cooking, food processing, and perhaps grain storage. Floor area ranges from 72 to 280 ft (Mean 135 ft)… One structure (St-79) contained a mass of charred corn, corn cobs, and cane at the north end and appears to have burned. Type 5a structures may have had a raised floor of cane or pealed poles such as the corn cribs described by William DeBrahm in the eighteenth century (DeVorsey,1971) and served a dual function (1987:241)

In his description of domestic architecture at the King site, David Hally also notes that granaries are associated with the historic period Choctaw, Upper Creek, Chickasaw, and Cherokee (2008:117-120). Hally points out that a fully filled corncrib would need to be a fairly robust building to support the weight of the fresh corn. Specifically, he argues that the posts supporting these structures would have to be relatively large, particularly since there were fewer posts to support it (Hally 2008:119).

These descriptions of small, rectangular structures with heavy set posts certainly matches Structure Locality 9 at Ayers Town and Structure 7 at Old Town (Figure 4.3 and 4.4). Not only do both structures fall near the lower range of floor area reported by Polhemus (70 sq ft and 110 sq ft, respectively); both also are closely associated with multiple smudge pits filled with charred corn cobs, indicating that while these structures may have functioned primarily as storage facilities, they also were places where other household activities took place (i.e., pottery production).

Both Catawba corncribs appear to date after the American Revolution, which has important implications for interpreting household and community organization at the site. Why is there no evidence for this type of structure before the Revolutionary War and what does this indicate about how Catawba storage needs changed following the Revolution? Though it is possible additional excavation could find similar structures, documentary evidence provides a possible explanation for the appearance of corncribs after the Revolution. For a variety of reasons, prior to the American Revolution, the Catawba Nation appears to have at times produced little of their own corn, instead purchasing or being provisioned with corn from the

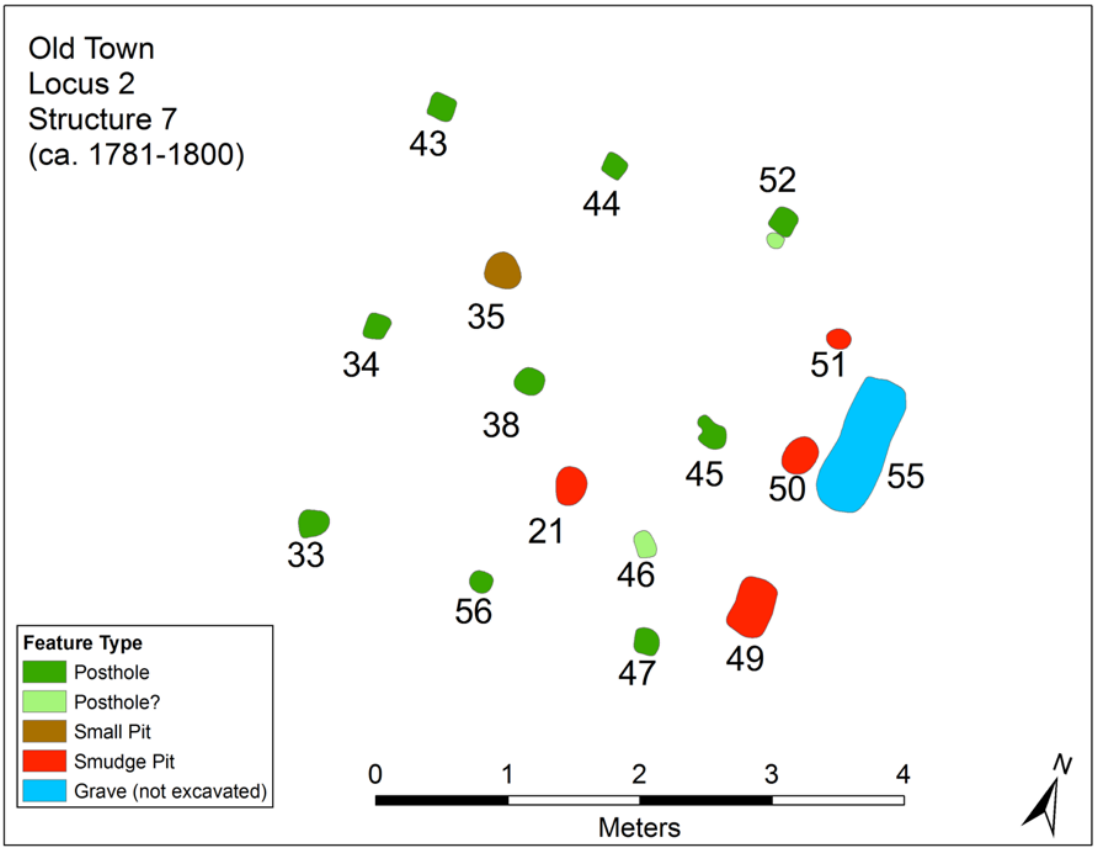


Figure 4.3. Map of Structure 7 at Old Town showing the position of 9 postholes and other nearby features.

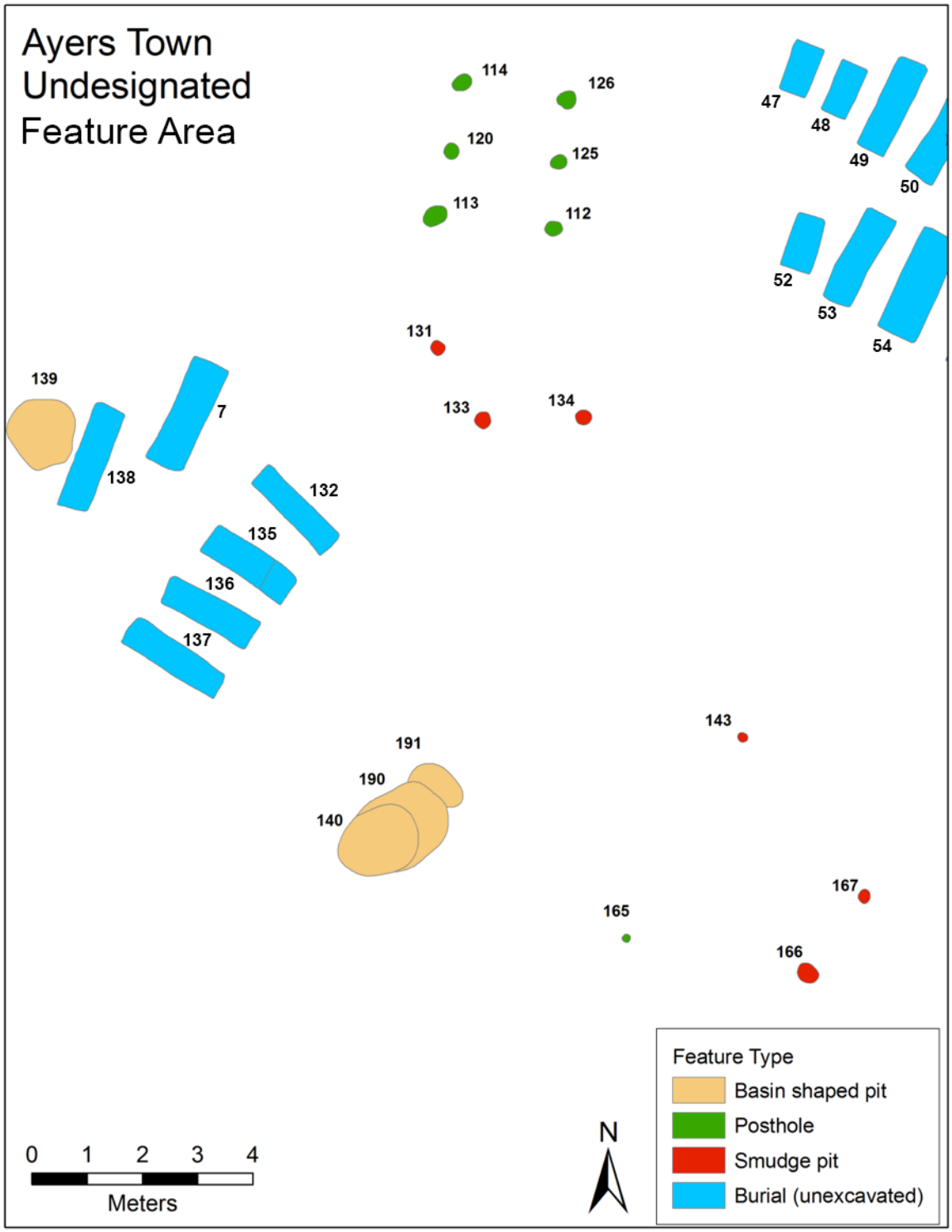


Figure 4.4. Map showing the central portion of Ayers Town with feature clusters not assigned to a residential complex including Structure Locality 9 at top.

colonial government of South Carolina (Brown 1966:239, 249). According to the recollections of a long-time friend of the Catawba Nation, David Hutchison, this situation changed for a time after the Revolution when "the women made corn sufficient for their own wants, and had some to sell. In the latter part of the war, were two or three years of scarcity, and the people came thirty miles to the Nation for corn. The Indians maintained their industrious habits for three or four years after the war" (Hutchison 1843). If this account is to be believed, increased corn surpluses in the years following the Revolution may have necessitated larger and more formal storage facilities beyond the typical storage options inside cabins.

Structure 7 is the only specialized storage facility of its kind so far identified at Old Town, and it is associated with a particular household. Since Locus 1 and 2 were not completely excavated, it is possible that there are similar structures nearby, especially at the other uninvestigated cabin loci; however, its proximity and alignment with Household D suggests it was managed by that household. Conversely, SL-9 is positioned near the center of the Ayers Town community and though it was roughly equidistant to all the residential complexes, it was not clearly associated with any specific household. More specifically, SL-9 is situated south of the feature-free hypothesized road corridor that largely bisects the site and surrounded on three other sides by cemeteries (Figure 4.10). I suggest that this centralized location is evidence that SL-9 served as a communal or corporately managed facility and reflects a major difference between the Old Town and Ayers Town communities.

Arbors, Covered Spaces, and Activity Areas

The ethnohistorical evidence for arbors, or open-air ramadas, is more limited and somewhat more speculative. This class of domestic architecture was one of three types of structures John Lederer observed at Oenock Town in 1670. He states:

> They plant abundance of Grain, reap three Crops in a Summer, and out of their *Granary* supply all the adjacent parts. These and the Mountain-Indians build not their *houses* of Bark, but of Watling and Plaister. In Summer, the heat of the weather makes them chuse to lie abroad in the night under thin *arbours* of wilde Palm. [Lederer 1670:15, emphasis mine]

It is worth mentioning that even though the Oenock, or the Eno as they became known later, were listed among the constituent Catawba communities in 1743 (Adair 1775), they were originally from the northeastern Piedmont and not a core group. Using a description of Eno domestic architecture to explain Federal period Catawba settlements should be viewed with some skepticism. That said, the pattern of having a warm weather alternative to an enclosed primary domestic structure is widespread across much of the Southeast (Hally 2008; Steere 2017).

Other forms of sheltered space include those physically attached to dwellings. At the 1750s-era Catawba town of Nassaw, Mary Beth Fitts identified a large post pattern representing a domestic structure (Fitts 2015a:221-224; Fig. 5.20). While the postholes enclose a relatively large rectangular area, Fitts argues that this structure represents a composite building that had a large, covered area located at the southern end of the structure and 1 m wide porches along the east and north sides of the house. These sheltered spaces were likely ideal places to prepare and cook meals as well as conduct other household activities during inclement weather or the heat of the day.

Archaeological Evidence of Catawba Architecture

In the following section, I identify and define the archaeological signatures of 10 household complexes from Old Town, Ayers Town, and the Nisbet site (Table 4.1).

Old Town (SoC 634)

The evidence for household architecture and spatial organization at Old Town is derived primarily from archaeological investigations conducted by three UNC field schools in 2003,

Table 4.1. Household complexes by site as defined in this study.

Site	Household complex	Structure designation	Date range	Feature numbers	Total Pit volume (L)
Old Town	OA	1, 3	1762-1780	1, 2, 5, 19	967.7
	OB	2	1781-1800	4, 6, 7	695.9
	OC	4, 6	1762-1780	12, 13, 15, 17, 18	684.2
	OD	5, 7	1781-1800	10, 11, 14, 33, 34, 35, 38, 43, 44, 45, 47, 52, 56	868
Nisbet	NA	1	1762-1780?	1, 3, 6, 7, 8, 12, 13, 14, 16, 17	48.1
Ayers Town	AA	1	1781-1800	1, 2, 3, 4, 83, 85, 86, 87, 88, 89, 90, 91, 92, 124	563.2
	AB	2, 3, 4	1781-1800	8, 10, 14, 17, 18, 19, 20, 22, 23, 24, 25, 26, 31, 55, 66, 72, 73, 74, 75, 80, 81, 82, 84, 95, 96, 100	644.8
	AC	5, 6	1781-1800	27, 97, 98, 99, 101, 103, 105, 106, 107, 108, 109, 164	792.7
	AD	7, 8	1781-1800	5, 6, 33, 61, 62, 69, 104, 116, 121, 122, 123, 127, 130, 142	2661.6
	AE	10, 11, 12	1781-1800	40, 57, 58, 110, 141, 144-163, 166-189	1675.2

2009, and 2014[2]. This work included systematic metal detection and targeted block excavation, totaling 276 m^2, and focused on Locus 1 and Locus 2, two of six widely dispersed artifact concentrations (Davis and Riggs 2004; Davis 2009). Based on the 2003, 2009, and 2014 excavations, a total of 65 features and disturbances were recorded, which are summarized in Table 4.2 (for feature descriptions see Appendix A), and the arrangement of these features indicates the presence of at least seven structures (Structures 1-7) representing the sequential iterations of two discrete household groups. While I argue that Locus 1 and 2 each represent the site of a single household, I define four household complexes, two at each cabin locus. As discussed in Chapter 3, there is evidence for an occupational hiatus at Old Town that likely corresponds to the documented destruction of the Catawba Towns at the hands of the British army in 1780. Using multiple lines of evidence, it is possible to differentiate the two occupations. This means that even though it is extremely likely that the same household reoccupied each location, as analytical units I distinguish two households at Locus 1 (Households OA and OB) and two at Locus 2 (Households OC and OD). Though it is possible that additional architectural remains could exist beyond the excavated areas at each cabin loci, the 2017 investigations at Old Town, which expanded the excavation block at Locus 2, did not reveal any new structures. The consistency of the remains suggests that it is possible to describe a typical pattern of domestic architecture at Old Town.

Household Complex OA

Household Complex A (OA) is associated with the pre-Revolution Old Town I component at Locus 1 (Figure 4.5). OA is represented by two presumed cribbed log cabins, Structures 1 and 2. Structure 1 is defined by a single large rectangular cellar pit (Feature 2)

[2] This count does not include the 2017 field season.

Table 4.2. Summary of Archaeological Features at Old Town.

Feature	Location	Description	Interpretation	Cultural Affiliation/Notes
1	997.80R1002.82	Medium Circular Basin	Clay Processing Pit	Historic Catawba (2003)
2	996.93R998.75	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2003)
3	998.60R998.43	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2003)
4	999.01R991.50	Large Circular Basin	Large Circular Basin	Historic Catawba (2003)
5	999.87R990.28	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2003)
6	1000.24R990.45	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2003)
7	1000.19R991.39	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2003)
8	998.38R996.99	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2009)
9	1000.20R997.18	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2009)
10	1007.12R950.05	Medium Circular Basin	Clay Processing Pit	Historic Catawba (2009)
11	1002.59R948.69	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2009)
12	1004.94R950.09	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2009)
12a	1004.60R950.11	Irregular Pit	Storage Pit	Archaic or Woodland (?)(2009)
13	1006.12R948.55	Medium Circular Basin	Clay Processing Pit	Historic Catawba (2009)
14	1006.10R949.45	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2009)
15	1004.39R947.66	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2009)
16	996.82R935.85	Large Sub-Rectangular Pit	Clay Borrow Pit	Historic Catawba (2009)
17	996.80R942.96	Medium Circular Basin	Clay Processing Pit	Historic Catawba (2009)
18	997.61R943.67	Large Sub-Rectangular Pit	Cellar Pit	Historic Catawba (2009)
19	999.98R1003.56	Medium Circular Basin	Clay Processing Pit	Historic Catawba (2009)
20	1002.22R998.29	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2009)
21	1010.85R958.64	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2009)
22	997.62R938.39	Small Oval Pit	Refuse-Filled Stump	Historic Catawba (2009)
23	995.55R949.36	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2014)
24	996.69R951.52	Small Circular Pit	Posthole	Historic Catawba (2014)
25	998.49R948.05	Small Circular Pit	Posthole	Historic Catawba (2014)
26	998.71R948.85	Small Circular Pit	Posthole	Historic Catawba (2014)
27	1000.41R947.80	Small Circular Pit	Posthole	Historic Catawba (2014)
28	1000.21R947.72	Small Circular Pit	Posthole	Historic Catawba (2014)
29	999.01R949.72	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
30	999.60R949.73	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
31	999.68R950.02	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
32	1000.73R950.32	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
33	1010.56R956.69	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
34	1012.05R957.17	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
35	1012.47R958.13	Small Circular Pit	Small Pit	Historic Catawba (2014)
36	1006.62R952.45	Shallow Irregular Pit	Clay Processing Pit	Historic Catawba (2014)
37	1011.66R957.62	Non-Cultural Feature	-	-
38	1011.64R958.33	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
39	1009.91R953.35	Medium Circular Pit	Pit	Historic Catawba (2014)
40	1006.81R954.92	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2014)
41	1008.63R952.11	Non-Cultural Feature	-	-
42	1011.57R955.22	Non-Cultural Feature	-	-
43	1013.71R957.67	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
44	1013.27R958.97	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
45	1011.24R959.71	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
46	1010.40R959.20	Small Circular Pit	Posthole	Historic Catawba (2014)
47	1009.67R959.21	Small Sub-rectangular Pit	Posthole	Historic Catawba (2014)
48	1009.42R959.95	Non-Cultural Feature	-	-
49	1009.93R960.02	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
50	1011.07R960.38	Charred Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)

Feature	Location	Description	Interpretation	Cultural Affiliation/Notes
51	1011.96R960.67	Corncob-Filled Pit	Smudge Pit	Historic Catawba (2014)
52	1012.85R960.26	Small Circular Pit	Posthole	Historic Catawba (2014)
53	1011.40R960.17	Non-Cultural Feature	-	-
54	1012.70R960.19	Small Circular Pit	Posthole	Historic Catawba (2014)
55	1011.15R960.84	Long Rectangular Pit	Grave (not excavated)	Historic Catawba (2014)
56	1010.12R957.96	Small Circular Pit	Posthole (not excavated)	Historic Catawba (?) (2009)
57	1002.10R947.74	Small Circular Pit	Posthole	Historic Catawba (2009) (2009; formerly Posthole 2)
58	1002.96R950.43	Small Circular Pit	Posthole	Historic Catawba (2009; formerly Posthole 3)
59	998.12R999.07	Small Circular Pit	Posthole and mold	Historic Catawba (2009; formerly Posthole 4)
60	997.09R939.09	Small Circular Pit	Posthole	Historic Catawba (2009)
61	997.84R945.95	Small Circular Pit	Posthole	Historic Catawba (2009)
62	998.93R946.49	Small Circular Pit	Posthole	Historic Catawba (2009)
63	1003.75R948.60	Small Circular Pit	Posthole	Historic Catawba (2009)
64	1001.22R950.03	Small Circular Pit	Posthole	Historic Catawba (2009)
65	1000.67R990.10	Small Circular Pit	Posthole	Historic Catawba (2003; formerly Posthole 1)

Note: (?) indicates a probable cultural association in the absence of associated diagnostic artifacts.

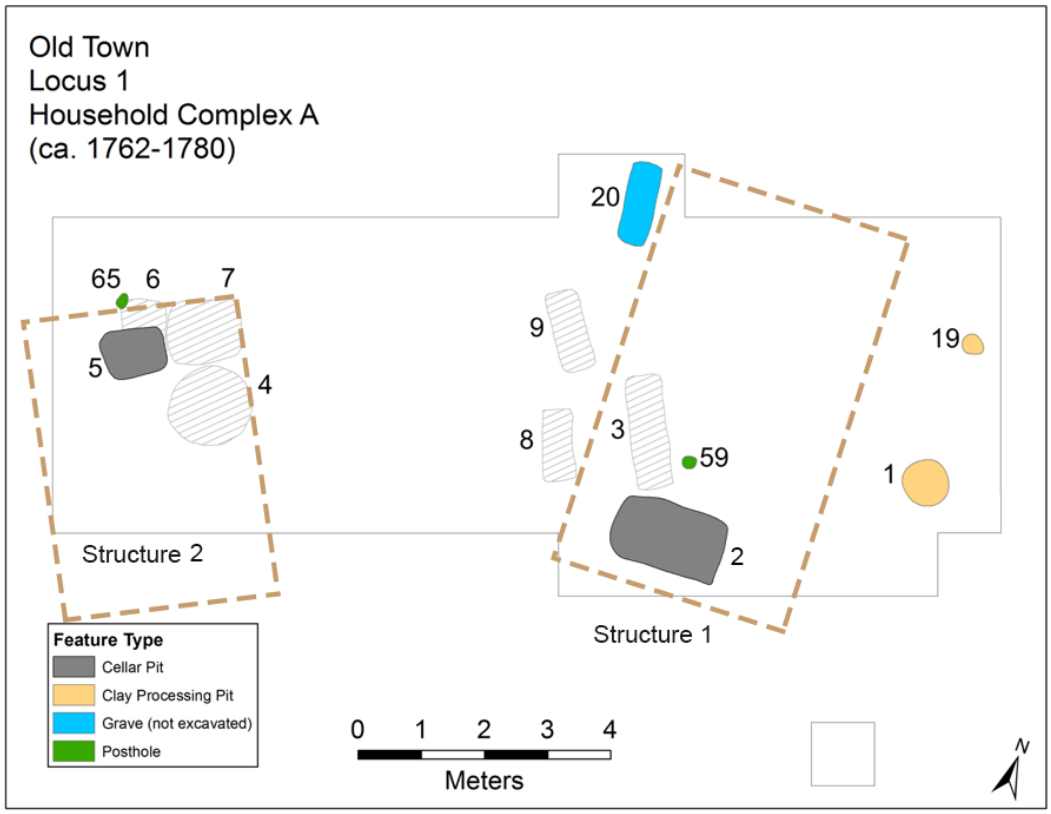


Figure 4.5. Map of Household OA at Old Town Locus 1 showing the associated features and proposed structure locations.

oriented approximately N20°E of grid north. Feature 2 stands out as the largest cellar pit from the Old Town site in terms of surface dimensions and overall volume. It also yielded an impressive assemblage of cultural material, which I discuss in more depth in Chapter 5. Two adjacent circular clay-processing pits (Feature 1 and 19) appear to share an alignment with the presumed southeast-facing wall of the cabin. Feature 20, a rectangular pit interpreted as a grave, also shares this orientation and may be associated with Structure 1. A single posthole (Feature 59) was located .6 m north of Feature 2, though its architectural relationship to Structure 1 is uncertain.

Structure 2 is the second cabin associated with OA. It is located 7.5 m northwest of Feature 2 and is also defined by a single rectangular cellar pit (Feature 5), though it is oriented N16°W of grid north. Much of the NE quadrant of Feature 5 is intruded by a later cellar pit (Feature 6) assigned to Structure 3, which is associated with Household OB. Feature 6 also intrudes a possible posthole (Feature 65) that is 35 cm north of Feature 5, a similar cellar/posthole arrangement to Feature 2/Feature 59. Feature 5 is substantially smaller than Feature 2 in both surface dimensions, depth (10 cm), and yielded relatively few artifacts.

Even though I include both of these structures as part of the same pre-Revolution household, I suggest that they do not represent absolutely contemporaneous buildings. Rather, I argue that Structure 2 was a relatively new cabin intended to replace the then aging Structure 1 when one or both cabins were destroyed in 1780. This interpretation helps explain the discrepancy in cellar pit size and contents. Feature 5 is smaller and contains less cultural debris because it represents an early stage in the cabin's life cycle and was likely still in use, hence not filled with trash, when it was destroyed. It is possible that Structure 2 simply reflects the need for more space as Household OA increased in size through time, but I believe it is significant that

only Structure 2 was rebuilt (in the form of Structure 3, discussed below) following the Revolution, indicating the primary occupation had shifted to Structure 2.

Feature 2, on the other hand, likely represents a cabin built during the initial establishment of the Old Town community (ca. 1762), meaning that by 1780 it would have been close to 20 years old. Twenty years is not particularly old for a log cabin since some cabins have been known to survive much longer. However, depending on the species of trees selected for building material, wood resting directly on the ground is prone to rot and insect infestation, especially in the Southeast. Whereas replacing a rotten post in an earthfast structure would not necessarily require the deconstruction of the whole building, if the base log of a cabin becomes unsound the entire structure is potentially compromised. Cabins, like earlier Native dwellings, were also susceptible to infestations of other pests like fleas; therefore it is not unreasonable to expect that a cabin might need replacing in less than 20 years.

Household Complex OB

Household Complex OB describes the Old Town II iteration of the Locus 1 household and comprises a single cabin (Structure 3) represented by an "L" shaped cluster of three adjacent cellar pits (Features 4, 6, and 7; Figure 4.6). The cabin footprint associated with Structure 3, oriented N7°W of grid north, overlaps with that of Structure 2 with Feature 6 intruding a portion of the earlier Feature 5. Structure 3 stands out from other cabin structures at the site for several reasons. It is the only structure with three cellars, all of the cellar pits are tightly clustered together, and one of the cellars is circular (Feature 4). Three burials (Features 3, 8, and 9), located 4.5-6 m east of Structure 3, may be contemporaneous in that they have similar orientations. One of the burials (Feature 3) appears to be within the presumed footprint of Structure 1, suggesting it post-dates that structure. No other features are associated with

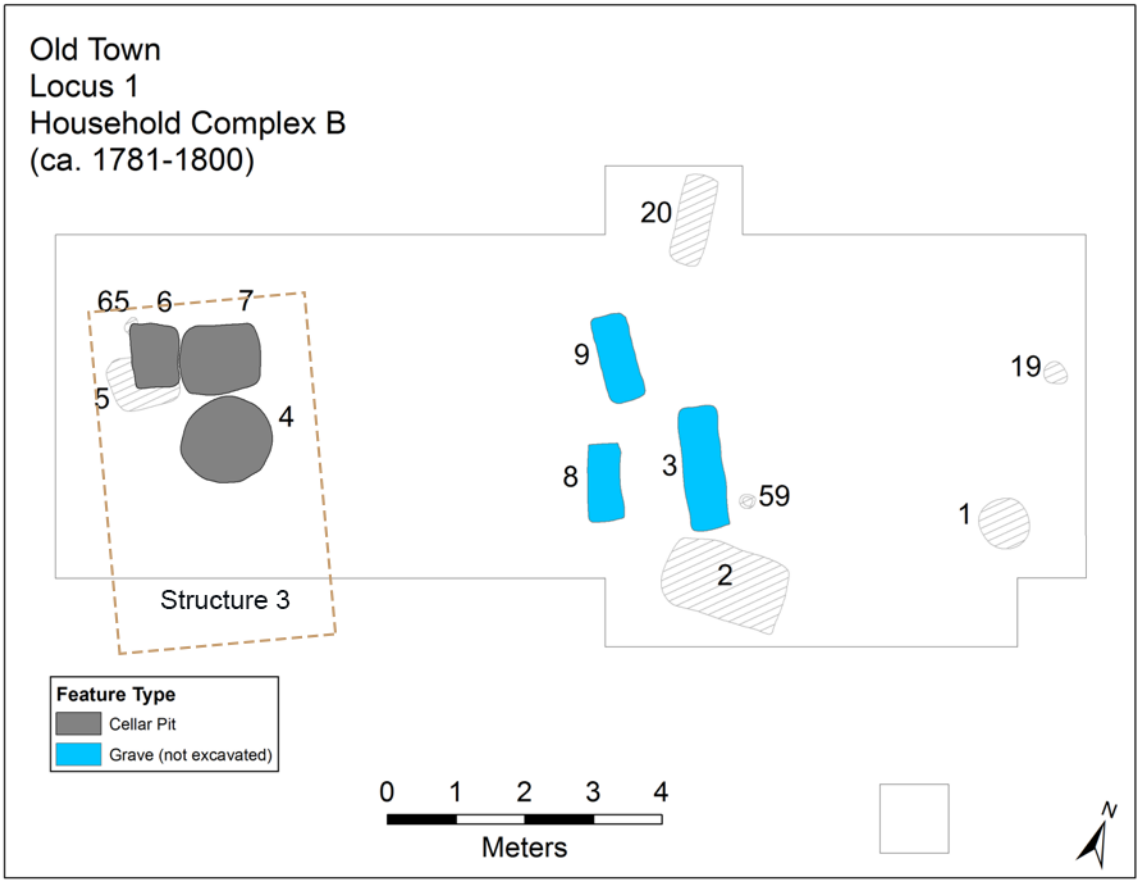


Figure 4.6. Map of Household OB at Locus 1 from Old Town showing the associated features and proposed structure location.

Structure 1, though much of the immediate vicinity around this structure has not been investigated archaeologically.

Household Complex OC

Household Complex C (OC) refers to the Old Town I occupation of the Locus 2 household (Figure 4.7). It is represented by two cabins, Structures 4 and 5. Structure 4 is a single sub-rectangular cellar pit (Feature 18) and an adjacent circular clay-processing pit (Feature 17). Feature 18 is located 7 m southwest of Feature 15 (Structure 5) and oriented N55°E of grid north. The alignment of Feature 23, an unexcavated grave located at the southern edge of the excavation block, indicates it is probably affiliated with Structure 4. The archaeological signature of Structure 5 is made up of two relatively shallow sub-rectangular cellar pits, Features 12 and 15, and an associated clay-processing pit, Feature 13. It is unclear whether the clay-processing pit was interior or exterior to the cabin. Features 12 and 15, separated by 1.8 m, are remarkably similar in size, shape, and orientation (N77°E of grid north). The 2017 field work identified six additional graves located immediately south of Feature 23 indicating the presence of a larger cemetery complex at the south end of Locus 2.

Structures 4 and 5 both date to the Old Town I component, but like Structures 1 and 2 at Locus 1, I suggest that Structure 5 was built relatively late in the Old Town I occupation to replace Structure 4. The cellar associated with Structure 4, Feature 18, was deep and contained multiple zones of refuse whereas the cellars associated with Structure 5, Features 12 and 15, were conspicuously shallow and comprised of one or two zones with little cultural material in them, suggesting an earlier stage in the lifecycle of the cabin. The household members who reestablished cabins at these two locations chose to rebuild over the cellars that appear to have

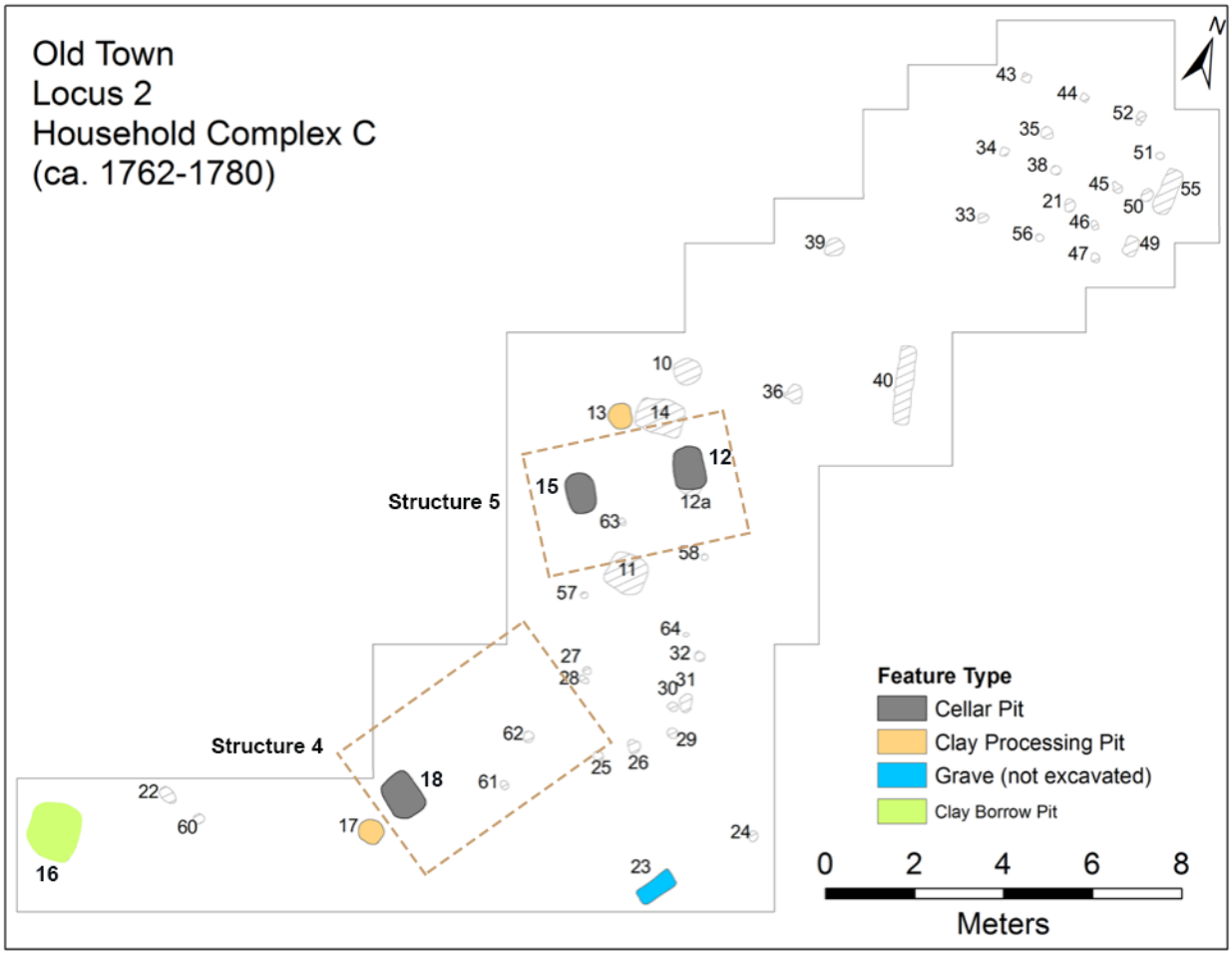


Figure 4.7. Map of Household OC at Locus 2 from Old Town showing the associated features and proposed structure locations.

been used the least, and both Old Town II cabins were more substantial than the ones they replaced.

Feature 16 is a shallow basin pit located at the far western edge of the Locus 2 excavation block, approximately 13 m southwest of Feature 11. The recovered bead assemblage indicates that it dates to the Old Town I component (discussed in more detail in the next chapter). Initially thought to be a heavily truncated cellar pit, and thus a separate cabin structure, I instead suggest that Feature 16 is a clay borrow pit similar to those found at Ayers Town. This interpretation is based primarily on the contents of Feature 16, discussed in more detail in the next chapter, which stand out from the other cellar features at Old Town.

Household Complex OD

Household D (OD) represents the post-Revolutionary iteration of the household associated with Locus 2 (Figure 4.8). It consists of two structures, a primary domiciliary cabin, Structure 5, and an ancillary storage building, Structure 7. Structure 5 is defined by a paired set of cellar pits, Features 11 and 14. This structure occupies the same cabin footprint as Structure 4, though oriented N77°E and likely represents the replacement of the cabin destroyed in 1780. With the absence of postholes or foundation defining the exterior walls, the precise size of the building is unclear, however, based on the distance between each set of cellar pits associated with Structures 4 and 5 (1.8 m and 2.8 m, respectively), Structure 5 appears to be approximately 35% bigger than its predecessor.

Structure 7 refers to a relatively small, rectangular post-in-ground structure located in Locus 2 approximately 8 m northeast of Feature 14. Though other postholes are identified at Old Town, this structure is the only well-defined earthfast construction documented at Old Town to date. Structure 7 is composed of nine sub-rectangular postholes (Features 33, 34, 38, 43, 44, 45,

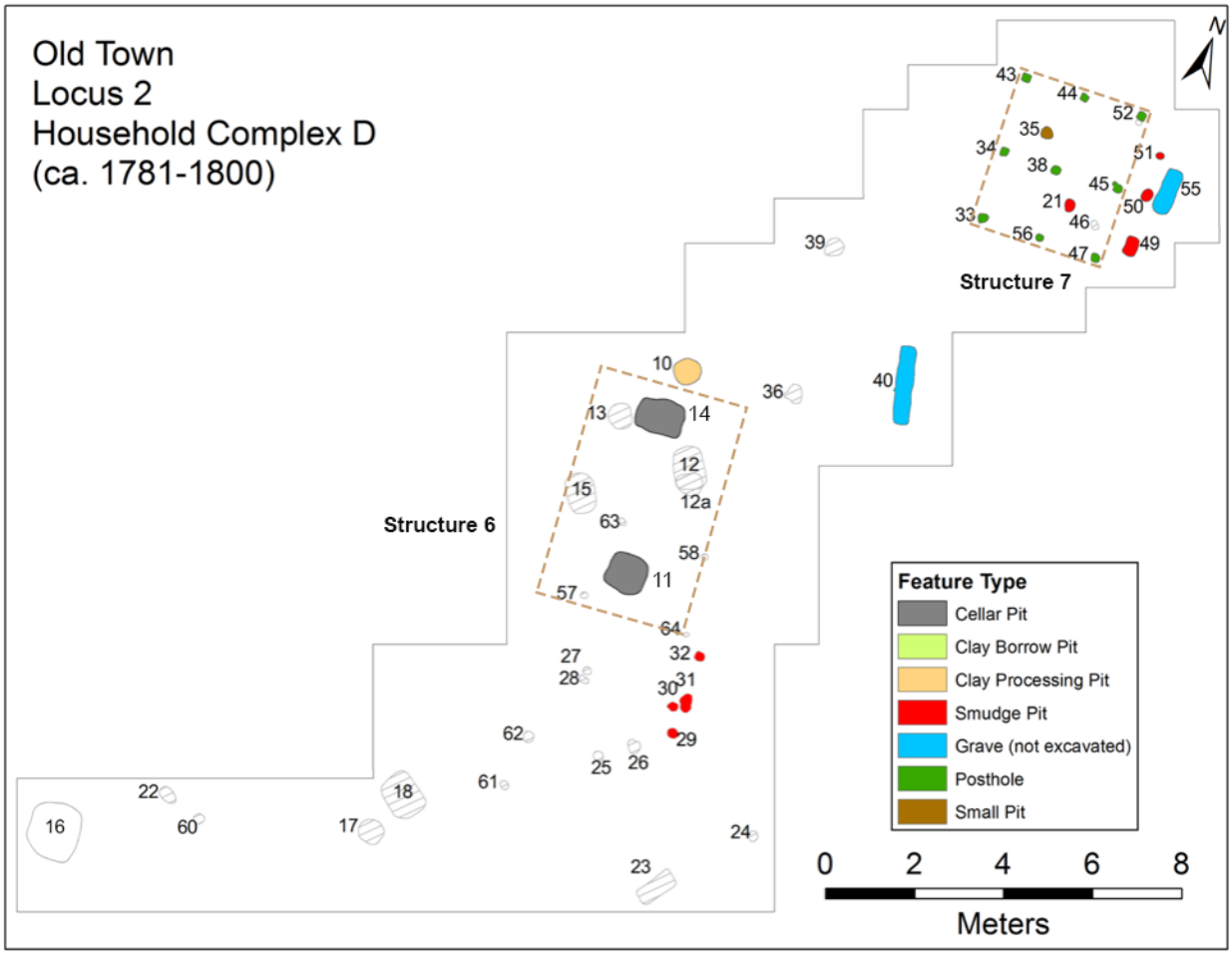


Figure 4.8. Map of Household OD at Locus 2 from Old Town showing the associated features and proposed structure locations.

47, 52, and 56) set in a clear rectangular arrangement that measures 3.5 m by 3 m and is oriented 15° east of grid north. With a footprint of roughly 10.2 m^2, Structure 7 is slightly larger than the similar post-in-ground Structure Locality 9 (6.5 m^2) at Ayers Town and both share a nearly identical shape and alignment. Nearly all of these postholes were uniform in both their profiles and fill (Feature 56 was not excavated). Several nearby features appear to be associated, or at least contemporaneous, with Structure 7, including three cob-filled smudge pits (Features 49, 50, and 51) and a burial (Feature 55) aligned to its eastern side. The placement of the smudge pits on the leeward side of the building probably reflects a deliberate attempt to utilize the building as a wind break. A fourth smudge pit (Feature 21) was found within the posthole alignment and may or may not be contemporaneous with Structure 7. Feature 35 refers to a small circular pit found in the northwestern quadrant of the structure.

Structure 7 was most likely constructed and in use during the Old Town II (1781-1800) occupation of the site. The lack of redundant or overlapping posts suggests that this structure was not rebuilt or renovated during its use-life. This association with the post-Revolution component of the site is inferred based on a similar northeasterly orientation with Structure 5 (Feature 11 and 14) as well as temporally diagnostic material culture. The excavation of the southeastern corner post of Structure 7 (Feature 47) yielded a surprising number of artifacts including Catawba pottery, a gunflint flake, and a fragment of tin enameled Rouen faïence pottery (Figure 4.9). This small piece of French pottery is significant because despite having a relatively wide production date range, it actually happens to be a good temporal marker for the Revolutionary war period when found on English sites. Due to a 1672 English trade embargo that prohibited the importation of most kinds of painted earthenware into the Colonies, Rouen faïence is nearly absent from English colonial sites until after 1775 when the embargo was lifted (Noël Hume

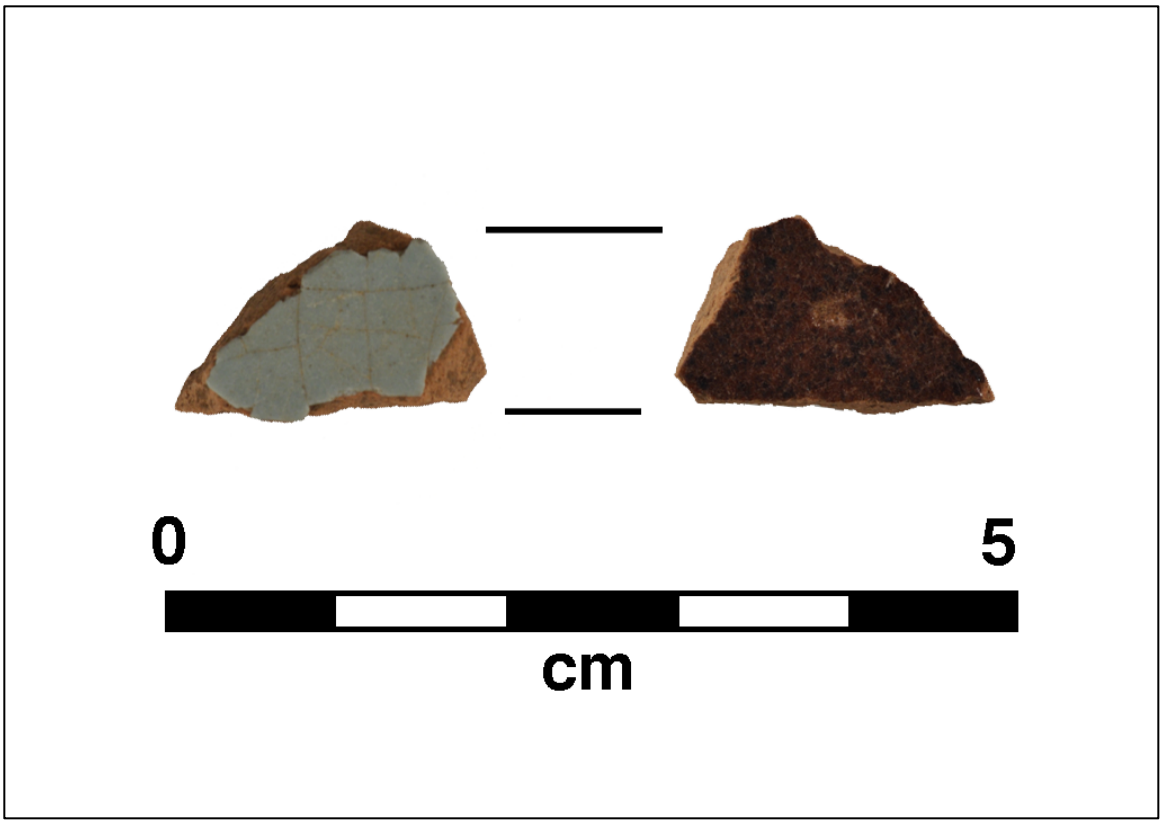


Figure 4.9. A fragment of tin enameled Rouen faïence pottery found in Feature 47, associated with Structure 7 at Old Town.

2001:140-143). The presence of this artifact does not necessarily preclude Structure 7's construction during the Old Town I (1761-1780) occupation, since its inclusion in the posthole fill likely references the destruction or decommissioning of the facility and not its construction. This seems unlikely, however, due to the reported destruction of the Catawba towns by British forces during the American Revolution in 1780 (Feltman 1853; Hutchison 1843) which provides only a potential 5-year window for the Rouen faïence vessel to be imported, make it to Old Town, and become incorporated into its refuse assemblage.

Structure 7 does not appear to be a residential dwelling based on its relatively small size compared to other domestic post-in-ground structures (e.g., Fitts 2015a; Steere 2017) and its lack of flat-bottomed storage/cellar pits. Likewise, its small footprint would seem to disqualify it from functioning as a stand-alone, covered work area or arbor. Given the proximity of the smudge pits, this structure does appear to have been a locus of specialized activities, such as smudging pottery among other things, but the fact they are mostly located exterior to the structure suggests this association may reflect the building's secondary function as a wind break. Given its small size, method of construction, and lack of storage pits, I suggest Structure 7 (and SL 9, discussed below) likely functioned as an ancillary storage facility and possibly as an elevated corncrib.

Ayers Town (38Yk534)

The following section describes five household complexes and associated activity areas identified at the Ayers Town site and largely follows the descriptions of site structure and community layout provided by Davis et al. (2015), with a few notable exceptions.

In general, the site is organized as a relatively compact, oval arrangement of Federal period Catawba features, including flat-bottomed storage pits, presumed to be sub-floor cellar

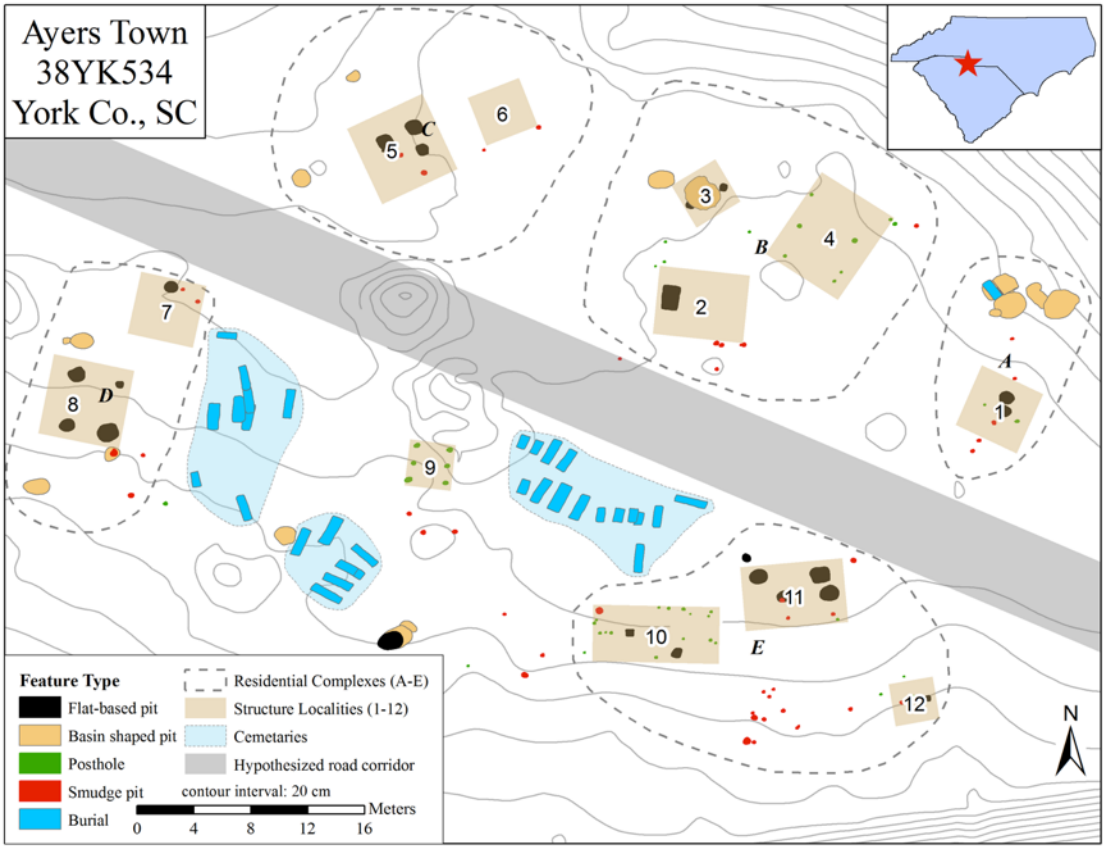


Figure 4.10. Reconstructed community plan of Ayers Town indicating the locations of a possible road corridor, 12 structure localities, five residential complexes, and three cemeteries.

pits associated with cribbed log cabins, basin-shaped borrow pits, smudge pits, postholes, graves, and small hidey-hole pits (Figure 4.10). Based on the discrete clustering of the flat-bottomed cellar pits, hidey-hole pits and postholes around the site, 12 probable structure localities have been defined (Structure Localities 1-12). All but one of these structures (SL-9) has been assigned to a household complex (designated here as "Residential Complex" for consistency with Davis et al. 2015) based on its proximity to the nearest cellar pit cluster. In general, borrow pits and smudge pits were also assigned to one of these household complexes, though in some cases features were left unassigned if they were not within 10 m of a cellar pit cluster. Thirty of the 31 probable graves identified at Ayers Town are organized into three spatially discrete cemeteries (Cemeteries 1-3). Cemeteries 1 and 2 are well ordered with evenly spaced graves and very few cases of intrusive internments. The placement of graves in Cemetery 3, in contrast, is more haphazard, indicating less awareness of the locations of earlier burials.

A relatively feature-free corridor bisects the site, oriented approximately N64°W, and may represent a Federal period roadbed. This proposed road appears to be a unifying reference for some of the cultural components at the site, specifically the 21 graves associated with Cemeteries 1 and 2, which are mostly parallel or perpendicular to the corridor. Feature 102 is an erosional gully located at the northwest edge of the site that shares the roads orientation and probably is directly related to use of the road. It is interesting to note that, besides the graves mentioned above and Feature 102, few other features or structure alignments appear to reference this hypothesized road. While it's not unreasonable for structures to be built without reference to existing roads, I suggest it is possible that Ayers Town, and the majority of its structures, was founded prior to the road, and the town may have even been the reason the road was established. If this is true, then Cemeteries 1 and 2 may correspond to the latter part of the site's occupation,

or even post-date the site. Evidence for the continued use of abandoned Catawba village sites as cemeteries is cited by Speck (1939).

Residential Complex A

Residential Complex A (AA) is located at the eastern edge of the site, on the north side of the proposed road (Figure 4.11). The evidence of household architecture is a single cribbed log cabin, Structure Locality 1, which consists of two adjacent cellar pits, Features 3 and 4. Two postholes and four smudge pits are in the immediate vicinity of Structure 1 and may be associated. Approximately 5 m north of Features 3 and 4 is a cluster of shallow, refuse-filled basins (Feature 89, 90, 91, 92, 94, and 124) and a superimposed grave (Feature 93). This series of overlapping basins likely served as borrow pits where clay was extracted for chinking and/or chimney construction.

Residential Complex B

Residential Complex B (AB) is located northwest of Complex A, also on the north side of the proposed road (Figure 4.12). Three structures are associated with Residential Complex B (Structure Localities 2, 3, and 4) with SL-2 as the probable primary domestic structure and SL-3 and SL-4 likely ancillary structures. SL-2 is defined by a single rectangular cellar pit (Feature 55). Even though three postholes are within 3 m of Feature 55, SL-2 no doubt represents a cribbed log cabin. Davis et al. (2015:127) suggest that the shallowness of this cellar pit may indicate the cabin had a raised floor through which a boxed enclosure was used to access the cellar. While this interpretation is possible, an alternative explanation is that this cellar is shallow because it represents a different stage in the cabin life cycle. Davis et al. (2015:127) note that the mean ceramic date for the cellar pit (1793) was somewhat later than the MCD for the site as a whole (1788) suggesting it was occupied slightly later than other contexts. Just as I argued the cellar

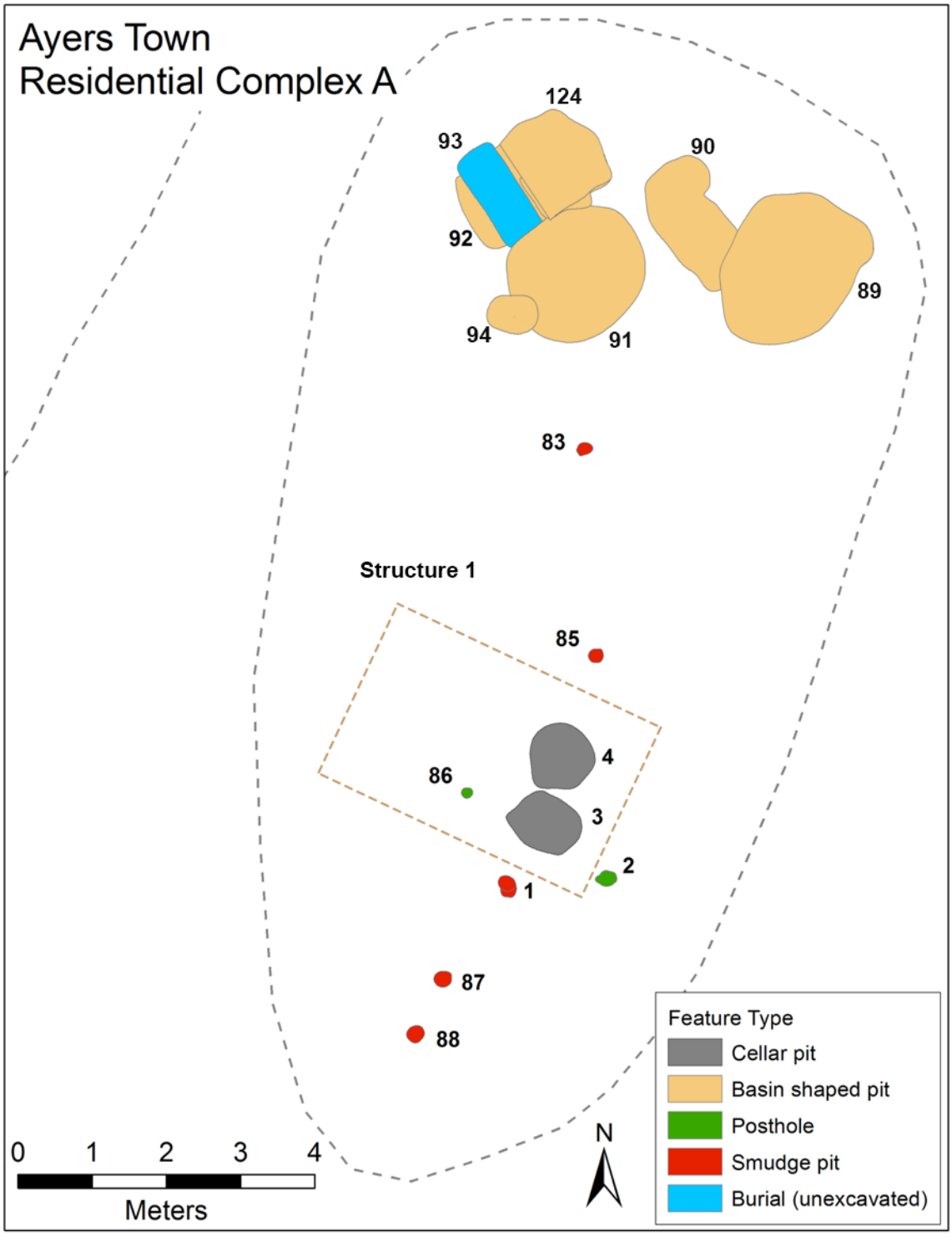


Figure 4.11. Map of Residential Complex A (AA) at Ayers Town showing the position of associated domestic features.

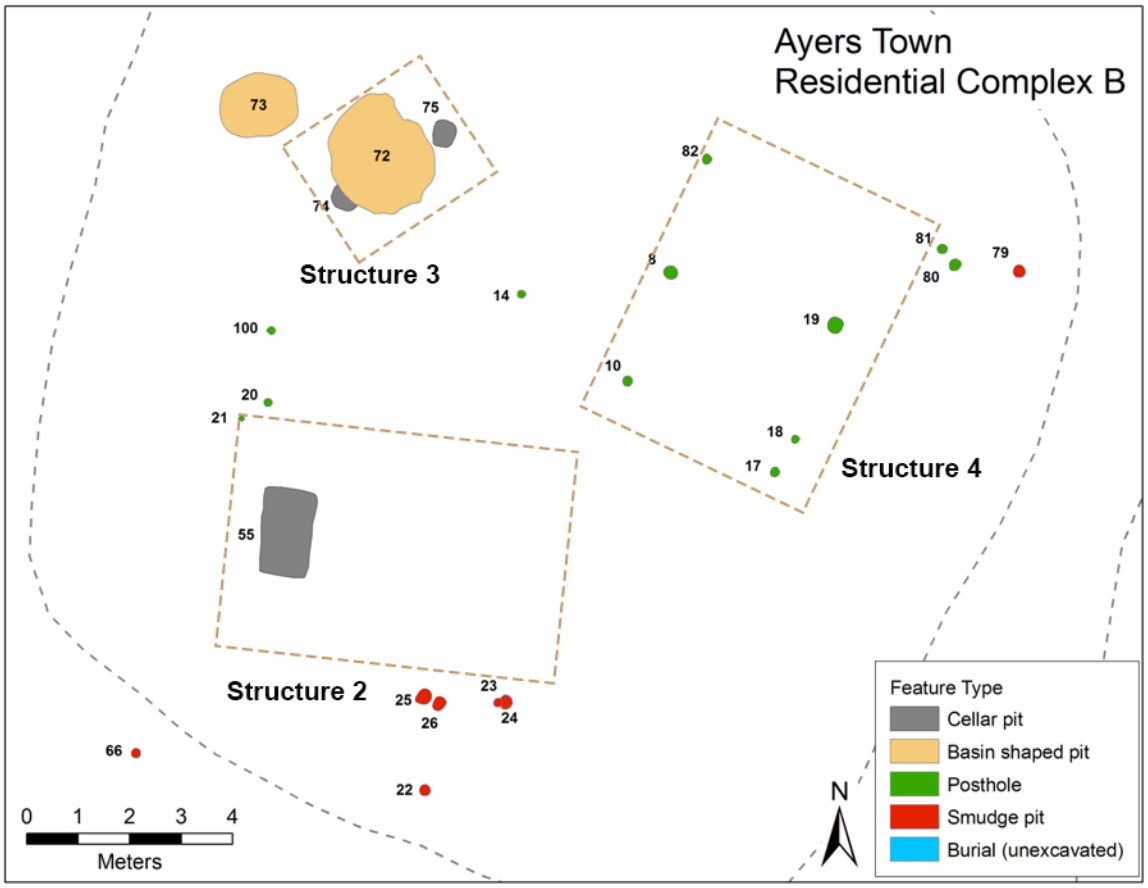


Figure 4.12. Map of Residential Complex B at Ayers Town showing the position of associated domestic features.

pits associated with Structure 4 at Old Town were shallow because they were part of a relatively new cabin, so too may SL-2 represent a relatively late construction that was not in use for as long and therefore not rejuvenated as often. As Davis et al. (2015:129) point out, Feature 55's shallow depth may indicate that the cabin superstructure included a formal elevated floor through which the cellar would been accessed by a boxed enclosure.

Structure Locality 3 refers to a probable ancillary structure approximately 5.5 m north of SL-2 and encompasses Features 74 and 75. Feature 74 is intruded by Feature 72, a large basin-shaped borrow pit that evidently post-dates the structure. A second adjacent borrow pit, Feature 73, may be associated with SL-3 or SL-2 or both. Due to the lack of postholes surrounding Features 74 and 75, SL-3 also appears to be of cribbed log construction. Features 74 and 75 are similar to other small sub-rectangular pits (Feature 27, 141, 170, and 185) associated with ancillary structures and differ significantly from subfloor cellar pits associated with primary domestic structures. The function of this building is unclear, though it may have been a small storage building or shed.

Structure Locality 4 designates a possible post-in-ground arbor or covered work area east of SL-3 and is defined by a cluster of eight postholes (Features 8, 10, 17, 18, 19, 79, 80, and 82). These postholes form an irregular, though roughly rectangular, arrangement that encloses approximately 22.5 m^2. The wide spacing between posts (2-2.5 m) is an indication that this structure may have been an open air shelter.

Residential Complex C

Residential Complex C (AC) is located at the northwest edge of the site and comprises two probable structures (Figure 4.13). Structure Locality 5 (SL-5) is defined by a cluster of three cellar pits, Features 106, 107, and 108, and represents the primary domestic structure for

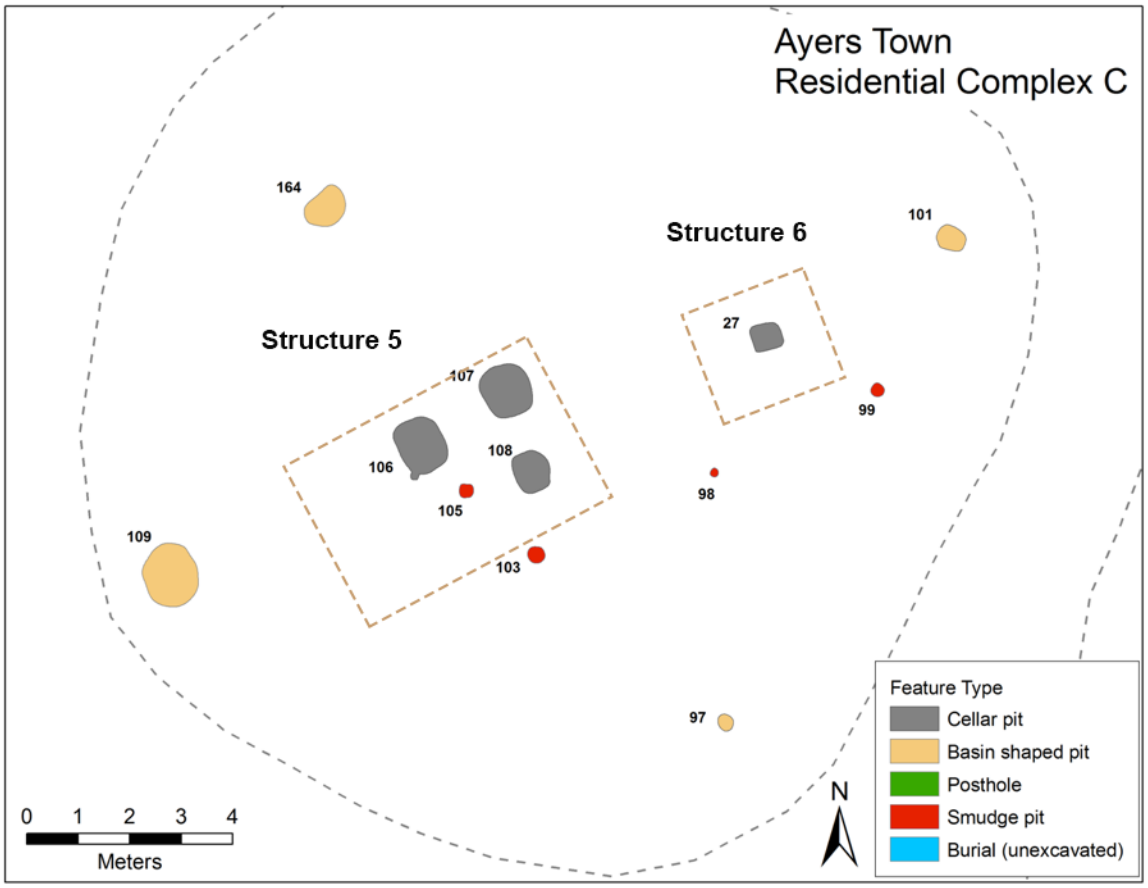


Figure 4.13. Map of Residential Complex C at Ayers Town showing the position of associated domestic features.

Complex C. These three pits are all sub-rectangular with an orientation approximately N60°E, and are arranged in an "L" shape. The position of a small smudge pit (Feature 105) near the cellar pits shows it was likely an interior feature, which is unusual for such a feature that is designed to produce large amounts of smoke. Approximately 4.4 m northeast of SL-5 is Structure Locality 6. Like SL-3, Structure Locality 6 denotes a probable cribbed-log ancillary building whose only architectural remains is a small sub-rectangular pit, Feature 27.

Residential Complex C appears to be largely organized with respect to an axis the runs through the middle of SL-5. This axis connects both structures and many of the nearby features. Feature 27 not only shares a similar orientation with SL-5's cellar pits, but its position lines up well with the proposed centerline of the cabin and a clay borrow pit (Feature 109) located 4.5 m on the opposite side of SL-5. Four meters north of SL-5, nearly perpendicular to this presumed centerline and center point of SL-5, was a heavily truncated pit (Feature 164) that contained lenses of unfired potters clay, similar to the clay-processing pits identified at Old Town. Besides Feature 105, three additional smudge pits (Features 98, 99, and 103) appear to form a regularly spaced parallel alignment with the axis made by SL-5 and SL-6.

Residential Complex D

Residential Complex D (AD) is located south of the proposed road corridor at the western end of the site (Figure 4.14). It comprises two probable log cabins, Structure Localities 7 and 8. SL-7 is defined by Feature 5, a circular flat-bottomed cellar pit immediately adjacent to the road corridor. Two smudge pits (Features 6 and 104) and a grave (Feature 115) are located nearby and are likely associated with this structure.

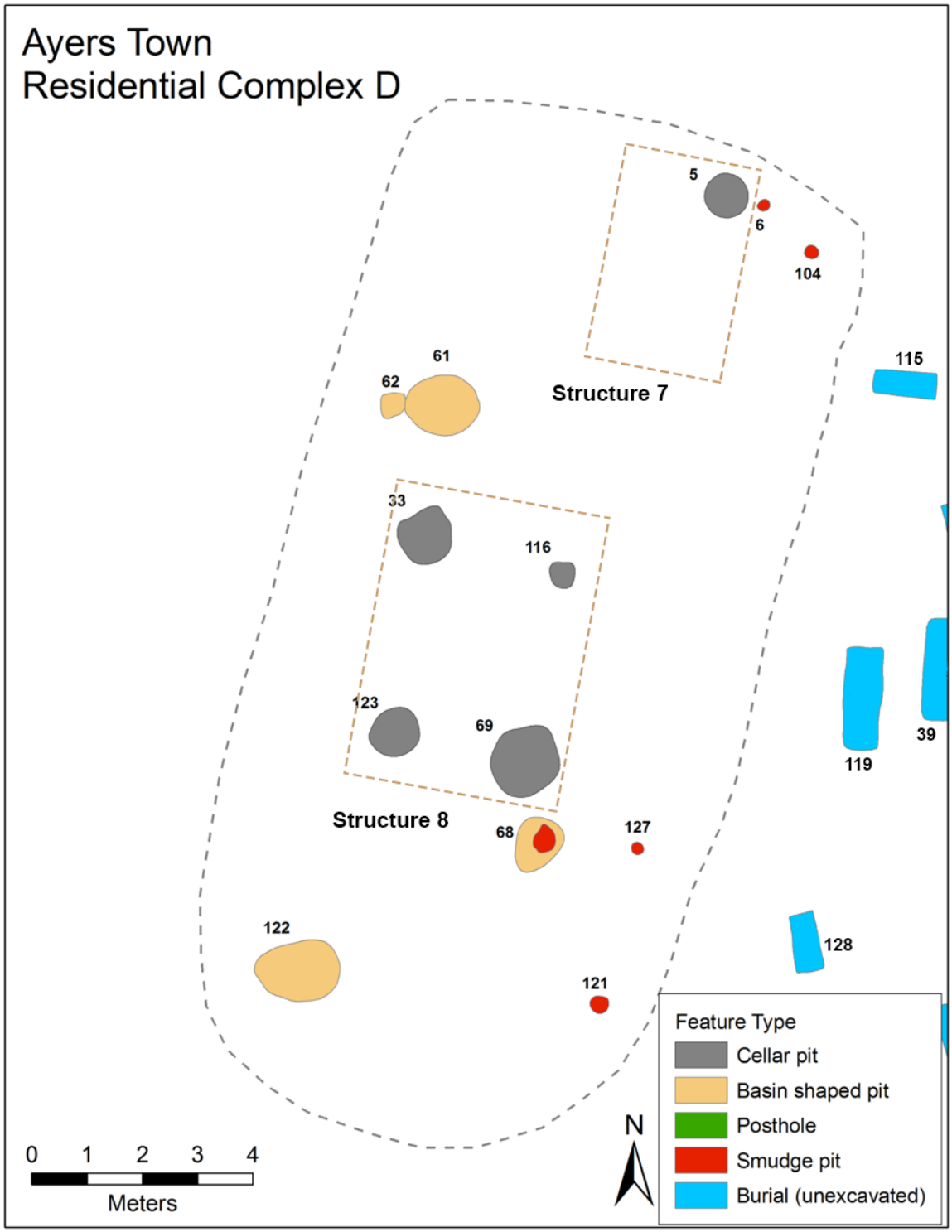


Figure 4.14. Map of Residential Complex D at Ayers Town showing the position of associated domestic features.

Structure Locality 8 is located approximately 6.8 m south of SL-7 and refers to a cluster of four round or irregularly-shaped pit features (Features 33, 69, 116, and 123). These cellar features are organized in a roughly rectangular pattern and occupy a minimum building footprint of about 15 m^2. Several basin-shaped clay borrow pits are located around the periphery of SL-8 in addition to three smudge pits placed to the southeast of the building.

Residential Complex E

Also south of the road corridor, Residential Complex E (AE) is located in the southeastern portion of the site and consists of three structures (Figure 4.15). Structure Locality 10 refers to a probable post-in-ground ancillary structure located immediately south of Cemetery 1. The posthole pattern associated with this structure is not well defined with the building's northeast corner being the most intact. SL-10 contained two small, sub-rectangular pits (Features 141 and 170), similar to those associated with SL-3 and SL-6. Unlike the other post-in-ground buildings at Ayers Town, the postholes associated with SL-10 do not form a clear post pattern, though it is assumed that it was also rectangular in shape.

Structure Locality 11 refers to the primary domestic structure for Residential Complex E. It is defined by a cluster of 4 flat-bottomed cellar pits (Features 155, 158, 162, and 163) located just to the northeast of SL-10. The cabin appears to have been oriented nearly east-west (E4°N). Unlike SL-8, the cellar pits are not evenly spaced; however, a cabin that encloses all four pits would have a minimum footprint of 11.5 m^2. Structure Locality 12 appears to be another ancillary structure similar to SL-3, SL-6, and SL-10. It is defined by Feature 185, a small rectangular pit that was filled with refuse. Like the other small pits associated with these ancillary structures, their original function is unknown though they do not appear to have served the same role as cellar pits with the primary domiciles. While three postholes were documented

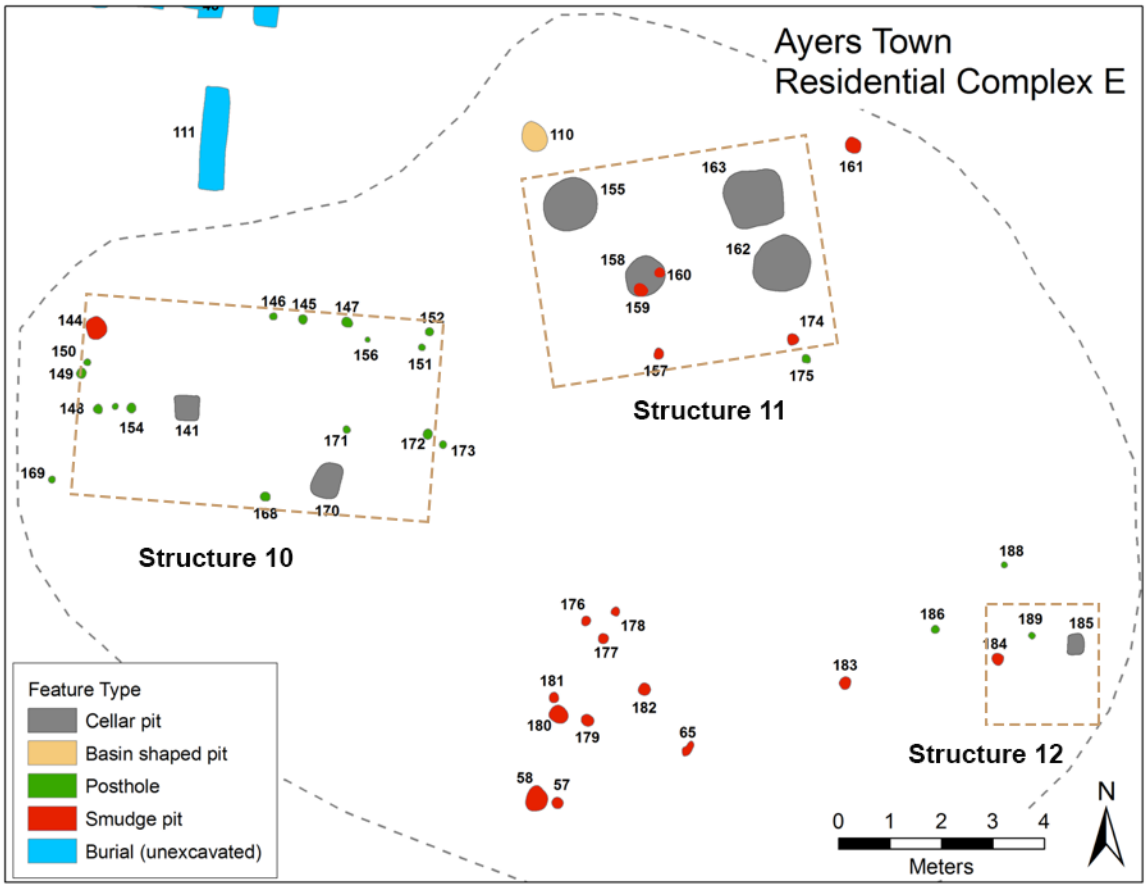


Figure 4.15. Map of Residential Complex E at Ayers Town showing the position of associated domestic features.

near Feature 185, they do not form an obvious structural pattern and therefore the building's construction type is uncertain.

Residential Complex E contains a large cluster of smudge pits in an apparent courtyard area formed by space between SL-10, SL-11, and SL-12. The presence of so many smudge pits indicates this was an area where the smudging of pottery likely took place, and probably other household activities as well. Again, it is worth noting that the smudge pits are placed toward the southeast of the structures.

Unassigned Cultural Components

Near the center of the site is an area with several feature clusters not clearly associated with any of the five residential complexes discussed above (see Figure 4.4). One of these feature clusters comprises six large (30 cm–47 cm diameter) posts (Features 112, 113, 114, 120, 125, and 126) that form a readily identifiable rectangular pattern approximately 2.25 m x 2.8 m and oriented approximately N18°E. This structure pattern, designated Structure Locality 9 (SL-9), is situated on the south side of the proposed road corridor and nearly equidistant between the primary domiciliary cabins of SL-2, SL-8, and SL-11 (16 m, 17 m, and 19 m, respectively). SL-9 is roughly aligned with the presumed building outline that encloses Features 33, 69, 116, and 123 (Structure Locality 8) as well as with Feature 55 (Structure Locality 2). Despite these apparent alignments, I do not believe this structure is directly associated with any single household complex. Structure Locality 9 is also surrounded on three sides by Cemeteries 1, 2, and 3. While none of the burials are closer than 3.6 m to SL-9, only graves associated with Cemetery 3 seem to share its orientation.

Though the function of Structure Locality 9 is not immediately apparent, its small size (6.5 m^2) and absence of pit features suggest it was likely not a primary domestic structure. In the Ayers Town report, Davis et al. (2015:117-118) inferred an associated between SL-9 and

Cemeteries 1-3 based on their proximity (it was also suggested that SL-9 might be associated with Residential Complex AD), implying it may have served a mortuary function. While this inference is not unreasonable, given the lack of any reference to Catawba mortuary facilities in seventeenth or eighteenth centuries and the likelihood that Cemeteries 1 and 2 postdate much of the Catawba occupation at Ayers Town, I offer an alternative interpretation.

I suggest that Structure Locality 9 represents the remains of a specialized storage facility, specifically an elevated corncrib. While corncribs have not been identified from other Catawba sites, there is ethnohistoric evidence for the use of these kinds of structures in the Carolina Piedmont from the sixteenth to the nineteenth century. In his discussion of Catawba mortuary practices, Speck (1939) notes, "For three days after a death in the house the name of the deceased should not be mentioned. The *corn-crib* should not be opened to take out corn from it for the same period, nor should ashes be cleaned out from the fire-place for the same length of time" (Speck 1939:42-43). Structure Locality 9 also bears a striking resemblance to an 1829 depiction of an elevated corncrib near a cribbed log cabin at a historic Creek community (Figure 4.16; Scott 2007:fig. 10.3). (Note the covered area attached to the log cabin.) Based on its centralized location within the site and the lack of clear association with any individual Residential Complex, I argue that SL-9 was likely a communally managed facility.

Approximately 10 m south of SL-9, a series of superimposed refuse-filled basin pits (Features 140, 190, and 191) may be evidence of one or more communal feasting events (the foodways evidence for feasting will be discussed further in Chapter 6). Feature 140, the largest and last intrusive pit of the group, appears to have been filled in two episodes. The lower two fill zones were deposited fairly rapidly with a large amount and variety of cultural debris (i.e., food

Figure 4.16. An 1829 sketch of a Creek Indian log cabin and corn crib by Basil Hall (Scott 2007: fig. 10.3).

scraps, broken pottery vessels, etc.). The remainder of the pit was also filled rapidly and intentionally with layers of heavily mottled clay and refuse. Like SL-9, this feature complex is not closely associated with any of the five residential complexes identified above.

Nisbet Site

The archaeological evidence for household architecture at the Nisbet site is significantly more limited than at Old Town or Ayers Town, revealing elements of only a single structure. This is due to several factors including: (1) the much more limited extent of archaeological investigations; (2) substantial soil erosion and deep subsoil agricultural plowing activities; and (3) the apparently short occupation span at the site.

As mentioned in Chapter 3, the systematic metal detector survey conducted at the Nisbet site covered an area approximately 4,700 m^2 and recovered 98 artifacts from 91 different positive metal "hits" (Davis and Riggs 2014). While the distribution of metal artifacts indicates that the site had a maximum size of .75 hectares, making it slightly larger than the metal detection boundary defined at Ayers Town, the density of material suggests a much smaller or shorter occupation. The 2014 excavations targeted the area immediately surrounding a feature (Feature 1) discovered during the metal detection survey. This work revealed a series of shallow postholes around a single interior feature. Based on field observations of the plowzone and subsoil during excavation, the site appears to have experienced both substantial soil erosion as well as deep mechanical plowing which has led to the truncation of the upper-most portions of the identified features and likely has obliterated shallower features associated with this structure (Davis and Riggs 2014).

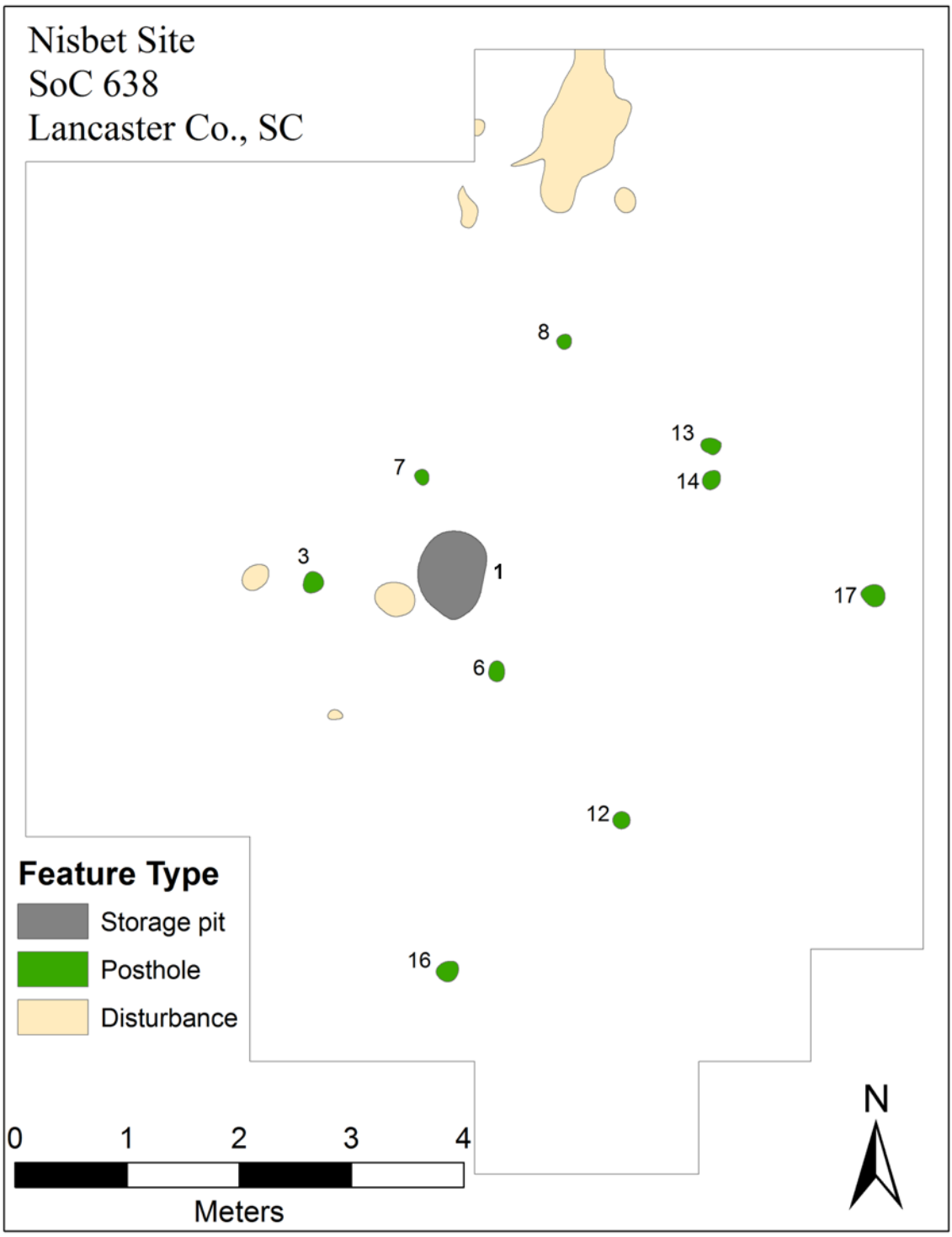


Figure 4.17. A map of the post-in-ground structure (Structure 1) at the Nisbet site.

Nisbet Household A

Nisbet Household A (NA) is defined archaeologically by a single structure, Structure 1, a rectangular post-in-ground building (Figure 4.17). Both documentary and temporally diagnostic material recovered from this household indicate it was occupied sometime between 1760 and 1780, making it potentially one of the last primary domestic structures constructed in this manner. Due to the relatively low density of cultural material from the site and no evidence of rebuilding, it may not have been occupied for this entire period. Eight circular postholes (Features 3, 6, 7, 8, 12, 13, 14, and 17), ranging in depth from 4-14 cm below the top of subsoil, form a regular rectangular pattern approximately 3.25 m by 3.7 m (12 m^2) and oriented 45° off grid north. However, an additional posthole (Feature 16) in-line with the southeastern wall indicates that this structure may have been larger with a footprint approximately 3.7 m by 5.25 m (19.4 m^2). This interpretation is unclear because the corresponding postholes on what would have been the southwestern wall are absent, though due to the substantial soil erosion and modern agricultural disturbances it is possible that this and other shallower posts associated with Structure 1 were plowed away. This larger structure size more closely matches the median structure area for Southeastern domestic structures (21 m^2) reported by Steere (2017:36), though it is substantially smaller than even the interior space associated with the composite structure (34 m^2) at Nassaw (Fitts 2015a; Figure 4.18). The sole interior storage pit associated with Structure 1 (Feature 1) appeared to be heavily truncated. Excavations revealed this pit was only 13 cm deep and irregularly shaped, though it was probably originally sub-rectangular.

Architectural Patterns

Estimating and tracking changes in the size of houses over time is a common strategy for those studying household archaeology. However, considering that the majority of the primary domestic structures defined at Old Town and Ayers Town were log cabins and therefore not

defined by outlines of postholes, estimating the size of these structures is not straightforward. Also complicating any estimate of structure size is the fact that not all Catawba cabins had the same numbers of interior pits, nor were the cellar pits uniformly spaced or positioned within the cabin footprint. Furthermore, not all storage pits were necessarily in use at the same time. For most of the structures described above, the subfloor pits provide the only architectural evidence available related to the size and shape of the buildings that enclosed them. The size and number of cellar pits in each structure provide an indirect and imperfect measure of house size based on storage capacity needs for each household. I use two different metrics to evaluate pit size; surface area and pit volume. Surface area measurements (m^2) were extracted from ArcGIS shapefiles for each site using the Calculate Geometry tool. Using the surface area of features only tells part of the story but it does allow for comparisons between features at different sites with different levels of erosion or plowing that can affect the depth of the feature. Volumes (in liters) were calculated by multiplying the surface area by the recorded excavated depth of the given feature.

Figure 4.19 shows the surface area measurements for all cellar pit features at Old Town, Ayers Town, and Nisbet. It should be noted that despite using its surface area, the single pit from Nisbet was heavily impacted by plowing and erosion and only the very base of the feature was intact; therefore, this measurement is likely not reflective of the feature's original size. Most features ranged between 0.47 and 1.3 m^2, with a mean surface area of 0.83 m^2. The largest feature in terms of surface area is Feature 2 from Old Town which is associated with household OA. The next largest feature is Feature 55 at Ayers Town which is part of household AB. Both of these cellars are large, rectangular pits that were the sole interior pit within their respective structures.

Based on the Catawba structures defined here, the number of interior pits per cabin increased over time. Figure 4.20 shows that the pre-Revolution Catawba structures at Old Town and Nisbet generally had only one interior storage pit installed, but during the Old Town II occupation and at Ayers Town, most cabins contained two to four interior pits. This trend indicates that their interior subterranean storage needs of Catawba households increased, which may signal shifts in foodways such as a greater reliance on root crops such as sweet potato (Riggs 1999). It should be noted that this pattern only holds for the 1760 – 1800 period as the structure at Nassaw had multiple pits and most of the cabins at New Town had none. When feature volumes are estimated and the cumulative storage capacity of each household is calculated, a different pattern is apparent (Figure 4.21). As noted before, the singular pit from Nisbet was heavily truncated, and its original volume was likely significantly greater. The mean storage capacity for the Catawba households considered here is approximately 960 liters; however, if we exclude the highest and lowest values as outliers, the average interior storage capacity was 861 liters. The two residential complexes at Ayers Town with the largest cumulative volumes, households AD and AE, benefited from each having structures with multiple, deeply stratified cellar features. Household AD stands out as a significant outlier, and as we will see in the following chapters, there is reason to believe that this household may have been associated with a community leader.

It should be noted that several factors can also affect the size and quantity of storage pits that are not directly related to structure size. First, within the lifecycle of a domestic structure and the household that occupies it, storage needs may change, going up or down depending on the

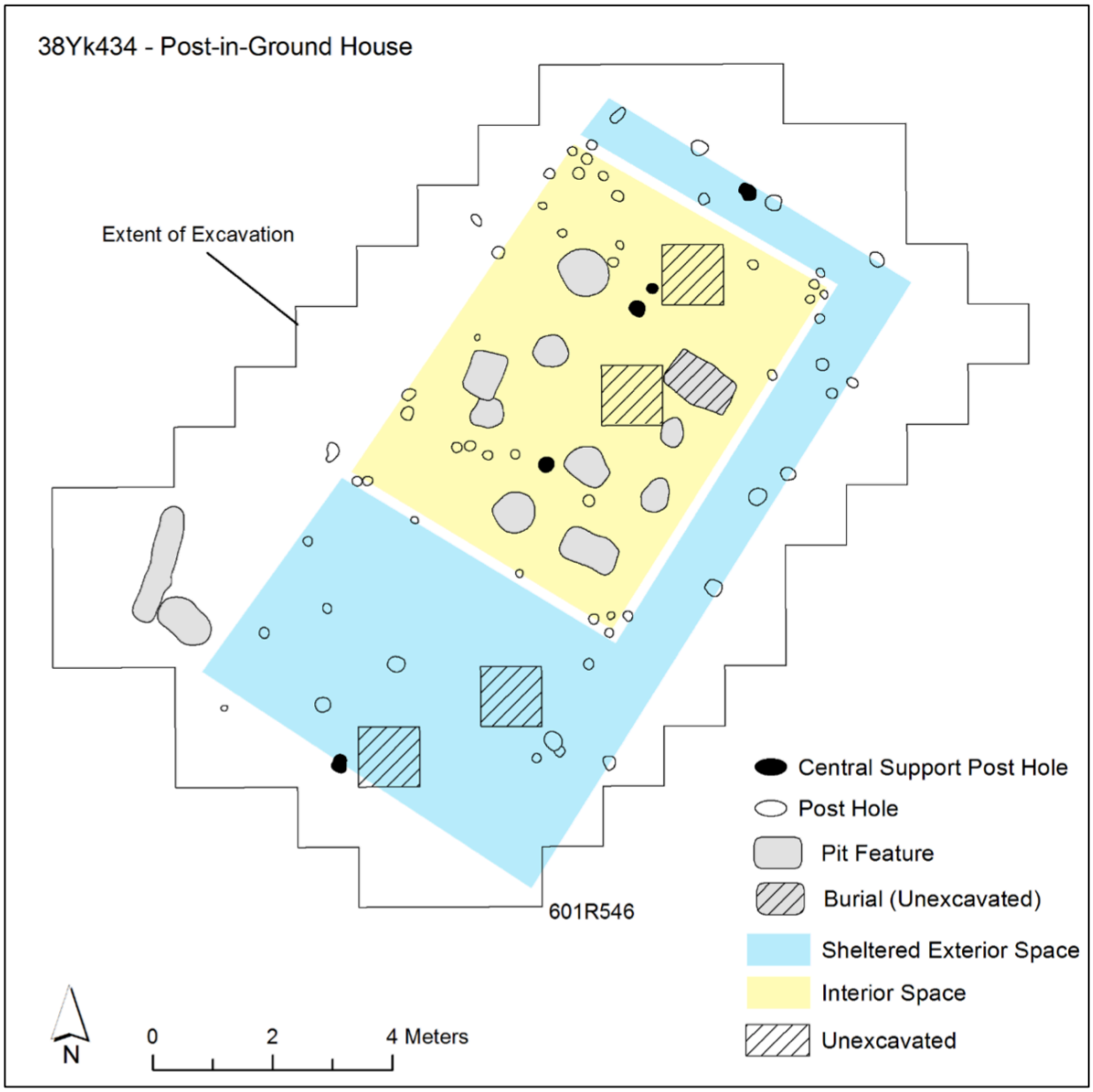


Figure 4.18. Interpretation of post hole pattern of house from Nassaw (Fitts 2015a: Figure 5.20).

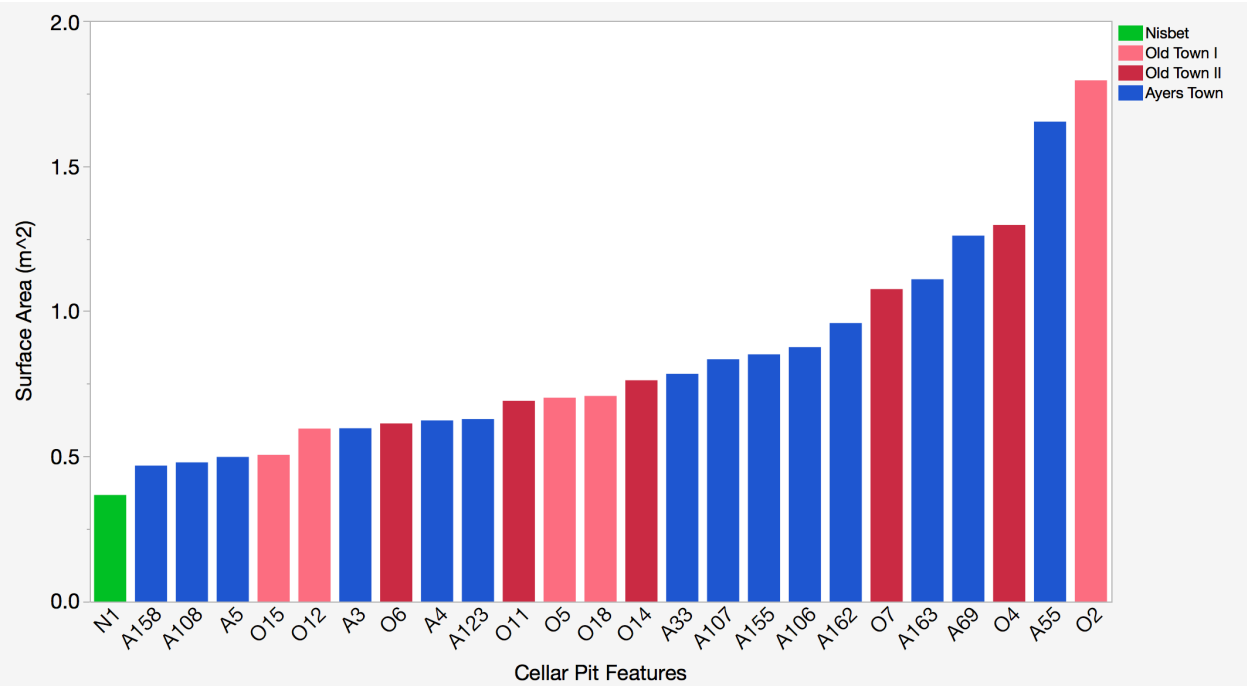


Figure 4.19. Surface area measurements of cellar pit features from Old Town, Ayers Town, and Nisbet.

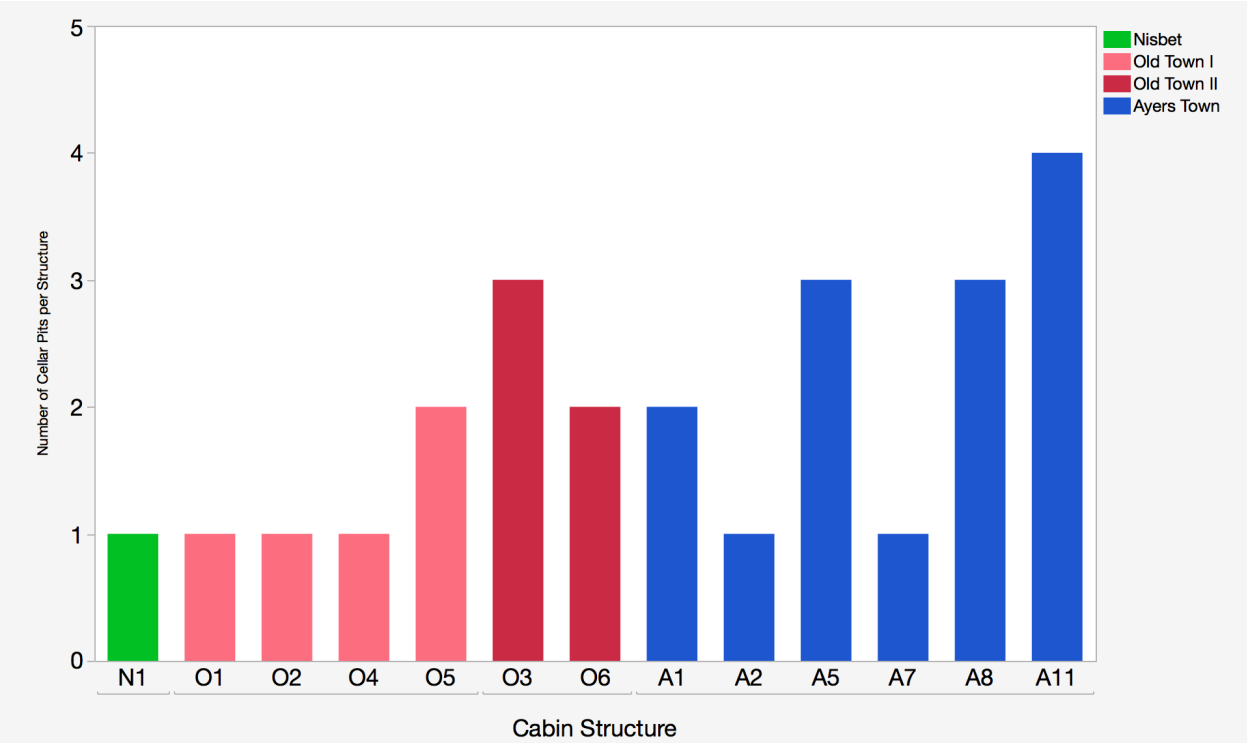


Figure 4.20. Number of interior storage pits per cabin structure.

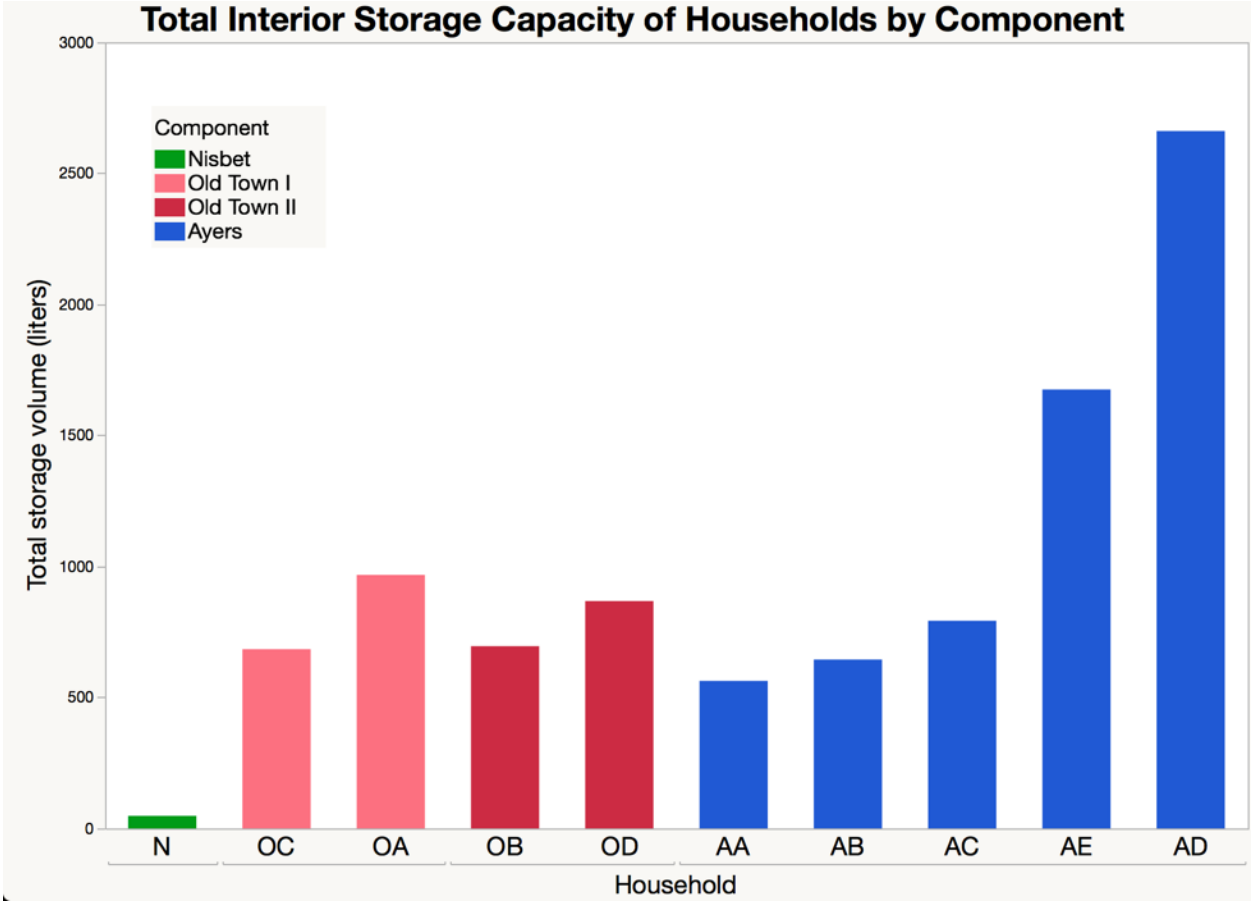


Figure 4.21. Total interior storage capacities for each household complex based on combined cellar pit volume measurements at Old Town, Ayers Town, and Nisbet.

circumstances. Interior pits may be used for a period of time and eventually become sour, collapse, or otherwise deemed unusable. Pits can be filled in and new ones constructed, or they can be rejuvenated by removing additional soil, making the overall pit larger. From a taphonomic perspective, modern agricultural plowing can truncate pits, cause erosion, and result in overall site deflation which can skew feature depths and by extension volume estimates. This approach to estimating house size should be viewed with caution, but considering all the households were occupied for roughly the same duration and experienced similar agricultural plowing (except for Nisbet), I think these comparisons are reasonable.

