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CHARACTERISTICS AND FUNCTIONS OF NON-MOUND MISSISSIPPIAN SITES: A CASE STUDY OF FITZNER NORTH END (9SN256)

by

LINDSEY ROXANNE HINSON

(Under the Direction of M. Jared Wood)

ABSTRACT

The Mississippian time period (A.D. 900-1600) in the Southeast of North America began with the development of ranked societies where the elite governed from and resided in administrative centers with earthen mounds and no formal bureaucracy. Much of the remaining population lived at smaller, non-mound sites. Given that the majority of people in these polities lived at non-mound sites, it is important to understand these places and their contexts. Current literature does not provide a clear architectural grammar of how these sites are defined socially or archaeologically. Due to variations in socio-political organization, and amount of excavation and research, site descriptions vary. I have summarized current literature into four different types of non-mound sites: town/village, hamlet, farmstead/homestead, and limited activity/special-use.

The Fitzner North End (9SN256) site, a non-mound Middle Mississippian site near the confluence of Brier Creek and the Savannah River in Georgia, provides a case study to investigate one non-mound site. Methods include block excavations guided by artifact and feature diversity and distribution, and analysis of the resulting data. In addition, a small-scale energy dispersive x-ray fluorescence (ED-XRF) spectrometry analysis provides insights into the potential for expanding this type of study for determining variations in Middle Woodland and Middle Mississippian pottery from the site. I conclude that Fitzner North End is most similar to a farmstead or homestead because of its relatively small size (0.3 ha) located near farmable rich soils. The site displays a range of domestic artifacts assumed with seasonal to year-round habitation and lacks the ceremonial/communal nature of a town/village or hamlet site, and the limited range of domestic artifacts associated with a special-use or limited activity site. This case study adds to the growing literature and invites future research studies on non-mound Mississippian sites in the Savannah River valley.

INDEX WORDS: Middle Mississippian, Southeastern archaeology, Hollywood phase, Middle Savannah river, Non-mound, Site type, Site economy, Town, Village, Hamlet, Farmstead, Homestead, XRF analysis

CHARACTERISTICS AND FUNCTIONS OF NON-MOUND MISSISSIPPIAN SITES: A CASE

STUDY OF FITZNER NORTH END (9SN256)

by

LINDSEY ROXANNE HINSON

B.A., University of Georgia, 2010

M.A., Georgia Southern University, 2018

A Thesis Submitted to the Graduate Faculty of Georgia Southern University in Partial Fulfillment of the

Requirements for the Degree

MASTER OF ARTS

STATESBORO, GEORGIA

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LINDSEY ROXANNE HINSON

Major Professor: Committee:

M. Jared Wood Heidi Altman J. Matthew Compton

Electronic Version Approved: May 2018

DEDICATION

For Dav'El and Harley.

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My experience of Georgia Archaeology began with summer 2009 field school excavations of Copeland (9GE18) directed by Mark Williams, and later that same summer, excavations of Fitzner (9SN220) directed by Jared Wood. These experiences showed me the uniqueness of Georgia Archaeology and confirmed my long-time childhood dreams and passions of studying archaeology. Mark Williams and Jared Wood are both equally dedicated to their respective fields of study, inspiring their students to reach beyond what they think is possible and ask questions of status quo. The answer may be as simple as beavers or the need for firewood.

I would like to thank the following former students from my undergraduate career for their continued conversation, advice, motivation, and inspiration: Gretchen Eggiman, Pam Enlow, Richard Moss, and Chris Webster. Our conversations of archaeology and CRM drove my career choices and goals and confirmed that a career in archaeology was possible. I also want to thank Ben Steere, who became my graduate student mentor and offered the most logical and practical advice. These conversations provided me with the skills and knowledge to gain employment in cultural resource management.