The architectural remains and their spatial distributions from these three Catawba sites not only provide insights into the households, but also how communities were structured. The central location of the proposed corn crib at Ayers Town (Structure Locality 9) suggests storage may have been a corporately managed resource and along with the closer spacing of cabins suggests the residents at Ayers Town were more integrated as a town than their kinsmen across the river at Old Town. The tight knit community plan evident at Ayers Town was likely the general pattern for Catawba towns during the 1750s when threats of intertribal violence led to increased pressure to aggregate settlements as a form of protection. This community pattern was largely replaced by increasingly dispersed households by end of eighteenth century, as seen at Old Town and later New Town. This shift in community organization may signal other changes taking place with Catawba society, including a change in the conception of household from large, extended matrilineal families to more economically independent nuclear families. The fact that Ayers Town residents continued a pattern of greater settlement nucleation relative to contemporaneous settlements may be evidence of cultural conservatism.

In this chapter, I defined the architecture and spatial components of 10 household complexes associated with Old Town, Ayers Town, and the Nisbet site. In the next chapter, I examine the material culture associated with these households to better understand the activities that took place in and around these locations and how they reflect various economic strategies.

CHAPTER 5: MATERIAL CULTURE OF CATAWBA HOUSEHOLDS

The archaeological investigations at the Old Town, Ayers Town, and Nisbet sites have yielded more than 65,000 artifacts, relating primarily to the late eighteenth-century occupation of the Catawba Nation. In this chapter, I use the household complexes defined in the previous chapter to focus on several aspects of this robust material record that document the ways individual Catawba households were able to adapt economically to a changing colonial landscape while maintaining their cultural and political identity. The selective inclusion of specific kinds and quantities of various material objects within a household context can provide key insights into how the household and its members made a living and to what extent individual household strategies differed within the Catawba community.

Trying to summarize and interpret the distribution of over 65,000 individual artifacts is certainly daunting, not least because these items represent a broad range of activities and behaviors related to multiple facets of Catawba daily life and identity. Rather than attempting to describe every artifact or artifact type, I instead summarize the artifact assemblages at multiple scales. In the first part of this chapter, I take a broad approach by organizing the material assemblages of Old Town, Ayers Town, and Nisbet by functional artifact classes and identifying patterns between household complexes. Next, I focus on a few key artifact types, namely glass trade beads and Catawba-made earthenware pottery, that I feel highlight differences between households and reflect important household economic strategies and/or markers of identity.

Functional Artifact Classes

One strategy for imposing an organizational order to artifact assemblages was developed by Stanley South (1977) in which he grouped objects into functional categories that he believed represented essential activities. I utilize a modified version of South's organizational scheme, defined in Davis et al. (2015), that divides artifacts from Old Town (Table 5.1), Ayers Town (Table 5.2), and Nisbet (Table 5.3) into one of 10 functional activity groups.

The Architecture Activity Group typically includes any material or tool used in the construction of a building or dwelling; however, the vast majority of architecture-related artifacts recovered are of a single artifact type, hand-wrought nails. Though most of the buildings constructed by Catawbas at this time, either notched log cabins or traditional post-in-ground buildings, did not rely on nails as structural fasteners, nails were regularly recovered during systematic metal detecting. Nails were likely used for a variety of purposes by late eighteenth century households, including securing boards to the exterior of log cabins to reduce drafts. Aside from a single ax recovered from Old Town, burned clay and daub are the only other building materials regularly recovered from late eighteenth-century Catawba sites. Used in hearths, chimneys, and as chinking in log cabins or daub in traditional Native structures, burned clay was often recovered in small fragments from feature contexts. Due to inconsistent collection of burned clay from feature to feature and site to site, burned clay was not included in this analysis.

Table 5.1. Summary of the Old Town Artifact Assemblage.

Activity Group & Artifact Class	N
Architecture Group	
Nails	265
Ax	1
Arms Group	
Gun Parts	6
Gunflints and Gunflint flakes	43
Ammunition	64
Bullet Mold	1
Hand Grenade	1
Clothing Group	
Sewing Implements	93
Clothing Fasteners	24
Glass Beads	2677
Shoe Buckles	1
Food Preparation and Consumption Group	
Catawba Pottery	16482
Imported Pottery	309
Glass Containers and Tableware	412
Cast Iron Vessels	7
Mortar and Pestle	3
Knives	11
Other Items (antler handles, iron strainer, kettle fragments, pothook)	48
Personal Group	
Jewelry and Ornaments	24
Smoking Pipes	170
Jaw Harps	9
Mirror Glass	1
Other Items (coins, fishhooks, fire steel, toy, pocket knife, pencil lead, bells, keys, iron hoes)	27
Horse Management Group	
Harness and Bridle Hardware	5
Saddle Hardware	3
Wagon Hardware	1
Horseshoe and Horseshoe Nails	25
Clasps, Buckles, and Clips	15
Miscellaneous Hardware Group	
Tacks, Staple, and Rivets	30
Chain, Rings, Clip	12
Metal Resource Group	
Brass	12
Iron	362
Lead, Lead Alloy	62
Pewter	5
Silver	38
Tin	3
Other metal	3
Pottery Production Group	
Potter's Clay Samples	27
Red Sealing Wax Fragments	16
Shell Scrapers	1
Burnishing Stones	13
Artifacts of Indeterminate Function	
Worked Stone	
Clay	1
Iron	
Wood	1
Total	21,314

Table 5.2. Summary of the Ayers Town Artifact Assemblage (Davis et al 2015:141).

Activity Group & Artifact Class	N
Architecture Group	
Nails	277
Arms Group	
Gun Parts	7
Gunflints and Gunflint Flakes	21
Ammunition	42
Clothing Group	
Sewing Implements	19
Clothing Fasteners	28
Glass Beads	1,495
Shoe Buckle	1
Food Preparation & Consumption Group	
Catawba Pottery	17,134
Imported Pottery	320
Glass Containers & Tableware	203
Cast Iron Vessels	40
Tinware	57
Knives and Spoons	9
Personal Group	
Jewelry and Ornaments	12
Smoking Pipes	253
Entertainment Items	15
Mirror Glass	8
Other Items (coin, watch parts, bell-like object, key, pocket knives, dividers, fishhook, fish spear)	11
Horse Management Group	
Harness and Bridle Hardware	12
Saddle Hardware	3
Wagon Hardware	1
Horseshoe and Horseshoe Nails	5
Horse Bell	1
Miscellaneous Hardware Group	
Tacks, Staple, and Rivets	11
Hinge and Hasps	3
Metal Resource Group	
Brass	14
Silver	20
Pewter	8
Lead	51
Iron	81
Pottery Production Group	
Potter's Clay Samples	66
Red Sealing Wax Fragments	15
Shell Scrapers	4
Burnishing Stones	5
Fired Clay Segments and Lumps	32
Artifacts of Indeterminate Function	
Worked Stone	20
Clay	2
Brass	4
Iron	11
Wood	2
Total	20,323

Table 5.3. Summary of the Nisbet Artifact Assemblage.

Activity Group & Artifact Class	N	Activity Group & Artifact Class	N
Architecture Group		**Horse Management Group**	
Nails	32	Harness and Bridle Hardware	4
Arms Group		Saddle Hardware	1
Gun Parts	2	Horseshoe and Horseshoe Nails	10
Ammunition	5	Clasps, Buckles, and Clips	1
Clothing Group		**Miscellaneous Hardware Group**	
Sewing Implements	2	Tacks and Staples	1
Glass Beads	83	Chain, Rings, Clips	9
Food Preparation and Consumption Group		**Metal Resource Group**	
Catawba Pottery	1402	Iron	4
Imported Pottery	6	Lead	5
Glass Containers and Tableware	46	Silver	1
Knives	4		
Personal Group			
Smoking Pipes	30	**Total**	1664
Other Items (lock plate and cover, fire steel, brass bell, harmonica)	5		

The Arms Activity Group consists primarily of gun parts, ammunition, and other materials associated with firearms or weaponry. Gun parts recovered from these sites indicate that flintlock muskets and pistols were readily available to the Catawba and likely used in war as well as for hunting. The quantity of gun-related material found on Catawba sites, especially on earlier 1750s-era sites (Fitts 2017), reflect the extent to which the Catawba Nation was intimately involved in colonial warfare on behalf of the English. Colonial documents show that Catawba headmen and warriors were repeatedly supplied with firearms and hundreds of pounds of gun powder, flints, and ammunition in the form of lead shot and even raw lead bars with the explicit expectation that the Catawba fighters fight for English colonial interests (Brown 1966). King Hagler was said to have received numerous firearms during his many diplomatic visits with colonial officials, including a silver-mounted rifle given to him by Lieutenant Governor William Bull II. A bullet mold recovered from Old Town and quantities of lead sprue clearly show that Catawba warriors were capable of making their own ammunition. Besides diplomatic gifts, Catawbas acquired these items in several ways, such as through colonial traders, as bulk shipments delivered to Catawba towns during periods of war, and as war trophies.

The Clothing Activity Group includes items directly associated with clothing, including buttons and shoe buckles, as well as sewing implements such as straight pins, thimbles, and scissors. A large proportion of the artifacts assigned to the Clothing Activity Group are glass trade beads. These are included in this activity group because the vast majority of the beads associated with Catawba domestic sites during this time are small “seed” beads that were likely sewn onto items of clothing for decoration. As will be discussed later, a portion of the bead assemblage includes larger tubular beads that were probably worn as necklace beads; however, these are still included in the clothing activity group.

Food Preparation and Consumption Activity Artifacts contains a broad group of items associated with cooking, serving, or eating food, including Catawba-made pottery, imported ceramics, glass containers, utensils and tableware, and cast iron kettle fragments, among others. I will discuss the Catawba and imported pottery in more detail later in the chapter. It is important to note that while much of the Catawba ceramic assemblage reflects a shift toward colonoware production for the frontier market, the pottery considered here was recovered from Catawba domestic contexts and thus clearly represents vessels made and used by Catawba households.

The Personal Activity Group includes a wide range of artifacts associated with personal adornment and entertainment and other activities. Artifacts in this group include jewelry and other ornaments (excluding glass beads), smoking pipes, mirror glass, musical instruments (e.g., jaw harps, harmonicas), coins, bells, keys, and toys, among other items.

Horses represented important possessions for the Catawba Nation, and ownership of one may have conveyed a certain amount of wealth or status to an individual or household within the community. Besides riding, horses would have been potentially important household assets used to pull wagons to transport people and property across the landscape, including in the context of the Catawba pottery trade. Horse Management Activity Group artifacts include the constellation of items commonly associated with riding tack, harnesses, buckles, and wagon hardware.

The Miscellaneous Hardware Activity Group includes tacks, staples, chain, clips, hinges, and rivets, among other things. Items in this group may be associated with a variety of activities and likely played a role covered in one of the other activity groups. The Metal Resource Activity Group includes artifacts made of brass or other copper alloys, silver, pewter, lead, and iron that represent the raw metal materials or byproducts of metal working. Because there is no evidence for Catawba blacksmithing at this time, most of the items in this group reflect the working of

relatively soft metals, like lead, pewter, and even silver sheet. This group also includes unidentifiable fragments of otherwise finished metal goods.

The Pottery Production Activity Group contains items that were used in the manufacture of Catawba-made earthenware pottery. Artifacts included in this group include burnishing stones and mussel shell scrapers, as well as some of the raw materials used to make or decorate the vessels. Specifically, lumps and coils of unfired potting clay were regularly recovered in cellar pits and the small circular clay processing pits at Old Town. Another artifact type included in this activity group is the red sealing wax lumps that were used to paint designs on bowls, plates, and pitchers. Sealing wax painted pottery became a noted feature of Catawba pottery during the nineteenth century (Gregorie 1925:21; Scott 1884; Simms 1845), but its presence at Old Town and Ayers Town demonstrates that it was being incorporated into Catawba ceramic productions as early as the 1760s. I discuss the Catawba painting tradition in more detail below.

As its name implies, Artifacts of Indeterminate Function includes objects of different material types whose role within Catawba daily life or household economy is not clear. Examples of items in this group include objects of worked stone, clay, iron, or wood.

In order to better visualize patterning within the artifact assemblages from Old Town, Ayers Town, and Nisbet, I compiled counts related to each of the functional categories associated with features assigned to each household complex, including the unassigned features from Ayers Town designated "AU" (Table 5.4), and conducted a correspondence analysis (CA). I restricted this analysis to artifacts recovered from feature contexts in order to be as consistent as possible since even though Ayers Town was systematically metal detected, not all of the plowzone was recovered at Ayers Town and household complexes at Old Town overlap in space, making plowzone and metal-detected materials difficult to assign to specific household

Table 5.4. Counts of artifacts associated with Catawba household complexes used for correspondence analysis. Counts reflect artifacts from feature contexts only.

Artifact Activity Group	**Nisbet**	**Old Town**				**Ayers Town**					
	N	**OA**	**OB**	**OC**	**OD**	**AA**	**AB**	**AC**	**AD**	**AE**	**AU**
Architecture	6	70	2	19	13	10	12	7	30	4	0
Arms	1	43	4	8	5	0	2	8	26	3	1
Clothing	69	2028	164	335	223	31	311	86	941	145	6
Food Preparation	56	1296	205	1883	2619	1734	1186	1002	1021	1621	1003
Horse Management	0	3	1	1	3	0	0	1	5	0	0
Personal	27	82	12	34	44	26	58	14	95	39	21
Pottery Production	0	0	5	7	16	2	9	0	8	2	1
Metal Resource	10	227	34	93	38	11	29	18	49	14	3
Misc. Hardware	10	12	8	5	3	0	1	0	5	2	1

complexes. I omitted the Miscellaneous Hardware and the Indeterminate Function artifacts from the following analysis because their function and meaning are not easily interpreted at this scale.

The resulting biplot (Figure 5.1) shows the first two dimensions which capture approximately 97.1% of the total variance. The Pottery Production and Food Preparation functional groups are located on the left side of the graph (Dimension 1) and are associated with a majority of the Catawba households including AA, AB, AC, AE, OC, and OD. The functional groups of Arms, Beads, Clothing, Horse Management, Metal Resource, and Personal plot on the right side of the x-axis with households OA, OB, AD, and N. Dimension 2 (y-axis) only accounts for 3.68% of the total assemblage variation and most households cluster at or near the center of the axis. The notable exception is the single household from the Nisbet site which is located in the upper right quadrant of the plot and mostly closely corresponds to the Personal functional group. I suspect that the relatively low artifact counts from the Nisbet site is likely causing the household to stand out from the others.

This graph suggests that for most Catawba households daily life was most clearly associated with the preparation and consumption of meals, an aspect of household practice that is perhaps not too surprising. However, for a few households, their material records indicate they had different economic and social priorities and strategies. The most striking pattern revealed in this biplot is the position of several households at the far right side of the graph in close correspondence with Arms, Clothing, and Metal group artifacts, as well as Horse Management and Architecture group artifacts. The artifacts associated with these particular functional groups include items that likely held special significance for their owners. Firearms and munitions were used by Catawba warriors and hunters, and represent objects furnished to the Catawba by their

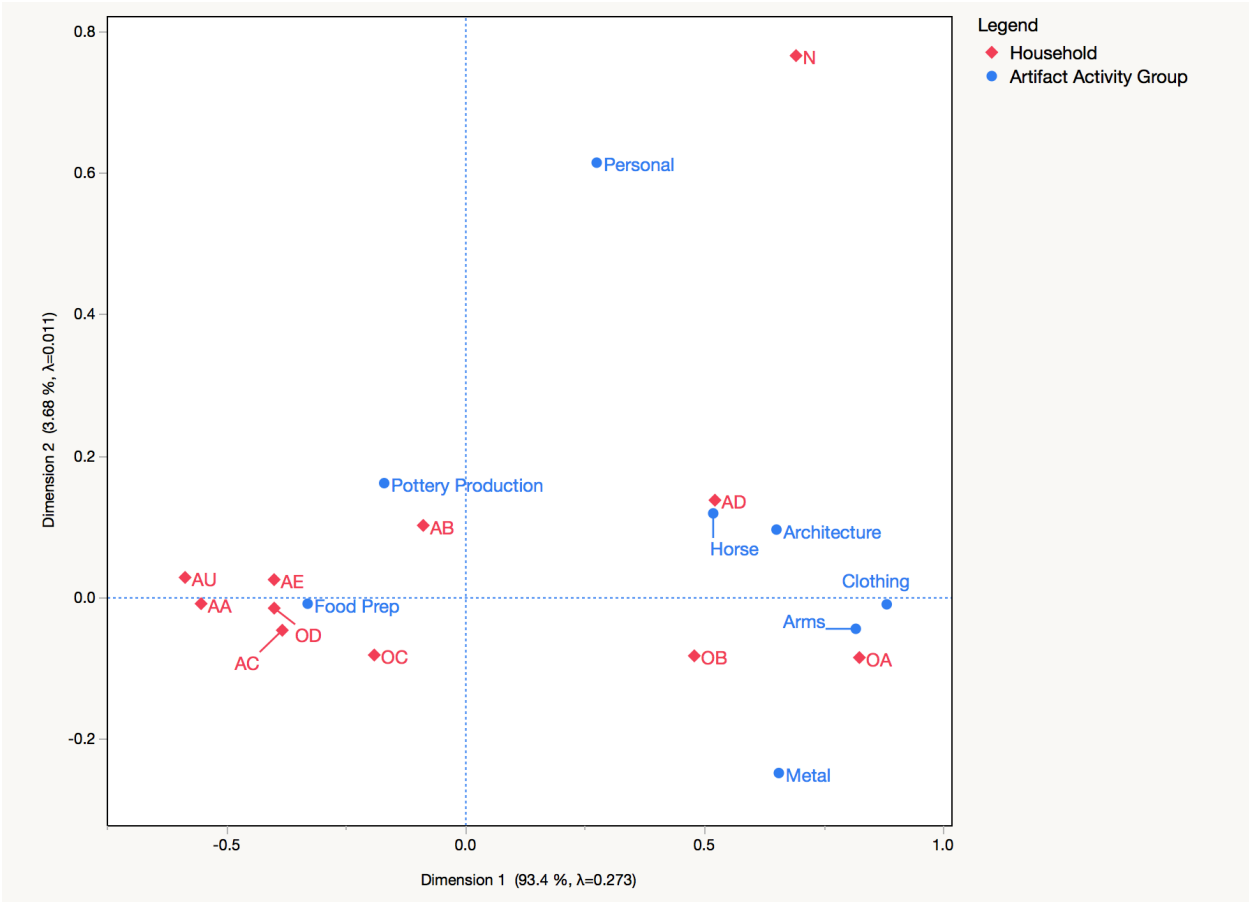


Figure 5.1 Biplot showing the results of a correspondence analysis of artifact activity groups and household assemblages.

allies, the British. The historical record is replete with accounts of Catawba headmen and warriors being gifted and furnished with weapons and ammunition so they could continue to aid them in frontier battles. Even though the density of gun parts on Catawba sites drops off after the 1750s (Davis et al. 2015), guns remained important tools and symbols for Catawba warriors.

Clothing group artifacts are dominated by glass beads, and to a lesser extent buttons, which would have served as highly visible components of one's dress. While beads are nearly ubiquitous in Catawba domestic features, access to large numbers of glass trade beads in the form of beaded articles of clothes may have reflected a desire to present a conspicuous display. Garments and clothes with large amounts of bead work would have required considerable time investment to produce, time not spent on other endeavors. The Metal Resource functional group includes, among other items, bits of pewter, brass, and even scraps of silver, and access to these metal objects could signal higher status or greater wealth associated with that household.

One possible explanation for the correspondence between the three household complexes on the right side of the graph (OA, OB, AD) and the Arms, Architecture, Clothing, Horse Management, and Metal group artifacts is that these households were associated with important community leaders or headmen. Catawba chiefs and headmen received a variety of diplomatic gifts from colonial officials nearly every time they interacted. While some of these gifts were undoubtedly redistributed or regifted to other Catawba members, it is very likely the households to which community leaders were part of benefitted more directly or more often. As noted in Chapter 4, households OA and OB are both located in Cabin Locus 1, and I argue that they represent consecutive occupations of the same household before and after Old Town was briefly abandoned during the American Revolution. Also noted in Chapter 4, the cellar pit associated with household OA (Feature 2) is the largest cellar pit by surface area of any historic Catawba

site with the exception of the cellar at the Bowers site (Davis and Riggs 2004). Assuming a cellar's footprint is proportional to the size of the surrounding cabin, household OA occupied one of the largest cabins in the Nation. Given the kinds and quantities of goods associated with this cabin, OA represents a compelling candidate for King Hagler's household.

It is important to note that while Hagler was killed in 1763 and would have only lived at Old Town a short time, his family no doubt maintained the household after his death and any material wealth he had accumulated through his position which was not directly interred with him, would have also been maintained by the household. It is also possible that household OA was associated with a different Catawba leader, maybe King Prow who led the Nation after King Hagler's death until the American Revolution, but given the multiple maps depicting Old Town situated along either "King's Branch" or "Hagler's Branch," King Hagler is more likely. In either case, it is apparent that this household had a reversal of fortunes in the years after the American Revolution. Though household OB's artifact assemblage still plots on the right side of the correspondence analysis near OA, the substantially smaller number of artifacts recovered from OB features indicates that something had changed.

Glass Bead Assemblages

Glass trade beads are a ubiquitous and often abundant artifact type on most historic-era Native sites in the Southeast. The fact that glass beads were relatively inexpensive to mass produce and ship in large quantities made them a favorite commodity for European traders in the Americas. At the same time, Indian people readily incorporated glass beads into various aspects of their personal adornment and dress, making them important components of Native expressive culture. Archaeologists have long acknowledged temporal and geographic distributions of certain glass bead types as useful for dating sites. The following section summarizes the glass bead

assemblages from Old Town, Ayers Town, and Nisbet, and presents the results of a seriation using correspondence analysis.

My analysis of the glass beads from Old Town, Ayers Town, and Nisbet relies heavily on the initial bead analysis conducted by Duffield and Davis (2011) and summarized by Davis et al 2015:149-154). Duffield and Davis (2011) classified beads by form, size, color, and diaphaneity using categories based on the system developed by Kidd and Kidd (1970), and they established separate comparative type collections for pre-1760 sites (Nassaw-Weyapee and Charraw Town), 1760s–1790s sites (Old Town and Ayers Town), and New Town (c.1790s–1820). The analysis of the Ayers Town and Old Town assemblages resulted in the identification of 56 distinct bead types (Figures 5.2 and 5.3). Using the Old Town/Ayers Town type collection, I classified the beads recovered during the 2014 field season at Old Town and Nisbet and incorporated them into the existing database. Summaries of the glass bead assemblages from Ayers Town, Old Town, and Nisbet are shown in Tables 5.5, 5.6, and 5.7, respectively.

Like the earlier 1750s Catawba contexts, late eighteenth-century Catawba bead assemblages are dominated by small to very small "seed" beads that likely reflect a practice of embroidering designs on clothing or, alternatively, beads strung together and worn as jewelry (Davis et al. 2015; Fitts 2015). The most common bead types recovered from Ayers Town (55.6%), Old Town (62.5%), and Nisbet (48%) were small, white, simple rounded tube beads (Type 11). As noted by Davis et al. (2015:149), by the 1760s bead densities had fallen dramatically within Catawba feature contexts, suggesting a shift in how beads were being used. Despite recovering significantly fewer beads from the Twelvemile Creek assemblages, (Nassaw/Wiapee/Charraw n=25,780 vs. Old Town/Nisbet/Ayers Town n=4,194), the latter

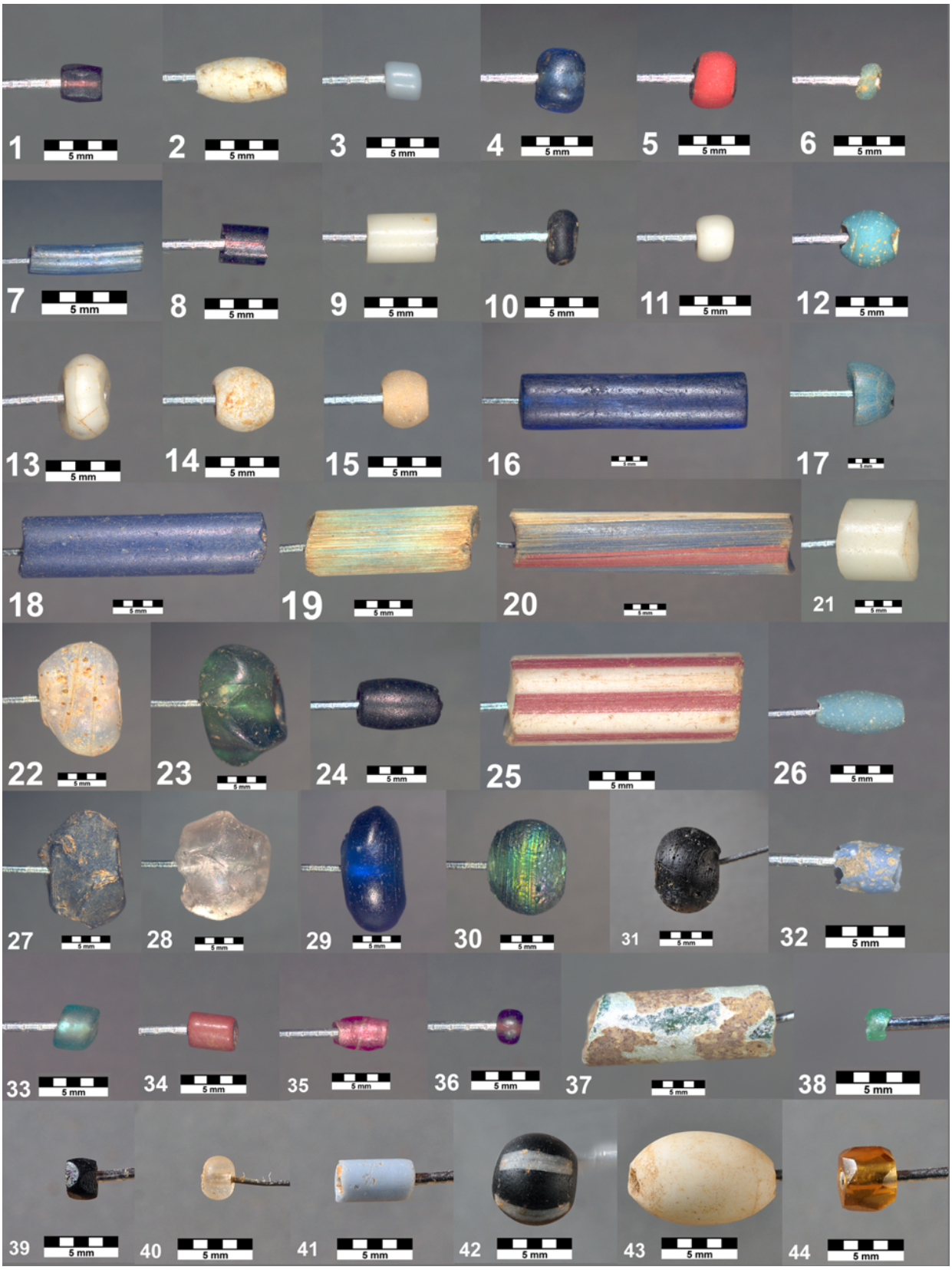


Figure 5.2. Glass Bead Types (Types 1-44) identified at Ayers Town, Old Town, and Nisbet.

Figure 5.3. Glass Bead Types (Types 45-56) identified at Ayers Town, Old Town, and Nisbet.

Table 5.5. Summary of Glass Beads from Ayers Town.

Type	N	%	Kidd & Kidd Type	Form	Size	Color	Diaphaneity
1	93	6.23%	If	simple tube, faceted (8 sides & ends)	small	rose wine	translucent
2	7	0.47%	IIa15	simple tube, rounded (oval)	small	white	opaque
3	1	0.07%	IIa	simple tube, rounded	small	pale blue	opaque
4	17	1.14%	IIa	simple tube, rounded	small	dark navy	translucent
5	77	5.16%	IVa1	two-layered tube, rounded	small	redwood over light gray	opaque
6	3	0.20%	IIa	simple tube, rounded	small	surf green	translucent
7	5	0.34%	Ia18	simple tube	small	dark navy	translucent
8	36	2.41%	Ia	simple tube	small	black	translucent
9	6	0.40%	Ia5	two-layered tube	small	white (clear coating)	opaque
10	27	1.81%	IIa	simple tube, rounded	small	black	opaque
11	830	55.63%	IIa13	simple tube, rounded	very small-small	white	opaque
12	0	0.00%	IIa23	simple tube, rounded	small	brite mint green	opaque
13	11	0.74%	IIa13	simple tube, rounded	medium -large	white	opaque
14	4	0.27%	IIa11	simple tube, rounded	small	white	opaque
15	3	0.20%	WIb	wire wound, rounded	small	clear	translucent
16	11	0.74%	Ia15	simple tube	large	dark blue	translucent
17	2	0.13%	IIa25	simple tube, rounded (oval)	large	surf green	opaque
18	11	0.74%	Ia16	simple tube	large	dark navy	opaque
19	0	0.00%	Ia14	simple tube	medium	apple green	opaque
20	12	0.80%	Ib5	striped tube	large	dark blue (red & white stripes)	opaque
21	2	0.13%	Ia5	two-layered tube	medium -large	white (clear coating)	opaque
22	3	0.20%	WIb5	wire wound, rounded	large	light gray	translucent
23	0	0.00%	WIIc7	wire wound, faceted (5 sided)	large	dark palm green	translucent
24	1	0.07%	IIa8	simple tube, rounded (oval)	small	black	opaque
25	1	0.07%	Ib11	striped tube	large	white (red stripes)	opaque
26	3	0.20%	IIa	simple tube, rounded (oval)	small	surf green	opaque
27	0	0.00%	WIIc12	wire wound, faceted (5 sided)	large	brite navy	opaque
28	0	0.00%	WIIc2	wire wound, faceted (5 sided)	large	light gray	clear
29	2	0.13%	WId	wire wound, donut	large	brite navy	translucent

Type	N	%	Kidd & Kidd Type	Form	Size	Color	Diaphaneity
30	1	0.07%	WIb9	wire wound, rounded	large	dark palm green	translucent
31	2	0.13%	WIb	wire wound, rounded	large	brite navy	opaque
32	4	0.27%	IIa	simple tube, rounded (oval)	small	brite copen blue	opaque
33	6	0.40%	IIa27	simple tube, rounded	small	emerald green	translucent
34	1	0.07%	IIIa2	two-layered tube	small	redwood over light gray	opaque
35	1	0.07%	IIa60	simple tube, rounded (oval)	small	rose wine	opaque
36	214	14.34%	IIa5	simple tube, rounded	very small	ruby	translucent
37	14	0.94%	Ia	simple tube	medium -large	dark palm green	opaque
38	5	0.34%	IIa	simple tube, rounded	small	apple green	translucent
39	10	0.67%	Ic4	simple tube, faceted	small	black	opaque
40	13	0.87%	IIa9	simple tube, rounded	small	light gray	clear
41	16	1.07%	Ia	simple tube	small	pale blue	opaque
42	1	0.07%	IIb12	striped tube, rounded	medium	black (white stripes)	opaque
43	2	0.13%	IIa5	simple tube, oval	large	white	opaque
44	3	0.20%	Ic8	simple tube, faceted	medium	amber	clear
45	10	0.67%	IIa28	simple tube, rounded	medium	dark palm green	translucent
46	1	0.07%	IIa	simple tube, rounded	medium	dark brown	translucent
47	1	0.07%	*set stone	-	-	-	translucent
48	1	0.07%	*jet bead	-	-	black	opaque
49	1	0.07%	IIg	simple tube, rounded (oval)	medium	white (green design)	opaque
50	2	0.13%	*set stone	-	large	brite navy	translucent
51	1	0.07%	*set stone	-	-	-	clear
52	3	0.20%	WIb	wire wound, rounded	small	black	opaque
53	2	0.13%	WIb2	wire wound, rounded	medium	white	translucent
54	6	0.40%	Ia21	simple tube	small	ruby	translucent
55	1	0.07%	WIb14	wire wound, rounded	very large	brite Dutch blue	opaque
56	2	0.13%	IIIa	multi-layered tube	large	dark navy (white stripes)	opaque
Total	1492	100%					

Table 5.6. Summary of Glass Beads from Old Town.

Type	N	%	Kidd & Kidd Type	Form	Size	Color	Diaphaneity
1	8	0.31%	If	simple tube, faceted (8 sides & ends)	small	rose wine	translucent
2	222	8.53%	IIa15	simple tube, rounded (oval)	small	white	opaque
3	9	0.35%	IIa	simple tube, rounded	small	pale blue	opaque
4	25	0.96%	IIa	simple tube, rounded	small	dark navy	translucent
5	123	4.72%	IVa1	two-layered tube, rounded	small	redwood over light gray	opaque
6	4	0.15%	IIa	simple tube, rounded	small	surf green	translucent
7	2	0.08%	Ia18	simple tube	small	dark navy	translucent
8	118	4.53%	Ia	simple tube	small	black	translucent
9	18	0.69%	Ia5	two-layered tube	small	white (clear coating)	opaque
10	42	1.61%	IIa	simple tube, rounded	small	black	opaque
11	1627	62.48%	IIa13	simple tube, rounded	very small-small	white	opaque
12	5	0.19%	IIa23	simple tube, rounded	small	brite mint green	opaque
13	105	4.03%	IIa13	simple tube, rounded	medium-large	white	opaque
14	2	0.08%	IIa11	simple tube, rounded	small	white	opaque
15	3	0.12%	WIb	wire wound, rounded	small	clear	translucent
16	75	2.88%	Ia15	simple tube	large	dark blue	translucent
17	2	0.08%	IIa25	simple tube, rounded (oval)	large	surf green	opaque
18	54	2.07%	Ia16	simple tube	large	dark navy	opaque
19	4	0.15%	Ia14	simple tube	medium	apple green	opaque
20	11	0.42%	Ib5	striped tube	large	dark blue (red & white stripes)	opaque
21	5	0.19%	Ia5	two-layered tube	medium-large	white (clear coating)	opaque
22	8	0.31%	WIb5	wire wound, rounded	large	light gray	translucent
23	2	0.08%	WIIc7	wire wound, faceted (5 sided)	large	dark palm green	translucent
24	9	0.35%	IIa8	simple tube, rounded (oval)	small	black	opaque
25	1	0.04%	Ib11	striped tube	large	white (red stripes)	opaque
26	4	0.15%	IIa	simple tube, rounded (oval)	small	surf green	opaque
27	1	0.04%	WIIc12	wire wound, faceted (5 sided)	large	brite navy	opaque
28	3	0.12%	WIIc2	wire wound, faceted (5 sided)	large	light gray	clear
29	2	0.08%	WId	wire wound, donut	large	brite navy	translucent
30	1	0.04%	WIb9	wire wound, rounded	large	dark palm green	translucent

Type	N	%	Kidd & Kidd Type	Form	Size	Color	Diaphaneity
31	4	0.15%	WIb	wire wound, rounded	large	brite navy	opaque
32	1	0.04%	IIa	simple tube, rounded (oval)	small	brite copen blue	opaque
33	3	0.12%	IIa27	simple tube, rounded	small	emerald green	translucent
34	35	1.34%	IIIa2	two-layered tube	small	redwood over light gray	opaque
35	1	0.04%	IIa60	simple tube, rounded (oval)	small	rose wine	opaque
36	11	0.42%	IIa5	simple tube, rounded	very small	ruby	translucent
37	44	1.69%	Ia	simple tube	medium-large	dark palm green	opaque
38	6	0.23%	IIa	simple tube, rounded	small	apple green	translucent
39	3	0.12%	Ic4	simple tube, faceted	small	black	opaque
40	1	0.04%	IIa9	simple tube, rounded	small	light gray	clear
Total	2604	100%					

Table 5.7. Summary of Glass Beads from Nisbet.

Type	N	%	Kidd & Kidd Type	Form	Size	Color	Diaphaneity
4	11	11.22%	IIa	simple tube, rounded	small	dark navy	translucent
5	13	13.27%	IVa1	two-layered tube, rounded	small	redwood over light gray	opaque
6	4	4.08%	IIa	simple tube, rounded	small	surf green	translucent
7	1	1.02%	Ia18	simple tube	small	dark navy	translucent
10	1	1.02%	IIa	simple tube, rounded	small	black	opaque
11	47	47.96%	IIa13	simple tube, rounded	very small-small	white	opaque
15	1	1.02%	WIb	wire wound, rounded	small	clear	translucent
16	7	7.14%	Ia15	simple tube	large	dark blue	translucent
18	3	3.06%	Ia16	simple tube	large	dark navy	opaque
19	1	1.02%	Ia14	simple tube	medium	apple green	opaque
20	1	1.02%	Ib5	striped tube	large	dark blue (red & white stripes)	opaque
31	1	1.02%	WIb	wire wound, rounded	large	brite navy	opaque
34	3	3.06%	IIIa2	two-layered tube	small	redwood over light gray	opaque
52	1	1.02%	WIb	wire wound, rounded	small	black	opaque
-	3	3.06%	IIa	simple tube, rounded	very small	pale blue	opaque
Total	98	100.00%					

yielded a greater diversity of bead types, 31 types and 56 types, respectively. Another difference between the Nassaw-Wiapee and Charraw Town bead assemblages and later Catawba sites is the greater proportion of large tubular cane beads, which due to their size were probably worn as necklace beads.

Glass beads were not evenly distributed among Catawba households. Figure 5.4 shows the bead counts associated with features from each household complex. Households OA and AD had substantially higher densities of glass beads than their neighbors, and in each case the majority of beads were recovered from one feature associated with the household, Feature 2 and Feature 123, respectively. Feature 2 at Old Town in particular stands out as the richest context for glass beads (n=1,953) and as mentioned above, may be associated with King Hagler's household. Likewise, Feature 123 at Ayers Town, part of Household Complex D (AD), may be linked to that settlement's leader, Colonel Ayers. This apparent connection between bead densities and Catawba leaders and their households may signal that glass beads were used to display important cultural messages like wealth status or political connections and authority.

A recent study of seventeenth and eighteenth century English colonial bead assemblages from the Southeast showed it was possible to refine regional chronologies using correspondence analysis to perform a quantitative seriation (Marcoux 2012). While Marcoux focused on a broader span of time and space, I suggest this method can be applied to parse finer-grained chronological variation within the Catawba assemblages. To this end, I incorporated the feature level bead data into a series of correspondence analyses in an attempt to determine if temporal distinctions were apparent in the Twelvemile Creek Locality sites. Figure 5.5 is a biplot showing the results of a CA of the presence or absence of each bead type (gray diamonds) from feature

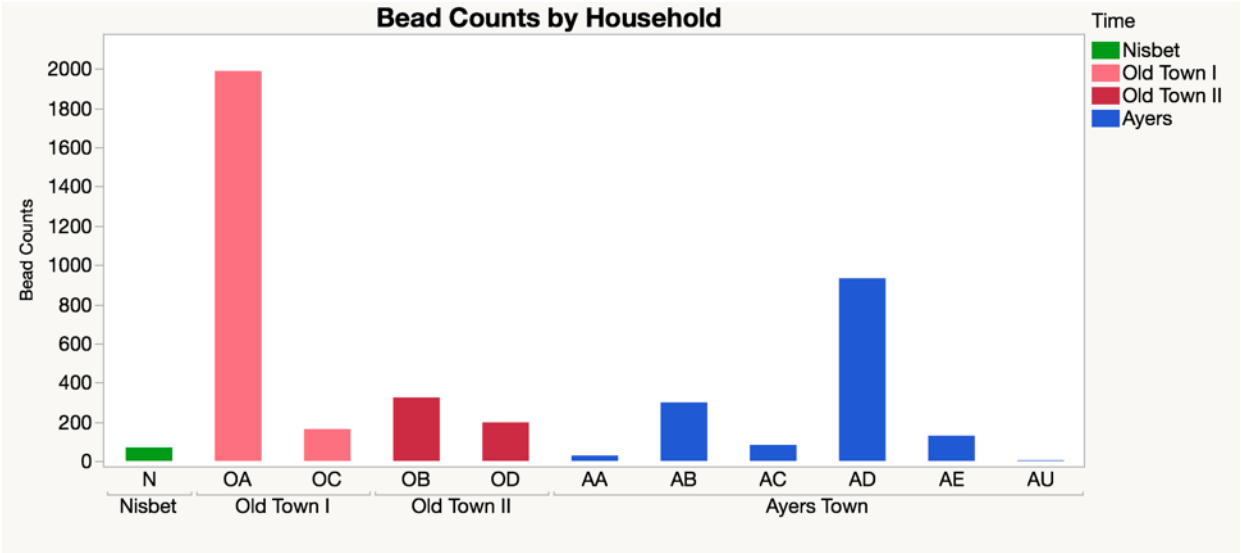


Figure 5.4. Frequency of glass beads by household.

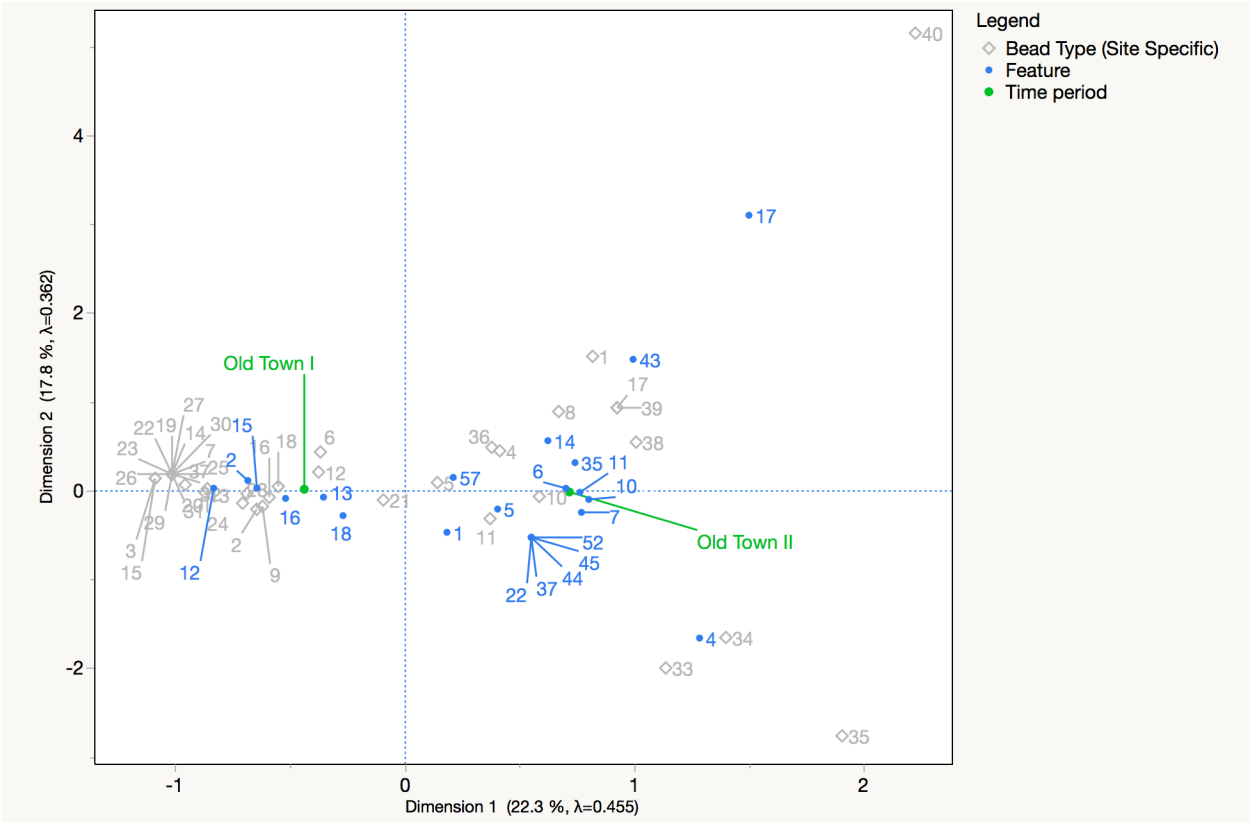


Figure 5.5. Biplot showing the results of a correspondence analysis of Old Town features and the presence/absence of glass bead types.

contexts (blue dots) at Old Town. The markers indicating the temporal components (green dots) represent a supplemental variable that does not contribute to the biplot scoring. The clearest pattern is evident along Dimension 1, capturing approximately 22.3% of the variability, in which the features and bead types appear to be clustered by time period. This plot largely confirms the temporal assignments (Old Town I or Old Town II) I made for each feature based on alignments and orientations, though a few interesting deviations emerged. Though Features 1, 5, and 17 appear on the right hand side of the plot associated with Old Town II components, their alignments with other nearby features (discussed in Chapter 4), along with their relatively low numbers of beads, make it fairly certain that they are part of the Old Town I occupation. Another feature that seemed to be out of place was Feature 16, a probable borrow/refuse pit which was tentatively assigned to Old Town II, though its temporal association was questionable from the start. Feature 16's position of the left side of the plot suggests that it was constructed earlier than initially presumed. This reinterpretation actually fits remarkably well with the feature's proximity to Features 18 and 17 which are also assigned to the Old Town I component.

I also conducted a CA in which I compared the presence or absence of bead type within features associated with each household complex. The resulting biplot (Figure 5.6) shows the correspondence between bead types (grey diamonds) and households (blue dots) with the markers indicating the site components (green dots) representing a supplemental variable that does not contribute to the biplot scoring. Similarly to the previous CA biplot, Dimension 1 in Figure 5.6 represents 23.1% of the total variance and appears to be defined primarily by time, albeit displayed in the opposite direction with the earlier pre-Revolution components of Old Town I and Nisbet located on the right side of the plot and the later occupations on the left side.

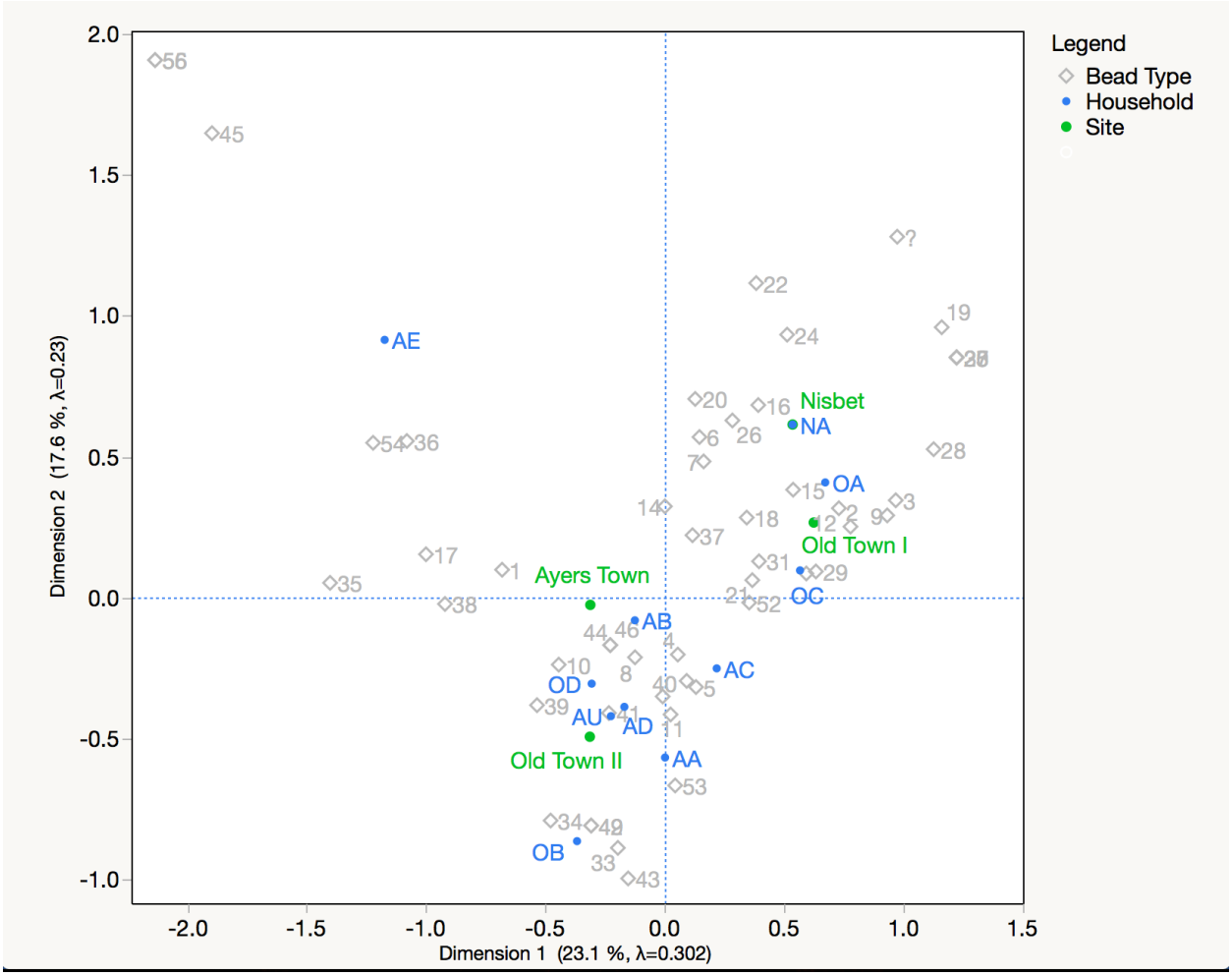


Figure 5.6. Correspondence analysis biplot showing the association of bead type frequencies with Catawba sites and components.

It is not clear what is contributing the variance displayed on Dimension 2. Household AE from Ayers Town is the only household that appears as an outlier located in the upper left portion of the graph, though two rare bead types (Types 45, 55, and 56; see Figure 5.3) contribute to its inertia.

Catawba Pottery Production

Handmade Catawba earthenware pottery has long played an important role in Catawba cultural identity, at least for those who practice the tradition. Where once ceramic vessels were made and used solely in the context of domestic and community activities as cooking jars and serving bowls, Catawba pottery has been continuously repurposed, reinterpreted, and adapted to fit within the shifting cultural context and changing needs of the Catawba Nation. Today, Catawba pottery is produced and sold as part of the Indian Art Market tradition, and while today's potters share a great deal with earlier generations of Catawba potters, their products bear little resemblance to the pottery of the mid-eighteenth century.

As I have stated before, in the aftermath of the 1759 smallpox epidemic a number of rapid and profound changes took place within the Catawba Nation. Pottery provides one of the clearest examples of the abrupt stylistic and technological shifts that took place as Catawbas negotiated new social landscapes and economic niches (Riggs 2010). Ceramics, as with most forms of material culture, are the product of generations of Native potters learning, practicing, and teaching techniques, styles, and forms to successive generations who in turn appropriate, negotiate, and change elements to make them culturally meaningful. In the case of the Catawba, women were the ones who typically produced pottery and who taught the tradition to related girls and women in their families, thus creating particular communities of practice (*sensu* Wenger 1998). Fitts (2015a) has identified differences in ceramic modes between the 1750s-era

Catawba settlements of Nassaw/Weyapee and Charraw Town, which she argues reflects multiple communities of practice operating within the multi-ethnic Catawba Nation.

Beginning around 1760, Catawba potters largely abandoned earlier ceramic modes and began producing European-inspired pottery which has been broadly defined as colonoware. They experimented with a variety of new vessel forms, paste recipes, firing conditions, and decorative modes, even producing a distinctive fine-textured, pale-bodied ware that resembled English slipwares and creamwares. Many of these changes are interpreted to be the result of a shift from household production and consumption to the production and sale of earthenwares for an emerging frontier market (Plane 2011). By the nineteenth century, the Catawbas were well-known producers and itinerant traders of this low-fired earthenware pottery, traveling seasonally throughout much of South Carolina (Baker 1972; Blumer 2004; Plane 2011; Riggs 2010).

This itinerant economic strategy connected the Catawba to a broad colonial landscape in which they were just one of several groups who produced European-inspired colonoware. While attempts have been made to distinguish Catawba-made wares from those made by other groups archaeologically, namely those made by enslaved Africans (Ferguson 1980, 1990, 1992; Garrow and Wheaton 1989; Wheaton et al. 1983), these efforts were largely conducted prior to recent efforts of UNC's Catawba Project to document historic Catawba settlements and their associated ceramic assemblages. In particular, the origin and character of the earliest Catawba colonoware has not been well understood until recently. The archaeological investigations at Old Town, Ayers Town, and the Nisbet site have unearthed tens of thousands of Catawba-made earthenware fragments representing hundreds of vessels, as well as production tools and raw materials that represent the first four decades of documented Catawba colonoware production and clearly establish the Catawba as major producers as well as *users* of colonowares. Benefitting from

relatively short site occupations due to periodic settlement relocation, well-dated feature contexts, and a rich ethnohistoric record, these sites provide a unique opportunity to trace the rapid adoption of colonoware as well as the process of experimentation that blended traditional Catawba ceramic techniques and aesthetics with European-inspired forms and decorative motifs.

Colonoware from colonial sites in South Carolina, North Carolina, and Virginia date as early as the seventeenth century (Binford 1964, DAACS 2016); however, based on the recent analysis of pottery from Nassaw/Weyapee and Charraw Town, two Catawba town sites occupied at the time of the 1759 epidemic, there is no evidence of colonowares whatsoever (Fitts 2015a), making Catawba potters relative latecomers to the colonoware party. Right up until the epidemic, the Catawba steadfastly maintained their Lamar-influenced tradition of pottery, most closely associated with the Cowan's Ford ceramic series of the Middle Catawba Valley (Fitts 2015a; Moore 2002; Riggs 2010). This series is dominated by thickened rim jars with complicated paddle-stamped surface treatments and incised carinated bowls on sand and crushed quartz tempered paste. While Fitts was able to document important differences in the ceramic assemblages at the two sites, the complete lack of colonoware at these sites suggests either a conscious effort to preserve a particular "Catawba" ceramic tradition, *or* that one of the main drivers of colonoware production, economic necessity, had not yet become a factor facing Catawba women, who were known to be the primary pottery producers.

Whatever the cause, the Catawba's shift to colonoware appears to have been sudden, archaeologically speaking, representing a complete break from their Cowan's Ford tradition (Riggs 2010). Extensive excavations at Old Town have revealed that Catawba potters began to exclusively produce colonoware probably as early as 1762 when the site was established.

Catawba Pottery and Itinerancy

Throughout the second half of the eighteenth century, Catawba households gradually began to rely less heavily on traditional subsistence horticulture and the community's dependence on European goods and the cash economy increased, in turn necessitating new sources of income. A growing demand for inexpensive alternatives to imported English ceramics by the growing population of Scots-Irish and German settlers living on or near Catawba lands provided an economic niche. This came at a time when the lucrative deerskin trade and the Catawba's once powerful military influence had already waned and few other options were available for Catawbas to access the cash economy. Catawba potters, probably mostly women, began to produce copies or interpretations of common English forms such as teacups and mugs, milk pans, and soup plates, as well as new decorative techniques like painted designs using colored sealing wax (Riggs 2010; Riggs et al. 2006). While the adoption of these new forms and styles appears to have happened extremely quickly among Catawba potters, the reliance on pottery production as an economic strategy was probably far more gradual. By the 1800s, however, Catawba potters had emerged as well-known itinerant craftsmen traveling as far away as Charleston to sell their distinctive wares (Plane 2011).

This new itinerant work would have had a huge impact on the daily operations of the household, as sometimes whole families traveled seasonally to sell pottery. Itinerancy would have also been politically important for the community as it helped keep them "visible" to the political elite in South Carolina and also helped to mediate the growing racial divide that hardened after the Revolution (Riggs 2010). Fortunately, changes in household organization and ceramic production have material signatures that are well suited to archaeological investigation.

Not every household appears to have participated in colonoware production equally, however. A few households seemed to have specialized in ceramic production, as evidenced by the number of pottery production artifacts recovered from domestic features. Pottery production artifacts, such as mussel shell scrapers, burnishing stones, raw sealing wax, and unfired potter's clay, provide a better gauge for household ceramic production than counts of sherds or vessels which reflect pottery consumption. Figure 5.7 shows the distribution of pottery production artifacts recovered from household assemblages at Nisbet, Old Town, and Ayers Town. By this metric, several households stand out as primary ceramic producers, including OC, OD, AB, and AD. Keeping in mind that OC and OD represent consecutive iterations of the same household at Old Town, it is clear that some Catawba households were more invested in pottery production than others. As I will discuss below, some of these households were also the principal drivers of ceramic innovation that came to define Catawba colonoware ceramics in the nineteenth century.

Over 29,000 fragments of Catawba-made earthenware pottery larger than 1 cm in diameter have been recovered from Old Town, Nisbet, and Ayers Town.[3] Catawba pottery was recovered from both plowzone excavations and intact feature deposits and was generally concentrated within and surrounding domestic areas. While the majority of pottery fragments found in unit excavations were small and eroded, sherds associated with intact cultural features were generally larger and better preserved, and many refit into complete or nearly complete vessels. The vast majority of these Catawba sherds are essentially temperless, but fine sand and some larger grit also occur within the paste. In the following sections, I will describe the Catawba pottery from these sites based on evidence gleaned from their sherd assemblages, reconstructed vessels, and a Minimum Number of Vessels (MNV) analysis of unique rim sherds.

[3] This includes only the 2003-2014 excavations from Old Town.

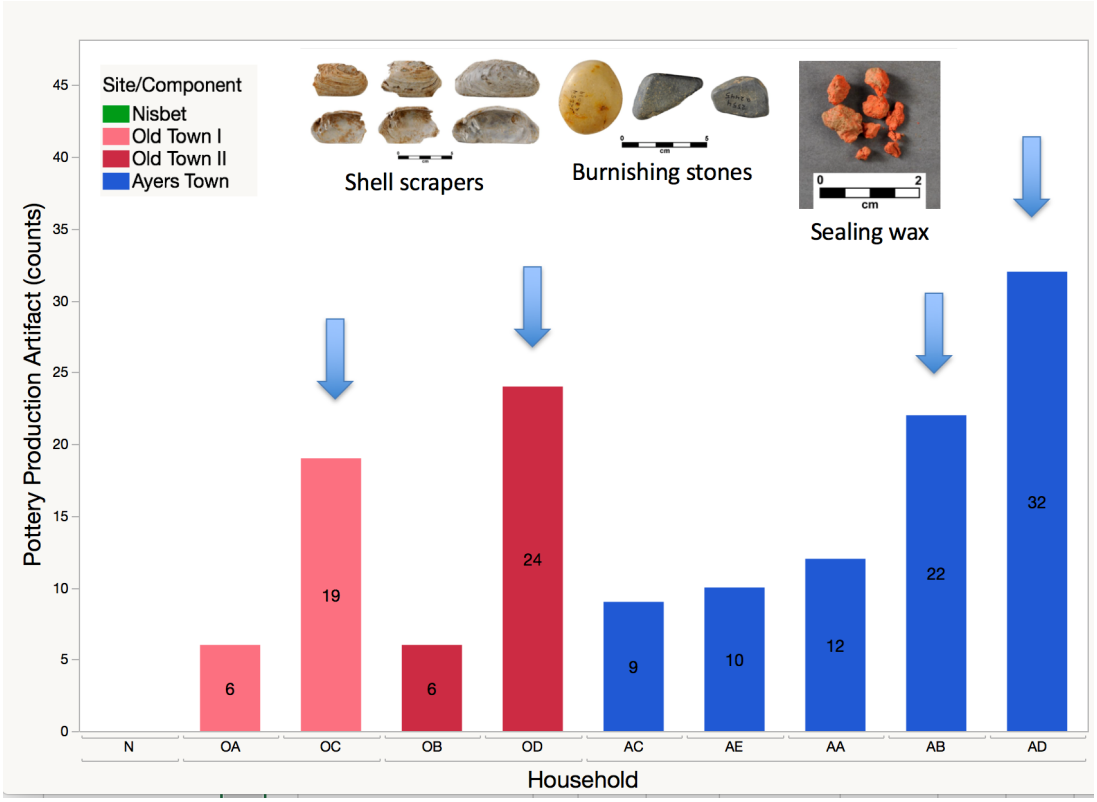


Figure 5.7. Distribution of pottery production artifacts recovered from household assemblages from Old Town, Nisbet, and Ayers Town.

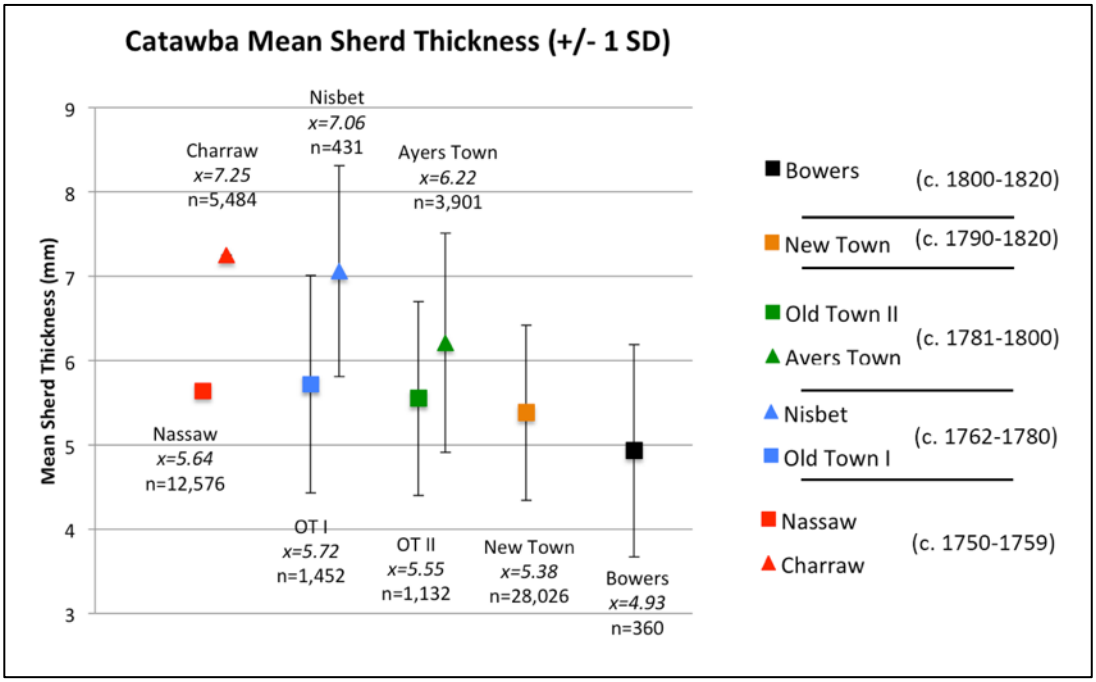


Figure 5.8. Mean sherd thickness (mm) of recovered Catawba earthernware sherds from seven historic Catawba domestic sites.

In general, historic Catawba pottery became thinner through time. Figure 5.8 shows the mean sherd thickness, in millimeters, from seven Catawba sites occupied between 1750 and 1820 (only Old Town pottery assigned to either the Old Town I or II component are displayed). The vertical bars on each point indicate plus or minus one standard deviation[4] and sites occupied during the same time are color coordinated. Two patterns are worth noting. First, overall mean sherd thickness goes down slightly for each successive time period. Perhaps this gradual reduction in vessel wall thickness reflects a deliberate attempt to imitate thinner-walled European vessels to meet market demand or an unconscious refinement in potting skills and techniques developed and passed on over time. Second, sherd assemblages from contemporary sites, such as Charraw Town and Nassaw Town, Nisbet and Old Town I, and Ayers Town and Old Town II, have different mean sherd thickness values, though the disparity becomes less pronounced over time. This difference suggests that potters at each site had different ideas or preferences for the appropriate thickness of vessels.

I believe this is evidence that the distinct communities of practice that Fitts (2015a) argues influenced 1750s Catawba pottery variation, consisting mainly of multigenerational cohorts of Catawba women potters, continued to exist within the Catawba Nation following the 1759 epidemic. There is no direct documentary or genealogical evidence to link specific 1750s-era Catawba towns to later Catawba settlements; however, a plausible relationship between the potters at Nassaw Town, Old Town, New Town, and Bowers, and between Charraw Town, Nisbet, and Ayers Town exists based on the trajectories of mean vessel thickness.

[4] Mean sherd thicknesses from Charraw Town and Nassaw were recorded using a different incremental scale (Fitts 2015a) and so only mean values are displayed.

One major change in Catawba ceramics following the 1759 epidemic is in the diversity of surface treatments. Unlike the Catawba ceramic assemblages from the Nation Ford sites, which contained significant numbers of sherds with cord marked and complicated stamped surface treatments, among other minor types (Fitts 2015a), surface treatments at Twelvemile Creek Locality sites show a distinct break with the Lamar and Piedmont Siouan pottery traditions. Late eighteenth-century Catawba pottery assemblages are instead dominated by either plain or burnished surface treatments which make up 97-100 % of the ceramic assemblage at all three sites (Table 5.8). A small proportion of the pottery was highly polished though this was most common in Old Town I deposits. A small number of sherds with other surface treatments (simple stamped, check stamped, complicated stamped) was also recovered from Old Town which indicate a nearby Mississippian component but their presence at Old Town likely represent accidental inclusions in feature fill or possibly heirloom vessels.

Catawba potters during the late eighteenth century typically produced vessels with one of three main paste types (Figure 5.9). Red-bodied wares were constructed with clays that when fired usually produced a dull reddish brown color. Catawba red-bodied wares are by far the most common paste type at both Ayers Town and Old Town, and they tend to be associated with jar, pan, and bowl forms. These wares had a range of paste textures from coarse sand to fine, nearly temperless. Nearly all red-bodied vessels were intentionally smudged, leaving the interiors impregnated with a dark carbon residue. These smudged interiors proved to be an ideal contrasting background for some paints, particularly the red sealing wax. Some vessels were fired in a heavily reduced or smothered atmosphere, yielding black-bodied wares which tended to be well burnished or polished and may be an attempt to imitate English Jackfield-type pottery. Pale-bodied wares probably reflect an attempt to produce vessels that resembled light-colored

Table 5.8. Frequency of surface treatments of the sherd assemblage from Old Town, Ayers Town and Nisbet.

Surface treatment	Nisbet		Old Town I		Old Town II		Old Town all		Ayers Town	
	N	%	N	%	N	%	N	%	N	%
Plain	431	98.0%	700	42.8%	500	44.1%	4159	68.9%	3960	99.2%
Burnished	9	2.0%	811	49.5%	614	54.1%	1702	28.2%	*	*
Polished	0	0.0%	67	4.1%	5	0.4%	101	1.7%	31	0.8%
Simple stamped	0	0.0%	59	3.6%	13	1.1%	76	1.3%	0	0.0%
Check-stamped	0	0.0%	0	0.0%	1	0.1%	1	0.0%	0	0.0%
Comp Stamped	0	0.0%	0	0.0%	1	0.1%	1	0.0%	0	0.0%
Total	440	100.0%	1637	100.0%	1134	100.0%	6040	100.0%	3991	100.0%

*Burnishing was not recorded for the Ayers Town sherd assemblage.

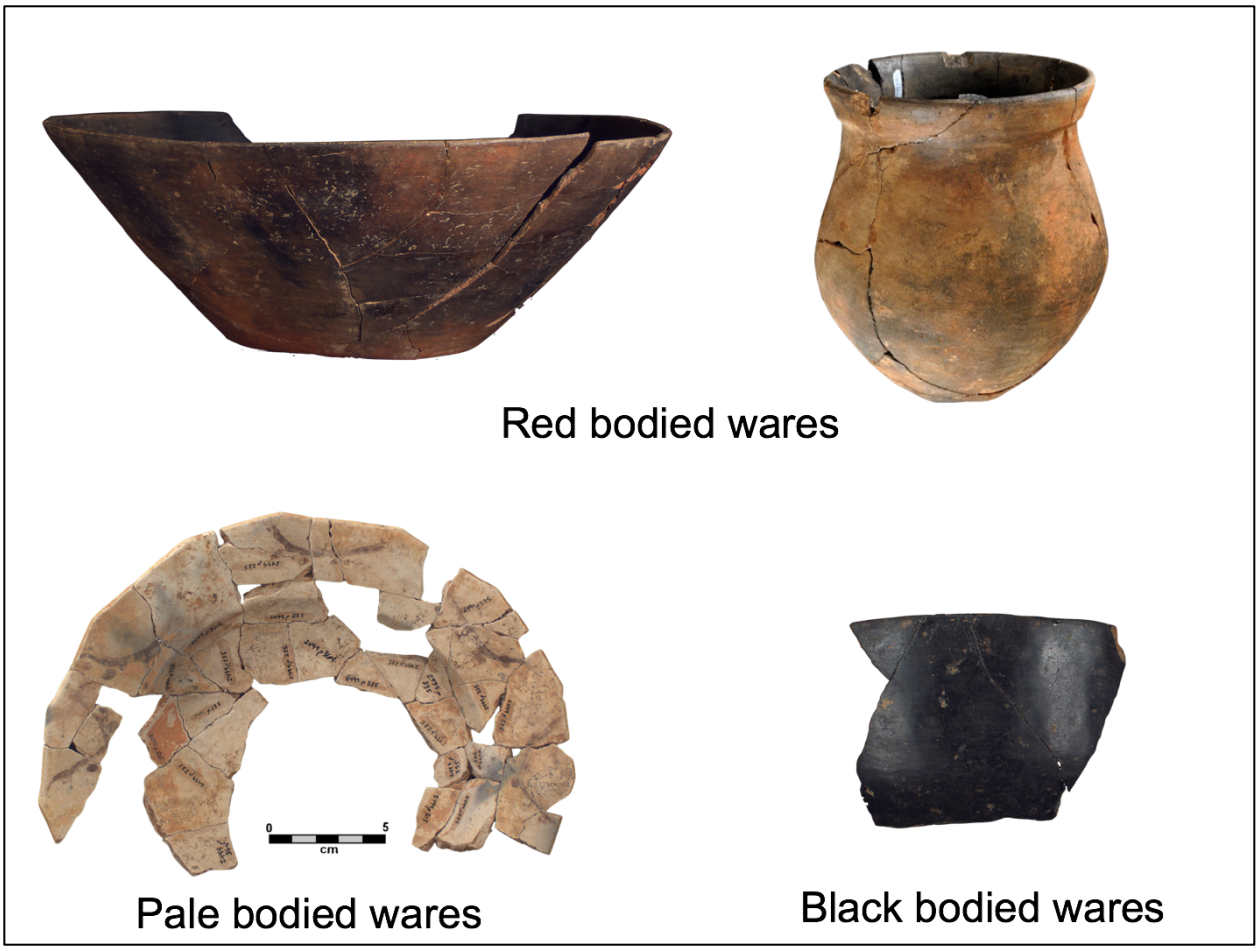


Figure 5.9. Examples of Catawba paste types identified on post-1760 Catawba domestic sites.

Staffordshire slipwares and creamwares, and they required Catawba potters to develop new clay recipes and closely control firing conditions in order to produce these very pale colors. Pale-bodied wares are most commonly associated with plate or bowl forms, and due to their lighter color were often decorated with black pigments. The presence of hand-built, pale-bodied pottery on Catawba sites only after 1760 suggests that in addition to simply adopting English vessel forms, potters made an effort to produce wares that resembled light-colored Staffordshire slipwares, creamwares, and pearlwares. This effort likely required Catawba potters to develop new clay recipes and control firing conditions in order to generate these very light colors. Catawba pale-bodied wares are typically restricted to plate or bowl forms and are fine textured with little to no temper. Though the apparent goal was a highly oxidized, pale-colored vessel, these pale-bodied vessels often exhibit fire clouding due to uneven firing and contact with fuel, a common feature of open firings. Pale wares recovered from Old Town are primarily from the pre-Revolution Old Town I contexts, which may be at least partially explained by a longstanding English trade embargo, in force until the American Revolution, that prohibited the importation of any kind of painted earthenware into the Colonies (Noël Hume 2001:140-143). This likely created a demand for painted light-bodied wares which Catawba potters attempted to supply. Though pale wares seem to drop out of the Catawba assemblage at Old Town after 1780, these pale wares are represented at post-Revolution Ayers Town, indicating potentially important variation within this community of potters (Figure 5.10).

While the majority of pottery found during excavation were small and eroded, sherds associated with intact cultural features were generally larger and better preserved, and many refit into complete or nearly complete vessels. At Ayers Town, 60 vessels were sufficiently complete to allow further analysis while at Old Town 31 whole or partially reconstructed vessels were

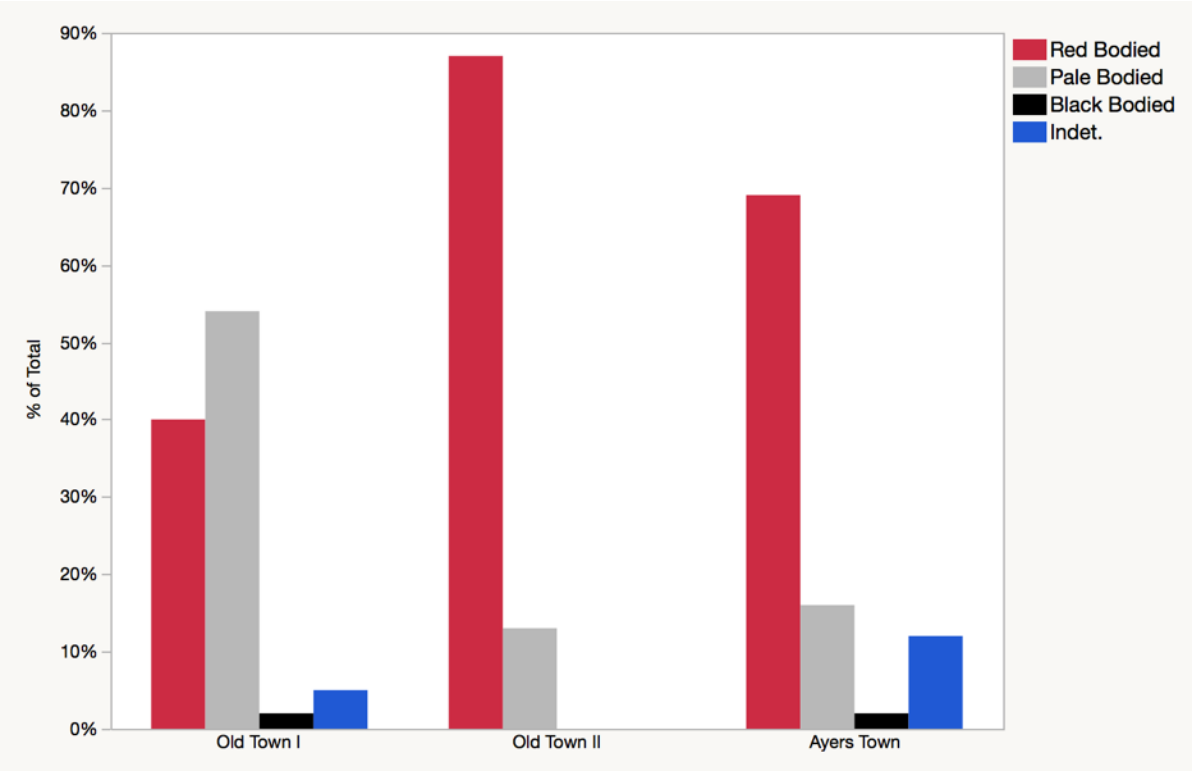


Figure 5.10. Distribution of sherd paste types at Ayers Town and Old Town.

identified. Each of the 91 numbered vessels was characterized in terms its rim diameter, percent of rim, height, exterior and interior surface treatments, color, and decoration, as well as other attributes (Appendix C; for Ayers Town vessel descriptions see Davis et al. 2015 Appendix B). Sketches of rim profiles were drawn, digitized, and rendered in 3D to provide surface area and volume estimates. Five principal vessel types were identified: cups, bowls, pans, plates, and jars, with other forms like pitchers and drinking pots represented by only a few examples (Figures 5.11 and 5.12). Many of these vessel types are clearly adaptations of common late eighteenth-century vessel forms, many of which were also made by regional potters like the Moravian potters at Wachovia (South 1999) and John Bartlam (South 2004).

Catawba cups tend to be small with rim diameters ranging between 5.5 and 12 cm with an average rim diameter of approximately 7.8 cm. Most cups had simple rounded lips with straight rims. A few cups were built with molded foot-ring bases, but generally cup forms were plain or even crudely constructed. Bowls contained the greatest variety of applied decorations. Catawba potters experimented extensively with rim/lip forms, especially for bowls. While some forms, such as the simple-flattened or folded/thickened rims, pre-date Catawba colonoware production, most are clearly inspired by Euro-American vessels, including the “coggled” rim, interior bevel, and faceted edges (Figure 5.13). Catawba potters also mixed and matched many of these forms on the same vessel. Pans are generally larger, coarser vessels with few if any lip or rim modifications. Despite sharing overall similar profile shapes, cups, bowls, and pans are distinguished by the presence or absence of lip/rim modifications as well as the size of their orifice. Figure 5.14 shows the distribution of rim diameters for vessels identified as cups, bowls, and pans from Old Town I, Old Town II, and Ayers Town occupations. While some overlap exists, rim diameter is strongly correlated to vessel type. Within these vessel categories, several

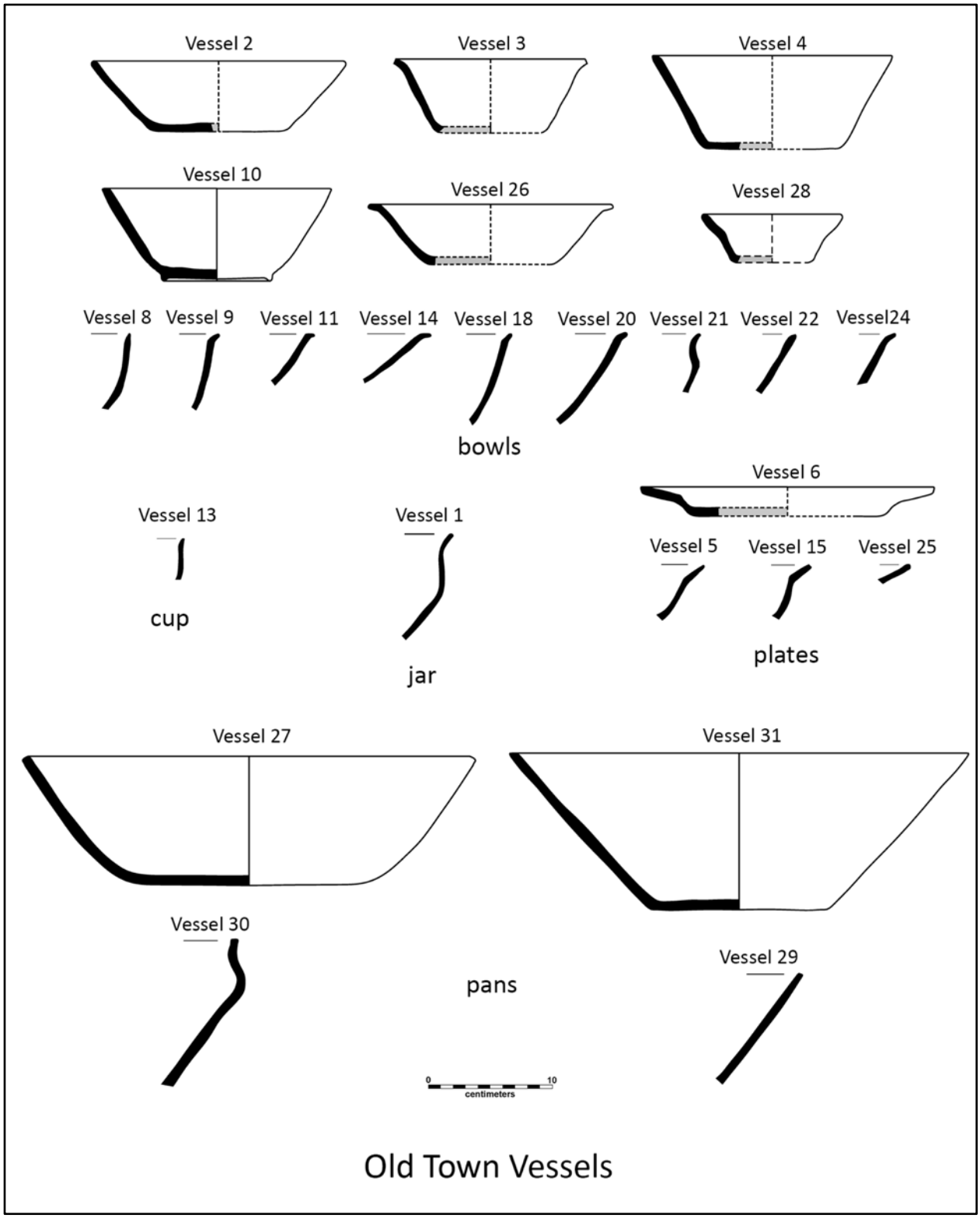


Figure 5.11. Profiles of Catawba earthenware vessel forms from Old Town.

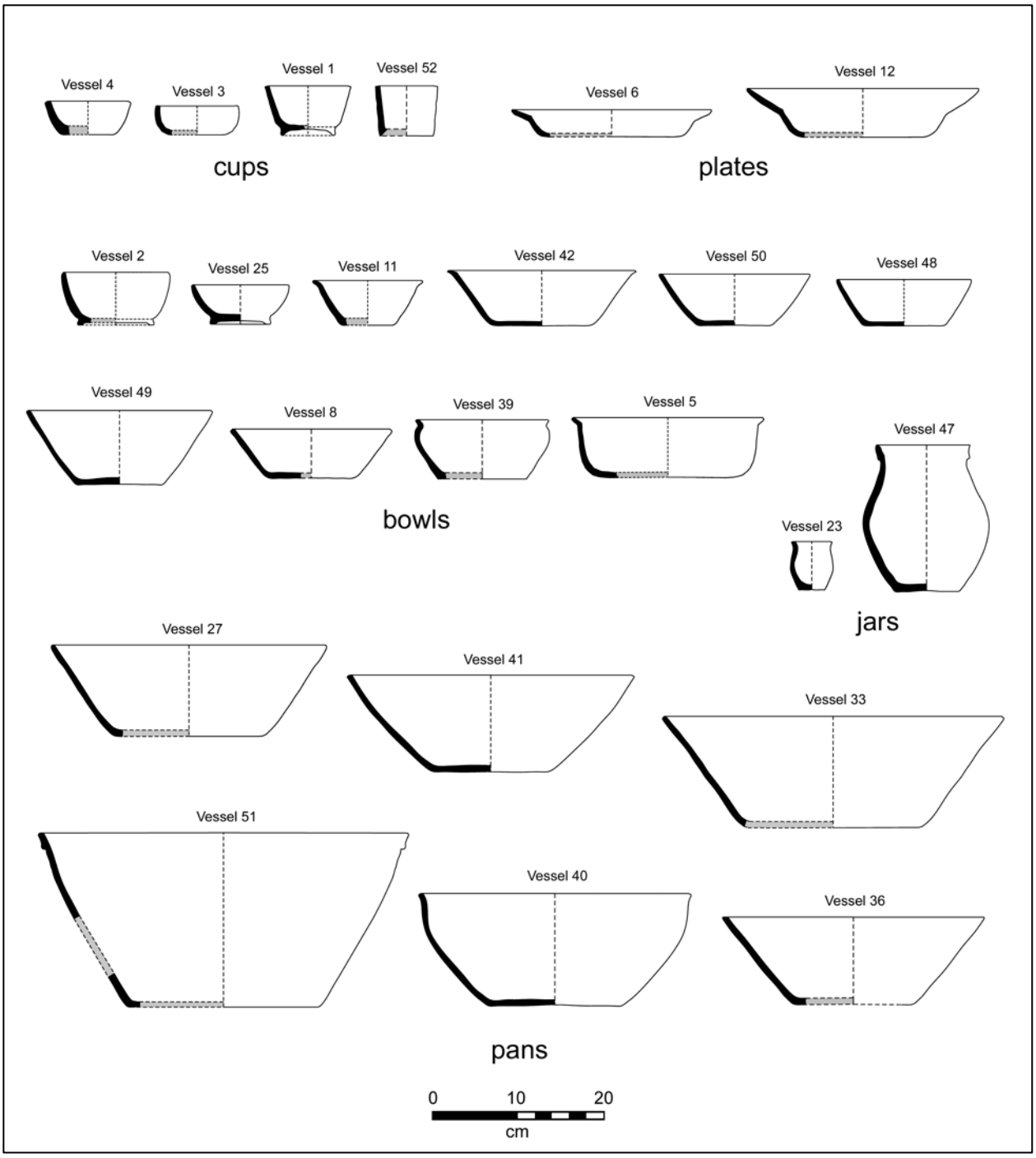


Figure 5.12. Profiles of Catawba earthenware vessel forms from Ayers Town (Davis et al. 2015:fig. 6.10).

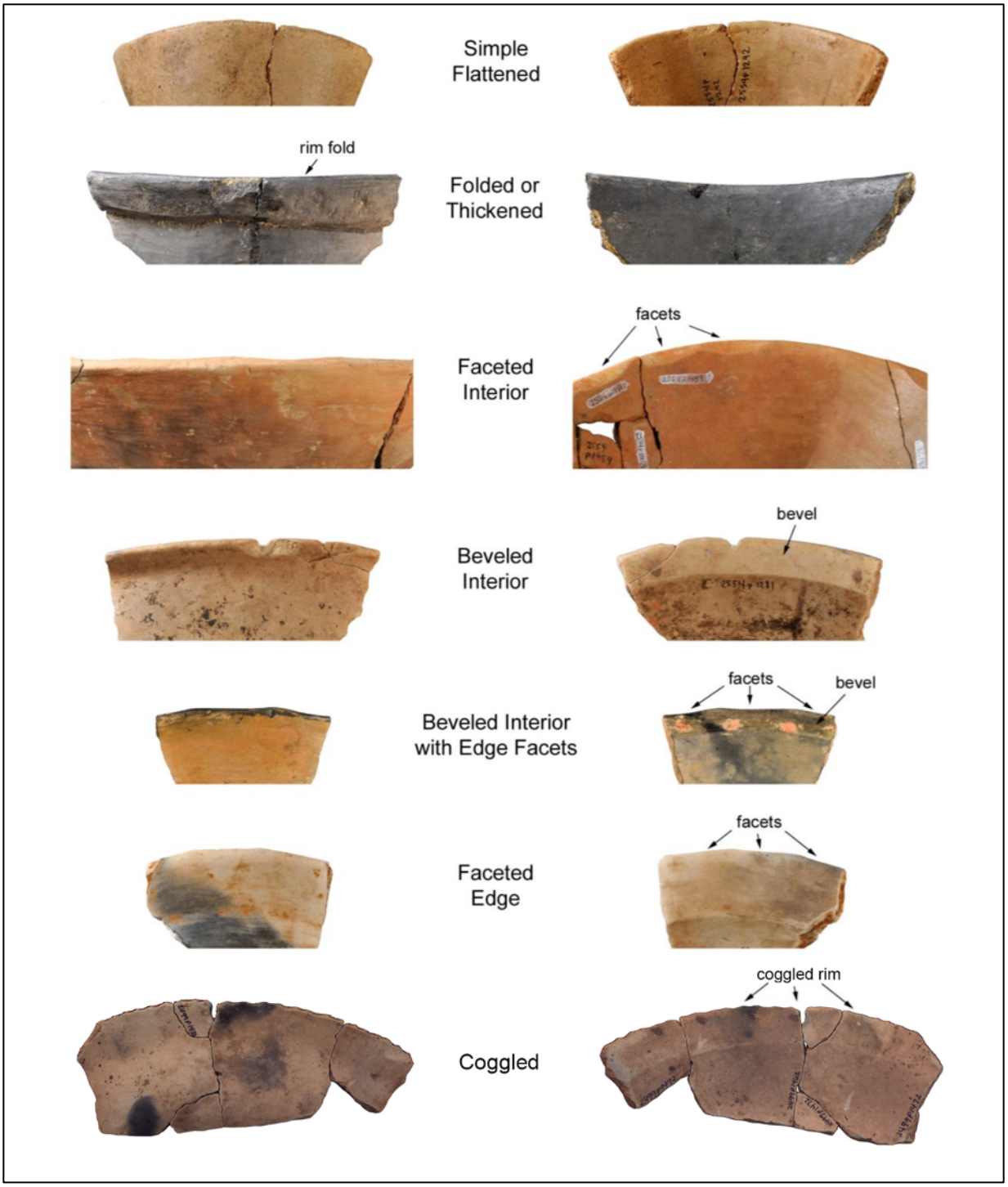


Figure 5.13. Exterior and interior views of various vessel lip and rim forms found Old Town and Ayers Town (adapted from Davis et al. 2015:167 fig. 6.13).

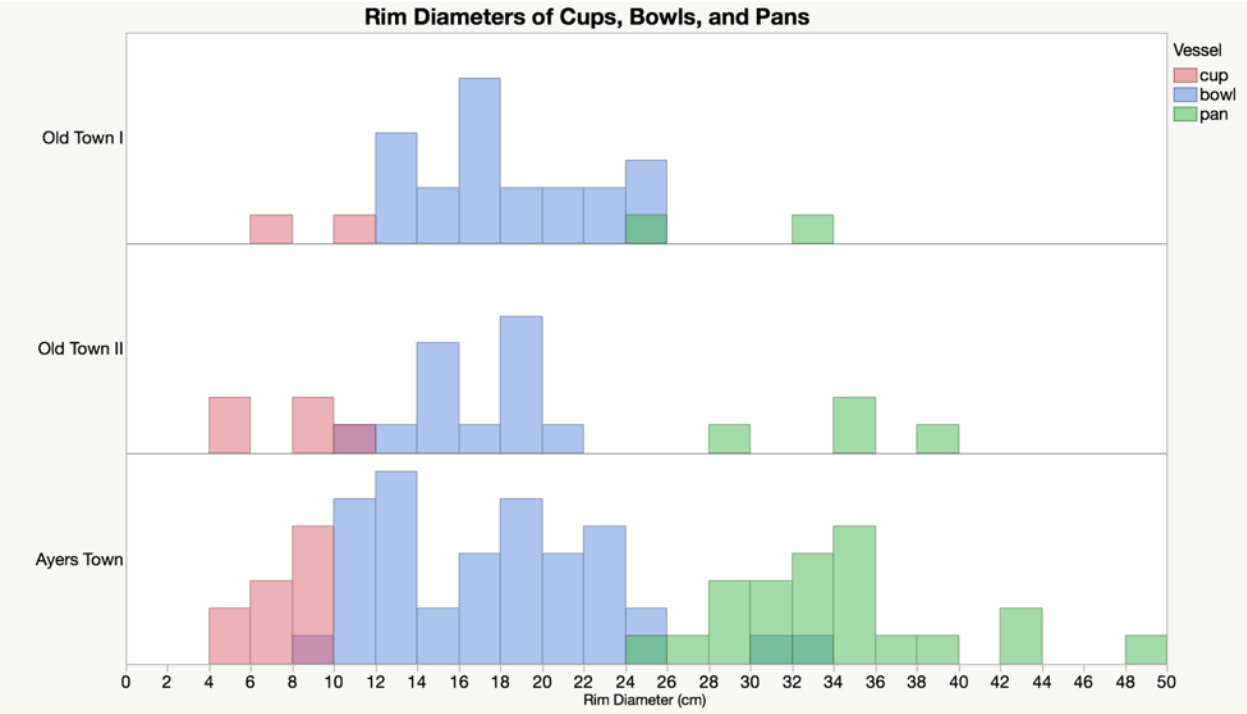


Figure 5.14. Rim diameters (cm) of cups, bowls, and pan by component/site.

Table 5.9. Distribution of Catawba ceramic vessel types by household based on MNV analysis.

Site Household	**Cup**	**Bowl**	**Jar**	**Plate**	**Pan**	**Other**	**Total**
Old Town							
OA	1	12	5	5	5	1	29
OB	-	4	-	-	2	1	7
OC	3	23	4	4	8	2	44
OD	5	31	5	3	9	1	54
Total	9	70	14	12	24	5	134
Percent	6.7%	52.2%	10.4%	9.0%	17.9%	3.7%	100%
Ayers Town							
AA	3	22	8	1	20	2	56
AB	1	21	8	3	13	4	50
AC	1	13	6	1	9	1	31
AD	3	23	3	4	14	4	51
AE	3	27	15	5	15	2	67
AU	0	23	1	0	16	0	40
Total	11	129	41	14	87	13	295
Percent	3.7%	43.7%	13.9%	4.7%	29.5%	4.4%	100%

bi-modal or tri-modal distributions, particularly for bowls, indicate that Catawba potters made small, medium, and large versions of their wares. Plates represent a small percentage of vessels at both sites; however, they are more frequent before the Revolution at Old Town. Old Town I contexts also produced more miscellaneous vessel forms which suggests that this pre-Revolutionary period was a time of significant experimentation for Catawba potters. The standard cooking jar form appears to be the only holdover from the pre-epidemic period, retaining folded/thickened rims and overall shape, though instead of the carved paddle stamped surface treatments and rim punctations, jars are smoothed or burnished. Presumably jars would have continued to serve as a primarily domestic cooking form and not been as heavily marketed to, or desired by, white settlers.

Using this whole vessel assemblage as a reference, an estimation of Minimum Number of Vessels was conducted for Old Town and Ayers Town. Unfortunately, no identifiable vessels were recovered at Nisbet. While there are various methods for determining MNV, my analysis relies on counts of unique rims, which provides a relatively conservative estimate of the number of vessels used and discarded in each household (Marcoux 2008). It should be noted this approach underestimates vessel forms that tend to have fewer distinguishing features or decorations, specifically pans. I began by first pulling all rim sherds from the feature contexts and then sorted the rim fragments according to rim, lip, and decorative attributes. A total of 441 unique vessel rims were identified from both sites with 299 from Ayers Town and 142 from Old Town (Appendix D). Of those that could be assigned to an occupation phase at Old Town, 63 were associated with the pre-Revolution Old Town I and 72 to Old Town II. Each vessel was characterized, where possible, in terms of rim diameter, percent of rim, height, exterior and interior surface treatments and color, and decoration, as well as other attributes.

The distribution of vessels across households by type is summarized in Table 5.9. Bowls are the most common vessel form at both Old Town (52.2%) and Ayers Town (43.7%), followed by pans (17.9% and 29.5%, respectively). The two households associated with Locus 2 at Old Town, OC and OD, yielded 73 % of the total number of vessels from Old Town. When the number of pottery production tools from each household are also considered, it is clear that the households at Locus 2 were more highly invested in ceramic production than their neighbors at Locus 1. At Ayers Town, the features associated with Household AE contained the largest number of unique vessels (n=67), while Household AC had the fewest vessels (n=31). While Ayers Town potters produced the same range of vessels as their counterparts at Old Town, they seemed to have a much more utilitarian focus based on the higher percentages of pans (29.5%) and jars (13.9%).

Painted ceramics are rare in the prehistoric Southeast and all but nonexistent in the Carolina piedmont prior to the mid-eighteenth century. Recent analysis of pottery from Nassaw/Weyapee and Charraw Town did not identify any painted Catawba-ware in these 1750s assemblages (Fitts 2015a). While never in large numbers, the excavated sherd assemblages from post-1759 Catawba sites show that painted ceramics became a notable component of their ceramic practice (Figure 5.15). Overall, painted decorations represent a small fraction of the ceramic assemblage at each site. If viewed as a percentage of the total number of sherds at each site, painted fragments account for between 4.75% associated with the early occupation at Old Town and .52% at Ayers Town. There is a general decline in painted pottery after the American Revolution before picking back up slightly by the 1820s. It should be noted that because most of the painted elements tend to be concentrated at or near the rim, any comparison to the total sherd assemblage will greatly underestimate the frequency of painted decorations on the vessel

assemblage.

Returning to the Minimum Number of Vessels analysis from Old Town and Ayers Town, approximately 29% of the identified vessels associated with Old Town I were painted, though this drops to around 10% at New Town. Unfortunately, I don't have MNV data from Bowers to confirm if the rates of painting go up at that site. When the percentages of the various paint types are teased apart by total Minimum Number of vessels, an interesting pattern emerges. The non-wax black paint was by-far the most common paint type during the earliest period of the Catawba-painted pottery tradition, though after the American Revolution its popularity declined substantially. Red sealing wax use increased after 1780 at both Old Town and Ayers Town, though it seems to have been a particular favorite of potters at Old Town. This suggests potters at each site had different preferences for painting pottery. A substantial proportion of the vessels associates with Old Town and Ayers Town exhibit one or more modes of painting. The incidence of painted Catawba pottery seems to appear abruptly during the earliest occupation at Old Town, but its popularity fades after the American Revolution at both Old Town and Ayers Town (Figure 5.16).

Painted designs are often associated with Catawba pottery, especially the fluorescent reds derived from melted sealing wax and used to create arcs, dots, dashes, and swagged lines. The earliest known reference to Catawba painted pottery comes the memoirs of Edwin J. Scott, a prominent South Carolina businessman, who recalled that around 1810, "a few Catawba Indians visited us every winter, with bows and arrows, moccasins, and earthenware pots and pans of their own manufacture, some neatly made and prettily colored" (Scott 1884:13). By the mid-nineteenth century, additional first-hand accounts of the Catawba pottery trade also mention brightly painted vessels. William Gilmore Simms, the noted nineteenth century poet, novelist,

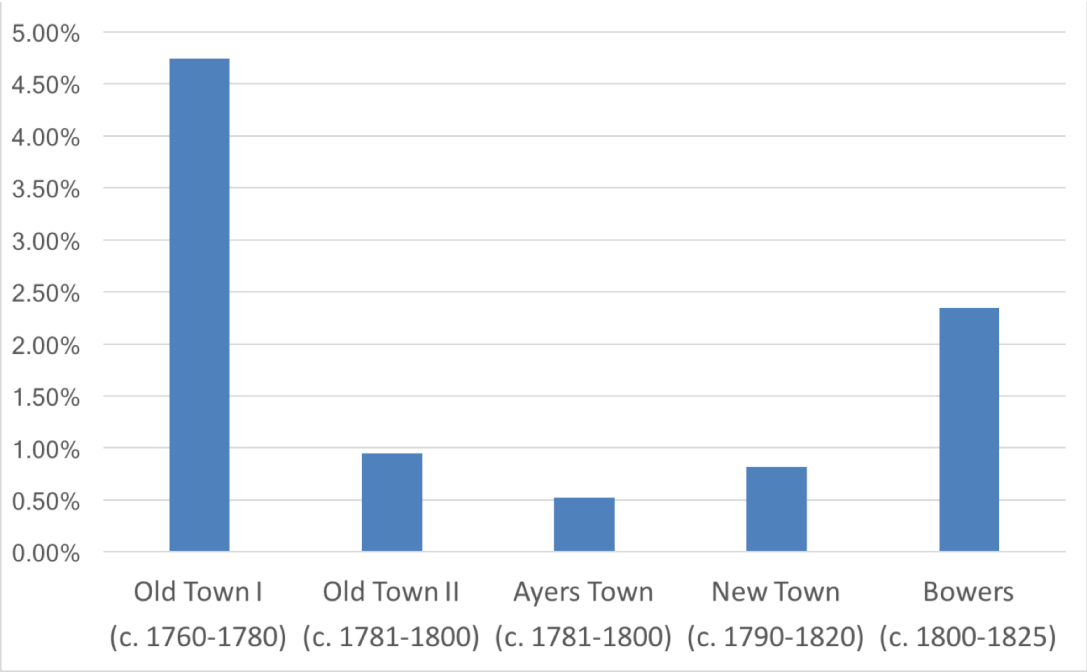


Figure 5.15. Percentage of the total sherd assemblages from Catawba sites that contain paint.

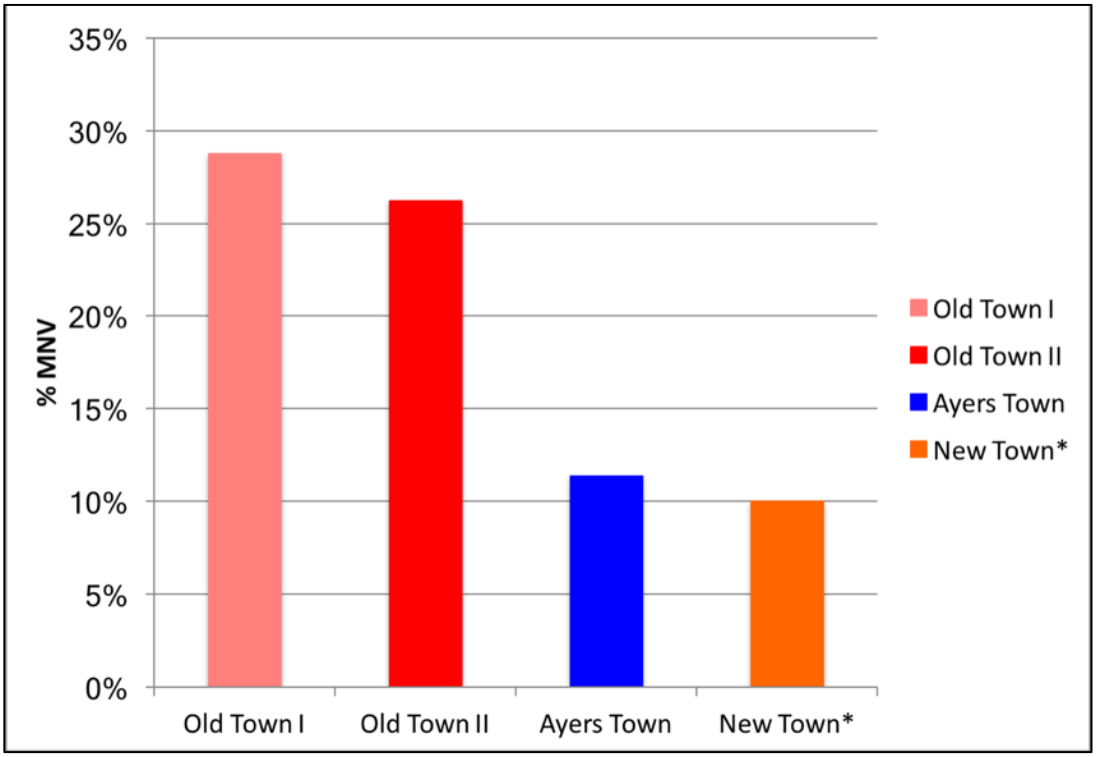


Figure 5.16. Percentage of painted vessels based on the Minimum Number of Vessels from Old Town I, Old Town II, and Ayers Town assemblages.
*New Town was not part of the current MNV analysis. An estimated percentage of painted vessels was reported by Riggs et al. 2006:68).

and historian, incorporated his own childhood memories of itinerant Catawba potters into his literary work, including this passage: "When I was a boy, it was the custom of the Catawba Indians…to come down, at certain seasons, from their homes far in the interior, to the seaboard, bringing to Charleston a little stock of earthen pots and pans,…which they bartered in the city for such commodities as were craved by their tastes, or needed by their condition… Among the Catawbas' first purchases when he goes to the great city, are vermilion, umber, and other ochres, together with sealing wax of all colours, green, red, blue and yellow. With these he stains his pots and pans until the eye becomes sated with a liberal distribution of flowers, leaves, vines and stars, which skirt their edges, traverse their sides, and completely illuminate their externals" (Simms 1845).

I have identified three primary types of paints in the archaeological assemblages of Old Town and Ayers Town based on visual characteristics and elemental analyses (Figure 5.17). The first type is a black-to-brown colored pigment that appears most commonly on pale-bodied wares associated with pre-Revolution occupation at Old Town (c.1760-1780) (Figure 5.18). This paint was most often applied as small dots and lines on interior lips of bowls and plates, though it also appears as swagged lines or circular motifs on the exteriors of jars or pitchers. This type of paint appears very thin on vessel surfaces, suggesting it was applied as a liquid medium. While it is possible this pigment is derived from a traditional paint or dye, I suggest commercially available writing ink is equally plausible. Using a portable X-ray fluorescence (pXRF) spectrometer, I compared painted and unpainted portions of several vessels with this type of black paint. I used a specialized filter and instrument settings that focus on the energy range for metals which are commonly the principal colorants for many inorganic paints and pigments. This spectrum overlay of a coggled-edge plate from Old Town shows that the black paint used also likely

consisted of an organic source though it had slightly higher concentrations of iron and manganese than the surrounding clay body (Figure 5.19). The iron concentration may indicate the use of iron gall ink, a common eighteenth century black writing ink that is derived from oak galls, though other analytical methods are necessary to confirm any organic source.

The next two types of paints used by Catawba potters are similar in appearance and composition but differ in their mode of application. Both appear as a dull red paint applied to pale bodied wares as either painted lines or dashes or as a thin red slip or film on bowls and plates. These red pigments are visually distinct from the red sealing wax paint in both texture and color. These paint types are exceedingly rare in the Catawba ceramic assemblage, representing a minimum of three vessels at Old Town and only one at Ayers Town. At Old Town, all three are associated with the pre-Revolution occupation (c.1760-1780). The pXRF analysis of this bowl from Old Town clearly shows that the red paint is enriched with iron oxide which explains its rust colored hue (Figure 5.20). Though the red paint used on this soup plate appears more thickly applied, it has similarly high levels of iron. The source of this iron-rich paint is unknown; however, residual red clays are abundant at both Old Town and Ayers Town.

Red sealing wax paint is by far the most abundant paint type at any of the Catawba town sites. This paint type is easily recognized by its fluorescent color, which ranges from bright red to orange or pink. The earliest sealing wax designs at Old Town and Ayers Town appear as dots and dashes on the interior lips and rims of red-bodied bowls with dark, smudged interiors. At New Town (c 1800-1820), sealing wax motifs appear to mimic shell-edge pearlware plates and at Bowers, the latest Catawba domestic site, possible floral designs are evident. In addition to the numerous historical references of Catawba potters using sealing wax, we also have recovered lumps of raw sealing wax from several sub-floor cellar pits from early and late Old Town

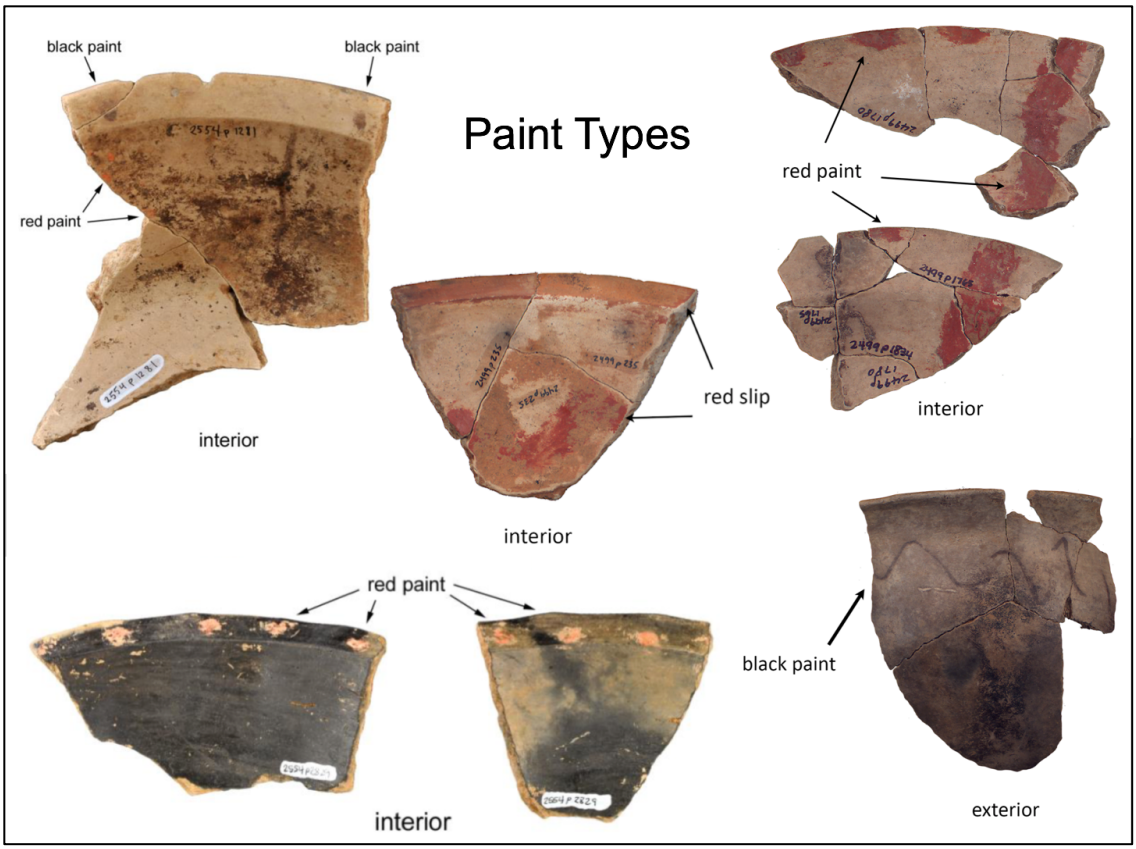


Figure 5.17. Examples of paint types found on vessels at Old Town and Ayers Town.

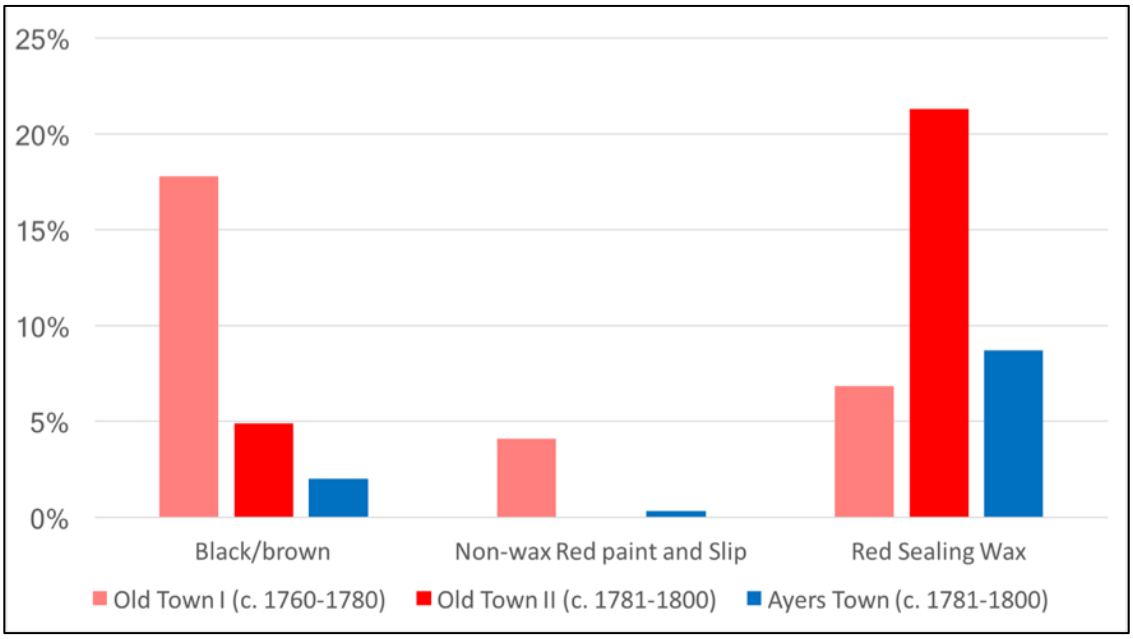


Figure 5.18. Proportion of paint types on vessels associated with the Old Town I, Old Town II, and Ayers Town occupations based on the Minimum Number of Vessels.

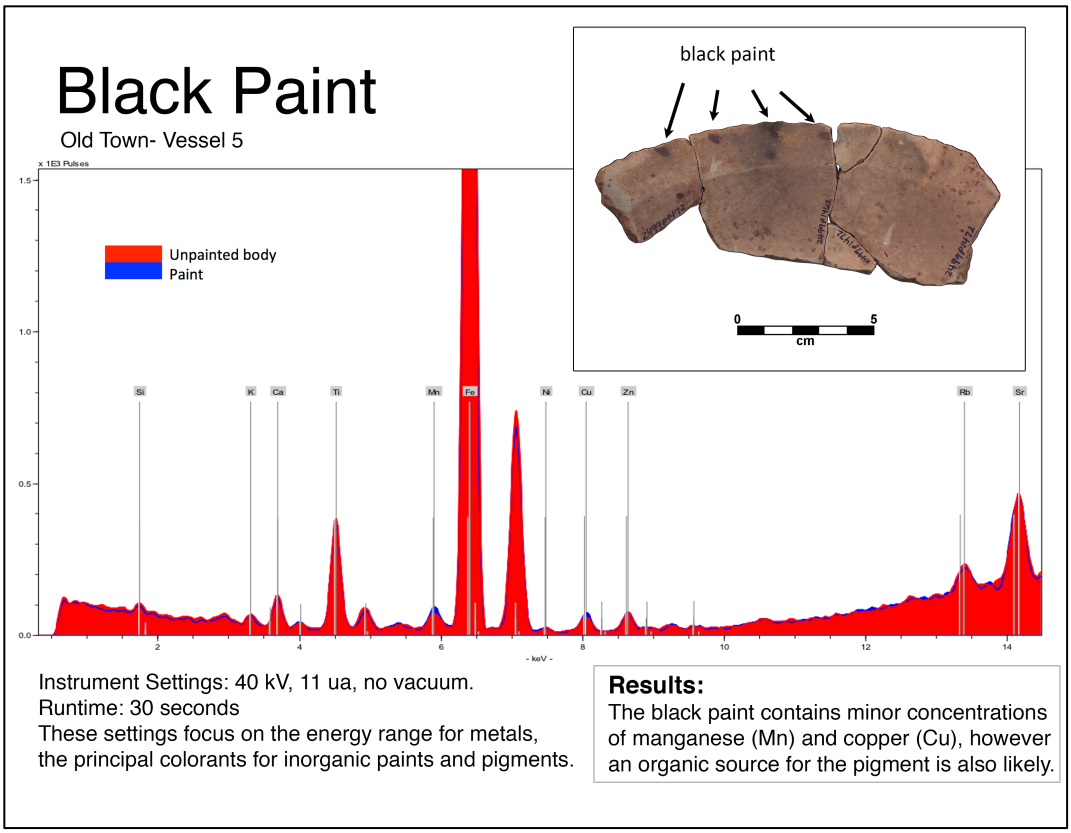


Figure 5.19. A stacked pXRF spectra showing the relative elemental concentrations of the unpainted clay body (red) and the black painted pigment (blue) on Vessel 5 from Old Town.

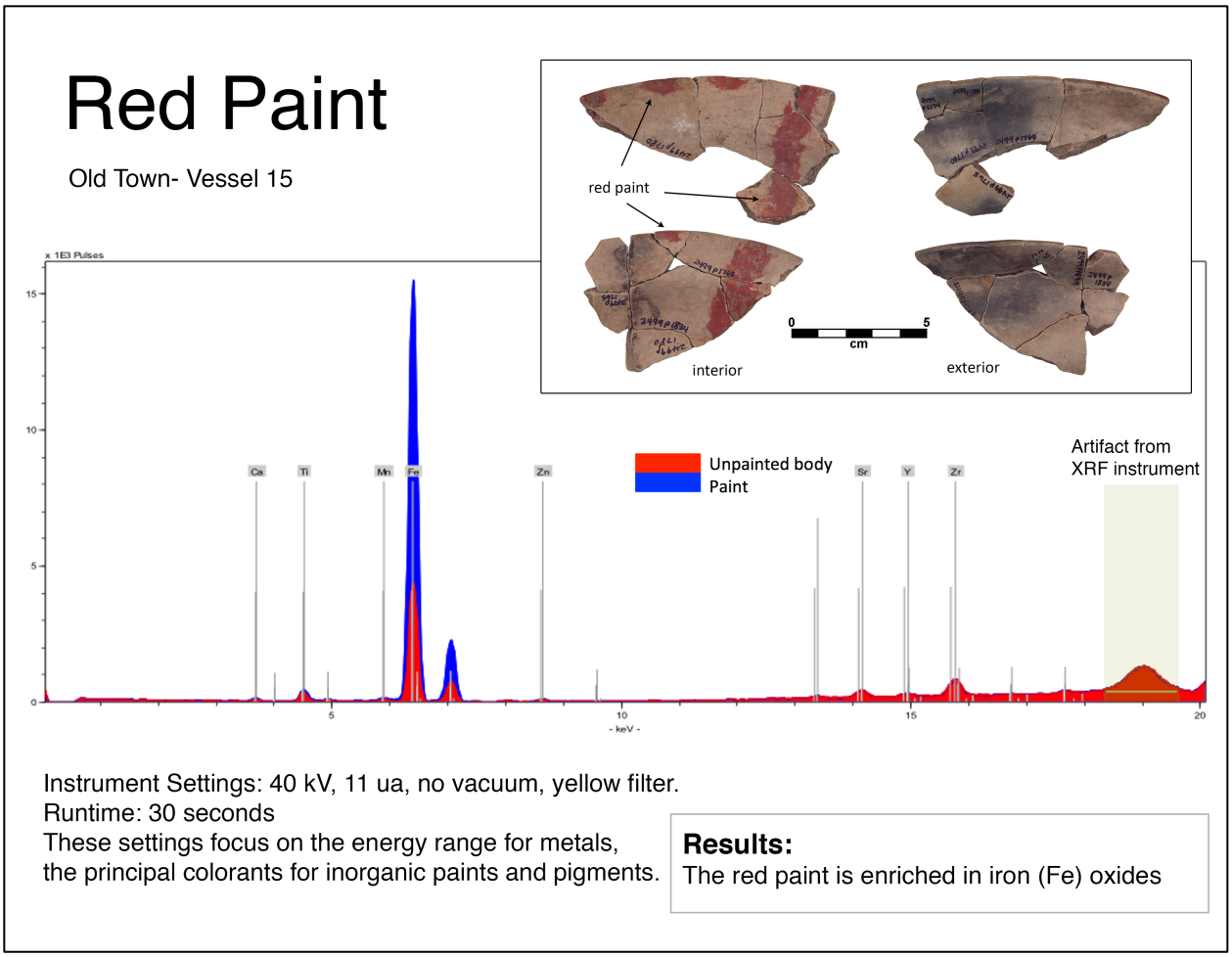


Figure 5.20. A stacked pXRF spectra showing the relative elemental concentrations of the unpainted clay body (red) and the red painted pigment (blue) on Vessel 15 from Old Town.

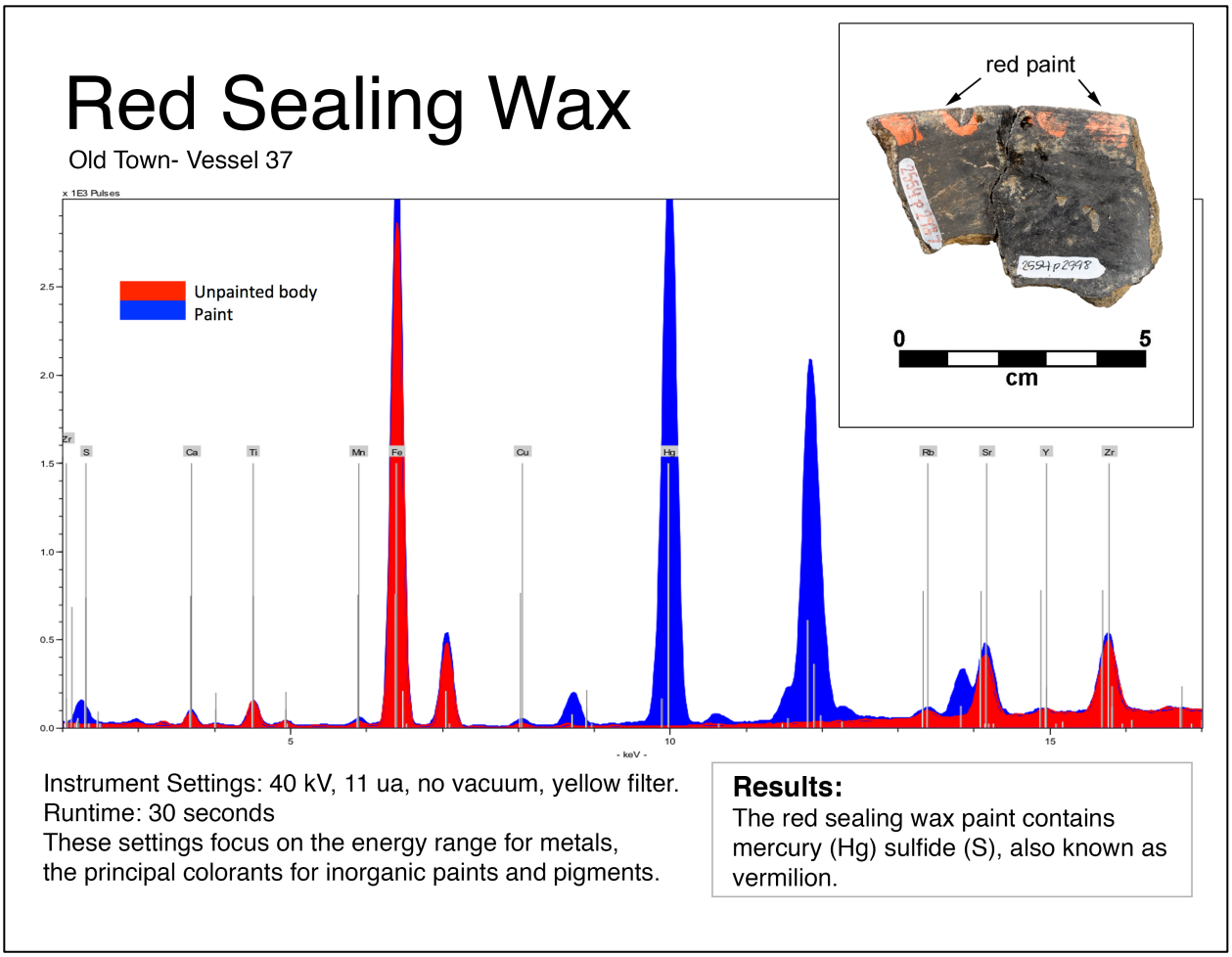


Figure 5.21. A stacked pXRF spectra showing the relative elemental concentrations of the unpainted clay body (red) and the red painted pigment (blue) on Vessel 37 from Old Town.

occupations, Ayers Town, New Town, and Bowers. We know the Catawba had ready access to this material because of a list of goods distributed to Catawbas by Joseph Kershaw on May 23, 1784 included a reference to one pound of sealing wax.

In the colonial era, sealing wax, as its name implies, was used primarily for sealing letters and documents from prying eyes and was both commercially available and made at home. Published recipes for various grades and colors of sealing wax during the time Catawbas were known to use it as a paint show what went into these waxes, and they have implications for the pXRF analysis. According to an early nineteenth century encyclopedia (Rees 1819), published around the time New Town and Bowers were both occupied, red sealing wax commonly came in two grades, fine and coarse. The principal colorant in the finest red waxes was powdered vermillion or mercuric sulfide, while the coarse varieties also included the lower-quality ingredient red oxide of lead or skipped the more expensive vermillion all together. In this pXRF spectrum overlay of a simple bowl from Old Town, the constituent colorant of the red sealing wax is clearly dominated by peaks associated with mercury (Figure 5.21). A smaller peak of sulphur confirms the presence of mercuric sulfide, aka vermillion. The absence of lead indicates that the Catawba potters were using a high-quality sealing wax at this time.

While nineteenth-century accounts of Catawba trade wares repeatedly mention the presence of bright-painted designs, based on the percentage of vessels with painted decorations, it seems that applying paint to pots became less common through time, probably as utilitarian forms such as pans became more common. Of those that have painted elements, black or brown pigments are more prevalent during Old Town I, no doubt due to the higher proportion of the pale wares on which these pigments would show up best. The bright red sealing wax paint becomes much more common at both Old Town and Ayers Town after the Revolution. Red

slipping, a dominant attribute of colonowares elsewhere, is a minor trait among Catawba colonoware, but most abundant during Old Town I.

Based on the extensive archaeological investigations within the Old Catawba Reservation, we can demonstrate that painting began abruptly after 1760 as part of a major realignment and reinvention of Catawba ceramic practice following the near collapse of the Nation. This shift to colonoware production and the act of painting are products of a complicated colonial encounter in which Catawba potters, especially Catawba women, found creative solutions that transformed elements of that encounter into something that was uniquely Catawba. Though the Catawba tradition of painted pottery gradually ended by the early 1900s, Catawba potters have continued to reimagine and adapt their pots to changing economic and social conditions, and pottery continues to be a cherished part of Catawba cultural legacy.

The households associated with Locus 2 at Old Town, OC and OD, were heavily involved with ceramic production, and the potter or potters associated with these households likely pioneered many of the innovations discussed above. The discovery of four crudely glazed pottery fragments at Old Town (Figure 5.22), representing four different vessels and having virtually indistinguishable paste to Catawba pale-bodied wares, suggest that in addition to changing paste recipes, vessel forms, and decorative motifs, Catawba potters also experiment with glazing.

Ceramic glazing is a process in which a flux (e.g., lead, salt, ash, etc.) is introduced that reduces the melting point of the silica found in the clay, producing an impermeable, glassy layer. Typically, the use of a formal kiln is required to achieve the high temperatures and appropriate firing atmosphere necessary to successfully produce a glaze. However, the conditions during open firing, the technique used by nearly all North American Native potters including the

Figure 5.22. Interior (left) and exterior (right) views of lead-glazed sherds (Specimens A-D) recovered from Old Town.
Note the fireclouding on the unglazed exterior surface of Specimen A and the heavily reduced, unglazed interior surface of Specimen C.

Catawba, can often reach temperatures of 850 degrees Celsius or more, which is well within the range needed to render a basic lead glaze (Rice 1987:156-157). Also, ethnographic examples exist of communities of traditional potters in Guatemala that successfully and consistently produced open-fired, lead-glazed earthenware (Reina and Hill 1978). Almost any source of lead can be adapted to produce ceramic glazes, and large quantities of lead were readily available on late eighteenth-century Catawba sites, including numerous lead balls, shot, and sprue recovered from Old Town.

To address the question of whether Catawba potters experimented with lead-glazed vessels at Old Town, I conducted an elemental analysis of the four glazed sherds and an assemblage of Catawba and non-Catawba pottery using portable X-ray Fluorescence (pXRF). It should be mentioned that this was not a sourcing study per se; the intention of this analysis was not to identify specific geologic sources of the various clay bodies, but rather to identify compositional groupings that may reflect shared geological sources. That said, based on the pXRF data I collected, the elemental composition of the clays used to build the lead-glazed vessels at Old Town are most similar to the Catawba pale bodied wares found at both Ayers Town and Old Town, and they are distinct from other selected eighteenth-century pale-bodied colonowares.

pXRF and Archaeological Ceramics

The use of pXRF technology as an analytical tool for determining elemental and chemical composition of archaeological materials has become increasingly popular over the past two decades as commercially available, handheld XRF analyzers have become more common and accurate. Generally speaking, XRF techniques work by emitting a high-energy beam of X-rays at a given target. When X-rays hit a given sample, inner orbital electrons are energized and some are ejected, causing electrical instability. As outer orbital electrons are pulled in to fill

inner orbital levels, energy is released in the form of secondary fluorescent rays that are characteristic of the atoms present (Shackley 2011:16). These fluorescent rays are then detected by the instrument which counts the number of photons at each energy level, producing a spectrum of intensity peaks that is used for either qualitative or quantitative assessments of elemental composition.

Numerous scholars have noted shortcomings with the use pXRF, especially by novice analysts (Glascock, Neff, and Vaughn 2004; Speakman et al. 2011). One main critique has been lack of quantitative controls and the need for the use of existing international standards to calibrate results (Speakman and Shackley 2013). They make clear that internally consistent results are not adequate since they cannot be compared to other data. Hunt and Speakman (2015:637) have further argued that optimization of pXRF for archaeological ceramics requires a matrix matched calibration, samples prepared as pressed pellets, Helium flow for lighter atomic element (low-Z) detection, and an appropriate filter for mid-Z and trace element quantification.

Another modest downside to pXRF is its more limited detection range. Studies have shown that other techniques, such as instrumental neutron activation analysis (INAA), laser ablation inductively coupled plasma-mass spectrometry (LA-ICP-MS), and even lab-based XRF are more sensitive and capable of detecting a wider range of elements than pXRF. However, unlike these other techniques, pXRF offers several important advantages that I feel outweigh the slight reduction in detection range, including its non-destructive potential, low cost, and ease of portability to repositories or museums where removal of samples is not permitted or practical.

Description of Samples

For this analysis, a total of 68 samples were selected from four archaeological assemblages. At the center of this analysis are four fragments of lead-glazed pale-bodied pottery, all recovered from Old Town, representing four different vessels. Specimen A (Figure 5.22) is a

rim fragment excavated from a flat-bottomed storage pit, Feature 18, associated with the pre-Revolution cabin site located in Locus 2, designated Household OC. This specimen consists of three refitting fragments from a small bowl. The interior surface is covered with a well-defined green glaze that overlays a dark, reduced clay body. The glazed surface is mostly smooth and uniform though it contains some irregular surface bubbling. The exterior side is unglazed, except for a small area at the lip where the glaze spilled over. The exterior surface is smooth, possibly burnished, and pale gray in color with some fire clouding evident. Fire clouds are commonly found on vessels fired in an open firing environment where it was in direct contact with fuel and variable atmosphere conditions. The paste appears to be temperless and contains a small amount of mica flecking. There is no indication this vessel was produced on a potter's wheel, and no evidence of molding or pressing is present, though due to the relatively small size of the fragment, the method of manufacture cannot be confidently concluded. Specimens B and C were recovered from plowzone contexts and have very thin lead glazes on one side. Specimen B is also a rim fragment with its glazed surface on the interior, though due to its small size, vessel form is unclear. Specimen C stands out as the only example with the glaze on an exterior surface. It also is the only fragment that has a distinctly smudged interior, a common feature on some Catawba pottery, though not commonly found on pale-bodied wares. Specimen D was recovered from Feature 34, a small posthole associated with a small earth-fast structure interpreted to be a corncrib. To see how similar or different these sherds are to the visually indistinguishable Catawba pale-bodied wares, I selected 15 samples from both Old Town and Ayers Town to provide a comparative assemblage.

I included a sample of 19 pale-bodied colonoware sherds from the Joseph Kershaw House (38KE1) located in Camden, SC, approximately 75 km downstream from the Twelvemile

Creek locality (Lewis 1977).[5] The Kershaw House materials, dating from the 1770s, are associated with one of the town's most prominent early businessmen, Joseph Kershaw, who operated a trading post in what was then Pine Tree Hill. Kershaw also had close ties with the Catawba Nation and acted as the agent responsible for delivering goods to the Nation on at least one occasion in 1784 (Davis et al. 2015:135-137). The excavations at the Kershaw House recovered a considerable number of coarse earthenware identified as colonoware or River Burnished ware which is presumed to be of Catawba manufacture (Lewis 1975).

To provide a control group for the Catawba Valley samples, I included 15 pale-bodied sherds from southeastern Virginia known as the Courtland series. Courtland pottery, originally defined by Lewis Binford (1964), is described as being made from very compact, fine-textured clays that are well oxidized, light cream to buff in color, and either burnished or plain. According to Binford, the most distinctive characteristic of the Courtland series is its range of vessel forms (e.g., shallow bowls, plates, and mugs), which combine aboriginal and European ceramic traits. Attributed to the Nottoway Indians of the early to mid-eighteenth century, Courtland series pottery predates Catawba colonoware by several decades though they are remarkably similar in terms of color, texture, and range of vessel types, especially the presence of faceted plate rims. While the Courtland paste is macroscopically very similar to Catawba pale-bodied wares, it should be geologically distinctive and thus I expected these samples to stand out in pXRF analysis.

Sample Preparation and Methods

While ideal sample preparation for heterogeneous materials like archaeological ceramics includes either abrading/grinding sample surfaces, or pulverizing and pressing into uniform

[5] The Kershaw House collections are curated at the South Carolina Institute of Archaeology and Anthropology (SCIAA) at the University of South Carolina.

pellets (Shackley 2011; Speakman et al. 2011; Hunt and Speakman 2015), due to curatorial policies and the small size of some of the specimens, these methods of destructive sample preparation were not feasible. Instead, all samples were visually inspected to ensure they were clean and free of surface contamination such as paints or residues, and flat, exterior or unglazed surfaces were selected for analysis to provide the most consistent results possible. The pXRF analyses were conducted using a Bruker Tracer III-SD handheld XRF spectrometer. This device is equipped with a rhodium X-ray tube and a 10 mm2 XFlash Silicon Drift Detector (SDD) which has a typical resolution of 145 eV at 100,000 counts per second. To optimize the detection of trace elements for this analysis, the pXRF spectrometer was fitted with the "green" filter (12 mil Al, 1 mil Ti, 6 mil Cu) and run at 40 keV, 30 μA, with no vacuum for a 120-second timed live count per sample.

The output from the pXRF is a spectrum of photon counts, which is a qualitative measure of the various elements represented in a given sample. In order to calculate quantitative and comparable elemental concentrations, these photon counts were converted to weight % or parts per million (ppm) using a clay/sediment calibration model based on 20 certified reference materials (Table 5.10). This calibration was developed by Hunt and Speakman (2015) at the Center for Applied Isotope Studies at the University of Georgia and customized to this specific pXRF spectrometer by Lindsay Bloch. To mitigate the heterogeneousness of the clay bodies, a

Table 5.10. The 20 Certified Reference Materials used to create the clay/sediment calibration.

Clay/ceramic	Sediment
NIST 679	NIST 8704
NIST 97b	GBW 07310
NIST 98b	GBW 07311
NCS DC 60102	GBW 07312
NCS DC 60103	GBW 07302
NCS DC 60104	GBW 07405
NCS DC 60105	
NCS DC 61101	
Č-137	
Č-138	
Č-139	
NCS HC 14807	
NCS HC 14808	
NCS HC 14809	

Table 5.11. Composite values for the concentrations (ppm) of trace elements of sherds analysis by pXRF.

Site/Catalog #	Rb (ppm)	Sr (ppm)	Y (ppm)	Zr (ppm)	Nb (ppm)
Old Town					
2499p1766g (Specimen A)	38.33	120.71	44.17	183.81	8.71
2499p2526g (Specimen B)	24.91	77.04	47.13	181.48	9.44
2499p2541g (Specimen C)	22.76	68.75	24.50	175.95	8.42
2499p2644g (Specimen D)	26.08	83.51	43.48	170.40	8.04
2499p235-1	23.65	132.22	34.70	215.53	8.96
2499p630-1	26.31	363.39	30.69	429.30	20.09
2499p1462-1	25.13	56.21	22.77	199.57	8.44
2499p1565-1	54.94	98.77	23.35	214.69	8.30
2499p1576-1	34.25	111.90	26.79	213.34	9.11
2499p1661-1	25.73	55.08	21.72	204.11	9.16
2499p1690-1	33.44	95.02	24.61	174.56	8.19
2499p1740-1	15.00	62.08	11.58	156.83	6.74
2499p1765-1	22.36	237.44	21.02	198.75	7.38
2499p1802-1	25.00	57.70	27.52	182.64	8.50
2499p1834-1	18.05	215.22	20.39	177.85	7.14
2499p1849-1	36.41	144.44	29.43	226.23	10.33
2499p1849-2	33.60	82.29	24.51	188.84	8.57
2499p1849-3	33.59	88.46	22.41	182.20	9.12
2499p1889-1	53.63	102.97	27.58	178.72	8.75
Ayers Town					
2554p1422-1	39.73	75.13	25.43	228.20	9.84
2554p1519-1	23.43	58.88	16.69	225.13	8.10
2554p1519-2	22.83	59.68	19.66	202.14	8.32
2554p2129-1	36.48	211.29	32.91	179.85	8.69
2554p2178-1	57.23	141.69	27.14	183.72	7.35
2554p2195-1	31.10	75.28	28.18	195.94	8.26
2554p2279-1	57.01	94.96	22.40	195.94	7.47
2554p2291-1	40.95	95.77	27.52	192.76	9.46
2554p2481-1	23.51	71.33	26.86	187.55	8.97
2554p2508-1	20.08	95.37	29.11	176.44	9.05
2554p2559-1	20.52	72.69	30.16	175.96	8.20
2554p2585-1	26.37	70.28	28.26	198.51	8.67
2554p2819-1	82.75	117.75	27.36	184.23	7.51
2554p3334-1	30.00	412.54	29.74	290.11	18.75
2554p3817-1	37.98	248.27	34.73	333.39	21.79
Kershaw site (38KE1)					
F67 12132-1	44.96	393.94	39.74	512.59	20.31
F67 12206-1	53.69	509.62	45.44	458.74	19.96
F67 12225-1	44.21	429.42	45.47	658.56	22.36
F67B 11596-1	33.64	396.86	26.75	530.24	20.46
F67B 11596-2	84.07	145.30	42.03	313.78	17.82
F67B 11596-3	86.54	199.32	43.48	341.75	17.54
F67B 11596-4	26.62	187.01	23.16	239.75	8.70
F67B 11598-1	74.13	154.70	55.62	337.12	21.73

Site/Catalog #	Rb (ppm)	Sr (ppm)	Y (ppm)	Zr (ppm)	Nb (ppm)
F67B 11598-2	26.75	102.13	15.23	156.26	5.54
F67B 11598-3	118.31	171.53	52.68	223.56	22.57
F77I 11697-1	38.33	143.33	26.25	195.09	8.66
F77J 11886-1	37.89	122.49	25.42	184.22	8.18
F77L 12267-1	30.23	113.26	25.56	200.71	9.55
F77L 12267-2	43.31	540.80	26.06	386.04	19.91
F88 11303-1	27.83	93.08	26.73	180.89	8.74
F88 11303-2	36.80	456.88	28.97	388.40	20.01
F88 11304-1	26.26	106.55	25.27	184.09	8.01
F91 13672-1	58.00	86.79	40.09	412.34	19.07
F92 13027-1	28.33	92.12	13.27	152.28	5.72
Courtland series					
692p1-1	85.05	82.87	26.38	327.31	20.28
692p1-2	126.46	157.07	33.72	315.50	23.16
692p1-3	83.97	121.72	37.49	355.92	18.02
692p1-4	90.66	80.34	32.52	340.64	22.78
692p1-5	104.52	117.41	41.18	303.68	20.84
692p1-6	79.05	117.84	33.07	405.15	24.29
695p1-1	67.55	80.04	30.69	338.02	21.68
695p1-2	67.61	79.02	31.91	363.38	23.89
695p1-3	71.01	80.01	31.19	316.80	23.11
695p1-4	69.33	79.67	31.63	329.79	23.53
695p1-5	77.45	85.63	33.56	348.69	25.64
695p1-6	71.97	68.88	31.64	313.68	23.91
695p1-7	71.60	75.68	33.08	333.16	23.91
695p1-8	68.06	70.84	29.79	323.37	23.47
706p1-1	72.00	87.64	30.43	454.77	22.51

strategic re-sampling routine was adopted in which each sample was measured three times on the same surface, moving the sample slightly after each assay. The results were then averaged to produce composite values for each sample. The results presented here are based on the ppm concentrations of five trace elements, niobium (Nb), rubidium (Rb), strontium (Sr), yttrium (Y), and zirconium (Zr), known to be sensitive to regional variations in underlying geology (Table 5.11).

I used the statistical package JMP Pro 13 to produce biplots derived from a principal components analysis (PCA), which is a multivariate, quantitative technique used to reduce the dimensionality of real numeric data based on variance/co-variance matrices (Shennan 1997). As Glascock, Neff, and Vaughn (2004:100) note, "Pottery compositional data almost always contain a mixture of elements measured at high concentrations (i.e., Al, K, and Fe) and at low concentrations (i.e., the rare earth elements). Due to the fact that PCA is scale dependent, high concentration elements will dominate the analysis unless the data are standardized in some way to give all measured elements approximately equal weight." To account for this, I transformed the raw ppm data using a base-10 logarithmic scale prior to performing the PCA.

pXRF Results

Figure 5.23 shows a spectrum overlay displaying the intensity peaks of the four glazed sherds from Old Town and an unglazed Catawba pale-bodied sherd for reference (black line), also from Old Town. Each spectrum represents a 120-second assay performed on the unglazed surface of the sample. The prominent peaks for lead (Pb) associated with Specimens A, B, and D, the samples with glazed interior surfaces, demonstrate how lead can volatize in the firing atmosphere and be redeposited on unglazed portions of vessels. The lack of a substantial lead peak in Specimen C is explained by the fact it is the only sample with an exterior glazed surface

and a highly reduced interior, indicating the vessel was likely inverted during firing and meaning the interior was not in direct contact with lead vapors (Note: A subsequent assay on the exterior surface of Specimen C confirmed the presence of a lead glaze). The variation in absorbed lead levels, combined with the fireclouds, provides some evidence that these vessels were not fired in a kiln where a more uniform firing atmosphere would be expected.

The PCA biplot derived from the log-transformed values of five trace elements (Figure 5.24) reveals several interesting patterns. First, all four glazed specimens (black triangles) form a cluster within the larger cluster formed by the majority of Old Town and Ayers Town pale wares. With the exception of three samples, two from Ayers Town and one from Old Town, all of the Catawba samples form a diffuse cluster characterized by generally low concentrations of Nb, Y, and Zr. A two-way scatter plot of the logged values of niobium and strontium with 95% confidence ellipses (Figure 5.25) also shows the tight compositional groupings of the glazed sherds and Old Town and Ayers Town pale-bodied wares. This suggests that while some variation exists in the pale-bodied ware paste recipe, they all have similar trace element signatures. As expected, the Courtland series from southeastern Virginia forms a relatively tight compositional group distinct from the Twelvemile Creek Catawba pale wares.

The Kershaw samples present an interesting pattern. This assemblage of presumably Catawba-traded pale wares formed 3-4 distinct clusters, indicating the possibility of multiple production sites or paste recipes. One cluster fits nicely with the samples from Ayers Town and Old Town and the glazed sherds, and may be reasonably attributed to the Twelvemile Creek area. A second distinct grouping overlaps with the Courtland assemblage. It is unclear if this apparent similarity to the Courtland samples indicates a possible Virginia source for some Catawba pale wares, but it is known that the Catawba traveled to and from Virginia and even

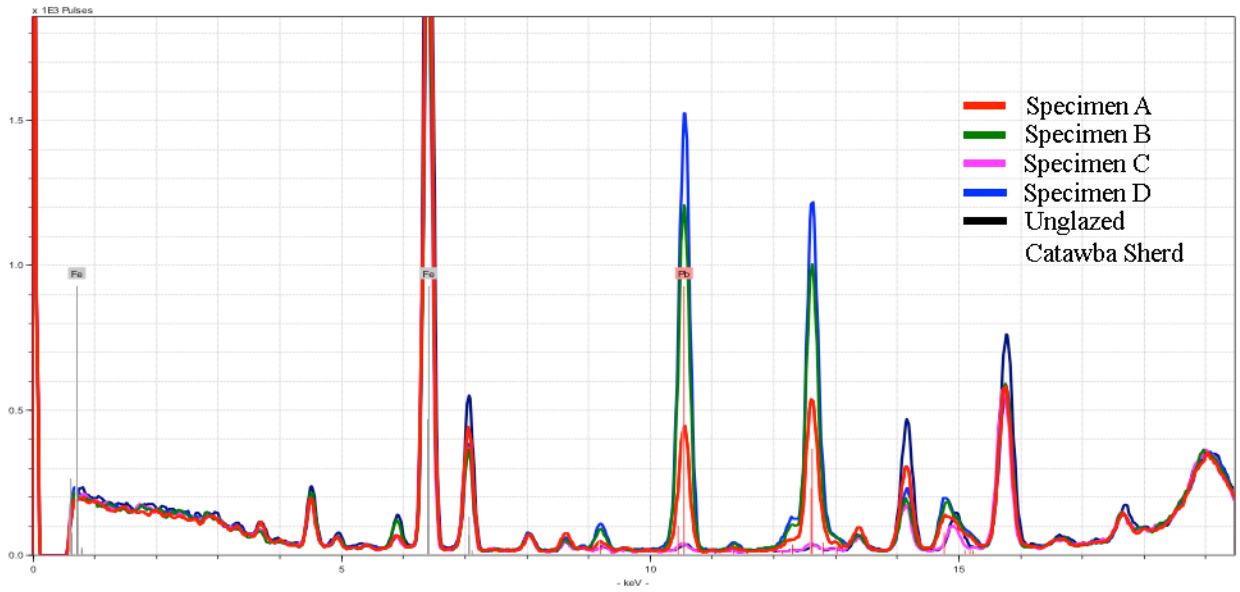


Figure 5.23. Spectrum overlay showing intensity peaks for various elements in the four glazed specimens from Old Town and an unglazed Catawba sherd.
Note the spectra reflect assays performed on the unglazed surfaces. The prominent peaks for "Pb" associated with Specimens A, B, and D indicate the presence of absorbed lead in the clay body.

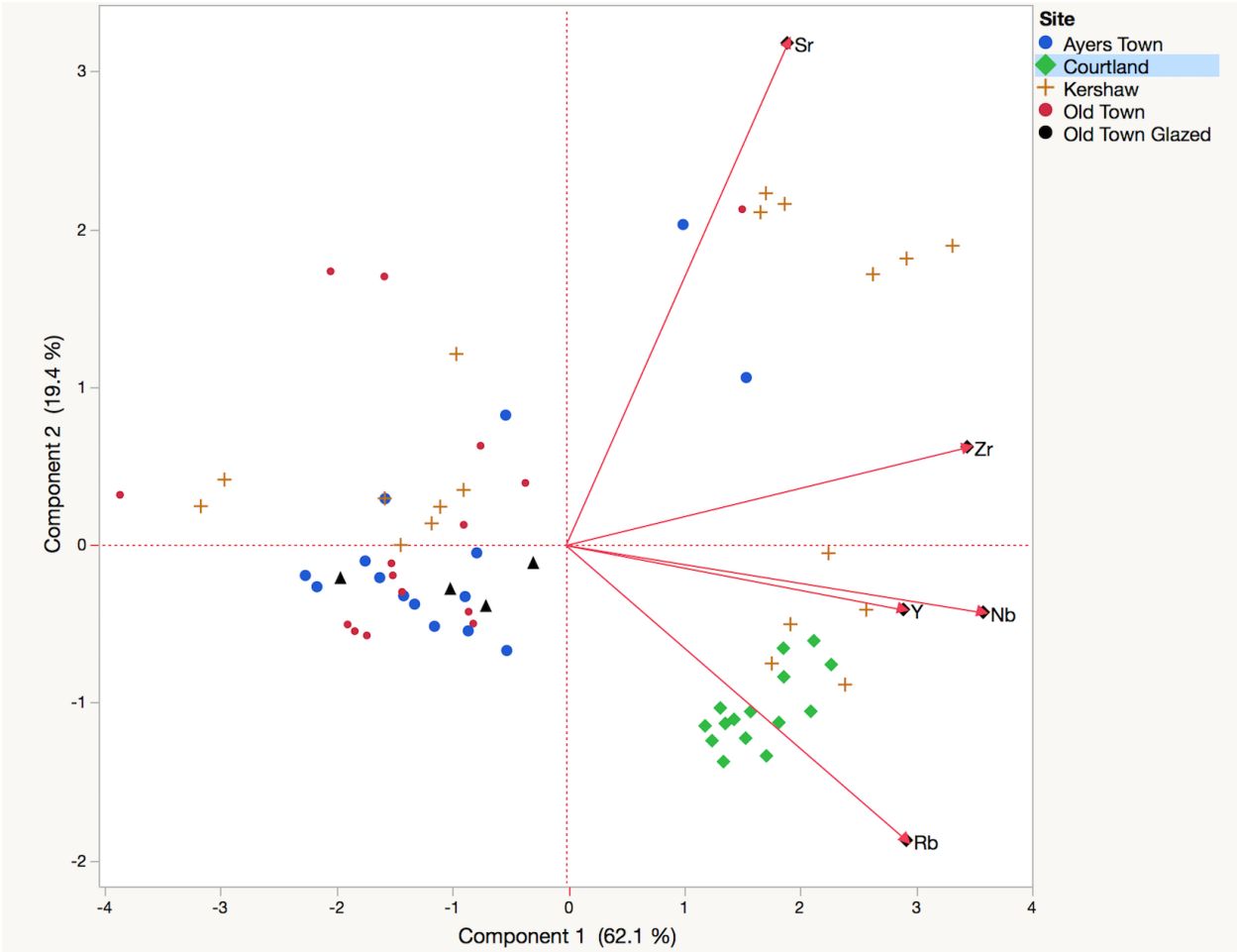


Figure 5.24. Biplot derived from a Principal Components Analysis of the log transformed concentrations (ppm) of 5 trace elements (Rb, Sr, Y, Zr, NB) associated with a several assemblages of pale-bodied colonoware ceramics and the lead glazed sherds from Old Town.

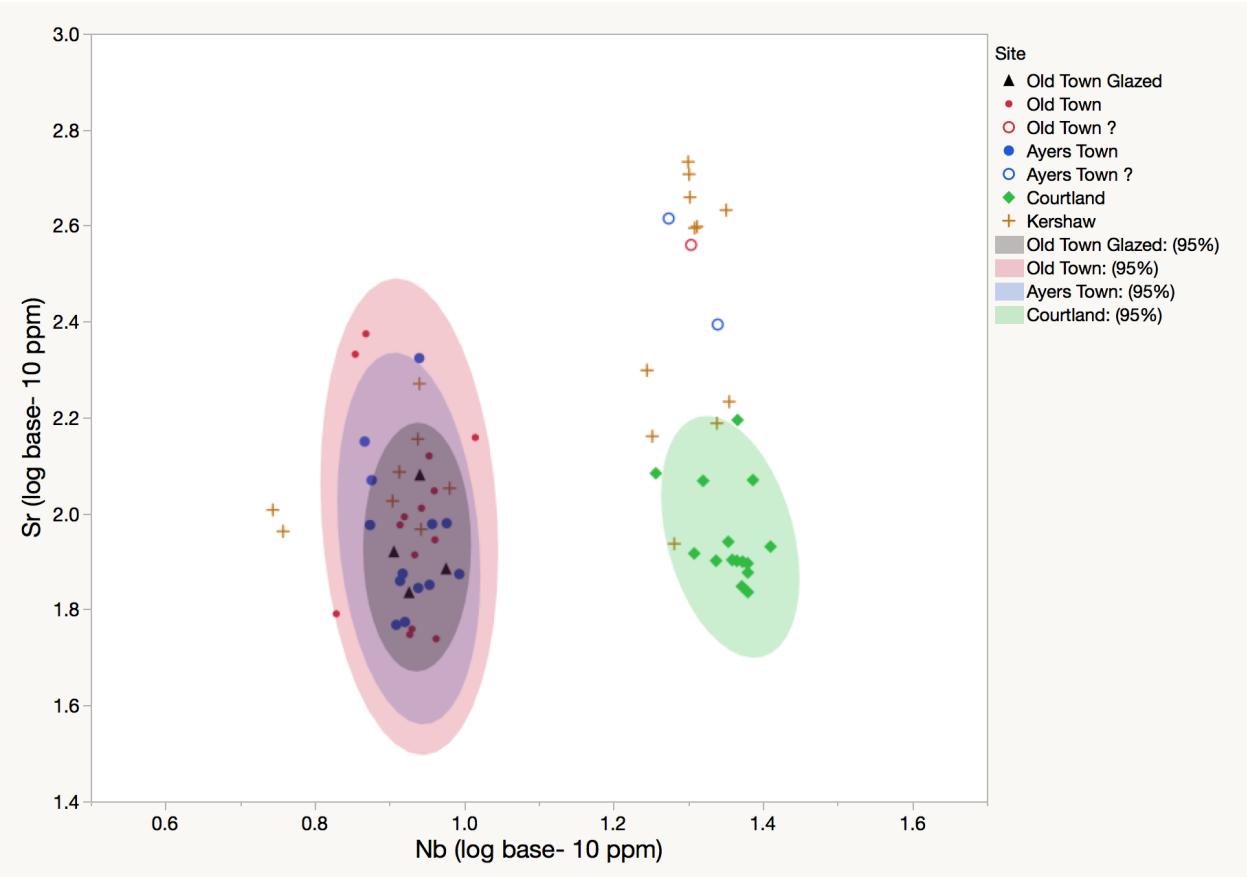


Figure 5.25. Two-way scatterplot of the elemental concentrations (log-base 10 ppm) of Niobium (Nb) and Strontium (Sr) showing the overlapping grouping of the lead glazed sherds from Old Town and other pale bodied samples from Ayers Town and Old Town.
Note: the Kershaw House samples (+) form 4 distinct groupings and 3 Catawba samples (°) fall outside the 95% confidence ellipses for the majority of Twelvemile Creek Catawba pale bodied samples.

took refuge there during the American Revolution. A third cluster seems to coincide with three outlying Twelvemile Creek samples, two from Ayers Town and one from Old Town. Two samples from the Kershaw samples plot closely together on the left side of the plot and may represent a fourth compositional group, though with the relatively small sample size, it is difficult to draw any conclusions.

Catawba potters were not operating or experimenting in a vacuum; it is likely they received inspiration as well as technical knowledge of glazing from local commercial potters operating in the region. One well-known American potter, John Bartlam, established his first pottery factory north of Charleston, SC in 1765 and then moved his operation up the Catawba River to Camden by 1774 to take advantage of the high-quality kaolinite clays in the area (South 2004). Since Catawbas regularly traveled through both Charleston and especially Camden, it would not be unreasonable for Catawba potters to not only be aware of Bartlam (or other American potters), but potentially to have learned the basic process for lead glazing from observing Bartlam's operation.

This analysis provides compelling evidence that these glazed vessels were made from the same or elementally similar clays as the majority of Catawba pale-bodied wares. The argument that Catawba potters utilized local Twelvemile Creek clay sources is perhaps an obvious one, but it is also supported by a pilot study by Rosanna Crow (2011) that used standard XRF and X-Ray Diffraction to compare archaeological Catawba ceramics and raw clay samples collected from local clay pits still used by modern Catawba potters. Two additional glazed sherds were identified during the 2017 Old Town excavation season but were not included in this analysis. Aside from these, no other examples of this type of ware has been identified or reported from other late eighteenth century Catawba or settler sites, though it may be necessary now to

reexamine late eighteenth-century collections from the area to determine if similar specimens have been misidentified as Euro-American based solely on the presence of a glaze.

All six lead-glazed Catawba sherds were recovered from Locus 2 at Old Town, which is associated with the households defined as OC and OD. These households very likely reflect the pre- and post-Revolution occupations, respectively, of the same household group. As mentioned above, both households are strongly associated with pottery production artifacts, suggesting one or more active potters within the household.

While it is clear that lead glazing did not become an enduring element of the Catawba ceramic repertoire, I believe these glazed fragments challenge long-standing assumptions about the technological capabilities of American Indian potters and provide new insights into Catawba ingenuity and the role of experimentation, particularly by one innovative Catawba household, in the evolution of their ceramic tradition, and especially during the period immediately following the 1759 smallpox epidemic.

CHAPTER 6: HOUSEHOLD FOOD USE AT OLD TOWN AND AYERS TOWN

A core necessity for all households is the ability to provide sustenance and nourishment to its members. The distinctive practices of food procurement, preservation, preparation, consumption, and discard shared by members of a given group are known as foodways, and how each of these behaviors are managed and implemented is influenced by cultural, political, ecological, economic, and historical factors (Deetz 1977:73). The particular ways in which a community eats have wide ranging implications for how households are organized and function, including the kinds and amount of storage needed, the types and quantity of kitchen-related material culture that are used, and how waste is disposed of, among others. Food, as well as the contexts surrounding its consumption, can be important means to express community identity and mediate social relationships.

Foodways are often described as durable and resilient components of cultural practice that can resist change; however, given the right conditions even the traditionally conservative meaning and practices surrounding food can change profoundly and rapidly. Colonialism has had far-reaching effects in the daily lives of many societies across the globe, and its intersections with foodways has provided fertile ground for archaeological investigation (Dietler 2007). While several studies have demonstrated considerable continuity in Native foodways in the Carolina Piedmont during the early contact period (Gremillion 1993; Holm 2002), later in the colonial period foodways changed as access to and dependence on European markets increased, and dramatic population shifts took place, particularly for the Catawba Nation. This chapter explores the ways in which late eighteenth-century Catawba households managed and used various food

resources to sustain their members, as reflected in the plant and animal food remains preserved in the archaeological record. Using the household assemblages defined in Chapter 4 as the basic analytical unit, I incorporate existing archaeofaunal and archaeobotanical data from Old Town and Ayers Town (Blewitt 2015; Fitts 2015a, 2015b; Whyte 2015) to examine variation within and between these sites.

When considered in the context of the ethnohistoric record and previous archaeological studies of Catawba foodways, these data indicate that periodic food shortages and stress continued to impact Catawba households into the latter half of the eighteenth century, especially following the American Revolution. Household subsistence strategies became more differentiated through time with a greater emphasis on diversified utilization of wild and foraged resources, especially at Ayers Town. A similar shift toward diversification and foraging within historic Cherokee assemblages has been argued to reflect a household strategy to cope with risk and uncertainty (VanDerwarker et al. 2013). While risk prevention and mitigation is likely a factor in the Catawba case, I suggest that differences in food procurement and consumption patterns at the Catawba settlements of Old Town and Ayers Town are a product of divergent community and household strategies as well as changes in access to particular food sources. I also argue that at least one context at Ayers Town represents the remains of a small-scale feast, similar to community-scale labor mobilization events like corn shuckings.

Ethnographic Descriptions of Catawba Food Use

Like many ethnohistoric documents written primarily by non-Indians, descriptions of Catawba domestic activities including food use and consumption are rare and fragmentary. The few accounts that do exist provide tantalizing insights that can provide a context for interpreting archaeologically recovered foodways data. Like most late prehistoric southeastern tribes, the Catawbas and their ancestors relied on a mix of hunting and collecting a wide variety of wild

plant and animal resources as well as small-scale agricultural production, tending both household gardens and larger fields of corn, beans, squash, and other plants associated with the "eastern agricultural complex" (Cowan 1985; Scarry 2004). The earliest European explorers occasionally noted the kinds of foodstuffs they observed or consumed themselves during their usually brief encounters with Siouan-speaking people of the Carolina Piedmont. During their respective treks through the Carolina region, Hernando de Soto and Juan Pardo relied heavily on surpluses of corn provided by the various Native towns they sought to rule. They also observed jerked venison, mulberries and other native fruits, and acorns (Clayton et al. 1993: 230, 278; Hudson 2005:289), further illustrating the range of food sources.

Later English explorers also mentioned some of the food they encountered in Native villages during the late seventeenth and early eighteenth centuries. John Lederer (1670:15) noted that the Oenock Indians (Eno),

> plant abundance of Grain, reap three Crops in a Summer, and out of their Granary supply all the adjacent parts…to each house belongs a little hovel made like an oven, where they lay up their Corn and Mast, and keep it dry. They parch their Nuts and Acorns over the fire, to take away their rank Oyliness; which afterwards pressed, yield a milky liquor, and the Acorns an Amber-colour'd Oyl. In these, mingled together, they dip their Cakes at great Entertainments, and so serve them up to their guests as an extraordinary dainty.

The Eno, an eastern Siouan-speaking group that would later merge with the Catawba, very likely retained elements of their own traditional cooking practices as they incorporated into the Catawba Nation just as the many other refugee groups that constituted the Catawba confederacy. John Lawson was especially attentive to the food he and his Native hosts were eating. He described eating deer, turkey, and bear as well as Indian peas, beans, chinquapin nuts, acorns, and peaches (Lawson 1709).

The last stands out as one of the first European domesticated plants to become integrated into Native foodways. Peaches were likely first introduced to the Southeast by the Spanish, and

due to its fast growth cycle and ability to thrive in the temperate region, they quickly spread through existing Native networks (Fitts 2015b). By the time of Lawson's travels through Carolina in 1701, Piedmont peoples had already creatively incorporated this fruit into their daily cuisine with dishes like barbequed peaches, stewed peaches, and peach bread (Lawson 1709). A nineteenth-century observer noted that the George family kept fruit trees near their cabin (Scaife 1896:21), indicating that peach and possibly other fruit trees were integrated into household foodways and continued to be important to Catawba palates and plates during the historic period.

By the middle of the eighteenth century, the Catawba were experiencing periodic food shortages and in many cases, they turned to their English allies and neighbors to supplement their diet. Mary Beth Fitts (2015a) attributes these periods of food shortages and the accompanying nutritional stress during the 1750s on a combination of factors including regional droughts and threats of intertribal violence which limited the success of agricultural activities. Exacerbating the food scarcity was a regional crash in deer populations due to overhunting driven by the English deerskin trade during the early eighteenth century.

Also contributing to the food-security crisis during the 1750s was strategic decision of many Catawba men to participate in the series of colonial conflicts as ethnic soldiers supporting their English allies (Fitts and Heath 2009; Heath 2004). Catawba warriors were continually off fighting for the English during the French and Indian War, and their participation in these military engagements greatly limited Catawba men's contribution to household food production. While soldiering may have provided young men with income and war honors, it also had the effect of taking able-bodied men away from their villages, fields, and hunting grounds for long periods of time and in turn reducing their contributions to household food production. With men constantly at war, it also made the Catawba homeland an even greater target for raids by northern

Indians tribes than it traditionally already was (Brown 1966). This threat of violence in and around the Catawba towns made hunting and agricultural activities especially dangerous. While Catawba leaders were constantly petitioning colonial officials for arms, munitions, and even the construction of two different forts to protect their women, children, and the elderly, food was a primary concern.

Records show that between 1739 and 1760, the colonial councils in North and South Carolina either directly supplied or provided reimbursement for provisions given to members of the Catawba Nation on as many as 20 different occasions (Blumer 1987; McDowell 1958, 1992; Saunders 1888). Foodstuffs delivered to the Catawba Nation ranged from barrels of beef to rum, sugar, and livestock. On one occasion, North Carolina Governor Dobbs directed one of his agents to purchase cattle for the Catawba since many of their young warriors were off fighting at their behest. Colonial documents indicate that this agent apparently tried to profit off his position by purchasing cheap meat in the form of "ould Bulls" and pocketing the remainder of the funds. King Hagler, again demonstrating his political awareness and diplomacy, "cut the cod off one" and took it to officials in Salisbury, alerting them to the poor value of the cattle they were given compared to the high price the government was charged for it (Merrell 1989:164-165).

The Catawba Nation was at times being supplied with substantial amounts of food from settlers and colonial officials, including meat in various forms and corn. While meat was almost certainly highly valued, the vast majority of the food aid the Catawba received came in the form of corn. From an archaeological perspective, this means that it is likely difficult to distinguish corn provided from colonial sources from Catawba-grown corn. It is possible that evidence of this imported corn might be detected if the non- Catawba corn comprised different varieties or if there was a substantial difference in kernel-to-cupule ratio, indicating a difference in processing

methods. Isotopic analysis may offer another method for identifying colonial corn. Unfortunately, these questions have yet to be specifically addressed and are beyond the scope of this project.

The practice of supplying the Catawbas with corn, sometimes hundreds of bushels at a time, reached its peak during the 1750s, but it did not completely solve the Catawba's food crisis. The colonial record is peppered with settler complaints of Catawbas raiding or taking other provisions by force when expectations of hospitality were not met. These encounters were exacerbated by the fact that deer populations in the eastern woodlands were in decline due to over-hunting associated with the deer-skin trade (Lapham 2006) and increasing numbers of settlers encroaching on traditional hunting grounds. The practice of settlers allowing their livestock to range freely made the livestock easy targets for Catawba hunters (Merrell 1989).

Despite dwindling deer populations due to overhunting and white settlers encroaching on traditional hunting grounds, hunting seems to have remained a favorite activity for young Catawba men throughout the Revolutionary and Federal periods. Whether it was an earnest effort to provide fresh meat or simply a convenient and socially acceptable excuse to be away from the house, a constant refrain heard by numerous visitors to Catawba towns was that the men were away hunting and/or fishing (Jones 1815; Liston 1797; Richardson 1758; Watson 1784). The desire to be out hunting is evident in an interaction between the Christian missionary William Richardson and King Hagler in 1758. Wishing to discuss topics of religion and schools, Richardson found that Hagler only wanted to talk about corn, namely how scarce it was and how to get more of it. Hagler managed to finagle 20 shillings from his visitor to buy 3 bushels of corn for his people. Just as soon as he had secured the money for corn, Hagler promptly abandoned Richardson to go hunting (Richardson 1758).

Due to a number of factors, the Catawba received far less assistance from the English colonies after 1760. First of all, the combined effects of warfare and smallpox resulted in a greatly diminished Catawba Nation. This reduced the status of the Catawba in the eyes of the English, who increasingly saw them less as essential Native allies and more as woeful dependents whose continued requests for gifts and food were seen as becoming a financial burden. With the defeat of the French in the Seven Years War, the threat of raids or other violence decreased and the English became even less inclined to prop up the Catawba as an ethnic buffer for outlying settlements.

The death of King Hagler in 1763, arguably the Nation's most respected and perhaps most effective leader, also likely played a role in the Catawbas' decreased influence with the British. During his tenure as Catawba King, Hagler used his political skills and personal charisma to develop a rapport with numerous colonial governors and other officials. He was able to effectively translate these personal relationships into real material benefits for his people and himself, something that his successors, Colonel Ayers followed by King Prow, were apparently less successful in duplicating. Of course, it is impossible to say what success Hagler would have had in negotiating continued support for his tribe had he lived, but chances are he, too, would have faced increasing resistance from colonial officials. By the time the Revolution swept the Carolinas, the Catawba had once again found stable and effective leadership in the highly respected war veteran, General New River. While documents show that at least two shipments of food were delivered to the Nation in the early 1780s, including 500 bushels of corn (Sally 1916:60) and a barrel of flour (Kershaw 1784), New River it seems did not have the same success at securing English provisions.

In 1797, the wife of an English diplomat, Henrietta Liston, visited a small Catawba town (very likely Ayers Town) and her travel journal provides several important insights on Catawba foodways. During her visit, Liston was told by the leader of the town, the Colonel, that most of the young men were out hunting which she corroborated, having encountered several of them earlier in her trip. Liston entered several of the houses and noted the meals being prepared. In the cabin of the Colonel, she observed a "hoecake" (presumably made of corn) on the hearth and a pot on the fire that contained deer flesh. In a different dwelling wild turkey was being cooked in a similar way. Liston noted that "the only cultivation we saw was a small quantity of Indian corn in the vicinity of the Town, cultivated I am told, by the women, and this is rather for traveling with (when an Indian sets out on a journey the flour of Indian corn in a bag and a pot to boil it in is all his provision) than to use as bread" (Liston 1797).

Liston's account does not include any reference to European domesticated plants or stock animals, though several other sources make it clear that Catawba diets occasionally included beef, pork, and poultry. Most Piedmont Indians likely first encountered pigs in the sixteenth century when Spanish explorer Hernando de Soto famously traveled through the South with a herd of swine, though it is not clear if this directly impacted household subsistence. Due to the Catawba's close ties with the English colonial government and backcountry settlers, domesticated animals such as pigs, cattle, and chickens were introduced into their diet in various ways. By the American Revolution it is clear that at least some Catawba households had begun to raise and keep livestock. The Catawba even provided some of their cattle to General Sumter and his men while they were taking refuge among the Catawba in 1780. David Hutchison, an agent for the Catawbas, recalled that shortly after Sumter's encampment with the Catawba, the British destroyed the Catawba towns, including their cattle, hogs, and fowl. He noted that when

the Catawba returned to their towns after the Revolution, they "commenced their former habits of industry; and in one or two years were doing well, and had got some stocks of cows and hogs, which as the range was good, were easily kept. Indians…have no idea of raising anything for the support of horses, hogs, or cows." (Hutchison 1843).

While Liston's observations were no doubt limited by the short duration and timing of her visit (her trip through the Catawba Nation occurred in November, well after new corn would have been harvested) and by what was physically visible to her along the road to the town, this description suggests that the residents of Ayers Town were no longer as heavily involved in agriculture as they once were and may not have even had household gardens. William Moultrie noted that in 1772, the Catawba's agricultural fields did not exceed 100 acres, though it is unclear if this figure refers to all Catawba fields or those associated with a single town, if such a division existed. Other evidence of Catawba farming comes from Indian agent to the Catawba Nation, David Hutchison (1843), who recalled in his memoirs that:

> [Catawba] women were industrious and made corn. The men never worked. The women made corn sufficient for their own wants, and had some to sell. In the latter part of the war [American Revolution], were two or three years of scarcity and the people came thirty miles to the Nation for corn. The Indians maintained their industrious habits for three or four years after the war.

If his observation of Catawba women is correct, it further indicates the active role women played in the emerging backcountry market selling earthenware pottery, baskets, and even surplus corn. One seeming discrepancy in Hutchison's account is the observation that the Catawbas grew and sold their surplus of corn even though, as we have already established, in 1782 the South Carolina General Assembly appropriated funds for 500 bushels of corn to be supplied to the supposedly industrious Catawbas (Salley 1916:60). It is possible that Hutchison was mistaken that the Catawbas were selling their corn, but also conceivable that the Catawbas received corn

from South Carolina and turned around to sell what they did not need to neighboring white settlers. In any case, storing these surpluses of corn likely necessitated additional storage capacity after the Revolution, presumably in the form of specialized facilities such as elevated corn crib, evidenced by Structure Locality 9 at Ayers Town and the Old Town II, Structure 7.

If Hutchison's observation about men's lack of involvement with agricultural activities is generally correct, then it was up to the rest of the household, mainly women and children, to manage the planting, tending, harvesting, and processing of the cultivated foods. One strategy Catawba women may have pursued was interhousehold work groups. This kind of corporate organization likely served to build and solidify social relationships between different households within the community, and by pooling their collective labor, Catawba women could more easily manage large fields, especially during labor intensive tasks such as harvesting or shucking corn. Nineteenth-century Catawba households were known to host feasts after corn huskings or dances (Speck 1939). I suggest this practice of small-scale, interhousehold feasting is evident at Ayers Town, which further supports the idea that Ayers Town households practiced a community strategy that is more corporate in nature as opposed to the more independent household strategy pursued by Old Town households.

The consumption of alcohol by Catawbas was often used by some white observers to explain the many social ills they perceived including the apparent decline in "productive" activities like hunting and agricultural cultivation by the 1770s (Jones 1815; Smythe 1772). By the 1780s, the Catawbas were increasingly involved in the leasing of reservation lands to white settlers for nominal yearly rent payments. In lieu of cash payments, some less-scrupulous tenants paid their rent in whiskey, old clothes, or other provisions (Pettus 2005:44). An Indian agent for the Catawba asserted that:

> by the time the Indians ceased spending so much of their time down the country, the Leaseholders had a reasonable quantity of Land cleared; and it being fresh, and the people industrious, it produced bountifully of corn, and all kinds of small grain. At that time they had no market for their small grain, on which account nearly every tenth family procured a still, and commenced making whiskey, and took it the Black river and Stateburg. When the Indians came home they had given up all idea of farming. The women had formerly attended to this department, but they had came home as lazy, indolent, and intemperate as the men, and even more so. They spent their time traveling about collecting their rents and lying about still-houses and grog shops" (Hutchison 1843)

It is worth noting that while alcohol no doubt caused considerable damage to many Native communities, including the Catawba, we must acknowledge that a certain amount of racial bias underlies narratives of Indian drunkenness and must be viewed critically. The over-indulgence of alcohol was certainly not unique to Indian communities during colonial times; however, perceptions of violence associated with Indian drunkenness served to exaggerate fears and anxiety among officials and settlers alike (Mancall 1995; Williams 2005).

The ethnographic record also indicates that Catawba foodways not only changed in terms of *what* they were eating, but also *how* they were eating. By all accounts, King Hagler was an astute and capable political leader for his people and, given his many connections and close interactions with the English, he adopted certain components of their material culture and customs that he likely viewed as prestigious or advantageous. In the early 1760s, after meting out capital punishment to a fellow Catawba accused of murdering a white man, King Hagler invited the assembled group of concerned white men, including the prominent local settler Thomas Spratt, to dine with him (Brown 1966:242-3). According to local lore, the white men readily accepted the invitation and were treated to Hagler's best attempts at English fine dining protocols. The dinner was described as follows:

> The repast was venison without salt, and sweet potatoes roasted on the coals and served on pieces of pine bark for plates; and directly as they began to eat, the king would order the attendants to remove it and bring a fresh piece of bark with another supply of venison and potatoes. This was repeated several times, and done in imitation, Mr. Spratt said, of a

> dinner Hagler had once had the honor of taking with Governor Bull, in Charleston, where the changing of plates had struck his fancy as something very grand, and he now observed the style in honor of his white guests. [Moore 1981:12-13]

Just like King Hagler's desire to have a European-styled log cabin likely accelerated its wide-spread adoption throughout the rest of the Nation, Hagler's selective use of formal English dinner service might have inspired the production and use of certain colonoware forms discussed in the previous chapter. Although Moore specifically notes pine bark being used as plates, the archaeological record at Old Town suggests that Catawba-made imitations of English dinner plates were being produced around the time this dinner would have taken place. It should be noted that despite Moore's unusually detailed descriptions of the Hagler dinner party, he was writing about events that took place decades before he was born (b. 1795) and of which he certainly heard second hand, perhaps from members of the Spratt family. While the story likely conforms broadly to real events, particular details of the menu and place settings are best taken with a grain of salt, like the venison.

The ethnohistoric evidence provides several key insights into how Catawba subsistence strategies changed during late eighteenth century. First, there seems to be an overall reduction in the emphasis on agricultural production through time. This is not to say that Catawba's stopped farming completely, but rather many Catawba households became increasingly reliant on other sources of economic subsistence. Many of these alternative economic pursuits were directly or indirectly connected to the English colonial system, including provisioning by the South Carolina government (Blumer 1987), land-lease payments (Hutchison 1843; Mills 1826; Pettus 2003), the sale of earthenware pottery and cane baskets (Jones 1815; Gregorie 1925:21; Scaife 1896; Simms 1845; Smyth 1772; Speck 1946), and periodic employment as slave catchers (Hutchison 1843) and day laborers (Brown 1966; Scaife 1896). Many of these activities meant

that some or all of certain Catawba households, especially those involved with selling pottery, were away from their towns for extended periods of time. This translated into less time spent tending gardens and less collective labor for communal agricultural activities. Raising and keeping livestock was one apparent response to the decline in farming. As Hutchison notes, the Catawba did little to care for their animals, letting their cattle, hogs, and fowl range freely, and thus requiring comparatively little labor investment.

Previous Studies

Five previous studies have addressed historic Catawba foodways from various perspectives. The first study in the Catawba region was conducted by Jamie Civitello (2005) and presented the macrobotanical analysis of samples recovered from the Spratt's Bottom site (38YK3). Spratt's Bottom is a large multi-component site that includes two primary occupations: a prehistoric component dating between A.D. 920 and 1276 and a historic Catawba component from ca. 1720 to 1750 based on kaolin pipe stem dates (Civitello 2005:47; Levy 1993; May and Tippet 2000). Spratt's Bottom is situated within the Nation Ford Locality (see Figure 3.1) on one of the largest alluvial bottomlands along the lower Catawba River Valley and may have been the principal town for one or more of the Catawba's core communities prior to 1750. Spratt's Bottom is significant for being one of the only early eighteenth-century Catawba sites currently known and investigated archaeologically.

Civitello framed her study from an anthropogenic landscape perspective in which she attempted to reconstruct and compare the environmental landscapes associated with the prehistoric and historic occupations at the site. Civitello's analysis included 19 flotation samples, seven of which were associated with the historic Catawba occupation. Hickory, acorn, and corn were abundant in nearly all Spratt's Bottom samples though she identified a higher nutshell-to-wood ratio and a more diverse nut assemblage during the prehistoric occupation, suggesting

more diversified plant use (Civitello 2005:98–99). She also noted a 21% to 71% increase in the ubiquity of corn from the prehistoric to historic assemblages. Combined with a dramatic increase in pine charcoal over oak and hickory from increased land clearing activities and/or firewood gathering, Civitello argues that the residents of Spratt's Bottom occupied a younger and more intensely modified landscape during the historic occupation (ca. 1720-1750). Fitts (2015a:364) argues this pattern is indicative of settlement aggregation and the longevity of Nation Ford towns during the early eighteenth century.

Fitts's (2015a) dissertation research focused on the Catawba settlements of Nassaw-Weyapee and Charraw Town during the 1750s. She set out to explain how the Catawba Indian Nation's formation, development, and ultimate persistence on the colonial landscape was fundamentally intertwined with that of the establishment and growth of the imperial endeavor called Carolina. Fitts explains the relationship between Catawba militarism and foodways, and more specifically food insecurity, and the effect these had on the lives and political identities of the Catawba people during the mid-eighteenth century. Fitts ties together ceramic, spatial, and archaeobotanical lines of archaeological evidence to argue settlement aggregation, a typical strategy for coalescent societies, on the one hand provided benefits for its strategy for militarization, while at the same time exposed the community to new sources of food insecurities. These food insecurities, she argues, became compounded during the 1750s when a significant drought hit the region, and this likely produced nutritional stress that made the Nation more highly susceptible to infection when smallpox raged through the community in 1759, more so than during previous epidemics. Based on the statistical analysis of macrobotanical remains from these 1750s-era sites, Fitts argues that food insecurity existed during the occupation of

these communities and that each community responded to this stress in different ways, further suggesting the presence and maintenance of distinct communities of producers.

In addition to her dissertation research, Fitts (2015b) conducted an analysis of macrobotantical remains from Ayers Town. This archaeobotanical analysis was based on a subsample of 39 flotation samples from storage and cellar pit fills representing 13 different features and included all five residential complexes. By comparing the Ayers Town plant remains with the earlier Nassaw-Weyapee and Charraw Town assemblages, Fitts argued that no dramatic change in plant use appeared to coincide with the other major shifts occurring within the Catawba community in the latter half of the eighteenth century (Fitts 2015b:251). While the presence and ubiquity of corn at all three sites confirms its continued status as a primary staple food, a few differences did stand out that suggest a change in corn processing or cooking behaviors. Fitts observed higher standardized corn kernel counts relative to corn cupules at Ayers Town and suggested two possible explanations. First, it may indicate that Ayers Town women processed corn in larger communal groups than those at either Nassaw or Charraw Town. Alternatively, this change in corn processing may reflect a greater shift toward the "just add water" cooking method reserved for travel foods described by Lady Liston. This latter technique, which relied on producing corn flour for boiling in a pot, may reflect the increasing itinerancy of the Catawbas as they became more engaged in the market production of trade pottery.

Another notable pattern in the Ayers Town plant data indicates a preference for warm-season crops (Fitts 2015b). While evidence for wild nut-collecting at Ayers Town appears comparable to the Nassaw-Weyapee community, Ayers Town residents seemed to utilize less fleshy fruits than their 1750s counterparts overall. The absence of indigenous spring-ripening grass seeds and the lack of European cereal grains, which as Fitts points out were being farmed

by other American Indian groups by this point, also contribute to the idea of a seasonal preference that may reflect greater seasonal mobility related to itinerancy.

One of the few archaeofaunal analyses in the Catawba region was conducted by Thomas Whyte (2015). He provides a cursory analysis of the animal remains recovered from not only Ayers Town, but also Old Town and New Town. He found that all three sites displayed a "remarkable array of wild species" with the assemblages being dominated by fish remains. Bony fish remains comprised nearly 31% of the total enumerated specimens and represent at least 12 species, including gars, minnows, suckers, catfishes, sunfishes, and basses (Whyte 2015:255). This abundance of fish is not overly surprising given the site's proximity to the Catawba River and the ethnographic evidence for Catawba fishing practices (Speck 1946). White-tailed deer were the most common identifiable wild mammal species at all three sites, though Whyte points out a general trend of diminished evidence for hunting through time in favor of domesticated species like pig and cattle. Ayers Town stands in contrast to this trend, however. Whyte notes that White-tailed deer are far more abundant at Ayers Town than domesticated species and that this difference could not be explained by temporal or geographic differences (Whyte 2015:256). He suggests that the relative difference between deer and domesticated animal remains at Ayers Town may reflect ethnic preferences or differential economic engagement with white settlers.

Rosemarie Blewitt's (2016) recent research combines her archaeobotanical analysis of plant remains from the historic Catawba sites of Old Town and New Town, with existing botanical and faunal data from reported by Fitts (2015a) and Whyte (2015). Blewitt analyzed 39 flotation samples from 16 feature contexts at Old Town, which resulted in a total of 318 liters of fill analyzed. One sample from Feature 22 was floated from 1/16-inch fine-screen washings and so it does not directly comparable to the other samples. The majority of those samples came from

features interpreted to be sub-floor cellar pits and so are directly associated with the households I defined in Chapter 4. While she did not find any discernable patterns at the household level, it is important to note that her analysis mainly focused on the broad spatial and temporal divisions at the site (Locus 1 vs. 2 and Old Town I vs. Old Town II, respectively) and did not include the household units I rely on here.

Blewitt found that the vast majority of identifiable plant material came from just a few pits features (Features 14, 16, and 18), all of which were located in Locus 2. She found that the Old Town plant assemblage represented a relatively narrow range of plant resources though she noted that more wild resources in general were represented at Locus 2 than at Locus 1. This likely has to do with sampling bias (25 out of 40 samples came from Locus 2). Corn ubiquity was 80 % from the earlier Old Town I component and 100 % within Old Town II features. Both components had low kernel-to-cupule ratios which indicate onsite processing. There was relatively little nut shell, however. When compared to earlier 1750s Catawba contexts (Fitts 2015a), Blewitt suggests that there was a decrease in botanical diversity through time, representing a loss of Traditional Ecological Knowledge (TEK). She argues this apparent loss of TEK was a result of the chaos and crisis caused by the colonial encounter, specifically the 1759 smallpox epidemic, and reflects a survival strategy in which Catawbas discarded and/or lost ecological knowledge that impacted the community's subsistence patterns.

Botanical and Faunal Recovery Methods

The evidence for Catawba food-related activities presented here is derived from the animal bones and macrobotanical plant remains recovered during the 2003 and 2009 field seasons at Old Town, and the 2010-2011 Ayers Town fieldwork. Recovery and sampling strategies varied by context. With the exception of 55 m^2 in Locus 1 at Old Town and the mechanically stripped portions of Ayers Town (see Chapter 3), all soil representing plowzone

contexts excavated from 1x1 m^2 units were screened through quarter-inch wire mesh screen to recover artifacts and animal bone. This sampling method favors the recovery of durable fragments of bone and teeth from large animals, but due to humid and acidic soil conditions typically found in many parts of the Catawba River Valley, the preservation of plant and animal remain is generally poor outside of intact pit features and not expected in great quantities.

Primary and secondary depositional fill associated with feature contexts, especially deep refuse-filled cellar pits, usually has more favorable conditions for the preservation of food remains. The inclusion of ash and charcoal in pits from hearth sweepings and cooking fires, whether incidental or intentional, both lowers the acidity of the soil leading to better bone preservation and greatly increases the chances of charred seeds and other plant material surviving in the archaeological record. Field procedures for most pit features consisted of collecting 10-liter bulk soil samples for flotation from each half of each zone. The entire feature or zone was floated if it contained less than 10 liters. Smudge pits, which often consisted entirely of charred corn and other plant material, were floated in their entirety regardless of volume. The remaining soil from pits and all postholes was processed using an on-site waterscreening apparatus in which sediment was washed through a graduated series of wire-mesh screens with the finest being 1/16-inch, ensuring the recovery of very small elements from fish and other taxa.

Bulk flotation samples were processed following standard conventions discussed by Watson (1976) using a SMAP-type machine that recovered heavy fractions in 0.01-in (0.25-mm) mesh and light fractions in approximately 125μ chiffon fabric. Since standardization based on sample volume is needed for quantitative comparison to demonstrate that differences are not due simply to variation in amount of soil processed, the volume of each sample was measured in a calibrated bucket prior to flotation (Blewitt 2016:35). Blewitt (2016) and Fitts (2015a) both note

that even though poppy seed recovery rates for the RLA version of this system have not been established (Wagner 1982), the fact that tobacco seeds have been identified from other samples processed with this system indicate this method's efficacy.

All animal bone recovered from the field was washed in the lab and sorted from washings according to size (> ½ in, ½ - ¼ in., ¼ - 1/16 in). The animal bone specimens from Old Town and Ayers Town, as well as New Town, were sent to Dr. Thomas Whyte at Appalachian State University for identification. A summary of his methods, potential bias, and results are discussed briefly in his contribution to the Ayers Town report (Whyte 2015).

Plant Assemblages

The plant remains discussed here from Old Town and Ayers Town are organized using the household units laid out in Chapter 4; for detailed descriptions of the initial macrobotanical analyses and results, see Blewitt (2015, 2016) and Fitts (2015b). Of the 103 flotation samples recovered and processed from Old Town, 40 were selected for macrobotanical analysis. These samples represent 18 individual feature contexts from all four household complexes and comprise a combined 318 liters of feature fill yielding approximately 841.3 grams of recovered sample material (Table 6.1; Figure 6.1). The majority of the selected samples are from sub-rectangular storage pits interpreted as interior sub-floor cellar pits.

One difference between the analysis presented here and that of Blewitt (2016) is the introduction of my household analytical units and the adjusted temporal designation of Feature 16. Based on my preliminary observation of the low frequency of Catawba pale-bodied wares, Blewitt assigned Feature 16 to the later Old Town II occupation. Upon further analysis that considers the correspondence of glass bead types, I believe this feature is more closely associated with the Old Town I household designated OC. This change in designation contributes to a small difference in the total frequencies of identified plant material, but the change is worth noting.

The archaeological investigations at Ayers Town resulted in 186 flotation samples being recovered and processed. Of these, 39 were selected for further analysis (Table 6.2; Figure 6.2). These 39 samples, representing 13 feature contexts, comprised nearly 329 l of fill and yielded 186.2 g of total plant material. All five household complexes were represented in the selected samples as was the unassigned Feature 140, but the coverage was not necessarily distributed evenly across all the complexes. While a concerted effort was made to select a representative sample from across the site, due to the large number of deeply stratified pits with rich deposits of charred plant material, Household Complex AD is over-represented in terms of number of samples and total number of liters analyzed.

Table 6.1. Features sampled for archaeobotanical analysis at Old Town by Household unit.

Household/ Feature #	Component	Locus	Feature Type	# Samples Analyzed	Total Liters	Total Weight (g)
OA						
1	OTI	1	circular, basin-shaped pit	2	20	3.96
2	OTI	1	sub-rectangular storage pit	2	20	6.73
5	OTI	1	sub-rectangular storage pit	1	10	3.69
OB						
4	OTII	1	circular storage pit	3	30	6.89
6	OTII	1	sub-rectangular storage pit	2	20	9.23
7	OTII	1	sub-rectangular storage pit	4	40	43.00
OC						
12	OTI	2	sub-rectangular storage pit	2	18	53.07
15	OTI	2	sub-rectangular storage pit	1	10	58.56
16	OTI	2	basin-shaped borrow pit	2	17	34.20
18	OTI	2	sub-rectangular storage pit	6	40	228.00
OD						
10	OTII	2	circular, basin-shaped pit	1	14	19.34
11	OTII	2	sub-rectangular storage pit	1	13	124.60
14	OTII	2	sub-rectangular storage pit	10	62	213.48
Unassigned						
19	---	1	circular pit	1	1	0.96
21	---	2	cob pit	1	3	17.97
22	---	2	refuse-filled tree disturbance	1	---	17.60
Total:				40	318	841.28

Table 6.2. Features sampled for archaeobotanical analysis at Ayers Town by Household unit.

Household Feature #	Feature Type	# Samples Analyzed	Total Liters	Total Weight (g)
AA				
4	sub-rectangular cellar pit	2	18.5	9.79
AB				
55	rectangular cellar pit	1	15	1.48
74	small storage pit	1	14	5.00
AC				
27	small storage pit	2	13	0.54
107	sub-rectangular cellar pit	4	47	14.56
AD				
5	circular cellar pit	4	38.5	29.17
33	sub-rectangular cellar pit	7	56	2.08
123	circular cellar pit	5	12.38	60.24
AE				
158	circular basin-shaped pit	1	10	1.22
162	sub-rectangular cellar pit	3	33	11.77
170	small storage pit	1	6.75	10.61
185	small storage pit	3	16	20.97
AU (Unassigned)				
140	oval basin-shaped pit	5	48.5	18.76
Total:		39	328.63	186.19

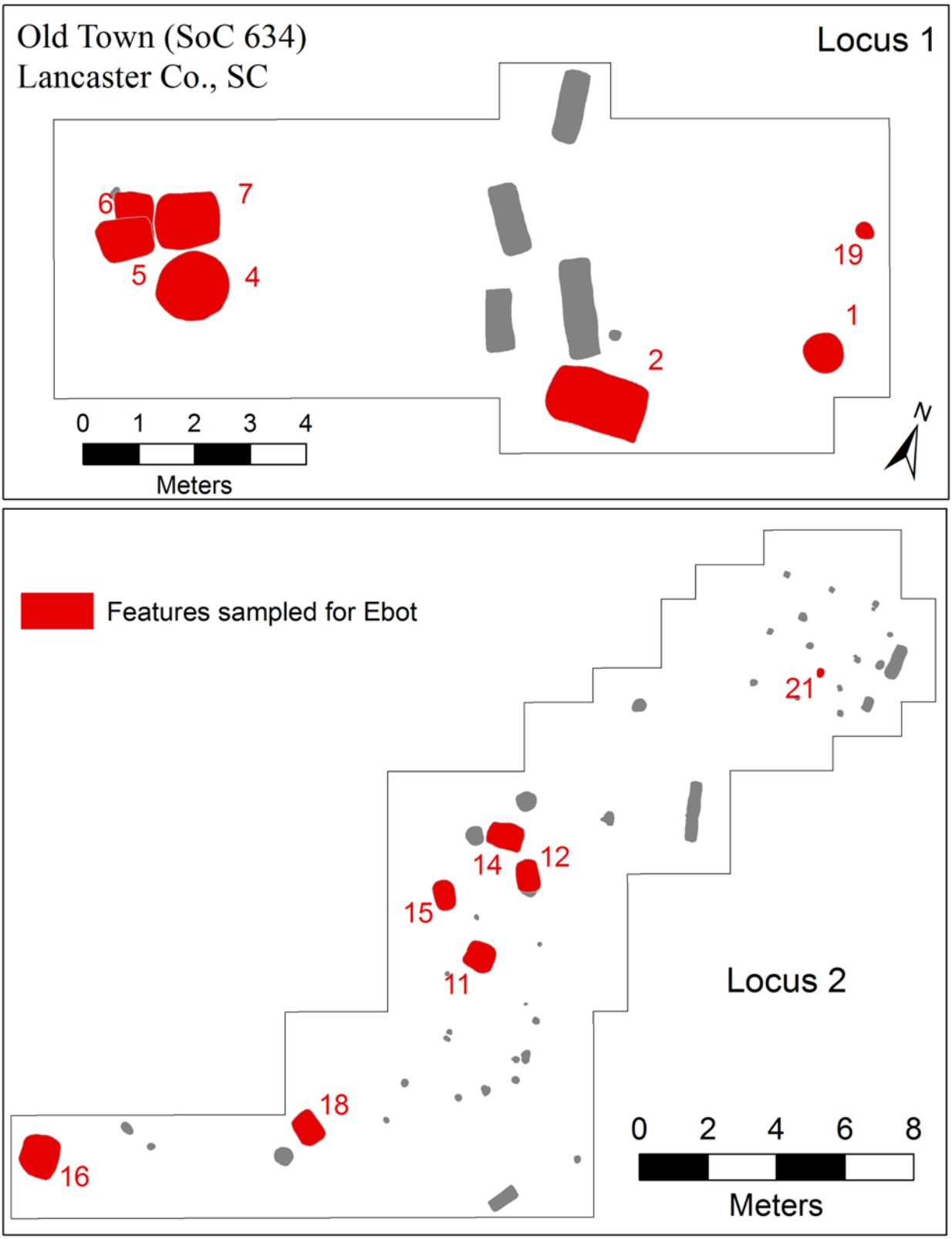


Figure 6.1. Map of Old Town excavations indicating the features sampled for archaeobotanical analysis.

Table 6.3. Counts and Weights of Plant Remains from Old Town.

Household Complex	**OA**		**OB**		**OC**		**OD**		**Total**	
Number of Samples	5		9		11		12		37	
Total Volume (liters)	50		90		85		89		314	
Total Sample Weight (g)	14.38		59.12		373.83		357.42		804.75	
	Ct	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Nutshell (Total)					47	0.47	154	2.80	201	3.27
Carya sp. (hickory) (>2 mm)					33	0.46	91	1.30	124	1.76
Carya sp. (hickory) (<2 mm)					14	0.10	51	0.11	65	0.21
Juglans sp. (walnut)							1	0.66	1	0.66
Querus sp. (acorn)							2	0.10	2	0.10
Wood (Total)		3.84		14.80		92.56		92.81	0	204.01
Bark					11	0.21	35	0.61	46	0.82
Seed (Total)	5		55		36		93		189	0.00
Chenopodium sp. (goosefoot)	1								1	0.00
Cucurbit (*c.f. Cucurbita sp.*)					4				4	0.00
Diospyros virginiana (persimmon)							15	0.17	15	0.17
Eleusine indica (goose grass)	2		47						49	0.00
Fragaria sp. (strawberry)					2				2	0.00
Panicum sp. (panic grass)					1		2		3	0.00
Passiflora incarnata (maypops)			4				14		18	0.00
Phytolaca americana (pokeweed)	1				2				3	0.00
Poaceae (grass family)					2		1		3	0.00
Portulacaceae (*c.f. Calandrinia sp*.)							2		2	0.00
Prunus persica (peach pit)							34	1.11	34	1.11
Rubus sp. (raspberry)			2		2		5		9	0.00
Vaccinium sp. (blueberry)							2		2	0.00
Vitis sp. (grape)					9		1		10	0.00
Total Identified Seeds	4		53		22		85		164	0.00
Unidentified					14		7		21	0.00
Unidentifiable	1		2				1		4	0.00
Zea mays (corn) Total	9	0.40	20	0.80	590	3.64	606	4.84	1225	9.68
Total Kernel Pieces	1	0.10	5	0.60	45	0.36	123	0.28	174	1.34
Z. mays kernel >2mm	1	0.10	4	0.60	22	0.36	44	0.26	71	1.32
Z. mays kernel <2mm			1		23		79	0.20	103	0.20
Total Cupule/Glume	8	0.30	15	0.20	534	2.80	462	3.28	1019	6.58
Z. mays cupule/glume >2mm	4	0.20	7	0.20	177	2.44	239	2.98	427	5.82
Z. mays cupule/glume <2mm	4	0.10	8		357	0.36	223	0.30	592	0.76
Z. mays cob fragment					2	0.46	21	1.28	23	1.74
Z. mays glume					6	0.10			6	0.10
Z. mays embryo					3	0.10			3	0.10
Other botanicals Total	4	0.63		3.97	174	23.76	557	19.22	735	47.58
Amorphous	4	0.50			13	1.47	471	3.96	488	5.93
Cucurbita rind (>2 mm)					2	0.20	2	1.10	4	1.30
Uncarbonized (>2 mm)		0.58		3.97		21.96		12.52	0	39.03
Unidentified (>2 mm)					16	0.16	69	0.64	85	0.80
Residue weight		9.75		39.63		259.63		233.49	0	542.50
Total	18	14.26	75	58.57	858	381.10	1445	354.34	2396	808.27

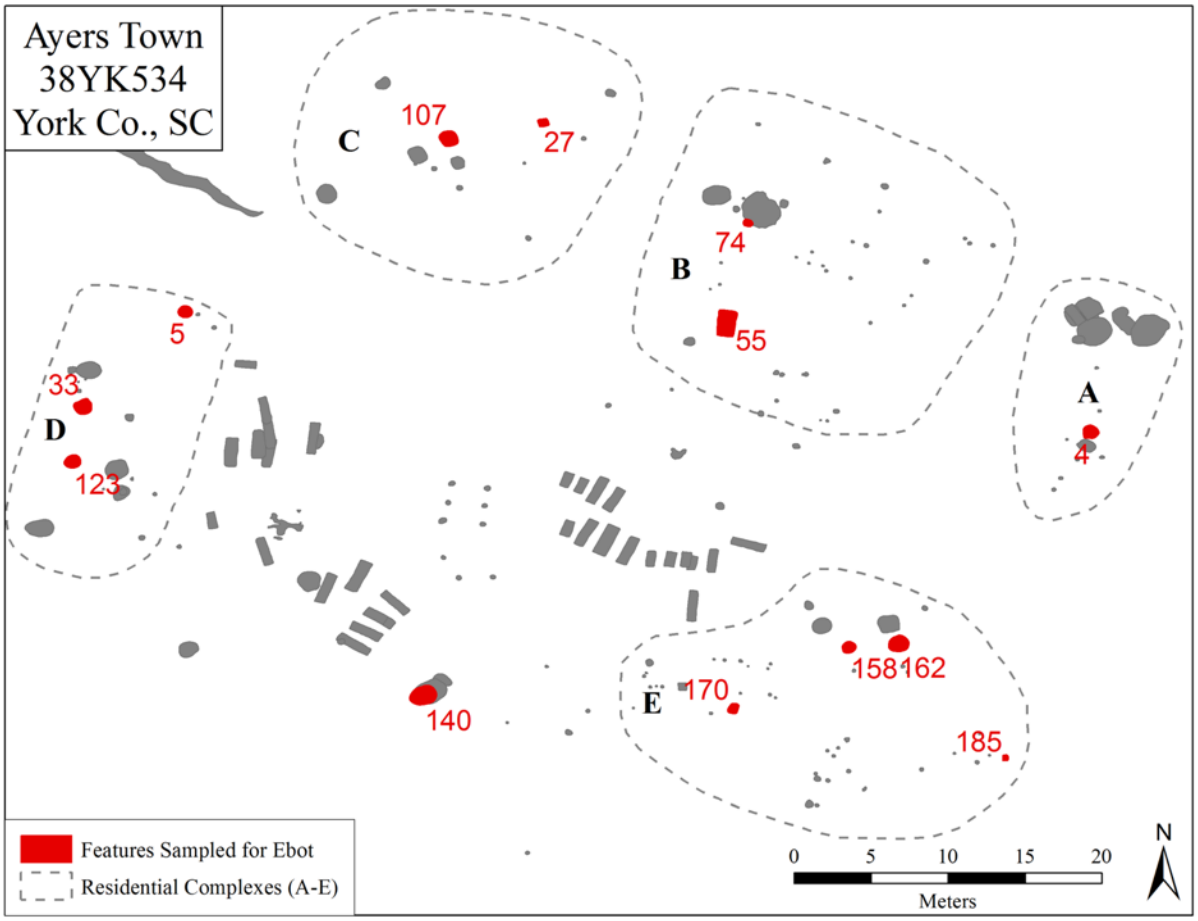


Figure 6.2. Map of Ayers Town excavations indicating the features sampled for archaeobotanical analysis.

Table 6.4. Counts and Weights of Plant remains from Ayers Town.