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The leap to graduate school was difficult and conversations with Jared Wood confirmed that I would be able to achieve my academic and later career goals at Georgia Southern University. Thesis topic discussions started from my lack of knowledge in larger-scale, block excavations and developed into the

fully-formed research topic you see here. Jared Wood guided me through this overwhelming process, providing invaluable insight into writing style, research and excavation methods, and his extensive knowledge of Mississippian studies. This thesis would not have been possible without his advice, guidance, and edits that continuously propelled me forward and encouraged me to reach outside of my comfort zone to make me a better archaeologist.

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INTRODUCTION

The Mississippian time period (A.D. 900-1600) begins with the development of chiefly societies and ends around sustained European contact in the Southeast of North America (Schnell and Wright 1993, King and Stephenson 2016, Wood 2009). Most people of this period appear to have lived in stratified societies (commoners vs. elites) where status was ascribed at birth, but one could advance through personal accomplishments (*e.g.* war hero) (Wood 2009: 3). This institutionalized social hierarchy afforded some members special privileges such as easier access to the best food and use or possession of exotic and ornate items in life and specialized burial treatments in death (Schnell and Wright 1993). Politically, members of the elite governed from administrative centers, often with earthen mounds (Wood 2009: 3-5). There was no formal bureaucracy in these societies (Foster 2007: 6).

These sociopolitical characteristics are reflected in settlement patterns. While the smaller elite population was often concentrated at the mound sites, the larger populace lived in non-mound communities in or near floodplains with rich soils ideal for horticulture (Smith 1978: 488-498). Intensive horticultural products, some specialized crafts, goods such as animal hides, and labor all served as types of tribute to the elite (Stephenson 2011: 3-8). The non-elite who paid tribute and allegiance to polities gained access to the larger social system and the many benefits it provided: protection and retribution against enemies, participation in social events and necessary rituals, kin networks and trade relationships, and a larger identity. To facilitate these exchanges and participation, non-mound communities were located near mound sites. Together, these clusters of mound and non-mound communities seem to represent individual chiefdoms (King and Stephenson 2016, Wood 2009).

Given that most of the non-elite in these polities lived at non-mound sites, it is important to understand those places and their contexts. What do these sites look like and what do we call them? Due to variations in socio-political organization, and amount of excavation and research, non-mound site descriptions vary. Current literature does not provide a clear architectural grammar of how these sites are defined socially or archaeologically. Because the Mississippian world presents a wide variety of community organization, the ability to make sense of this world proves a great challenge (Kidder 1998: 123). A majority of settlement studies and community organization focus on elite architecture, particularly mound sites (Hally 1999, 2006; Anderson 1994, Blitz 1999, Williams and Shapiro 1990). Studies focusing on characteristics such as architecture, site size, and function of individual non-mound sites can be compared with other sites within the same region, and finally outside of that particular region. This can shed light on general over-arching cultural trends and allow for a greater understanding of the under-studied non-elite Mississippian lifestyle. Architectural variability at the individual household level at sites with no mounds can highlight the sociopolitical landscape and settlement patterns of this time period.

To add to the discussion on non-mound sites and how a built human environment is defined and described, or architectural grammar, this thesis seeks to examine a non-mound site in an under-studied area of the Georgia Coastal Plain in the Savannah River valley, the Fitzner North End site (9SN256). This site is in a prime location at the confluence of Brier Creek and the Savannah River (Figure 1.1). Diversity



Figure 1.1 Fitzner North End Location (Mapsof.net 2016).

and distribution of artifacts and features from block excavations provide data and characteristics of this site that will be compared with existing literature on non-mound Mississippian sites. If the site is special-use or limited activity, it should have an identifiable specific function, such as stone tool manufacture, but not reflect the variety of activities assumed with a seasonal or year-round domestic site: tool manufacture and use, food processing, cooking, and consumption, refuse disposal, burial, construction and use of houses and outbuildings. If it is a domestic site, it should have this diversity of activity areas, and arrangement will be used to compare with published types of non-mound sites to determine its function and purpose. This thesis seeks to contribute to the development of the working definitions of an architectural grammar of non-mound Mississippian sites.