Household Complex	**AA**		**AB**		**AC**		**AD**		**AE**		**AU**	
Number of Samples	2		2		6		16		8		5	
Total Volume (liters)	18.5		29		60		229/107*		86/65.75*		65/48.5*	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Nut meat (Total)							8	0.28	1	0.2	4	>.3
Carya sp. (hickory) (>2 mm)											3	0.3
Carya sp. (hickory) (<2 mm)											1	<.1
Querus sp. (acorn) (>2 mm)							6	0.27	1	0.2		
Querus sp. (acorn) (<2 mm)							2	0.1				
Nutshell (Total)	41	0.47	2	<.1	67	0.23	14	0.1	58	0.62	11	0.8
Carya sp. (hickory) (>2 mm)	29	0.43	2	<.1	6	<.1	11	<.1	43	0.62	8	0.7
Carya sp. (hickory) (<2 mm)	11	0.04			1	<.1			15	<.1	3	0.1
cf. Carya sp. (hickory) (<2 mm)					3	0.1	1	0.1				
Querus sp. (acorn) (>2 mm)					16	0.13	2	<.1				
Querus sp. (acorn) (<2 mm)	1	<.1			41	<.1						
Wood (Total)		6.64		5.32		10.47		76.5		27.01		14.69
Seed (Total)	150		47		225		90		64		39	
Chenopod							1	<.1				
cf. Coffea sp. (coffee)			1	<.1			1	<.1				
Compositae							1	<.1				
Datura stramonium (jimsonweed)	114	>.1			3	<.1			6	<.1	8	<.1
Diospyros virginiana (persimmon)							1	<.1			2	0.8
Euphorbia sp.(spurge)					1	<.1	1	<.1				
Fabaceae sp. (pea)					2	0.1	3	0.1	2	0.1	1	0.1
Ipomoea sp.(morning glory)									1	0.1		
Morus sp.(mulberry)	1	<.1			1	<.1						
Nicotiana sp.(tobacco)			1	<.1	116	<.1					1	<.1
Passiflora incarnata (maypops)					2	<.1	16	0.15	1	<.1	1	<.1
Phytolaca americana (pokeweed)	10	0.1					11	<.1	1	<.1	1	<.1
Poaceae (grass family)					2	<.1	1	<.1				
Portulaca oleracea(purslane)					1	<.1	9	<.1	1	<.1		
Prunus persica (peach pit) (>2mm)	2	0.8			26	0.24	4	0.19	23	0.4	3	0.6
Prunus persica (peach pit) (<2mm)					6	0.3	1	<.1	9	0.5	2	0.1
cf. Rhus sp. (sumac)											1	<.1
Rubus sp. (raspberry)	6	<.1	44	0.1	63	<.1	10	<.1	14	<.1	1	<.1
Sambucus sp. (elderberry)							11	<.1				
Solanaceae sp.(nightshade family)									2	<.1	4	<.1
Vaccinium sp. (blueberry)	1	<.1										
Vitis sp. (grape)	10	0.3			1	0.1					4	<.1
Weedy legume	1	<.1					1	<.1	1	<.1		
Unidentified	5	0.01	1	<.1	1	<.1	18	<.1	3	<.1	10	<.1
Zea Mays (corn) (Total)	98	2.4	18	1.3	301	2.28	252	3.77	740	11.04	65	1.35
Total Kernel Pieces	4	0.5			3	0.2	4	0.3	17	<.1	30	0.18
Z. mays kernel >2mm	2	0.4			3	0.2	2	0.3	15	<.1	21	0.18
Z. mays kernel <2mm	2	0.1					2	<.1	1	<.1	9	<.1
cf. Zea mays kernel >2mm									1	<.1		
Z. mays (cob section)									1	1.11		
Z. mays (cob row)	2	1.49	5	0.2	8	0.6	27	1.85	48	3.42	3	0.8
Total Cupule	92	0.41	13	1.1	290	1.48	220	1.62	674	6.51	32	0.37
Z. mays cupule >2mm	57	0.41	12	0.9	171	1.48	27	1.62	632	5.82	27	0.17
Z. mays cupule <2mm	35	<.1	1	0.2	119	<.1	194	<.1	42	0.69	5	0.2
Other botanicals												

Household Complex	**AA**		**AB**		**AC**		**AD**		**AE**		**AU**	
Number of Samples	2		2		6		16		8		5	
Total Volume (liters)	18.5		29		60		229/107*		86/65.75*		65/48.5*	
	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.	Ct.	Wt.
Cucurbita rind (>2 mm)									1	0.1		
cf. Pinus sp. (pine cone frag.)	2		84		1		626		132		1	
Total	291	10.7	151	6.7	593	13.7	990	81.2	996	39.9	120	18.7

*Subsampled volume

The counts and weights of identified plant remains from Old Town and Ayers Town are presented in Tables 6.3 and 6.4, respectively. The large difference between the total plant weight associated with these two assemblages is partly a product of the different reporting practices by the two analysts. While Blewitt (2016) reported residue weight as a portion of the total sample weight for the Old Town samples, Fitts did not report residue weight, but instead recorded the total plant weight of each sample. If residue weight is removed from the Old Town totals, the disparity between recovered plant weight is not as extreme with 265.8 g from Old Town and 170.9 g from Ayers Town. Another factor contributing to the larger weight totals from Old Town is the greater amounts of charcoal recovered from these samples, specifically from contexts associated with households OC and OD.

Animal Assemblages

Like the macrobotanical remains, I organized the archaeofaunal data by household complex. Tables 6.5 and 6.6 present the total Number of Identified Specimens (NISP) counts and bone weight totals associated with each feature and household at Old Town and Ayers Town. While most Catawba households contain several hundred specimens each, Households OB (Old Town) and AC (Ayers Town) stand out as having the smallest amount of recovered bone by weight and fewest NISP of any other household cluster at each site. It is not immediately clear why these household clusters have fewer bone fragments but differences in household consumption and disposal patterns no doubt play a factor.

Tables 6.7 and 6.8 contain the Number of Identified Specimens (NISP) of each animal taxon identified from Old Town and Ayers Town organized by household unit, respectively. While his discussion of the animal assemblages from these Catawba sites was largely descriptive

Table 6.5. Summary of total Number of Identified Specimens (NISP) and total bone weight from Old Town by Household and Feature.

Household/Feature #	**NISP**	**Total Weight (g)**
OA		
1	84	54.4
2	310	329.2
OB		
4	10	4.3
6	8	2.4
7	1	1.3
OC		
12	2	2.1
13	35	63
15	14	13
16	109	609.9
17	26	7.8
18	583	662.2
OD		
10	1	0.1
11	227	110.1
14	720	527.4
Unassigned		
22	8	3.4
58	1	0.3
FS 161	2	4.2
Plowzone	18	22.5
Total:	2159	2417.6 g

Table 6.6. Summary of total Number of Identified Specimens (NISP) and total bone weight from Ayers Town by context.

Household/ Feature #	NISP	Total Weight (g)	**Household**/ Feature #	NISP	Total Weight (g)
AA			**AD**		
3	37	38	5	4	9.2
4	2	1.6	33	5	14.5
89	49	110.8	68	8	5.3
90	16	70.2	69	41	57.8
91	255	246.6	116	9	7.3
92	93	118.7	121	1	0.7
94	13	7.1	122	8	8.9
124	89	163.2	123	1196	505.2
AB			130	1	6
8	1	20.6	142	1	3.6
18	2	0.2	**AE**		
19	9	7.8	141	9	1.6
55	11	3.9	145	1	0.2
72	99	119.7	155	2	20.6
73	84	214.3	158	7	11.3
74	4	18.7	162	5	4.9
75	19	8.6	163	70	170.4
79	21	9	170	70	190.9
95	25	6.1	182	3	3.6
AC			185	59	163.8
101	1	10.7	**AU**		
106	1	1.2	102	8	3.4
107	22	280.7	114	1	0.7
108	11	73.5	139	30	23.8
109	2	5.3	140	1030	3237.9
164	1	0.5	190	281	283.2
			191	52	57.8
			Plow zone	20	15.4
			Total:	3785	6346.3 g

Table 6.7. Number of Identified Specimens (NISP) of Animal Remains from Old Town by Household. Adapted from Whyte 2015: Table 7.14.

Scientific Name	Common Name	OA NISP	OB NISP	OC NISP	OD NISP	Unassign NISP	Total NISP
Pleuroceridae	Aquatic Snail				1		1
Stylommatophora	Terrestrial Snail			2	11		13
Unionidae	Freshwater Mussel	7		3	19		29
Esox sp.	Pickerel				1		1
Moxostoma cf *carolina*	Carolina Redhorse	2					2
Scartomyzon braesius	Brassy Jumprock				1		1
Moxostoma sp.	Redhorse			1			1
Catostomidae	Sucker	6		3	7		16
Ameiurus brunneus	Snail Bullhead			3	1		4
Ameiurus sp.	Bullhead Catfish	1			49		50
Lepomis sp.	Sunfish	1			3		4
Micropterus salmoides	Largemouth Bass				4		4
Centrarchidae	Bass/Sunfish	6			7		13
Osteichthyes	Bony Fish	6		10	145		161
Caudata	Salamander				3		3
Bufo sp.	Toad			35	5		40
Chrysemys picta	Painted Turtle			1	7		8
Chrysemys sp.	Slider				1		1
Terrapene carolina	Eastern Box Turtle	3		4	5		12
Testudines	Turtle	7		5	11		23
Meleagris gallopavo	Wild Turkey				7		7
Gallus gallus	Domestic Chicken	7		3	5		15
Passeriformes	Perching Bird			2	2		4
Aves (medium)	Medium-sized Bird	1					1
Aves (large)	Large-sized Bird	7		6	46	1	60
Aves (indeterminate size)	Bird	1		1			2
Carnivora	Carnivore	1			1		2
Mus musculus	House Mouse				6		6
Rattus norvegicus	Norway Rat	9					9
Muridae	Old World Rat	1					1
Sciurus sp.	Tree Squirrel	3			1		4
Rodentia	Rodent	6	1				7
Sylvilagus sp.	Cottontail				10		10
Odocoileus virginianus	White-tailed Deer	3	1	52	30	1	87
Bos Taurus	Domestic Cattle	7		3	2		12
Sus scrofa	Domestic Pig	16	3	48	57	1	125
Artiodactyla	Even-toed Mammal	6			1		7
Mammalia (large)	Large Mammal	74	1	85	46	1	210
Mammalia (small)	Small Mammal	4		1	2		7
Mammalia	Mammal	209	13	501	451	22	1196
Vertebrata	Vertebrate						*
Total Counted Specimens							2,159

*Unidentified vertebrate remains were weighed (110 g) but not counted.

Table 6.8. Number of Identified Specimens (NISP) of Animal Remains from Ayers Town by Household. Adapted from Whyte 2015: Table 7.12.

Scientific Name	Common Name	AA NISP	AB NISP	AC NISP	AD NISP	AE NISP	AU NISP	Total NISP
Stylomatophora	Terrestrial Snail	2					1	3
Elliptio icterina	Variable Spike					1		1
Elliptio complanata	Eastern Elliptio					4	7	11
Elliptio sp.	Elliptio		1					1
Unionidae	Freshwater Mussel	4	1		3	3	27	38
Lepisosteus osseus	Longnose Gar						4	4
Nocomis leptocephalus	Bluehead Chub				2			2
Moxostoma collapsum	Notchlip Redhorse				2			2
Carpoides cyprinus	Quillback						1	1
Moxostoma sp.	Redhorse	1	1			1		3
Ameiurus brunneus	Snail Bullhead				8		3	11
Ameiurus catus	White Catfish				2		24	26
Ameiurus nebulosus	Brown Bullhead				1		2	3
Ameiurus platycephalus	Flat Bullhead				1		3	4
Ameiurus sp.	Bullhead	7			23	5	93	128
Esox niger	Chain Pickerel				28			28
Lepomis auritus	Redbreast Sunfish				1			1
Lepomis gullosus	Warmouth Sunfish				3			3
Lepomis sp.	Sunfish	1			19			20
Micropterus salmoides	Largemouth Bass				25	2	11	38
Centrarchidae	Bass/Sunfish				17		17	34
Osteichthyes	Bony Fish	18	7	2	305	11	512	855
Bufo sp.	Toad	10			10		5	25
Rana sp.	Frog		1					1
Kinosternon subrubrum	Eastern Mud Turtle				1			1
Chrysemys sp.	Slider/Cooter	2			3		5	10
Terrapene carolina	Eastern Box Turtle	8	8		2	2	18	39
Testudines	Turtle	5	1		13	6	19	44
Anas platyrhynchos	Mallard				1		1	2
Meleagris gallopavo	Wild Turkey	1	1			3	15	20
Gallus gallus	Domestic Chicken	5	1		18	3	4	31
Zenaida macroura	Mourning Dove	1						1
Colaptes auratus	Common Flicker				7			7
Dryocopus pileatus	Pileated Woodpecker				1			1
Cyanocitta cristata	Eastern Blue Jay						1	1
Mimidae	Mimic Thrush						1	1
Fringillidae	Sparrow				4			4
Passeriformes	Perching Bird				16	1		17
Aves (small)	Small Bird				3			3
Aves (medium)	Medium Bird		2					2
Aves (large)	Large Bird	11	7		11	4	55	88
Aves	Bird	2	6		56		15	79
Didelphis virginiana	Opossum				6		1	7
*Canis familiaris**	Domestic Dog						1	1
Canis sp.	Dog/Wolf				1		1	2
Ursus americanus	Black Bear					1		1

Scientific Name	Common Name	AA NISP	AB NISP	AC NISP	AD NISP	AE NISP	AU NISP	Total NISP
Procyon lotor	Raccoon		1					1
Sciurus carolinensis	Gray Squirrel		2		32		5	39
Sciurus sp.	Tree Squirrel		13					13
Sylvilagus sp.	Cottontail	1			4		2	7
Sus scrofa	Domestic Pig	14	7	5	76	9	33	144
Odocoileus virginianus	White-tailed Deer	31	30	3	47	12	35	158
Cervidae	Deer/Elk				3			3
Bos Taurus	Domestic Cattle	3	1	3	2	2	13	24
Artiodactya	Even-toed Mammal	5		1	3		4	13
Equus caballus	Domestic Horse				1		2	3
Mammalia (small)	Small Mammal		4		21		10	35
Mammalia (large)	Large Mammal	25	26	1	184	25	19	246
Mammalia	Mammal	397	154	23	344	131	445	1,494
Vertebrata	Vertebrate							24
Total Counted Specimens								3,785

* *Canis familiaris* (dog) specimens include a nearly complete skeleton of a young (less than one month) pup recovered from Feature 140.

**Unidentified vertebrate remains were weighed (149 g) but not counted.

and focused primarily on Ayers Town, Whyte found a few noteworthy trends. The Ayers Town assemblage was similar to other Catawba sites in that it contained a "remarkable array of wild species and are dominated by fish remains. But in contrast to the Old Town and New Town assemblages, remains of white-tailed deer are much more abundant than those of domestic stock" (Whyte 2015:256). He noted that this difference was not explained by temporal or geographic factors and posited that it may reflect possible ethnic preferences or differential economic engagement with whites.

It should be noted that in the following analyses, I combined several taxa together into larger groupings and excluded other taxa altogether. This was done for several reasons. First, as with some botanical specimens, not all animal taxa are easily identified to the same taxonomic level, especially if the specimen is fragmented, burned, or lacking distinguishing diagnostic features. Fish remains, for example, can be difficult to identify to the species level and are often only confidently categorized to the genus or family. For the sake of comparison, I have strategically collapsed certain taxonomic groups together to form larger classes of animals that shared similar characteristics. These animal types include fish, turtles, and small to medium mammals. I also removed certain animal taxa from the analysis. In most cases, the species omitted from the analysis represent taxa that are either usually introduced into the archaeological record by accident or unintentionally (e.g., snails and toads) or considered commensal species that often co-reside with humans that are not usually consumed for food (e.g., mice and rats).

Household Food Use

While there is considerable overlap in the species represented at both sites, a greater total number of plant and animal taxa were identified at Ayers Town. This pattern is more interesting when viewed in context of the site specific temporal units (Old Town I, Old Town II, and Ayers Town). Figure 6.3 shows that not only does Ayers Town have considerably more identified plant

and animal taxa than either Old Town component, but that there is an increase in the number of species represented through time at Old Town. In other words, Catawba households seem to have expanded their resource base following the American Revolution and those households at Ayers Town utilized the greatest diversity of food resources.

Of course not all plant and animal species were procured, processed, or consumed in the same ways or carried the same symbolic weight as other types of food. The differential usage of domesticated versus wild food resources by historic period Native communities has been discussed as one means to gauge the role of colonialism on these groups (VanDerwarker 2010). Very little archaeological or historical evidence exists to suggest that the late eighteenth century Catawba ever attempted to cultivate any staple European crops, such as wheat, barley, or rye. On the other hand, as mentioned earlier, the Catawbas were well accustomed to domesticated livestock and fowl, including at least pigs, cattle, chickens, and horses. Figure 6.4 shows the percentage of NISP of domesticated animal remains compared to wild animal remains at Old Town I and II, and Ayers Town. The most notable pattern is the dramatic decrease in domesticated faunal remains recovered in the post-Revolution deposits. This appears to corroborate David Hutchison's account of the Catawba's livestock being destroyed by British forces and taking several years to recover (Hutchison 1843). Both Old Town II and Ayers Town faunal assemblages have similarly high proportion of wild animals compared to Old Town I, but Ayers Town has the highest percent (78%).

While these simple charts appear to show a clear difference between the Old Town components and Ayers Town, a simple count of plant and animal taxa like this does not reflect differences in sample size. Species diversity is a concept used by biologists as a measure of the number of different species in a given community or environment, but it has been adopted by

archaeologists to talk about diversity within artifact or food assemblages and is usually described in terms of two dimensions—richness and evenness or equitability (Kintigh 1989; VanDerwarker 2010:67). Richness refers to the number of taxa in an assemblage and evenness relates to how uniformly those taxa are distributed across the samples. In order to account for differences in assemblage and sample sizes, and make comparisons across households at different sites more appropriate, I evaluate plant and animal food use within the Catawba assemblages using three different statistical approaches. First, I used Keith Kintigh's DIVERS and DIVPLT programs to measure and visually display the diversity of the Catawba plant and animal assemblages (Kintigh 1984, 1989, 1994). This method uses Monte-Carlo statistical models to determine expected diversity for a given distribution over a range of sample sizes and plots them on a line graph with a confidence interval. Archaeological assemblages can then be plotted on this graph such that those with higher-than-expected richness plot above the line and those with lower-than-expected richness plot below the line.

Using Kintigh's DIVERS program, I calculated the combined botanical and faunal richness of assemblages associated with the Old Town I, Old Town II, and Ayers Town components (Figure 6.5). Two key observations can be made from this analysis. First, the Ayers Town assemblage has an overall higher richness than either the Old Town I or Old Town II component. Second, even though the richness value for Ayers Town is below the expected (solid) line, it is the only component that still falls within the 90% confidence range (dotted lines). The Old Town I and Old Town II assemblages both had smaller sample sizes than Ayers Town, explaining their position further to the left on the x-axis. However, I believe their position far below the expected range represents a meaningful difference from Ayers Town. When

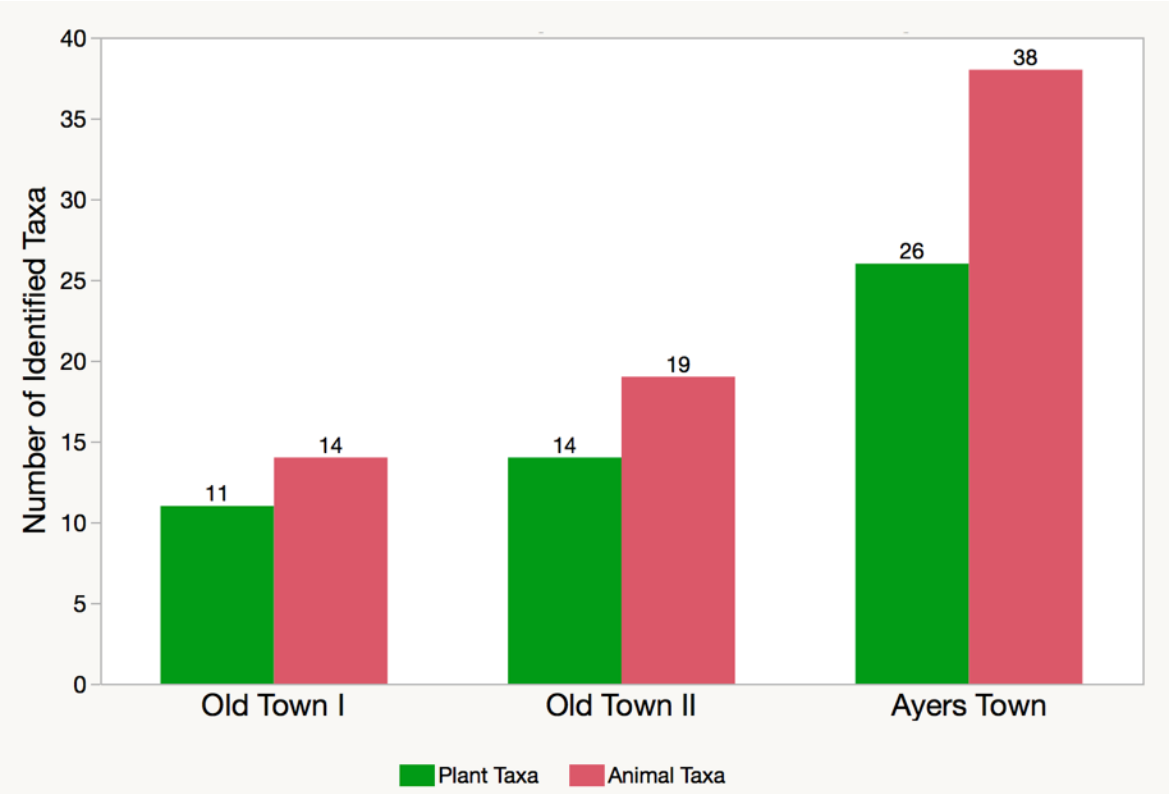


Figure 6.3. The number of identified plant and animal taxa at Old Town I, II, and Ayers Town, not including commensal species.

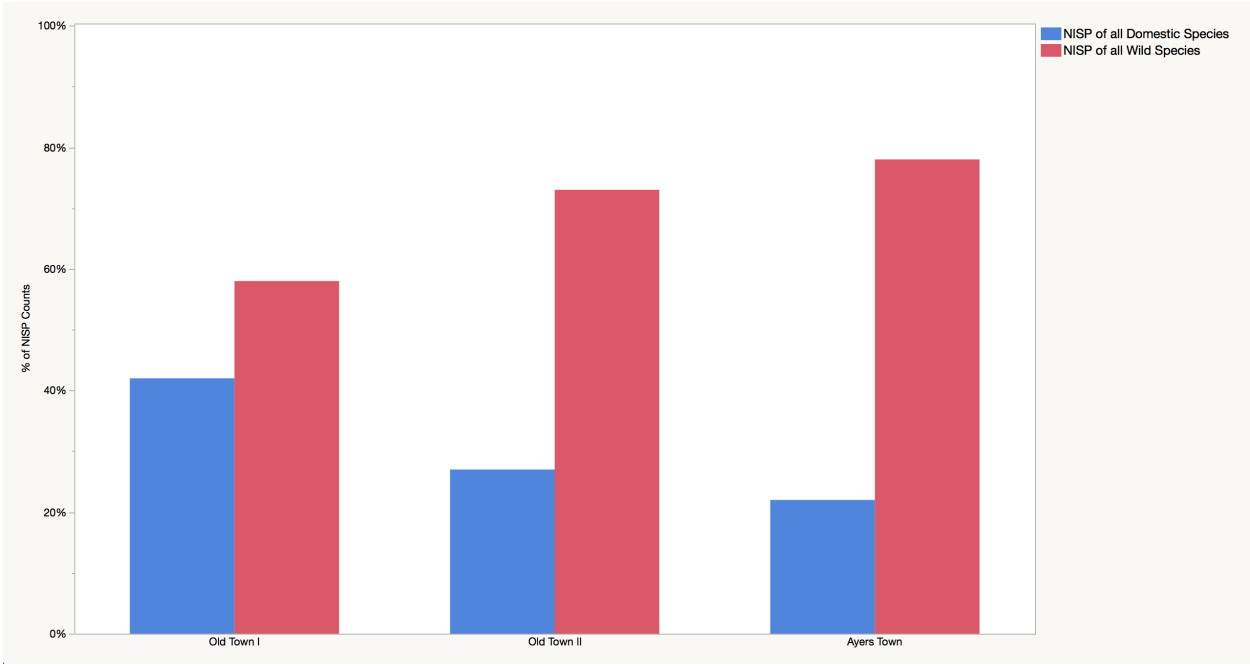


Figure 6.4. Percentage of domesticated animal remains (pig, cow, chicken, horse) versus wild animal remains identified at Ayers Town and Old Town.

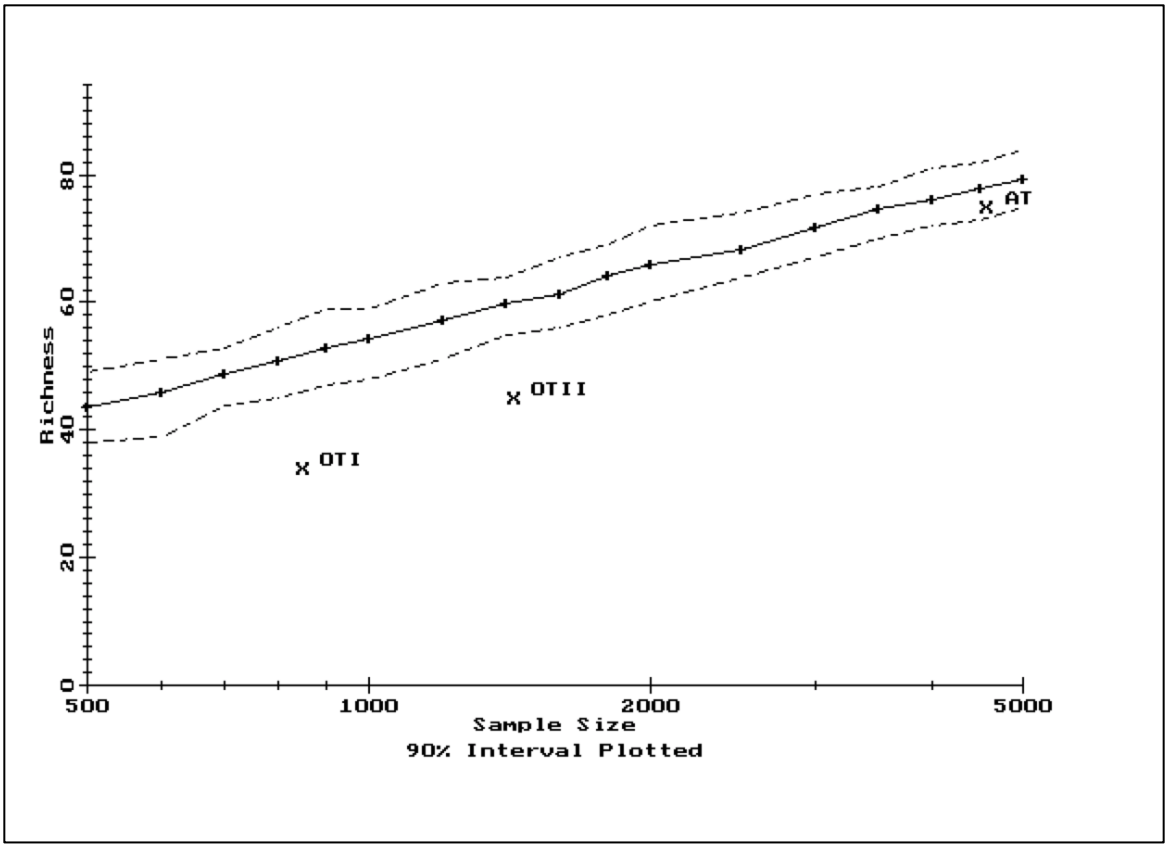


Figure 6.5. DIVERS plot (Kintigh 1984, 1989) showing botanical and faunal species richness of Old Town and Ayers Town assemblages.

comparing just the Old Town components, Old Town II has a clearly higher richness value overall but, more importantly, Old Town II is slightly closer to the expected line. This distinction in the relative distance to the expected line indicates that while sample size has an effect on richness values, Old Town households had a slightly more diverse food assemblage after the Revolution.

Another common method for assessing diversity is the Shannon-Weaver diversity index. The Shannon-Weaver index calculates diversity as an overall diversity index (Shannon's H) and equitability (Shannon's E). Higher numeric values for H indicate higher species diversity (richness). Equitability values (E) range from 0 to 1, with a value of 1 indicating an even distribution of taxa while lower values represent a more uneven distribution. A comparison of H and E values from both plant and animal assemblages from different contexts and periods allows an examination of how different food exploitation activities vary with respect to each other (VanDerwarker 2010:68). To find Shannon's H, I calculated the proportion of species (p_i), counts or NISP of each plant and animal species, relative to the total number of species (k) for each household complex. This is then multiplied by the natural logarithm of the proportion, and the sum of that product is then multiply by -1 for each context or assemblage or $H=-\sum k\ i=1\ p_i \log(p_i)$. Shannon's E ($E_H$) is derived by dividing the richness values (H) by the natural logarithm of the number of species present; $E_H=H/(\log(k))$. In addition to excluding commensal species from the analysis, I only included taxa that had been identified down to the species or family level to avoid double counting.

To compare contemporaneous household complexes, I calculated the mean Shannon-Weaver diversity values for plant and animal assemblages at Old Town I, Old Town II, and Ayers Town. A plot of these values indicates that there were likely different strategies at play

when it came to plant and animal resources exploitation (Figure 6.6). At Old Town, plant diversity increases slightly after the American Revolution, while animal diversity decreases. The highest overall plant diversity value is associated with Ayers Town (H=1.24). For all three assemblages, the mean faunal diversity values show that Catawbas utilized a more diverse range of animal resources than plant resources. The mean Shannon-Weaver diversity values for the animal assemblages show that diversity was highest during the Old Town I period (H=2.34), though Ayers Town was only slightly lower (H=2.01). For reasons that are not entirely clear, Old Town II households used a lower diversity of animal resources in the decades following the Revolution. This reduced faunal diversity may be at least partially due to the destruction of Old Town in 1780 and the subsequent loss of livestock and fowl, though this does not explain why their contemporary neighbors at Ayers Town had among the highest diversity for both plant and animal resources. Perhaps this is evidence for a decline in hunting and fishing, activities typically performed by men, after the Revolution while women likely expanded their exploitation of cultivated and wild plants.

No clear pattern is evident among Old Town I, Old Town II, and Ayers Town when their mean equitability values for plant and animal assemblages are compared (Figure 6.7). Equitability values show that animal resources were distributed more evenly than plant remains, but these values appear mostly consistent across all three assemblages.

After determining the diversity values of the plant and animal assemblages separately for each household, I calculated a composite diversity value for each household that combined the plant and animal data (Figure 6.8). The results show considerable variation between households at Old Town and Ayers Town. The difference in diversity values among the Old Town households suggests a reversal of fortunes at each cabin locus. Household OA, the pre-

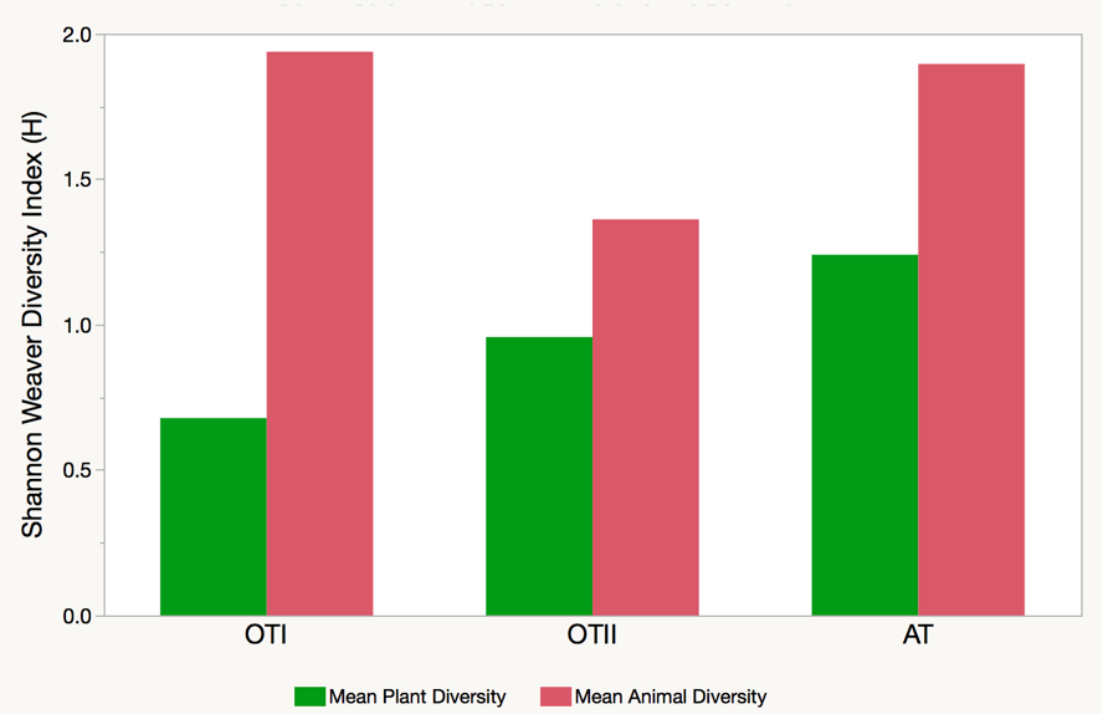


Figure 6.6. Mean Shannon-Weaver diversity values (H) for botanical and faunal assemblages at Old Town and Ayers Town.

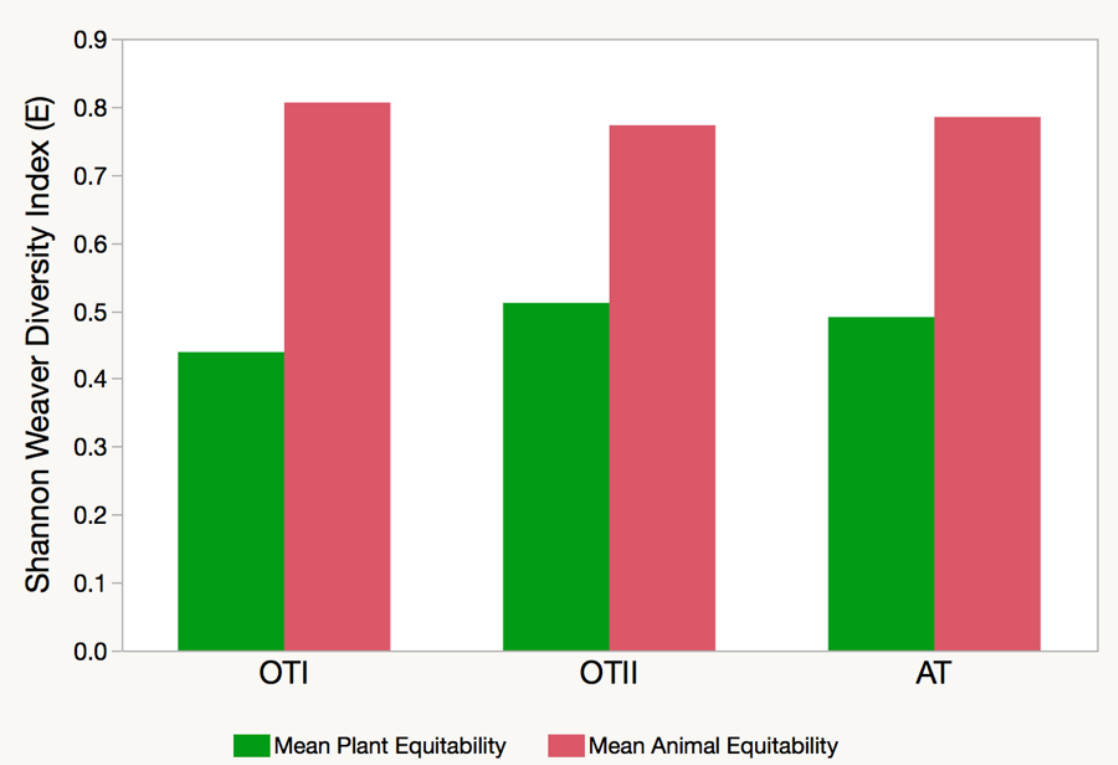


Figure 6.7. Mean Shannon-Weaver equitability values (E) for botanical and faunal assemblages at Old Town and Ayers Town.

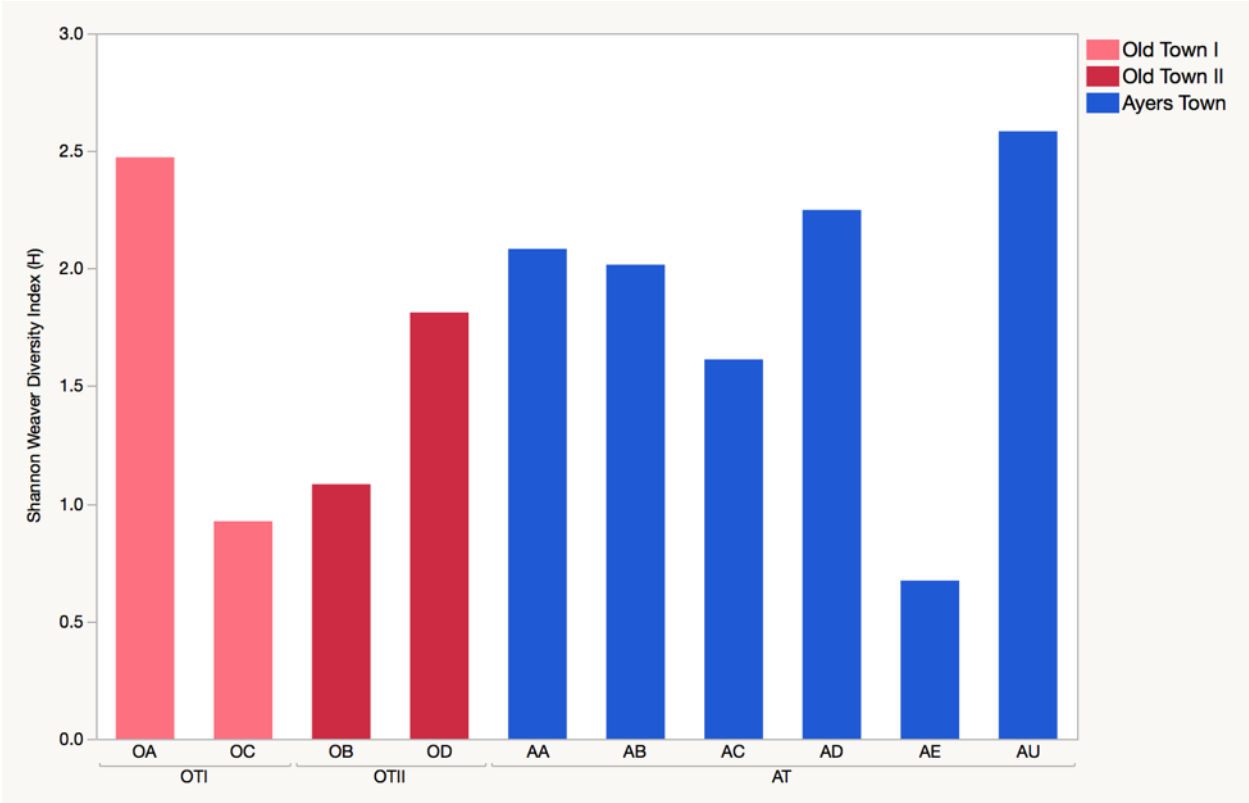


Figure 6.8. Combined faunal and botanical Shannon-Weaver diversity values (H) for household assemblages at Old Town and Ayers Town.

Revolution occupation at Cabin Locus 1, has the highest composite diversity value (2.47) of any Catawba household in the study. While the unassigned Ayers Town features (AU) have a slightly higher value (2.58), this assemblage does not represent a discrete household and likely corresponds to a feasting deposit, discussed below.) However, the household that reoccupied Locus 1 after the Revolution (Household OB) had among the lowest diversity score at 1.08. Alternatively, the Locus 2 household (Household OC/OD) went from one of the least diverse (.925) to a moderately high value over the same period. It is interesting to note the disparity between diversity values of the contemporaneous Old Town I and Old Town II households which seem to indicate that despite their relative proximity, each household had different food resource strategies. At Ayers Town, the composite values show that the majority of households were very similar to one another and exhibited relatively high diversity scores. The one exception was Household AE which had the overall lowest score (.673). This score is not simply a reflection of small sample sizes, since Household AC had fewer total NISP and plant counts.

Another way to visualize the Catawba foodways data is through the use of correspondence analysis. Correspondence analysis (CA) is a statistical method capable of identifying the degree of "relatedness" between multiple categorical variables by reducing the multi-dimensional variation into two-dimensional space. Based on simple two-way tables with abundance or presence/absence data, CA produces a biplot in which points representing food types and archaeological contexts appearing closer together tend to be positively associated and those that are farther apart are either not associated or negatively associated (Shennan 1997:308-360). Unlike the diversity measures described above, CA is a method that allows one to visualize the relationships among sites or specific households and multiple food categories at once. Rather than use every individual botanical and faunal species as a variable in the CA, I combined some

taxa into larger food type categories (e.g., fish, small and medium mammals, etc.) while other variables represented a single plant or animal species (e.g., corn, deer, pigs, etc.).

Figure 6.9 is a biplot depicting the results of a CA using counts/NISP of food categories and site/temporal assemblages (Ayers Town, Old Town I, and Old Town II). Capturing nearly 60% of the assemblage variation, Dimension 1 (x-axis) separates Ayers Town from both Old Town components. Old Town I is most closely associated with the domesticated animals, including cow, chicken, and pig, though the latter is positioned more centrally to all three site components meaning that it was similarly associated with all three. Also centrally positioned on the CA plot are corn, turtle, and white-tailed deer. Dimension 2 (y-axis) appears to effectively distinguish the pre-Revolution and post-Revolution site components. Ayers Town occupies the upper left quadrant of the graph and is most closely associated with many of the wild resources, including acorn, fruits and berries, fish, and turkey. Peach stands out as a notable exception, although it is also positively correlated to Old Town II. This CA plot supports the pattern presented in Figure 6.4 which shows the early Old Town I occupation strongly associated with domesticated animals.

When the assemblages are organized by household, the CA results show a more complicated picture of Catawba household food use. A biplot depicting the first two dimensions (Figure 6.10) reveals that these two dimensions capture over 75% of the variation. One of the most interesting patterns is the division between plant and animal categories along Dimension 1. While the domesticated animal species all fall within the northeast quadrant of the plot, so too does small/medium mammals and white-tailed deer. The two contexts that are the most strongly associated with the positive end of Dimension 1 is Household OA and the unassigned contexts from Ayers Town which are dominated by Feature 140. Household OA (principally representing

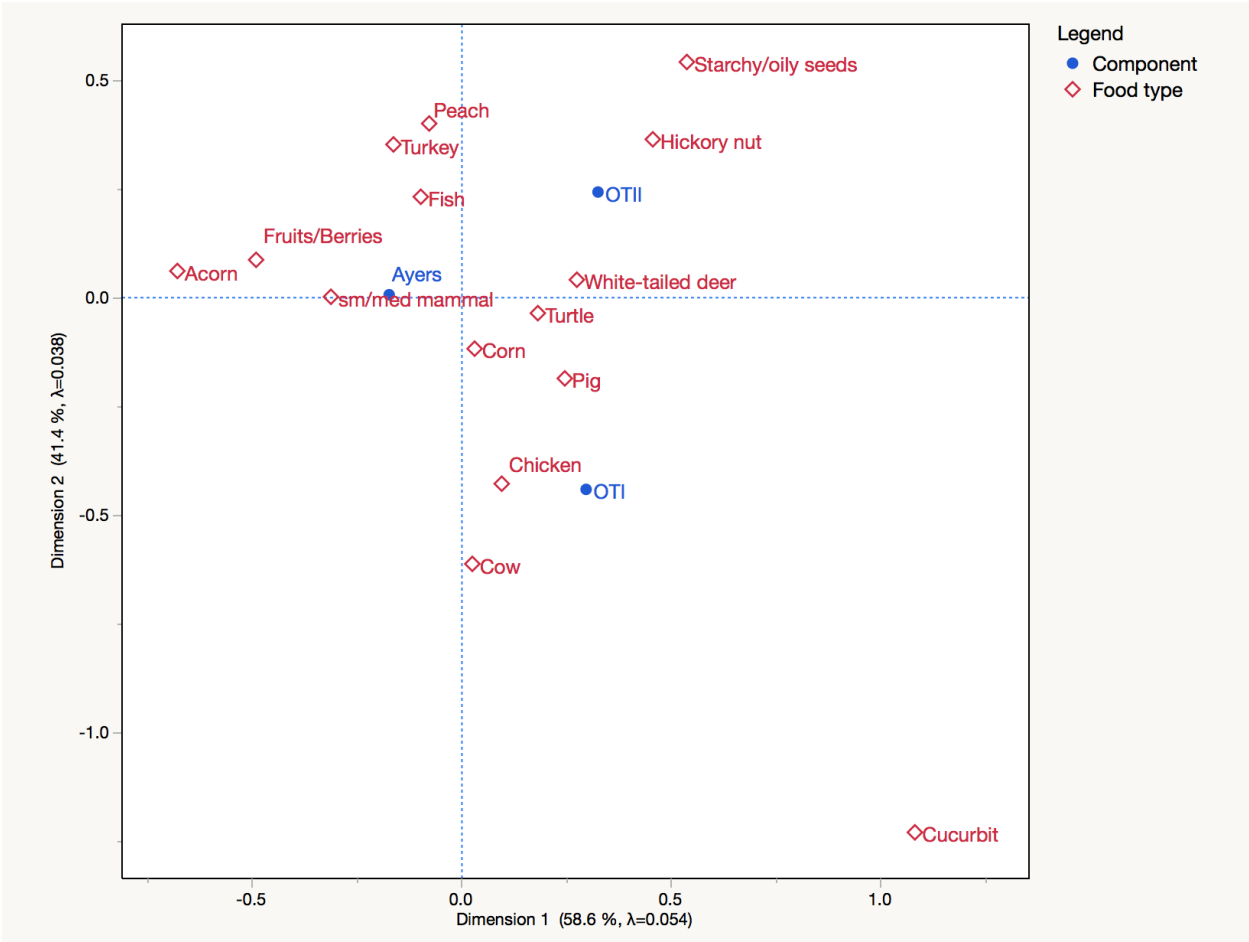


Figure 6.9. Biplot depicting the results of a correspondence analysis of counts of food types and temporal/site assemblages from Old Town and Ayers Town. The two values associated with each dimension denote the percentage of total variance and the amount of explained inertia (λ).

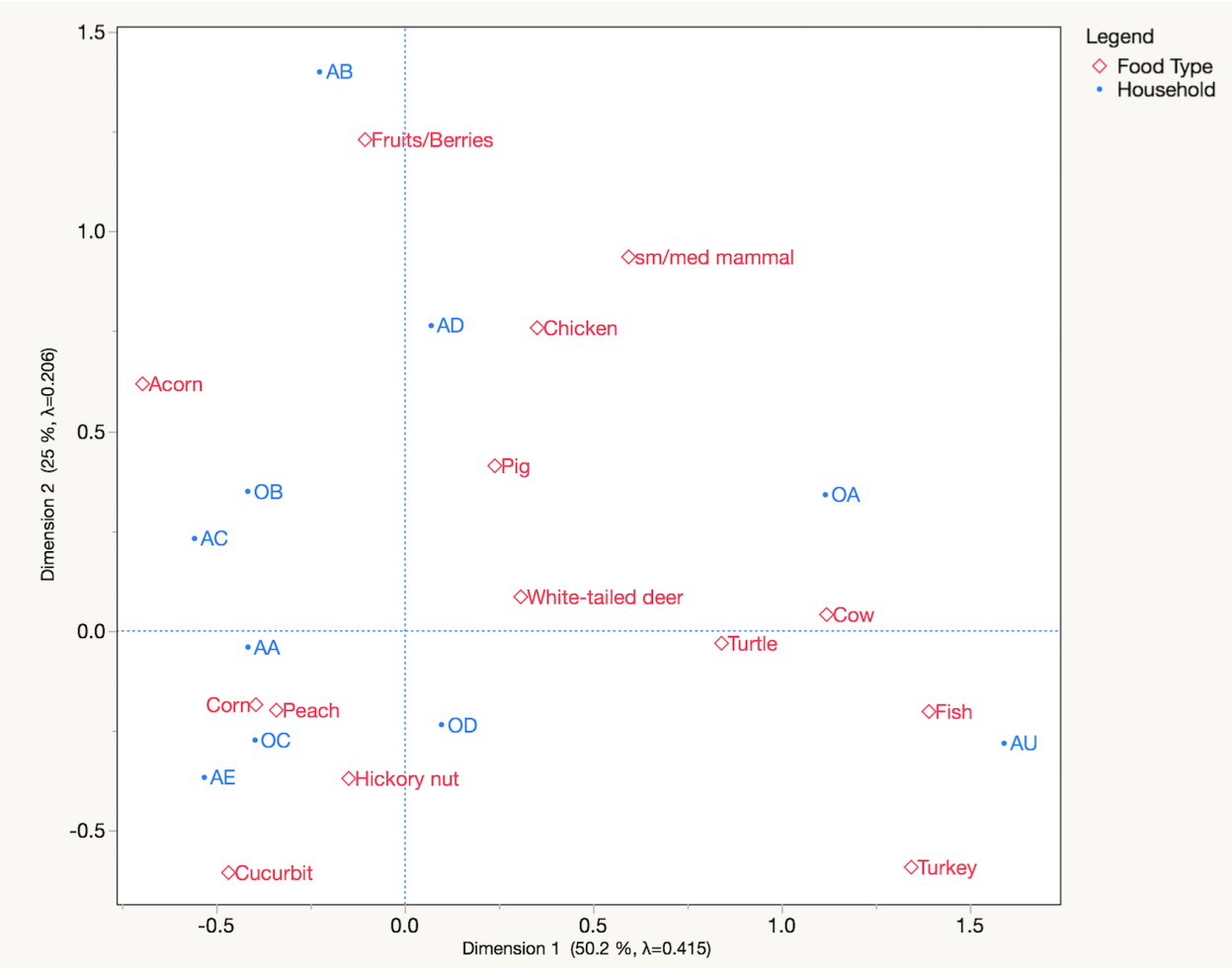


Figure 6.10. Biplot depicting the results of a correspondence analysis of counts of food types and household assemblages from Old Town and Ayers Town. The two values associated with each dimension denote the percentage of total variance and the amount of explained inertia (λ).

Feature 2) is closely correlated with cattle and turtles, and to a lesser extent with white-tail deer, pig, chicken, and small/medium mammals. AU, on the other hand, is strongly associated with fish and turkey. Two other households (OD and AD) fall on the positive side of Dimension 1, but only barely, meaning they are associated with a more mixed assemblage of plants and animal resources.

The left side of Dimension 1 is dominated by plant resources along with the majority of households, especially those from Ayers Town. Corn, along with acorn, peach, hickory nut, and cucurbit, is located near the center of a cluster of households that include AA, AC, AE, OB, and OC, indicating that these resources were relatively important to most households. While obviously not identical to one another, the fact that most of the Ayers Town households are clustered together indicates a shared or at least similar foodways strategy. Household AB is separated from other contexts along Dimension 2 and closely associated with fruits and berries, though no other discernable pattern is recognizable along the second dimension. In this case, AB's small assemblage size and similarly small number of identified specimens likely contributes to its peripheral position on the CA biplot.

Two contexts stand out and deserve special mention. Household OA is the designation for the initial household occupation at Locus 1 at Old Town. While several features are assigned to this household, Feature 2 at Old Town represents the primary feature associated with Household OA. As noted in Chapter 4, Feature 2 represents one of the largest Catawba cellar pits in terms of surface area and the largest by pit volume that has been documented. This alone makes Feature 2 distinctive, but its artifact assemblage, discussed in the previous chapter, makes this context unique. When the foodways assemblage is taken into account, especially the faunal data (Table 6.9), Feature 2 emerges as a prime candidate for the location of an important

Catawba headman, possibly the famed King Hagler. The strong association between Feature 2 and domesticated animals suggests this household had an unusual access to this type of food. The comparatively small amount of plant remains recovered from Feature 2 indicates that farming and gathered wild resources were not as heavily utilized. I believe it is telling that King Hagler died shortly after the first households were established at Old Town, including the cabin represented by Feature 2 and the household that occupied the cabins that replaced Feature 2, did not exhibit the same level of meat consumption, particularly of domesticated livestock and fowl. If King Hagler's political and social position granted his household preferred access to high status meat, his death would certainly have changed this household's foodways, social dynamics, and strategies.

The other context that stands out in the foodways data is AU, or the unassigned feature contexts from Ayers Town. The vast majority of plant and animal remains assigned to AU come from a single feature, Feature 140, the large basin pit located at the southern edge of the site. As described in Chapter 4, Feature 140, as well as the two smaller shallow pits it intrudes (Feature 190 and 191), are not clearly associated with any of the five household complexes at the site. I noted in the previous chapter that the material culture associated with this pit, including large numbers of reconstructable Catawba vessels and small numbers of glass beads or other personal items, do not resemble the typical cellar pit deposits we see at Ayers Town, which suggests it had a different function. Due to the large amount of food remains, especially faunal material (Table 6.10), I suggest this pit represents the remains of one or more small-scale feasting events that likely served to reinforce the kinship and community ties at Ayers Town.

While large-scale feasting has been relatively well theorized and researched, small-scale feasting events have not had the same level of consideration. Hayden (2001:54) has stated that

Table 6.9. Identified Animal Remains from Feature 2 at Old Town.

Common Name	**Taxon**	**Weight (oz.)**	**NISP**
Freshwater Mussel	Unionidae	1.9	4
Bullhead Catfish	Ameiurus sp.		1
Sucker	Catostomidae		6
Sunfish	Centrarchidae		6
Carolina Redhorse	*cf. Moxostoma sp. carolina*	0.6	2
Bony Fish	Osteichthyes	0.4	6
Eastern Box Turtle	*Terrapene carolina*	7.2	3
Turtles	Testudines	1.3	7
Domestic Chicken	*Gallus gallus*	0.6	7
large bird		5.6	7
bird		0.1	1
Squirrel	*Sciurus* sp.	0.2	3
Domestic Cattle	*Bos taurus*	96.2	5
Domestic Pig	*Sus scrofa*	42.1	16
White-tailed Deer	*Odocoileus virginianus*	2.3	1
Even-toed Mammal	Artiodactyla		6
Carnivores	Carnivora		1
small mammal			2
large mammal		94.6	55
mammal		68.5	168
Total		321.6	307

Table 6.10. Identified Animal Remains from Feature 140 at Ayers Town.

Common Name	**Taxon**	**Weight (oz.)**	**NISP**
Freshwater Mussel	Unionidae	0.7	16
White Catfish	*Ameiurus catus*		22
Brown Bullhead	*Ameiurus nebulosus*		2
Flat Bullhead	*Ameiurus platycephalus*		3
Bullhead	*Ameiurus* sp.	8.8	47
Quillback	*Carpoides cyprinus*	0.1	1
Sunfish	*Centrarchidae*	0.1	15
Longnose Gar	*Lepisosteus osseus*	0.2	4
Largemouth Bass	*Micropterus salmoides*	4.3	9
Bony Fish	Osteichthyes	17.3	349
Painted Turtle	*Chrysemys* sp.	3	1
Eastern Box Turtle	*Terrapene carolina*	100.1	14
Turtle	Testudines	5.8	14
Domestic Chicken	*Gallus gallus*	0.1	1
Mallard duck	*Anas platyrhynchos*	0.5	1
Wild Turkey	*Meleagris gallopavo*	15	15
large bird		8.4	33
bird		1	14
Grey Squirrel	*Sciurus carolinensis*	1.3	5
Cottontail	*Sylvilagus* sp.	0.1	1
Virginia opossum	*Didelphis virginianus*	0.9	1
Domestic Horse	*Equus caballus*	381.6	2
Domestic Cattle	*Bos taurus*	1367.8	12
Domestic Pig	*Sus scrofa*	408.4	18
Domestic Dog	*Canis familiaris* (whole skeleton)	17.9	1
White-tailed Deer	*Odocoileus virginianus*	631	28
small mammal		0.4	10
large mammal		35.8	17
mammal		142.4	363
Total		3153	1019

small-scale "minimally distinctive" feasts likely functioned to reinforce household and lineage solidarity. In a tight-knit community, like Ayers Town appears to have been, mobilizing communal labor through small feasts was likely an effective strategy. Evidence for such small-scale feasting has been found at a few sites in the South (Pluckhahn et al. 2006), but it is rarely discussed at all during the historic period. The contents and context of Feature 140 suggest that the eating and deposition related to this feature was not the result of typical household consumption. The high incidence of fish, turkey, deer and other faunal remains combined with the size and weight of the remains plus the stratigraphic evidence that the pit was rapidly deposited and capped, all point to a discrete supra-household eating event with implications for community organization.

Summary

As discussed in Chapter 4, the spatial layouts of Old Town and Ayers Town were organized in substantially different ways. I have suggested that these two Catawba settlements represented divergent community strategies; one in which households were more independent and less integrated (Old Town) and one in which households were organized into a closer knit faction that emphasized a corporate-oriented network (Ayers Town). These strategies likely reflect the needs and desires of each settlement to pursue particular economic activities, such as communal agricultural labor or ceramic production. The foodways data presented here provide additional evidence to support this community division.

CHAPTER 7: CONCLUSIONS

In the preceding chapters, I have documented through the lens of household archaeology how the Catawba Nation persisted and changed in the decades following one of the most traumatic episodes in their history. The loss of more than half of their people in 1759 and the destruction of their towns during the American Revolution tested the very limits of community resilience and forced Catawba households to adopt new strategies for survival as they faced a rapidly and constantly changing colonial landscape. Historical narratives about the Catawba Nation during this post-epidemic period have generally described the Nation as one in decline and viewed the disappearance of ethnically distinctive town names as a sign the community had become largely homogenized (Brown 1966; Merrell 1989; Hudson 1970). Even recent Catawba scholarship, with an explicit focus on Catawba coalescence, ethnohistory, and archaeology during earlier periods, largely glosses over the dramatic social transformations and diversity that helped to define the community (Beck 2013).

By combining a critical examination of historical and ethnohistorical documentation with archaeological analysis from a series of late eighteenth-century Catawba domestic sites, I demonstrate that Catawba households, far from being homogenous entities, experimented with a variety of creative solutions that contributed to different material outcomes for households at each site and even within the site. I argue that the diversity of household strategies reflects both the presence of persistent internal tribal divisions that produced discrete communities of practice and a pragmatic approach to economic and cultural survival in which individuals, notably Catawba women, redeployed traditional skills and knowledge to novel economic niches.

This analysis of Catawba household variability between ca. 1760 and 1800 is informed by, and builds on, previous archaeological studies of historic Catawba lifeways immediately preceding (Fitts 2015a) and following this period (Plane 2011; Shebalin 2011, see also Davis et al. 2015). These studies describe starkly different lifeways and cultural practices that belie the direct cultural continuity and relatively short temporal interval between them.

I derived my observations of Catawba households from the excavated assemblages at three sites: Old Town, Ayers Town, and Nisbet. I then set out to examine Catawba household variability using three primary lines of evidence: (1) architectural and community spatial organization; (2) material culture; and (3) foodways (Chapters 4-6, respectively). Each of these datasets speak to a core function of a household and readily accessible to archaeological inquiry. Using the patterned distribution of architectural features, I defined a total of 10 discrete household complexes that serve as the primary units of analysis for the remainder of the study: four from Old Town, five from Ayers Town, and one from Nisbet. Of the four households at Old Town, two are associated with the initial site occupation, defined as Old Town I (ca. 1762 – 1780); the remaining two correspond to the post-Revolution occupation (Old Town II, ca. 1781 – 1800) which is contemporaneous with Ayers Town.

One defining feature of the Catawba Nation has been the presence of distinctive internal factions which are a vestige of the Nation's origin as a multiethnic, coalescent society and which were nearly always manifest in the form of several distinct towns or settlements. Using an explicit strategy of incorporating multiple smaller tribes and other Native refugees, mostly Siouan-speaking groups from the Carolina Piedmont, to bolster their numbers, core groups like the Esaws were able to forge a politically durable confederacy that became known as the Catawba Nation. The unique cultural identities of the various constituent communities that

formed the Catawba Nation did not simply disappear, but through a process of coalescence, these identities were co-opted, combined, selectively remembered and ignored, and repackaged to create a new social identity. This new identity was always at odds with the reality that many of the groups who joined the Nation did so out of necessity and not always enthusiastically. A case in point were the Charraws; a coalescent society in their own right who reluctantly joined the Catawbas sometime during the 1730s and 1740s (Fitts 2015a). The Charraw were relative latecomers to the Nation and were a comparatively large group with their own language and stubborn sense of independence. So it is perhaps not surprising that the Charraw identity may have persisted within the Catawba Nation for generations after the 1759 epidemic, if only subtly (Brasser 1964:279; Merrell 1983:250; Schoolcraft 1853:295; Siebert 1945).

Despite being a relatively small Nation, the Catawba maintained at least some elements of earlier ethic and/or tribal identities right up through the 1750s, as evidenced by town names depicted on the John Evans map that reference the core constituent tribes that comprised the Catawba Nation. After 1759, the tribal labels disappeared from the colonial record as the Catawba community continued to consolidate into only 2-3 distinct towns throughout the remainder of the eighteenth century. Though these once potent tribal identities no doubt underwent substantial revision in the context of the new realities of the 1760s and later, it is unlikely they simply disappeared from the minds or memories of individual Catawba people.

Another trait that is important to understanding households in Catawba society is its matrilineal kinship pattern and the role of women. Historical records from the colonial era rarely, if ever, mention indigenous women, their work, or kinship patterns with the possible exception of how it related to chiefly succession. This is true of the Catawba as well. Formal ethnographic studies were not conducted among the Catawba until the late nineteenth and early twentieth

centuries by which time evidence for matrilineal descent patterns was nearly absent. Not only is matrilocality and matrilineal descent common among many southeastern tribes, but recent research into the role of women in eighteenth and nineteenth century Catawba society has argued convincingly that this was likely the case for historic Catawbas as well (Bauer 2016). This is an important insight because it signals that multigenerational groups of related women likely formed the core of village life and were likely the means by which cultural practices were taught, learned, practiced, and passed on, thus creating particular communities of practice related to specific matrilines.

At this point it is worth returning to the main research questions laid out in Chapter 1: (1) How were Catawba households materialized in the archaeological record during the late eighteenth century? (2) What was the range of variation that existed between households within each community/site and what was the range of activities associated with them? (3) How did Catawba households change through time and what does this suggest about changes in the Catawba Nation more broadly?

My approach to addressing these questions uses a household archaeological perspective. I chose the household as the central unit of analysis for two main reasons. First, as the smallest functional social unit found in most societies, the household often serves as a central locus from which many of the everyday economic and political choices were negotiated and enacted. Following the crippling smallpox epidemic, I suggest Catawba households became even more important and perhaps even the defining institution of Catawba society as others, such as clan or town affiliations, were disrupted or disappeared altogether due to the significant loss of life and cultural knowledge. Second, the archaeological assemblages recovered from the several late eighteenth-century Catawba sites discussed here are particularly well suited for this type of

analysis. One consequence of the devastating smallpox epidemic of 1759 was that the Catawba towns occupied during the 1750s were abandoned abruptly and instead of being reoccupied, new settlements, including Old Town, were established. Historic maps and other documentary records, combined with limited archaeological evidence of rebuilding, indicate that these new settlements were inhabited for relatively short periods of time and represent a distinctive archaeological horizon. The abandonment and apparent destruction of the Twelvemile Creek Catawba towns in 1780, coinciding with the American Revolution, marks another archaeologically interpretable horizon. These events directly impacted the daily lives of Catawba people and produced discrete archaeological deposits with tight chronological control.

How were Catawba households materialized in the archaeological record during the late eighteenth century? Based on the investigations at Old Town, Nisbet, and Ayers Town, the archaeological signatures of Catawba households during the late eighteenth century have come into better focus. These sites represent a nearly continuous record of Catawba occupation between 1762 and 1800, and demonstrate that while many Catawba households began to adopt and reinterpreted certain European and Anglo-American traditions, including the use of notched-log construction techniques, Catawba households nevertheless constructed, used, and viewed their domestic dwellings as distinctly Catawba spaces. Based on the majority of evidence from historical sources and well-dated archaeological contexts, the timing of the Catawbas' initial adoption of log-cabin architecture appears straightforward and can be pinpointed to 1759-1762. What also seems clear is that the first cabin associated with the Catawba Nation (ca. 1759) was not built by the Catawbas themselves, but rather by colonial agents of North Carolina who were competing for the allegiance of the Catawba king. Even though this first cabin was short-lived due to the 1759 epidemic and the abandonment of all Nation Ford settlements, the next

generation of Catawba-made log cabins built at Old Town borrowed heavily from the style and construction techniques Catawbas witnessed first-hand in this log cabin. Certainly, the Catawbas had other potential sources of log-cabin knowledge from which they could draw, including their nearly two-year stay in the emerging frontier town of Pinetree Hill (later Camden) and the ever-increasing number of immigrants who moved in and around their reservation lands. The establishment of new towns following the 1759 smallpox epidemic no doubt presented an opportunity for the community as a whole to experiment with new construction techniques.

Understanding the motivations for shifting from traditional post-in-ground architecture to notched-log cabins is much more complicated and not entirely clear. Why did some Catawbas begin building horizontal notched-log cabins, while other Catawba families continued for a time to build traditional house forms? Given King Hagler's social standing and immense popularity within his community, his eagerness to adopt log-cabin architecture may have accelerated its spread within the Nation. We know from the post-in-ground structure at the Nisbet site that not all Catawbas immediately switched to log cabins, although in just a few decades nearly all of them had done so. It is possible that log cabins, with their association with colonial powers and Euro-Americans, signal higher social status within the Catawba Nation, or they might have provided a more expedient house form that did not require as much labor to construct. Perhaps Lady Liston's observation that Catawbas were obliged in some manner to build log cabins hit near the mark. By adopting conspicuously Anglo-looking dwellings, the Catawbas could have been attempting to downplay some outwardly visible aspects of their Native identity even as they maintained much of their domestic practices and actively cultivated a distinctive Catawba identity through personal dress and adornment.

Archaeologically, log cabins do not often leave easily discernable footprints because logs were typically laid directly on the ground without the support of posts set into the ground. In the case of Catawba cabins, this type of architecture is inferred by the patterned arrangements of flat-bottomed storage pits. These sub-floor storage pits largely represent a continuation of Catawba interior storage practices seen at the 1750s era site of Nassaw, though differences exist. Unlike the mostly circular and slightly bell-shaped pits at Nassaw, the vast majority of sub-floor cellar pits associated with Catawba log cabins at Old Town are rectangular in shape with generally vertical walls. Two additional types of domestic architecture are evident that represent ancillary structures: elevated corn cribs and covered work areas or arbors. The placement of specialized storage structures I interpret to be elevated corncribs, Structure Locality 9 at Ayers Town and Structure 7 at Old Town, also signal differences in community organization. Structure 7, is the only specialized storage facility of its kind so far identified at Old Town and it is closely associated with Household OD, suggesting it was managed exclusively by that household. Conversely, SL-9 was positioned in the center of the Ayers Town community and though it was roughly equidistant to all the residential complexes, it was not clearly associated with any specific household. I suggest that this centralized location is evidence that SL-9 served as a communal or corporately managed facility and reflects a major difference between the Old Town and Ayers Town communities.

The Nisbet site provides a limited but important glimpse at a small, short-lived Catawba settlement occupied between 1760 and 1780. Due to the relatively limited amount of excavation conducted at the site, combined with the extensive disturbance from erosion and modern agricultural activities, it is difficult to make many inferences about Catawba households at Nisbet. However, the identification of a single post-in-ground domestic structure is important in

that it shows that while many Catawba households quickly shifted to log cabin architecture in the early 1760s, this transition was not universal. Perhaps those families living at Nisbet represented a more conservative element of the Catawba community that did not immediately embrace log-cabin architecture. This possible conservatism may be partially explained by the Nisbet site's connection to the unusually cohesive Charraw faction of the Catawba Nation, who even after the 1759 epidemic maintained some aspects of their ethnic identity, including their language (Brasser 1964:279; Merrell 1983:250; Schoolcraft 1853:295; Siebert 1945). As discussed in Chapter 5, based on the similarity in the average thickness of pottery sherd assemblages, Nisbet may represent a direct continuity between the communities of potters who lived at Charraw Town during the 1750s and those who resided at Ayers Town after 1780. While this apparent connection to Ayers Town is admittedly tenuous, it is supported by similarities in general site size and overall site structure with both settlements appearing to have a more nucleated organization relative to Old Town.

This research has also better defined patterns relating to the domestic space surrounding structures. As I note in the introduction, archaeological households are not only defined by the remains of structures, but also include the spaces surrounding them where the majority of daily life likely took place. Archaeological investigations have shown that the spaces around and between Catawba structures were not empty but rather were multifunctional areas. The concentration of small corn-cob filled pits around the southeastern sides of many structures indicate that these spaces were repeatedly selected for pottery smudging, perhaps because the buildings acted as wind breaks. Borrow pits at Ayers Town and Old Town, likely used to collect and process clay for chinking cabin and for later disposal of household waste, were typically located at the periphery of residential areas. At Ayers Town, the noticeable absence of cultural

features along a northwest to southeast corridor running dividing the site in two has been interpreted as a potential road bed, though it is unclear if this road predates the settlement or was established because of the Catawba settlement.

While I have stated that Old Town, Nisbet, and Ayers Town provide a nearly continuous record of Catawba occupation during the late eighteenth century, it is important to note that this record is simultaneously incomplete. It is clear from the spatial distribution of systematically recovered metal and other artifact concentrations that additional cabin loci exist at both Old Town and Nisbet. While the core residential area of Ayers Town was completely stripped to reveal all cultural features, the existence of additional domestic spaces at the periphery of the otherwise nucleated settlement has not been ruled out. Likewise, it is certainly possible, and in fact likely, that small outlying sites representing isolated Catawba homesteads have yet to be documented. A notable gap in the archaeological record of the late eighteenth century Catawba Nation is the Twelvemile Creek settlement depicted on the 1763 Wyly map. According to Wyly's map, this was the main Catawba town after 1759 and despite repeated attempts to locate this site, it has not been positively identified. Though this site was likely heavily impacted by clay mining associated with a modern brick factory, future investigations may reveal more information related to this town and greatly increase our understanding of this component of the Catawba Nation.

What was the range of variation that existed between households within each community/site and what was the range of activities associated with them? It should not be surprising that among the households at Old Town, Nisbet, and Ayers Town that no two were exactly the same. All household complexes I identified had variation ranging from how they are organized at the site level to the number, spacing, and type of structures present, to the numbers

of pits, and having different assemblages of artifacts and food remains. This is not to say that there were not some striking similarities among certain households, especially at Ayers Town. Though all Catawba households pursued similar goals, namely economic and social stability, it is clear from the archaeological record that their strategies were not all the same and remained flexible.

Based on the spatial organization of these complexes, I have argued that two different community patterns are represented at Old Town compared to Ayers Town and Nisbet. The spatial organization of domestic features suggests Old Town and Ayers Town represent two divergent community strategies with Old Town composed of dispersed, largely independent households while Ayers Town operated as a more integrated and corporate oriented community. At Old Town, systematic metal detecting and observations of other artifact concentrations demonstrate that at least six domestic loci were widely dispersed covering approximately 11 ha. Ayers Town, on the other hand, was found to contain five residential complexes occupying less than half a hectare. Similarly, the artifact distribution observed at Nisbet suggests households relatively closely spaced (.75 ha).

I took a broad approach by organizing the material assemblages of Old Town, Ayers Town, and Nisbet into functional artifact classes and identifying patterns among household complexes. I then focused on a few key artifact types, namely Catawba-made earthenware pottery, that I felt highlight differences between households and reflect important household economic strategies. My analysis shows substantial differences in the types of artifacts associated with households at Old Town and Ayers Town.

Catawba households also varied within the same settlement, especially at Old Town. The households associated with Cabin Locus 1 and 2 at Old Town represent two very different

households with very different archaeological signatures. Both loci have evidence of log cabins built in the earliest years of the community that were likely replaced shortly before the town's destruction in 1780 during the American Revolution and subsequently rebuilt on the same locations. Household OA is the designation for the initial household occupation at Locus 1 at Old Town. While several features are assigned to OA, Feature 2 at Old Town represents the primary feature associated with Household OA and is one of the largest Catawba cellar pits that has been documented. This alone makes Feature 2 distinctive, but its unusual artifact assemblage makes this context unique. When the foodways assemblage is taken into account, especially the high proportion of domesticated animal remains, Feature 2 emerges as a prime candidate for the location of an important Catawba headman, most likely King Hagler.

The household associated with Locus 2 stands in stark contrast with its neighbor in Locus 1. Rather than having large number of artifacts associated with personal adornment, firearms, and beads, the material record of this household contained large numbers of pottery production artifacts, indicating it had one or more pottery specialists. Both Locus 2 households, OC and OD, yielded substantial evidence for ceramic innovation. This was especially true for the earlier household OC which contained several fragments of lead-glazed pottery fragments likely made by its members. The potter or potters associated with the Locus 2 households at Old Town pushed the envelope, experimenting with nearly every aspect of their ceramic practice and could reasonably be considered the Catawba Nations first master potter. While the Locus 2 potter(s) were certainly not the only ones engaged in the production of colonoware forms and designs, the members of this household were highly engaged in this economic endeavor. This strategic shift to colonoware production illustrates that at least some Catawba individuals, notably Catawba women, and their associated households found creative solutions to a complicated colonial

encounter. Catawba potters reimagined and adapted their pots to changing economic and social conditions and pottery continues to be a cherished part of Catawba cultural legacy.

Differences in Catawba household foodways also indicate there was considerable variation among households. When considered in the context of the ethnohistoric record and previous archaeological studies of Catawba foodways, the archaeofaunal and archaeobotanical data considered here indicate that periodic food shortages and stress continued to impact Catawba households into the latter half of the eighteenth century, especially following the American Revolution. Household subsistence strategies became more differentiated through time with a greater emphasis on diversified utilization of wild and foraged resources, especially at Ayers Town, mirroring a similar shift toward diversification and foraging within historic Cherokee assemblages as a household strategy to cope with risk and uncertainty (VanDerwarker et al. 2013). While risk prevention and mitigation is likely also a factor in the Catawba case, I suggest that differences in food procurement and consumption patterns at the Catawba settlements of Old Town and Ayers Town are a product of divergent community and household strategies discussed above, as well as changes in access to particular food sources.

How did Catawba households change through time and what does this suggest about changes in the Catawba Nation more broadly? The Catawba Nation underwent tremendous change between the 1750s and 1820s. Some of these changes are easily detected and interpreted through an archaeological lens, including the shift from post-in-ground architecture to log cabins, the transformation of traditional household production of pottery into a colonoware cottage industry, or the changing subsistence strategies of Catawba households. Some changes are more difficult to discern.

As successive waves of European and American settlers modified the South Carolina backcountry during the eighteenth and nineteenth centuries, the Catawba Indians repositioned their communities and carved out new roles in an increasingly unfamiliar homeland. They variously used trade, reservation land leases, and cottage pottery production to ensure their survival and secure influence and prestige among their peers during the Colonial and post-Revolutionary periods. The role of women within Catawba society almost certainly changed dramatically as household economic strategies resulted in the general reduction of agricultural production in favor of the craft production and sale of colonoware pottery to white settlers and reliance on land lease payments. With their growing engagement with the frontier cash economy, Catawba women were less dependent on men to provide economic stability from traditional activities such as hunting, ethnic soldiering, and diplomatic gift getting.

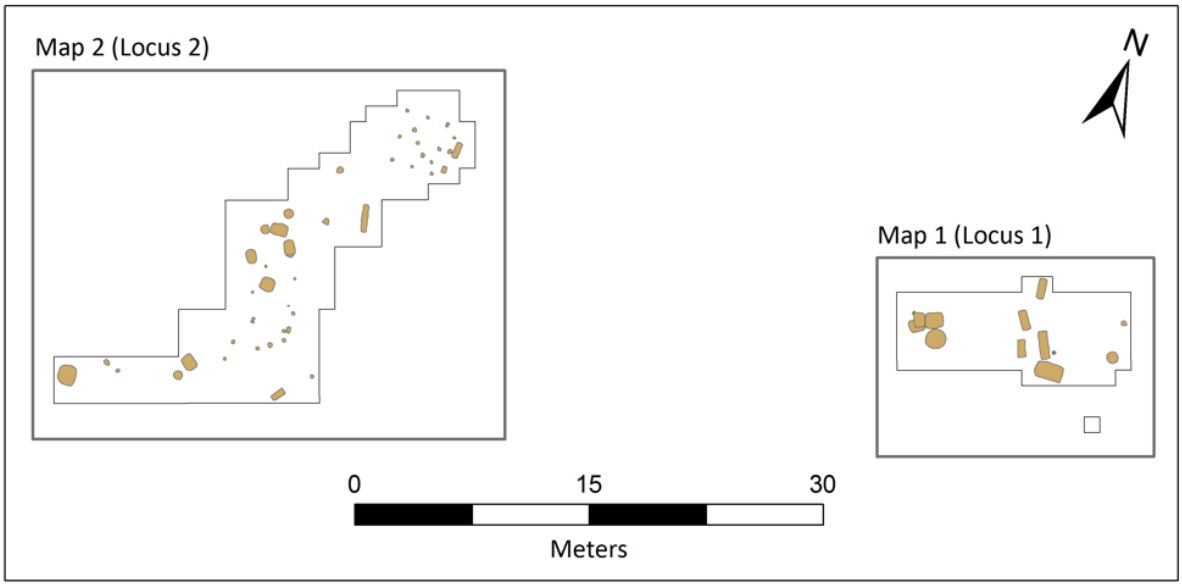
Catawba households also adopted and reinterpreted certain European and Anglo-American traditions, including the use of notched-log construction techniques. Available evidence from the Twelvemile Creek Locality sites of Ayer Town, Old Town, and Nisbet reveal how individual households constructed, used, and viewed their domestic dwellings as distinctly Catawba spaces, combining Euro-American and traditional Catawba domestic practices to suit their own specific needs.

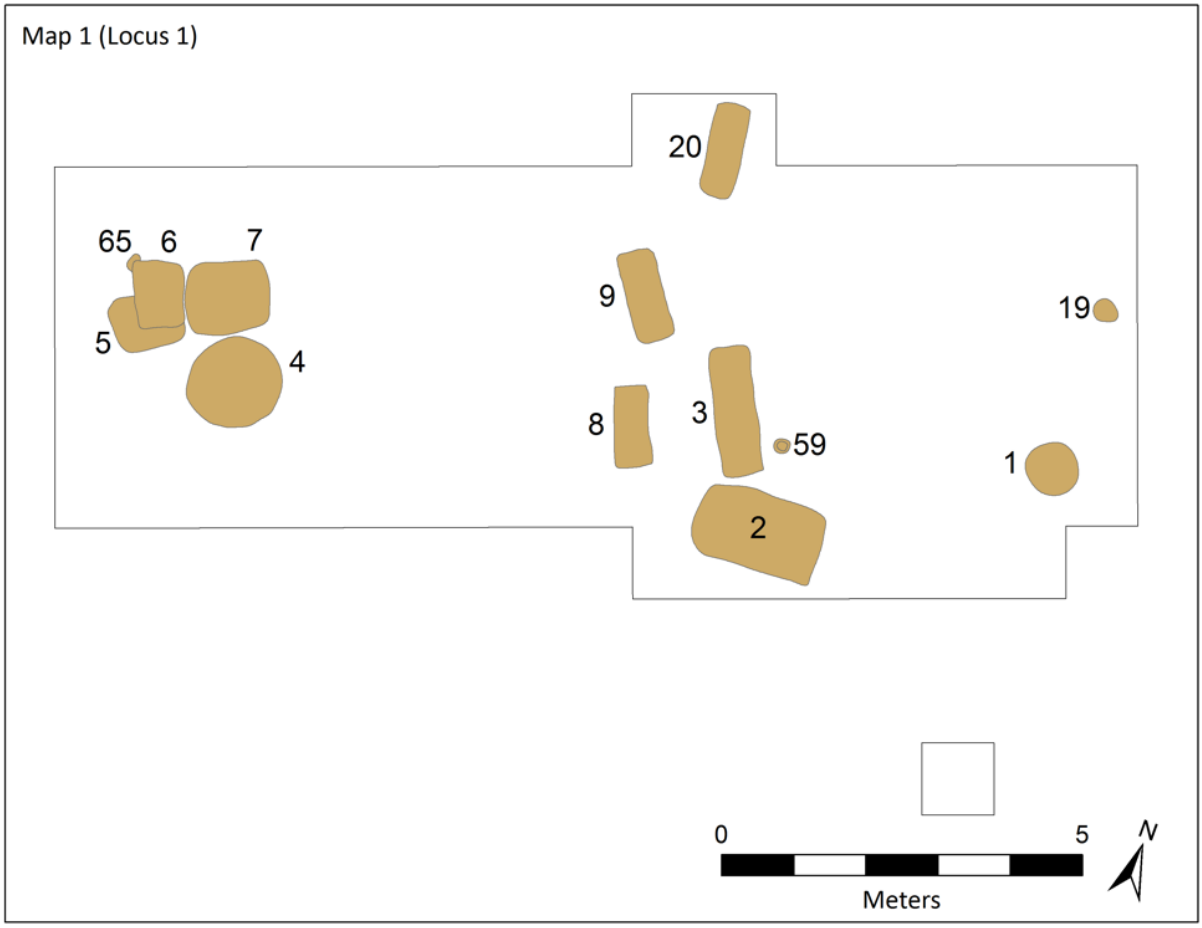
King Hagler could not have known at the time the impact that the 1759 smallpox epidemic would have on his people or how it would transform them, but his determination to keep his people together no doubt helped the Nation pull through. Though he died less than five years later, Hagler lived long enough to see his community return to their ancestral lands along the Catawba River and begin the long and uncertain path toward survival. That the Catawba Nation continues to exist today as a Native people is a testament to the creativity and

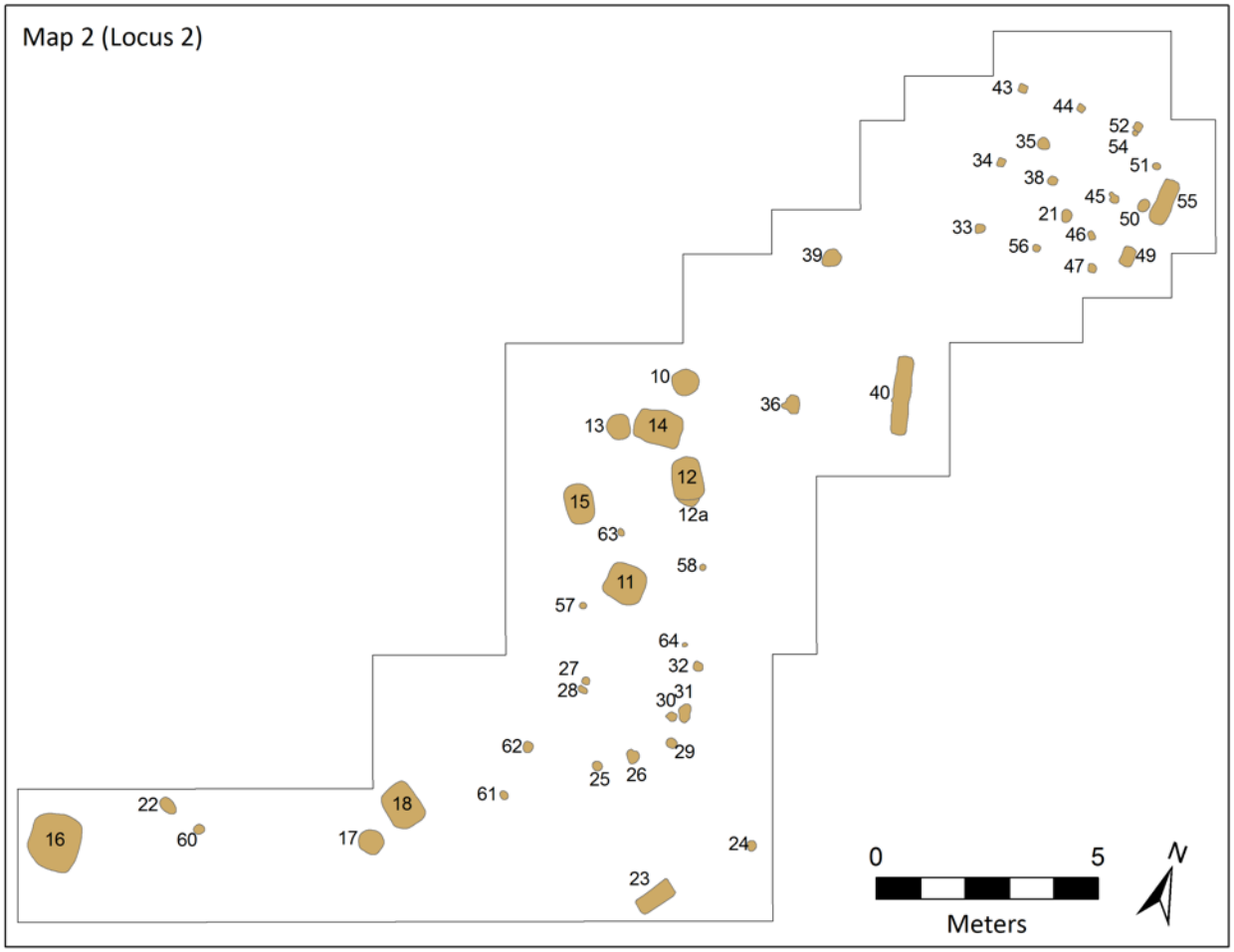
resourcefulness of many generations of Catawba individuals who, as members of households and through their daily practice, found unique and innovative ways to endure.

APPENDIX A: DESCRIPTIONS AND ILLUSTRATIONS OF ARCHAEOLOGICAL FEATURES FROM OLD TOWN

Maps Locating Archaeological Features






Map 2 (Locus 2)
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Feature 1 (Figure A.1)

Feature 1 refers to a circular, basin-shaped pit located near the eastern edge of excavations in Locus 1. This shallow pit measured 74 cm in diameter and approximately 11 cm deep consisting of two cultural zones. Several large sherds were visible from the top of this feature and were removed prior to excavation along with an iron fragment and 1 glass bead. Intrusive into the top of Feature 1 was backfilled soil from a shovel test that had originally identified this feature. This disturbance was also removed prior to excavation of Zone 1. Zone 1 was described as reddish brown (5YR4/3) loam that contained ash, charcoal and gray potter's clay inclusions. Zone 1 was approximately 5-8 cm deep and lying at the base of this zone were sections of a flat-bottomed earthenware pan. Also recovered from Zone 1 were a pipe bowl fragment, iron and lead fragments, 2 wrought nails, a gunflint and a chipped stone disk in addition to charcoal and animal bone.

Zone 2 comprised 3-4 cm of brown loam mottled with red (2.5YR4/8) clay. While Zone 2 contained fewer artifacts than Zone 1, it is noteworthy that an iron snaffle bit was recovered from this zone as well as 13 potsherds, 2 glass beads, a gunflint flake and fragments of animal bone. The removal of Zone 2 revealed the slightly concave base of Feature 1 and its straight to inward sloping walls. Two flotation samples were collected from each zone.

This feature is similar in size and shape to other circular basin-shaped pits at SoC 634 (e.g. Feature 10, 13, & 17). The unfired gleyed clays present in many of these pits have been interpreted as raw potter's clay and thus the function of these shallow pits may be related in some way to the preparation of raw clay for ceramic production. Ultimately Feature 1, like many of the other features, was abandoned after being filled with cultural debris.

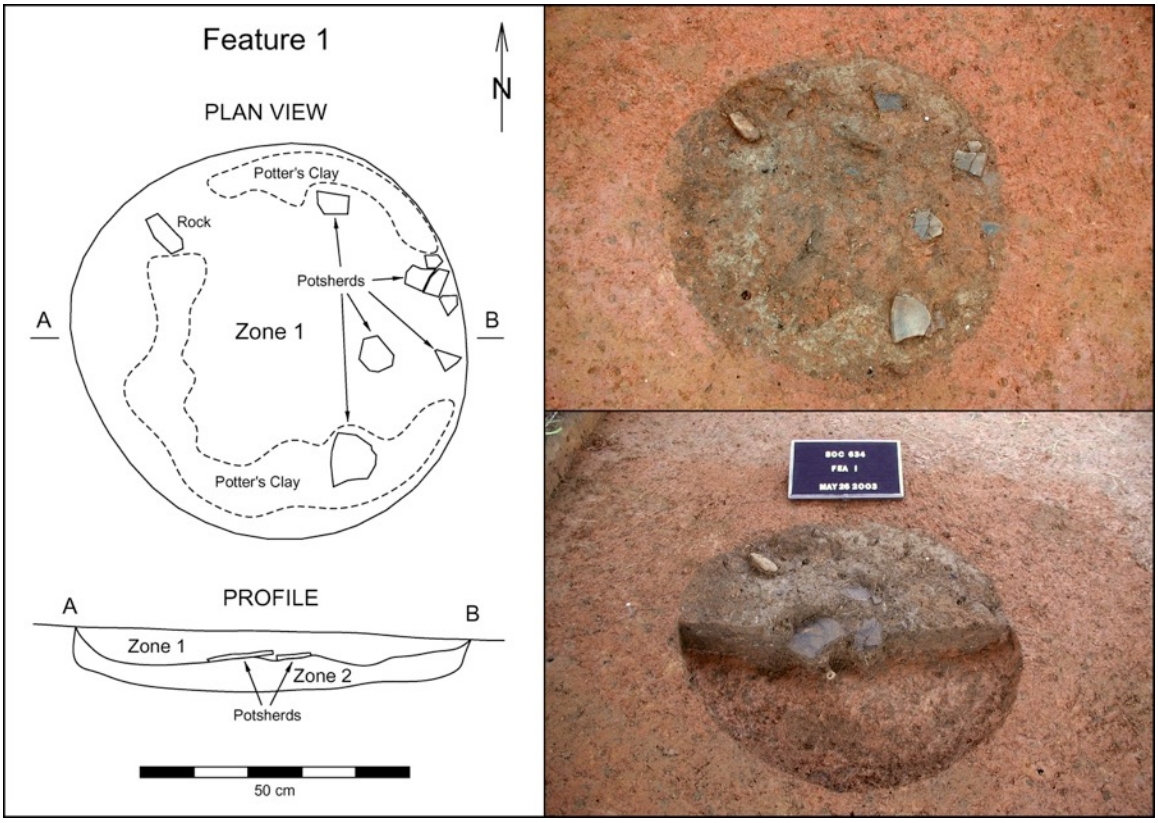


Figure A.1. Feature 1 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and fill profile with south half excavated (bottom right, view to north).

Feature 2 (Figure A.2 and A.3)

Feature 2 is a large sub-rectangular cellar pit located directly south of the burial, Feature 3, in Locus 1. This pit was quite large measuring 180 cm long, 107 cm wide and approximately 50 cm deep. The walls of Feature 2 were undercut by 4-5 cm giving it a slightly bell-shaped appearance in profile. Feature 2 was extremely rich in cultural material. It not only produced a tremendous number of artifacts, but it contained a large diversity of artifact and material types as well. Four 10-liter flotation samples were collected and processed from Feature 2, one from the south half and another three from each of the zones identified in the north half. Separate soil samples were also preserved from these contexts.

The south half of Feature 2 was excavated as a single zone as no clear stratigraphic changes were observed during the initial excavation. In the exposed profile, however, three

discrete zones were distinguished on the basis of color and texture differences. The surface of the feature (Zone 1) was composed largely of brown (7.5YR3/4) sandy loam with small bits of charcoal and a few scattered clumps of raw white (7.5YR7/0) clay. Several Catawba sherds were also noted at the surface of the pit. Excavations from the south half of Feature 2 produced an amazing number and range of artifacts including 1146 glass beads, 534 potsherds, 20 historic ceramics, 3 gunflints, 2 coins, 2 silver nose bangles, including a variety of iron, brass and lead objects among other items. In contrast, Zone 1 from the north ½ yielded 222 glass beads, 218 potsherds, 6 historic ceramics, 12 wrought nails, a glass bottleneck as well as assorted brass, lead, and iron objects. The boundary between Zone 1 & 2 was defined by a thin (~5 cm) band of large clumps of raw white clay undulating slightly across the length of the pit and sloping upward at the pit walls. Below this band was a mottled zone consisting of brown (7.5YR3/4) sandy loam and dark brown (7.5YR4/4) sandy clay loam. During excavation, Zone 2 appeared slightly darker and more clayey than the preceding one and yielded a far richer artifact assemblage. Zone 2 contained 397 glass beads, 2 coins (one dated "1769"), 1 set of cuff links, 1 pair of scissors, an iron table knife, brass bell fragments, 8 kaolin pipe stems, 23 straight pins, plus many other items.

Zone 3 was separated from Zone 2 by a 2-3 cm band of dark brown (7.5YR4/4) sandy clay loam that extended across the pit and sloped upward near the pit walls. Zone 3 consisted of a more homogenous brown (7.5YR3/4) sandy clay loam fill. It contained few of the clumps of white potter's clay or charcoal flecks, but it did have abundant clumps of reddish clay. The artifact density of this zone was the lowest of the three containing 130 glass beads, 68 potsherds, 1 glass cufflink inlay, lead shot, sprue and a rolled lead cone, 1 iron clasp knife, Catawba and kaolin pipe fragments among other items. At the base of Zone 3, two red patches of soil were

observed, which stood out in contrast with the yellow clay subsoil of the pit floor. These spots turned out to be more or less superficial (<1 cm) areas of fire-reddened clay no doubt the result of an attempt to dry the newly excavated pit prior to use.

With its sub-rectangular shape and multiple zones of stratified fill, Feature 2 at first glance resembles other pits interpreted as subfloor storage facilities at SoC 634. However, its unusually large size and the shear number and diversity of artifacts recovered sets it apart from any other feature so far identified from the site. In particular, the number of glass beads recovered from Feature 2 (n=1953) is striking and represents more than twice the amount recovered from all other contexts at the site combined. Despites its unusual qualities, it seems clear that Feature 2 still functioned as an interior storage pit, albeit on a slightly larger scale.

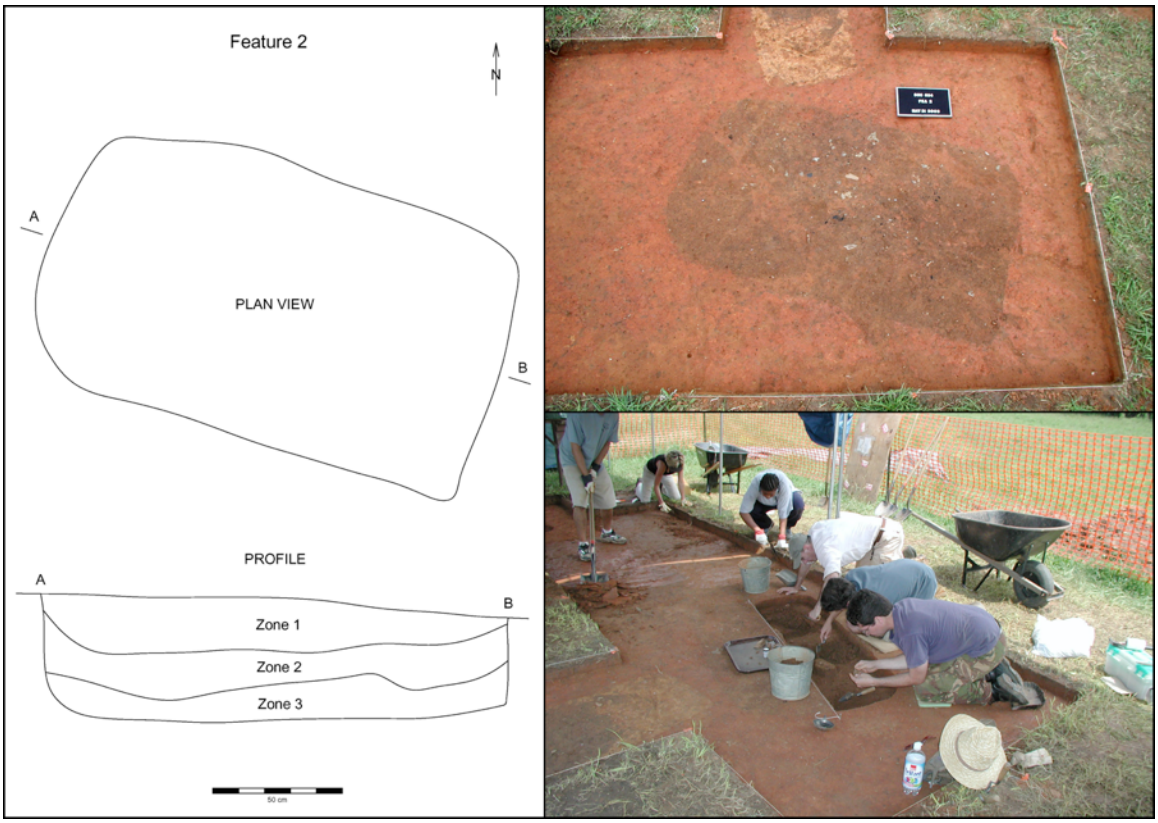


Figure A.2. Feature 2 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and feature excavation in progress (bottom right, view to southeast).

Figure A.3. Feature 2 excavation photographs: fill profile with south half excavated (top left, view to north), excavation of north half in progress (top right, view to east), top of N ½ Zone 3 (bottom left, view to north), and excavated feature (bottom right, view to north).
Note the two reddened patches at the base of pit excavation.

Feature 3 (Figure A.4)

Feature 3 is a sub-rectangular burial pit located in Locus 1 directly north of Feature 2. It is approximately 181 cm north to south and 61 cm east/west and in a similar N/S alignment to other burials in the vicinity. The surface of this feature contained dark brown humus, concentrated in the northern half of the pit, surrounded by heavily mottled yellow clay. The size, shape and characteristically mottled fill indicate that this pit was originally excavated and refilled immediately as a grave. Feature 3 was mapped and photographed, but not excavated.

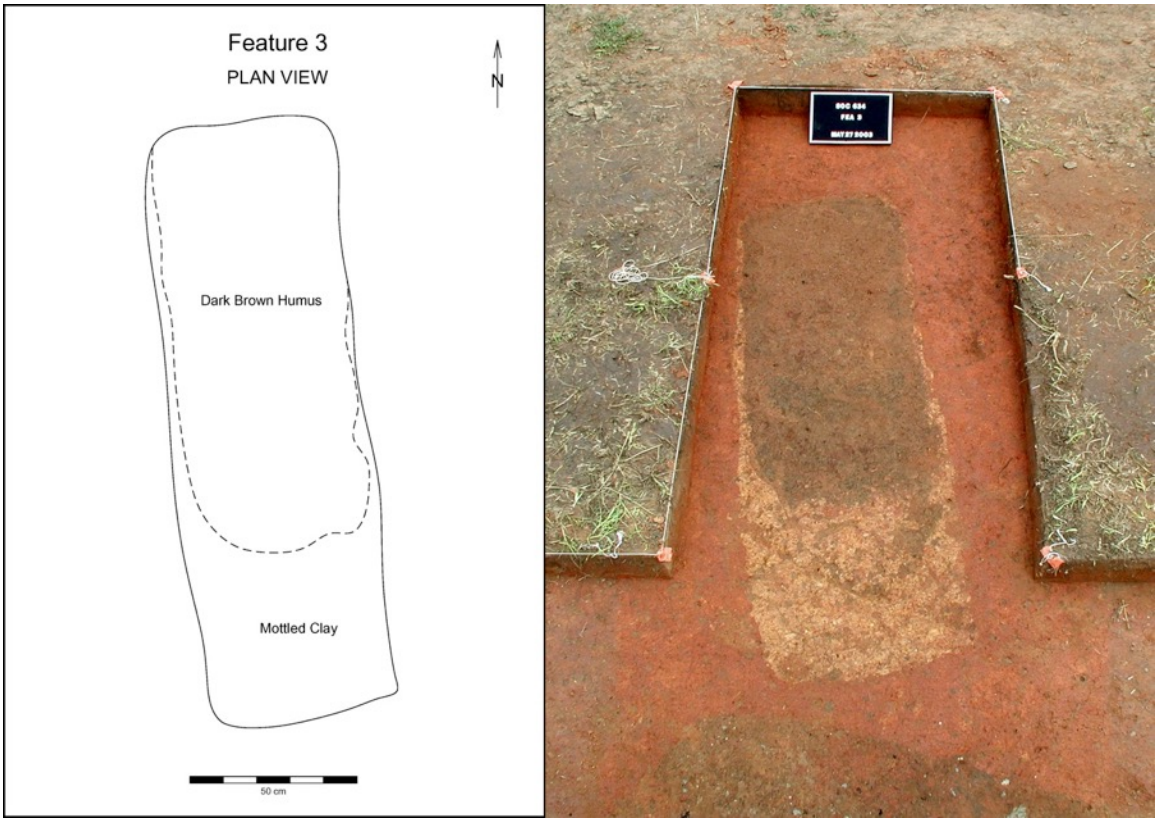


Figure A.4. Feature 3 plan view drawing and photograph at top of subsoil (view to north).

Feature 4 (Figure A.5)

Feature 4 refers to the large circular storage pit located at the western end of excavations in Locus 1, adjacent to Features 5, 6, and 7. This relatively flat-bottomed pit with straight, inward sloping walls measured approximately 130 cm in diameter. Three zones of cultural fill were identified extending approximately 18 cm below the top of the feature. The unexcavated plan view of Feature 4 suggests that all three zones may have been visible from the surface while its most prominent feature was a large tabular piece of schist located on the west side of the pit. Excavations revealed this rock to be lying on top of the underlying Zone 3.

Zone 1 consisted of mottled yellow clay containing a few very small potsherds. Zone 2, described as red clay, formed an irregular halo around Zone 1. A single iron fragment was recovered from Zone 2 in the south half of the feature. After the pit's stratigraphy had been fully

exposed in the bisection profile, it was determined that Zones 1 & 2 were essentially a mixed context and the zones were combined and removed as a single provenience in the north half. Zone 1/2 yielded relatively little material including 6 potsherds, 3 glass beads, an iron knife handle, 1 clay pipe fragment, a polishing stone and hammer stone.

A dark brown patch of soil observed at the surface of Feature 4, south of the large rock, may represent a small area of Zone 3 although the majority of this zone was certainly located stratigraphically below Zone 1/2. Zone 3 comprised a much darker soil that contained flecks of charcoal and cultural debris. Artifacts recovered from this zone include 22 potsherds, 17 glass beads, 8 iron tacks, 4 clay pipe fragments, 2 brass rings, and a silver pendant fragment among other items. Several large sherds were observed lying at the interface of this zone and Zone 1/2. In the north half, two additional large schist stones were identified resting on top of Zone 3, intruding into Zone 1/2. Also visible on top of Zone 3 was a slab of yellow potter's clay.

Feature 4 appears to have functioned as a storage facility with two primary episodes of filling. The first (Zone 3) appears to have been associated with the primary occupation and use of the pit while Zone 1/2 appears to have been deposited quickly in an effort to fill and cap the pit before abandonment.

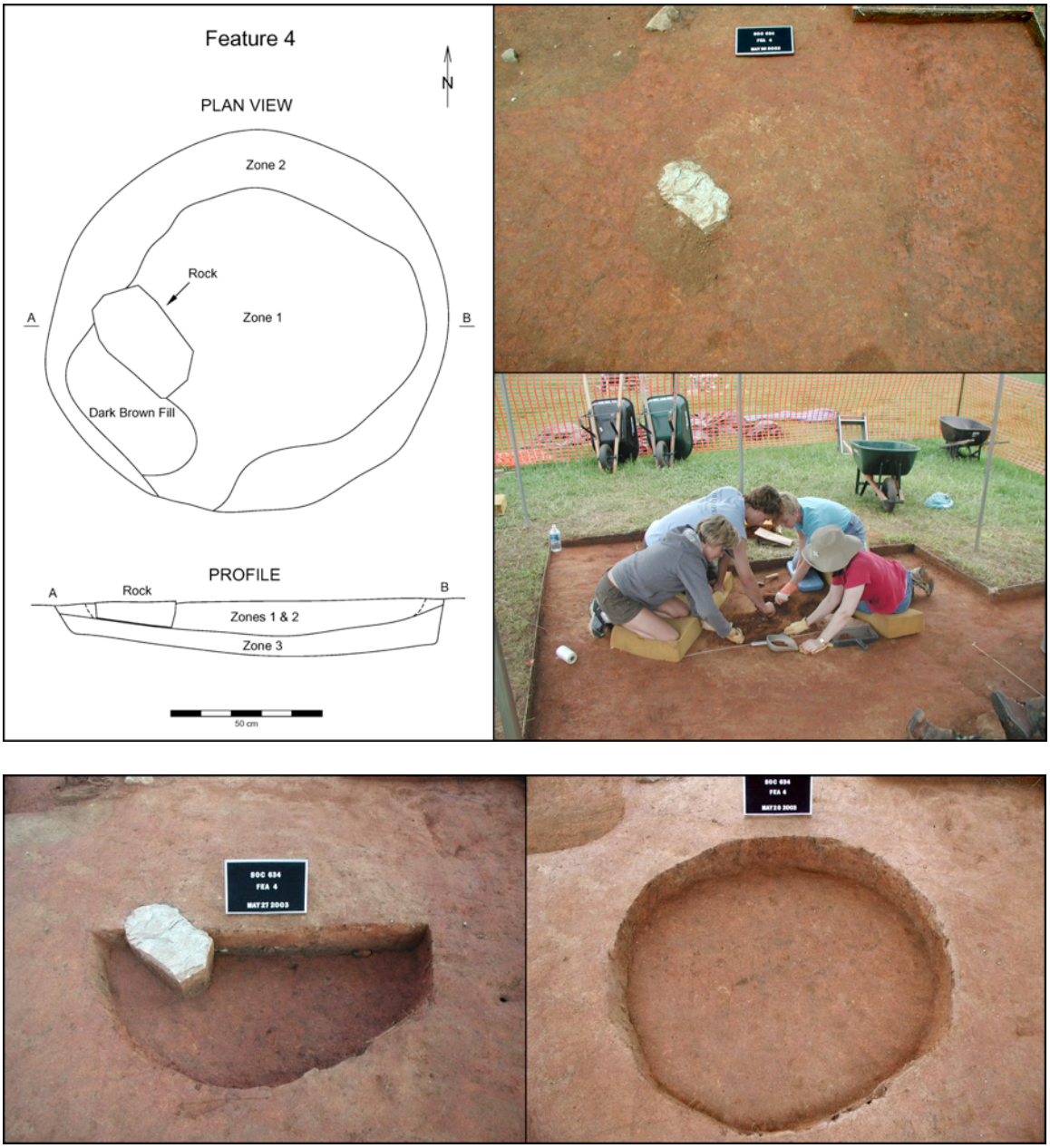


Figure A.5. Feature 4 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), south half excavation in progress (middle right, view to south), fill profile with south half excavated (bottom left, view to north), and feature excavated (bottom right, view to north).

Feature 5 (Figure A.6 and A.7)

Feature 5 is a sub-rectangular storage pit located in Locus 1 immediately adjacent to Feature 7 and is intruded on the northeast corner by Feature 6. Excavations revealed a shallow basin-shaped pit measuring 102 cm north-south, 78 cm east-west and approximately 10 cm deep comprising a single zone of cultural fill. Zone 1 consisted of mottled reddish brown (5YR4/4) clay loam with red and yellow clay as well as bits of charcoal. The artifacts recovered from Zone 1 include 48 potsherds, 31 glass beads, 1 clay pipe fragment and an unidentified iron fragment. Two flotation samples were also collected and processed from Feature 5 totaling 20 liters.

The entire northeastern portion of Feature 5 was impacted by the subsequent construction of Feature 6. The size and shape of Feature 5 suggest it was originally dug as a storage pit before eventually being filled with refuse. The dimensions of this pit are similar to Features 12 and 15 from Locus 2 which were also relatively shallow with only one or two generally artifact light zones.

Feature 6 (Figure A.6 and A.7)

Feature 6 is a shallow sub-rectangular storage pit located in Locus 1. Feature 6 is oriented perpendicular to and intrudes the northeast side of Feature 5. The pit itself measures 93 cm long by 71 cm wide with a maximum depth of 14 cm. The western half of Feature 6 was excavated as a single zone but it was divided into two zones when the east half was removed. Zone 1 consisted of a mottled dark red clay loam and contained 16 potsherds, 25 glass beads, a lead sheet fragment and a gunflint flake from the west ½ and 6 potsherds, 8 glass beads, 1 small lump of orange sealing wax and animal bone fragments from the east ½. Zone 2 was described as sandy and compact in the northern portion, which graded into a moister, darker and ashier fill in the southern end of the pit. Zone 2 contained relatively few artifacts with 2 potsherds and 3 glass

beads recovered. A total of 3 ten-liter flotation samples were collected from Feature 6, one from each zone in a half. Feature 6 also intrudes a small, square shaped disturbance at its northwestern corner. This disturbance, originally excavated as “Posthole 1”, is now designated Feature 65.

The dimensions and shape of this feature indicate that it was used as a storage facility. Feature 6 is similar to other relatively shallow storage pits from SoC 634 including Features 5, 12, and 15. Like these other pits, Feature 6 contained few artifacts and largely uncomplicated stratigraphic deposits.

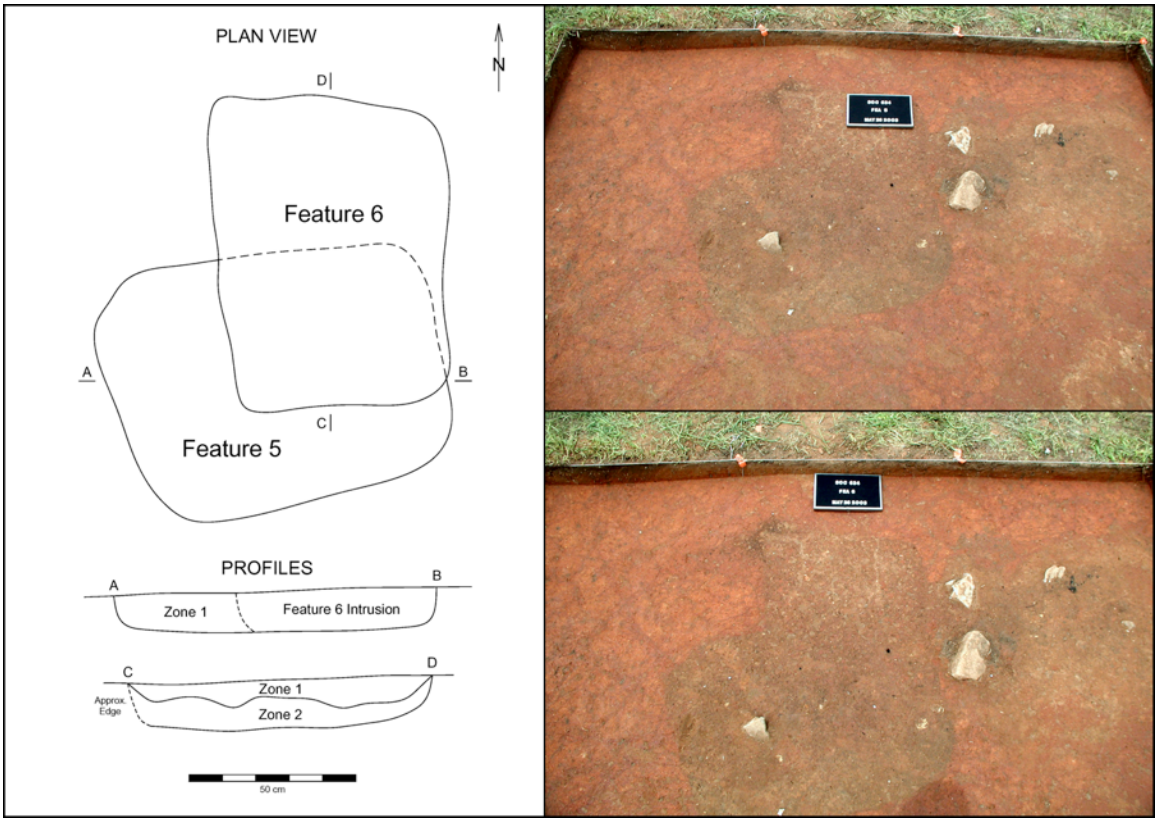


Figure A.6. Features 5 and 6 plan view and profile drawings, and excavation photographs: top of Feature 5 (top right, view to north) and top of Feature 6 (bottom right, view to north).

Figure A.7. Features 5 and 6 excavation photographs: Feature 6 fill profile with west half excavated (top left, view to east), Feature 6 excavated (top right, view to west), Feature 5 fill profile with north half excavated (bottom left, view to south), and Feature 5 and 6 excavated (bottom right, view to north).

Feature 7 (Figure A.8)

Feature 7 is a sub-rectangular cellar pit that was ultimately filled with a combination of refuse and soil. It is located in Locus 1 to the east of Features 5 and 6 and north of Feature 4. The feature is roughly square in shape and measures 118 cm in maximum length and 101 cm wide. The feature, with a flat floor and nearly vertical walls, was approximately 35 cm deep and contained 4 discrete zones of fill. Aside from several large rocks, the surface of Feature 7 appeared nearly identical to the surrounding subsoil making the detection of pit edges initially difficult.

The south half of the feature was excavated first in which two zones were initially identified. Zone 1 of this half consisted of a mixture of strong brown (10YR5/6) sandy clay loam

mottled with yellowish red (5YR4/6) sandy clay loam and red (2.5YR4/8) clay loam. A thin lens of charcoal was observed approximately 5 cm below the surface near the center of the feature. Zone 1 in the north half was excavated to a depth of 25 cm at its lowest point and produced 4 potsherds, 1 fragment of glass and a glass bead. Zone 2, excavated as 'Zone 4' in the North half, was described as a much more homogenous dark brown (7.5YR3/4) silt loam and extended to the floor of the pit. An iron hoe discovered in Zone 2 was lying at the interface between Zones 1 and 2. Other artifacts recovered from this zone include 62 potsherds, 23 glass beads, 1 silver brooch, several refitted fragments of bottle glass as well as other glass fragments, and 16 iron fragments among other items. In addition to these, a large tabular piece of schist was recovered which had a small circular depression at the center of one side suggesting it may have been used as an anvil.

Upon inspection of the north profile, it was concluded that Feature 7 contained 4 rather than 2 zones and the north half was excavated with respect to these 4 zones. Zone 1 remained the mottled strong brown (10YR5/6) sandy clay described from the south half. This zone reached a depth of roughly 10 cm and contained little cultural material besides 10 potsherds, 13 glass beads, and a fragment of green bottle glass. Zone 2 consisted of a thick, wedge shaped lens of homogenous red (2.5YR4/8) clay loam and reached a depth of 15-18 cm below surface. This zone was confined to the eastern half of the feature and was all but sterile except for a clay pipe fragment, a shard of green bottle glass and a single glass bead. Zone 3 was stratigraphically below Zone 1 in the western half of the feature and Zone 2 on the eastern side. This zone comprised yellowish red (5YR4/6) sandy loam mottled with red clay loam and reached a depth of 25-27 cm at its lowest point. Artifacts recovered from Zone 3 include 20 potsherds, 18 glass beads, a flattened lead shot and sprue, 1 iron object, 1 bottle glass fragment, a piece of silver scrap and a chipped stone projectile point. The final stratum, Zone 4, was unevenly distributed in

the feature and was uncovered at varying depths from approximately 20 cm near the west wall to 27 cm at the center and east margins. It consisted of dark brown (7.5YR3/4) silt loam, which extended to the bottom of the pit at 35 cm below surface. The cultural material collected from Zone 4 was somewhat richer than the other zones and includes 14 potsherds, 46 glass beads, lead shot and sheet fragments, a horseshoe branch, 2 iron fragments, a piece of silver scrap, 1 green bottle glass fragment, and a small lump of orange sealing wax.

The size and shape of Feature 7 suggests that it served as a sub-floor storage facility. Zone 3 and 4 appear to be associated with the primary use and occupation of the cellar and contains discarded cultural debris. Zone 2 may have resulted from the partial caving of one of the walls. Soil associated with Zone 1 was the last to be added to the pit and might represent an attempt to cap the pit after it was abandoned as a storage/refuse pit.

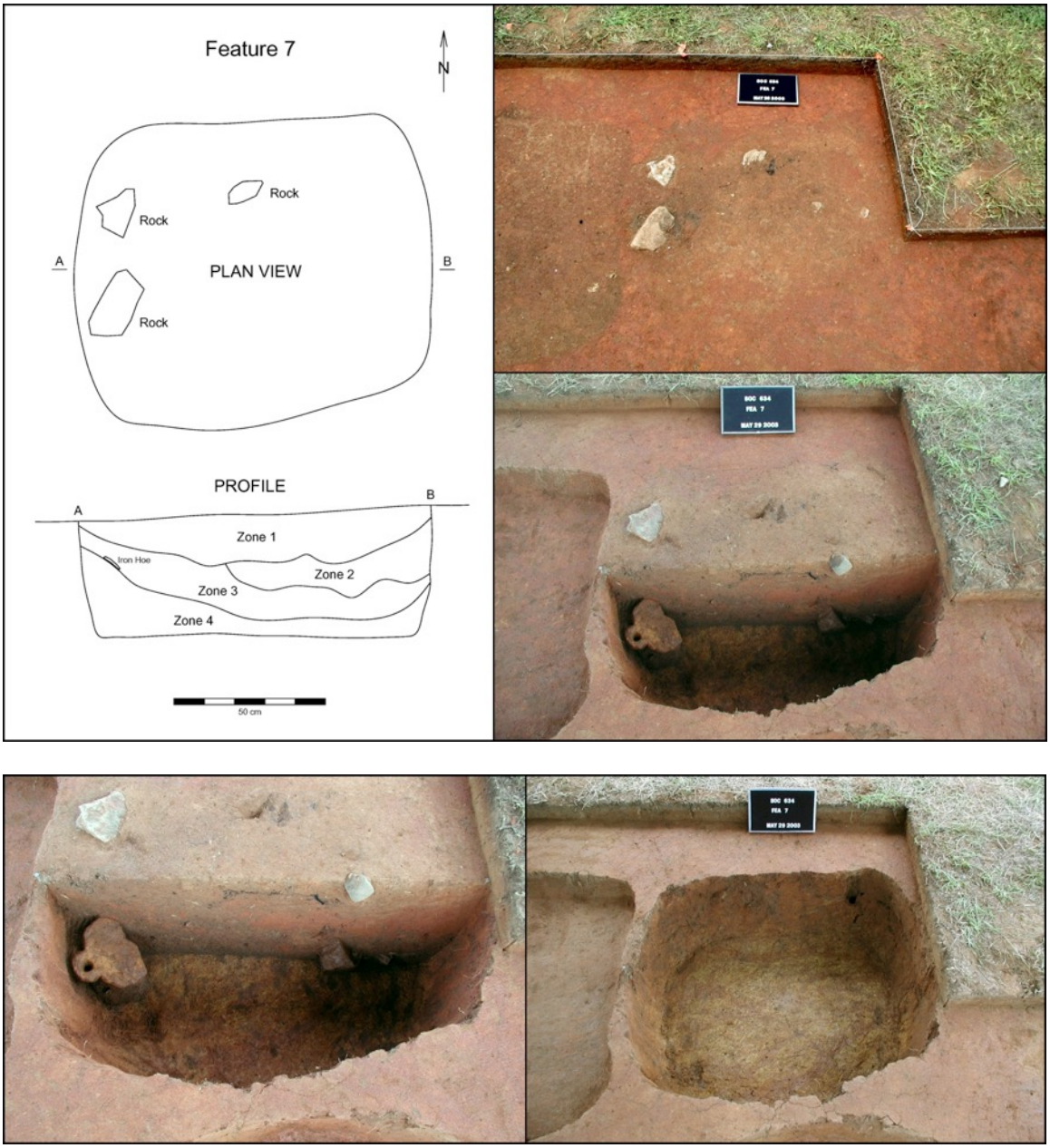


Figure A.8. Feature 7 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with south half excavated (middle right, view to south), south half profile close-up (bottom left, view to north), and feature excavated (bottom right, view to north).

Feature 8 (Figure A.9)

Feature 8 is a sub-rectangular burial pit located just east of Feature 3 in Locus 1. It measures approximately 113 cm north to south and 53 cm east to west. The majority of the fill visible at the top of this feature is brown humus mixed with red clay and lighter, heavily mottled clay at the southern edge of the pit. Based on its shape, dimensions, and the nature of the fill Feature 8 was determined to be a burial at which point it was photographed and mapped with a total station. Feature 8 was not excavated.

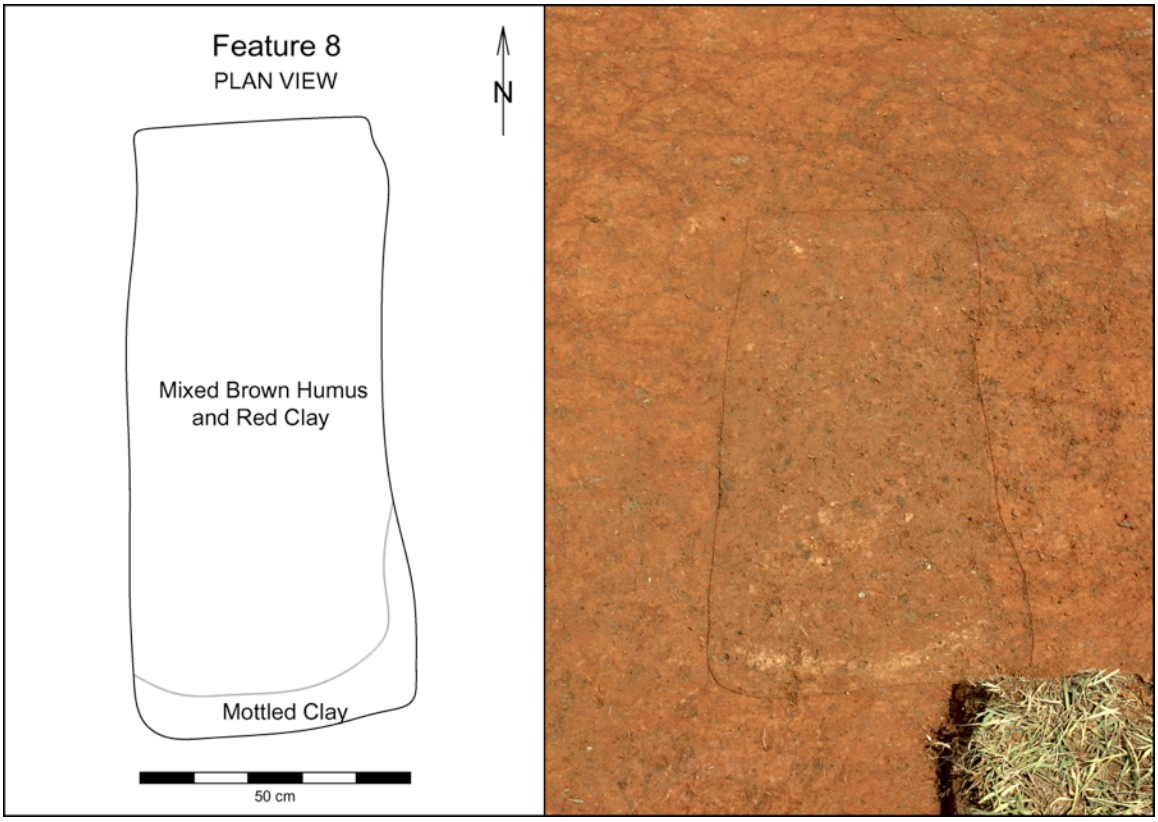


Figure A.9. Feature 8 plan view drawing and photograph at top of subsoil (view to north).

Feature 9 (Figure A.10)

This feature was also located at Locus 1, north of Features 3 & 8. Feature 9 is a sub-rectangular burial pit oriented nearly north-south and measures 129 cm long by 53 cm wide. In addition to it's size, shape and characteristically mottled fill, the dark brown humus that had slumped into the middle of Feature 8 provided additional evidence that it contained a burial. Like Feature 8, this burial was photographed and mapped, but not excavated.

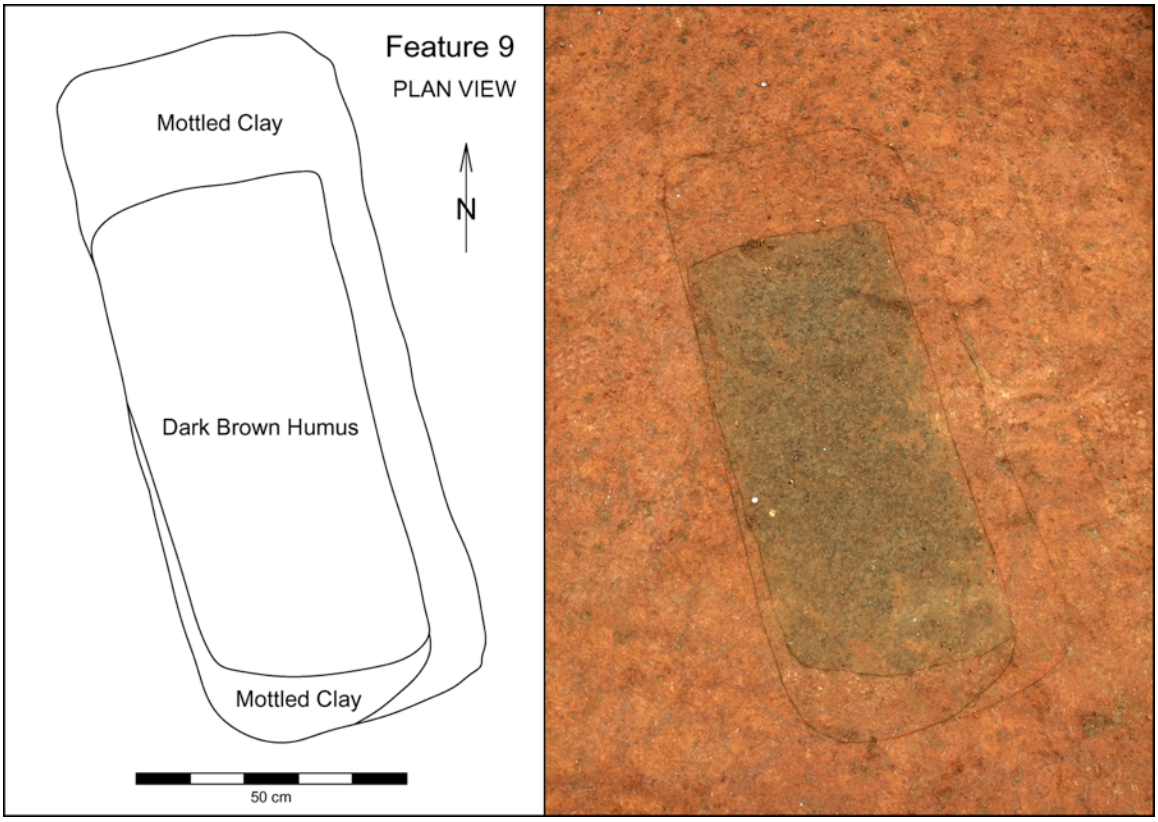


Figure A.10. Feature 9 plan view drawing and photograph at top of subsoil (view to north).

Feature 10 (Figure A.11)

Feature 10 was located within Locus 2 and is a generally circular, basin-shaped pit that has a diameter of approximately 61 cm. This feature contained one zone of highly mottled fill, 10-12 cm thick. Zone 1 consisted of dark brown (10YR3/3) clay loam mottled with a yellowish brown (10YR5/6) sandy loam with clumps of a very pale brown (10YR7/3) clay, the latter being interpreted as potter's clay. While this zone yielded only 8 potsherds and few pieces of calcined bone, it produced numerous historic artifacts including glass beads (n=66), a silver finger ring, 1 brass shoe buckle, 1 brass Jew's harp, 2 lead shot, rolled lead sheet and several iron fragments. The entire west half of Feature 10 was collected and processed as a flotation sample totaling 14 liters. A sample of the potter's clay was also recovered to facilitate future characterization studies of Catawba potting clays.

While the excavation of this feature suggests it was ultimately used to dispose of refuse being quickly filled in a single episode, the presence of potter's clay indicates that the original function of Feature 10 may be related to the processing of clays or some other activity associated with ceramic production.

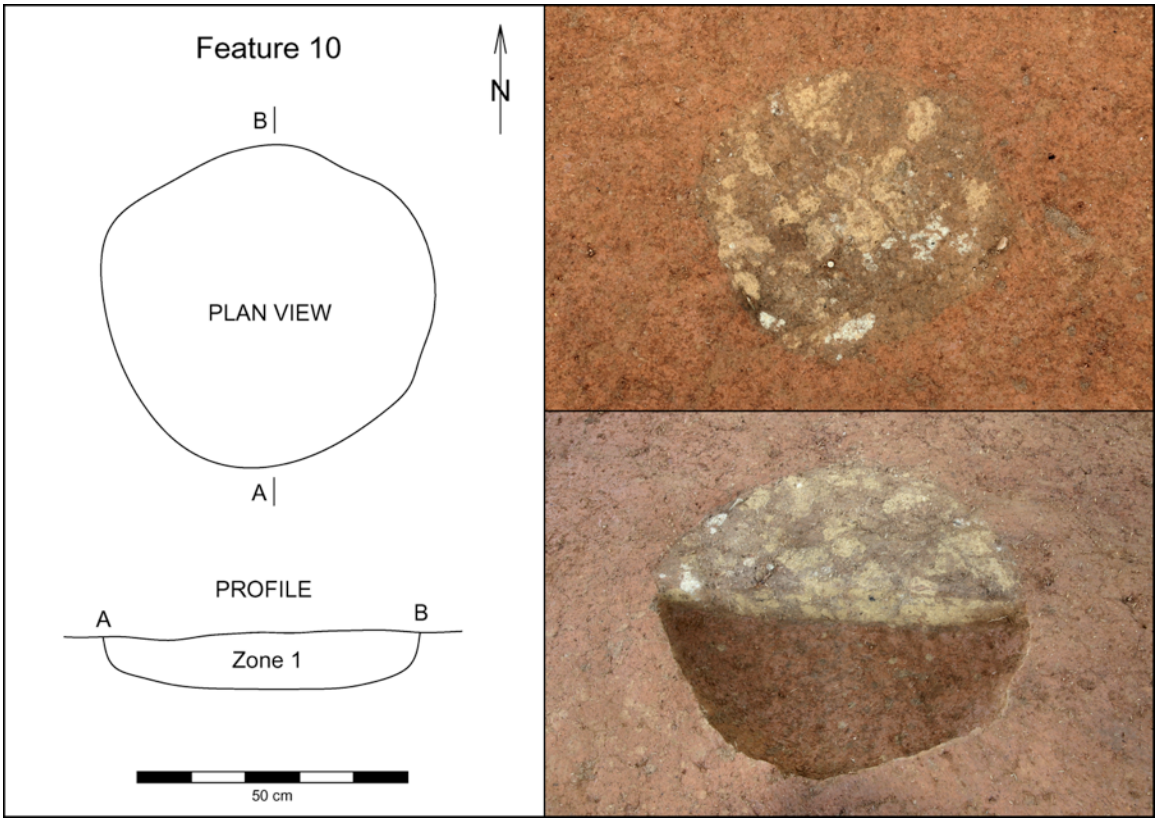


Figure A.11. Feature 10 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and fill profile with east half excavated (bottom right, view to west).

Feature 11 (Figure A.12)

This sub-rectangular storage pit was located at the southern end of the main excavation block in Locus 2. Feature 11 contained five zones of cultural fill: two artifact rich horizons and two-three relatively sterile capping/filling episodes. The pit measured 88 cm by 85 cm wide had a maximum depth of 43 cm below the top of subsoil. Feature 11 appeared as a faintly visible mottled patch of soil with a large rock protruding from its surface. This zone, Zone 1, consisted of yellowish red (5YR4/6) clay loam mottled with yellowish brown (10YR5/8) clay loam with a few specks of gray (7.5YR6/1) potter's clay mixed in. Zone 1 extended to an average depth of 15-16 cm and contained relatively few artifacts including 7 potsherds, 1 historic sherd and 2 flakes. During the initial excavation of the south half of the feature, Zone 2 was distinguished

from Zone 1 based on the presence of areas of dark reddish brown (5YR3/3) and dark reddish gray (5YR4/2) silt loam mixed with fill similar to Zone 1 as well as containing a higher concentration of artifacts. The cultural material recovered from Zone 2 include 53 potsherds, 1 kaolin pipe fragment, 1 historic sherd, and animal bone. After evaluating the profile, however, it was determined that Zones 1 and 2 should be combined as it appeared Zone 2 represented simply a mixed and highly irregular interface between Zones 1 and 3. Zone 1/2 in the N ½ yielded 21 potsherds, a couple fragments of calcined bone, 3 tabular stones and a clay pipe fragment. The total depth of Zone 1/2 was approximately 20-22 cm.

The fill within Zone 3 was moist and very slick to the touch suggesting a substantial amount of ash. It was a rich deposit of dark reddish brown (5YR3/3) silt loam with an underlying band of dark reddish gray (5YR4/2) silt containing animal bone, small potsherds and fired clay. Of particular note, 6 glass beads, 2 kaolin pipe fragments, 3 Catawba clay pipe fragments, a glass set stone, green bottle glass and 1 lead shot were recovered from this zone. Zone 3 was irregularly distributed and varied greatly in thickness, from 2-7 cm, sloping deeper toward the west. Underlying Zone 3 was a wedge shaped layer of mottled yellowish red (5YR4/6 and 5YR5/8) clay loam that resembled Zone 1. Zone 4 is thickest at the east end of the pit (12 cm) and narrows considerably towards the west (1 cm), nearly pinching out at the west wall. Aside from a few potsherds, animal bone and a straight pin, this zone was nearly sterile.

Zone 5 was comprised of dark reddish brown (5YR3/3) silt loam with clumps of greenish gray (GLEY 1 5/10Y) and olive brown (2.5Y4/4) clay and is approximately 7-10 cm thick. This zone, like Zone 3, contained a rich assortment of cultural material including 18 glass beads, a lump of red sealing wax, 1 brass Jew's harp, a pistol barrel, 1 iron key, sections of a large Catawba-made pan, fragments of English-made pottery, 5 straight pins, a brass thimble and bell,

among other items. Near the top of Zone 5, several small strips of unburned bark were discovered. These bark fragments appeared to be aligned parallel to one another but a continuous layer of bark was not found. It is possible that this material was used a cover or partition for the contents of the pit.

Excavation of Feature 11 revealed a subfloor cellar pit with a complex depositional history. It had slightly flaring pit walls giving it a bell-shaped profile. Zones 3 and 5 correspond to the primary episodes of occupation while Zones 1/2 and 4 appear to have been deposited quickly to seal or cap underlying refuse. Zone 4 in particular seems have been an attempt to extend to use life of the cellar by introducing "clean" soil thereby creating a new floor surface.

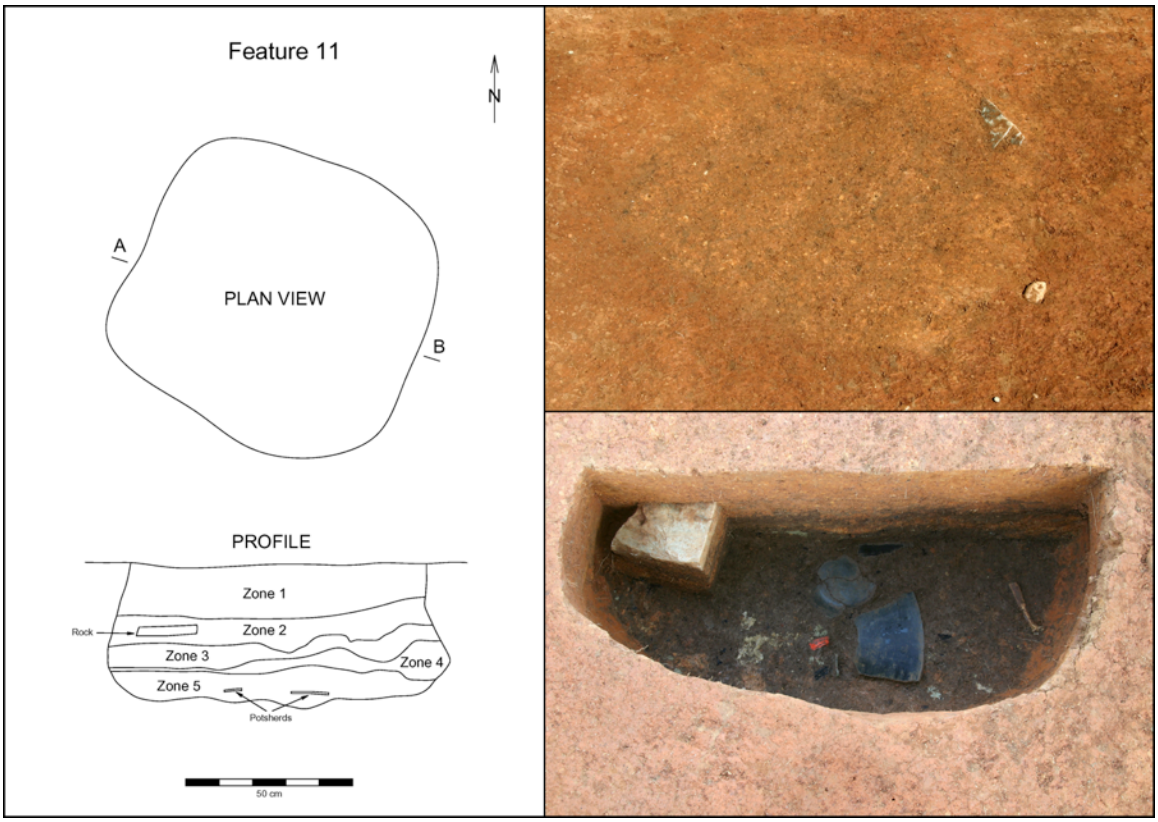


Figure A.12. Feature 11 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and south half excavation with *in situ* artifacts (bottom right, view to north).

Figure A.13. Feature 11 excavation photographs: close-up of south half excavation with *in situ* pottery, red sealing wax, and brass jaw harp (top left, view to north), fill profile with south half excavated (top right, view to north), north half excavation with *in situ* pottery, pistol barrel, and antler tine (bottom left, view to north), and fully excavated feature (bottom right, view to north).

Feature 12 (Figure A.14)

This sub-rectangular pit is located within the main cluster of features at Locus 2. Feature 12 contains one primary zone of fill with a potentially earlier pit/disturbance located in the base at the south end. The main portion of Feature 12 (Zone 1) measures 98 cm long and 69 cm wide and 24 cm deep while on the south end, Zone 2 (aka. Feature 12a) extends 49 cm below the surface.

Zone 1 consisted of dark brown (7.5YR3/4) clay loam with some strong brown (7.5YR4/6) and yellowish red (5YR4/6) clay mottling with several sherds visible from the top of the feature. During excavation the "bottom of Zone 1" was distinguished from the top at 14 cm below surface due to a noticeable decline in the number and size of sherds while the fill did not

otherwise change substantially aside from gaining a more evenly mottled texture. This zone produced 177 sherds, 8 glass beads, green bottle glass, a silver broach clasp, several wrought nails and tacks and a worked quartz crystal.

Zone 2 was first observed at the base of Zone 1, though on closer inspection it was possible to discern a faint outline from the original feature at the base of the plowzone. Zone 2 comprised of dark brown (7.5YR3/5) clay loam mottled with yellowish red (5YR5/6) clay loam and confined to the southern end of Feature 12. The only artifacts recovered from this zone were a single glass bead and an archaic bifurcated projectile point, the latter found roughly 36 cm below surface. Flotation samples were collected from both the top and bottom of Zone 1 (19 liters from each) as well as 2 samples from Zone 2 totaling 17 liters. Zone 2 likely represents an earlier archaic component at SoC 634 that was impacted by the later eighteenth century Catawba occupation though the specific function of the feature remains unclear and is designated Feature 12a.

The size and shape of Feature 12 (Zone 1) indicate that it was originally utilized as a storage facility before eventually being filled with refuse. It is similar in size, shape and orientation to Feature 15, which is located directly across from it 2 meters to the west. Their relative position to one another suggests that the two pits were architecturally related in some way, potentially occupying opposite ends of the same cabin.

Figure A.14. Feature 12(a) plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), feature excavation in progress (middle right, view to west), fill profile with south half excavated (bottom left, view to east), and feature excavated (bottom right, view to east).

Feature 13 (Figure A.15)

This feature is a roughly circular basin-shaped storage pit immediately adjacent to Feature 14 in Locus 2. It has a diameter of approximately 55 cm and a maximum depth of 16 cm below top of subsoil. Feature 13 contained two zones of fill, though Zone 2 was not initially recognized until after the feature had been bisected and profiled. Though a few of the soil colors at the surface of Feature 13 appeared concentrated in some areas, the whole feature was heavily mottled and distinct zones could not be distinguished. Zone 1 comprised strong brown (7.5YR4/6) and dark brown (7.5YR3/3) clay loam mottled with red (2.5YR4/6), light bluish gray (GLEY 8/10B) and pale olive (5Y6/4) clay. Charcoal and calcined bone were also noted at the surface of the feature. Zone 1 yielded a variety of artifacts including 41 sherds, 2 glass beads, red sealing wax fragments, 6 clay pipe fragments, 1 snaffle bit, 1 tanged knife blade, 1 wrought nail fragment, 1 lead ball and sprue, a straight pin, 1 stone disk and animal bone. Of note was a nearly complete deer mandible was uncovered resting on or near the interface between Zone 1 and 2 with a lead ball positioned between the two halves. Two samples were collected from Zone 1 for flotation, totaling 17 liters, and another collected to sample the bluish gray and pale olive potter's clay.

Zone 2 consisted of brown (7.5YR4/4) clay loam and was approximately 2.5 cm thick. No artifacts were recovered from this zone. The entire zone was collected and processed as a flotation sample totaling 3 liters. The internal shape of the pit wall was slightly incurved. The size, shape and contents of Feature 13 indicate that it was first excavated as a storage facility and after a period of use, quickly filled with trash and other midden material.

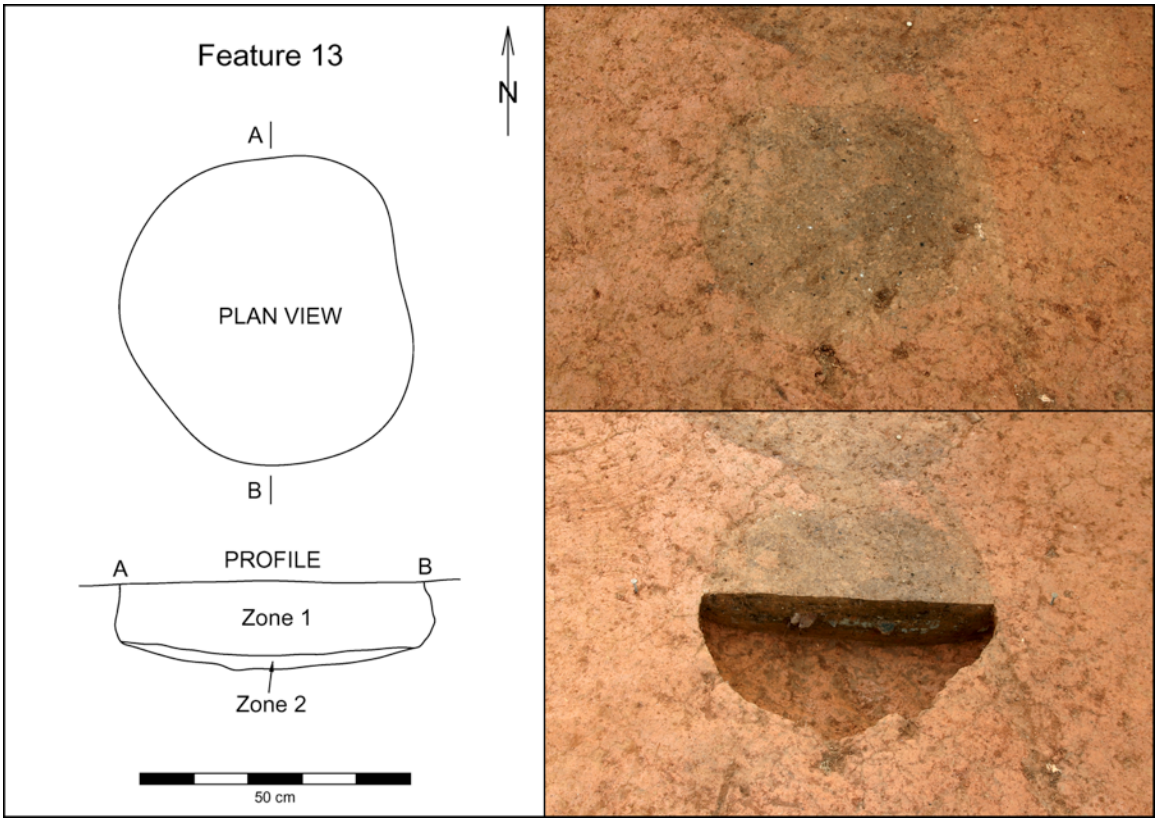


Figure A.15. Feature 13 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and fill profile with west half excavated (bottom right, view to east).

Feature 14 (Figure A.16)

Feature 14 is a deep, stratified sub-rectangular cellar pit with a complex depositional and excavation history. It is located in the northern portion of Locus 2 near Features 10, 12 & 13. This feature is approximately 107 cm long and 80 cm wide with relatively straight walls and a flat bottom at 69 cm below the top of the subsoil.

At the time of excavation, two distinct zones were visible at the top of Feature 14. Zone 1 formed the central portion of the feature consisting of dark yellowish brown (10YR3/6) clay loam mottled with yellowish brown (10YR5/8) clay loam, strong brown (7.5YR4/6) clay loam and yellowish red (10YR4/6) clay with small (<5 mm) charcoal inclusions. Zone 2 was a dark yellowish brown (10YR3/6) clay loam, also with charcoal inclusions, that formed an irregular

halo around the margins of the pit. Zone 1 was described as a very compact, dry and clayey which easily popped off the underlying sandier and looser Zone 2. The maximum thickness of Zone 1 was only 3 cm. Only a few artifacts were recovered from this zone including 12 potsherds, 4 glass beads and 2 historic sherds. Zone 2 contained 149 potsherds, 1 kaolin pipe fragment, a silver cone from an earring, 1 horseshoe fragment, 3 straight pins, and several clear glass fragments, among other items. Like Zone 1, Zone 2 was a relatively thin deposit only 4 cm thick from which 17.5 liters were preserved for flotation.

Zone 3 was easily differentiated from overlying fill due to a change in texture that was much less compact and moister than Zones 1 & 2 as well as containing a greater amount of cultural debris and soil inclusions. The primary matrix of Zone 3 consisted of dark brown (7.5YR3/4) clay loam and mottled with light greenish gray (GLEY 8/5GY) clay. Zone 3 had a maximum thickness of 10 cm though it did not extend completely to the west wall. Due to initial difficulties in distinguishing zones in Feature 14, significant mixing of Zones 3 and 5A occurred in the north ½ before the stratigraphy was clarified in the feature profile. This mixed deposit contained a tremendous number of artifacts, most of which were likely associated with Zone 5A, including 704 potsherds, 11 glass beads, 1 glass set stone, 12 clear glass fragments, 2 historic sherds, a brass eyelet and 8 wrought nails, animal bone and mussel shell, and other items. The south ½ of Zone 3 may provide a better gauge for what cultural material can be confidently attributed to this zone: 166 potsherds, 3 glass beads, a fragment of green bottle glass, 3 clear glass fragments, a wrought nail and tack, 1 cut silver sheet fragment, clay pipe fragments, and animal bone.

Zone 4 refers to small patches of dark reddish brown (5YR3/4) sandy clay loam observed along the pit's northern and western walls. Zone 4 proved to be only a few extremely localized

wedges of fill that were restricted to the northern half of Feature 14. Although 9 potsherds, 2 glass beads and a tooth are attributed to this zone, field records suggest that these artifacts as well as the fill itself may be more appropriately described as simply inclusions within Zone 5A. All fill associated with this zone was collected and processed as a 1.5 litter flotation sample.

Zone 5A was first identified after the feature profile had been exposed and it was removed as its own discrete zone only in the south ½, described in field records as "Zone 5 Level 1". This zone is composed of strong brown (7.5YR3/6) sandy clay loam mottled with dark brown (7.5YR3/3) clay loam. Its maximum thickness was approximately 26 cm but the base of this zone sloped up dramatically near the edges of the pit giving it a basin shape. Zone 5B was similar to Zone 5A in all respects expect for the presence of patches of yellow (2.5Y7/6) sandy loam ranging in size from 1 to 10 cm. The majority of the fill in Zone 5B consisted of dark brown (7.5YR3/4) clay loam. This zone was excavated as "Zone 6" in the north ½ but renamed "Zone 5 Level 2" in the profile and south half after the feature's stratigraphy had been worked out. The maximum extent of Zone 5B was 20 cm although the base of this zone was irregular. Zone 5 A & B were both artifact rich deposits that contained very similar cultural material. Zone 5 A (S ½) yielded 314 potsherds, 6 glass beads, 1 green bottle glass fragment as well as clear glass fragments, a silver ring and a lead alloy coat button, animal bone and mussel shell, and 1 clay pipe fragment. Zone 5 B (S ½) produced 303 potsherds, 10 glass beads, 1 green bottle glass fragment as well as clear glass fragments, 5 straight pins, 3 wrought nails and a wrought tack, three historic sherds, animal bone and mussel shell, and 1 clay pipe fragment.

Below Zone 5B, excavators encountered 8-12 cm of a slightly redder zone of dark brown (7.5YR3/4) clay loam mixed with brownish yellow (10YR6/8) sandy loam and inclusions of light greenish gray (GLEY 1 7/5GY) clay. Zone 6 contained a very similar assemblage to Zone

5A & B aside from a greater density of animal bone and fewer potsherds. Zone 6 was originally identified and removed as “Zone 7” in the north ½ of the feature but it was renamed in the south ½ excavations.

Aside from a few potsherds, Zone 7 was relatively sterile. It was composed of dark reddish brown (5YR3/4) clay loam which averaged approximately 7 cm thick. In the north ½ of this feature, Zone 7 had originally been lumped into a larger stratigraphic unit called Zone 7 + 8 before it was renamed just Zone 7. Lying on the floor and in the center of the pit was a section of burned timber 61 cm long and 18 cm wide. Also on the floor was a burned patch of reddened soil west of the burned wood that contained a white glass bead. It is unclear whether these two elements were related. The soil associated with both of these contexts were collected as flotation samples.

Feature 14 had straight to slightly bell-shaped walls and given its overall size and shape, it likely served as a sub-floor storage facility or cellar before eventually being filled with cultural debris and trash. The reddened area on the floor suggests that a small fire was used to potentially drive out excess moisture in the newly constructed pit prior to use for storage. The wooden board indicates that pits such as this were either lined or covered with planks to protect its contents.

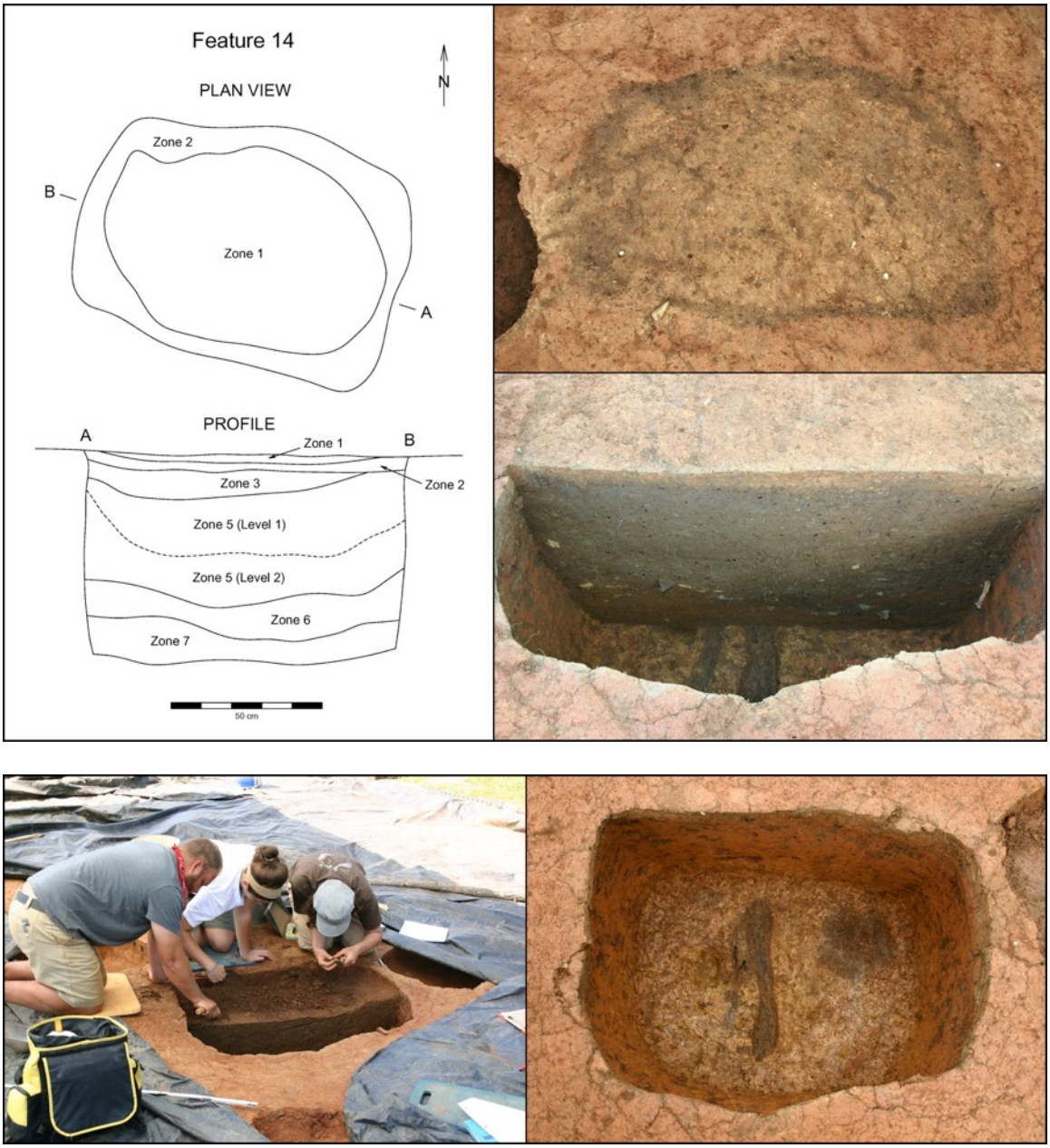


Figure A.16. Feature 14 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with north half excavated (middle right, view to south), feature excavation in progress (bottom left, view to southwest), and feature excavated (bottom right, view to north).

Feature 15 (Figure A.17)

This shallow sub-rectangular storage pit bears a striking resemblance in size, shape and orientation to Feature 12. Excavations revealed that Feature 15 had a basin shape and measured 91 cm long, 65 cm wide, and contained a single zone of fill 16 cm thick. At the surface, Zone 1 appeared heavily mottled consisting of strong brown (7.5YR4/6) and dark brown (7.5YR3/2) sandy clay loam with numerous clumps of greenish gray (GLEY 6/10Y) clay. Materials recovered from this zone include 229 sherds, 11 glass beads, 3 lead balls and a flattened lead disk, a brass thimble and cuff links, fragments from a thin iron sheet or box, 1 wrought nail, 1 Catawba pipe stem, animal bone, charcoal and daub. Feature 15 also produced a large number of green bottle glass fragments (n=64), more than any other context from the site. A total of 17 liters of soil were collected as flotation samples from Zone 1.

Like Feature 12, this feature was likely excavated initially to serve as a storage facility and eventually was filled with refuse and abandoned.

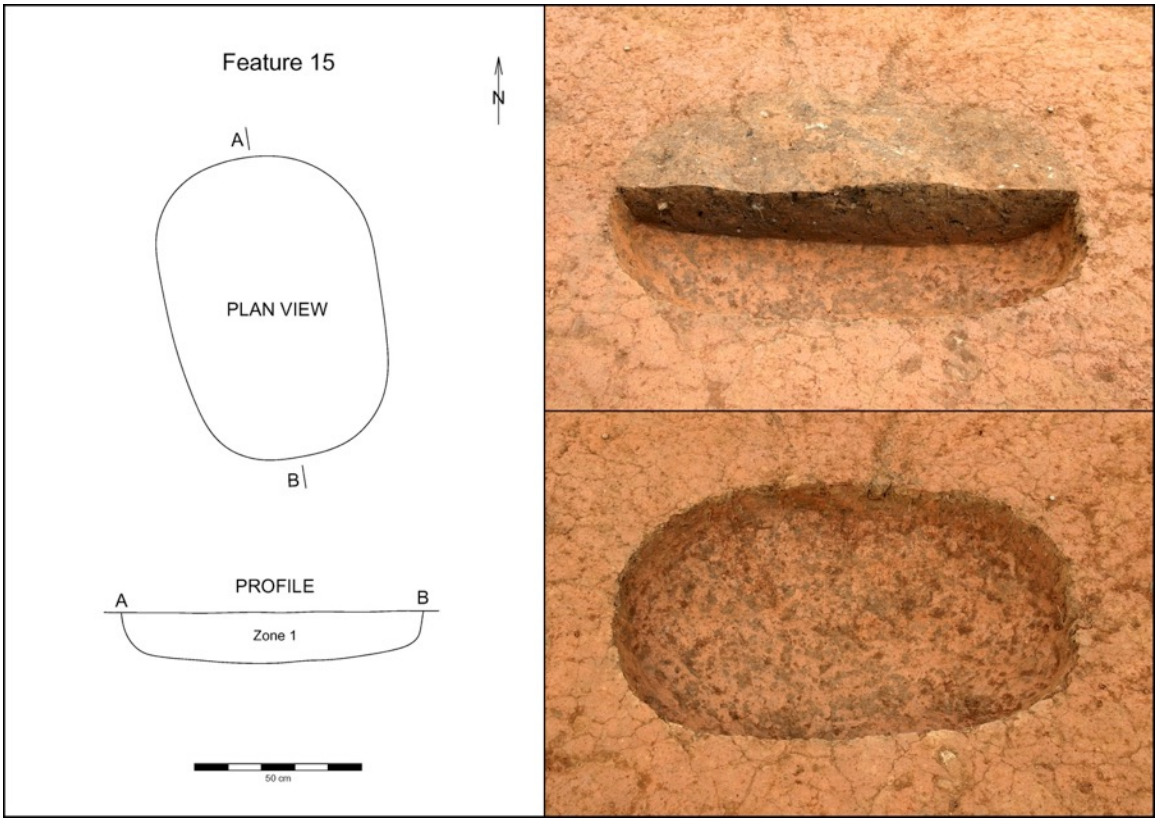


Figure A.17. Feature 15 plan view and profile drawings, and excavation photographs: fill profile with west half excavated (top right, view to east), and feature excavated (bottom right, view to east).

Feature 16 (Figure A.18)

Feature 16 is a severely truncated pit located at the southwestern edge of Locus 2. It was initially located by metal detecting when a wrought nail and several fragments of animal bone were discovered in a shovel test. The feature appeared at the surface as a fairly large soil stain with numerous rocks, pottery and animal bone visible. This feature is generally rectangular though the edges along the west and south sides were difficult to discern where the subsoil had been cut down through erosion and plowing. Complicating matters, a shallow possible posthole was identified at the south edge of the feature, partially intersecting it. Attempts to determine the sequence of construction for the posthole and Feature 16 were unsuccessful due to similarities in their mottled fills.

Feature 16 measured approximately 128 cm by 115 cm across and extended 13 cm below the base of plowzone comprising two zones of fill. Zone 1 was described as a mixture of brown (7.5YR4/3), reddish brown (5YR4/4), and yellowish brown (10YR5/4) sandy clay loam that became very hard when dry. Zone 1 yielded 98 potsherds, 1 glass bead, 1 kaolin pipe fragment, 1 stone pipe fragment, 1 pewter fragment, a mortar and pestle, a drilled antler handle, fired clay and a large number of animal bone, mostly pig. Sixteen liters of soil were collected as a flotation sample from this zone, which was approximately 11 cm thick.

Beneath Zone 1 was a clay loam soil that was yellowish red (5YR4/6) and mottled with brown (7.5YR4/4). This soil, Zone 2, resembled the surrounding subsoil except that it contained a few small sherds, bone and bits of fired clay. Zone 2 was a thin deposit, 2-3 cm thick, found across the base of the entire feature. Two flotation samples were recovered from Zone 2 totaling 18 liters. The margins of the pit were more clearly defined along the east edge indicating that originally the walls of the pit were relatively straight, sloping inward slightly at the base.

Feature 16 represents the remains of a pit that was severely impacted by erosion and agricultural activities. Based on the size and shape of Feature 16, it likely served at least initially as a clay borrow pit before later becoming a receptacle for refuse.

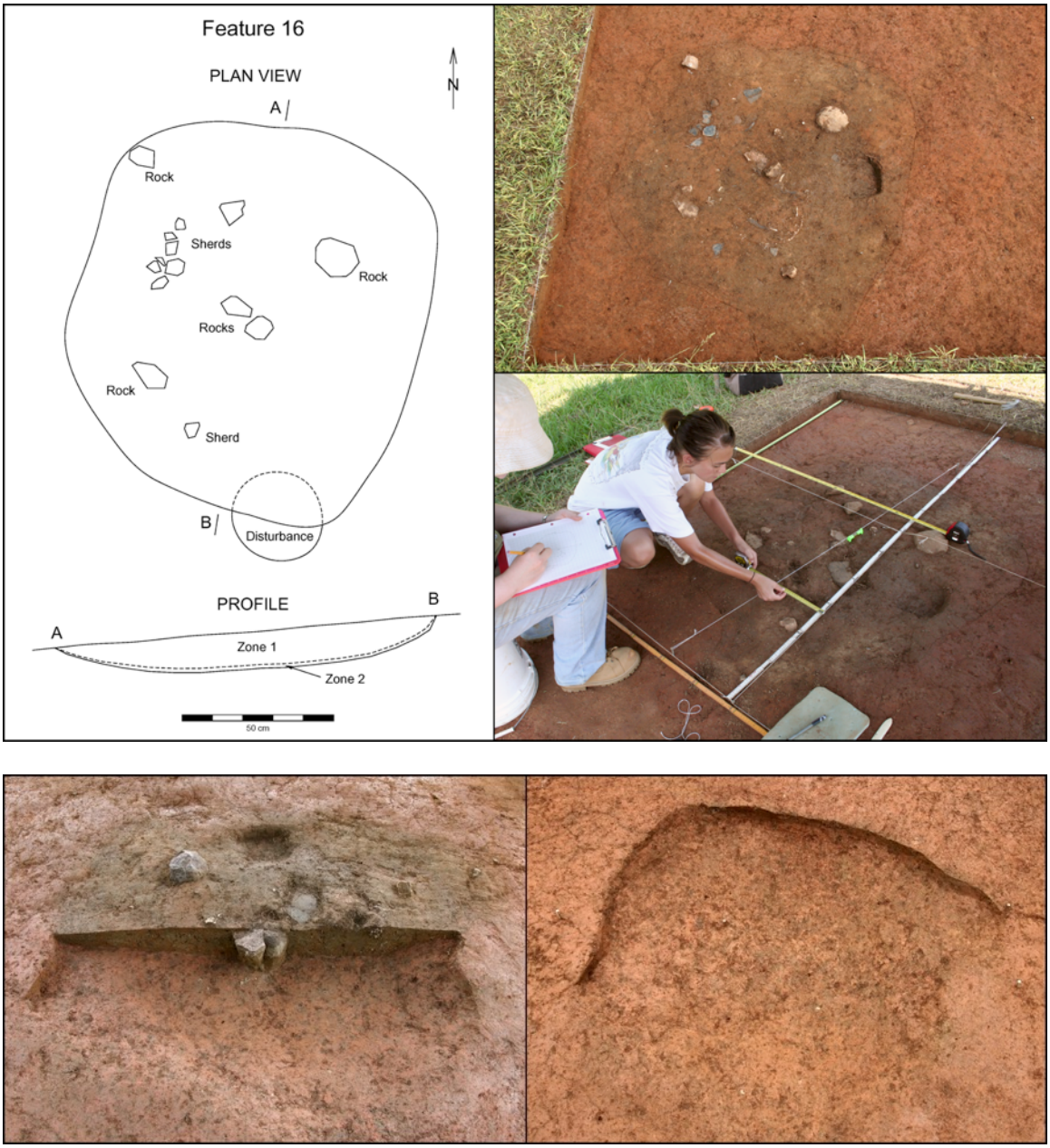


Figure A.18. Feature 16 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), feature mapping in progress (middle right, view to northwest), fill profile with west half excavated (bottom left, view to east), and feature excavated (bottom right, view to east).

Feature 17 (Figure A.19)

This designation was assigned to a small circular basin-shaped pit adjacent to Feature 18 in the southern portion of Locus 2. Feature 17 had a diameter of roughly 57 cm comprising 3 zones of fill excavated to a depth of 21.5 cm with gently inward sloping walls. A stone that covered nearly the entire western half of the pit largely obscured the surface of Feature 17, though a large green bottleneck and several vertically oriented sherds were also noted. The top of the feature consisted of strong brown (7.5YR5/6) and brown sandy clay (Zone 1) surrounded by a thin ring of charcoal and dark brown (7.5YR3/4) sandy loam, Zone 2. The rock, a large piece of schist, was positioned so that it angled down toward the east. Aside from the large rock and bottleneck fragment, other artifacts present in Zone 1 include 67 sherds, 1 glass bead, a clay pipe fragment, and fired clay. Excavations of Zone 1 exposed sections of a small Catawba bowl lying vertically along the east wall of the pit that appeared to rest on the interface between Zones 1 & 2. Zone 1 was approximately 10 cm thick from which 2 flotation samples were recovered totaling 10.5 liters.

The soil immediately underlying the large stone and Zone 1 had a much more mottled appearance since it contained significant amounts charcoal and burned clay. Removing the stone revealed concentrations of charcoal, a mussel shell and a straight pin indicating that it had been placed directly on top of the refuse associated with Zone 2. Zone 2, which measured 7-9 cm thick, also contained 20 sherds, 9 glass beads, a kaolin pipe fragment, 1 brass button, and 4 historic sherds among other items. Twelve liters of soil were collected for flotation from Zone 2. Zone 3 designates a relatively sterile 2-2.5 cm thick layer of yellowish red (5YR4/6) sandy clay loam that covers the entire pit floor. The only cultural material recovered from Zone 3 were 2 sherds, fragments of animal bone, a glass bead and a silver ball from a earring, all recovered

from a 4.5 liter flotation sample. A dark red patch was noted near the center of the floor at the base of the feature and may represent an attempt to dry and/or harden the newly constructed pit prior to use as a storage facility.

Feature 17 is similar in size and shape to Feature 10 and 13 and likely also functioned as a storage pit before subsequently being filled with midden material, though it differs significantly in terms of the nature of its fill and depositional history. Unlike these other circular storage pits, Feature 17 did not contain any grey or pale yellow potter's clay and yielded far more charcoal than the others. The use of a large rock and clayey soil to cap the top of the pit is similar to Feature 11.

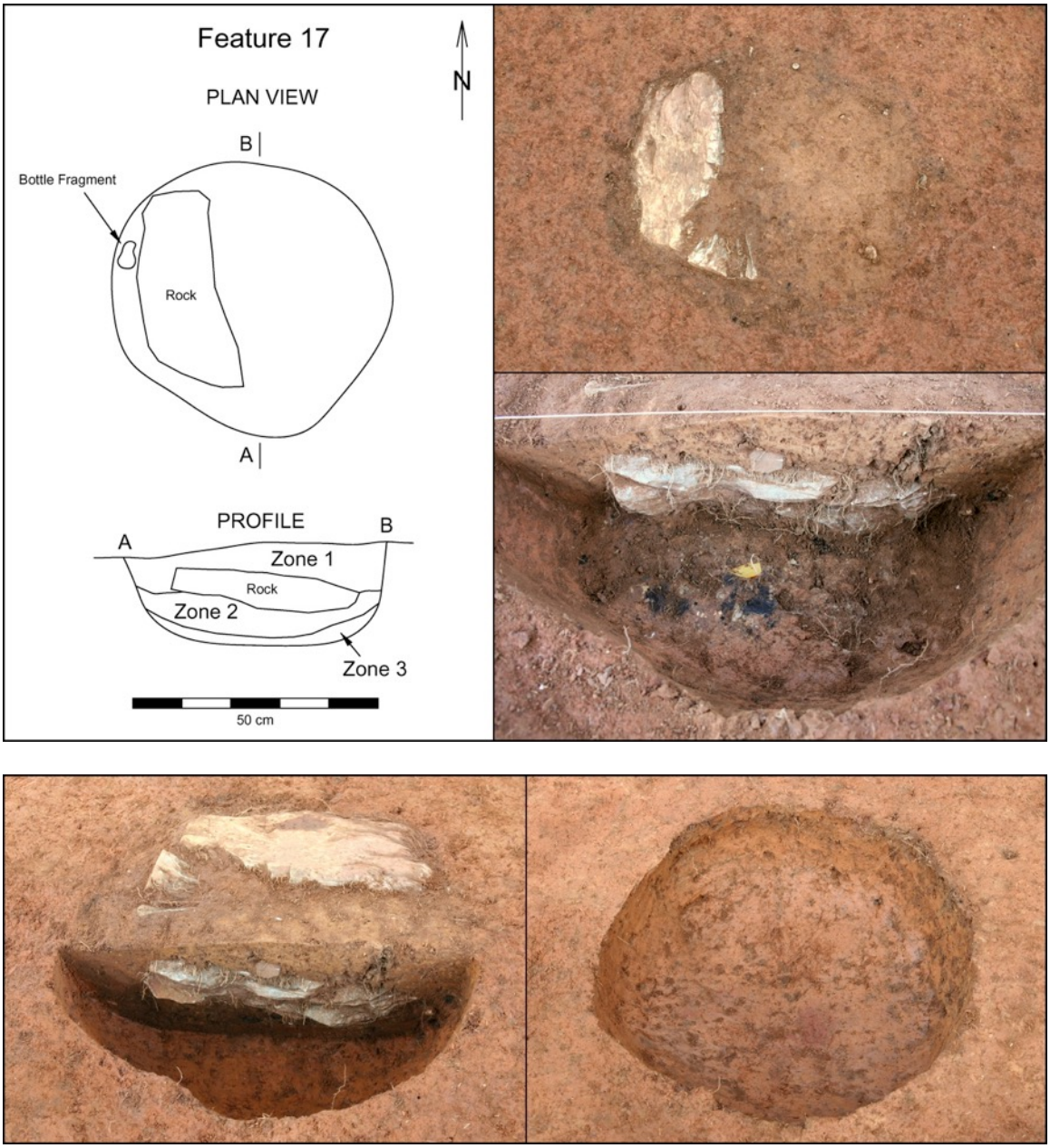


Figure A.19. Feature 17 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), close-up of east half excavation (middle right, view to west), fill profile with east half excavated (bottom left, view to west), and feature excavated (bottom right, view to west).

Feature 18 (Figure A.20)

Feature 18 is a stratified cellar pit similar to other large sub rectangular storage pits found at SoC 634. It measured 101 cm long by 77 cm wide comprising six zones of fill which were excavated to a depth of 52 cm below the excavated surface. The pit was initially identified through metal detecting but avoided at first due to the presence of a large fire ant nest that impacted and partially obscured the surface of the central and southern portions of the feature. The unexcavated planview of Feature 18 revealed evidence of three zones visible at the surface though these were not well defined until they were visible in profile due in large part to the ant nest disturbance.

Zone 1 covered the northern 3/4 of the unexcavated surface of the pit with the underlying Zones 2 and 3 visible at the southern end. Zone 1 was described as dark yellowish brown (10YR3/4) sandy clay loam mottled with yellowish red (5YR4/6) clay loam. This zone was approximately 10 cm thick at the middle and sloped up toward the surface as it approached the margins giving it a basin shape. Several artifacts were recovered from this context including 18 potsherds, 19 glass beads, a straight pin, 1 fragment of clear glass and one of green bottle glass. Two flotation samples, one from each half, were collected and processed totaling 17.5 liters of soil.

The surface of Zone 2 was distinguished by a darker soil that contained gray clay and large pieces of charcoal. Specifically, Zone 2 consisted of a strong brown (7.5YR4/6) sandy clay loam mottled with brown (7.5YR4/4) sandy clay loam and inclusions of light greenish gray (GLEY 1 7/10Y) clay and dark reddish brown (5YR3/4) clay. Like Zone 1, this stratigraphic unit was deepest near the center (17 cmbs) and sloped up toward the pit edges, and meeting the surface near the south edge. Zone 2 contained a much greater variety of material culture

including 59 potsherds, 56 glass beads, 1 silver nose bangle, 1 iron hand grenade, a silver broach clasp, both stone and clay pipe fragments, and iron sheet fragments as well as animal bone. Of the pottery found, several conjoining sections of a vessel were exposed lying near the base of Zone 2. A sample of fill from each half of Feature 18 was collected for flotation totaling 15 liters.

Zone 3 was lighter, redder in color, and sandier than Zone 2, lacking the clay inclusions and charcoal that had defined Zone 2. Zone 3 consisted of yellowish red (5YR5/3) sandy clay loam mottled with yellowish red (7.5YR4/6) sandy clay loam, light yellowish brown (10YR6/4) sandy clay loam, and brown (7.5YR5/4) sandy loam. This zone had a relatively low artifact density that yielded 2 sherds, 28 glass beads, 4 clay pipe fragments, 1 green bottle fragment, lead sprue, 3 nail fragments, and a fragment of silver sheet. Zone 3 ranged in thickness from 12 cm in the north and approximately 7 cm at the south end before it sloped up to the surface ending at the south wall. Two flotation samples totaling 17 liters were recovered from this zone.

Zone 4 was identified by the presence of a much darker soil comprising dark yellowish brown sandy clay loam mottled with strong brown and yellowish brown sandy clay loam and inclusions of light greenish gray (GLEY 1 7/10Y), dark red (2.5YR3/6), and pale yellow (5Y7/3) clay. The clumps of greenish clay, in particular, were numerous and increased in size and frequency with depth within Zone 4. This zone also included a substantial amount of animal bone including a nearly intact turtle shell, though due to initial confusion over the distinction between Zone 4 and 5, it was removed as Zone 5. This zone was generally rich in other artifacts as well including 288 potsherds, 195 glass beads, 34 fragments of green bottle glass, pipe fragments, stone and ceramic disks, 2 rolled silver strips, fragments of a tin (?) kettle, 1 pewter and 2 brass buttons, an iron fish hook, and various other metal objects. The base of Zone 4 was

relatively level making the south end of this stratum extremely thick while the majority of the zone was about 11 cm thick. Flotation samples were also collected from this zone totaling 15.5 liters.

Zone 5 consisted of dark brown (7.5YR3/3) sandy clay loam mottled with strong brown (7.5YR4/6) sandy clay loam and fewer small inclusions of light greenish gray (GLEY 1 7/10Y) clay. Zone 5 continued to yield numerous potsherds, animal bone, fired clay as well as the pale and green potter's clay. Other artifacts from this zone include various wire and nail fragments, 1 lead shot, 13 glass beads and 13 pieces of green bottle glass among other items. The base of Zone 5 was easily detected by a change in color and soil texture and was also marked by a rock and mussel shell lying at the interface making the maximum thickness of Zone 5 approximately 8 cm.

The last zone encountered in Feature 18 was Zone 6, a brown (7.5YR4/4) sandy clay loam mottled with dark brown (7.5YR3/2) sandy clay loam, reddish yellow (5YR6/8) clay loam, and brownish yellow (10YR6/6) clay loam. Zone 6 was 10 cm thick on the southern end and only 3 cm at the north wall giving it a sloping appearance. Compared to Zones 4 & 5, this zone contained very few artifacts which included a few fragments of animal bone, 9 potsherds, 14 glass beads and a green glazed historic sherd. Seventeen liters of soil were collected from this zone for flotation samples.

Feature 18 is similar to other storage pits found at Locus 2, Feature 11 & 14, and at Locus 1, Feature 7. It contained numerous zones of contrasting fill that correspond to episodes of use, accumulated deposition, and intentional capping/filling. Given its size, shape and multiple artifact rich zones, Feature 18 likely served as a sub-floor storage facility and renewed at certain points to extend its use-life.

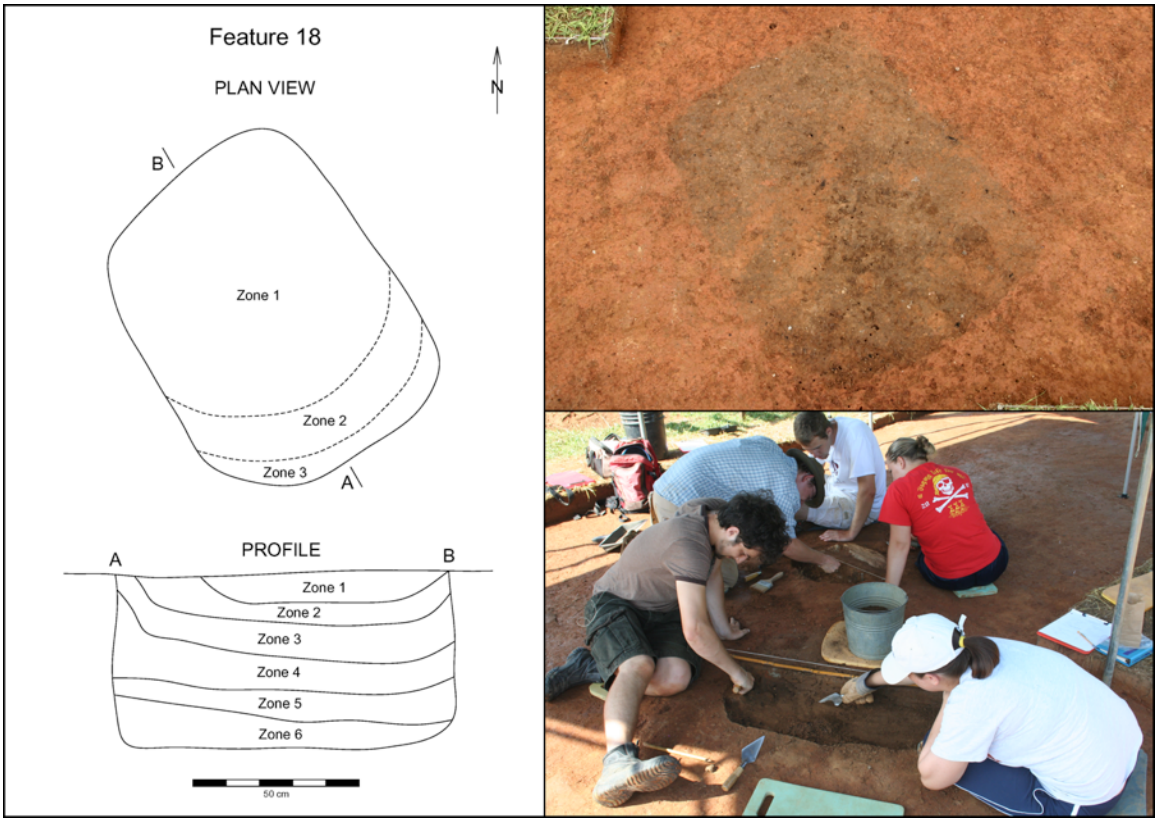


Figure A.20. Feature 18 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavation in progress (bottom right, view to southwest).

Figure A.21. Feature 18 excavation photographs: close-up of *in situ* artifacts (i.e., turtle carapace and raw potter's clay) in Zone 4 (top left, view to southwest), close-up of *in situ* artifacts near the base of feature (top right, view to southwest), fill profile with northeast half removed (middle left, view to southwest), close-up of *in situ* artifacts in southwest half (middle right, view to southwest), southwest half Zone 6 (bottom left, view to southwest), and fully excavated feature (bottom right, view to southwest).

Feature 19 (Figure A.22)

This designation was assigned to the remnants of a small circular pit located on the eastern edge of Locus 1. Feature 19 had been heavily truncated by erosion and plowing leaving only a thin deposit of cultural fill. Zone 1 consisted of reddish brown (5YR4/4) clay loam mottled with greenish gray (GLEY 5/5GY) and olive (5Y5/3) potter's clay. This zone was no more than 2 cm at its thickest point and considerably thinner in most places. No artifacts were recovered from Feature 19. The contents of the pit were collected and processed as a 2-liter flotation sample.

Despite being severely impacted by post depositional processes, this feature bears a resemblance to Feature 10 in Locus 2 in terms of its shape and concentration of potter's clay and were likely functionally similar.

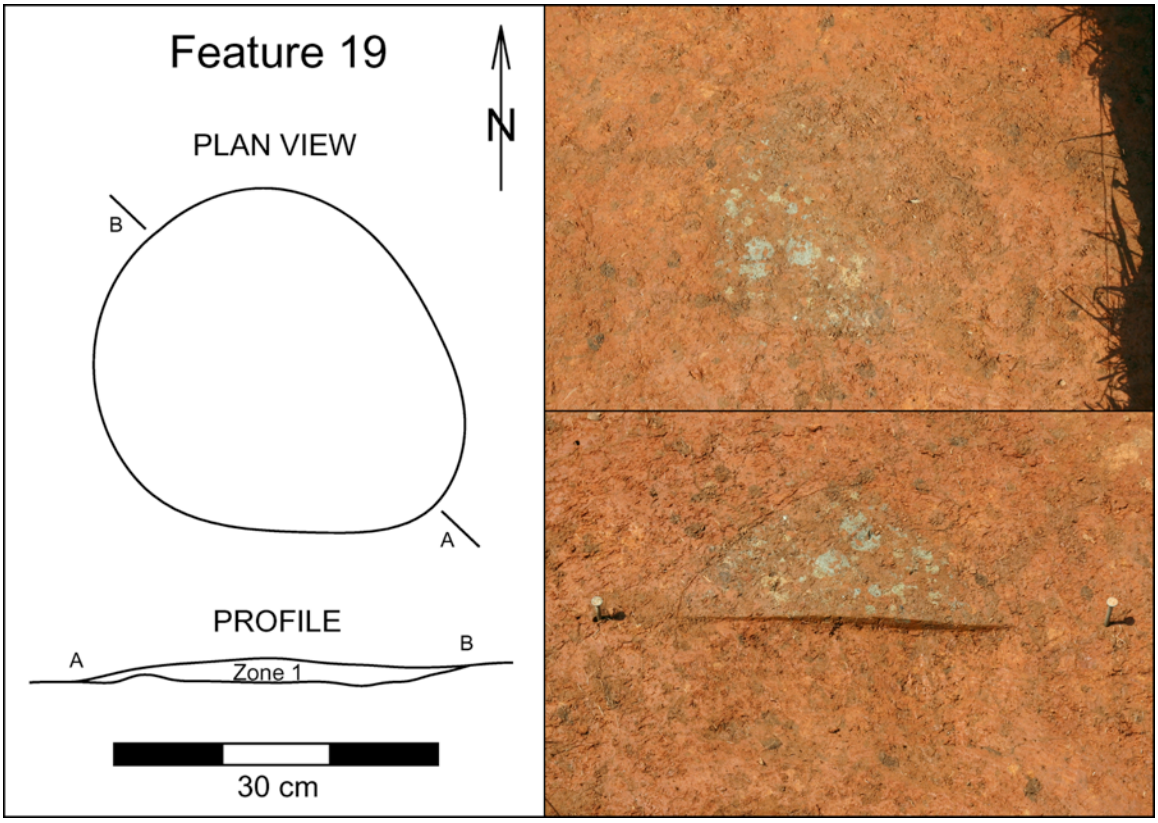


Figure A.22. Feature 19 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and fill profile with northeast half excavated (bottom right, view to southwest).

Feature 20 (Figure A.23)

Feature 20 is a sub-rectangular burial pit located at the northern edge of the excavated block in Locus 1. Like Features 3, 8, and 9, Feature 20 is an elongated, narrow pit measuring 133 cm by 50 cm wide with heavily mottled clay fill and patches of brown humus. The orientation of Feature 20 is generally north-south but is situated slightly more to the east than the other identified burials. The top of the burial was photographed and mapped, but not excavated.

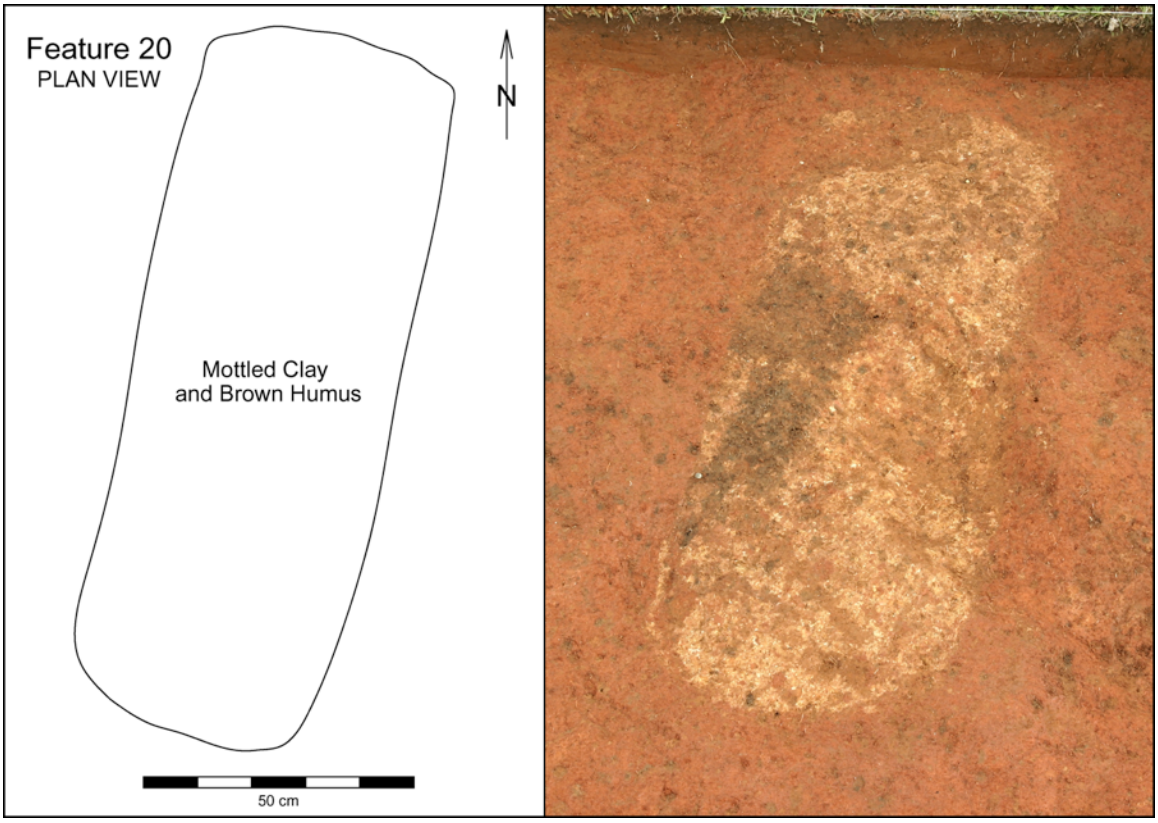


Figure A.23. Feature 20 plan view drawing and photograph at top of subsoil (view to north).

Feature 21 (Figure A.24)

Feature 21 was exposed a few meters northeast of the main excavation block in Locus 2. This generally oval cob-filled pit measured approximately 30 cm long by 24 cm wide, with a depth of 5-7 cm below the top of subsoil. It was excavated as a single zone and all contents of the pit were processed as a 3-liter flotation sample. Feature 21 had a shallow and irregular bottom caused in part to a root disturbance intruding the northeast side. Additionally, the plowzone in this area was substantially deeper (~25 cm) than in other areas of the site and no doubt severely truncated this feature. No artifacts were recovered from this feature.

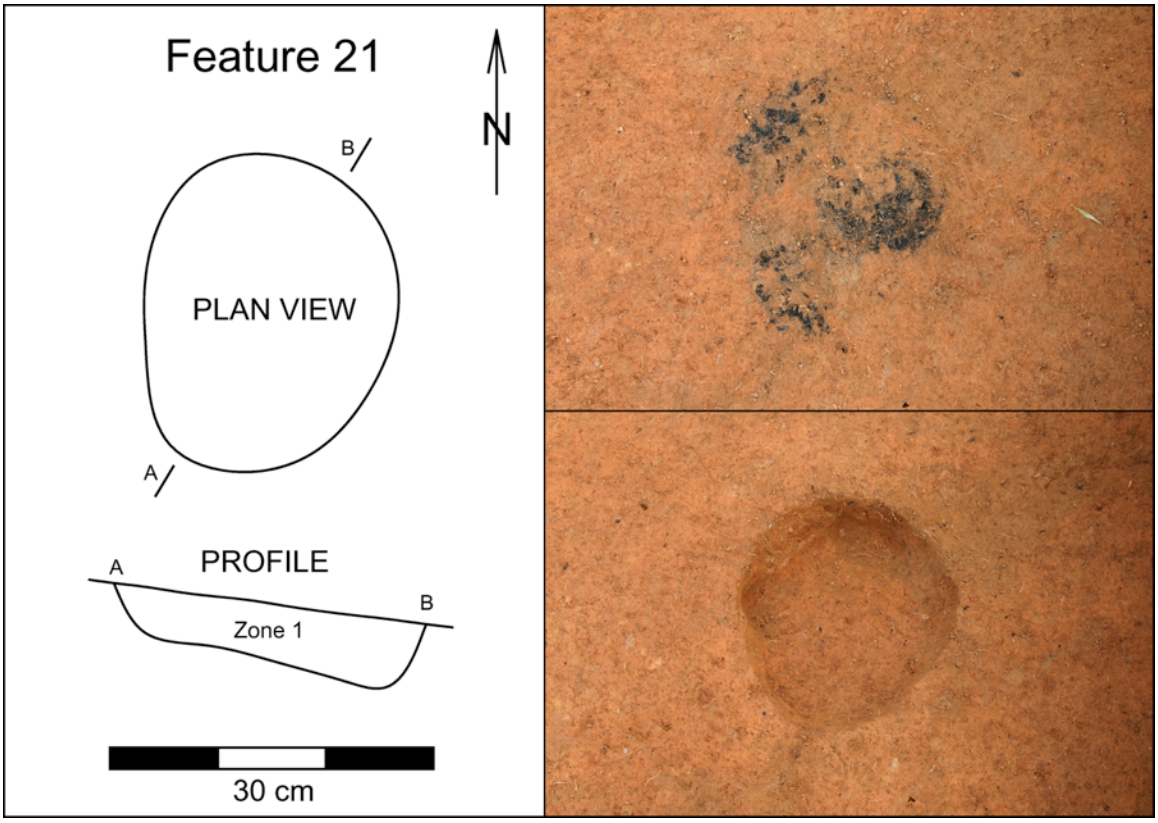


Figure A.24. Feature 21 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 22 (Figure A.25)

Feature 22 was an oval-shaped stain of strong brown (7.5YR5/6) and brown (7.5YR4/4) loam measuring 44 cm long by 28 cm wide. Initially interpreted as a post-hole or double post, during the process of excavation the feature was determined to be a refuse-filled tree disturbance and the project was terminated at 49 cm below surface. The fill from the old stump was washed through 1/16th inch window screen and yielded 132 potsherds, 2 glass beads, lead sprue, 1 wrought nail, 2 iron sheet fragments, 1 stone pipe fragment, 1 historic sherd, ground stone fragments, animal bone, charcoal and fired clay. Based on the amount and depth of cultural material from this feature, it is likely that the stump was filled with debris at or soon after the time of the sites' occupation.

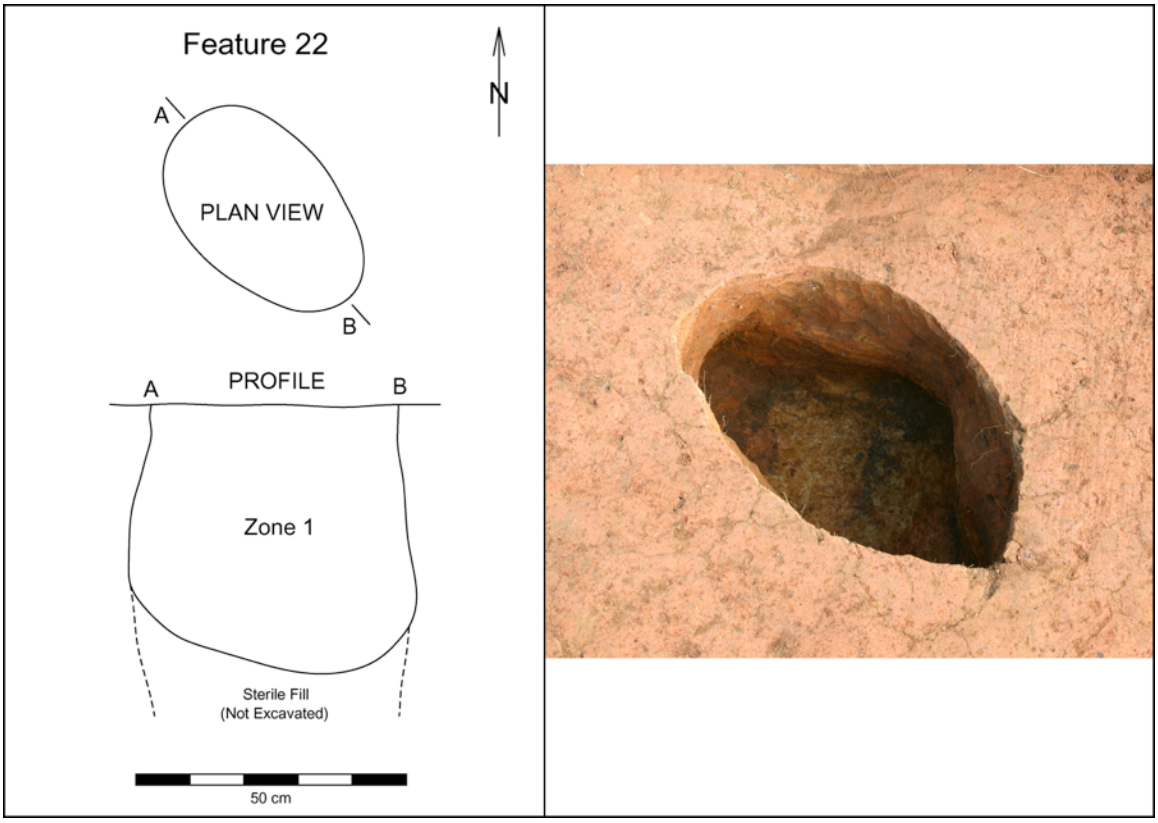


Figure A.25. Feature 22 plan view and profile drawings, and final excavation photograph (right, view to north).

Feature 23 (Figure A.26)

Feature 23 is a sub-rectangular burial pit located in Locus 2 and mostly contained within unit 995R950. It is approximately 90 cm long by 39 cm wide and is oriented 53 degrees east of grid north. This alignment is similar to Feature 18 located 6 m northwest. The surface of this feature contained dark brown humus, concentrated in the central portion of the pit, surrounded by heavily mottled yellow clay. The small size, shape and characteristically mottled fill indicate that this pit was probably constructed as a child's grave. Feature 23 was mapped and photographed, but not excavated.

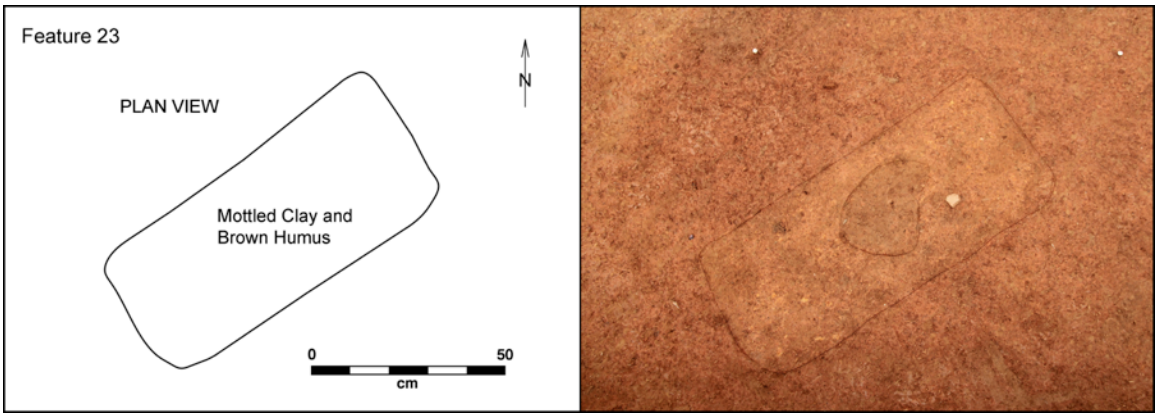


Figure A.26. Feature 23 plan view drawing and photograph at top of subsoil (view to north).

Feature 24 (Figure A.27)

Feature 24 was defined at the base of the plowzone as a small, 20-26cm diameter, circular to oval shaped soil stain at the southern end of Locus 2. The fill was a dark brown (7.5YR 3/4) silty loam and contained charcoal flecks at the surface. Excavation this feature revealed a single zone of fill and an irregular profile 65 cm deep with some root disturbance in the east wall. Approximately 18.5 liters of fill were waterscreened and the only artifacts recovered from Feature 24 were two flakes, which probably represent incidental inclusions not related to the primary Catawba occupation at the site. The size and shape of this feature indicates it is a possible posthole with an intrusive root disturbance.

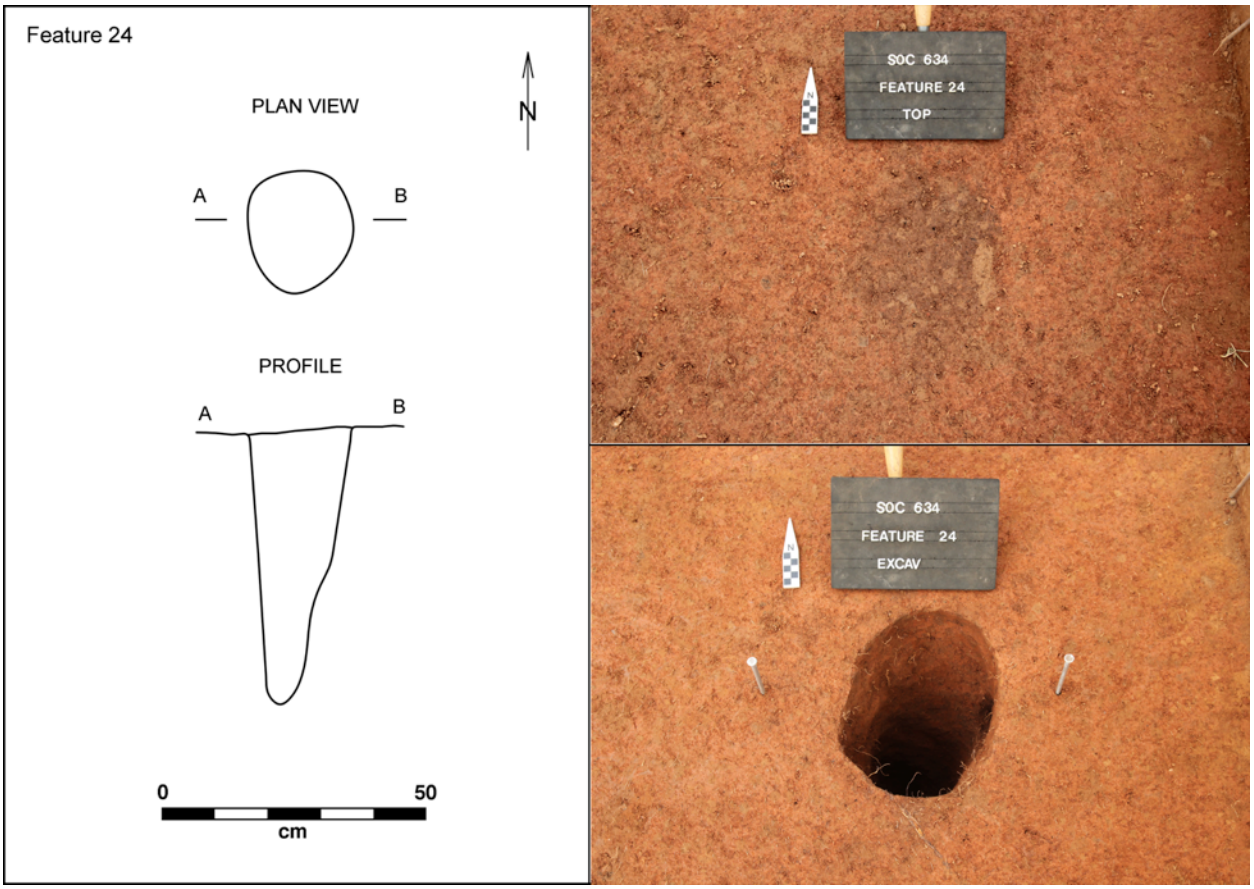


Figure A.27. Feature 24 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 25 (Figure A.28)

Feature 25 is a roughly circular small pit located at the southern end of Locus 2. This small pit was described at the base of plowzone being approximately 30 cm in diameter and consisting of mostly yellowish red (5YR 4/6) fill mixed with some strong brown (7.5YR 4/6) soil. Excavation revealed a single zone with an irregular, tapered profile with a maximum depth of 57 cm below the base of the plowzone. Twenty liters of fill were collected and waterscreened yielding a single flake. Based on the size, shape and contents of this feature, it may have served as a post hole, but it seems to have had significant root disturbance.

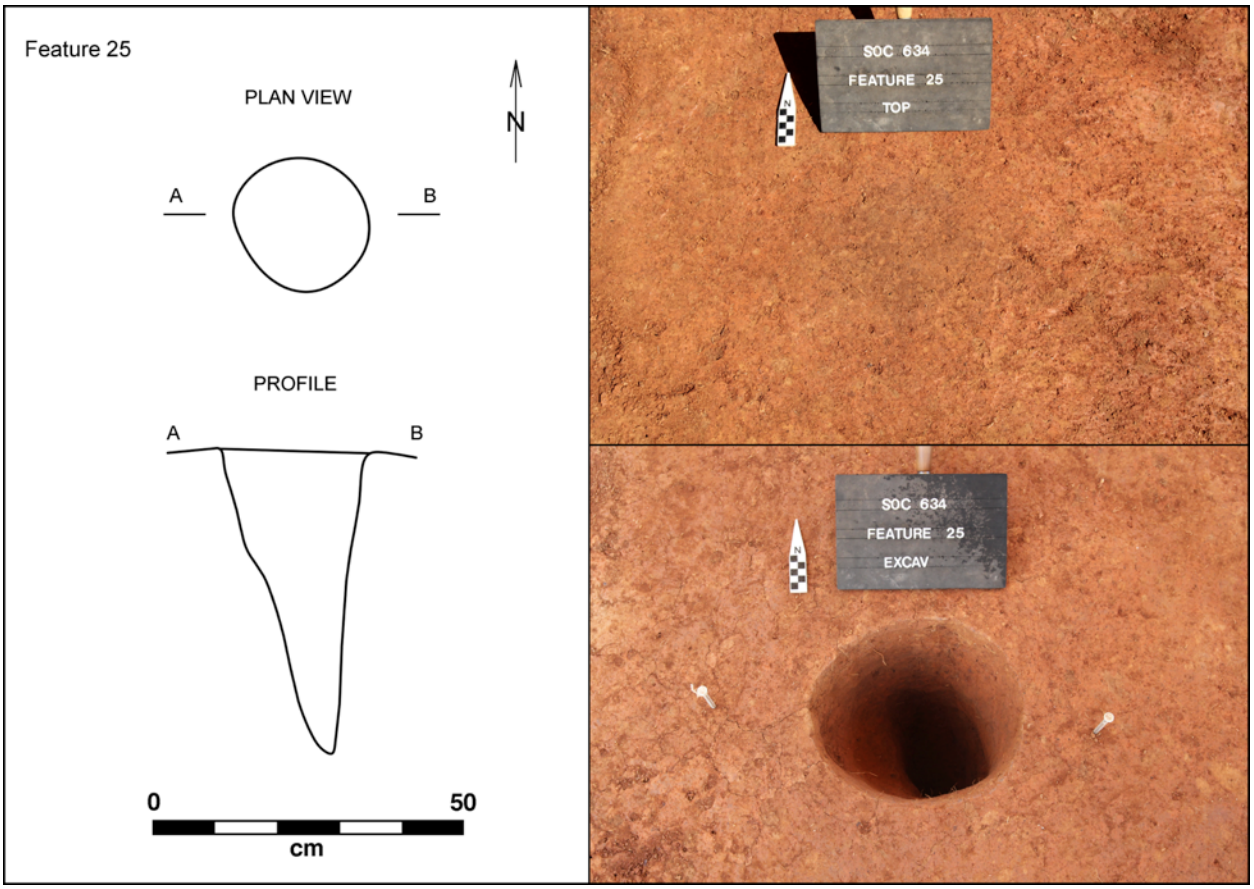


Figure A.28. Feature 25 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 26 (Figure A.29)

This small, roughly circular feature measured 26 cm east-west and 31 cm north-south. Feature 26 was excavated to a depth 33 cm, though two small stains were noted at the bottom that continued to taper down. Aside from these apparently intrusive root disturbances, only one zone of strong brown (7.5YR4/6) and dark reddish brown (7.5YR3/4) sandy clay fill was observed. This was collected as an 18-liter waterscreen sample yielding 1 Catawba potsherd, 1 historic sherd, several fragments of poorly preserved animal bone, and some charcoal. Like many features in the vicinity, this small pit appears to be a post hole with significant intrusive root disturbances.

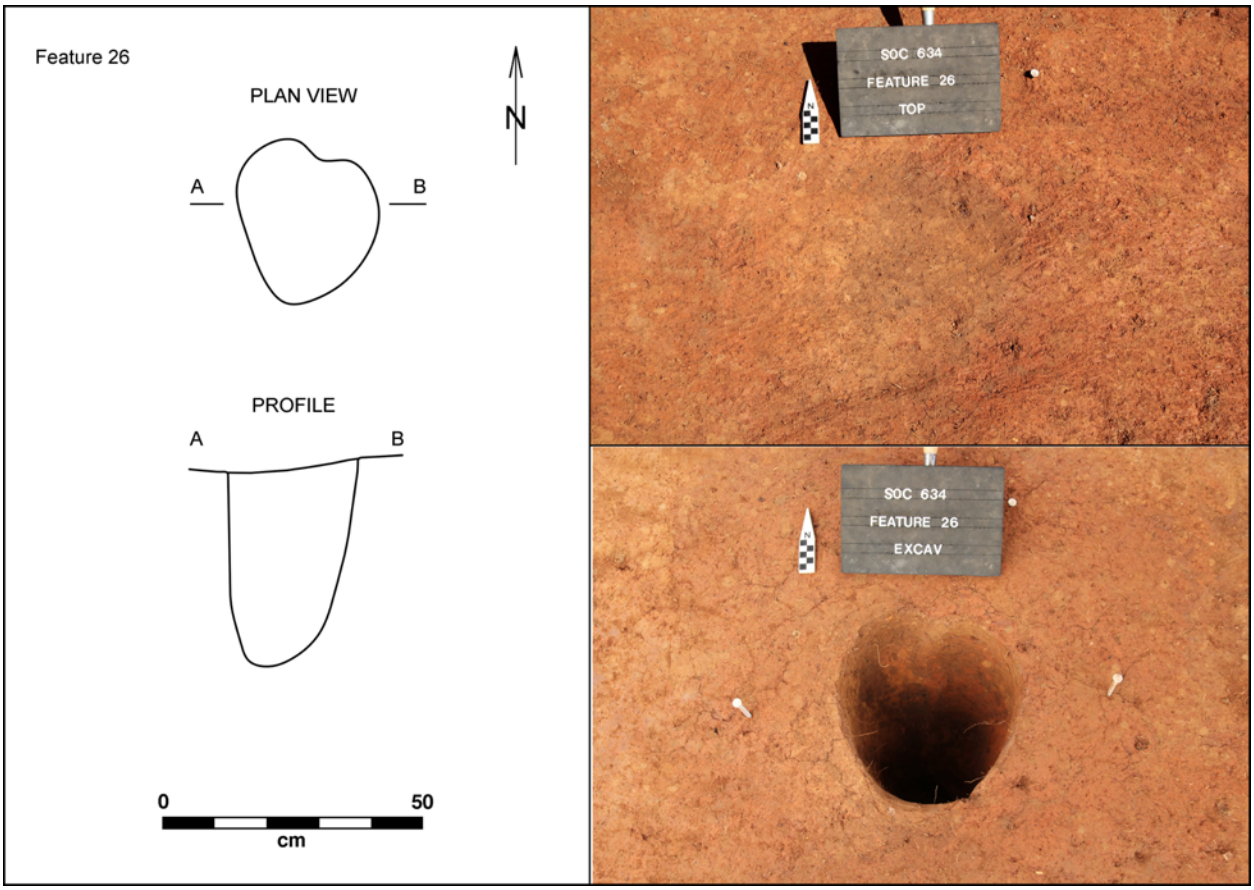


Figure A.29. Feature 26 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 27 (Figure A.30)

Feature 27 is a small, probable post hole located in Locus 2 immediately adjacent to Feature 28. It was initially observed as a nearly circular soil stain measuring approximately 17 cm in diameter with dark brown (7.5YR3/4) silty clay fill. This feature was excavated as a single zone yielding 9.25 liters of fill that was processed as a waterscreen sample. The only artifacts recovered from Feature 27 were 3 chipped stone flakes. The pit had a maximum depth of 42 cm, however, based on the shape of the profile, it is believed that the cultural component of the feature stopped at 27 cm, while the remainder of the feature represents an intrusive tap root.

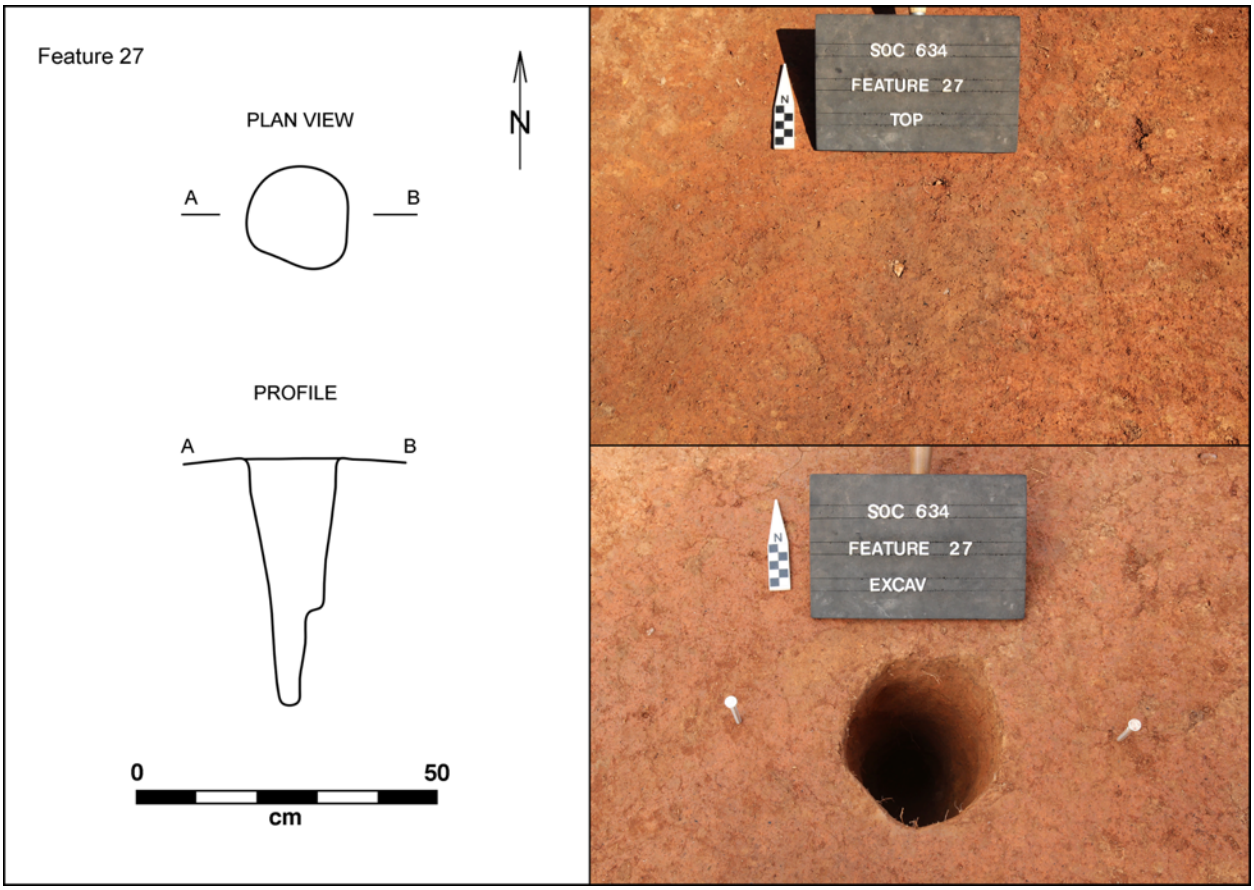


Figure A.30. Feature 27 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 28 (Figure A.31)

This small oval-shaped feature was identified immediately SW of the adjacent Feature 27. The fill of this feature consisted of a single zone of dark brown (7.5YR34) silty clay. After excavation, the feature measured 24 cm long by 14 cm wide and 16 cm deep, resulting in a 4-liter waterscreen sample. No artifacts were recovered from Feature 28. The feature's slightly tapered sides and flat bottom evident in the profile, indicate that it may have functioned as a post hole.

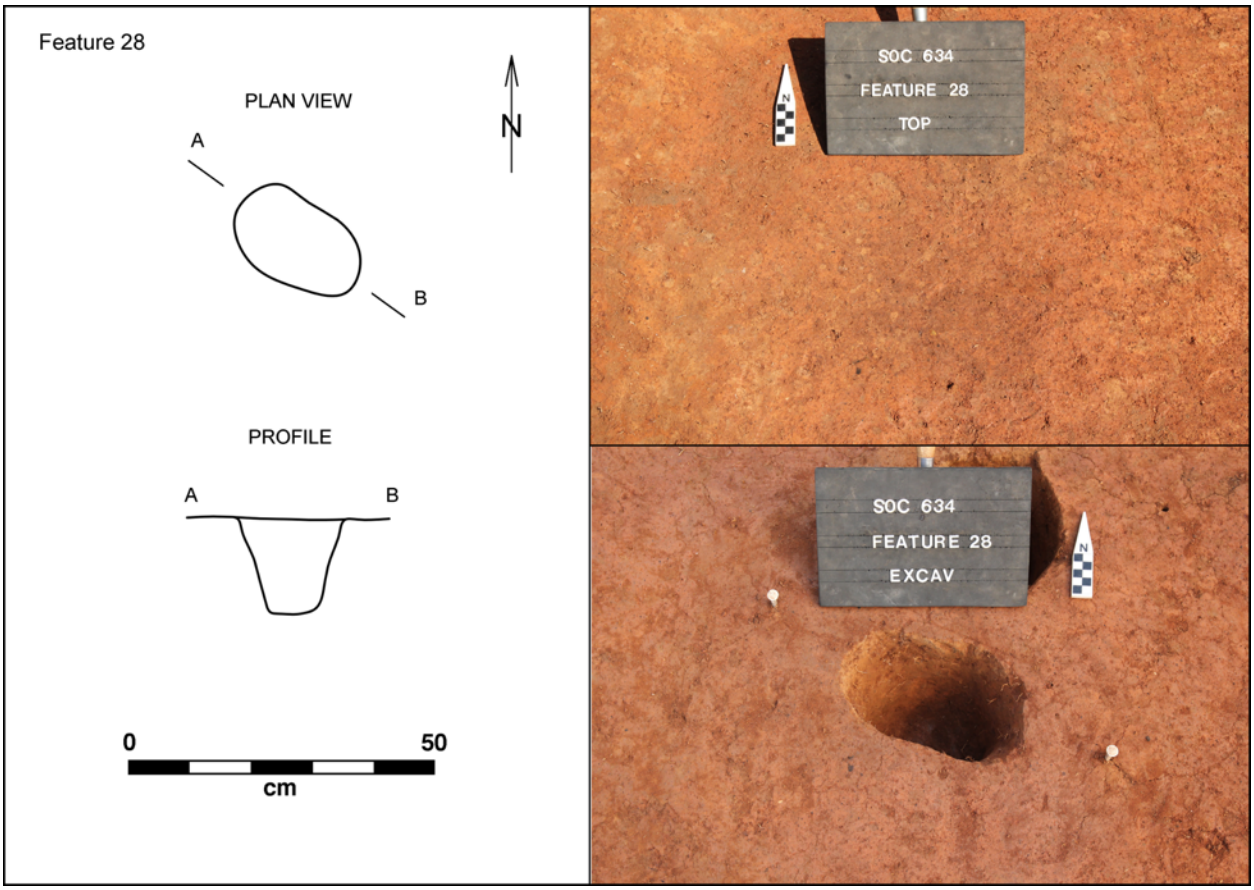


Figure A.31. Feature 28 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 29 (Figure A.32)

Feature 29 was a circular, charred corncob-filled basin located in the southern portion of Locus 2 and was part of a cluster of three other similar charcoal-filled features (Features 30-32). Excavations revealed a single zone of carbonized plant material mixed with brown (7.5 YR 5/4) silty clay within shallow pit that measured approximately 24 cm in diameter and 5 cm deep with a flat base and slightly out-sloping walls. The entire contents of the feature were collected and processed as a .85-L flotation sample. Feature 29 is interpreted to be a smudge pit.

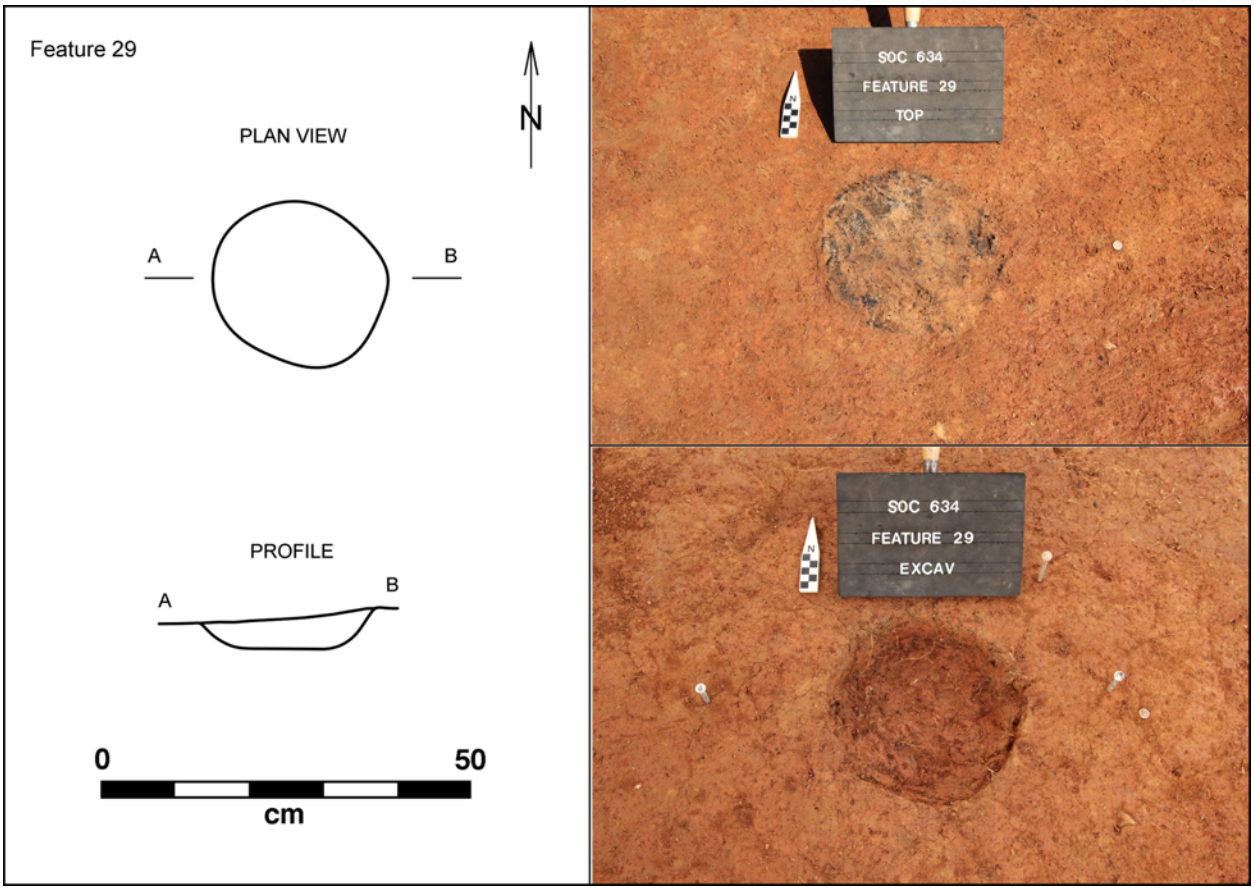


Figure A.32. Feature 29 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 30 (Figure A.33)

Feature 30 represents a shallow charred corncob-filled pit located immediately west of Feature 31, and part of a cluster of two other cob-filled pits (Feature 29 and 32). This feature was initially identified at the base of the plowzone as an irregularly shaped charcoal concentration approximately 20 by 25 cm. After excavation, Feature 30 turned out to be a mostly circular pit with straight sides and a rounded base 6 cm deep. The matrix of the pit consisted of a single zone of carbonized corncobs with what appeared to be charred bark lining the bottom of the pit suggesting *in situ* burning. The entire contents of the feature were collected and processed as a .85-L flotation sample. No other artifacts were recovered from this context. This feature is interpreted to have functioned as a smudge pit.

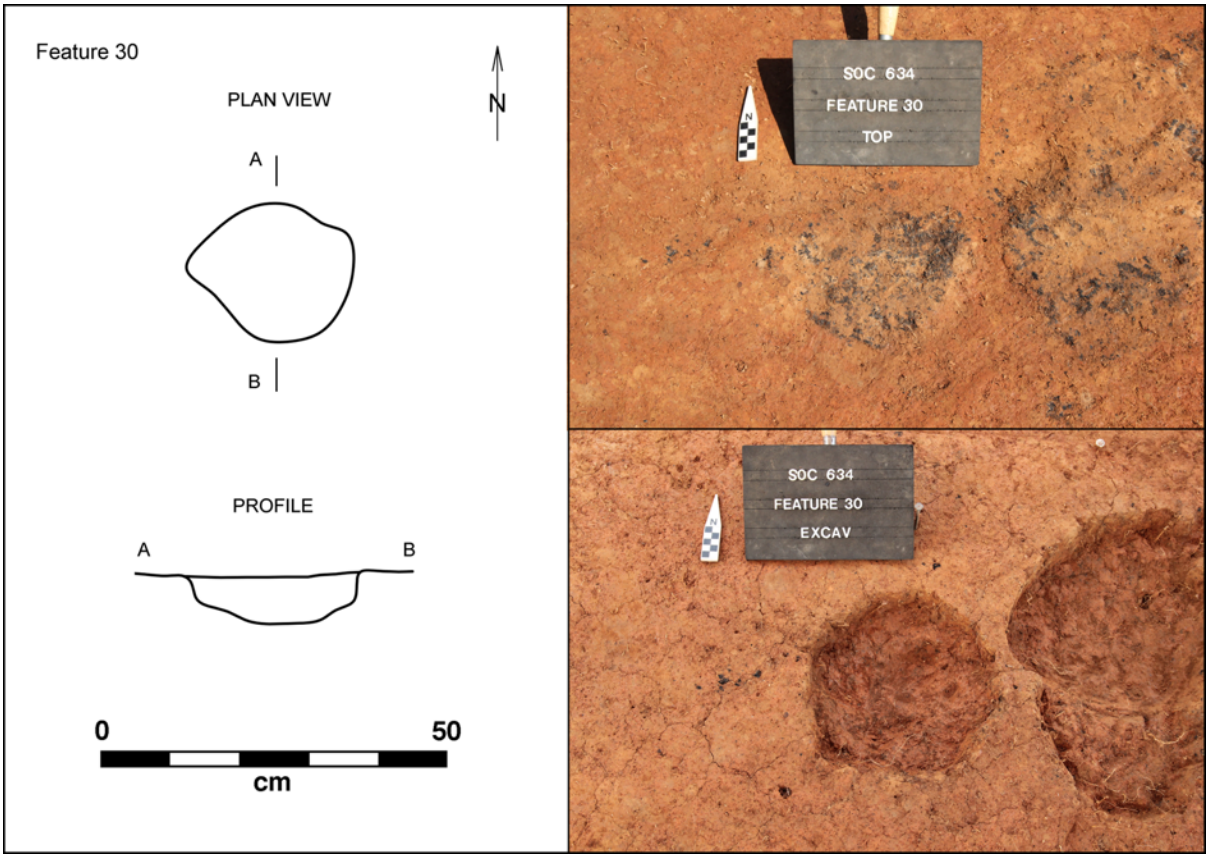


Figure A.33. Feature 30 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 31 (Figure A.34)

Feature 31 was located in Locus 2 as part of a cluster of four charcoal filled pits near southern portion of the 2014 excavation block. It was first observed at the base of the plowzone as an oval shaped concentration of charcoal with irregular edges with maximum dimensions of 42 cm by 20 cm. Excavations revealed that Feature 31 likely represents two overlapping smudge pits as well as a post-depositional plow disturbance at the northeast edge. The larger of the two depressions was located at the northern end of the feature and had a maximum depth of 8 cm while the southern depression was shallower (3-4 cm) and may represent a later intrusive pit. Both depressions had rounded bottoms and straight to out-sloping walls. The fill from both portions of Feature 31 were similar in composition and texture except that the northern

depression appeared to have a charred bark lining. The entire contents of Feature 31 were collected and processed as an 8-L flotation sample.

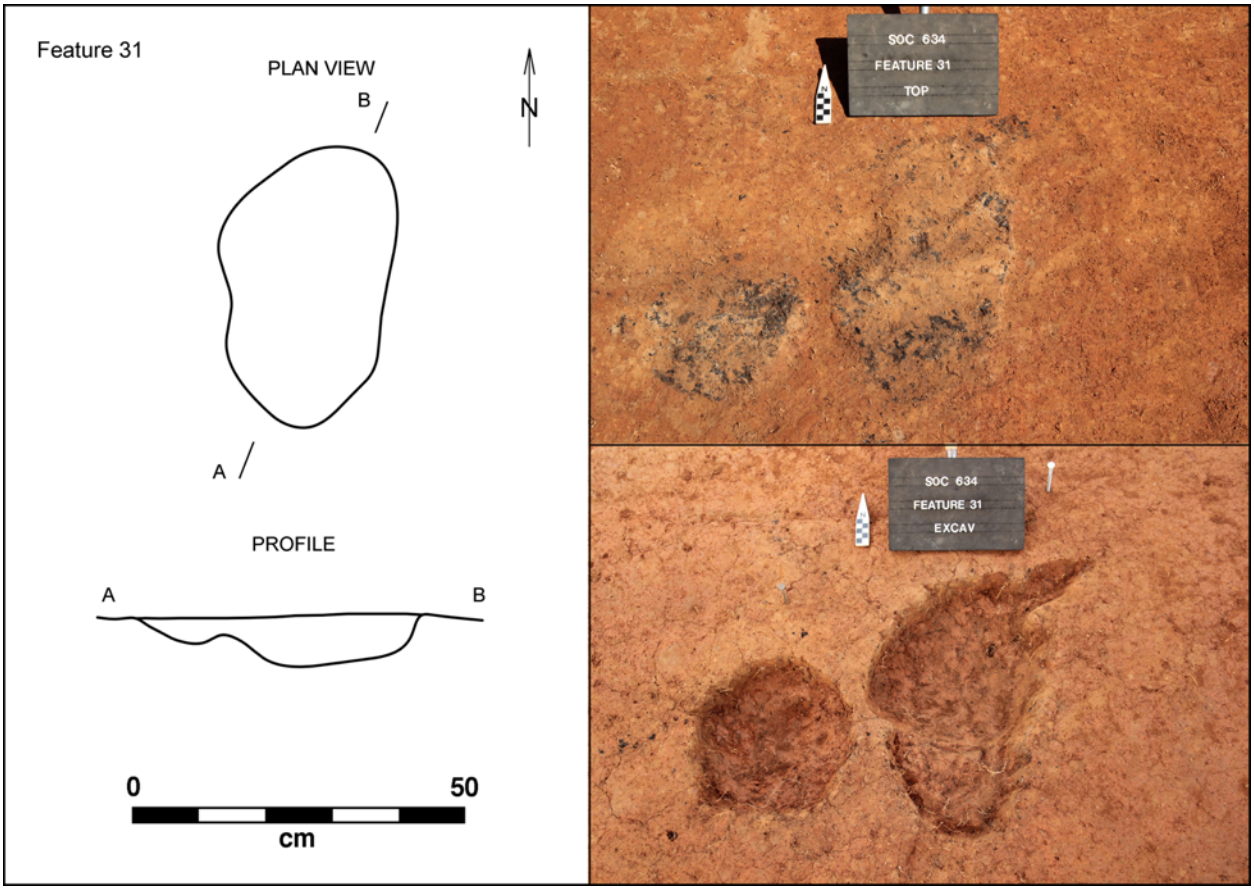


Figure A.34. Feature 31 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 32 (Figure A.35)

Feature 32 was a roughly circular corncob filled pit located at the northern end of a cluster of other corncob-filled pits (Features 29-31) in the southern portion of Locus 2. It measured approximately 23 cm in diameter and 8 cm deep with straight sides and a flat bottom. The feature matrix consisted of a single zone of highly carbonized plant material (predominantly corncobs) mixed with strong brown (7.5 YR 4/6) silty clay fill. The contents of Feature 32 were collected and processed as a 8.5-L flotation sample and no other artifacts were recovered. Based on its shape and contents, Feature 32 is interpreted to be a smudge pit.

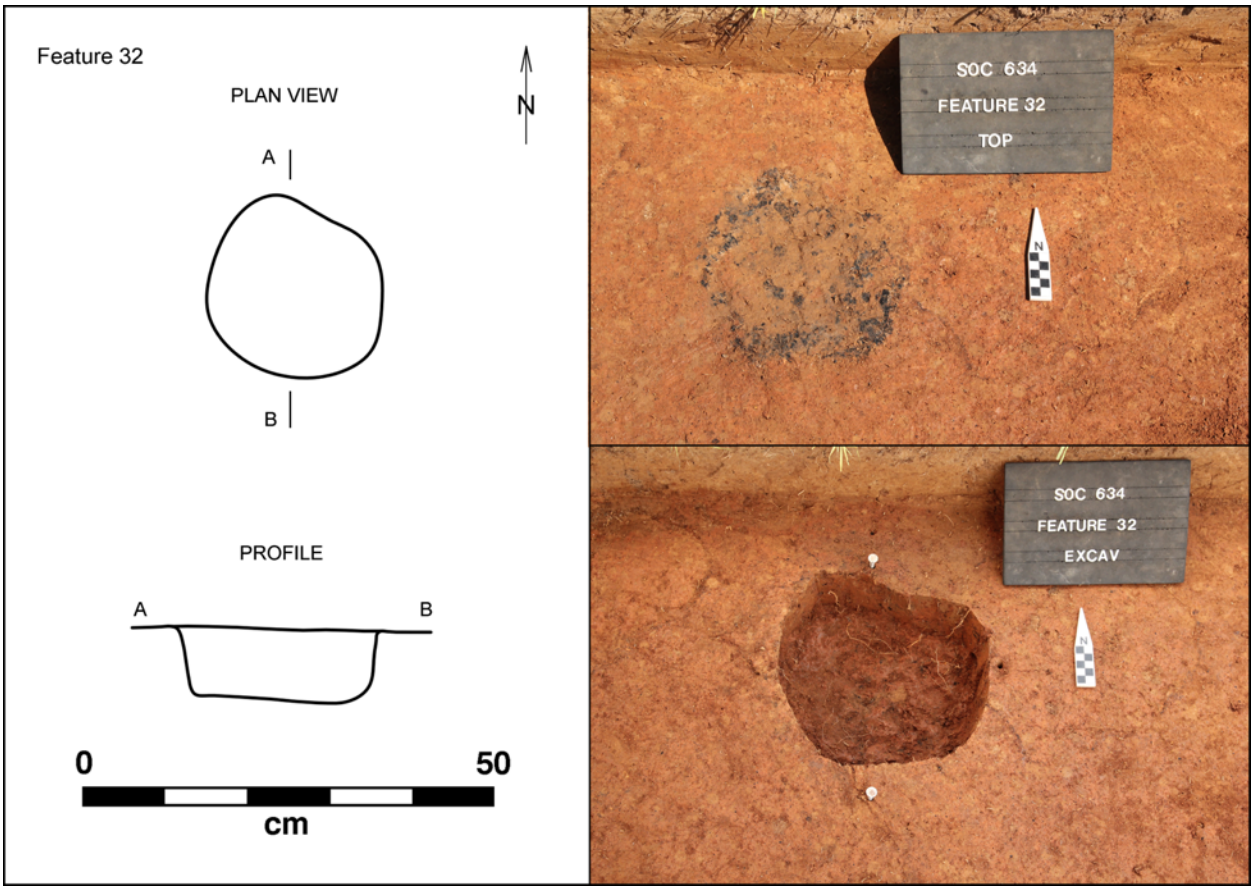


Figure A.35. Feature 32 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 33 (Figure A.36)

Located in the northeast portion of the 2014 Locus 2 excavation block, Feature 33 was one of nine sub-rectangular postholes associated with a small rectangular post-in-ground structure. Specifically, Feature 33 appears to have been the southwestern corner of Structure 7 that also includes Features 34, 38, 43, 44, 45, 47, 52, and 56 (not excavated). The top of Feature 33 was described as an irregularly shaped stain approximately 22 cm by 22 cm with a small fragment of bone in the eastern half of the feature. Excavations revealed a small, straight-sided posthole with a slightly slanted base 30 cm deep that consisted of a single zone of dark brown (7.5YR 3/3) silt loam fill that included charcoal fragments and 17 Catawba pottery sherds.

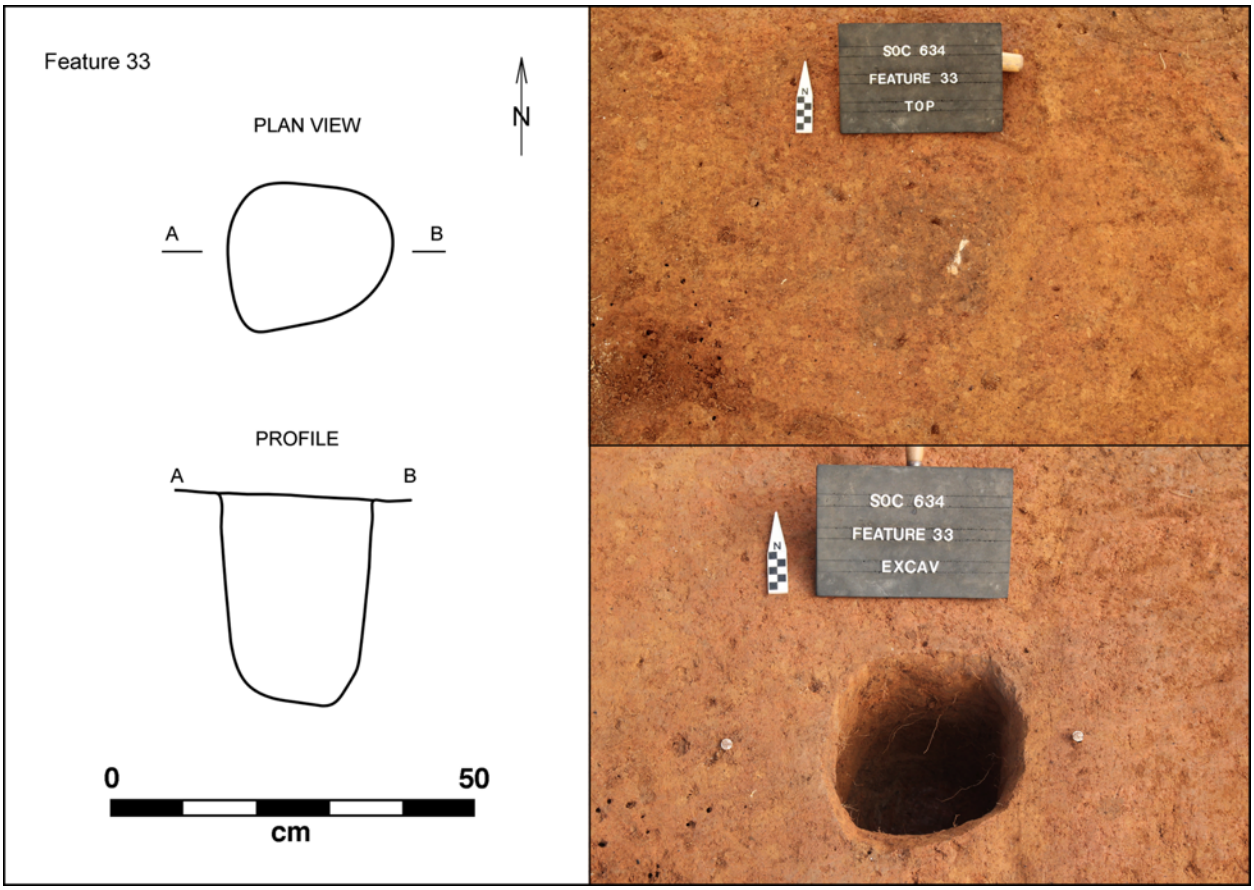


Figure A.36. Feature 33 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 34 (Figure A.37)

Feature 34 was a sub-rectangular posthole similar to many of the other postholes that are associated with Structure 7 from Locus 2. It is approximately 20 cm on each side and 27 cm deep with steep, vertical walls and a rounded base. The feature fill was a dark brown (7.5YR 3/3) silt loam that contained charcoal and four fragments of Catawba pottery. The feature's generally square shape suggests it may have been created with an iron spade.

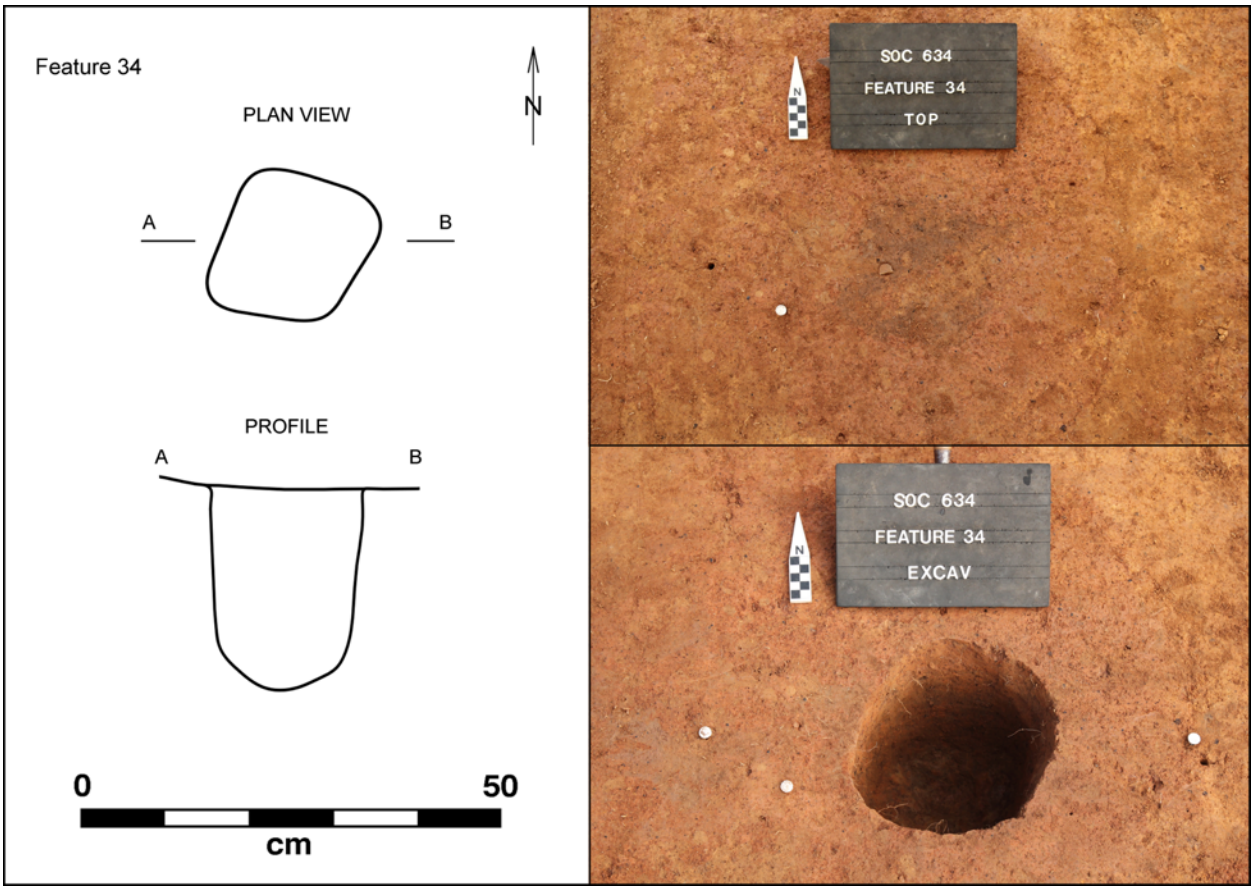


Figure A.37. Feature 34 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 35 (Figure A.38)

Feature 35 represents a possible refuse-filled posthole or small pit located in the northeastern part of Locus 2. This feature was originally defined at the base of the plowzone as a generally circular soil stain within what was later determined to be a tree disturbance (Feature 37). Excavations revealed a pit that was approximately 30 cm in diameter with a maximum depth of 38 cm, though this reflects a very irregular base in which the western side dives dramatically deeper than the rest of the feature, suggesting a root disturbance in that area. The fill of Feature 35 was a strong brown (7.5YR 4/6) silt loam that contained a relatively rich assemblage of artifacts including 57 Catawba pot sherds, 1 lead glazed sherd, 3 glass beads, a carved stone

“gun-sight” pipe stem, 1 flake, animal bone, fragments of carbonized peach pits and other charcoal, fired clay, and unfired potter’s clay.

Despite its location within the footprint of Structure 7, its association to it as a load-bearing structural element is not clear because it does not fit the otherwise clearly defined architectural pattern of the structure, it does not share the sub-rectangular shape many of the other posts have, and its unusually rich assemblage of artifacts.

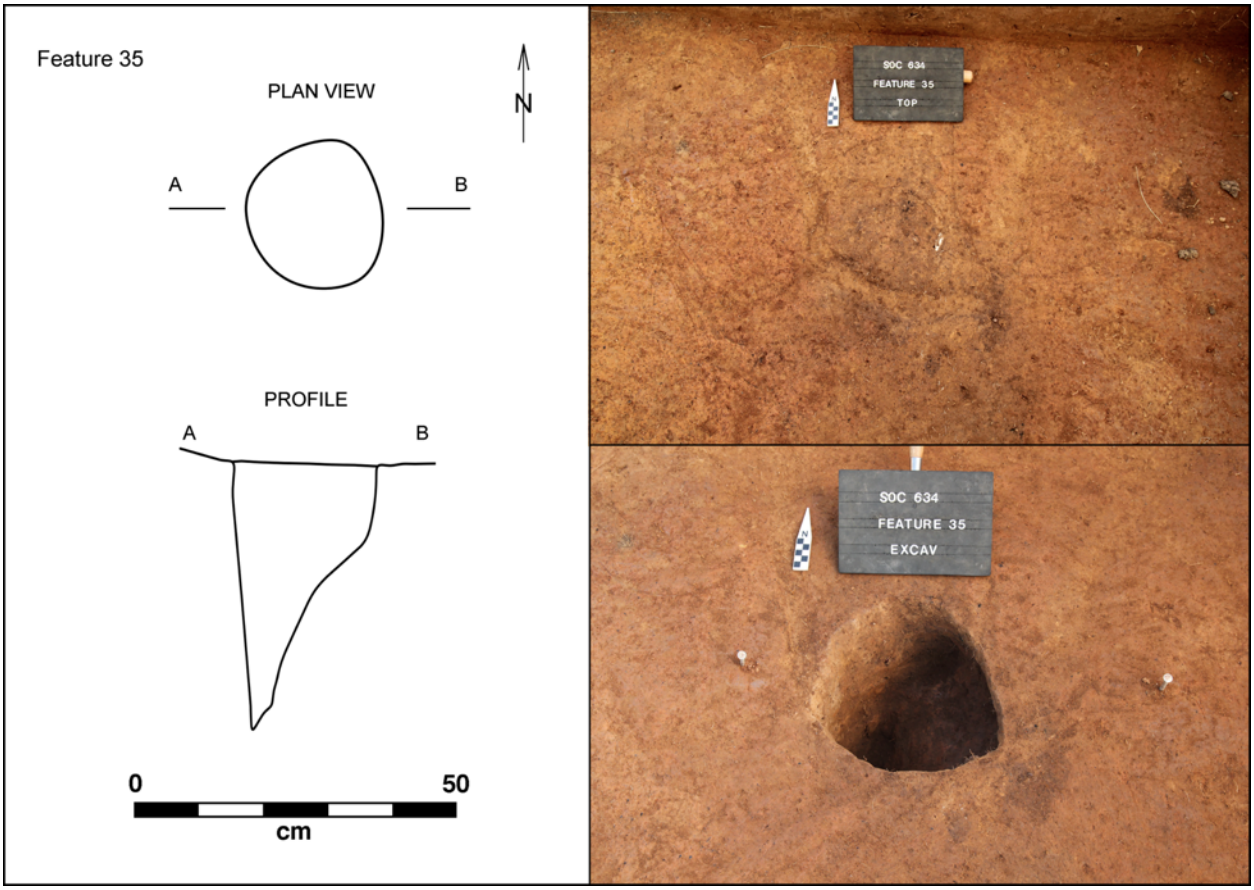


Figure A.38. Feature 35 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 36 (Figure A.39)

Feature 36 was a shallow pit located just to the east of Structures 4 and 5 in Locus 2. The east half of the pit appeared to have a sub-rectangular shape, approximately 46 cm north-south, while the west half was highly irregular. The pit matrix consisted of mottled brown (7.5YR 4/4) and dark brown (7.5YR 3/3) silt loam with clumps of bluish gray (GLEY 2 6/1) clay, interpreted to be unfired potter's clay. This deposit was determined to be only 3-4 cm thick and all fill from this feature was collected and processed as two 1.5-L flotation samples. The only artifacts recovered from this pit were 2 non-Catawba pottery sherds. Based on the presence of the clumps of clay, Feature 36 is interpreted to be the remains of a severely truncated clay processing pit, similar to Feature 1, 10, 13, and 17.

Figure A.39. Feature 36 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 37 (Determined to be a natural disturbance, probably a tree tip-up)

Feature 38 (Figure A.40)

This posthole was initially identified as sub-rectangular shaped soil stain on the eastern edge of a large tree disturbance (Feature 37) in Locus 2. This feature had a maximum width of 21 cm in N/S dimension and 25 cm E/W and was determined to be approximately 42 cm in depth with straight sides and a rounded base. The fill was a strong brown (7.5YR 4/6) silt loam and contained flecks of charcoal and 6 Catawba pot sherds. Feature 38 was in the center of a cluster of similarly shaped postholes interpreted to be supports for Structure 7.

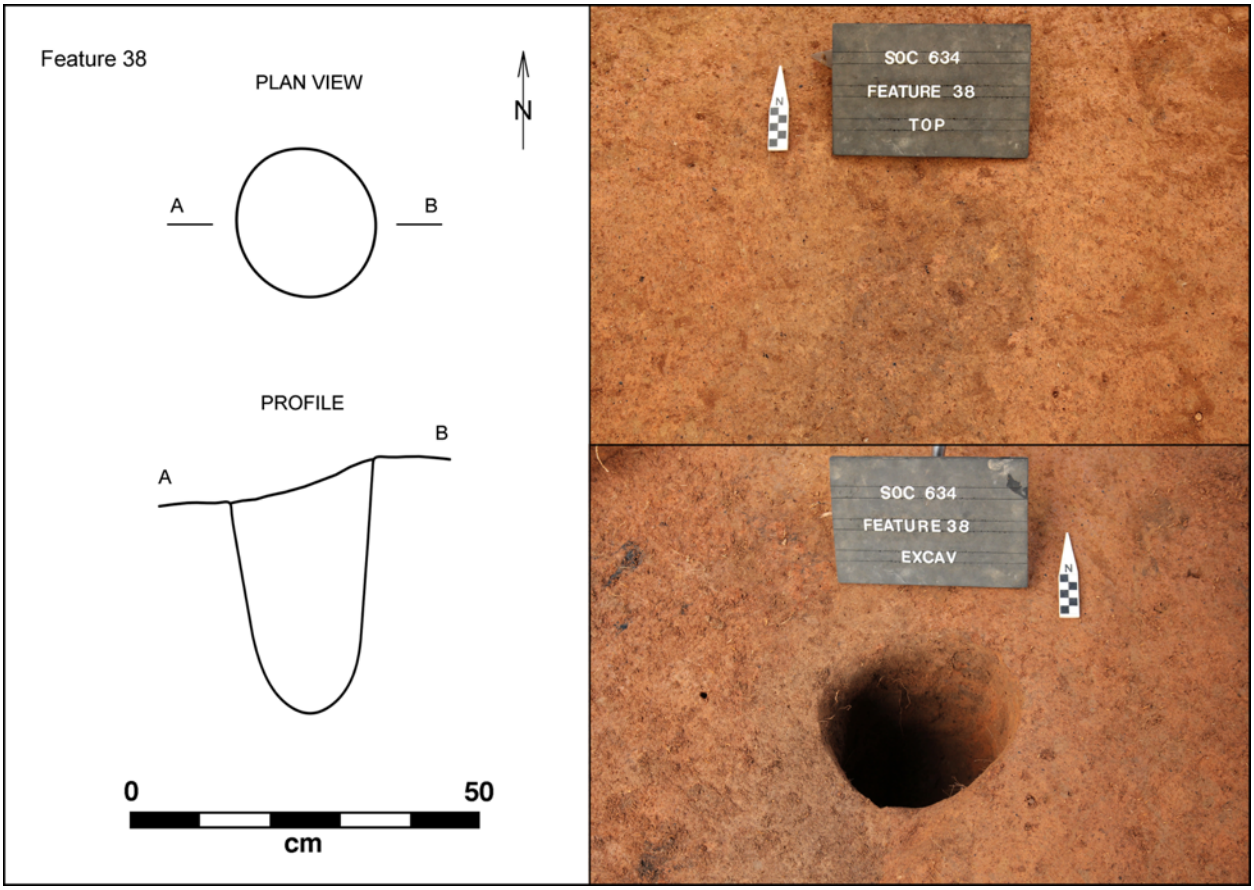


Figure A.40. Feature 38 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 39 (Figure A.41)

Feature 39 was a medium-sized, generally circular pit located at the northern end of the Locus 2 excavation block. This feature was approximately 37 cm north-south by 44 cm east-west, and 23 cm deep. The fill consisted of a single zone of dark reddish brown (5YR 3/4) silt loam. Excavation of this matrix revealed a basin-shaped pit with in-sloping sides and a rounded base. A single flake and a few stones were the only items recovered from this feature. The lack of cultural material associated with this feature is unusual for historic Catawba contexts and as such, its relationship to the late eighteenth century Catawba component at the site is unclear.

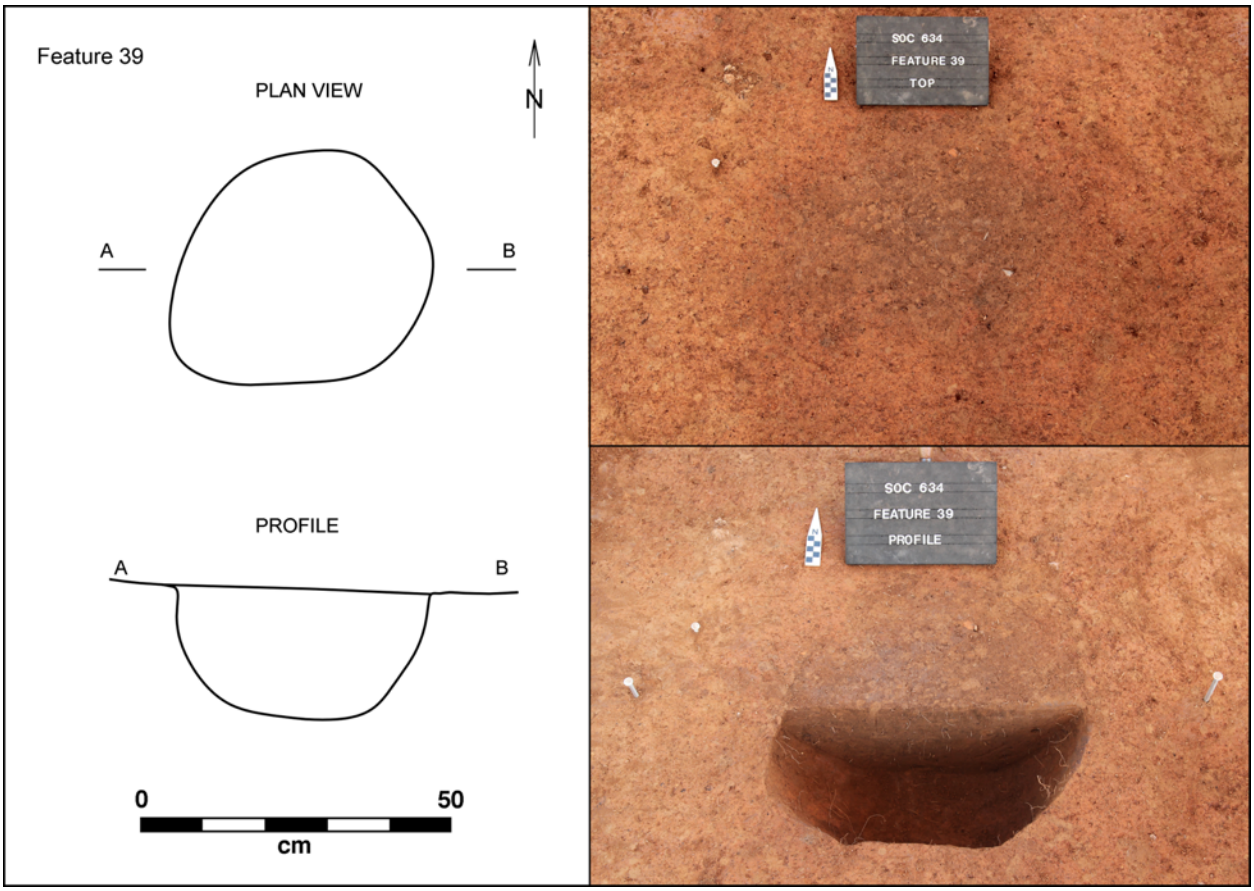


Figure A.41. Feature 39 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and fill profile with S ½ removed (bottom right, view to north).

Feature 40 (Figure A.42)

Feature 40, a rectangular burial pit, was situated approximately 4.7 meters east of Feature 14 in Locus 2. This pit measured 178 cm long and between 35-40 cm wide, dimensions indicative of an adult inhumation. The grave orientation was N7°E. The pit fill evident at the base of plowzone was heavily mottled with mixed red and yellow clay and brown silt loam concentrated at the northern end. This feature was mapped and photographed but not excavated.

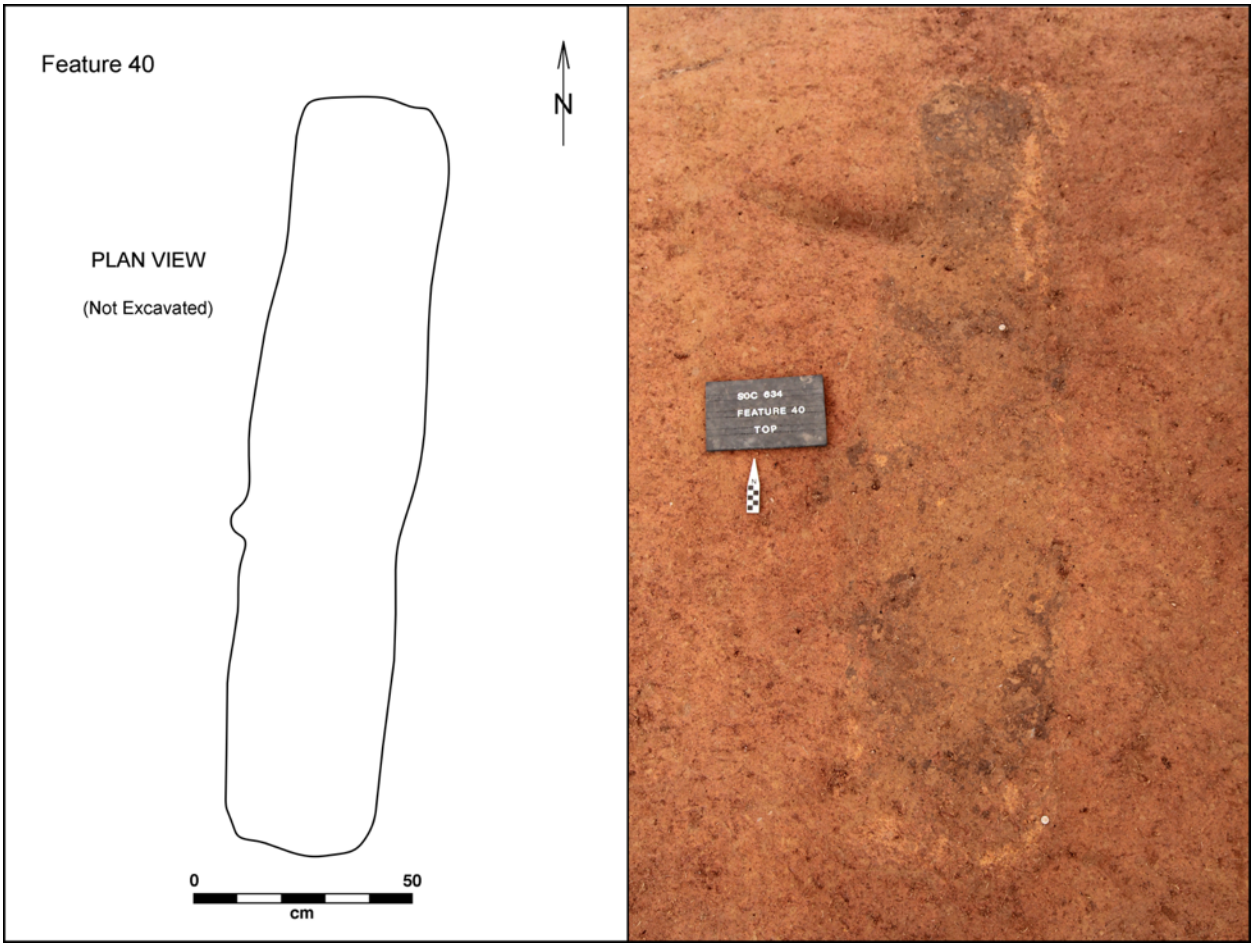


Figure A.42. Feature 40 plan view drawing and photograph at top of subsoil (view to north).

Feature 41 (Determined to be a non-cultural feature)

Feature 42 (Determined to be a non-cultural feature)

Feature 43 (Figure A.43)

Feature 43 was a sub-rectangular posthole similar to other postholes that are associated with Structure 7 from Locus 2. Feature 43 appears to be the northwestern corner support post for the structure both of which are oriented about 15 degrees east of north. It was approximately 19-20 cm to a side and 30 cm deep with steep, vertical walls and a flat base. The feature fill was a strong brown (7.5YR 4/6) silty clay that contained charcoal, calcined bone, 1 glass bead, fired clay, and 25 fragments of Catawba pottery.

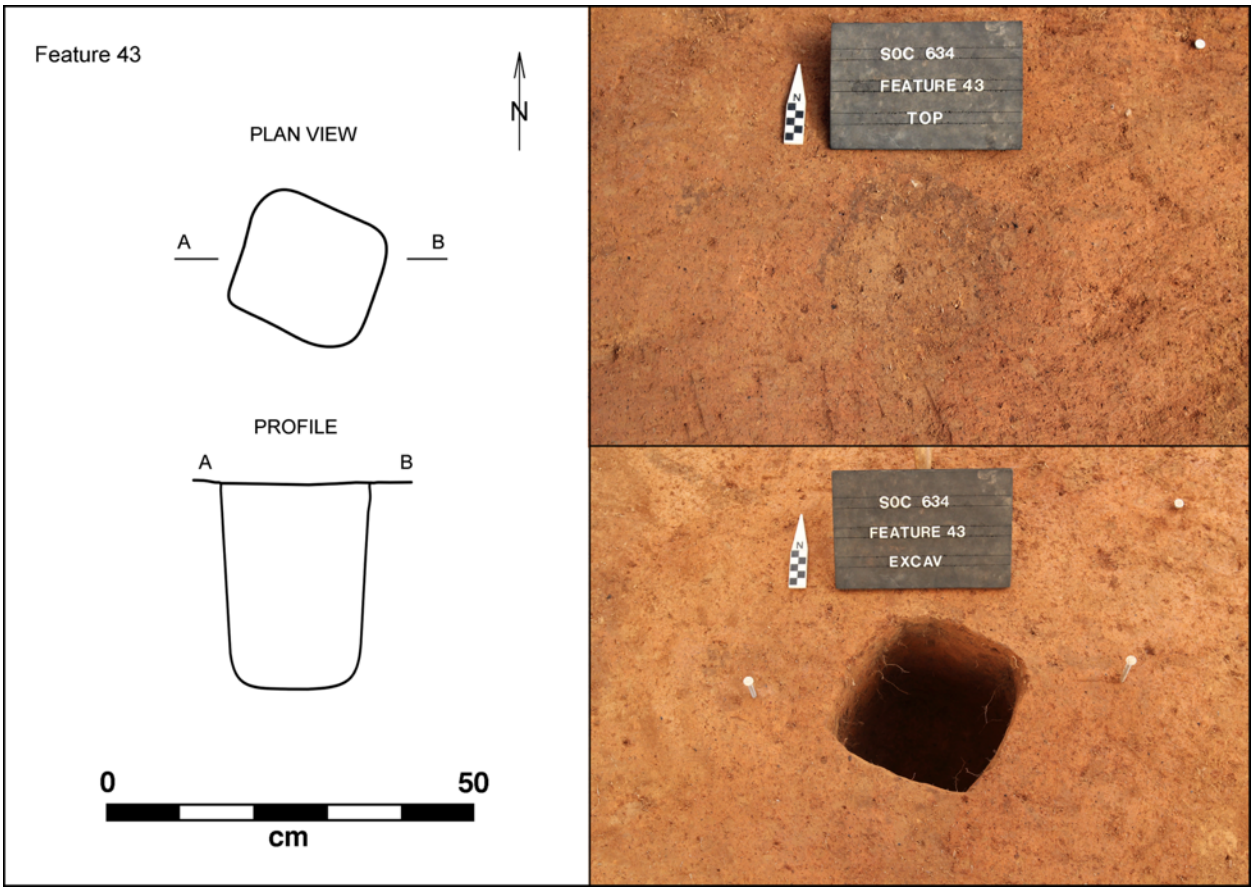


Figure A.43. Feature 43 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 44 (Figure A.44)

Feature 44, another sub-rectangular posthole associated with Structure 7 in Locus 2, was associated with the northern wall of the structure. Like other nearby posts, Feature 44 was roughly square measuring 17-18 cm to a side and generally aligned with the outline of Structure 8. Excavations revealed a straight-sided pit 29 cm deep with a rounded base. The fill, a dark brown (7.5YR 3/3) silty clay, contained charcoal flecks, 1 glass bead, and 18 Catawba pot sherds. The shape and consistency of the postholes associated with Structure 7, suggest they may have been dug with a small shovel or spade.

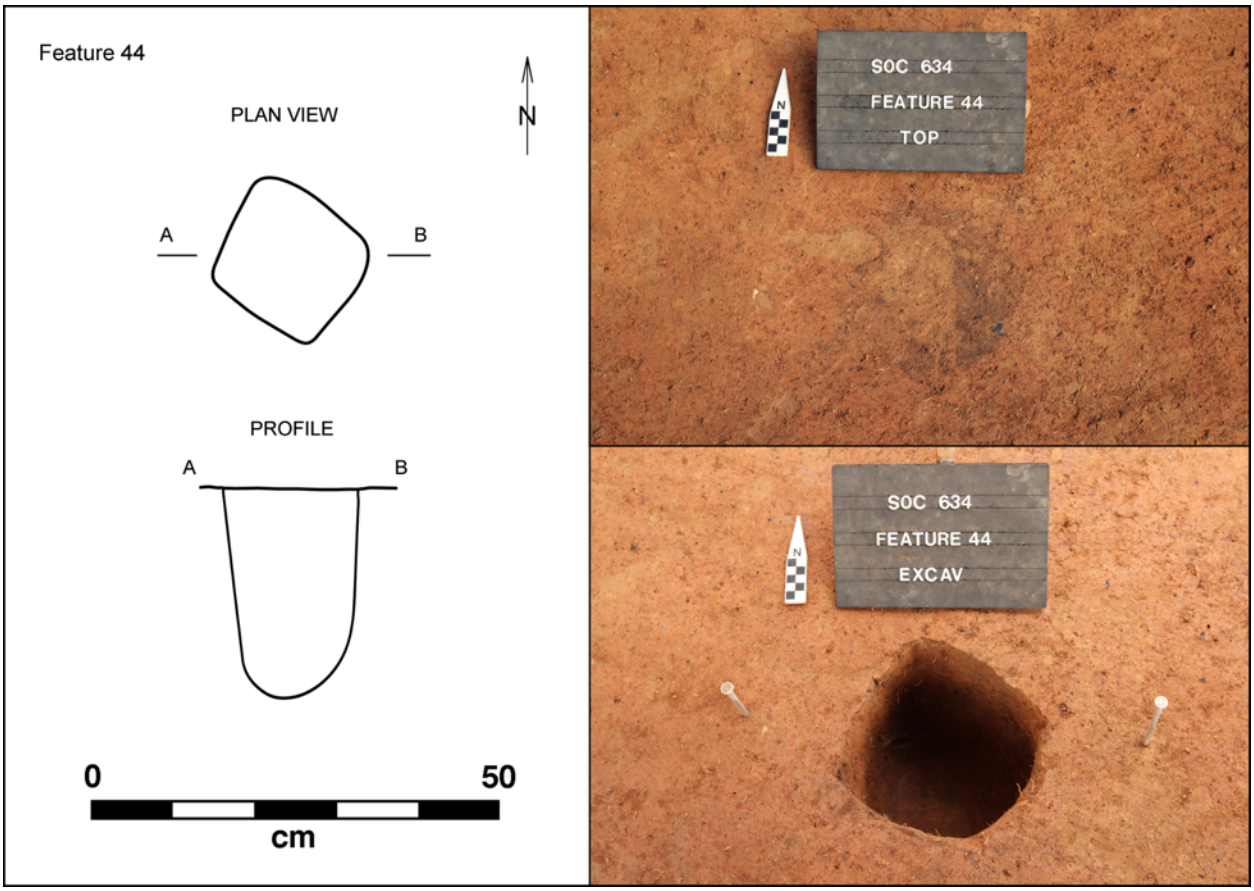


Figure A.44. Feature 44 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 45 (Figure A.45)

Feature 45, another sub-rectangular posthole associated with Structure 7 in Locus 2, was associated with the eastern wall of the structure. When first observed at the base of the plowzone, Feature 45 appeared to have lobe attached to its northwestern corner, though excavations showed that this was likely a disturbance. The post measured 19-20 cm to a side and 30 cm deep with a rounded-flat base. The fill, a dark yellowish brown (10YR 4/4) silty clay, contained charcoal flecks, 1 glass bead, and 13 Catawba pot sherds. A large flat rock was noted just to the southwest of the posthole, though its association with the feature is unclear and may be incidental.

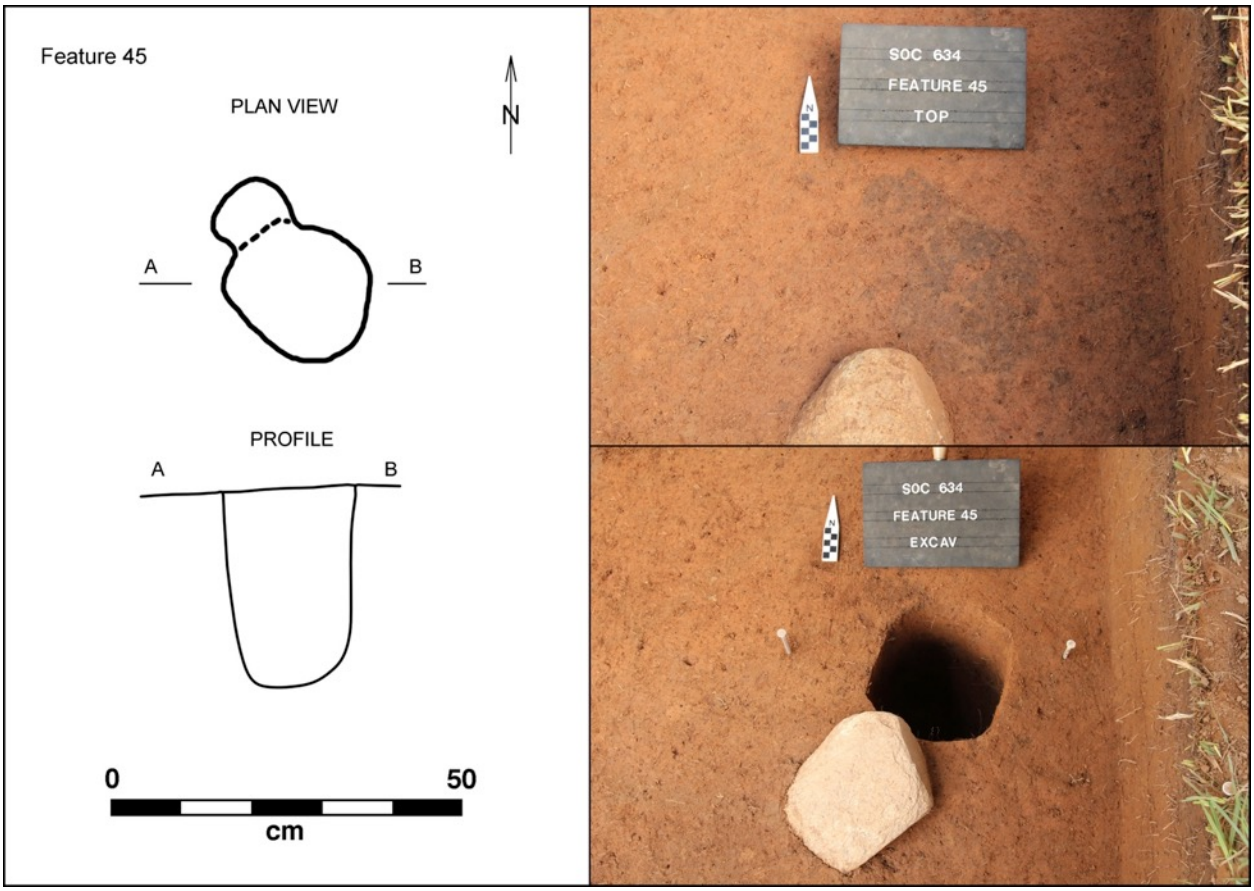


Figure A.45. Feature 45 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 46 (Figure A.46)

Located in the northeastern portion of Locus 2, Feature 46 refers to a possible posthole situated within a cluster of well-defined posts that constitute Structure 7. While this feature appeared to be sub-rectangular in shape prior to excavation, measuring 20 cm by 15 cm, after it was fully exposed it appeared more circular in planview. In profile, Feature 46 was relatively shallow and basin-shaped about 10 cm deep, with inward sloping sides and a taproot or burrow running off to the south. The fill, a dark brown (10YR 3/3) silty clay, yielded one chipped stone flake and a single potsherd. Based on its position and shape, Feature 46 does not seem to be directly associated with the post pattern defining Structure 7.

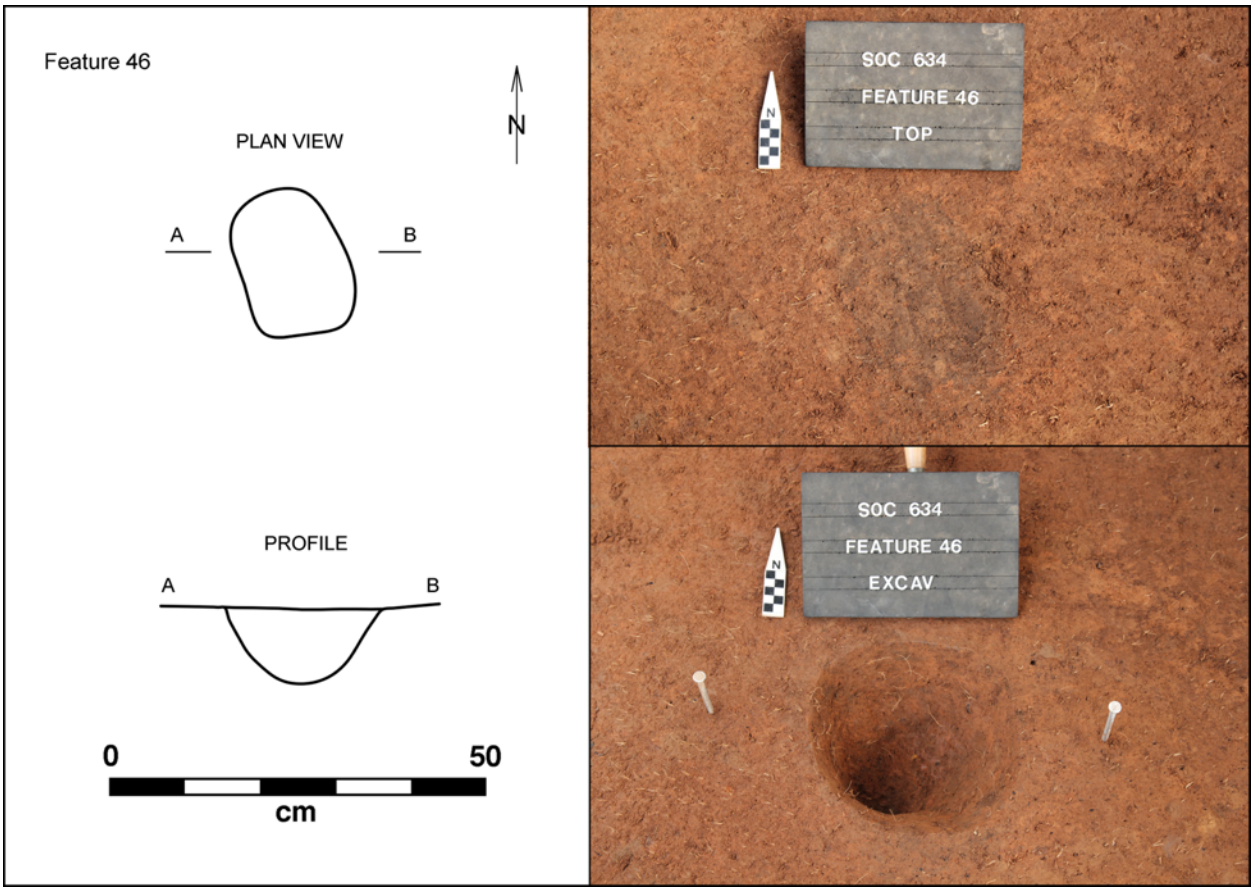


Figure A.46. Feature 46 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 47 (Figure A.47)

This sub-rectangular posthole is one of nine similar features (Feature 33, 34, 38, 43-45, 47, 52, and 56) located in the northeastern part of Locus 2 interpreted to be the remains of Structure 7. The position of Feature 47 indicates it was the southeast corner of the structure. The feature was 20 cm wide, 21 cm long, and 31 cm deep with straight vertical sides and a flat base. The fill, a brown (7.5YR 4/4) silt loam with charcoal flecks, was excavated as a single zone and waterscreened, which yielded 29 Catawba sherds, 1 tin-glazed sherd, 1 gunflint flake as well as 5 other chipped stone flakes.

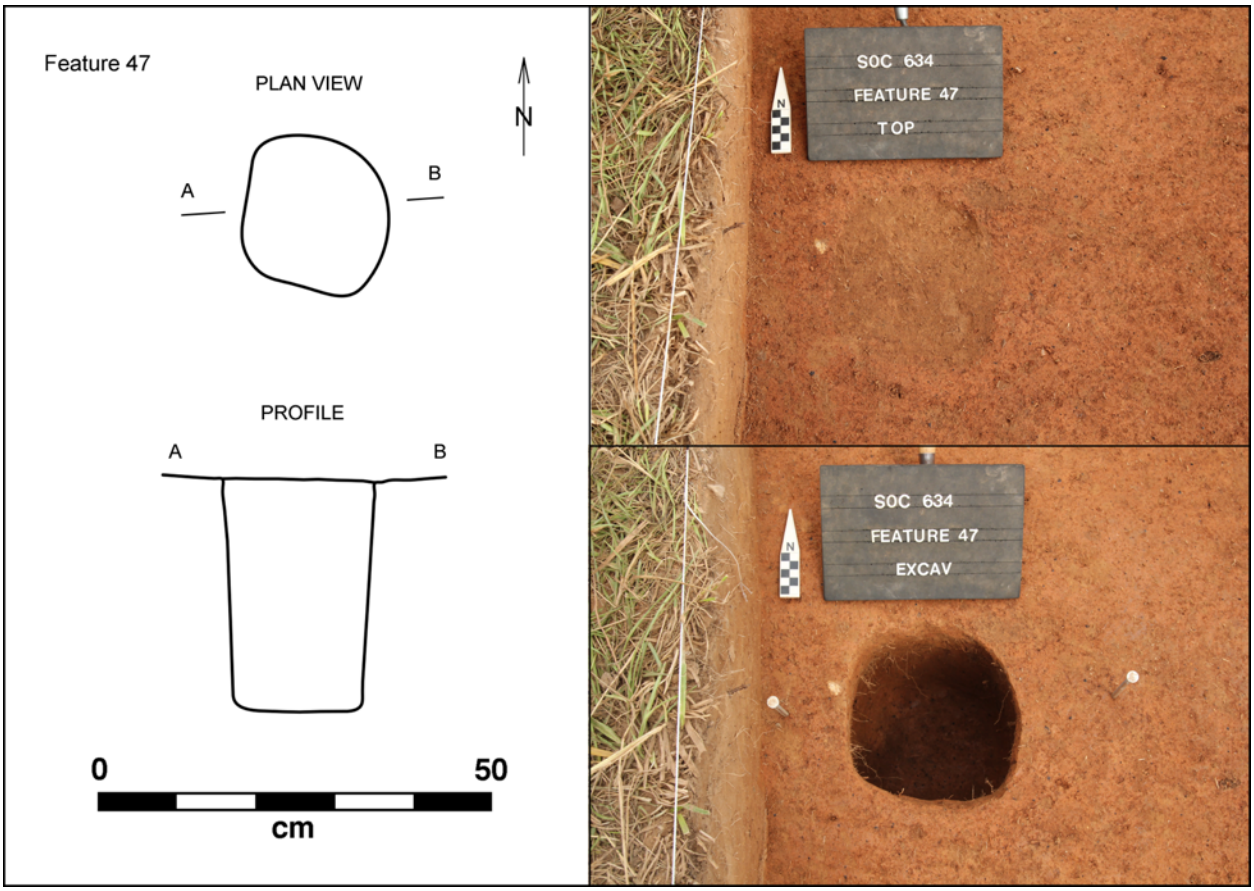


Figure A.47. Feature 47 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 48 (Determined to be a non-cultural feature)

Feature 49 (Figure A.48)

Feature 49 was a sub-rectangular pit located near the southeastern corner of Structure 7 in Locus 2. This feature measured 30 cm by 45 cm with its long dimension oriented northeast-southwest, roughly aligned with Structure 8. Excavations revealed that Feature 49 had two primary zones of fill. Zone 1 consisted of a compact reddish brown (5YR 4/4) silt loam and was approximately 10 cm thick. Zone 1 was collected as two flotation samples totaling 18 liters; no artifacts were recovered. Below Zone 1, a dense deposit of carbonized plant remains, almost entirely corncobs, was encountered ranging between 5-10 cm thick and collected as a 15-liter flotation sample. The pit had steep, vertical walls and a flat bottom that sloped down toward the southwest with a maximum depth 20 cm. Based on the charred corncobs in Zone 2, Feature 49 is interpreted to be a smudge pit, though it is somewhat atypical due to its rectangular shape, relatively large size, and the presence of a zone of presumably intentional fill (Zone 1) capping the pit. Feature 49 also seems to be aligned with two other smudge pits (Feature 50 and 51) that line up with the east wall of Structure 7, suggesting that these features were used at a time when the structure was still standing.

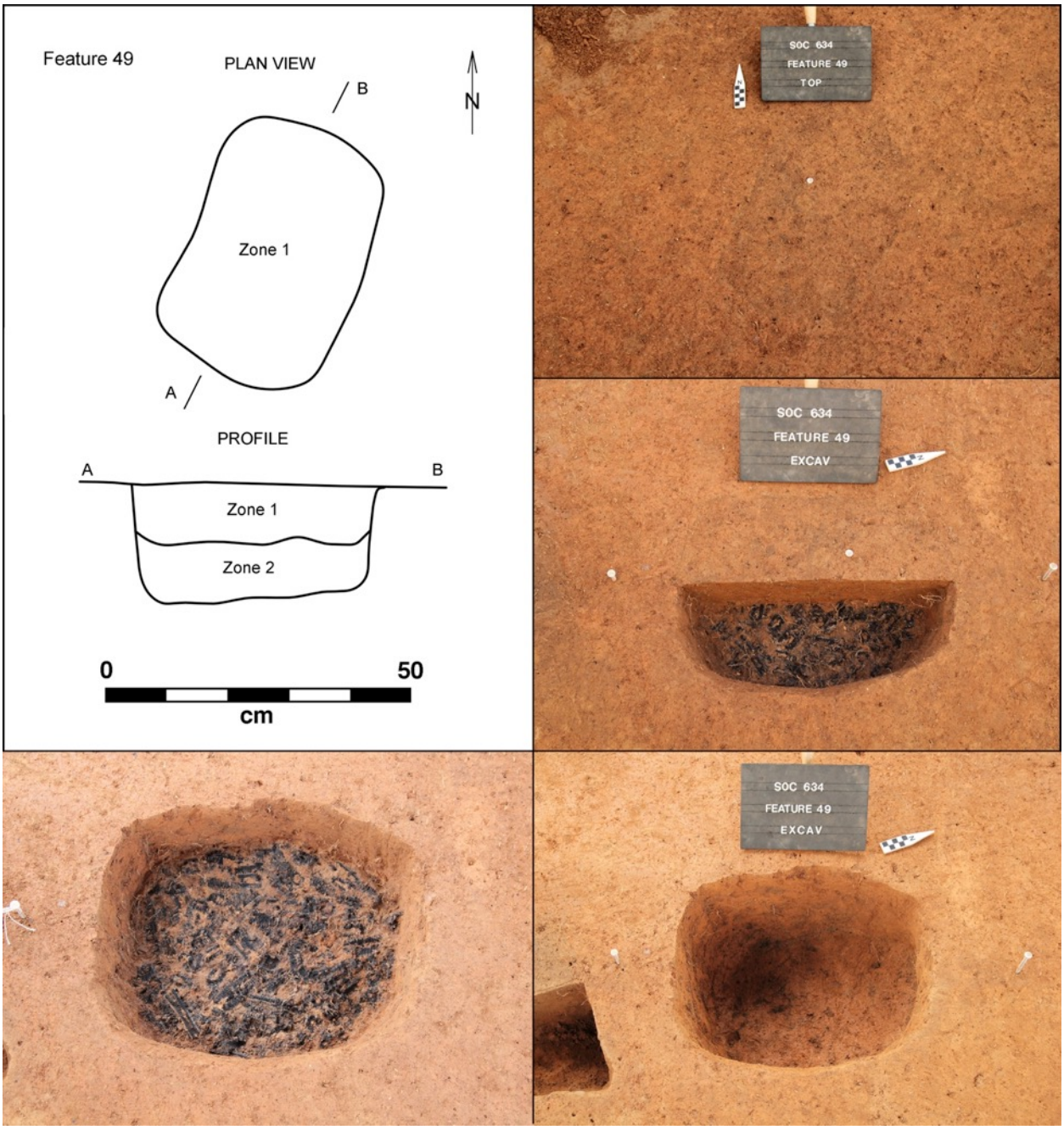


Figure A.48. Feature 49 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), east half excavation with charred corn cobs exposed (middle right, view to west), charred corn mass fully exposed (bottom left, view to west), and excavated feature (bottom right, view to west).

Feature 50 (Figure A.49)

Feature 50 refers to one of 3 smudge pits (Features 49-51) aligned to the east wall of Structure 7 and immediately adjacent to burial Feature 55 in Locus 2. This feature was observed at the base of the plowzone as an oval concentration of charred material mixed with dark yellowish brown (10YR 4/4) approximately 31 cm by 24 cm. The pit matrix was excavated as a single zone and collected as an 8-liter flotation sample revealing a shallow basin with an uneven bottom 10 cm deep. The long axis of Feature 50 is roughly oriented northeast-southwest which is in general agreement with the orientation of Structure 7, suggesting contemporaneity.

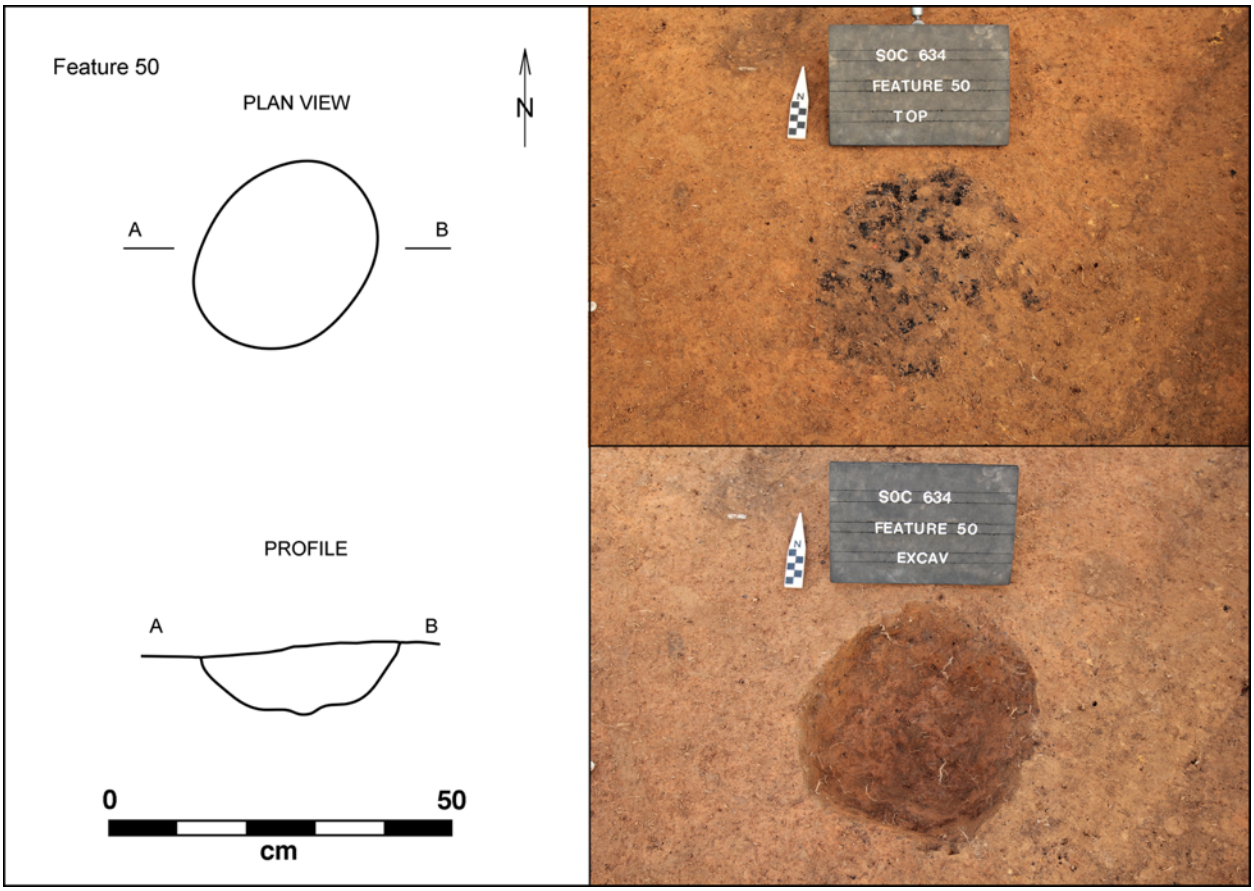


Figure A.49. Feature 50 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 51 (Figure A.50)

Feature 51 was identified as an oval pit filled with charred corncobs located just to the east of Structure 7 in the northeastern section of Locus 2. Feature 51 measured approximately 19 cm long by 16cm wide; it was excavated as a single zone that was 4-7 cm thick that produced a 2-liter flotation sample. This shallow pit had steep, in-sloping walls and a generally flat bottom, though a possible root disturbance was noted at the western side. Feature 51 is interpreted to have functioned as a small smudge pit.

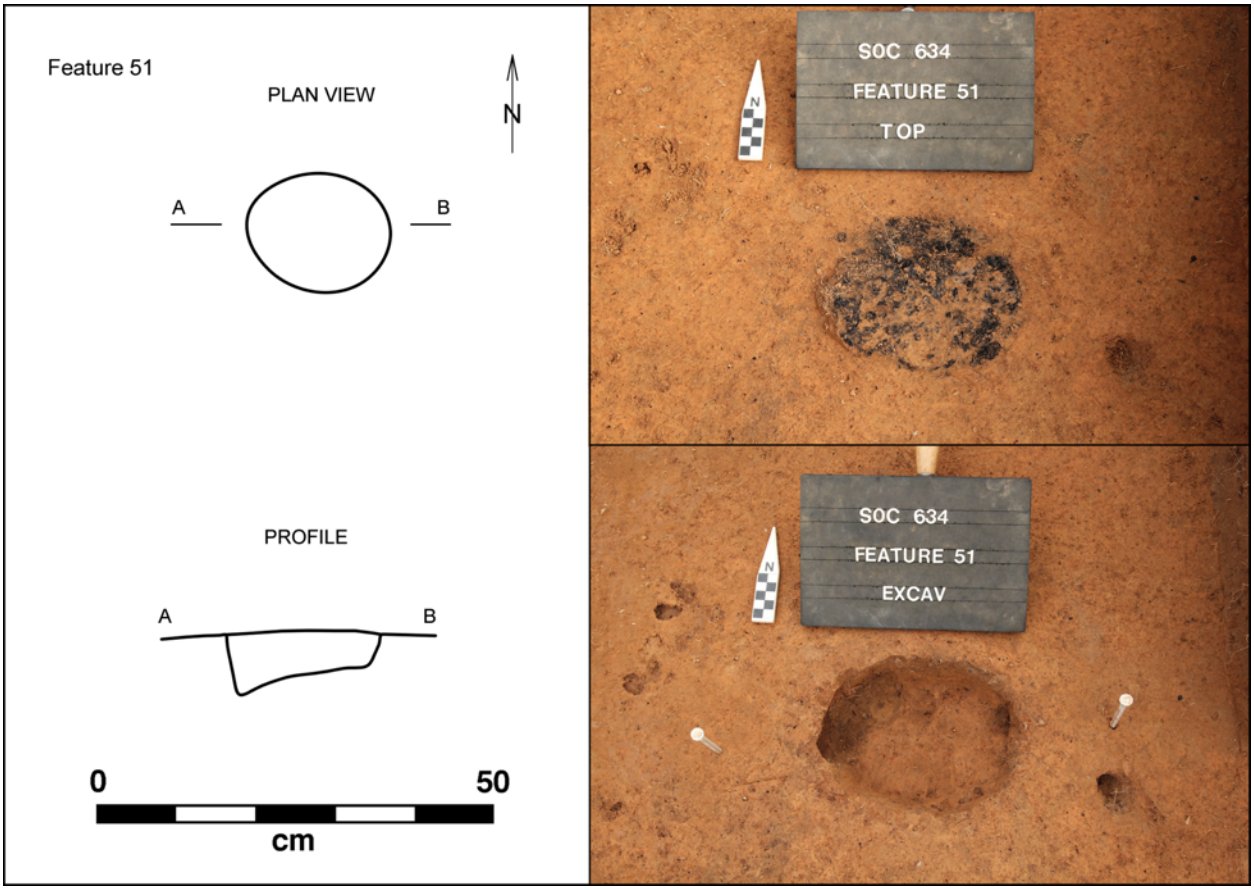


Figure A.50. Feature 51 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 52 (Figure A.51)

Feature 52 was a sub-rectangular posthole, one of nine similar features (Feature 33, 34, 38, 43-45, 47, 52, and 56) located in the northeastern part of Locus 2 interpreted to be the remains of Structure 7. The position of Feature 52 indicates it was the northeast corner of the structure. It was located immediately adjacent to Feature 54, a smaller possible posthole and both were excavated together. Feature 52 was 19 cm wide, 20 cm long, and 31 cm deep with straight vertical sides and a rounded base. The fill, a strong brown (7.5YR 4/6) silt loam with charcoal flecks, was excavated as a single zone and waterscreened, which yielded 12 Catawba sherds, 1 glass bead, 1 peach pit fragment as well as 2 chipped stone flakes.

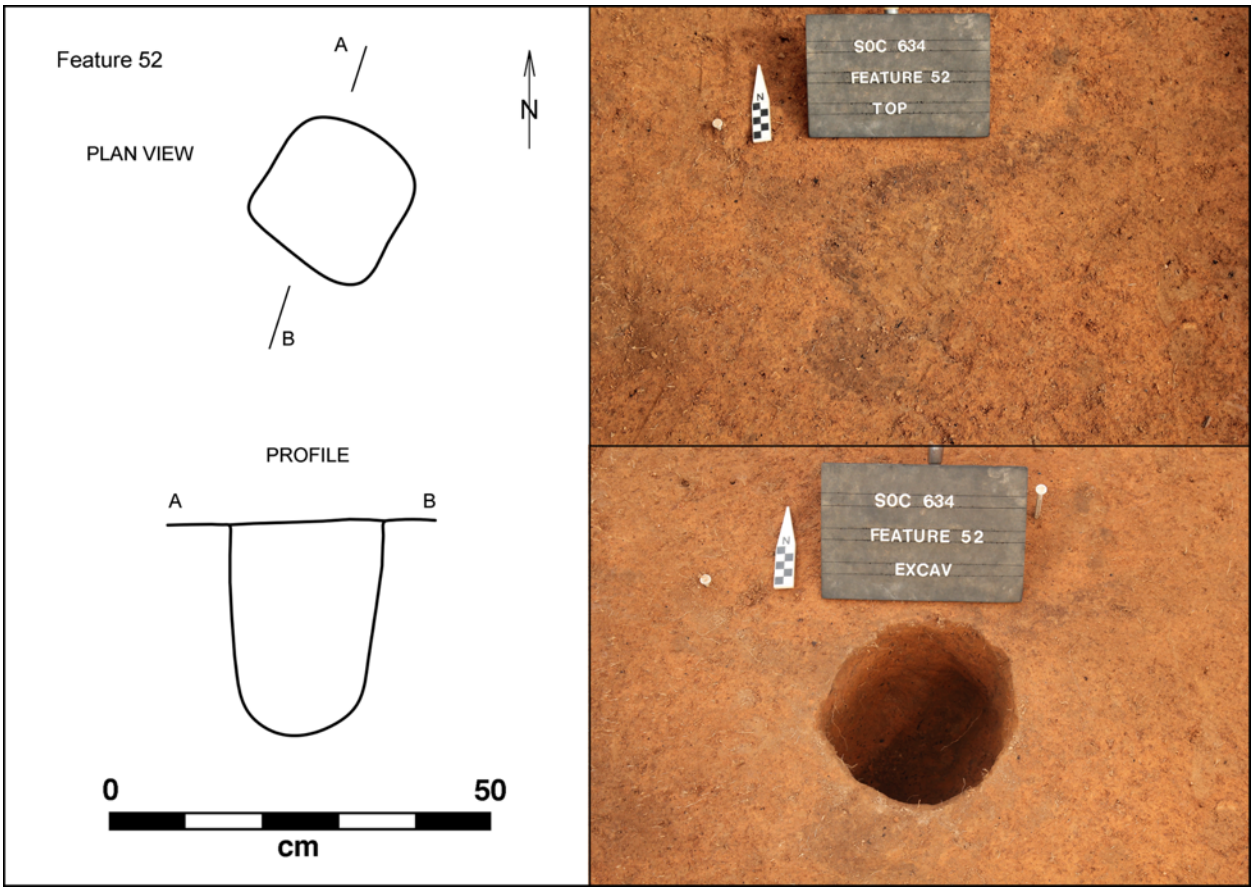


Figure A.51. Feature 52 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 53 (Figure A.52)

Feature 53 was investigated and was determined to be a probable tree disturbance located near Structure 7 in Locus 2. The feature was quite deep, 65+ cm after which excavation was halted, and contained dark reddish brown (5YR 3/3) silty clay and 6 fragments of pottery.

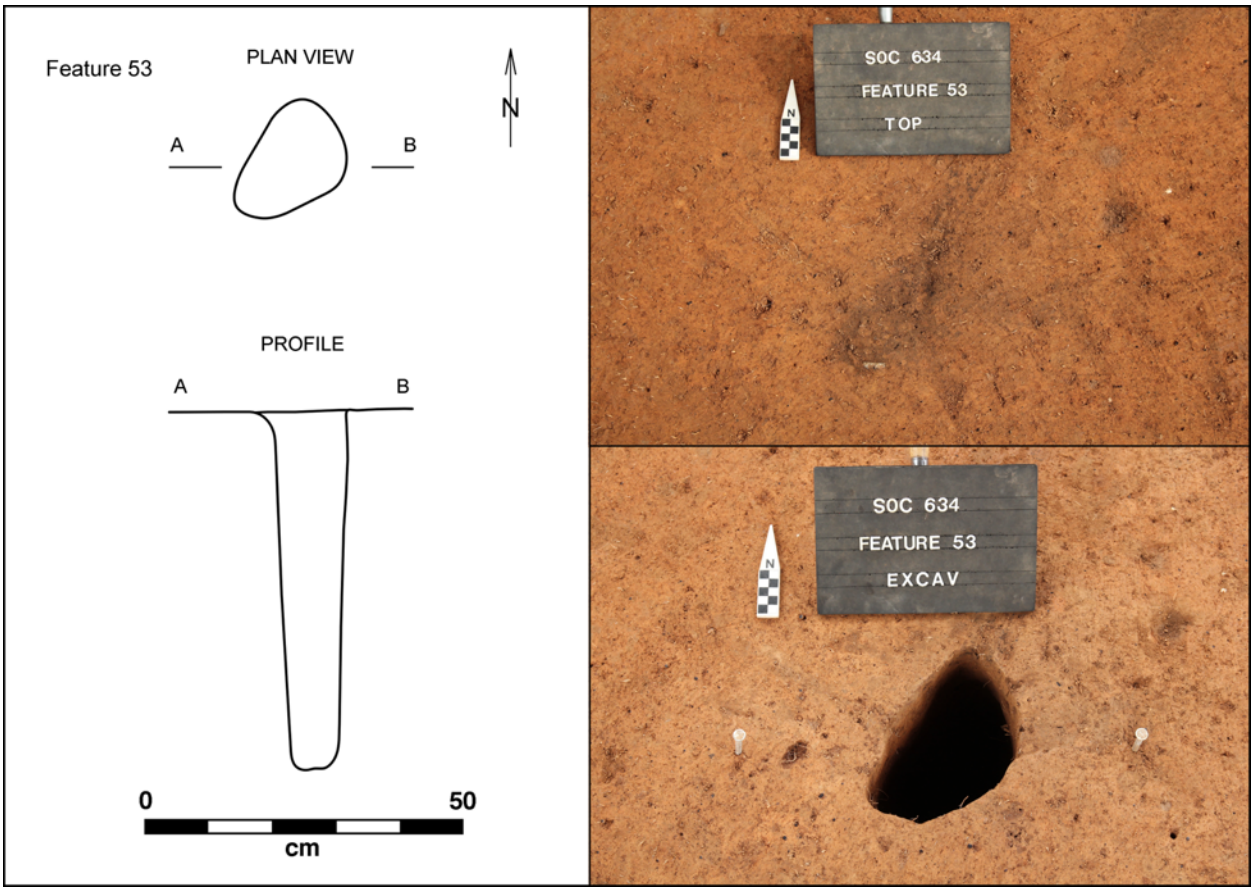


Figure A.52. Feature 53 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north) and excavated feature (bottom right, view to north).

Feature 54

Feature 54 was a small, roughly circular, possible posthole connected to Feature 52 located in Locus 2. It measured approximately 12 cm across and 6 cm deep with basin shaped bottom. The fill matrix was a strong brown (7.5YR 4/6) silt loam and contained no artifacts. If this feature is a posthole, it is not likely associated to Structure 8 based on it size and shape.

Feature 55 (Figure A.53)

Feature 55, a sub-rectangular grave pit located along the east side of Structure 8, likely represents the grave of a child. This pit measured approximately 106 cm long and 39 cm wide, and was oriented N24°E, an alignment similar to Structure 8 suggesting the burial was interred when the structure was standing. The Feature 55 matrix was dark brown silt loam mixed with red and yellow clays. This feature was mapped and photographed but not excavated.

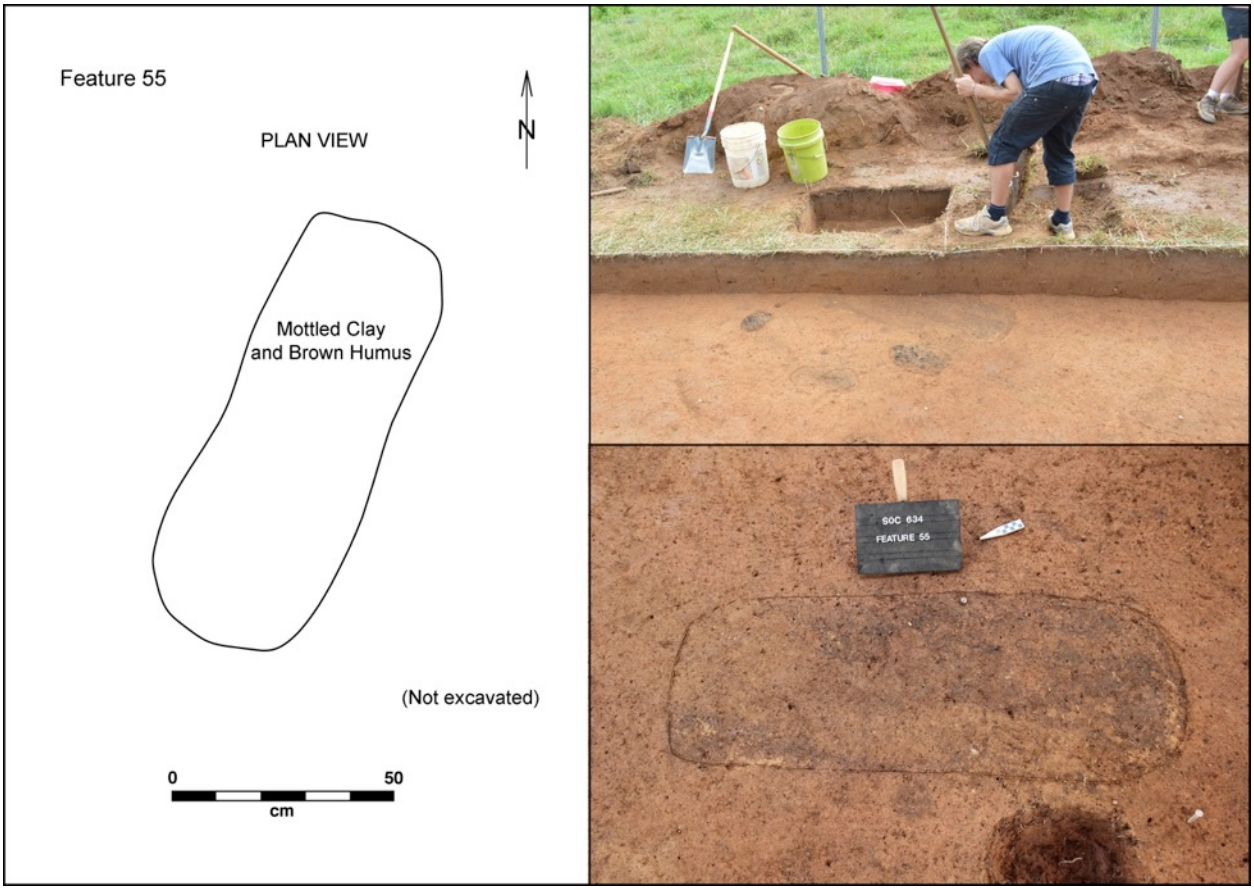


Figure A.53. Feature 55 plan view and excavation photographs: exposing top of feature (top right, view to east) and top of feature (bottom right, view to southeast).

Feature 56

Located in Locus 2, Feature 56 refers to a post hole associated with southern line of posts defining Structure 7. Feature 56 was initially identified in 2009 as a possible post hole when a 2 x 4 m block was placed in the northeast end of the Locus. In the interest of time, it was not investigated during the 2009 season and when additional units were excavated in the surrounding area to expose the remains of other Structure 7 in 2014, it was mistakenly thought to have been previously excavated and therefore was never excavated. At the base of plowzone, the feature appeared as a roughly circular soil stain approximately 18 cm in diameter.

Feature 57

This circular feature, located 49 cm southwest of Feature 11, measured 16 cm in diameter and approximately 14 cm deep terminating in a rounded bottom. The fill was brown (7.5 YR 4/4) clay loam and yielded 2 glass beads and 1 Catawba pot sherd. Though Feature 64 is not part of a well-defined arrangement of posts, its position in relation to three other posts (Features 58, 63, 64) form a regular rectangle around Feature 11 that also seems to share its orientation. This may indicate these posts were part of an interior feature within Structure 5 such as a bench or cover for the cellar.

Feature 58

Feature 58 refers to a likely post hole formerly known as "Posthole 3" located in Locus 2 approximately 1.2 m east of Feature 11. This circular feature measured 15 cm in diameter and approximately 22.5 cm deep terminating in a rounded base. The fill was dark reddish brown (5 YR 3/3) loam and contained 3 Catawba potsherds, a piece of kaolin pipe, and an animal tooth fragment. While Feature 58's relationship to nearby features is unclear, its position with respect to three other posts (Features 57, 63, 64) form a regular rectangle around Feature 11 that also

seems to share its orientation. This may indicate these posts were part of an interior feature within Structure 5 such as a bench or cover for the cellar.

Feature 59

Feature 59 designates a possible post hole and mold formerly known as "Posthole 4". It was located in Locus 1 and approximately 60 cm north of Feature 2. This feature appeared at the base of plowzone as a circular brown (7.5 YR 4/3) soil stain surrounded by a lighter strong brown (7.5 YR 5/6) ring of clay loam 23 cm in diameter. The feature was excavated to a depth of about 30 cm where it tapered to a point and slightly undercut the top of the feature, both of which may signal a root disturbance. While no artifacts were observed from the fill constituting the post hole, two flakes were recovered from the central post mold. It is unclear if Feature 59 and Feature 2 are associated, but these features share a similar position and orientation to another nearby post/cellar pit pair (Features 5 and 65) suggesting these posts may have had a function within the structure associated with the cellar pits.

Feature 60

Feature 60 is a possible post hole located in Locus 2 approximately 2.5 m east of Feature 16 at the west edge of the excavation block. It was observed as a slightly oval soil stain at the base of plowzone with strong brown (7.5 YR 4/6) loamy fill. Feature 60 was 23 cm by 26 cm across and was excavated to a depth of 16 cm and terminated with an uneven but rounded base. The feature yielded no cultural material. Though Feature 60 is in the vicinity of a refuse-filled tree disturbance (Feature 22) and a clay borrow pit (Feature 16), Feature 60's association with these features is unclear.

Feature 61

Feature 61 is a possible post hole located in Locus 2 approximately 1.7 m east of Feature 18. It was observed as a generally circular soil stain at the base of plowzone with dark reddish brown (5 YR 3/4) loamy fill. Feature 61 was 15 cm in diameter and was excavated to a depth of 14 cm and terminated with a rounded base. The feature yielded no cultural material. Though there are several post holes in the vicinity, Feature 61's association with other features is unclear.

Feature 62

Feature 62 is a possible post hole located in Locus 2 approximately 2.6 m northeast of Feature 18. It was observed as a generally circular soil stain at the base of plowzone with reddish brown (5 YR 4/4) loamy fill. Feature 62 was 19 cm in diameter and was excavated to a depth of 11 cm and terminated with a rounded base. The feature yielded no cultural material. Though there are several post holes in the vicinity, Feature 62's association with other features is unclear.

Feature 63

Feature 63 is a possible post hole located in Locus 2 within the cluster of cellar pits that comprise Structures 4 and 5. The feature was observed as a slightly oval shaped soil stain at the base of plowzone measuring 15 by 18 cm. The feature was excavated to a depth of 10 cm with the fill described as strong brown (7.5 YR 4/6) loam that contained no artifacts. Its relationship to the surrounding cellar pits and other posts is unclear, however Feature 63 forms a rectangle with three other posts (Features 57, 58, 64) around Feature 11, which also shares the cellar pit's orientation. If these posts are related to each other and to Feature 11, this may indicate these posts were part of an interior feature within Structure 5 such as a bench or cover for the cellar.

Feature 64

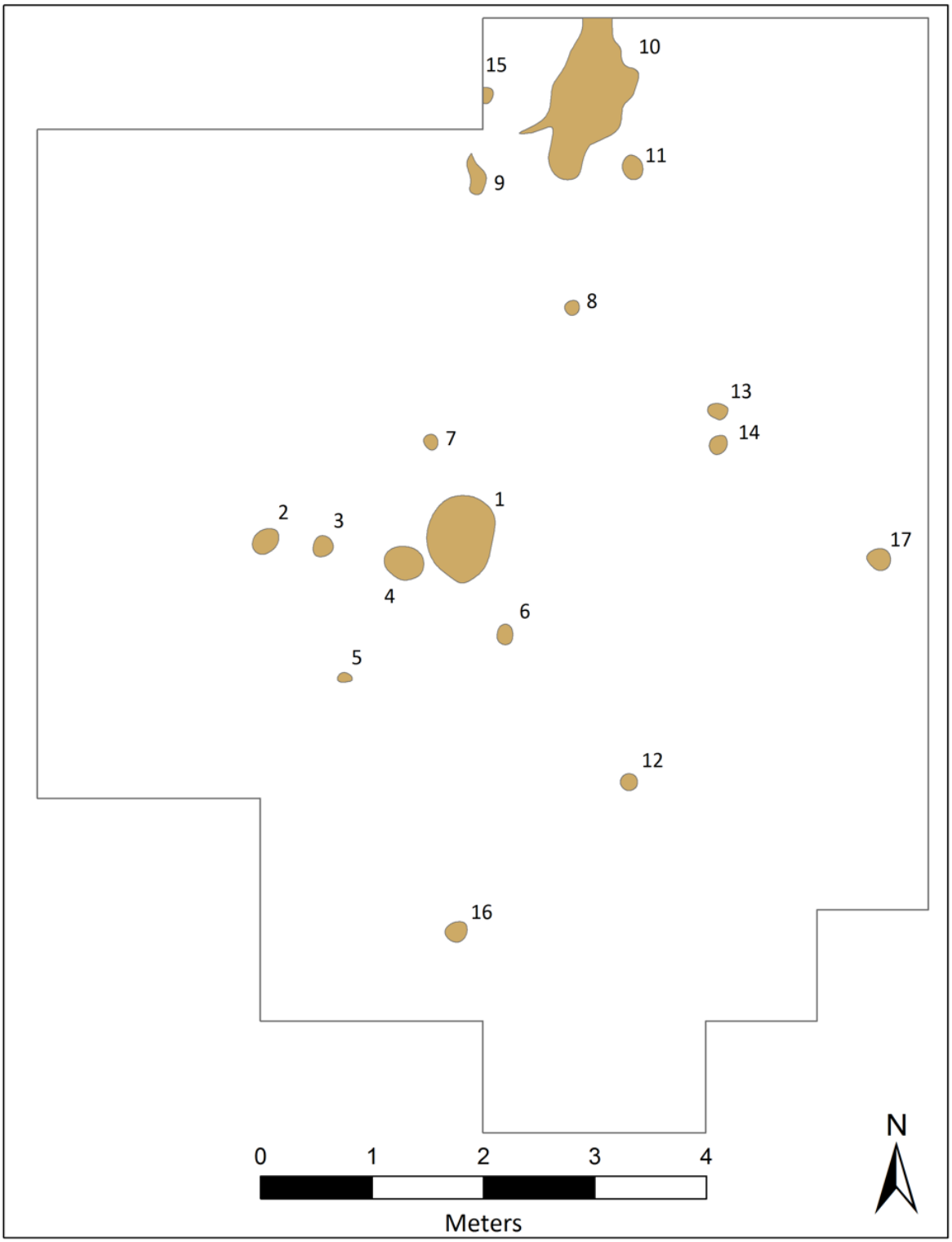
Feature 64 denotes a possible post hole in Locus 2 located immediately north of a cluster of smudge pits and south of the cluster of cellar pits that define Structures 4 and 5. This is a small, slightly oval soil stain that measured approximately 14 cm in diameter and 11 cm in depth with a rounded base. The fill from this feature was brown (7.5 YR4/4) silty loam and contained no artifacts. Though Feature 64 is not part of a well-defined arrangement of posts, its position in relation to three other posts (Features 57, 58, 63) form a regular rectangle around Feature 11 that also seems to share its orientation. This may indicate these posts were part of an interior feature within Structure 5 such as a bench or cover for the cellar.

Feature 65

Feature 65 refers to a possible post hole formerly designated "Posthole 1" located within Locus 1 and partially intruded by the northwest corner of Feature 6. The feature was rectangular in shape at the base of plowzone measuring 21 cm by 15 cm. The post appeared to change shape from rectangular to circular after 10 cm and extended to a maximum depth of 51 cm. The bottom of the feature was heavily tapered suggesting that a root disturbance may have intruded the feature. The fill was very dark brown (10 YR 2/2) with mottles of charcoal flecks. No artifacts were found in this feature. It is unclear what the purpose of this post hole was since it is a solitary post though it is in a similar position and distance from the cellar pit Feature 5 as Feature 59 is from Feature 2.

APPENDIX B: DESCRIPTIONS AND ILLUSTRATIONS OF ARCHAEOLOGICAL FEATURES FROM THE NISBET SITE

Map for Locating Archaeological Features



Feature 1 (Figure B.1)

Feature 1 represents the only sub-floor storage pit identified at the Nisbet site and is associated with the rectangular post-in-ground Structure 1. The pit was observed at the base of plowzone with an irregular, circular to sub-rectangular outline measuring approximately 79 cm north–south by 59 cm east–west. Feature 1 had a maximum depth of about 13 cm and had vertical to slightly undercut walls and a flat base. Based on observations of the plowzone and other features, it is likely that Feature 1 was heavily truncated by erosion and deep plowing and represents only the basal deposits of the original pit. The fill consisted of a single zone of mostly of dark reddish brown (5YR 3/4) sandy loam mixed with fine yellowish red (5YR 5/6) sand, small dark red (2.5YR 3/6) clay inclusions (1-2 cm), and smaller flecks of pale, unfired potter's clay and charcoal. Feature 1 yielded 43 fragments of Catawba pottery, 69 glass beads, 25 pieces of kaolin pipe, an iron knife and lock fragments, as well as 2 historic sherds and lead sprue. A hammerstone and 32 lithic flakes were also recovered from this pit though stone tool manufacturing during the historic period is not common and may represent a prehistoric component at the site and accidental inclusions within the Catawba pit. Feature 1 was bisected with the west half excavated first. While a 26-liter soil sample was collected for flotation from the west half with remainder being waterscreened through 1/16th inch mesh, the entire east half was collected as a 35-liter flotation sample.

Feature 2

Feature 2 was initially identified as a possible post hole associated with Structure 1, but after investigation the oval shaped soil stain was determined to be a probable natural disturbance based on the presence of root runs. The feature contained some charcoal, 2 flakes, and a kaolin pipe fragment recovered from the top of the feature, which is likely incidental.

Feature 3

Feature 3 was a roughly circular posthole associated with Structure 1 at the Nisbet site. It was located 85 cm due west of Feature 1 and was either the western corner post or part of the northwestern facing wall of the structure. It had a maximum length of 18 cm and width of 16.5 cm and was approximately 8 cm deep with an uneven, slightly domed base. The fill matrix was composed of strong brown (7.5 YR 4/6) sandy loam with flecks of charcoal.

Feature 4

Feature 4 was initially identified as a possible smudge pit associated with Structure 1 due to the presence of significant amounts of charcoal, but after excavation the relatively large oval soil stain was determined to be a probable burned root disturbance. Despite being a natural disturbance, four flakes and the broken base of an archaic projectile point (Kirk) were recovered from the feature.

Feature 5

Feature 5 was initially identified as a possible post hole associated with Structure 1, but after investigation the oval shaped soil stain was determined to be a probable root disturbance.

Feature 6

Feature 6 was a roughly circular posthole associated with Structure 1 at the Nisbet site. It was located 50 cm south of Feature 1 and appears to have been a central support post of the structure, though it was not significantly larger that the post posts associated with the structure. It had a maximum length of 18 cm and width of 15 cm and was approximately 14 cm deep with an rounded base. The fill matrix was composed of yellowish red (5 YR 4/6) sandy loam with flecks of charcoal. A single flake was recovered from this feature which probably represents an accidental inclusion.

Feature 7

Feature 7 was a circular posthole associated with Structure 1 at the Nisbet site. It was located 46 cm north of Feature 1 and was part of the northwestern facing wall of the structure. It had a maximum length of 14 cm and width of 12 cm and was approximately 9 cm deep with an uneven rounded base. The fill matrix was composed of strong brown (7.5 YR 4/4) sandy loam with flecks of charcoal. A single flake was recovered from this feature which probably represents an accidental inclusion.

Feature 8

Feature 8 was a circular posthole associated with Structure 1 at the Nisbet site. It was located 185 cm northeast of Feature 1 and represents the northeastern corner of the structure. It had a diameter of 13 cm was approximately 4 cm deep with an irregular rounded base. The fill matrix was composed of dark red (2.5 YR 3/6) sandy loam with flecks of charcoal. No artifacts were recovered from this feature, though this post was nearly completely truncated by erosion and plowing.

Feature 9

This feature designates a tree disturbance marked by concentrations of charcoal. This context was not excavated.

Feature 10

This feature designates a tree disturbance marked by concentrations of charcoal. This context was not excavated.

Feature 11

This feature designates a circular tree disturbance marked by concentrations of charcoal. This context was excavated but the only artifact recovered was a single flake which likely represents an accidental inclusion.

Feature 12

Feature 12 was a circular posthole associated with Structure 1 at the Nisbet site. It was located 225 cm southeast of Feature 1 and represents part of the southeast facing wall of the structure. It had a diameter of 15 cm was approximately 10 cm deep with a flat and slanting base. The fill matrix was composed of strong brown (7.5 YR 4/6) sandy loam. No artifacts were recovered from this feature.

Feature 13

Feature 13 was an irregular oval shaped posthole associated with Structure 1 at the Nisbet site. It was located 214 cm northeast of Feature 1 and immediately adjacent to Feature 14 representing part of the northeastern facing wall of the structure. It had a maximum length of 18 cm and width of 14 cm and approximately 11 cm deep with a rounded base. The fill matrix was composed of dark red (2.5 YR 3/6) sandy loam with flecks of charcoal. A single flake was recovered from this feature which probably represents an accidental inclusion.

Feature 14

Feature 14 was an irregular oval shaped posthole associated with Structure 1 at the Nisbet site. It was located 204 cm northeast of Feature 1 and immediately adjacent to Feature 13 representing part of the northeastern facing wall of the structure. It had a maximum length of 18 cm and width of 15 cm. Excavation revealed this feature to be shallow, approximately 6 cm deep, with a rounded base. The fill matrix was composed of reddish brown (5 YR 5/4) sandy

loam with flecks of charcoal. Three flakes were recovered from this feature which probably represent accidental inclusions in the fill.

Feature 15

This feature designates a tree disturbance marked by concentrations of charcoal located at the northern portion of the excavation block. This context was not excavated.

Feature 16

Feature 16 refers to the probable southern corner post associated with Structure 1 located approximately 3 m from Feature 1. This feature was observed at the base of plowzone as a slightly oval soil stain measuring 19-20 cm across. Excavation of this feature revealed that it was only 4-6 cm deep with an uneven and slightly domed base. The fill of Feature 16 dark reddish brown (5 YR 3/2) sandy loam and contained no artifacts.

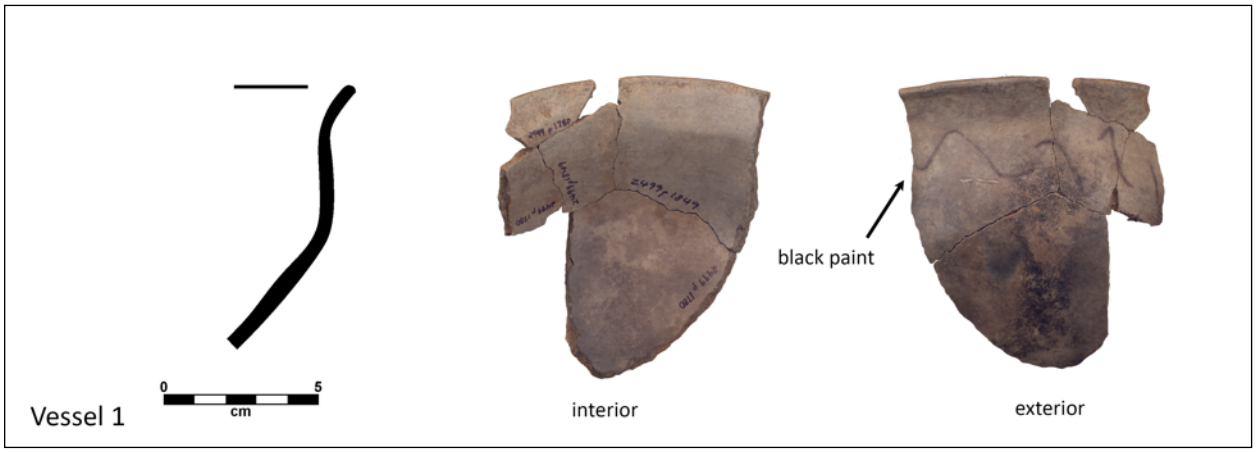
Feature 17

Feature 17 designates the remains of the eastern most corner post associated with Structure 1 located approximately 3.4 m due east from Feature 1. Excavators observed this feature at the base of plowzone as a generally circular soil stain measuring 20 cm across. Excavation of this feature revealed that it was only 6-8 cm deep with an uneven and slightly domed base. The fill of Feature 17 was strong brown (7.5 YR 4/6) sandy loam and contained a single Catawba sherd.

APPENDIX C: DESCRIPTIONS AND ILLUSTRATIONS OF NUMBERED VESSELS FROM OLD TOWN

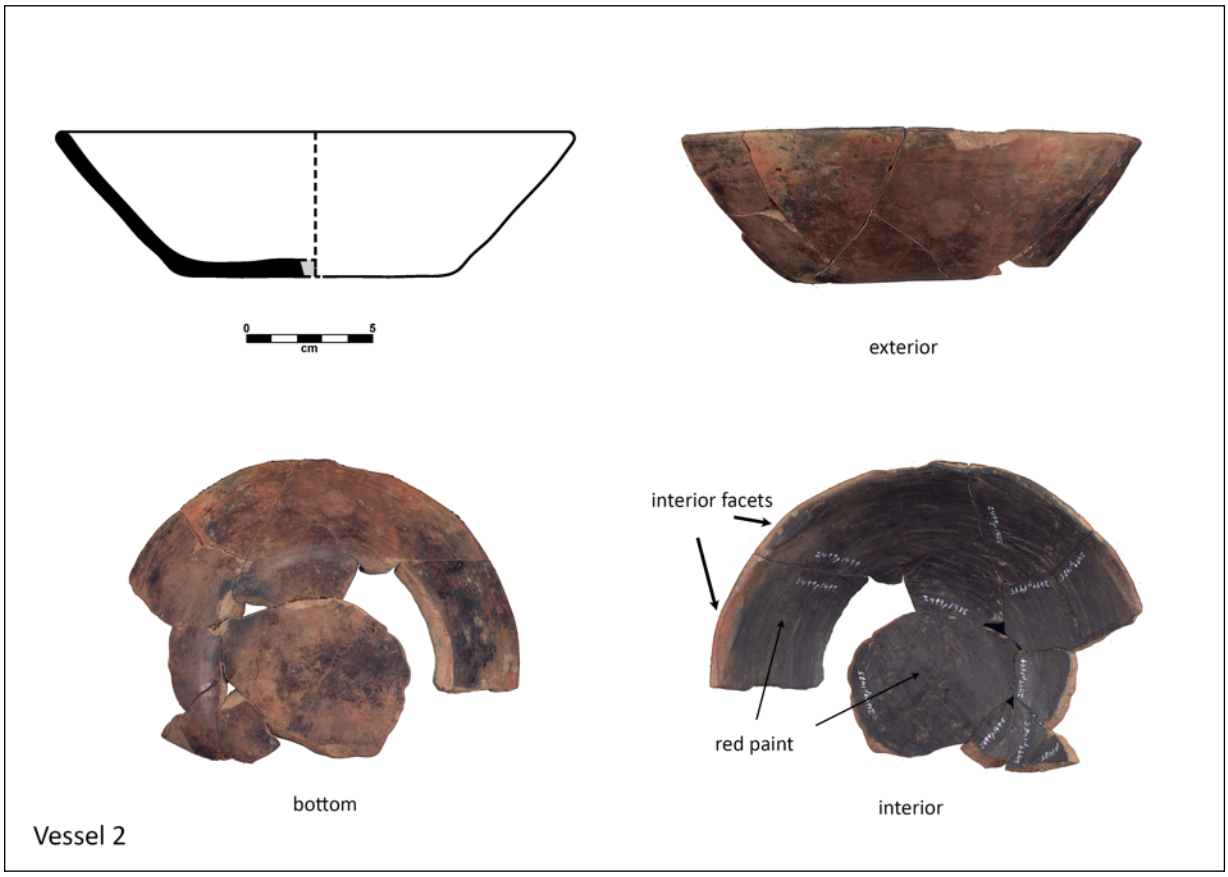
Vessel 1

Context	Feature 18
Vessel Type	jar
Temper	very fine sand
Exterior Surface	burnished (gray with fire-clouds – 10YR 5/1)
Interior Surface	smoothed (light gray – 10YR 7/2)
Rim Form	excurvate rim with rounded lip
Basal Form	indeterminate
Decoration	black painted wavy line below rim
Rim Diameter	13.5 cm
Vessel Height	-
Wall Thickness	4 mm



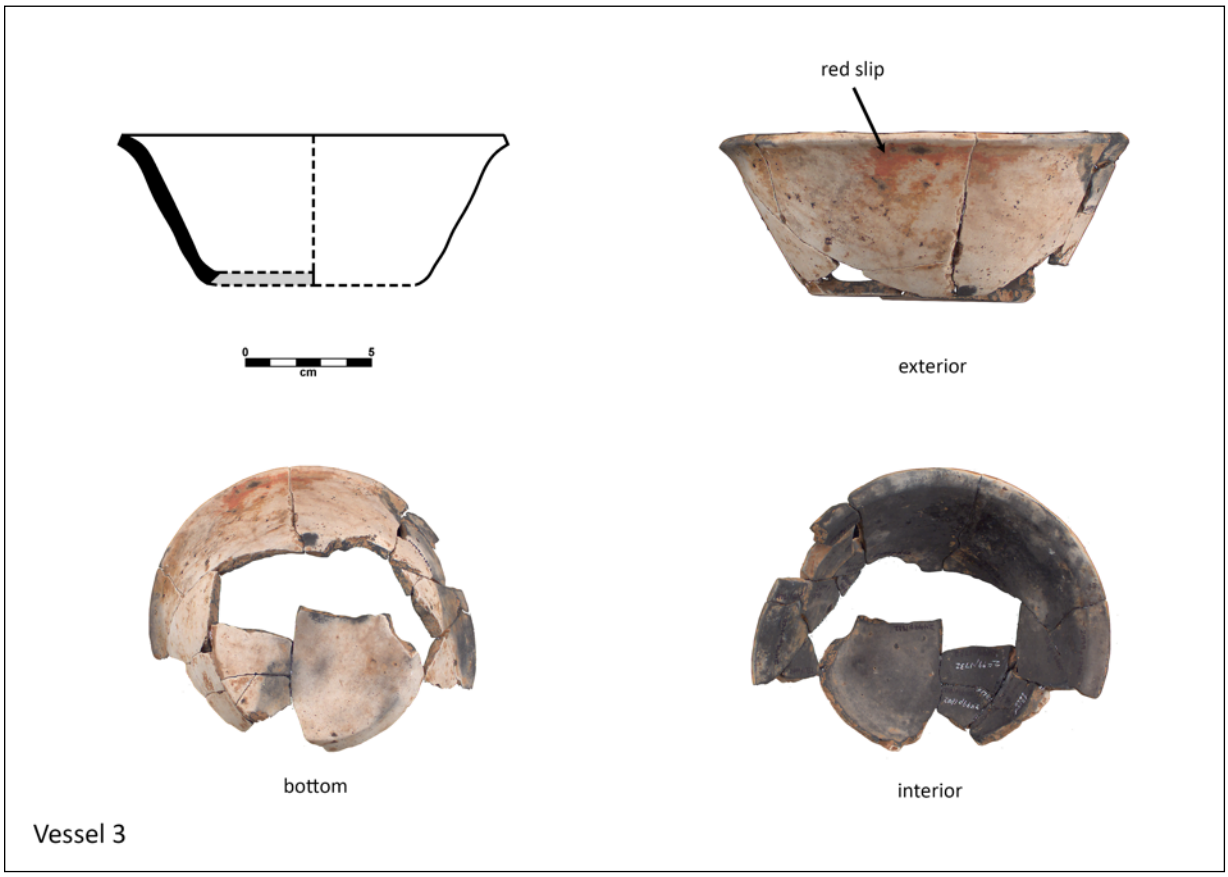
Vessel 2

Context	Feature 13
Vessel Type	bowl
Temper	fine sand with mica inclusions
Exterior Surface	burnished (reddish brown with fire-clouds – 5YR 5/4)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip and interior facets
Basal Form	flat base
Decoration	faint red painted dots on interior wall and possible red painted "X" on interior base
Rim Diameter	20 cm
Vessel Height	5.5 cm
Wall Thickness	6 mm



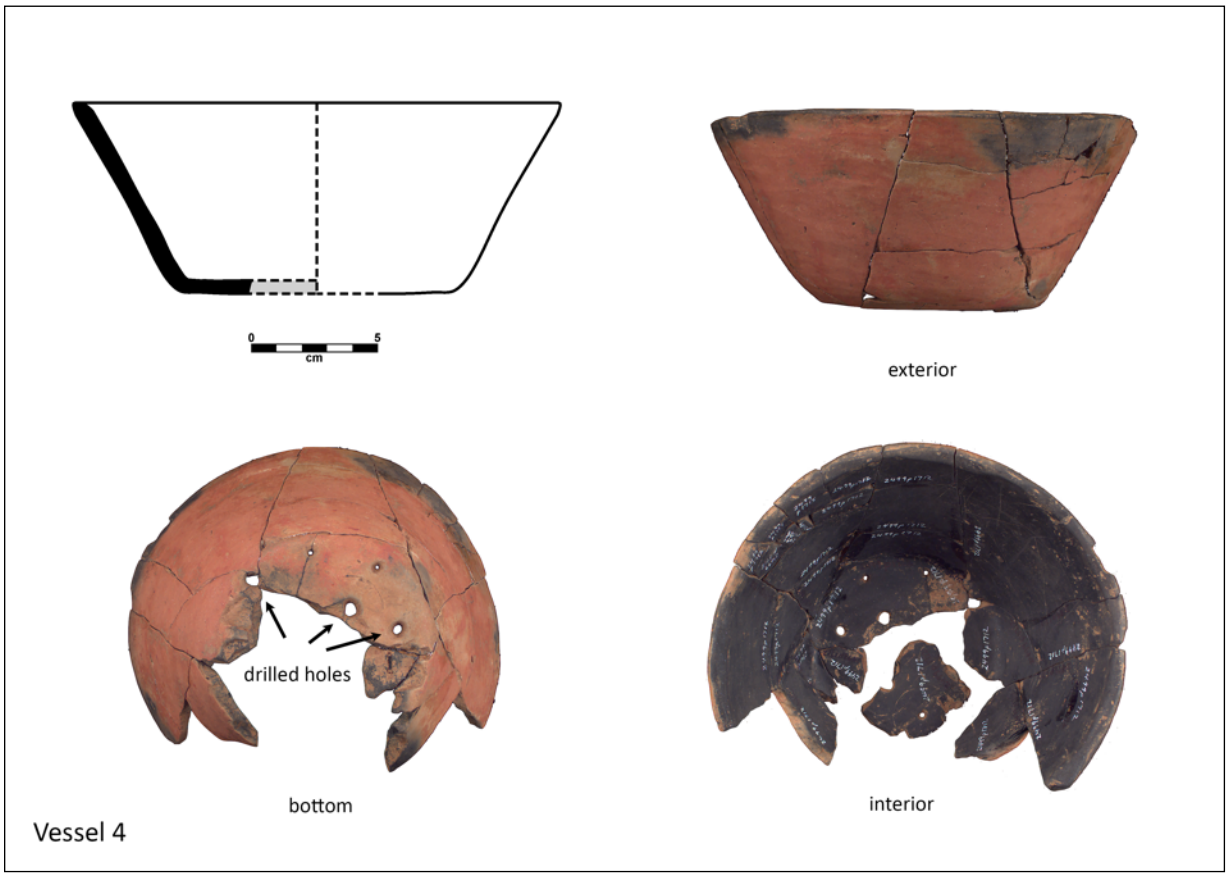
Vessel 3

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	smoothed (light gray – 10YR 7/2) with eroded red slip (red – 2.5YR 5/6)
Interior Surface	smoothed and smudged (very dark gray – 10YR 3/1)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	flat
Rim Diameter	15 cm
Vessel Height	5.5 cm
Wall Thickness	6 mm



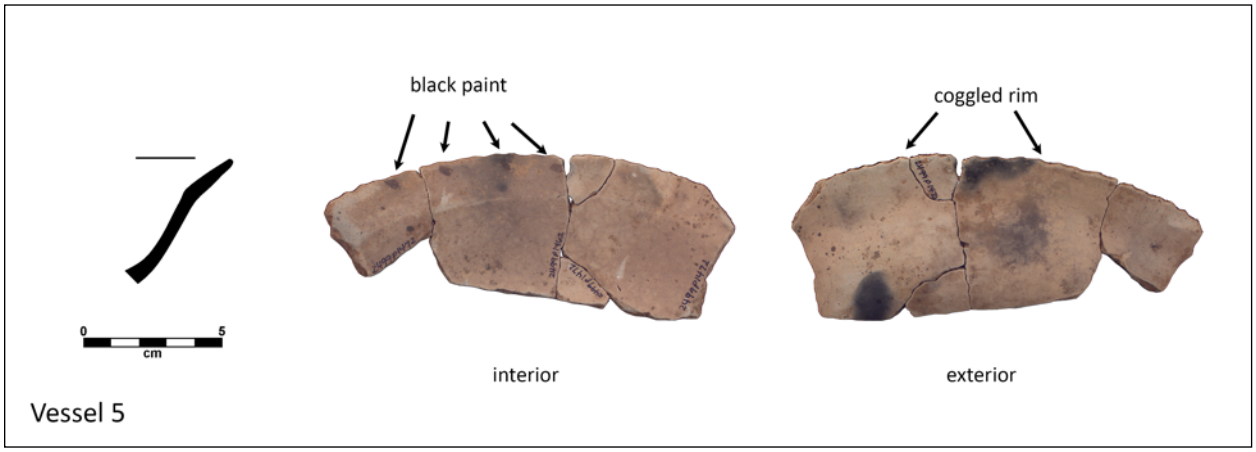
Vessel 4

Context	Feature 17
Vessel Type	bowl/colander
Temper	fine sand with mica inclusions
Exterior Surface	burnished (yellowish red with fire clouding– 5YR 5/6)
Interior Surface	burnished and smudged (black – 10YR 2/1)
Rim Form	straight rim with rounded lip and interior facets
Basal Form	flat with drilled holes
Rim Diameter	17 cm
Vessel Height	8 cm
Wall Thickness	5.5 mm



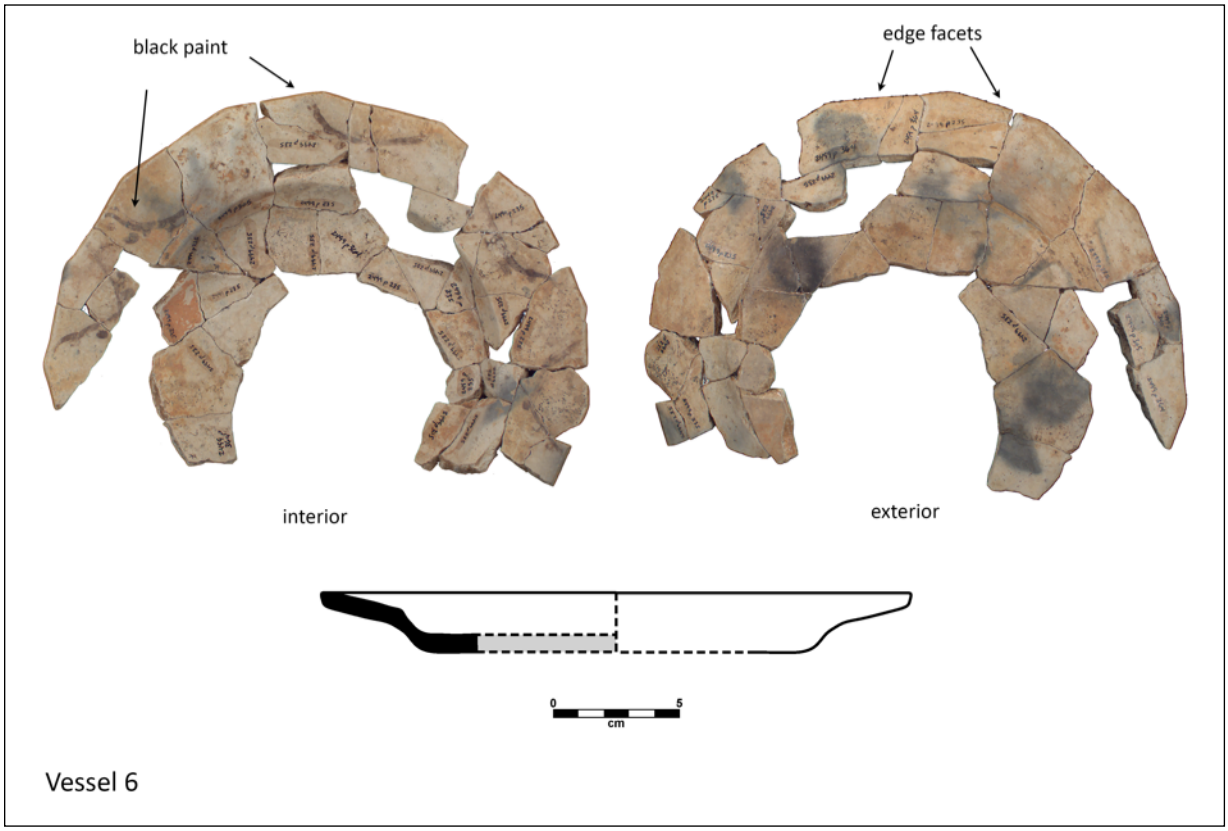
Vessel 5

Context	Feature 12, 14
Vessel Type	plate
Temper	very fine sand or temper-less
Exterior Surface	burnished (very pale brown with fire-clouds– 10YR 8/2)
Interior Surface	burnished (light brownish gray – 10YR 6/2)
Rim Form	flaring excurvate rim with flattened and coggled lip
Basal Form	flat base
Decoration	painted black dots on rim bevel
Rim Diameter	25 cm
Vessel Height	3.5 cm
Wall Thickness	5.5 mm

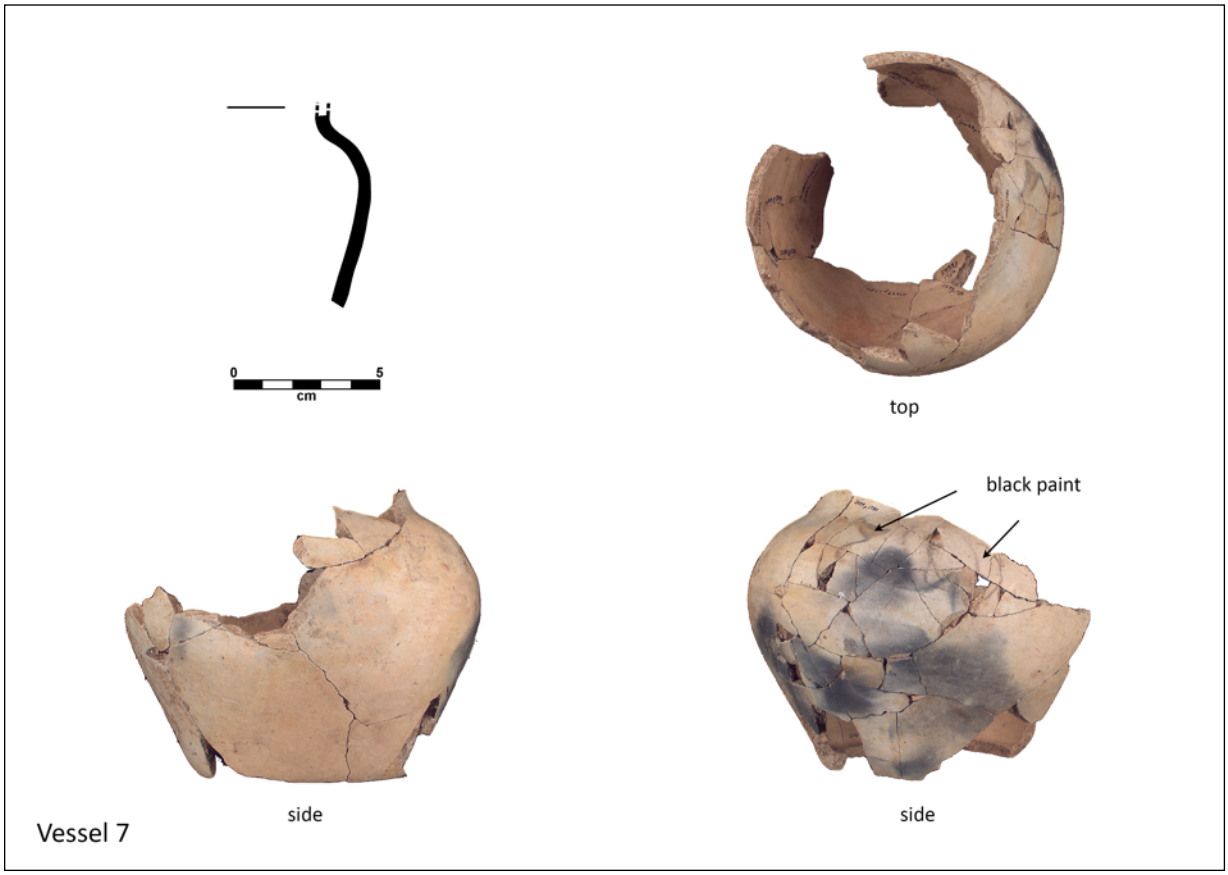


Vessel 6

Context	Feature 2
Vessel Type	plate
Temper	very fine sand or temper-less
Exterior Surface	burnished (light gray with fire-clouds – 10YR 7/2)
Interior Surface	burnished (light gray – 10YR 7/2)
Rim Form	flaring excurvate rim with flattened lip and edge facets
Basal Form	flat base
Decoration	painted black arcs and dots on rim bevel
Rim Diameter	22 cm
Vessel Height	2.5 cm
Wall Thickness	6 mm

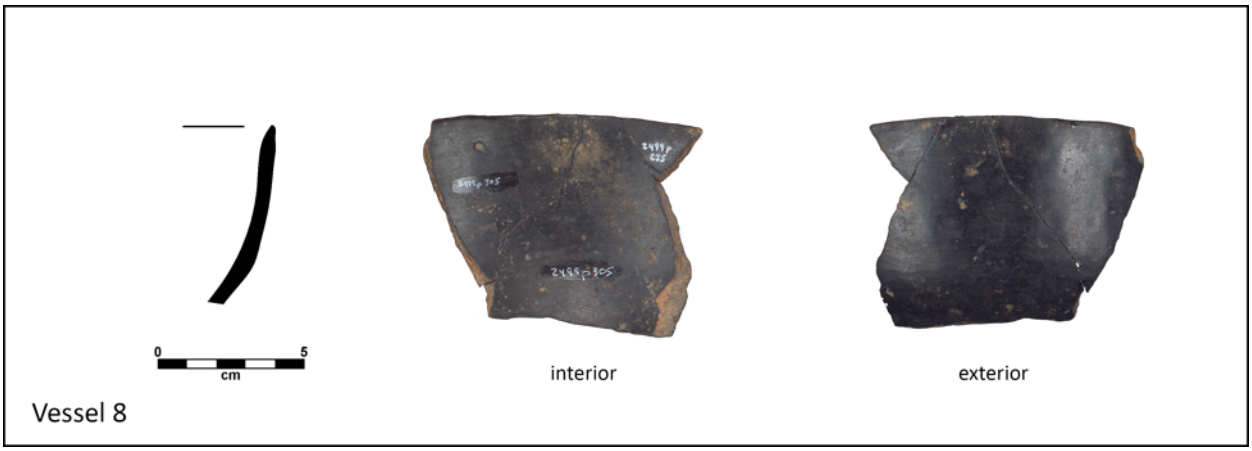


Vessel 7	(May go with Vessel 16 and 19)
Context	Feature 18
Vessel Type	tea pot/ vase
Temper	very fine sand or temper-less
Exterior Surface	burnished (light gray with fire-clouds – 10YR 7/2)
Interior Surface	smoothed (very pale brown – 10YR 7/3)
Rim Form	indeterminate
Basal Form	flat base
Decoration	painted black lines on shoulder
Rim Diameter	-
Vessel Height	-
Wall Thickness	6 mm



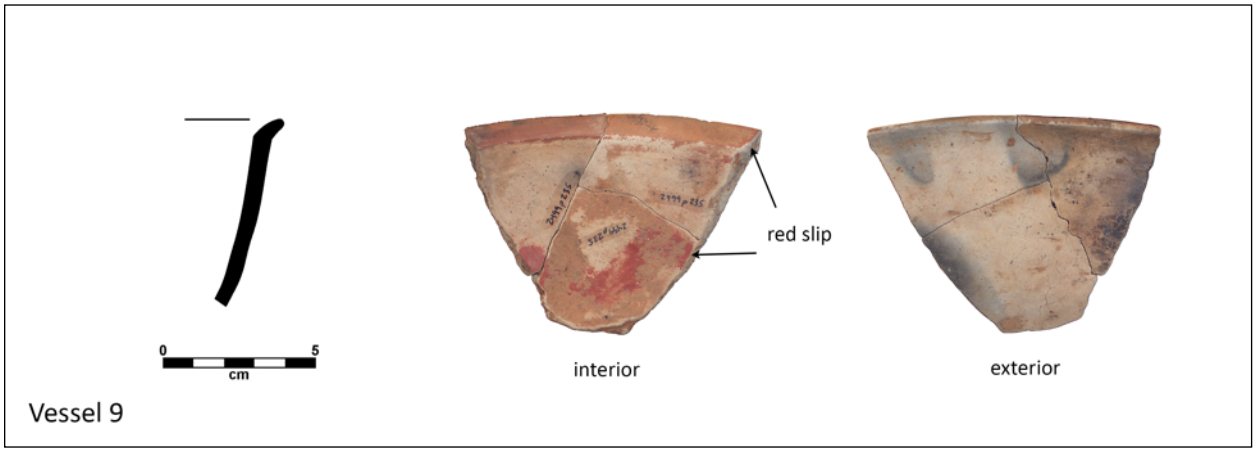
Vessel 8

Context	Feature 2
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	polished and smudged (black – 10YR 2/1)
Interior Surface	burnished and smudged (black – 10YR 2/1)
Rim Form	incurving rim with flattened lip
Basal Form	flat base
Rim Diameter	15 cm
Vessel Height	6.5 cm
Wall Thickness	4 mm



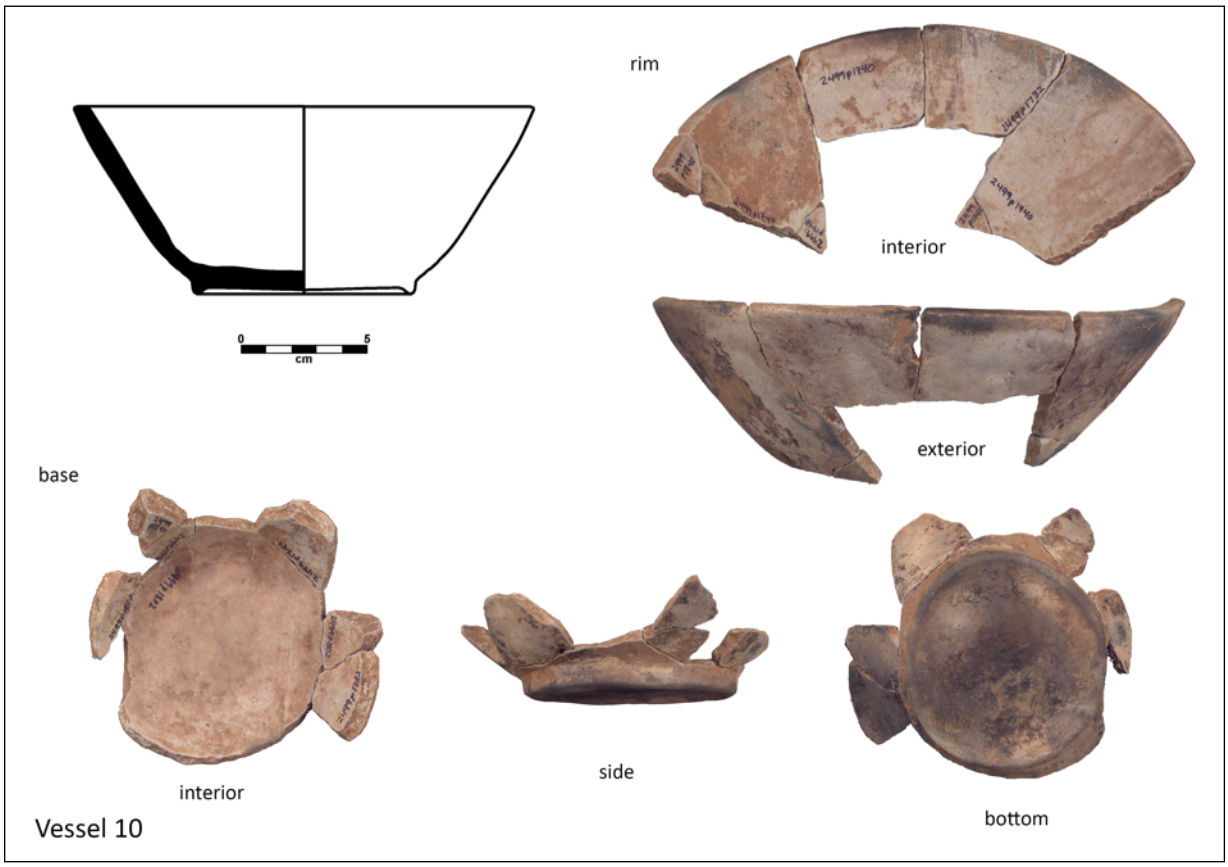
Vessel 9

Context	Feature 2
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	smoothed (very pale brown with fire-clouds – 10YR 8/2)
Interior Surface	smoothed (very pale brown – 10YR 7/3) with traces of red slip on interior (red – 2.5YR 4/6) and lip (reddish brown – 5YR 4/40
Rim Form	excurvate rim with interior bevel and rounded lip
Basal Form	flat base
Rim Diameter	17 cm
Vessel Height	-
Wall Thickness	5 mm



Vessel 10

Context	Feature 18
Vessel Type	bowl (footed)
Temper	fine sand
Exterior Surface	burnished (gray with fire-clouds – 10YR 6/1)
Interior Surface	burnished? (light gray – 10YR 7/2)
Rim Form	straight rim with flattened lip
Basal Form	flat base with foot ring
Rim Diameter	17 cm
Vessel Height	-
Wall Thickness	7 mm



Vessel 11

Context	Feature 18
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (light brownish gray – 10YR 6/2)
Interior Surface	burnished? (light gray – 10YR 7/2 with possible brown slip –7.5YR 5/4)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	indeterminate
Rim Diameter	16 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 12

Context	Feature 14
Vessel Type	jar (Mississippian)
Temper	sand
Exterior Surface	curvilinear complicated stamped (brown – 7.5YR 5/2)
Interior Surface	smoothed and smudged (very dark gray – 7.5YR 3/1)
Rim Form	excurvate rim with rounded lip
Basal Form	indeterminate
Decoration	applied nodes below the rim
Rim Diameter	14 cm
Vessel Height	-
Wall Thickness	8 mm

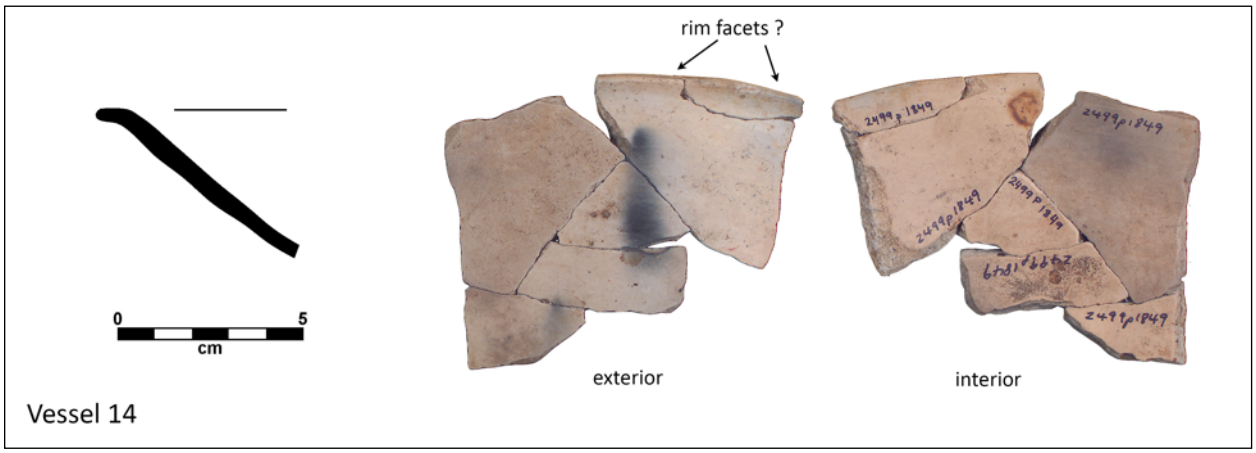
Vessel 13

Context	Feature 18
Vessel Type	cup
Temper	very fine sand
Exterior Surface	burnished (very pale brown – 10YR 7/4)
Interior Surface	burnished (very pale brown – 10YR 7/4)
Rim Form	straight rim with tapered, rounded lip
Basal Form	indeterminate
Rim Diameter	10 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 13

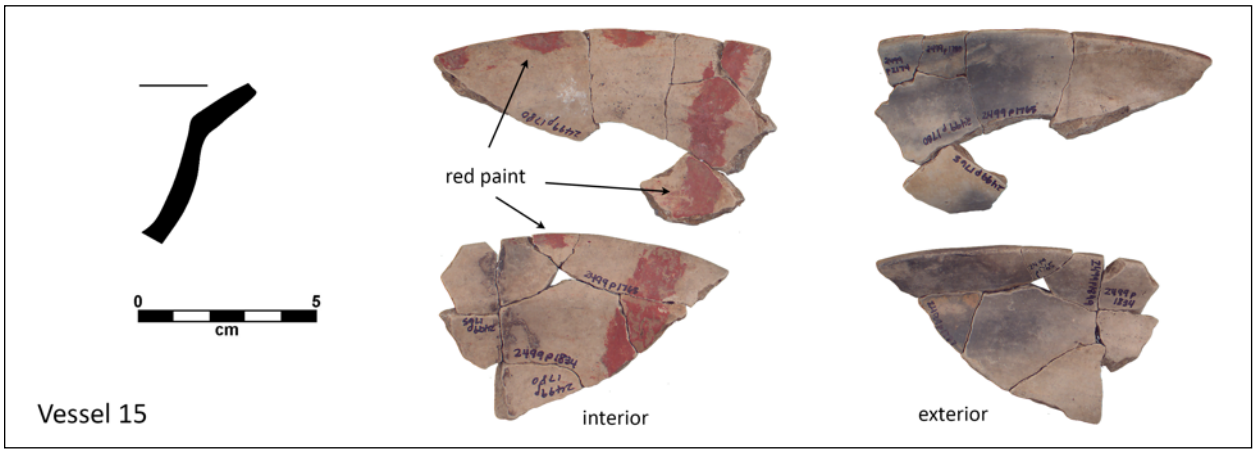
Vessel 14

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (white with fire-clouds – 7.5YR 8/1)
Interior Surface	burnished (pink – 7.5YR 8/3)
Rim Form	excurvate rim with interior bevel and flattened lip with edge facets
Basal Form	indeterminate
Rim Diameter	24 cm
Vessel Height	-
Wall Thickness	5 mm

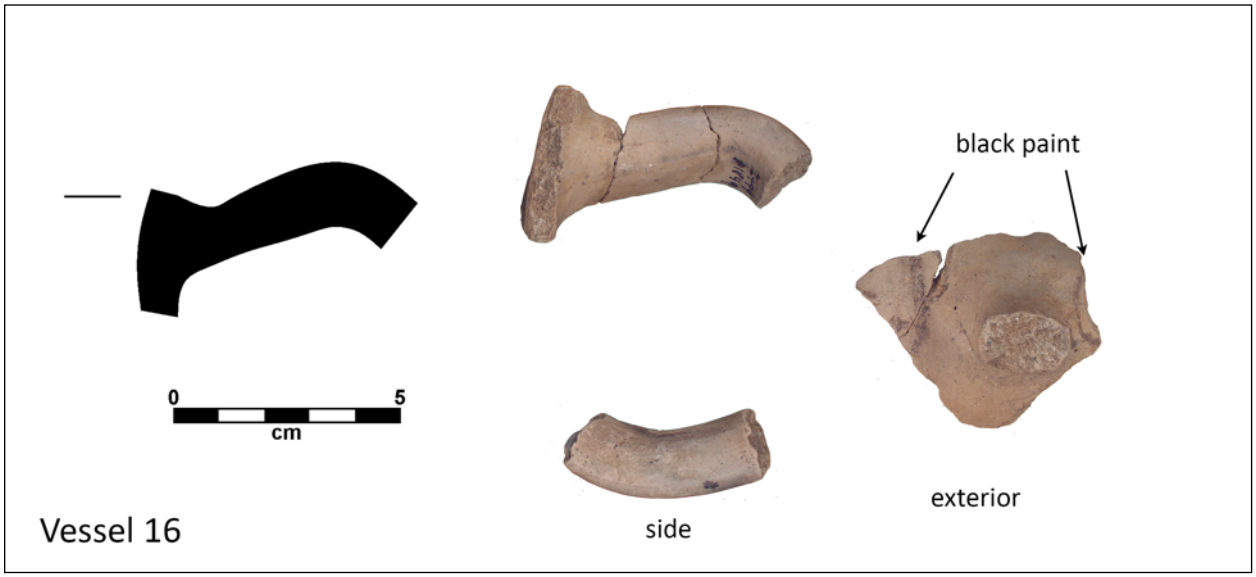


Vessel 15

Context	Feature 18
Vessel Type	plate/bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (very pale brown with fire-clouds– 10YR 7/3)
Interior Surface	burnished (very pale brown – 10YR 7/3)
Rim Form	flaring excurvate rim with interior bevel and flattened lip
Basal Form	indeterminate
Decoration	red slip painted dashed below interior lip and wide vertical lines from interior lip to base
Rim Diameter	20 cm
Vessel Height	-
Wall Thickness	5 mm

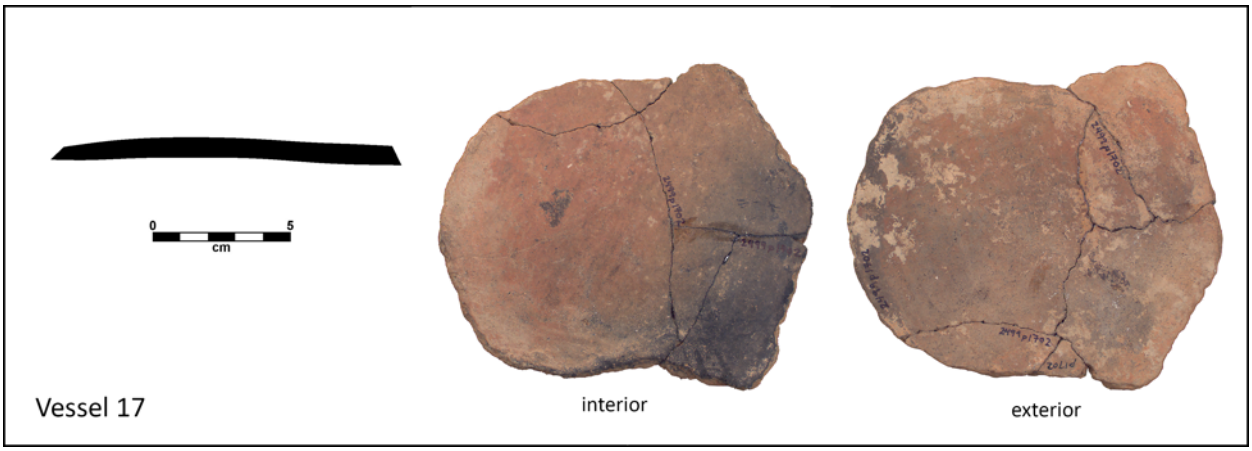


Vessel 16	(May go with Vessel 7 and 19)
Context	Feature 18
Vessel Type	indeterminate (handle fragment)
Temper	fine sand with crushed quartz
Exterior Surface	burnished (very pale brown – 10YR 8/3)
Interior Surface	burnished (very pale brown – 10YR 7/3)
Rim Form	indeterminate
Basal Form	indeterminate
Decoration	black painted lines
Rim Diameter	-
Vessel Height	-
Wall Thickness	6 mm



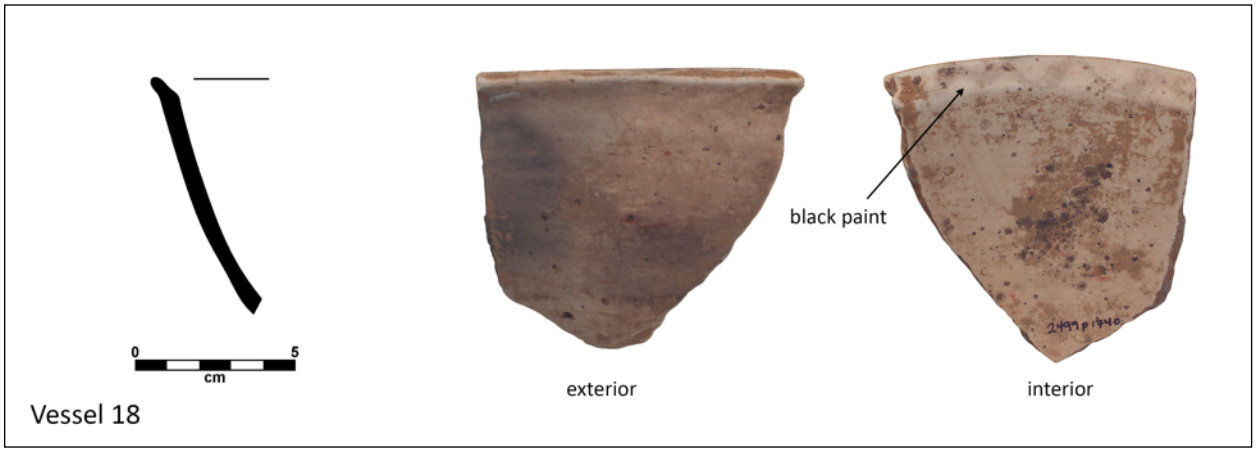
Vessel 17

Context	Feature 16
Vessel Type	pan (base)
Temper	fine sand
Exterior Surface	burnished (grayish brown – 10YR 5/2)
Interior Surface	burnished (brown with fire-clouds – 7.5YR 5/4)
Rim Form	indeterminate
Basal Form	flat
Rim Diameter	-
Vessel Height	-
Wall Thickness	5 mm

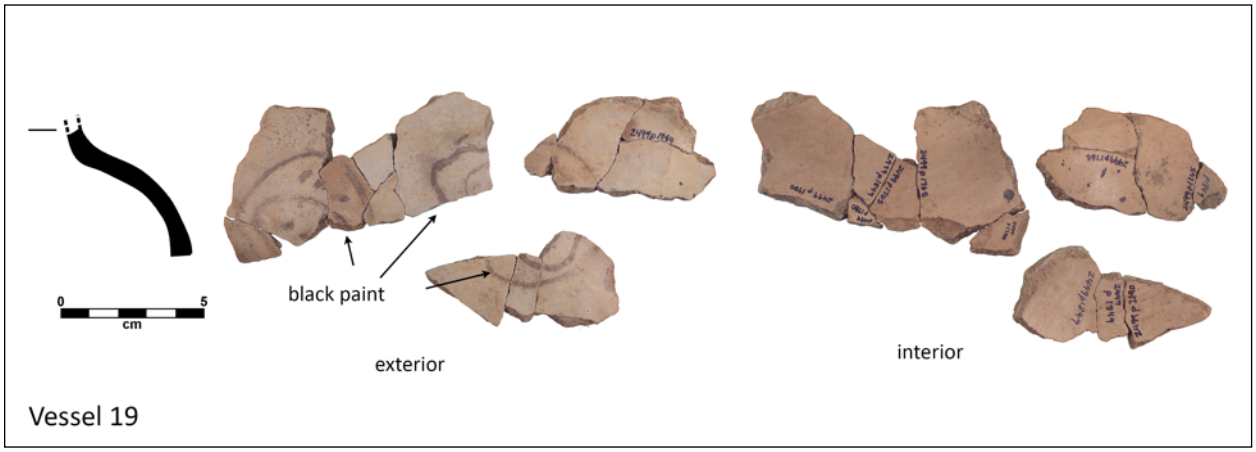


Vessel 18

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	burnished (pale brown with fire-clouds – 10YR 6/3)
Interior Surface	burnished (very pale brown – 10YR 8/2)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	indeterminate
Decoration	black painted zig-zag line along rim bevel
Rim Diameter	23 cm
Vessel Height	-
Wall Thickness	5 mm



Vessel 19	(May go with Vessel 7 and 16)
Context	Feature 18
Vessel Type	indeterminate
Temper	fine sand
Exterior Surface	burnished (very pale brown – 10YR 8/3)
Interior Surface	burnished (very pale brown – 10YR 7/4)
Rim Form	indeterminate
Basal Form	indeterminate
Decorations	black painted concentric lines and dots
Rim Diameter	-
Vessel Height	-
Wall Thickness	6 mm

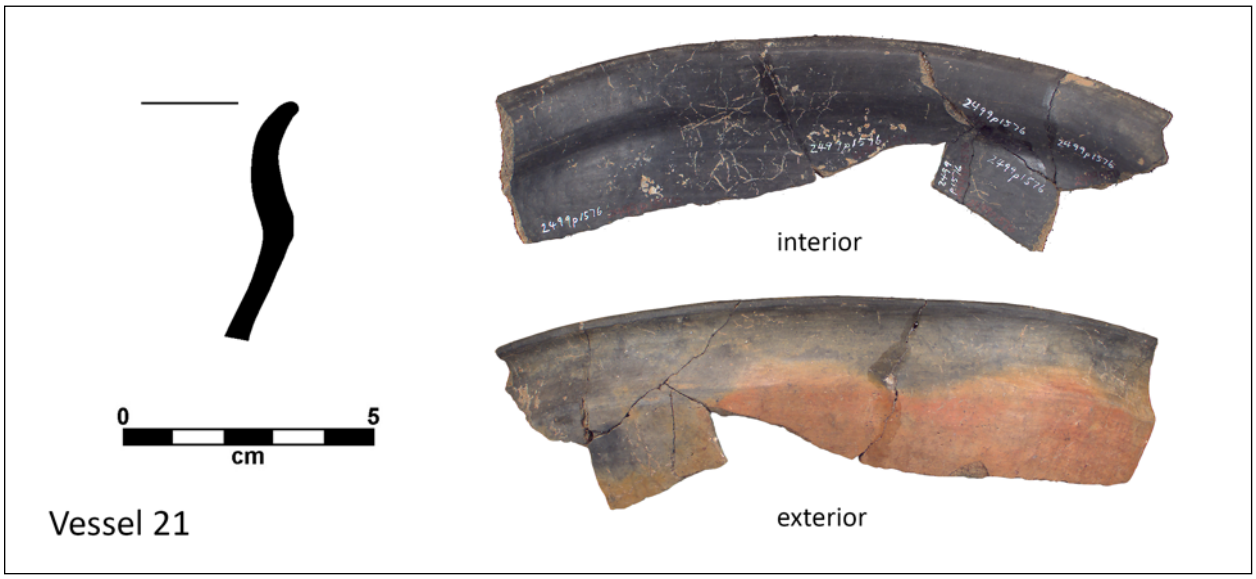


Vessel 20

Context	Feature 18
Vessel Type	bowl/ pan
Temper	fine sand
Exterior Surface	burnished (dark grayish brown – 10YR 4/2)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	slightly excurvate rim with interior bevel and rounded lip
Basal Form	indeterminate
Rim Diameter	14 cm
Vessel Height	-
Wall Thickness	7 mm

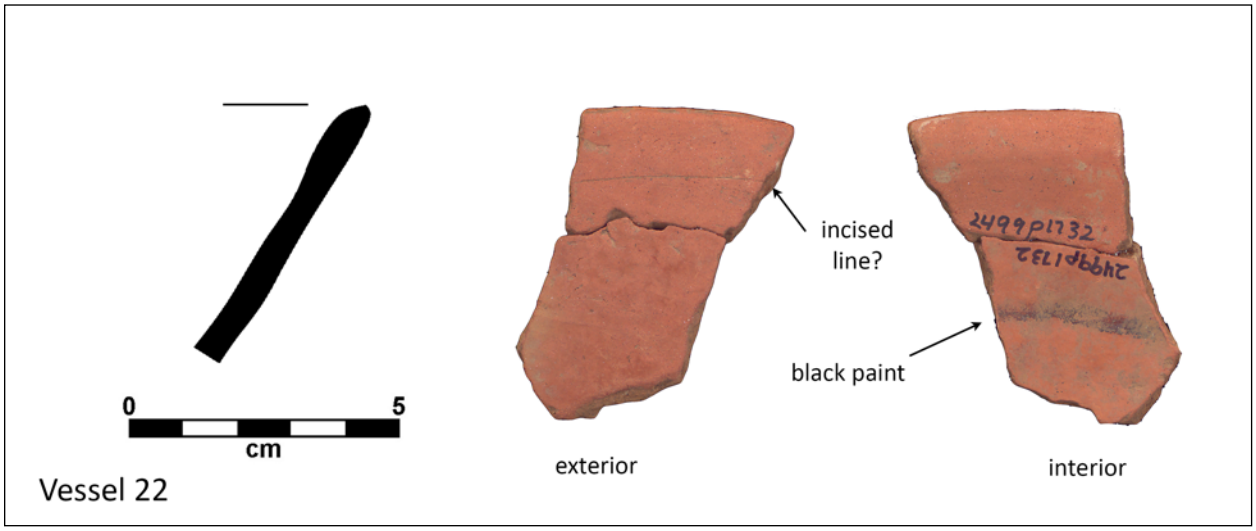
Vessel 21

Context	Feature 14
Vessel Type	restricted bowl
Temper	fine sand
Exterior Surface	burnished (strong brown with fire-clouds – 7.5YR 5/6)
Interior Surface	burnished and smudged (black – 10YR 2/1)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	indeterminate
Rim Diameter	29 cm
Vessel Height	-
Wall Thickness	5 mm



Vessel 22

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	burnished (yellowish red– 5YR 5/6)
Interior Surface	burnished (yellowish red– 5YR 5/6)
Rim Form	straight rim with rounded lip
Basal Form	indeterminate
Decoration	black painted line on interior; possible incised line on exterior
Rim Diameter	18 cm
Vessel Height	-
Wall Thickness	5 mm



Vessel 23

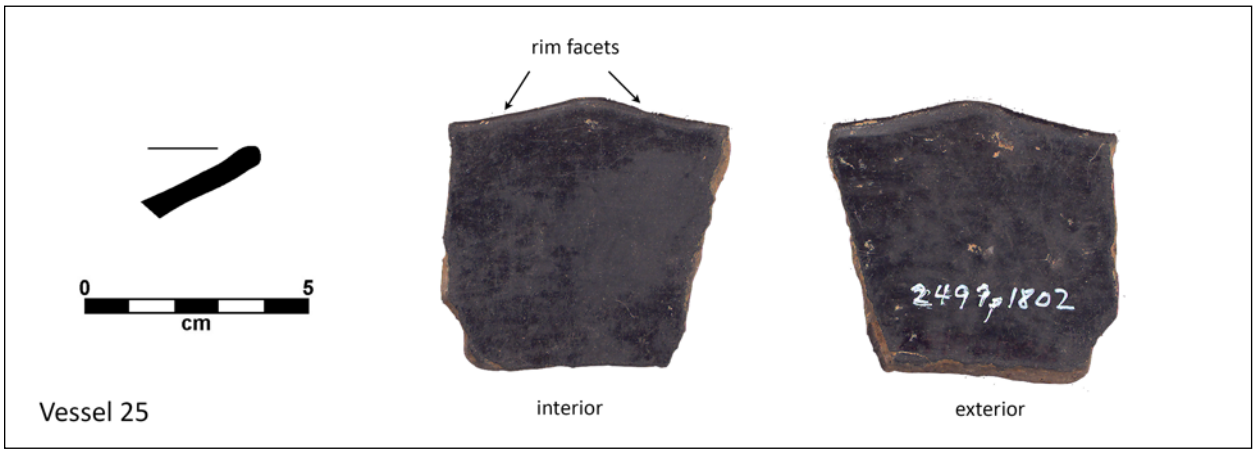
Context	Feature 18
Vessel Type	indeterminate (two loop handles)
Temper	very fine sand
Exterior Surface	burnished (light brownish gray with fire-clouds – 10YR 6/2)
Interior Surface	n/a
Rim Form	indeterminate
Basal Form	indeterminate
Rim Diameter	-
Vessel Height	-
Wall Thickness	13 mm

Vessel 24

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (grayish brown with fire-clouds – 10YR 5/2)
Interior Surface	burnished (white – 10YR 8/1)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	indeterminate
Rim Diameter	25 cm
Vessel Height	-
Wall Thickness	6 cm

Vessel 25

Context	Feature 18
Vessel Type	plate?
Temper	very fine sand
Exterior Surface	polished and smudged (black – 10YR 2/1)
Interior Surface	polished and smudged (black – 10YR 2/1)
Rim Form	flaring (?) rim with rounded lip and edge facets
Basal Form	indeterminate
Rim Diameter	-
Vessel Height	-
Wall Thickness	4 mm



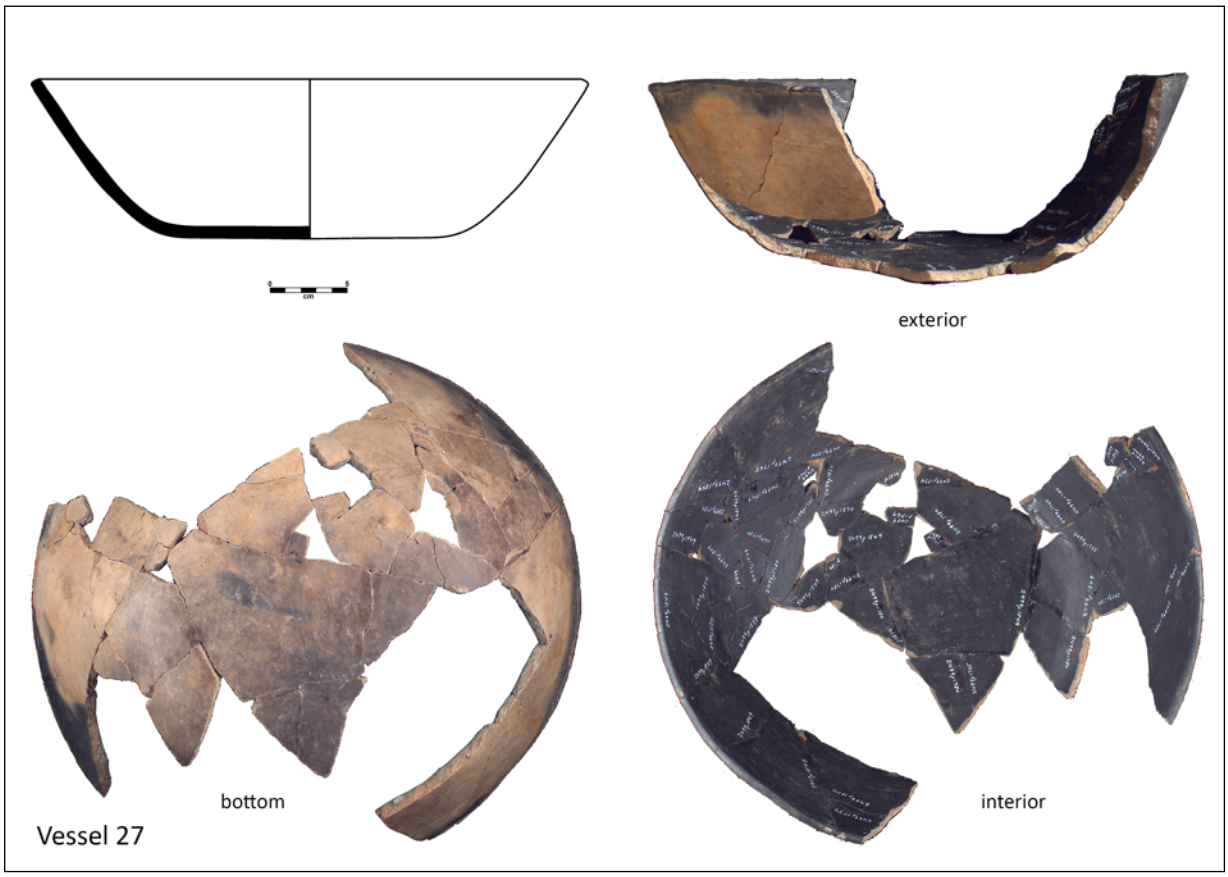
Vessel 26

Context	Feature 18
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	burnished (reddish yellow with fire-clouds – 7.5YR 6/6)
Interior Surface	burnished (light brown with fire-clouding – 7.5YR 6/4)
Rim Form	excurvate rim with interior bevel and flattened lip
Basal Form	flat
Rim Diameter	19 cm
Vessel Height	4 cm
Wall Thickness	5.5 mm

Vessel 26

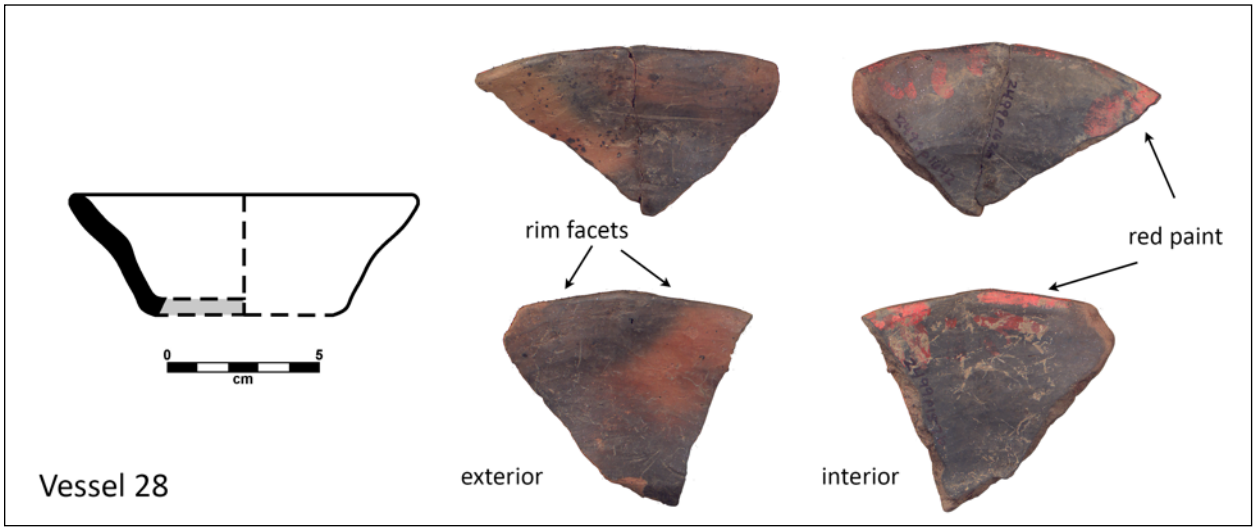
Vessel 27

Context	Feature 18
Vessel Type	pan
Temper	fine sand with crushed quartz
Exterior Surface	burnished (pale brown – 10YR 6/3)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	incurvate rim with flattened lip
Basal Form	flat base
Rim Diameter	33 cm
Vessel Height	12 cm
Wall Thickness	5.5 mm



Vessel 28

Context	Feature 14
Vessel Type	bowl
Temper	very fine sand
Exterior Surface	burnished (strong brown with fire-clouds – 7.5YR 5/6)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	flaring excurvate rim with interior facets and flattened lip with edge facets
Basal Form	flat (?) base
Decoration	red sealing wax paint along interior facets
Rim Diameter	11 cm
Vessel Height	-
Wall Thickness	5 mm



Vessel 29

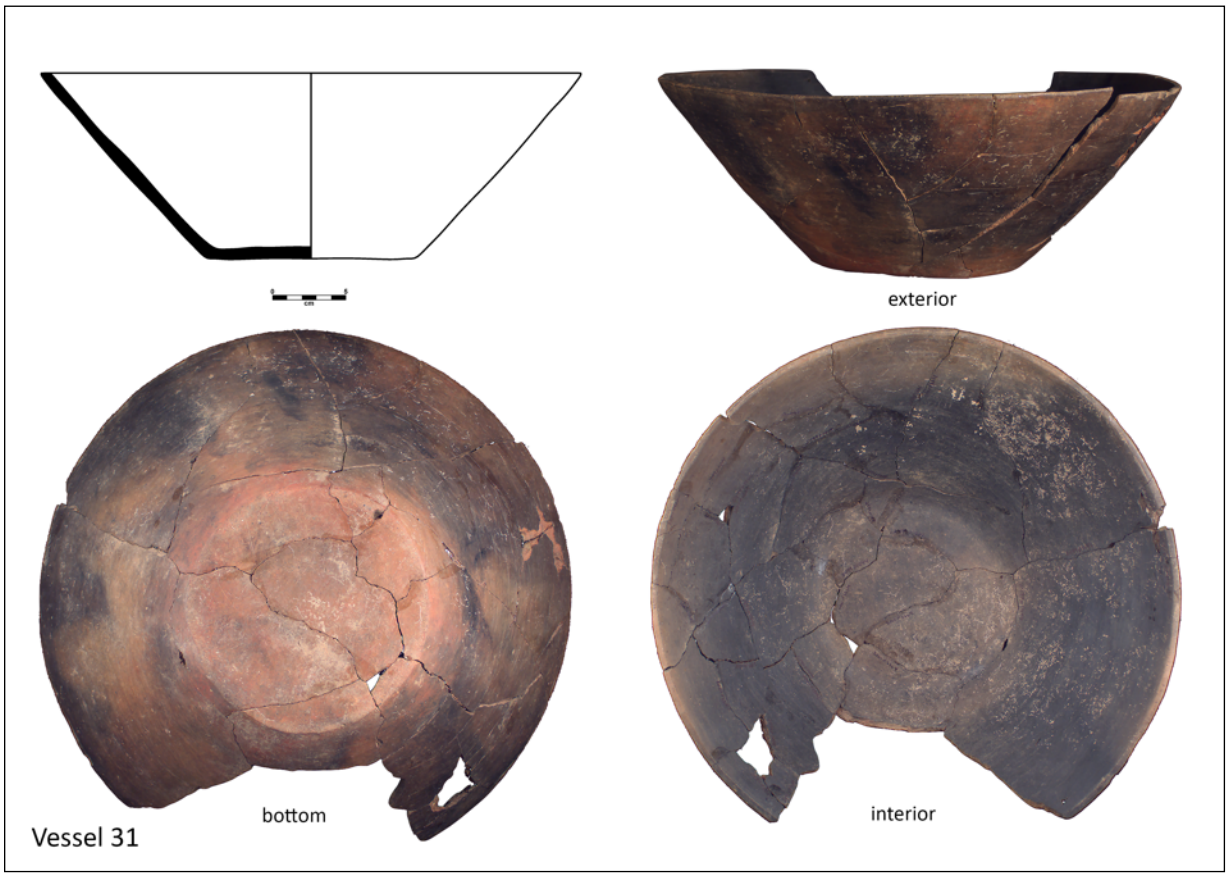
Context	Feature 16
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished (brown with fire-clouds – 7.5YR 5/3)
Interior Surface	burnished and smudged (very dark gray – 7.5YR 3/1)
Rim Form	straight, out sloping rim with flattened lip
Basal Form	indeterminate
Rim Diameter	35 cm
Vessel Height	-
Wall Thickness	6 mm

Vessel 30

Context	Feature 11
Vessel Type	shouldered pan
Temper	fine sand and crushed quartz
Exterior Surface	burnished (red with fire-clouds – 2.5YR 5/6)
Interior Surface	burnished (pale brown – 10YR 6/3)
Rim Form	excurvate rim with prominent shoulder and flattened lip
Basal Form	indeterminate
Rim Diameter	35 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 31

Context	Feature 11
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished (strong brown – 7.5YR 5/8)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip
Basal Form	flat base
Rim Diameter	35 cm
Vessel Height	13 cm
Wall Thickness	5 mm



APPENDIX D: MINIMUM NUMBER OF VESSELS ANALYSIS DATA

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
1	Old Town	C	6	18	vase/jar	Pale	None	Rd	Evert	Black/Brown		24	14	2499p1765, 1780, 1834, 1849
1.01	Old Town	A		1	plate	RedB	Int.	Flat	Evert	Red	IntFac/Facet	7	35	2499p191
1.02	Old Town	A		1	Shouldered bowl	RedB	Int.	Rd	Evert			9	32	2499p153, 177
1.03	Old Town	A		1	bowl	Pale?	None	Rd	Evert		IntBev	53	21	2499p108, 151, 152, 154, 155, 168, 177, 191
1.04	Old Town	A		1	jar	Black	Both	Flat	Str					2499p203
2	Old Town	C		13	bowl	RedB	Int.	Flat	Str	Red	IntFac	64	20	2499p1485/1, 1499
2.01	Old Town	A	1	2	jar	RedB	None	Rd-Flat	Evert			16	11	2499p305
2.02	Old Town	A	1	2	jar	Pale	Int.	Flat	Evert	Black/Brown		30	13	2499p235
2.03	Old Town	A	1	2	jar	Pale	None	Rd-Flat	Evert			7	13	2499p423
2.04	Old Town	A	1	2	plate	Pale	None	Flat		Black/Brown	Facet			2499p423
2.05	Old Town	A	1	2	drinking pot	Pale	None	Flat	Evert		IntBev	20	12	2499p423

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
2.06	Old Town	A	1	2	bowl	Pale	None	Flat	Evert		IntBev	10	25	2499p305
2.07	Old Town	A	1	2	bowl	Pale	None	Flat	Evert		IntBev			2499p235
2.08	Old Town	A	1	2	bowl	Pale	None	Rd	Str			6	13	2499p364
2.09	Old Town	A	1	2	bowl	Pale	None	Rd-Flat	Evert	Black/Brown	IntBev	22	16	2499p423, 258
2.1	Old Town	A	1	2	Unid-bowl/plate	Pale	None	Rd	Evert	Black/Brown				2499p235
2.11	Old Town	A	1	2	bowl	Pale	None	Rd-Flat	Evert		IntBev	11	12	2499p423
2.12	Old Town	A	1	2	cup	Pale?	None	Taper	Evert		IntBev	15	6	2499p258
2.13	Old Town	A	1	2	plate	Pale	None	Rd	Evert		Facet			2499p235, 305
2.14	Old Town	A	1	2	plate	Pale	None	Rd-Flat						2499p423
2.15	Old Town	A	1	2	bowl	RedB	Both	Flat	Evert					2499p235
2.16	Old Town	A	1	2	bowl	RedB	Both	Flat	Evert			21	16	2499p364, 2499p235
2.17	Old Town	A	1	2	pan	RedB	Int.	Flat	Str					2499p423
2.18	Old Town	A	1	2	pan	RedB	Both	Flat	Str					2499p305
2.19	Old Town	A	1	2	pan	RedB	Int.	Flat	Str					2499p235
2.2	Old Town	A	1	2	pan	RedB	Int.	Rd-Flat	Str					2499p305
2.21	Old Town	A	1	2	jar	Pale?	Both	Flat	Evert			8	10	2499p235

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
2.22	Old Town	A	1	2	pipe?/cup	Pale?	Int.	Rd	Str/invert			20	3.5	2499p235
3	Old Town	C	6	18	bowl	Pale	Int.	Flat	Evert	RedSlip	IntBev	53	15	2499p1732, 1740, 1802, 2121
4	Old Town	C		17	bowl/collander	RedB	Int.	Rd	Str		IntFac	65	17	2499p1712, 1715, 1728, 2089
4.01	Old Town	B	2	4	pan	RedB	Int.	Flat	Str					2499p494
5	Old Town	C	4	12	plate	Pale	None	Coggled	Evert	Black/Brown	IntBev	36	25	2499p1462, 1472, 1576, 1650
5.01	Old Town	A	3	5	pan	RedB	Int.	Flat	Str					2499p540
6	Old Town	A	1	2	plate	Pale	None	Flat	Evert	Black/Brown	Facet	60	22	2499p364, 235, 305, 340
6.01	Old Town	B	2	6	Unid-bowl/pan	RedB	None	Flat	Str					2499p553
7.01	Old Town	B	2	7	bowl	RedB	Int.	Rd-Flat	Evert		IntBev			2499p553, 605, 589
7.02	Old Town	B	2	7	pan	RedB	Int.	Flat	Str					2499p605
7.03	Old Town	B	2	7	Unid-bowl/jar	Pale	None	Rd	Str					2499p630
7.04	Old Town	B	2	7	Unid- bowl	Pale	None	Flat	Str					2499p648

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
7.05	Old Town	B	2	7	cazuela bowl	RedB	None	Flat	Invert			6	39	2499p647
7.06	Old Town	B	2	7	pan	RedB	None	Flat	Str					2499p605
8	Old Town	A	1	2	bowl	RedB	Both	Rd	Str			17	15	2499p235, 305
9	Old Town	A	1	2	bowl	Pale	None	Rd	Evert	RedSlip	IntBev	27	17	2499p235, 364,
10	Old Town	C	6	18	bowl	Pale	None	Flat	Str			55	17	2499p1732, 1740, 1802
10.01	Old Town	D		10	bowl	RedB	Both	Flat	Evert		IntBev			2499p1366/1
10.02	Old Town	D		10	bowl	RedB	Int.	Rd	Str			16	15	2499p1366, 2499p1376 (2499p1376/1)
11	Old Town	C	6	18	bowl	Pale	None	Flat	Evert		IntBev	45	16	2499p1732, 1740, 1802
11.01	Old Town	D	5	11	jar	RedB	Int.	Flat						2499p1444
11.02	Old Town	D	5	11	jar	RedB	Int.	Rd						2499p1425
11.03	Old Town	D	5	11	cup	RedB	None	Rd				60	5.5	2499p1444
11.04	Old Town	D	5	11	pipe?	RedB	None	Rd				20	3	2499p1444
11.05	Old Town	D	5	11	bowl	RedB	Int.	Rd	Evert			10	19	2499p1444, 1899
11.06	Old Town	D	5	11	pan	RedB	Int.	Flat	Str					2499p1414

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
11.07	Old Town	D	5	11	Unid- bowl	RedB	Both	Rd-Flat						2499p1390
11.08	Old Town	D	5	11	Unid- plate	Pale	None	Flat	Evert	Black/Brown				2499p1390
11.09	Old Town	D	5	11	Unid-bowl/plate	Pale	None	Flat	Evert	Black/Brown	IntBev			2499p1889
11.1	Old Town	D	5	11	bowl	RedB	Int.	Flat	Evert	Red	IntBev			2499p1414, 1425
11.11	Old Town	D	5	11	bowl	Pale	None	Flat	Evert	Black/Brown	IntBev			2499p1444
11.12	Old Town	D	5	11	cup?	Pale	None	Rd	Invert			6	10	2499p1382
11.13	Old Town	D	5	11	Unid-bowl/pan	Pale	None				IntBev			2499p1390, 1425
11.14	Old Town	D	5	11	bowl	Pale	None	Flat	Evert					2499p1382, 1390
11.15	Old Town	D	5	11	jar	RedB	None							2499p1425
12	Old Town			14*	jar	RedB	None	Rd	Evert			15	14	2499p1626
12.01	Old Town	C	4	12	jar	RedB	Both	Flat	Evert			15	20	2499p1462, 1463
12.02	Old Town	C	4	12	pan	RedB	Ext.	Rd	Str					2499p1462
12.03	Old Town	C	4	12	cup?	RedB	None	Rd-Flat	Invert					2499p1472?

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
13	Old Town	C	6	18	cup	Pale	None	Rd	Str			15	10	2499p1849
13.01	Old Town	C		13	pipe?	RedB	None	Rd	Str			15	3.5	2499p1962
13.02	Old Town	C		13	pan	RedB	Both	Flat	Str					2499p1499
13.03	Old Town	C		13	bowl	RedB	Both	Rd	Str	Red	IntFac	8	12	2499p1499
14	Old Town	C	6	18	bowl	Pale	None	Flat	Evert		IntBev/Facet	8	24	2499p1849
14.01	Old Town	D	5	14	bowl	RedB	Int.	Rd-Flat	Evert	Red	IntFac	12	19	2499p1548/2, 1626
14.02	Old Town	D	5	14	cup	RedB	Both	Rd	Evert	Red	IntBev	21	9	2499p1576/4
14.03	Old Town	D	5	14	bowl	RedB	Int.	Flat	Evert		Facet	12	15	2499p1548/3
14.04	Old Town	D	5	14	bowl	RedB	Int.	Flat	Evert		IntBev	5	21	2499p1548/1
14.05	Old Town	D	5	14	plate	RedB	Int.	Rd-Flat	Evert		Facet	11	25	2499p1615/1
14.06	Old Town	D	5	14	pan	RedB	Int.	Flat	Str			6	39	2499p1603
14.07	Old Town	D	5	14	cup	RedB	Int.	Rd	Str	Red	Scallop?	21	9	2499p1642
14.08	Old Town	D	5	14	bowl	Pale	None	Flat	Evert		IntBev			2499p1565
14.09	Old Town	D	5	14	Unid- bowl	RedB	None	Rd	Str					2499p1527, 1983
14.1	Old Town	D	5	14	Unid- bowl	RedB	None	Rd	Str					2499p1513
14.11	Old Town	D	5	14	pan	RedB	Int.	Flat	Str					2499p1527, 1615
14.12	Old Town	D	5	14	bowl	RedB	Int.	Rd	Evert		IntBev			2499p1548, 1615

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
14.13	Old Town	D	5	14	bowl	RedB	None	Rd	Evert		IntBev			2499p1513, 1527, 1603
14.14	Old Town	D	5	14	jar	RedB	Int.	Flat						2499p1548
14.15	Old Town	D	5	14	jar	RedB	Int.	Flat						2499p1642
14.16	Old Town	D	5	14	bowl	RedB	Int.	Flat	Evert		IntBev			2499p1513, 1527
14.17	Old Town	D	5	14	bowl	RedB	None	Rd	Str					2499p1527
14.18	Old Town	D	5	14	bowl	RedB	Int.	Rd	Str	Red	IntFac	7	19	2499p1603,1626
14.19	Old Town	D	5	14	pan	RedB	Int.	Flat	Str					2499p1527, 1548, 1615, 1626
14.2	Old Town	D	5	14	pan	RedB	None	Flat	Str	Red				2499p1626
14.21	Old Town	D	5	14	bowl	RedB	Int.	Rd	Evert	Red	IntBev			2499p1548
14.22	Old Town	D	5	14	bowl	RedB	Int.	Flat	Evert		IntFac	9	15	2499p1534, 1608
14.23	Old Town	D	5	14	Unid-pan/bowl	RedB	Int.	Flat	Str			7	12	2499p1626
14.24	Old Town	D	5	14	jar	RedB	Int.	Rd	Evert			15	8	2499p1615, 1527
14.25	Old Town	D	5	14	bowl	RedB	Both	Rd-Flat	Evert	Red	IntBev			2499p1548
14.26	Old Town	D	5	14	bowl	RedB	Both	Rd	Evert		IntBev/IntFac			2499p1650

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
14.27	Old Town	D	5	14	cup	RedB	Int.	Rd	Evert			15	5	2499p1626
14.28	Old Town	D	5	14	plate	RedB	Both		Evert					2499p1527
14.29	Old Town	D	5	14	Unid-pan/bowl	RedB	Int.	Flat	Str/invert					2499p1603
14.3	Old Town	D	5	14	drinking pot	RedB	Int.	Flat	Str	Red	IntBev			2499p2038
14.31	Old Town	D	5	14	bowl	RedB	Int.	Rd	Str	Red		5	12	2499p1527
14.32	Old Town	D	5	14	bowl	RedB	Int.	Rd	Str	Red	IntFac	9	17	2499p1527, 1615
14.33	Old Town	D	5	14	bowl	RedB	Int.	Flat	Str	Red	IntFac	7	18	2499p1983
14.34	Old Town	D	5	14	Unid-bowl/pan	RedB	Int.	Rd-Flat	Str/invert					2499p1527
14.35	Old Town	D	5	14	bowl	RedB	Int.	Flat	Evert					2499p1527, 1576
15	Old Town	C	6	18	plate/bowl	Pale	None	Flat	Evert	RedSlip paint	IntBev	55	20	2499p1765, 1780, 1834, 1849,
15.01	Old Town	C	4	15	jar	RedB	Both	Flat	Evert					2499p1661
15.02	Old Town	C	4	15	jar	RedB	Int.	Rd	Evert			16	16	2499p1671, 2062
15.03	Old Town	C	4	15	Unid-bowl/pan	Pale	Both	Flat	Str			22	20	2499p1661/1, 1671

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
15.04	Old Town	C	4	15	cup?	Pale	None	Rd	Invert?					2499p1661
15.05	Old Town	C	4	15	bowl	Pale	None	Rd	Evert	Black/Brown	IntBev	7	23	2499p1661, 2062
15.06	Old Town	C	4	15	bowl	Pale	None	Flat	Evert	Black/Brown	IntBev			2499p1661, 2062
15.07	Old Town	C	4	15	bowl	Pale	None	Flat	Evert	Black/Brown	IntBev			2499p1661
15.08	Old Town	C	4	15	bowl	Pale	None	Taper	Evert		IntBev			2499p1661
16.01	Old Town	D		16	bowl	Pale	None	Flat	Evert	Red		16	15	2499p1690/4
16.02	Old Town	D		16	bowl	RedB	Int.	Flat	Str	Red		8	18	2499p1690/1
16.03	Old Town	D		16	plate	RedB	Int.	Rd-Flat	Evert		Facet			2499p1690/2
16.04	Old Town	D		16	pan	RedB	Int.	Flat	Str			7	28	2499p1680/3
16.05	Old Town	D		16	bowl	RedB	Int.	Flat	Evert		IntBev			2499p1702
16.06	Old Town	D		16	bowl	RedB	None	Rd	Evert		IntBev			2499p1678, 1694, 1702
16.07	Old Town	D		16	Unid-bowl/plate	RedB	Int.		Evert		IntBev	4	29	2499p1702
16.08	Old Town	D		16	pan	RedB	Int.	Flat	Str					2499p1680/4, 1682
16.09	Old Town	D		16	pan	RedB	Int.	Rd	Str					2499p1680/2, 1678, 1702

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
17.01	Old Town	C		17	pan	RedB	Int.	Flat	Str			15	24	2499p1712, 1715, 2097
17.02	Old Town	C		17	bowl	RedB	Int.	Flat	Evert		IntBev			2499p1712, 1726
18	Old Town	C	6	18	bowl	Pale	None	Flat	Evert	Black/Brown	IntBev	11	23	2499p1740
18.01	Old Town	C	6	18	drinking pot	Pale	None	Rd	Evert		IntBev	32	11	2499p1765, 1834, 1849, 2140
18.02	Old Town	C	6	18	jar	RedB	Int.	Rd	Evert					2499p1765
18.03	Old Town	C	6	18	Unid-cup/bowl	Pale	Int.	Rd	Str			6	12	2499p1849
18.04	Old Town	C	6	18	bowl	Pale	None	Rd	Invert			7	12	2499p1766, 1850, 1857
18.05	Old Town	C	6	18	vase/jar	Pale	None	Rd	Evert	Black/Brown		40	12	2499p1780, 1834, 1849, 2140
20	Old Town	C	6	18	bowl/pan	RedB	Int.	Rd	Evert		IntBev	11	28	2499p1780, 1834, 1849
21	Old Town	D	5	14	restricted bowl	RedB	Int.	Rd	Evert		IntBev	29	26	2499p1576
22	Old Town	C	6	18	bowl	RedB	None	Taper	Str	Black/Brown		7	18	2499p1732

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
22.01	Old Town			22	plate	RedB	Both	Rd-Flat	Evert		Facet			2499p1867
22.02	Old Town			22	pan	RedB	Both	Flat	Str					2499p1867
22.03	Old Town			22	Unid-pan/bowl	RedB	Both	Flat						2499p1867
22.04	Old Town			22	pan	RedB	None	Flat						2499p1867
22.05	Old Town			22	pan	RedB	Int.	Flat						2499p1867
24	Old Town	C	6	18	bowl	Pale	None	Flat	Str		IntBev	11	25	2499p1780, 1849
25	Old Town	C	6	18	plate	RedB	Both	Rd-Flat	Evert		Facet			2499p1802
26	Old Town	C	6	18	bowl	Pale	None	Flat	Evert		IntBev	58	19	2499p1765, 1780, 1849,
27	Old Town	C	6	18	pan	RedB	Int.	Flat	Str			54	33	2499p1765, 1780, 2499p1834, 1849. 2140
28	Old Town	D	5	14	complex bowl	RedB	Int.	Rd	Evert	Red	IntFac/Facet	40	11	2499p1576, 1626, 1642
29	Old Town	D		16	pan	RedB	Int.	Flat	Str			19	35	2499p1690, 1702/1 (2499p1680, 1678?)

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
30	Old Town	D	5	11	restricted pan/ bowl	RedB	None	Flat				11	35	2499p1444
31	Old Town	D	5	11	pan	RedB	Int.	Flat				80	35	2499p1404, 1444
7* (18.05)	Old Town	C	6	18	vase	Pale	None	Flat	Evert	Black/Brown				
1	Ayers Town	1	1	3	cup (footed)	Pale?	None	Flat	Str			70	9	2554p1242, 1244, 1281
2	Ayers Town	1	1	3	bowl (footed)	Pale	Int.	Rd	Str			60	13	2554p1243
3	Ayers Town	1	1	3	cup	RedB	Int.	Flat	Str			34	9	2554p1244, 1254, 1261
3.1	Ayers Town	1	1	3	bowl	Pale?	None	Rd-Flat	Evert	Black/Brown	IntBev	15	19	2554p1244, 1254, 1281
3.2	Ayers Town	1	1	3	bowl	Pale	None	Rd	Evert					2554p1261
3.3	Ayers Town	1	1	3	pan	RedB	Int.	Flat	Str			10	35	2554p1316
3.4	Ayers Town	1	1	3	pan	RedB	Int.	Flat	Str					2554p1244, 1281
3.5	Ayers Town	1	1	3	pan	RedB	Int.	Flat	Str					2554p1237
3.6	Ayers Town	1	1	3	pan	RedB	None	Flat	Str					2554p1281
3.7	Ayers Town	1	1	3	pan	RedB	None	Flat	Str					2554p1244
4	Ayers Town	1	1	3	cup	Pale?	None	Rd-Flat	Str			29	9.5	2554p1244, 2554p1281

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
4.1	Ayers Town	1	1	4	pan	RedB	Int.	Flat	Str					2554p1355, 1363, 1377
4.2	Ayers Town	1	1	4	Unid- bowl	Pale	None	Rd	Evert					2554p1332, 1363
4.3	Ayers Town	1	1	4	pan	RedB	Int.	Rd	Str					2554p1363, 1377
4.4	Ayers Town	1	1	4	pan	RedB	None	Flat	Str					2554p1363
4.5	Ayers Town	1	1	4	pan	RedB	None	Flat	Str					2554p1377
5	Ayers Town	1	1	3	bowl	Pale	None	Flat	Evert	Red & Black	IntBev	14	20	2554p1281
5.01	Ayers Town	4	7	5	plate	Pale	None	Flat	Evert	Black/Brown	Facet			2554p1422
5.02	Ayers Town	4	7	5	bowl	RedB	None	Flat	Evert	Red	IntBev	5	16	2554p1409
5.03	Ayers Town	4	7	5	jar	Pale?	Int.	Flat	Evert			5	10	2554p1409
5.04	Ayers Town	4	7	5	Unid	RedB	Int.	Rd	Str					2554p1397
5.05	Ayers Town	4	7	5	bowl	RedB	Int.	Rd-Flat	Evert		IntBev	7	18	2554p1459
5.06	Ayers Town	4	7	5	cup	RedB	Int.	Flat	Str	Red		20	9	2554p1416, 1422, 1429, 1474
5.07	Ayers Town	4	7	5	cup ?	RedB	None	Flat	Evert		IntBev	5	5.5	2554p1469
5.08	Ayers Town	4	7	5	pan	RedB	Int.	Rd-Flat	Str					2554p1437, 1459

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
5.09	Ayers Town	4	7	5	pan	RedB	Int.	Flat	Str					2554p1437
6	Ayers Town	1	1	3	plate	Pale	None	Rd	Evert		Facet	9	24	2554p1281
7.1	Ayers Town	N/A		7	pan	RedB	Int.	Rd-Flat	Str					2554p1490
8	Ayers Town	4	7	5	bowl	RedB	None	Flat	Str		IntFac	52	18	2554p1409, 1422, 1459
9	Ayers Town	2	4	19*	bowl (footed)									
10	Ayers Town	4	8	69	bowl (footed)	RedB	Int.	Rd	Str			23	13	2554p1874, 1896
11	Ayers Town	4	8	69	bowl	Pale?	Int.	Rd	Evert		IntBev	36	13	2554p1874, 1957, 1983
12	Ayers Town	4	8	69	plate	RedB	Int.	Flat	Evert		Facet	42	27	2554p1874, 1883, 1957
13	Ayers Town	4	8	69	bowl	RedB	Int.	Rd	Str	Red	IntBev	41	14	2554p1896, 1874, 1910, 1983, 2003
14	Ayers Town	2		72	pan	RedB	Int.	Flat	Str			12	37	2554p2045, 2086
15	Ayers Town	2		73	jar	RedB	Int.	Flat	Evert			67	22	2554p2126, 2136, 2137
16	Ayers Town	2		73	jar	RedB	Int.	Rd	Str			35	12	2554p2138, 2139

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
17	Ayers Town	1		91	bowl	RedB	Int.	Rd	Evert		IntBev/Facet	35	10	2554p2291, 2315
18	Ayers Town	3	5	107	bowl	Pale	None	Rd	Evert		IntBev	32	25	2554p2446, 2456, 2481, 2488, 2492
19	Ayers Town	3	5	107	bowl	RedB?	Int.	Flat	Str			26	13	2554p2481, 2488
19.1	Ayers Town	2	4	19	jar	Pale	Int.	Flat	Evert			8	11	2554p1519
20	Ayers Town	3	5	107	bowl (footed)	Pale	None	Flat	Str			6	11	2554p2446, 2481, 2492
21	Ayers Town	3	5	107	pan	Pale?	Int.	Flat	Str			15	29	2554p2488
22	Ayers Town	3	5	107 *	bowl (footed)									
23	Ayers Town	4	8	123	jar	RedB	Int.	Flat	Evert			21	6	2554p2723
24	Ayers Town	4	8	123 *	egg cup ?									
25	Ayers Town	4	8	123	bowl (footed)	RedB	Int.	Rd-Flat	Str			50	11	2554p2745, 2756
26	Ayers Town	4	8	123	bowl	RedB	Int.	Rd-Flat	Str		IntFac	22	19	2554p2657, 2756
27	Ayers Town	4	8	123	pan	RedB	Int.	Rd-Flat	Str			14	32	2554p2696

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
28	Ayers Town	4	8	123	bowl	RedB	Int.	Flat	Evert	Red	IntBev	12	18	2554p2792
29	Ayers Town	4	8	123	Drinking pot/jar	RedB	Int.	Flat	Str			25	9	2554p2807
30	Ayers Town	4	8	123	bowl	Pale	None	Rd-Flat	Evert	Red	IntBev	11	21	2554p2807
31	Ayers Town	1		124	bowl (footed)	RedB	Int.	Rd	Str			25	14	2554p2829
32	Ayers Town	1		124	bowl	RedB	Int.	Flat	Evert	Red	IntBev/Facet	25	21	2554p2829
33	Ayers Town	1		124	pan	RedB	Int.	Rd	Str			7.5	38	2554p2811
33.1	Ayers Town	4	8	33	bowl	RedB	Int.	Flat	Str		IntFac			2554p1575
33.2	Ayers Town	4	8	33	pan	RedB	Int.	Flat	Str					2554p1596
33.3	Ayers Town	4	8	33	Unid- pan	RedB	Int.	Flat						2554p1596
34	Ayers Town	7		140	bowl	RedB	Int.	Flat	Evert		IntBev			2554p2937
35	Ayers Town	7		140	jar	RedB	Int.	Rd-Flat	Evert			22	18	2554p3021
36	Ayers Town	7		140	pan	RedB	Int.	Rd-Flat	Str			24	30	2554p2937
37	Ayers Town	7		140	bowl	RedB	Int.	Rd-Flat	Str	Red	IntBev	38	12	2554p2937, 2998, 3021,
38	Ayers Town	7		140 *	cup (footed)									
39	Ayers Town	7		140	bowl	RedB	Int.	Rd-Flat	Evert		IntBev	75	15	2554p2998, 3009

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
40	Ayers Town	7		140	pan	RedB	Int.	Rd-Flat	Evert			66	32	2554p2937, 2949, 2998
41	Ayers Town	7		140	pan	RedB	Int.	Flat	Str			9	32	2554p2949
42	Ayers Town	7		140	bowl	Pale	None	Rd	Evert		IntBev	100	23	2554p3022
43	Ayers Town	1		91	jar	RedB	None	Flat	Evert			12	18	2554p2291
44	Ayers Town	5	10	141	handled jar/ vase?	Pale	Int.	Flat	Evert			18	16	2554p3033
45	Ayers Town	4		142	bowl	RedB	Int.	Flat	Evert		IntBev?	20	22	2554p3049
46	Ayers Town	4		142	pan	RedB	Int.	Rd-Flat	Str			17	35	2554p3043, 3049
47	Ayers Town	5	11	155	jar	RedB	Int.	Rd	Evert			100	13	2554p3104, 3119
48	Ayers Town	5	11	155	bowl	RedB	Int.	Rd-Flat	Str	Red	IntFac	95	17	2554p3119
49	Ayers Town	5	11	155	bowl	RedB	Int.	Rd	Str		IntFac	95	22	2554p3119
50	Ayers Town	5	11	155	bowl	RedB	Int.	Rd-Flat	Str	Red	IntFac	72	18	2554p3085, 3100, 3119
51	Ayers Town	5	11	155 /16 3	pan	RedB	Int.	Flat	Str			25	48	2554p3085, 3119, 3258, 3268, 3283
52	Ayers Town	5	11	162	cup	RedB	None	Flat				5	6.5	2554p3200, 3218
53	Ayers Town	5	11	163	bowl	RedB	Int.	Flat	Evert		IntBev	7.5	32	2554p3268

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
54	Ayers Town	5	10	170	plate	Pale	None	Flat	Evert			7	31	2554p3334
55	Ayers Town	5	10	170	pan	RedB?	None	Flat	Str			15	24	2554p3334
55.01	Ayers Town	2	2	55	bowl	RedB	Int.	Rd-Flat	Evert		IntBev			2554p1704
55.02	Ayers Town	2	2	55	Unid-plate/bowl	Pale	None	Flat	Evert		IntBev?			2554p1704
55.03	Ayers Town	2	2	55	jar	RedB	Int.	Flat	Evert			10	11	2554p1739
55.04	Ayers Town	2	2	55	jar	RedB	Int.	Flat	Evert					2554p1704
55.05	Ayers Town	2	2	55	Unid- jar	RedB	Int.	Flat	Evert?					2554p1704
55.06	Ayers Town	2	2	55	cup	RedB	Int.	Flat	Str			20	5	2554p1718
55.07	Ayers Town	2	2	55	bowl	RedB	Int.	Flat	Str	Red	IntFac			2554p1704
55.08	Ayers Town	2	2	55	bowl	RedB	None	Rd-Flat	Evert		IntBev			2554p1739
55.09	Ayers Town	2	2	55	pan	RedB	Int.	Flat	Str					2554p1718
55.1	Ayers Town	2	2	55	bowl	RedB	Int.	Rd-Flat	Str	Red				2554p1739
55.11	Ayers Town	2	2	55	bowl	RedB	Int.	Rd	Str	Red	IntFac	9	16	2554p1704
55.12	Ayers Town	2	2	55	Unid- bowl	RedB	Int.	Rd						2554p1704
55.13	Ayers Town	2	2	55	bowl	RedB	None	Flat	Str	Red		7	11	2554p1704
56	Ayers Town	5	10	170	plate	Pale	None	Flat	Evert	Black/Brown	Facet?	17	28	2554p3334

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
57	Ayers Town	5	12	185	jar	RedB	Int.	Rd-Flat	Evert			18	20	2554p3380
58	Ayers Town	5	12	185	cup	RedB	Smg?	Rd	Str			15	6	2554p3396
59	Ayers Town	5	12	185	jar	RedB	Int.	Rd-Flat	Evert			15	15	2554p3376, 3392, 3396
60	Ayers Town	5	11	163 *	tea pot? (footed)									
67.01	Ayers Town	2	2?	67	pan	RedB?	None	Flat	Str					2554p1797
67.02	Ayers Town	2	2?	67	pan	RedB	Int.	Rd	Str					2554p1797
67.03	Ayers Town	2	2?	67	bowl	RedB	Smg?	Flat	Str		IntFac?			2554p1797
67.04	Ayers Town	2	2?	67	Unid-bowl/pan	Pale	None	Flat	Str					2554p1797
68.01	Ayers Town	4		68	pan	RedB	Int.	Rd-Flat	Str					2554p1818
68.02	Ayers Town	4		68	pan	RedB	Int.	Flat	Str					2554p1808
69.01	Ayers Town	4	8	69	plate	RedB	None	Rd-Flat	Evert			6	35	2554p1941, 1945
69.02	Ayers Town	4	8	69	pan	RedB	Int.	Flat	Str					2554p1929
69.03	Ayers Town	4	8	69	pan	RedB	Int.	Flat	Str					2554p1896
72.01	Ayers Town	2		72	Unid-pan/bowl	Black	Int.	Rd	Evert		IntBev			2554p2129
72.02	Ayers Town	2		72	Unid- lid	RedB?	Both	Flat						2554p2030

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
72.03	Ayers Town	2		72	pan	Black	Int.	Rd-Flat	Str					2554p2016
72.04	Ayers Town	2		72	bowl	RedB	Int.	Rd-Flat	Evert					2554p2012
72.05	Ayers Town	2		72	Unid- bowl	RedB?	None	Flat	Str					2554p2022
72.06	Ayers Town	2		72	Unid	Pale	None	Flat						2554p2016
72.07	Ayers Town	2		72	Unid- pan	Pale?	None	Rd	Str					2554p2113
72.08	Ayers Town	2		72	bowl	Pale?	None	Rd-Flat	Evert					2554p2113
72.09	Ayers Town	2		72	Unid- pan/bowl	Pale	Int.	Flat						2554p2012
73.01	Ayers Town	2		73	bowl	Pale	None	Rd	Evert		IntBev			2554p2129
73.02	Ayers Town	2		73	bowl	RedB	Int.	Rd	Evert	Red	IntBev			2554p2129, 2144
73.03	Ayers Town	2		73	bowl	RedB	Int.	Rd	Str	Red				2554p2152
73.04	Ayers Town	2		73	plate	Pale	None	Rd-Flat	Evert		Facet			2554p2129
73.05	Ayers Town	2		73	jar	RedB	Int.	Flat						2554p2129
73.06	Ayers Town	2		73	jar ?	RedB		Flat						2554p2129
73.07	Ayers Town	2		73	pan	Black	Int.	Rd	Str					2554p2129, 2144
73.08	Ayers Town	2		73	Unid- bowl	RedB?	None	Flat	Str					2554p2144

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
73.09	Ayers Town	2		73	pan	RedB	Int.	Rd	Str					2554p2129, 2144
73.1	Ayers Town	2		73	Unid-pan/bowl	Black	Int.	Rd	Evert		IntBev			2554p2129
73.11	Ayers Town	2		73	Unid-bowl/pan	Pale	None	Flat	Str					2554p2129
73.12	Ayers Town	2		73	bowl	RedB	Int.	Rd	Evert		IntBev	5	25	2554p2129
73.13	Ayers Town	2		73	jar	RedB	Int.	Flat	Evert			7	17	2554p2129
73.14	Ayers Town	2		73	pan	RedB	Int.	Flat	Str					2554p2144
74.01	Ayers Town	2	3	74	bowl	Pale	None	Rd-Flat	Evert	Black/Brown	IntBev			2554p2157
74.02	Ayers Town	2	3	74	pan	RedB	Int.	Flat	Str					2554p2169
74.03	Ayers Town	2	3	74	pan	RedB	Int.	Flat	Str					2554p2173
75.01	Ayers Town	2	3	75	plate	Pale	None	Flat	Evert		Facet			2554p2178
75.02	Ayers Town	2	3	75	Unid-pan/bowl	Pale	Int.	Flat	Str			10	25	2554p2177, 2178, 2182
82.01	Ayers Town	2	4	82	bowl	Pale	None	Rd	Invert			10	8	2554p2195
89.01	Ayers Town	1		89	jar	RedB	Int.	Rd	Evert					2554p2251
89.02	Ayers Town	1		89	pan	Redb	Int.	Flat	Str			7.5	35	2554p2204, 2244
89.03	Ayers Town	1		89	Restricted pan	RedB	Int.	Flat	Invert			7	43	2554p2259, 2268

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
89.04	Ayers Town	1		89	pan	RedB	Int.	Flat	Str					2554p2204
89.05	Ayers Town	1		89	pan	RedB	Int.	Flat	Str					2554p2268
89.06	Ayers Town	1		89	Unid- jar	RedB	Int.	Flat	Evert					2554p2226
89.07	Ayers Town	1		89	pan	RedB	Int.	Flat	Str					2554p2226
90.01	Ayers Town	1		90	Unid- pan	Black	Int.	Flat						2554p2279
90.02	Ayers Town	1		90	Unid- bowl/plate	Pale	None	Flat						2554p2279
91.01	Ayers Town	1		91	pan	RedB	Int.	Flat	Str			7	35	2554p2291
91.02	Ayers Town	1		91	jar	RedB	Int.	Flat	Evert?					2554p2291
91.03	Ayers Town	1		91	Unid- jar	RedB	Int.	Rd						2554p2315
91.04	Ayers Town	1		91	bowl	Pale	None	Taper	Evert	Black/Brown	IntBev			2554p2291
91.05	Ayers Town	1		91	Unid- bowl	Pale	None	Flat	Str					2554p2291
91.06	Ayers Town	1		91	bowl	Black	Int.	Rd	Evert					2554p2315
91.07	Ayers Town	1		91	Unid- bowl/cup	Pale?	Int.	Rd	Str					2554p2291
91.08	Ayers Town	1		91	pan	RedB	Int.	Flat	Str					2554p2315
91.09	Ayers Town	1		91	Unid- bowl/plate	Pale	None	Rd	Str					2554p2315
91.1	Ayers Town	1		91	bowl	RedB	Int.	Flat	Evert	Red	IntBev?			2554p2315
91.11	Ayers Town	1		91	Unid- bowl/plate	Pale	None	Flat						2554p2315

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
91.12	Ayers Town	1		91	Unid	Pale?	None	Flat						2554p2291
92.01	Ayers Town	1		92	bowl	RedB	Int.	Rd	Str	Red				2554p2345
92.02	Ayers Town	1		92	pan	RedB	Int.	Flat	Str					2554p2326
92.03	Ayers Town	1		92	pan	RedB	Int.	Rd	Str					2554p2336
92.04	Ayers Town	1		92	Unid- bowl	RedB	None	Flat	Str					2554p2336
92.05	Ayers Town	1		92	bowl	Pale	None	Flat	Str					2554p2326
92.06	Ayers Town	1		92	Unid	Pale?	None	Flat	Evert					2554p2336
95.01	Ayers Town	2		95	pan	RedB	Int.	Flat	Str					2554p2363
95.02	Ayers Town	2		95	bowl	RedB	Int.	Taper	Evert		IntBev			2554p2363
95.03	Ayers Town	2		95	Unid- bowl	RedB?	None	Flat						2554p2363
96.01	Ayers Town	2		96	pan	RedB	Int.	Flat	Str					2554p2369
101.01	Ayers Town	3		101	pan	RedB	Int.	Flat						2554p2374
102.01	Ayers Town	N/A		102	pan	RedB	Int.	Rd	Str					2554p2382
102.02	Ayers Town	N/A		102	Unid- bowl	Black	None	Rd	Evert					2554p2382
102.03	Ayers Town	N/A		102	Unid- bowl	RedB	Smg?	Rd-Flat	Evert					2554p2382
105.01	Ayers Town	3	5	105	pan	RedB	Int.	Rd	Str					2554p2391
106.01	Ayers Town	3	5	106	Unid- jar	RedB	Int.	Flat						2554p2399
107.01	Ayers Town	3	5	107	bowl	RedB?	Smg?	Flat	Evert	Red				2554p2481
107.02	Ayers Town	3	5	107	bowl	RedB	Int.	Rd-Flat	Evert		IntBev	25	21	2554p2446, 2481, 2488, 2492

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
107.03	Ayers Town	3	5	107	drinking pot?	RedB	Int.	Flat	Evert		IntBev	20	14	2554p2481, 2488
107.04	Ayers Town	3	5	107	Unid- bowl/plate	Pale	None		Evert		IntBev			2554p2481
107.05	Ayers Town	3	5	107	jar	RedB	Int.	Flat	Evert					2554p2481
107.06	Ayers Town	3	5	107	jar	RedB	Int.	Flat	Evert					2554p2446
107.07	Ayers Town	3	5	107	Unid- jar	RedB	Int.	Flat	Evert					2554p2446
107.08	Ayers Town	3	5	107	jar	RedB	Int.	Flat	Evert					2554p2446, 2492
107.09	Ayers Town	3	5	107	pan	RedB	Int.	Rd	Str					2554p2456
107.1	Ayers Town	3	5	107	pan	RedB	Int.	Flat	Str					2554p2456
107.11	Ayers Town	3	5	107	pan	RedB	Int.	Rd-Flat	Str					2554p2446
107.12	Ayers Town	3	5	107	Unid- bowl	Pale	None	Flat						2554p2481
107.13	Ayers Town	3	5	107	Unid- bowl	Pale	None	Rd	Str?	Black/Brown	IntBev?			?
107.14	Ayers Town	3	5	107	Unid- bowl	Pale?	None	Flat	Str					2554p2421
108.01	Ayers Town	3	5	108	jar	Pale	None	Rd	Evert			12	14	2554p2508
108.02	Ayers Town	3	5	108	pan	Pale?	Int.	Flat	Str			15	29	2554p2488
108.03	Ayers Town	3	5	108	Unid- bowl	Black	Int.	Rd	Str					2554p2508
108.04	Ayers Town	3	5	108	bowl	RedB	Int.	Flat	Evert					2554p2508
108.05	Ayers Town	3	5	108	Unid- bowl/ jar	Pale	None	Flat				7	16	2554p2508, 2517

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
108.06	Ayers Town	3	5	108	pan	RedB?	Int.	Flat	Str					2554p2525
108.07	Ayers Town	3	5	108	cup ?	Pale	None	Rd	Str			12	8	2554p2508
108.08	Ayers Town	3	5	108	Unid- plate	Pale	None	Rd						2554p2508
108.09	Ayers Town	3	5	108	bowl	Pale	None	Flat	Str	RedSlip				2554p2508, 2525
108.1	Ayers Town	3	5	108	pan	Pale?	Int.	Flat	Str					2554p2508
109.01	Ayers Town	3		109	pan	Pale?	Int.	Flat	Str					2554p2541
110.01	Ayers Town	5		110	bowl	RedB	Int.	Rd	Str	Red	IntFac			2554p2549
112.01	Ayers Town	6	9	112	pan	Pale?	Smg?	Flat	Str					2554p2551
112.02	Ayers Town	6	9	112	Unid- bowl	RedB	Int.	Flat			IntBev?			2554p2551
113.01	Ayers Town	6	9	113	pan	RedB	Int.	Flat	Str					2554p2555, 2557
114.01	Ayers Town	6	9	114	bowl	Pale	None	Flat	Evert	Red	IntBev			2554p2559
114.02	Ayers Town	6	9	114	pan	RedB	Int.	Flat	Str					2554p2559
114.03	Ayers Town	6	9	114	pan	RedB	Int.	Rd	Str					2554p2559
116.01	Ayers Town	4	8	116	pan	RedB	Int.	Rd-Flat	Str			5	42	2554p2564, 2571
116.02	Ayers Town	4	8	116	Unid- bowl/pan	RedB	Int.	Flat						2554p2591
116.03	Ayers Town	4	8	116	bowl	RedB	Both	Rd-Flat	Evert					2554p2585
116.04	Ayers Town	4	8	116	Unid- bowl	Pale	None	Rd						2554p2580

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
116.05	Ayers Town	4	8	116	Unid-bowl/plate	Pale	None	Flat						2554p2585
116.06	Ayers Town	4	8	116	bowl	Pale	None	Rd-Flat						2554p2571
122.01	Ayers Town	4		122	pan	RedB?	None	Rd-Flat	Str			6	33	2554p2603
122.02	Ayers Town	4		122	Unid- bowl	Pale?	None	Rd-Flat	Str					2554p2603
123.01	Ayers Town	4	8	123	pan	RedB	Int.	Flat	Str			15	29	2554p2657, 2668, 2679
123.02	Ayers Town	4	8	123	pan	RedB	None	Rd	Str			8	29	2554p2668, 2773
123.03	Ayers Town	4	8	123	Unid- jar	RedB	Smg?	Rd-Flat						2554p2712
123.04	Ayers Town	4	8	123	Unid- plate	Pale?	None	Rd			Facet?			2554p2773
123.05	Ayers Town	4	8	123	bowl	RedB	None	Flat	Str			11	12	2554p2736, 2792
123.06	Ayers Town	4	8	123	Unid- bowl	RedB	None	Flat	Evert		IntBev			2554p2625, 2632, 2643
123.07	Ayers Town	4	8	123	drinking pot?	RedB	Int.	Flat	Str	Red	IntBev			2554p2736, 2784?
123.08	Ayers Town	4	8	123	bowl	Pale	Int.	Flat	Evert?		IntFac?			2554p2807
123.09	Ayers Town	4	8	123	Unid- bowl	Pale	None	Rd						2554p2736
123.1	Ayers Town	4	8	123	bowl	RedB	Smg?	Flat	Evert					2554p2657
123.11	Ayers Town	4	8	123	Unid	Pale	None	Rd						2554p2784
124.01	Ayers Town	1		124	jar	RedB	None	Rd-Flat	Evert			8	19	2554p2829

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
124.02	Ayers Town	1		124	jar	RedB	Int.	Flat	Evert			5	21	2554p2829
124.03	Ayers Town	1		124	Unid- bowl	RedB	Int.	Rd-Flat						2554p2811
124.04	Ayers Town	1		124	bowl	Pale?	Int.	Flat	Evert		IntBev			2554p2841
124.05	Ayers Town	1		124	pan	Pale?	Int.	Flat						2554p2819
124.06	Ayers Town	1		124	pan	RedB	Int.	Flat	Str					2554p2849
124.07	Ayers Town	1		124	Unid- bowl	Pale	None	Rd-Flat						2554p2819
124.08	Ayers Town	1		124	bowl	Pale	None	Rd-Flat	Evert		IntBev			2554p2811
124.09	Ayers Town	1		124	Unid- jar	RedB	Int.	Rd	Evert					2554p2811
139.01	Ayers Town	4?		139	pan	RedB	Int.	Rd-Flat	Str			10	26	2554p2879
139.02	Ayers Town	4?		139	Unid- bowl/ jar	RedB	Int.	Rd-Flat	Evert			5	19	2554p2863, 2885
139.03	Ayers Town	4?		139	Unid- bowl/pan	RedB	Int.	Flat	Str					2554p2863
139.04	Ayers Town	4?		139	Unid- bowl/pan	RedB	Int.	Rd	Invert					2554p2863
139.05	Ayers Town	4?		139	pan	RedB	Int.	Rd	Str					2554p2863, 2901
139.06	Ayers Town	4?		139	pan	RedB?	None	Flat	Str					2554p2863
139.07	Ayers Town	4?		139	bowl	RedB	Int.	Flat			IntFac?			2554p2901
139.08	Ayers Town	4?		139	bowl	RedB	Smg?	Rd	Evert		IntBev			2554p2901
139.09	Ayers Town	4?		139	bowl	Redb	Int.	Rd	Evert					2554p2863

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
139.1	Ayers Town	4?		139	pan	RedB	Int.	Rd-Flat	Str					2554p2863, 2879, 2894
140.01	Ayers Town	7		140	bowl	RedB	Int.	Rd-Flat	Str		IntFac	18	22	2554p2998
140.02	Ayers Town	7		140	bowl	Pale?	None	Rd-Flat			IntFac			2554p2998
140.03	Ayers Town	7		140	bowl	RedB	Int.	Flat	Evert		IntBev	17	23	2554p2998
140.04	Ayers Town	7		140	bowl	RedB	Int.	Rd	Evert		IntBev	7	31	2554p2914, 3021
140.05	Ayers Town	7		140	bowl	Pale	None	Flat	Evert		IntBev			2554p3021
140.06	Ayers Town	7		140	Unid-bowl/cup	RedB	None	Flat	Evert		IntBev			2554p2998
140.07	Ayers Town	7		140	Unid-bowl/ jar	RedB	Int.	Flat	Evert		IntBev			2554p2969
140.08	Ayers Town	7		140	pan	RedB	Int.	Flat	Str			7.5	34	2554p2998
140.09	Ayers Town	7		140	pan	RedB	Int.	Rd-Flat	Str					2554p2998/3
140.1	Ayers Town	7		140	bowl	Pale?	Int.	Rd	Str					2554p3035
140.11	Ayers Town	7		140	bowl	RedB	Int.	Rd-Flat	Evert					2554p3021
140.12	Ayers Town	7		140	Unid-bowl/pan	RedB	Int.	Rd-Flat	Str			10	31	2554p2914
140.13	Ayers Town	7		140	pan	Pale?	Int.	Rd-Flat	Str					2554p2998
140.14	Ayers Town	7		140	pan	RedB	Int.	Flat	Str					2554p2910
140.15	Ayers Town	7		140	pan	RedB	Int.	Flat	Str					2554p2907, 2914

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
140.16	Ayers Town	7		140	bowl	RedB	Int.	Rd	Invert					2554p2914
141.01	Ayers Town	5	10	141	Unid- jar	RedB	Int.	Taper	Evert					2554p3033
141.02	Ayers Town	5	10	141	Unid- bowl/pan	RedB?	Int.		Str					2554p3033
148.01	Ayers Town	5	10	148	pan	RedB	Int.	Flat	Str			7	42	2554p3064
154.01	Ayers Town	5	10	154	plate	Pale	None	Flat	Evert					2554p3067
155.01	Ayers Town	5	11	155	pan	RedB	Int.	Rd-Flat	Str			6	30	2554p3085, 3119/6
155.02	Ayers Town	5	11	155	Unid- bowl/cup	RedB	Int.	Rd	Str	Red		9	10	2554p3085
155.03	Ayers Town	5	11	155	jar	RedB	Both?	Flat						2554p3104
155.04	Ayers Town	5	11	155	jar	RedB	Int.	Flat						2554p3092, 3104, 3119
155.05	Ayers Town	5	11	155	bowl	RedB	Int.	Flat	Evert		IntBev			2554p3085
155.06	Ayers Town	5	11	155	bowl	RedB	Int.	Rd-Flat	Str					2554p3097
155.07	Ayers Town	5	11	155	pan	RedB	Int.	Flat	Str					2554p3085
155.08	Ayers Town	5	11	155	Unid- bowl/cup	RedB	Smg?	Rd	Str	Red				2554p3134
158.01	Ayers Town	5	11	158	bowl	RedB	Int.	Rd-Flat	Evert	Red	IntBev			2554p3147
158.02	Ayers Town	5	11	158	bowl	RedB	Both	Rd	Str	Red		10	10	2554p3140
158.03	Ayers Town	5	11	158	Unid- bowl	RedB	Int.	Flat	Str					2554p3147

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
162.01	Ayers Town	5	11	162	bowl	RedB	Int.	Rd-Flat	Str		IntFac			2554p3167, 3200
162.02	Ayers Town	5	11	162	Unid-bowl/ jar	RedB	Int.	Rd-Flat	Evert					2554p3218
162.03	Ayers Town	5	11	162	jar	RedB	Int.	Flat						2554p3200
162.04	Ayers Town	5	11	162	pan	RedB	Int.	Flat	Str					2554p3200, 3208, 3237
162.05	Ayers Town	5	11	162	Unid- bowl	Pale?	None	Flat						2554p3185
163.01	Ayers Town	5	11	163	bowl	RedB	Int.	Rd-Flat	Str		IntFac	25	19	2554p3283/3, 3258,
163.02	Ayers Town	5	11	163	bowl	RedB	Int.	Rd	Evert		IntBev			2554p3258, 3268, 3283
163.03	Ayers Town	5	11	163	bowl	RedB	Int.	Rd	Evert		IntBev			2554p3283
163.04	Ayers Town	5	11	163	pan	RedB	Int.	Rd-Flat	Str			10	31	2554p3283/2, 3258
163.05	Ayers Town	5	11	163	jar	RedB	None	Flat	Evert			18	9	2554p3283
163.06	Ayers Town	5	11	163	Unid-bowl/cup	RedB	Int.	Rd	Str			25	10	2554p3283
163.07	Ayers Town	5	11	163	bowl	RedB	Int.	Taper	Str		IntBev	8	11	2554p3283
163.08	Ayers Town	5	11	163	bowl	RedB	Int.	Rd	Str	Red	IntFac			2554p3283, 3258

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
163.09	Ayers Town	5	11	163	jar	RedB	Int.	Rd-Flat						2554p3247, 3268
163.1	Ayers Town	5	11	163	jar	RedB	Int.	Flat						2554p3283
166.01	Ayers Town	5		166	Unid- pan	RedB	Int.	Rd						2554p3311
170.01	Ayers Town	5	10	170	cup	Pale	None	Taper	Evert			10	6	2554p3317
170.02	Ayers Town	5	10	170	pan	RedB	Int.	Flat	Str					2554p3317, 3334
170.03	Ayers Town	5	10	170	pan	Pale?	None	Flat	Str					2554p3317
170.04	Ayers Town	5	10	170	Unid- bowl	Pale?	None	Rd	Evert					2554p3317
170.05	Ayers Town	5	10	170	bowl	Black	Int.	Flat	Evert					2554p3317
170.06	Ayers Town	5	10	170	Unid- bowl/ jar	RedB	Int.	Rd	Evert					2554p3334
170.07	Ayers Town	5	10	170	Unid- plate	RedB	Int.	Flat	Evert					2554p3317
170.08	Ayers Town	5	10	170	pan	RedB	Int.	Rd	Str					2554p3317
170.09	Ayers Town	5	10	170	pan	RedB	Int.	Rd	Str					2554p3317
170.1	Ayers Town	5	10	170	Unid- bowl/pan	RedB	Int.	Rd	Str			12	15	2554p3317
182.01	Ayers Town	5		182	Unid- pan	RedB	Int.	Flat	Str					2554p3360
185.01	Ayers Town	5	12	185	bowl	RedB	None	Rd-Flat	Str		IntFac			2554p3392
185.02	Ayers Town	5	12	185	pan	RedB?	None	Flat	Str					2554p3396
185.03	Ayers Town	5	12	185	Unid- jar	RedB	Int.	Flat				7	22	2554p3396

Table D.1. Minimum Number of Vessels data

Vessel #	Site	Household Cluster	Structure	Feature	Vessel type	Paste type	Smudged Int/Ex	Lip form	Rim form	Paint type	Rim modification	% of rim	Rim diameter (cm)	Specimen No.
185.04	Ayers Town	5	12	185	Unid- plate	RedB	Both	Rd	Str		IntFac			2554p3380, 3386
185.05	Ayers Town	5	12	185	pan	RedB	Int.	Flat	Str					2554p3366, 3380
185.06	Ayers Town	5	12	185	jar	RedB	Int.		Evert				21?	2554p3380
185.07	Ayers Town	5	12	185	jar	RedB	Int.	Rd	Evert					2554p3380
185.08	Ayers Town	5	12	185	jar	RedB	Int.	Rd-Flat						2554p3366, 3371
185.09	Ayers Town	5	12	185	Jar	RedB	Int.	Flat						2554p3371, 3396

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
1	Jar-like, everted rim, slightly constricted, rounded lip, painted black wavy line above shoulder	
1.01	interior facets, red painted dots, rim facets?, interior smudged	
1.02	slightly everted rim, rounded lip, smudged interior, pronounced shoulder	
1.03	interior bevel, everted rim, rounded lip	
1.04	straight rim flat lip smudged, dark paste, thickened rim	
2	interior facet, smudged interior, red painted dots on interior wall, and possible red painted "X" on interior base	
2.01	slightly everted rim, rounded flat lip, slightly paler interior	
2.02	Slightly everted rim, flat lip, pale body (exterior) with black painted swagged line below the lip, smudged interior	
2.03	slightly everted rim, rounded flat lip, pale body	
2.04	thin flat lip, faceted rim, pale body with black painted swagged line	
2.05	everted rim, flat lip, pale body,	
2.06	interior bevel, everted rim, flat lip, pale body	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
2.07	interior bevel, everted rim, flat lip, pale body, thicker body	
2.08	straight rim, rounded lip, pale body, hemispheric bowl	
2.09	interior bevel, everted rim, rounded flat lip, faint black painted dots	
2.1	slightly everted rim, rounded lip, black painted dots, pale body	
2.11	interior bevel, everted rim, rounded flat lip, pale body	
2.12	slight interior bevel, slightly everted rim, rounded lip, dark pale- fire-clouded?	
2.13	faceted rim?, rounded lip, dark pale body	
2.14	rounded flat lip, dark pale body	
2.15	slightly everted rim, flat lip, smudged in and out, high burnish	
2.16	slightly everted rim, flat lip, smudged in and out	
2.17	slightly inverted rim, sharp flat lip, smudged interior	
2.18	straight rim, flat lip, smudged in and out?	
2.19	straight rim, flat lip, smudged	
2.2	straight rim, rounded flat lip, interior smudged	
2.21	slighty everted rim flat lip polished, prob small jar, pale fine core	
2.22	Pale, sandy paste, small foot ring? Possibly a pipe frag, approx 2.5 cm height	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
3	interior bevel, flat lip, smudged interior, pale exterior, poss red slip on exterior	17.02
4	interior facets, smudged interior, drilled holes in bottom	
4.01	straight rim, flat lip, smudged interior	7.02?
5	interior bevel, everted rim, coggled/scalloped lip, black painted dots on bevel	
5.01	straight rim, flat lip	
6	everted rim, rim facets, flat lip, black painted arcs with dots, pale body	
6.01	straight rim, flat lip, reddish/buff surface	
7.01	Small Interior bevel, slightly everted rim, smudged interior	
7.02	straight rim, flat lip, smudged interior	4.01?
7.03	rounded lip, straight? Rim, pale body, similar to 2.03 or 2.08	
7.04	straight rim, flat thin lip, pale body	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
7.05	inverted rim, flat lip with punctated tick marks on exterior lip, very thick, Catawba?, not smudged	
7.06	Straight rim flat lip	
8	straight rim, rounded lip, smudged in and out, hemispheric bowl, polished	
9	interior bevel, everted rim, rounded lip, pale body, red slip on bevel and interior	
10	straight rim, flat lip, not smudged	
10.01	interior bevel, everted rim, flat lip, smudged in and out	
10.02	straight rim, rounded lip, smudged interior, incurving simple bowl	
11	interior bevel, slightly everted rim, flat lip	
11.01	folded rim, flat lip, smudged interior	14.14?
11.02	folded rim, rounded lip, smudged interior	
11.03	pinch pot?, rounded lip, shallow finger bowl?	
11.04	crude pipe, thick rounded lip, reddish in color	
11.05	slightly everted rim, rounded lip, smudged interior	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
11.06	straight rim, flat lip, smudged in and out	
11.07	thin rounded flat lip, sudged in and out	
11.08	everted rim, flat lip, poss. Black paint on exterior	
11.09	everted rim, flat lip, interior bevel?, black painted arc on interior bevel	
11.1	slightly everted rim, flat lip, smudged interior, poss red paint	
11.11	slightly everted, flat lip, interior bevel, black paint on interior bevel	
11.12	slightly inverted, rounded lip	
11.13	Interior bevel	
11.14	slightly everted rim, square lip, burnished	
11.15	folded rim frag., smoothed on fold	
12	Mississippian- Flaring everted rim with curvalinear, comp stamping and appliqued nodes; similar to examples from Adamson Md (Stuart 1970, pg107) Not Catawba.	
12.01	thickened rim, smudged in and out	15.01
12.02	straight rim, rounded lip, sandy paste, exterior smudged/sooted	
12.03	inverted rim, rounded flat lip, sandy paste	15.04

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
13	straight rim, tapered rounded lip	
13.01	straight rim, rounded lip, sandy paste, pipe?	
13.02	squared lip, smudged in and out	
13.03	interior facets, red painted dots, smudged in and out	
14	interior bevel, slightly everted rim, flat lip, poss rim facets	
14.01	interior facets, red painted dashes in facets, smudged interior, slightly everted rim	
14.02	interior bevel, red paint, smudged in and out, small bowl, slightly everted	
14.03	slightly everted rim, faceted/peaked rim, smudged interior	
14.04	interior bevel, slightly everted rim, flat lip, smudged interior	
14.05	everted rim, smudged interior, possible faceted rim?	
14.06	straight rim, flat lip, smudged interior	
14.07	slightly curved/ straight rim, rounded irregular lip, red painted dashes	
14.08	interior bevel, slightly everted rim, flat lip, pale body	
14.09	rounded tapered lip, straight rim, red paste, not smudged, burnished	
14.1	stright rim, rounded lip, fine sandy paste, red paste, not smudged	
14.11	vertical rim, flat lip, smudged interior, possible incised line on lip	
14.12	thin walled, slightly everted rim, rounded lip, smudged interior	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
14.13	interior bevel, slightly everted rim rounded lip, not smudged	
14.14	folded rim, coarse paste, smudged interior	11.01?
14.15	thickened rim, smudged interior	
14.16	interior bevel, slightly everted, less well burnished, smudged interior	
14.17	Thin rounded lip, stright rim, no smudging, slightly eroded lip	
14.18	interior facets, straight rim, rounded lip, thicker rim, red painted dashes, weakly smudged	
14.19	straight rim, flat lip, sandy paste, smudged interior	
14.2	straight thick rim, flat lip, red paint, not smudged	
14.21	Everted rim with interior bevel, rounded lip with red painted dots on exterior lip	
14.22	interior facets, smudged interior	
14.23	straight rim, flat lip, smudged interior	
14.24	small globular jar, everted rim rounded lip	
14.25	Everted rim, interior bevel, red paint dash on interior bevel, well burnished exterior	
14.26	Everted rim, smudge in and out, interior bevel with interior facets	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
14.27	Small cup, slightly everted rim, rouded lip interior smudged	
14.28	Plate form- no rim present, very sharp shoulder, burnished	
14.29	Flat lip, smudged interior, unusual rim profile	
14.3	Flat lip straight rim with interior bevel, thick rim, little bit of red paint visible on interior bevel	
14.31	Stright rim, rounded to tapered lip with red painted dash, smudged interior	
14.32	Interior facets, dark/dull red paint in interior facets, interior smudged, rounded lip	
14.33	Interior facets with red paint on facets and on interior of bowl, flat lip slightly thicker rim, reddish paste	
14.34	Thin rounded flat lip, striaght to slightly incurving rim, simple bowl, smudged interior	
14.35	slightly everted rim with flat lip, lightly smudged interior	
15	interior bevel?, flat lip, red slip painted dashes at lip and red vertical lines, paint does not look like sealing wax	
15.01	thickened rim, smudged in and out, probably goes with v12.01	12.01
15.02	Slightly thickened rim everted rim, rounded lip, smudged interior (p1671/1)	
15.03	straight rim, flat lip, smudged in and out (includes p1661/1)	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
15.04	inverted rim, rounded flat lip, sandy paste, probably goes with 12.03	12.03
15.05	interior bevel, black painted wavy line on bevel, black dots below bevel	
15.06	interior bevel, black painted dot on bevel	
15.07	interior bevel, slightly everted rim, flat lip, thick body, black dot at lip	
15.08	interior bevel, very slightly everted, thin body	
16.01	slightly everted rim, flat lip, faint traces of red paint on interior below rim	
16.02	straight rim, flat tapered lip, red painted dashes at rim/lip, smudged interior	
16.03	faceted rim, smudged interior,	
16.04	straight rim, flat slightly extruded lip, smudged interior	
16.05	interior bevel, everted rim, smudged interior	
16.06	slightly everted, rounded lip, interior bevel, reddish paste	
16.07	inteior bevel, interior smudged, micatious paste, rim eroded	
16.08	straight rim, square lip, smudged interior	
16.09	straight rim, rounded lip, smudged interior	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
17.01	straight rim, flat lip, smudged interior	
17.02	interior bevel, slightly everted rim, flat lip, smudged interior	vessel 3
18	interior bevel, very slightly everted, faint black painted wavy line	
18.01	slightly incurvate profile, slightly everted lip, interior bevel	
18.02	everted rim, rounded lip, smudged interior	
18.03	straight rim, rounded lip, very thin, smudged interior	
18.04	rounded lip, straight to slightly inverted rim, pale body with evidence of fire clouding on exterior and green glaze on interior	
18.05	Everted rim, round lip, black painted wavy line on neck, probably goes with Vessel 7, 16, and 19	
20	interior bevel, rounded lip, smudged interior	
21	restricted bowl, flaring everted rim, interior bevel?, interior smudged	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
22	straight rim, tapered lip, fine reddish paste, black painted line on interior	
22.01	faceted rim, smudged in and out, like vessel 25	
22.02	straight rim, flat lip, smudged in and out	
22.03	flat lip, smudged in and out, thinner rim	
22.04	thick rim, flat lip, not smudged	
22.05	flat lip, smudged interior	
24	interior bevel, slightly everted rim, flat lip	
25	faceted rim, smudged in and out, finely burnished	
26	interior bevel, everted rim, flat lip, not smudged	
27	slightly incurvate profile, flat lip, smudged interior	
28	small complex flaring rim, interior facets, facted rim, smudged interior, red painted dashes and lines	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
29	straight rim, flat lip, smudged interior	
30	squared lip, shouldered	
31	thick squared lip, smudged	
7* **(18.05)**	no rim, black painted designs, possibly goes with vessels 16 and 19?- Assuming goes with everted rim with flat lip	
1	footed tea cup, flat lip, straight rim, not smudged	
2	Footed bowl, Straight rim rounded lip, lightly smudged interior	
3	Simple small hemispheric cup, crude apperance, interior smudged, flat lip with straight rim	
3.1	pale, reddish paste, everted rim with interior bevel and brown painted dots on interior bevel, rounded flat lip	
3.2	crude, pale body, rounded lip, everted rim	
3.3	Straight rim with flat to squared lip, smudged interior and dark on exterior	
3.4	Flat lip straight rim, interior smudged	4.1?

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
3.5	Straight rim, flat lip, sandier paste, smudged interior	
3.6	Straight rim, flat lip, no smudging	4.5?
3.7	Straight rim, flat lip, no smudging sandier paste	
4	Simple cup, sandy paste, no intentional smudging but considerable fire clouding, straight rim, rounded flat lip	
4.1	Straight Rim, flat lip, interior smudging- like 3.4	3.4?
4.2	pale body, rounded lip, bowl?	
4.3	Straight rim, rounded lip, interior smudged	
4.4	Straight rim, flat lip, no smudging	
4.5	not-smudged- Likely goes with 3.6	3.6?
5	Flat lip everted rim with interior bevel, red painted dots on interior of bowl, possible brown paint on interior bevel	
5.01	pale body, brown paint, edge facets, sandy eroded paste, thick flat lip	
5.02	Slightly everted rim, flat lip with red painted dash on lip, slight interior bevel	
5.03	Everted rim, flat lip, no folded rim, slighlt interior smudging, maybe pale paste	
5.04	thick rim, coarse paste, rounded lip	
5.05	interior bevel, smudged interior, rounded flat lip, slightly everted rim	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
5.06	possibly a small cup, straight rim flat lip with red pain on lip, slightly smudged interior	
5.07	interior bevel, slightly evert rim flat lip, possible small cup	
5.08	Straight rim with rounded flat lip and smudged interior	
5.09	flat lip, smudged interior, coarse paste,	
6	Pale body, no smudging, plate form with everted rim and edge facets, rounded lip	
7.1	Rounded flat lip, straight rim, smudged interior, coarse sandy paste, heavily reduced body, thin oxidized exterior	
8	interior facets, flat lip, no smudging, straight rim	
9	base- no rim	
10	simple hemispheric bowl with straight rim, rounded lip, smudged interior	
11	interior bevel, dark gray paste, smudged interior, everted rim rounded lip	
12	Everted rim with edge facets, interior smudging, flat lip	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
13	Straight rim, rounded lip with red paint, smudged, crude interior bevel	
14	Straight sided rim, flat lip, smudged and burnished	
15	Large folded rim jar, exverted rim, flat lip, smudged interior, dark grey exterior	
16	Restricted jar straight, vertical rim and rounded lip, smudged interior	
17	Small shallow bowl, everted rim with interior bevel and edge facets, interior smudged	
18	pale gray paste, slightly everted rim, interior bevel with punctated arcs on bevel	
19	Straight rim, hemispheric bowl, smudged, flat lip	
19.1	pale body, everted rim flat lip, smudged interior* some fragments don't appear to be smudged- with possible handle attachment	
20	pale body, pinkish color, straight- cupped rim, flat lip	
21	Straight rim, flat lip, smudged interior, fine sand paste, pale?, goes with 108.02	108.02

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
22	base- no rim	
23	flat rim, interior smudged, mini jar	
24	base- no rim	
25	incurvate straight rim, rounded and flat lip, smudged interior	
26	interior facets, smudged interior, incurving/straight rim	
27	Straight rim, rounded flat lip, smudged interior, burnished	
28	interior bevel, smudged interior, everted rim, flat lip with red paint on bevel	
29	Jar/drinking pot? With handle, veritical rim, flat lip, burnished, lightly smudged interior	
30	interior bevel, pale body, everted rim, rounded flat lip, red painted dot on bevel	
31	rounded lip, smudged interior, straight rim, slightly irregular rim	
32	Everted rim, flat lip, interior bevel with red painted dots on bevel, edge facets, interior smudged	
33	Straight rim, rounded lip, smudged interior	
33.1	Straight to slightly evert rim, flat lip with interior facets, burnished exterior	
33.2	thick, square rim, interior smudged, straight rim	
33.3	Thinner rim, flat lip, dark reduced paste	
34	interior bevel, flat lip, degraded paste, very low fired?	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
35	Slightly everted folded rim, burnished, smudged, rounded flat lip, well burnished, smudged in and out?	
36	sandy paste, rounded flat lip, smudged, straight rim	
37	interior bevel, smudged interior, rounded flat lip, red painted dots on bevel, straight to incurving rim,	
38	base- no rim	
39	restricted bowl, everted rim, rounded flat lip, smudged, interior bevel?	
40	Shouldered pan, slightly everted rim, rounded flat lip, smudged	
41	sandy paste, flat lip, straight rim, smudged interior	
42	interior bevel, pale body, rounded lip, everted rim no smudging	
43	folded rim jar, not smudged, flat lip, everted rim	124.01?
44	pale paste, everted rim, flat lip, rivieted handle, lightly smudged on interior	
45	Restricted bowl, excurvate rim, flat lip, smudged interior, possible interior bevel	
46	Straight rim, rounded flat lip, smudged interior	
47	Everted thickened rim, rounded lip, interior smudged, flat base	
48	Straight rim, interior facets, smudged interior, red painted dashes on int facets and interior base	
49	Straight rim, interior facets, smudged interior, rounded lip	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
50	Straight rim, interior facets, smudged interior, red painted dots around inside edge of lip	
51	Straight folded rim, Flat lip, coarse sandy paste, interior smudged	
52	flat lip, not smudged	
53	Restricted bowl, interior bevel, flat lip, everted rim, partially smudged interior	
54	pale sandy paste, everted flaring rim, flat lip, no smudging	
55	incurvate rim, rounded flat lip	
55.01	interior bevel,rounded flat lip, smudged interior, dramaticaly excurvate	
55.02	pale paste, possible plate or interior beveled bowl, flat lip	
55.03	coarse sandy paste, interior smudged, slightly everted rim and flat lip	
55.04	sandy paste, folded rim, slighly everted rim with flat lip, smudged interior	
55.05	slightly thickened rim, smudged	
55.06	crude, small diameter, but thick, slightly incurvate, but straight rim flat lip, interior smudging not even	
55.07	Straight rim, flat lip with interior facets and red painted dashes, smudged interior	
55.08	interior bevel, not smudged, excurvate lip, no smudging	
55.09	straight rim flat lip, smudged interior	
55.1	Straight rim, rounded flat lip with red paint on lip, smudged interior	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
55.11	Straight rim with rounded lip and probable interior facets with trace red paint on facets, interior smudging and thicker body	
55.12	Very thin rim, rounded lip, smudged/dark on both sides	
55.13	Straight rim, flat lip, fine sandy paste, possible red paint residue on lip	
56	pale sandy paste, everted flaring rim, edge facets?, wide flare, Possible brown paint "O" on flare	
57	Everted rim, folded rim,rounded flat lip, smudged interior	
58	Incurving, straight rim, rounded lip, smudged?	
59	Everted folded rim with incised zigzag lines on fold, smudged interior	
60	base- no rim, smudged and polished	
67.01	thick body,straight rim, flat slightly extruded lip, no smudging	
67.02	rounded lip, smudged interior	
67.03	dark paste, flat lip and srtaight rim with poss. interior facets smudging?	
67.04	square lip, slightly pale body, striaght rim, no smudging	
68.01	Straight rim, rounded flat lip, smudged interior	
68.02	Thicker body, flat pouty/slightly extruded lip	
69.01	Plate form, flaring rim that is slightly incurvate, rounded flat lip, no smudging	
69.02	Str rim with flat lip, smudged and burnished	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
69.03	Str rim with flat lip, sandy paste	
72.01	Very dark black sandy paste, rolled and extruded rounded lip, slight interior bevel, goes with 73.10	73.1
72.02	Strange rim/lid profile, smudged and well polished, interior groove, flat lip	
72.03	Sandy paste, straight rim, roundedslightly pouty lip, smudged interior, goes with 73.07?	73.07?
72.04	thin, slightly rounded flat lip,slightly evert rim, smudged interior	
72.05	Straight rim, flat slightly extruded lip, not smudged, goes with 73.08?	73.08?
72.06	pale body, flat lip, no smudging	
72.07	Straight rim, rounded lip, not smudged, pale-ish paste	
72.08	slightly everted rim, not smudged, rounded flat lip	
72.09	fine pale paste, flat lip, smudged interior, may go with 75.02	75.02
73.01	Everted rim, rounded lip with interior bevel, pale paste, no smudging	
73.02	interior bevel, smudged interior, everted rim rounded lip lip, hint of red paint on interior bevel	
73.03	thin,straight rim, rounded lip with red paint	
73.04	pale body, plate fragment with edge facets and rounded flat lip, no smudge	
73.05	folded rim, smudged interior, sandy paste, flat lip	
73.06	exterior of crude folded rim strip, sandy paste	
73.07	Sandy paste, straight rim, roundedslightly pouty lip, smudged interior, goes with 72.03?	72.03?
73.08	Straight rim, flat slightly extruded lip, not smudged, goes with 72.05?	72.05?

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
73.09	Straight rim rounded lip interior smudged	
73.1	Very dark black sandy paste, rolled and extruded rounded lip, slight interior bevel, goes with 72.01	72.01
73.11	pale body, flattened lip with incised? Groove, med sandy paste	
73.12	Everted rim, rounded lip, dark core and smudged interior, interior bevel	
73.13	slightly everted rim, flat lip, thickened rim smudged interior	
73.14	Straight rim, flat lip smudged interior	
74.01	Everted rim, interior bevel, Rounded flat lip, not smudged, possible brown painted dot on bevel?	
74.02	Straight rim, flat lip, smudged interior	
74.03	Straight rim, flat lip, sandier paste, smudged interior	
75.01	pale body, Flat lip, edge facets	
75.02	fine pale paste, flat lip, straight rim	72.09
82.01	incurvate rim, rounded lip, restricted bowl, pale body	
89.01	Everted rim, rounded lip, smudged interior, possibly a bowl?	
89.02	Straight rim, flat lip, smudged interior	
89.03	Restricted pan?, slightly incurvate rim, irregular flat lip, smudged interior	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
89.04	Thinner rim, Striaght rim, Flat lip interior smudged	
89.05	thicker rim, straight rim, flat lip, smudged interior	
89.06	slightly excurvate rim, flat lip, smudged interior	
89.07	Straight to slightly curved rim, flat lip-different angle from other pans, lightly smudged interior	
90.01	very small sherd, dark-black paste, flat lip, smudged interior	
90.02	pale body, flat lip, straight rim?	91.11?
91.01	Straight rim, flat lip, smudged interior	
91.02	folded rim frag, Flat lip, smudged interior	
91.03	Very thick rim, folded rim? Possibly smudged, rounded lip	
91.04	pale body, interior bevel, excuvate tapered lip, possible brown paint on bevel "O" shaped	
91.05	pale body, flat lip, straight rim?, fire clouded exterior	
91.06	Very dark, black paste, smudged, slightly everted rim, rounded lip	
91.07	thin lip, sandy paste, lighter body, lightly smudged interior	
91.08	square lip, slightly extruded rim, straight rim, interior smudged	
91.09	pale body, flat lip	
91.1	red painted dot in bevel, interior smudged, flat lip, everted rim probably interior bevel	
91.11	Pale paste, flat lip, no smudging, possible plate frag	90.02?

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
91.12	slightly coarser paste, pale? Paste, no smudging, flat lip	
92.01	Straight rim, red paint, smudged, rounded lip	
92.02	Straight rim, flattened lip, interior smudge	
92.03	Straight rim, rounded lip interior smudged	
92.04	Straight rim, flat lip, not smudged	
92.05	Straight rim, flat lip, not smudged, stamped design on interior below rim	
92.06	Everted rim, flat lip, no smudging, partially fireclouded	
95.01	Straight rim, square lip, smudged	
95.02	Everted rim with interior Bevel, smudged, thin tapered lip	
95.03	Flat lip, sandier paste, not smudged	
96.01	Light interior smudged, flat lip, straight rim	
101.01	square lip, smudged	
102.01	Straight rim, rounded lip interior smudged	
102.02	Black core, red oxidixed exterior, sandy paste, everted rim rounded lip	
102.03	slightly excurvate, sandy paste, rounded flat lip	
105.01	smudged, rounded lip, sandy paste, straight rim	
106.01	sandy paste, possible jar, everted? Thickened folded rim?	
107.01	Flat lip, slightly everted rim, red paint, lightly smudged?	
107.02	interior bevel, smudged interior, excurvate lip	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
107.03	interior bevel, sandy paste, slightly excurvate, drinking pot?	
107.04	pale body, slight interior bevel, eroded lip and exterior	
107.05	folded rim with large punctations	
107.06	everted rim, slightly thickened?, flat lip, smudged interior	
107.07	slightly everted, thin flat rim, smudged	
107.08	Everted rim, flat lip, no floded rim, smudged interior	
107.09	rounded flat lip, smudged, straight rim, sandy paste	
107.1	thick rim, sandy paste, flat lip	
107.11	Straight rim, rounded flat lip, interior smudged	
107.12	Pale paste, flat lip, no smudging, bowl or cup frag?	
107.13	Pale paste, rounded lip, straight rim?, possible interior bevel, possible black painted line on interior	
107.14	coarse pale paste, flat lip, no smudging	
108.01	pale body, everted rim, rounded lip, no smudging	
108.02	Straight rim, flat lip, smudged interior, fine sand paste, pale? Goes with vessel 21	Vessel 21
108.03	sandy paste, rounded lip, dark color, straight rim, thin lip	
108.04	everted rim, flat lip, smudged interior, dark exterior,	
108.05	pale body with fire clouding, flat lip, fine sandy paste, maybe goes with 108.01?	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
108.06	flat lip, smudged interior, straight rim, somewhat grayish paste	
108.07	thin rounded lip, pale body, sandy paste	
108.08	pale body, rounded lip, no smudging sandy paste, straight rim?	
108.09	red film, coarse pale body, Straight rim? Flat lip	
108.1	Gray sandy paste, interior smudged, irregular straight rim, flat lip	
109.01	sandy paste, flat lip, straight rim, grey exterior	
110.01	interior facets, smudged interior, red paint, straight-ish rim, rounded lip	
112.01	square lip, straight rim, gray- dark interior and exterior	
112.02	thin flat lip, smudged, possible interior bevel frag	
113.01	Flat lip, black interior and exterior, smudged	
114.01	interior bevel, fine pale body, everted rim flat lip, red paint, no smudge	
114.02	flattened lip, straight rim, interior smudged	
114.03	rounded lip, smudged interior	
116.01	Straight rim, rounded flat lip, smudged interior	
116.02	thin, flattened lip, possibly everted	
116.03	Slightly everted rim, rounded flat lip, smudged in and out, well burnished/polished in and out	
116.04	pale body, pink, rounded lip, thick	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
116.05	pale, fine sandy past, flat lip,	
116.06	pale body, rounded flat thin lip, fire clouded exterior, no smudging	
122.01	coarse sandy paste, rounded flat lip, not smudged, straight rim	
122.02	crude and irregular rim, extruded lip, rounded and flat lip, no smudge	
123.01	Straight rim, square lip, smudged	
123.02	Straight rim, rounded lip, not smudged	
123.03	Thick rim, rounded flat lip, possible thickened rim jar? Smudged?	
123.04	Pale ? Body, not smudged, possible edge facets, rounded lip	
123.05	incurving straight rim, flat lip, not smudged, fine paste	
123.06	fine sandy paste, slightly everted rim, slight interior bevel, flat lip, drinking pot, no smudging	
123.07	red paint, smudged, flat lip, straight to slightly incurving rim	
123.08	interior facet or bevel, interior smudged or fire clouding, flat lip, straight to slightly everted rim	
123.09	pale body, rounded thin lip, not smudged	
123.1	Slightly everted rim, flat lip, possibly smudged	
123.11	pale body, sandy paste, crude irregular rim	
124.01	folded rim, rounded lip, not smudged	Vessel 43?

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
124.02	folded rim, flat lip, smudged interior	
124.03	thickened rim, coarse sandy paste, smudged, rounded flat lip, irregular	
124.04	interior bevel, everted rim, flat lip, slightly smudged on interior	
124.05	square lip, slightly extruded rim, grayish interior, paler exterior, looks like V-33 except for lip	
124.06	flat lip, smudged, straight rim, thinner lip	
124.07	pale body, rounded flat lip, no smudging	
124.08	pale body, interior bevel, everted rim rounded flat lip	
124.09	Slightly everted rim, slightly thickened rim?, round lip smudged	
139.01	Straight rim, rounded flat lip, smudged interior	
139.02	Restricted bowl or jar, everted rim, rounded flat lip, smudged	
139.03	square lip, slightly extruded rim, straight rim, smudged interior	
139.04	thick slightly incurving rim, rounded lip, smudged interior	
139.05	sandy paste, rounded flat lip, thick, straight rim smudged interior	
139.06	Straight rim, not smudged, flat lip	
139.07	flat lip, smudged interior, interior facets?	
139.08	interior bevel, sandy paste, not smudged-grey	
139.09	rounded lip, smudged, slightly everted rim	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
139.1	Straight rim, rounded flat lip, smudged interior	
140.01	Straight rim, rounded flat lip, interior facets, smudged interior	
140.02	rounded flat lip, interior facets, not smudged	
140.03	small interior bevel, smudged interior, slightly everted flat lip	
140.04	interior bevel, everted rim, rounded lip, smudged interior	
140.05	Pale paste, everted rim, flat lip, interior bevel, not smudged	
140.06	drinking pot? Flat lip, slightly everted rim, mostly straight sides, reddish body	
140.07	Restricted bowl or jar, evert rim, interior bevel, thick flat lip, smudged	
140.08	straight rim, flat lip, interior smudged	
140.09	straight rim, rounded flat lip, smudged interior	
140.1	Straight rim, rounded thin lip, smudged interior, pale exterior color	
140.11	Slightly everted rim, rounded flat lip, smudged interior	
140.12	Straight rim, rounded flat lip, slightly extruded/rolled lip	
140.13	Straight rim, rounded flat lip, smudged interior, grayish exterior paste, burnished	
140.14	Straight rim, squared lip, slightly extruded, smudged interior	
140.15	Straight rim, flat lip, interior smudged, slightly thinner body	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
140.16	Slightly incurving rim, rounded lip,fine reddish paste, slightly smudged interior	
141.01	slightly everted rim, tapered lip, Interior smudged	
141.02	irregular, crude rim and lip, straight rim, interior smudging	
148.01	Straight rim, flat lip (lip angled to exterior), slight thinning near interior lip, interior smudging	
154.01	pale sandy paste, everted flaring rim, flat lip	
155.01	straight rim, rounded flat lip, smudged interior	
155.02	red paint, smudged interior, rounded lip, straight rim, well burnished interior	
155.03	Thickened rim, square lip, smudged interior and exterior?	
155.04	Folded rim, sandy paste, flat lip, smudged interior	
155.05	interior bevel (slight), flat lip, smudged, slightly everted	
155.06	thin rounded flat lip	
155.07	Flat lip, straight rim, coarse sandy paste	
155.08	Similar to 155.02, but not well burnished and interior smudging not uniform	
158.01	interior bevel, everted rim, red painted dot on bevel, rounded flat lip, interior smudging	
158.02	straight to slightly incurving rim, rounded lip, red paint on lip	
158.03	flat lip, sandy paste, interior smudging	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
162.01	Rounded flat lip, smudged interior, interior factes, straight rim	
162.02	excurvate rim,rd- flat lip, smudged interior	
162.03	folded rim, flat lip, interior smudged	
162.04	straight rim, flat lip, smudged	
162.05	not smudged, flat lip, sandy paste, pale body?	
163.01	interior facets, smudged interior	
163.02	Everted rim, interior bevel, rounded lip, sandy paste, smudged	
163.03	Everted rim, interior bevel, rounded lip, smudged interior, wider bevel	
163.04	rounded flat lip, smudged interior, straight rim	
163.05	thickened rim, not smudged, everted rim flat lip	
163.06	Straight to incurving rim, rounded lip, smudged interior, shallow bowl/cup	
163.07	Straight rim, tapered lip, small interior bevel, smudged interior	
163.08	Straight rim, interior facets, smudged interior, hint of red paint in interior facets, looks similar to Vessel 50	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
163.09	Folded rim, rounded flat lip, interior smudged	
163.1	Folded rim, irregular lip, coarse sandy paste, interior smudged	
166.01	sandy paste, rounded lip, smudged interior	
170.01	pale body, sandy paste, rounded tapered lip, slightly everted lip, straight rim	
170.02	Straight rim, flat lip, smudged interior	
170.03	straight rim, square lip, not smudged	
170.04	rounded lip, not smudged, slightly everted	
170.05	flat lip, smudged, slightly everted rim, dark/black paste	
170.06	rounded lip, smudged, slightly everted	
170.07	flat lip, smudged interior, burnished, slightly everted rim	
170.08	Straight rim, rounded lip, interior smudged, irregular surface	
170.09	Straight rim, rounded lip, interior smudged, thinner rim	
170.1	Straight rim, rounded lip, smudged interior, irregular surface	
182.01	straight rim, flat lip, smudged interior, fine sandy paste	
185.01	Straight rim, rounded flat lip, interior facets, red body, well burnished	
185.02	Straight rim, flat lip, not smudged, somewhat pale?	
185.03	square lip, smudged, slightly thickened rim	

Table D.1. Minimum Number of Vessels data

Vessel #	Comments	Duplicate vessel
185.04	rounded lip, smudged in and out, well burnished, possible plate with interior facets	
185.05	flat lip, sandy paste, smudged interior, straight rim	
185.06	folded rim, smudged interior, red paste, lip edge absent	
185.07	slightly thickened everted rim, rounded lip, interior smudged, dark exterior smudged?	
185.08	wide folded rim, smudged interior, not well burnished	
185.09	Thick folded rim, coarse sand paste, interior smudged	

REFERENCES CITED

Adair, James
2005 [1775] *The History of the American Indians.* University of Alabama Press, Tuscaloosa.

Anonymous
ca. 1721 *A Map Describing the Situation of the several Nations of Indians between South Carolina and the Massisipi River; was Copyed from a Draught Drawn & Painted upon a Deer Skin by an Indian Cacique: and Presented to Francis Nicholson Esqr. Governor of Carolina. CO 700 / North American Colonies General 6/1.* British Public Records Office, London.

Ashmore, Wendy, and Richard R. Wilk
1988 Household and Community in the Mesoamerican Past. In *Household and Community in the Mesoamerican Past*, edited by R. R. Wilk and W. Ashmore, pp. 1-27. University of New Mexico Press, Albuquerque.

Baker, Steven G.
1975 *The Working Draft of: The Historic Catawba Peoples: Exploratory Perspectives in Ethnohistory and Archaeology*. Department of History, University of South Carolina, Columbia.

Barile, Kerri S., and Jamie C. Brandon (Editors)
2004 *Household Chores and Household Choices: Theorizing the Domestic Sphere in Historical Archaeology*. University of Alabama Press, Tuscaloosa.

Bauer, Brooke M.
2016 *Being Catawba: The World of Sally New River, 1746-1840*. Ph.D. dissertation, Ph.D., University of North Carolina, Chapel Hill.

Beck, Robin A., Jr.
2009 Catawba Coalescence and the Shattering of the Carolina Piedmont, 1540-1675. In *Mapping the Mississippian Shatter Zone: The Colonial Indian Slave Trade and Regional Instability in the American South*, edited by Robbie Ethridge and Sheri M. Shuck-Hall, pp. 115-141. University of Nebraska Press, Lincoln.

2013 *Chiefdoms, collapse, and coalescence in the early American South.* Cambridge University Press, New York.

Binford, Lewis R.
1964 *Archaeological and Ethnohistorical investigations of cultural diversity and progressive development among aboriginal cultures of coastal Virginia and North Carolina*. Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Blanton, Richard E.
1994 *Houses and Households: A Comparative Study*. Plenum Press, New York.

Blewitt, Rosemarie
2016 *Loss and Discard of Traditional Ecological Knowledge: Archaeology of Catawba Foodways*. Unpublished M.A. Thesis, University of North Carolina, Chapel Hill, NC.

Blumer, Thomas John
1987 *Bibliography of the Catawba.* The Scarecrow Press Inc., Metuchen, New Jersey.

2004 *Catawba Indian Pottery: The Survival of a Folk Tradition*. University of Alabama Press, Tuscaloosa.

2007 *Catawba Nation: Treasures in History*. History Press, Charleston.

Boudreaux, Edmond A.
2005 *The Archaeology of Town Creek: Chronology, Community Patterns, and Leadership at a Mississippian Tow*n. Unpublished Ph.D. dissertation, Ph.D., University of North Carolina, Chapel Hill.

2007 *The Archaeology of Town Creek.* University of Alabama Press, Tuscaloosa.

Bourdieu, Pierre
1977 *Outline of a Theory of Practice.* Cambridge University Press, Cambridge.

Brasser, J. T.
1964 Persistence and disappearance of aboriginal languages. *Mens en maatschappij* 39:269-282.

Brown, Douglas S.
1966 *The Catawba Indians, the People of the River.* University of South Carolina Press, Chapel Hill.

Casella, E. C., and Fowler, C.
2005 Beyond identification: An introduction. In *The Archaeology of Plural and Changing Identities: Beyond Identification*, Casella, E. C., and Fowler, C. (eds.), Kluwer Academic/Plenum Publishers, New York, pp. 1–8.

Camp, Wallace J.
1965 *Soil Survey, Your County, South Carolina.* U.S. Government Printing Office, Washington, D.C.

Canuto, Marcello A., and Jason Yaeger
2000 Introducing an archaeology of communities. In *The Archaeology of communities: a new world perspective,* edited by Marcello A. Canuto and Jason Yaeger, pp. 1-15. Routledge, London.

Civitello, Jamie A.
2005 Anthropogenic Landscapes at Spratt's Bottom (38Yk3), South Carolina. Unpublished M.A. Thesis, University of South Carolina, Columbia.

Clayton, Lawrence A., Vernon J. Knight, Edward Carter Moore (editors)
1993 *The De Soto Chronicles: The Expedition of Hernando De Soto to North America in 1539-1543, Volume 1.* University of Alabama Press, Tuscaloosa.

Coke, Thomas
1791 *A Journal of the Rev. Dr. Thomas Coke's Fourth Tour on the Continent of America*. G. Paramore, London.

Cowan, C. W.
1985 Understanding the Evolution of Plant Husbandry in Eastern North America: Lessons from Botany, Ethnography, and Archaeology. In *Prehistoric Food Production in North America*, edited by R- 1. Ford, pp. 205-243. Museum of Anthropology, Anthropological Papers No. 75. Ann Arbor, Michigan.

Cranford, David, and Mary E. Fitts
2012 *Tracing Persistence through Coalescence: Charraws in the Catawba Nation.* Paper Presented at the 77th Annual Meeting of the Society of American Archaeology, Memphis.

Crow, Rosanna
2011 Geochemical Analysis of Catawba Ceramics. Unpublished Honors Thesis, Curriculum in Archaeology, University of North Carolina at Chapel Hill.

DAACS
2016 Digital Archaeological Archive of Comparative Slavery. Monticello Department of Archaeology, Charlottesville, VA. http://www.daacs.org/aboutdatabase/mcdtypes.html/. Updated June 20, 2006.

Davis, R. P. S., Jr
2002 The Cultural Landscape of the North Carolina Piedmont at Contact. In *The Transformations of the Southeastern Indians, 1540-1760,* edited by Robbie Ethridge and Charles M. Hudson, pp. 135-154. University Press of Mississippi, Jackson.

Davis, R. P. S., Jr, and Brett H. Riggs
2004 An Introduction to the Catawba Project. *North Carolina Archaeology* 53:1-41.

2014 Summary Report of 2014 Archaeological Investigations at The Nisbet Site (Soc 638), Lancaster County, South Carolina. Manuscript on file at the Research Laboratories of Archaeology, Chapel Hill.

Davis, R. P. S., Jr, Brett H. Riggs, and David Cranford
2015 *Archaeology at Ayers Town: An Early Federal Period Community In The Catawba Nation.* Research Report 37, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Deagan, K. A.
1983 *Spanish St. Augustine: The Archaeology of a Colonial Creole Community*, Academic Press, New York.

Deetz, James
1977 *In Small Things Forgotten: The Archaeology of Early American Life*. Anchor Press/Doubleday.

Díaz-Andreu García, Margarita
2005 *The archaeology of identity: approaches to gender, age, status, ethnicity and religion.* Routledge, London.

Dickens, Roy S., Jr., H. Trawick Ward, and R. P. Stephen Davis, Jr. (editors)
1987 *The Siouan Project: Seasons I and II*. Monograph Series No. 1. Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.

Dietler, Michael
2007 Culinary Encounters: Food, Identity, and Colonialism. In *The Archaeology of Foodand Identity,* edited by Katheryn C. Twiss, pp. 218-242. Center for Archaeological Investigations Occasional Paper No. 34. Southern Illinois University, Carbondale.

Drayton, John
1802 *A View of South Carolina, As Respects Her Natural and Civil Concerns*. Printed by W. P. Young, Charleston, SC. 1802b *Map of South Carolina*. Printed by T. Coram and J. Akin, Charleston, SC.

Drew, Samuel
1818 *The Life of the Rev. Thomas Coke, LL.D.* Soule and Mason Publishers, New York.

Duffield, Elise M., and R. P. S. Davis Jr.
2011 "Changing Patterns of Glass Bead Use Among the Catawba Indians, 1750 to 1820" Poster presented at the 68th Southeastern Archaeology Conference, Jacksonville, FL.

Ethridge, Robbie
2003 *Creek Country: The Creek Indians and Their World.*University of North Carolina Press, Chapel Hill.

2006 Creating the Shatter Zone: Indian Slave Traders and the Collapse of the Southeastern Chiefdoms. In *Light on the Path: The Anthropology and History of the Southeastern Indians,* edited by Thomas J. Pluckhahn and Robbie Ethridge, University of Alabama Press, Tuscaloosa.

2009 Introduction: Mapping the Mississippian Shatter Zone. In *Mapping the Mississippian Shatter Zone: The Colonial Indian Slave Trade and Regional Instability in the American South,* edited by Robbie Ethridge and Sheri Shuck-Hall, pp. 1-62. University of Nebraska Press, Lincoln.

Ethridge, Robbie F., and Charles M. Hudson (editors)
2002 *The Transformation of the Southeastern Indians: 1540-1760.* University Press of Mississippi, Jackson.

Evans, John
1756 *Cuttahbaw Nation, Men Fit for War in ye Year 1756. IN American and other papers of Lieut. Col. (latterly Brigadier Gen.) John Forbes (with a few papers of James Glen, Governor of South Carolina), 1746-1759 (GB234/GD45/2/104).* National Records of Scotland, Edinburgh.

Feltman, William
1853 *The Journal of Lieut. William Feltman, of the First Pennsylvania Regiment, 1781–82*. The Historical Society of Pennsylvania, Philadelphia.

FEMA Flood Map Service Center
2016 https://msc.fema.gov/

Ferguson, Leland G.
1980 Looking for the "Afro" in Colono-Indian Pottery. In *Archaeological Perspectives on Ethnicity in America*, edited by Robert L. Schuyler, pp. 14-28. Baywood Farmingdale, New York.

1990 Lowcountry Plantations, the Catawba Nation, and River Burnished Pottery. In *Studies in South Carolina Archaeology: Essays in Honor of Robert L. Stephenson*, edited by Albert C. Goodyear, III, and Glen T. Hanson, pp. 185–191. Anthropological Studies 9. South Carolina Institute of Archaeology and Anthropology, Columbia.

1992 *Uncommon Ground: Archaeology and Early African America, 1650-1800*. Smithsonian Institution Press, Washington, D.C.

Fitts, Mary E.
2006 Mapping Catawba Coalescence. *North Carolina Archaeology* 55:1-59.

2015a *Defending and Provisioning the Catawba Nation: An Archaeology of the Mid-Eighteenth-Century Communities at Nation Ford*. Unpublished Ph.D. dissertation, University of North Carolina, Chapel Hill.

2015b Archaeobotanical Analysis. In *Archaeology at Ayers Town: An Early Federal Period Community in The Catawba Nation,* edited by R. P. S. Davis Jr, Brett H. Riggs and David Cranford, pp. 228-249. Research Report 37, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

2017 *Fit for War: Sustenance and Order in the Mid-Eighteenth Century Catawba Nation*. University of Florida Press, Gainesville.

Fitts, Mary Elizabeth and Charles Heath
2009 "Indians Refusing to Carry Burdens", Understanding the Success of Catawba Political, Military, and Settlement Strategies in Colonial Carolina. In *Mapping the Mississippian Shatter Zone: The Colonial Indian Slave Trade and Regional Instability in the American South*, edited by Robbie Ethridge and Sheri M. Shuck-Hall, pp. 142-162. University of Nebraska Press, Lincoln.

Gallay, Alan
2002 *The Indian Slave Trade: The Rise of the English Empire in the American South, 1670-1717.* Yale University Press, New Haven.

Galloway, Patricia
1995 *Choctaw genesis, 1500-1700.* University of Nebraska Press, Lincoln.

Galloway, Patricia, and Clara Sue Kidwell.
2004 "Choctaw in the East." In William C. Sturtevant (gen. ed.) and Raymond D. Fogelson (vol. ed.) *Handbook of North American Indians, Southeast*, Volume 14,499–519. Smithsonian Institution, Washington, D.C.

Garrow, Patrick H., and Thomas R. Wheaton.
1989 Colonoware Ceramics: The Evidence from Yaughan and Curriboo Plantations. In *Studies in South Carolina Archaeology: Essays in Honor of Robert L. Stephenson,* edited by Albert C. Goodyear, III and Glen T. Hanson, pp. 175-184. South Carolina Institute of Archaeology and Anthropology Research Papers 10. Occasional Papers of the South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia

Geiger, Brian S.
2012 The Catawba Meadows Site: Household Archaeology In Western North Carolina. Unpublished BA Honors Thesis, Tulane University, New Orleans.

Glascock, M D, H Neff, and K J Vaughn
2004 Instrumental Neutron Activation Analysis and Multivariate Statistics for Pottery Provenance: 95–105.

Gregorie, Anne K.
1925 Notes on Sewee Indians and Indian Remains of Christ Church Parish, Charleston County, South Carolina. Contributions from the Charleston Museum 5. Charleston, South Carolina.

Gremillion, Kristen J.
1993 Paleoethnobotanical Evidence of Change and Continuity in Piedmont Subsistence. In *Indian communities on the North Carolina Piedmont, A.D. 1000 to 1700,* edited by H. T.

Ward and Davis, R. P. Stephen Jr., pp. 445-466. Research Laboratories of Anthropology, University of North Carolina at Chapel Hill, Chapel Hill.

Groover, Mark D.
2000 Creolization and the Archaeology of Multiethnic Households in the American South. *Historical Archaeology* 34(3):99-106.

Hally, David J.
2008 *King: The Social Archaeology of a Late Mississippian Town in Northwestern Georgia*. University of Alabama Press, Tuscaloosa.

Harrington, M. R.
1908 Catawba Potters and Their Work. *American Anthropologist* N.S. 10(3):399-407.

Hayden, Brian
2001 Fabulous Feasts: A Prolegomenon to the Importance of Feasting. In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, edited by Michael Dietler and Brian Hayden, pp. 23-64. Smithsonian Institution Press, Washington, D.C.

Heath, Charles L.
2004 Catawba Militarism: An Ethnohistorical and Archaeological Overview. *North Carolina Archaeology* 53:80-120.

Hickerson, Daniel A.
1997 Historical Processes, Epidemic Disease, and the Formation of the Hasinai Confederacy. *Ethnohistory* 44(1): 31-52.

Hirth, K.
1993 The household as an analytical unit: Problems in method and theory. In *Prehispanic Domestic Units in Western Mesoamerica: Studies of the Household, Compound, and Residence*, Santley, R., and Hirth, K. (eds.), CRC Press, Boca Raton, FL, pp. 21–36.

Holm, Mary Ann
2002 Vertebrate Subsistence Practices along the Dan River at the Time of Contact. *Southeastern Archaeological Conference Special Publication* 7:65-75.

Hutchison, David
1843 "Catawba Indians," August 30, 1849, *Palmetto-State Banner* (Columbia), 1.

Hudson, Charles M.
1970 *The Catawba Nation.* University of Georgia Press, Athens.

1976 *The Southeastern Indians.* University of Tennessee Press, Knoxville. 1977 James Adair as Anthropologist. *Ethnohistory* 24(4):311-328.

1990 *The Juan Pardo expeditions : exploration of the Carolinas and Tennessee, 1566- 1568.* University of Alabama Press, Tuscaloosa.

Hunt, Alice and Robert Speakman
2014 *Protocol for the Analysis of Archaeological Ceramics and Sediments by pXRF*. Poster presented at the Society for American Archaeology in Austin, TX.

Hunt, Alice M.W. and Robert J. Speakman
2015 Portable XRF analysis of archaeological sediments and ceramics. *Journal of Archaeological Science* 53:626-638

Jones, Calvin
1815 *Calvin Jones Papers, 1783-1929, 2000 (#921, Folder 52), Southern Historical Collection.* Louis Round Wilson Special Collections Library, University of North Carolina at Chapel Hill, Chapel Hill.

Jones, S.
1997 *The Archaeology of Ethnicity: Constructing Identities in the Past and Present*, Routledge, New York.

Jordan, Terry G.
1985 *American Log Buildings: An Old World Heritage*. University of North Carolina Press, Chapel Hill.

Kershaw, Joseph
1784 Invoice of Goods Distributed to the Catawba Indians 23 May 1784. Joseph Brevard Kershaw Papers, South Caroliniana Library, University of South Carolina, Columbia.

Kidd, Kenneth E., and Martha A. Kidd
1970 A Classification System for Glass Beads for the Use of Field Archaeologists. *Canadian Historic Sites: Occasional Papers in Archaeology and History* 1:45-89.

Kimmel, Richard
1993 Notes on the Cultural Origins and Functions of Sub-Floor Pits. *Historical Archaeology* 27(3):102–113.

Kintigh, Keith W.
1984 Measuring Archaeological Diversity by Comparison with Simulated Assemblages. *American Antiquity* 49(1):44-54.

1989 Sample Size, Significance, and Measures of Diversity. In *Quantifying Diversity in Archaeology*, edited by Robert D. Leonard, and George T. Jones, pp. 25–36. Cambridge University Press, New York.

1994 Tools for Quantitative Archaeology: Programs for Quantitative Analysis in Archaeology. Manuscript on file, Arizona State University, Tempe.

Knight, Vernon J., Jr.
1990 Social Organization and the Evolution of Hierarchy in Mississippian Chiefdoms. *Journal of Anthropological Research* 46:1-23.

2010 *Mound Excavations at Moundville: Architecture, Elites, and Social Order*. University of Alabama Press, Tuscaloosa.

Kowalewski, Stephen A.
2006 Coalescent Societies. In *Light on the Path: The Anthropology and History of the Southeastern Indians,* edited by Thomas J. Pluckhahn and Robbie Ethridge, pp. 94-122. The University of Alabama Press, Tuscaloosa.

Lapham, Heather A.
2006 *Hunting for Hides: Deerskins, Status, and Culture Change in the Protohistoric Appalachians.* University of Alabama Press, Tuscaloosa.

Lawson, John
1967 [1709] *A New Voyage to Carolina.* University of North Carolina Press, Chapel Hill.

Lederer, John
1902 [1672] *The discoveries of John Lederer, in three several Marches from Virginia, to the West of Carolina, and other parts of the Continent: Begun in March 1669, and ended in September 1670: Together with a General Map of the whole Territory which he traversed.* Printed for George P. Humphrey, Rochester, NY.

Lefler, Hugh T. (editor)
1967 *A New Voyage to Carolina by John Lawson*. University of North Carolina Press, Chapel Hill.

Legacy Research Associates
2009 Intensive Archaeological and Architectural Survey for the Proposed Replacement of the SC 5 Bridges over the Catawba River and Twelve-Mile Creek in Lancaster and York Counties, South Carolina. Final report prepared for Mulkey Inc. on behalf of South Carolina Department of Transportation, Columbia.

Levy, Janet E.
1993 Excavations at the Spratt's Bottom Site, 38YK3, Ft. Mill, South Carolina-Preliminary Results. Paper presented at the 50th Southeastern Archaeological Conference, Raleigh, NC.

Lewis, Kenneth E.
1975 Archeological Investigations at the Kershaw House, Camden (38KE1), Kershaw County, South Carolina. *Research Manuscript Series*. 67. The South Carolina Institute of Archeology and Anthropology, University of South Carolina, Columbia.

1977 A Functional Study of the Kershaw House Site in Camden, South Carolina. *Research Manuscript Series*. Book 144. Columbia, SC: Institute of Archeology and Anthropology, University of SC.

2006 *Camden: Historical Archaeology in the South Carolina Backcountry.* Thomson Wadworth, Belmont, CA.

Lightfoot, Kent G., Antoinette Martinez, and Ann M. Schiff
1998 Daily Practice and Material Culture in Pluralistic Social Settings: An Archaeological Study of Culture Change and Persistence from Fort Ross, California. *American Antiquity* 63:199-222.

Liston, Henrietta
1797 Tour to the Southern States: Virginia, North & South Carolinas. Unpublished manuscript on microfilm, North Carolina Collection, University of North Carolina, Chapel Hill.

Mancall, Peter C.
1995 *Deadly Medicine: Indians and Alcohol in Early America*. Cornell University Press, Ithaca.

Marcoux, Jon B.
2008 Cherokee Households and Communities in the English Contact Period, A.D. 1670-1740. Unpublished Ph.D. dissertation, Ph.D., University of North Carolina, Chapel Hill.

2010 *Pox, Empire, Shackles and Hides: The Townsend Site, 1670-1715*. University of Alabama Press, Tuscaloosa.

2012 Glass Trade Beads from the English Colonial Period in the Southeast, ca. A.D. 1607–1783. *Southeastern Archaeology* 31(2):157-184.

May, J. Alan, and V. Ann Tippitt
2000 Early Historic Catawba Nation Archaeology. Paper presented at the Annual Meeting of the Southeastern Archaeological Conference, Macon, GA.

McDowell, William L.
1958 *Documents Relating to Indian Affairs 1750-1754*. South Carolina Department of Archives & History, Columbia.

1992 *Documents relating to Indian Affairs 1754-1765.* South Carolina Department of Archives & History, Columbia.

McReynolds, Theresa
2004 Catawba Population Dynamics during the Eighteenth and Nineteenth Centuries. *North Carolina Archaeology* 53:42-59.

Merrell, James H.
1982 *Natives in a New World: The Catawba Indians of Carolina, 1650-1800*. Unpublished Ph.D. dissertation, The Johns Hopkins University, Baltimore.

1983 Reading "An Almost Erased Page": A Reassessment of Frank G. Speck's Catawba Studies. *Proceedings of the American Philosophical Society* 127(4):248-262.

1986 "Minding the Business of the Nation": Hagler as Catawba Leader. Ethnohistory 33(1):55-70.

1989 *The Indians' New World: Catawbas and Their Neighbors from European Contact through the Era of Removal.* University of North Carolina Press, Chapel Hill, NC.

Mills, Robert
1825 *Atlas of the state of South Carolina, made under the authority of the Legislature, prefaced with a geographical, statistical and historical map of the state.* J.D. Toy, Baltimore.

Mooney, James
1894 *The Siouan Tribes of the East. Bureau of Ethnology Bulletin No. 22.* Smithsonian Institution Press., Washington, D.C.

Moore, David G.
2002 *Catawba Valley Mississippian: Ceramics, Chronology, and Catawba Indians.* University of Alabama Press, Tuscaloosa.

Moore, Maurice A.,
1981 *Reminiscences of York.* Edited by Elmer Oris Parker. A Press, Greenville, SC.

Moultrie, William
1942 *The journal of William Moultrie while a commissioner on the North and South Carolina boundary survey, 1772.* Southern Historical Association, Baton Rouge.

Muller, John
1997 *Mississippian Political Economy*. Plenum Press, New York.

Murphey, Archibald D.
1914 *The Papers of Archibald D. Murphey*, edited by William Henry Hoyt, A.M. E. M. Uzziilla Co., Raleigh.

Nash, D. J.
2009 Household archaeology in the Andes. *Journal of Archaeological Research* 17: 205-261.

Netting, Robert McC., Richard R. Wilk, and Eric J. Arnould
1984 Introduction. In *Households: Comparative and Historical Studies of the Domestic*

Group, edited by R. McC. Netting, R. R. Wilk, and E. J. Arnould, pp. xiii–xxxviii. University of California Press, Berkeley

Noël Hume, Ivor
1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

2001 *A Guide to Artifacts of Colonial America*. University of Pennsylvania Press, Philadelphia.

North, Louise V.
2014 *The Travel Journals of Henrietta Marchant Liston: North America and Lower Canada, 1796-1800.* Lexington Books.

Pettus, Louise
2005 *Leasing Away A Nation: The Legacy of Catawba Indian Land Leases*. Palmetto Conservation Foundation, Spartanburg, SC.

Piker, Joshua.
2004 *Okfuskee: A Creek Indian Town in Colonial America*. Cambridge: Harvard University Press.

Plane, Mark R.
2011 A historical archaeology of Catawba itinerancy. Unpublished Ph.D. dissertation, University of North Carolina at Chapel Hill, Chapel Hill, N.C.

Pluckhahn, Thomas J.
2010 Household Archaeology in the Southeastern United States: History, Trends, and Challenges. *Journal of Archaeological Research* 18(4): 331-385.

Pluckhahn, Thomas J., J. Matthew Compton, and Mary Theresa Bonhage-Freund
2006 Evidence of Small-Scale Feasting from the Woodland Period Site of Kolomoki, Georgia. *Journal of Field Archaeology*, 31(3):263-284.

Polhemus, Richard R.
1987 *Archaeological Investigation of the Tellico Blockhouse Site*. Report of Investigations 26, Department of Anthropology, University of Tennessee, Knoxville.

Rees, Abraham
1819 *The Cyclopaedia; Or Universal Dictionary of Arts, Science, and Literature*. Longman, Hurst, Rees, Orme & Brown [etc.]: London.

Reina, R.E., and R.M. II Hill
1978 *The Traditional Pottery of Guatemala.* University of Texas Press, Austin.

Richardson, Reverend W.

1758 *Account of Mission to the Cherokees, 1758-1759.* Indians Box 1, Folder 16. Miscellaneous Collections: Subjects, Manuscripts and Archives Division, the New York Public Library, New York.

Rice, Prudence M.
1987 *Pottery Analysis: A Sourcebook*. University of Chicago Press, Chicago.

Riggs, Brett
1999 Removal period Cherokee households in southwestern North Carolina: material perspectives on ethnicity and cultural differentiation. Unpublished Ph.D. dissertation, University of Tennessee, Knoxville.

2010 Temporal Trends in Native Ceramic Traditions of the Lower Catawba River Valley. *Southeastern Archaeology* 29(1):31-43.

Riggs, Brett H., R. P. S. Davis Jr, and Mark R. Plane
2006 Catawba Pottery in the Post-Revolutionary Era: A View from the Source. *North Carolina Archaeology* 55:60-88.

Rodning, Christopher B.
2004 *The Cherokee Town at Coweeta Creek*. Ph.D. Dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Roger, Vergil A.
1973 *Soil Survey of Lancaster County South Carolina.* U.S. Department of Agriculture Soil Conservation Service.

Rubertone, Patricia E.
2000 The Historical Archaeology of Native Americans. *Annual Review of Anthropology* 29:425-446.

Rudes, Blair, Thomas J. Blumer, and J. A. May
2004 Catawba and Neighboring Groups. In *Handbook of North American Indians. Volume 14, Southeast,* edited by R. D. Fogelson, pp. 301-318. Smithsonian Institution, Washington, DC.

Salley, Alexander S., Jr (Indexer)
1916 *Journal of the House of Representatives of South Carolina, January 8, 1782--February 26, 1782*. The State Company, Columbia.

Samford, Patricia M.
2007 *Subfloor Pits and the Archaeology of Slavery in Colonial Virginia.* University of Alabama Press, Tuscaloosa.

Saunders, William L. (editor)

1887 *The Colonial Records of North Carolina, vol. V, 1752 to 1759*. Josephus Daniels, Printer to the State, Raleigh.

Scaife, H. Lewis
1896 *History and Condition of the Catawba Indians of South Carolina*. Office of Indian Rights Association, Philadelphia.

Scarry, C. M.
2003 Patterns of Wild Plant Utilization in the Prehistoric Eastern Woodlands. In *People and Plants in Eastern North America,* edited by Paul E. Minnis, pp. 50-104. Smithsonian Books, Washington DC.

Schoolcraft, Henry R.
1853 *Historical and statistical information respecting the history, condition, and prospects of the Indian tribes of the United States: collected and prepared under the direction of the Bureau of Indian Affairs per act of Congress of March 3d, 1847, Part III.* Lippincott, Grambo & Co, Philadelphia.

Scott, Edwin J.
1884 *Random Recollections of a Long Life, 1806-1876.* Charles A. Calvo Press, Columbia, South Carolina.

Scott, Robert J.
2007 Interpreting Changes in Historic Creek Household Architecture at the Turn of the Nineteenth Century. In *Architectural Variability in the Southeast*, edited by Cameron H. Lacquement, pp. 166-185. University of Alabama Press, Tuscaloosa.

Shackley, M Steven
2011 *X-Ray Fluorescence Spectrometry (XRF) in Geoarchaeology*. Ed. M. Steven Shackley. Springer New York, New York, NY.

Shebalin, Theresa M.
2011 *Domestic activities and household variation at Catawba New Town, ca. 1790-1820.* Ph.D. dissertation, University of North Carolina at Chapel Hill, Chapel Hill.

Shennan, Stephen
1994 *Archaeological approaches to cultural identity*. (editor) Routledge, London.

1997 *Quantifying archaeology*. Edinburgh University Press, Edinburgh.

Siebert, Frank T., Jr.
1945 Linguistic Classification of Catawba. *International Journal of American Linguistics* 11:100-104, 211-218.

Simms, William Gilmore
1845 *The Wigwam and the Cabin*. Wiley and Putnam, New York

Smyth, John F. D.
1784 *A Tour of the United States of America*. Printed for G. Robinson, London.

South, Stanley A.
1977 *Method and Theory in Historical Archeology*. Academic Press, New York.

1999 *Historical Archaeology in Wachovia: Excavating Eighteenth-Century Bethabara and Moravian Pottery*. Kluwer Academic / Plenum Publishers, New York.

2004 *John Bartlam: Staffordshire in Carolina*. Research Manuscript Series 231, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Speakman, Robert J., Nicole C. Little, Darrell Creel, Myles R. Miller, and Javier G. Iñañez
2011 Sourcing ceramics with portable XRF spectrometers? A comparison with INAA using Mimbres pottery from the American Southwest. *Journal of Archaeological Science* 38(12): 3483–3496.

Speakman, Robert J., and M. Steven Shackley
2013 Silo science and portable XRF in archaeology: a response to Frahm. *Journal of Archaeological Science* 40(2): 1435–1443.

Speck, Frank G.
1913 Some Catawba Texts and Folk-Lore. *The Journal of American Folklore* 26 (102):319-330.

1934 *Catawba texts.* Columbia University Press, New York.

1938 The Cane Blowgun in Catawba and Southeastern Ethnology. *American Anthropologist* 40:198-204.

1939 Catawba Religious Beliefs, Mortuary Customs, and Dances. *Primitive Man* 12(2):21-57.

1944 Catawba Herbals and Curative Practices. *The Journal of American Folklore* 57(223):37-50.

1946 *Catawba Hunting, Trapping and Fishing.* Museum of the University of Pennsylvania, Philadelphia.

Speck, Frank G. and C. E. Schaeffer
1942 Catawba Kinship and Social Organization with a Resume of Tutelo Kinship Terms. *American Anthropologist* 44(4): 555-575.

Steere, Benjamin A.

2017 *The Archaeology of Houses and Households in the Native Southeast.* University of Alabama Press, Tuscaloosa.

Swanton, John R.
1946 *The Indians of the Southeastern United States*. Bureau of American Ethnology Bulletin 137, Smithsonian Institution, Washington, DC.

1985[1939] *Final report of the United States De Soto Expedition Commission.* Smithsonian Institution Press, Washington D.C. (reprint).

Thayne, Stanley J.
2016 *The Blood of Father Lehi: Indigenous Americans and the Book of Mormon*. Ph.D. dissertation, University of North Carolina at Chapel Hill, Chapel Hill.

VanDerwarker, Amber M.
2010 Simple Measures for Integrating Plant and Animal Remains. In *Integrating Zooarchaeology and Paleoethnobotany: A Consideration of Issues, Methods, and Cases*, edited by Tanya M. Peres and Amber M. VanDerwarker, pp. 65-74. Springer, New York.

VanDerwarker, Amber M., Jon B. Marcoux, and Kandace D. Hollenbach
2013 Farming and Foraging at the Crossroads: The Consequences of Cherokee and European Interaction Through the Late Eighteenth Century *American Antiquity* 78(1):68-88.

Voss, Barbara L.
2008 *The Archaeology of Ethnogenesis: Race and Sexuality In Colonial San Francisco.* University of California Press, Berkeley.

Wagner, Gail E.
1982 Testing Flotation Recovery Rates. *American Antiquity* 47(1):127-132.

Ward, Trawick H., and Davis R. P. Stephen Jr
1988 Archaeology of the Historic Occaneechi Indians. *Southern Indian Studies* 36-37.

1991 The Impact of Old World Diseases on the Native Inhabitants of the North Carolina Piedmont. *Archaeology of Eastern North America* 19:171-181.

1993 *Indian Communities on the North Carolina Piedmont A.D. 1000 to 1700.* Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

1999 *Time Before History: The Archaeology of North Carolina.* University of North Carolina Press, Chapel Hill.

Waselkov, Gregory A.
1989 Indian Maps of the Colonial Southeast. In *Powhatan's Mantle: Indians in the Colonial Southeast,* edited by Peter H. Wood, Gregory A. Waselkov and M. T. Hatley, pp. 292-343. University of Nebraska Press, Lincoln.

Washington, George
1757 "From George Washington to Robert Dinwiddie, 24 May 1757," Founders Online, National Archives (http://founders.archives.gov/documents/Washington/02-04-02-0091 [last update: 2014-12-01]). Source: *The Papers of George Washington*, Colonial Series, vol. 4, *9 November 1756 – 24 October 1757*, ed. W. W. Abbot. Charlottesville: University Press of Virginia, 1984, pp. 161–164.

Watson, Patty J.
1976 In Pursuit of Prehistoric Subsistence: A Comparative Account of Some Contemporary Flotation Techniques. *Midcontinental Journal of Archaeology* 1:77- 100.

Watson, Ian
1995 *Catawba Indian Genealogy*. Papers in Anthropology 4, Department of Anthropology, State University of New York at Geneseo.

Watson, Winslow C. (editor)
1856 *Men and Times of the Revolution; or, Memoirs of Elkanah Watson*. Dana and Company, New York.

Wenger, Etienne
1998 *Communities of practice: learning, meaning, and identity.* Cambridge University Press, Cambridge.

Weslager, C. A.
1969 *The Log Cabin In America: From Pioneer Days to the Present.* Rutgers University Press, New Brunswick, NJ.

Wesson, Cameron B.
2008 *Households and Hegemony: Early Creek Prestige Goods, Symbolic Capital, and Social Power*. University of Nebraska Press, Lincoln.

Wilk, Richard R., and Robert McC. Netting
1984 Households: Changing Forms and Function. In *Households: Comparative and Historical Studies of the Domestic Group*, edited by R. McC. Netting, R. R. Wilk, and E. J. Arnould, pp. 1-28. University of California Press, Berkeley.

Wilk, Richard R., and William L. Rathje
1982 Household Archaeology. *American Behavioral Scientist* 25(6): 617-640.

Williams, Ian
2005 *Rum: A Social and Sociable History of the Real Spirit of 1776*. Nation Books, New York.

Wilson, Gregory D.
2005 *Between plaza and palisade: Household and community organization at early Moundville.* Ph.D. dissertation, University of North Carolina, Chapel Hill.

2008 *The Archaeology of Everyday Life at Early Moundville*. University of Alabama Press, Tuscaloosa.

Wheaton, Thomas R., Amy Fried lander, and Patrick H. Garrow
1983 *Yaughan and Curriboo Plantations: Studies in Afro-American Archaeology*. Soil Systems, Atlanta.

Whyte, Thomas R.
2015 Archaeofaunal Analysis. In *Archaeology at Ayers Town: An Early Federal Period Community In The Catawba Nation,* edited by R. P. S. Davis Jr, Brett H. Riggs and David Cranford, pp. 249-257. Research Report 37, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Wyly, Samuel
1764 *A Map of the Catawba Indians Surveyed agreeable to a Treaty Entered into with Them At Augusta in Georgia on the tenth Day of November 1763. Miscellaneous Records, H, 460.* South Carolina Department of Archives and History, Columbia.