After a thorough analysis of the case study site and how it fits into existing literature, this thesis will speculate how these sites may fit into the larger chiefdom society in the Savannah River valley. More excavation and research need to occur before any concrete studies of larger, regional comparisons can follow.

MISSISSIPPIAN WORLD

The Mississippian time period is marked by cultural changes that occurred at the end of the Late Woodland period and generally concludes with European contact (A.D. 900-1600). Below is a summary of trends and characteristics from historical accounts and archaeological data of the Savannah River valley and beyond.

Stratified Societies

Evidence of stratification is seen in mortuary practices, specifically through grave goods, architecture, artifact types and materials, and skeletal remains. Anderson provides summary data for sites in the Savannah River valley showing burials in the mounds, while in the habitation areas they are usually under the domestic structure (Haven Home, Irene, Chauga, Beaverdam Creek, Hollywood, Rucker's Bottom, I.C. Few) (1994: 315). At Beaverdam Creek, Chauga, and I.C. Few, burial trends include a higher number of females buried in the habitation areas when compared to mound burials (Anderson 1994: 314). In addition, mound burials contained a higher number of grave goods with a higher proportion of these burials being male when compared to burials in the habitation areas (Anderson 1994: 314). Skeletal remains typically show that healthier individuals were interred in mounds when compared with the individuals interred in habitation areas (Anderson 1994: 314-316). These trends likely indicate a two-tier socio-political system with males as figure-heads who had access to grave goods and culturally significant architecture (*e.g.* mounds).

Platform mounds typically contain summit structures thought to be elite residences (Wood 2009: 1-5). These rectangular earthen mounds rise high above the ground surface physically and metaphorically separating the ruling party or chief from the remaining population. Usually accompanied by a habitation area and a large cleared and cleaned public gathering area, also known as a plaza, mound construction requires high energy costs and social organization (Hally 2006: 26). Rituals and beliefs are intertwined with this socio-political system, binding the nucleated mound sites with the smaller dispersed sites, subsequently confirming and supporting the elite. For example, Emerson discusses the dualistic nature of beliefs displayed in symbolic architecture and artifacts of power, such as mounds, vessels, and figurines at

Cahokia and the surrounding areas (1997). These symbols of power and stratification can also be seen at the smaller, dispersed sites, but at a smaller scale when compared to the larger nucleated mound sites. Emerson discusses how symbols of power created a "functional political unit whose internal cohesiveness may have been encouraged by kin ties as well as by the presence of elite control of supernatural and natural resources (1997: 249-250)."

Domestic architecture reflects status through size and location comparable to other structures at the same site. For example, larger structures closer to or on the mound, partitioned by a wall or palisade, or isolated from other structures indicate differential status. Structures inhabited by the non-elite were usually similar in size and construction (Steere 2017). These structures were usually located in a particular area of the site, segregated from the larger buildings. Steere states that domestic structures are "usually constructed by social groups larger than households," indicating that evidence for socio-political organization (*e.g.* social stratification) is also seen at the household level (2017: 179).

Domestic-related rituals and ceremonialism are also seen in house characteristics such as orientation, size, and shape as well as the presence of a certain number of posts, hearth, and types of artifacts (Steere 2017: 111). These kinds of patterns "may symbolically represent sacred locations or be models of cosmography" (Gougeon 2002: 78).

Artifacts are often classified as domestic or ritualistic/ceremonial. Typical domestic artifacts include projectile points/knives (PP/Ks) and other functional tools (*e.g.* axes, scrapers, drills, needles), pottery, and debitage from stone tool and pottery production. These artifacts can illustrate gendered activity areas, such as male flint knapping and female pottery-making areas (Gougeon 2002: 79-80, Steere 2017: 112).

Ritualistic and/or ceremonial items more elite in nature are typically made with ornate designs/carving from materials such as bone, clay, copper, or shell. These items can include effigy pipes, figures, and bowls, gorgets, beads, and elaborate pottery (King 2007). Some are religious in nature and are associated with the Southeastern Ceremonial Complex (SECC), where these items were traded and

restricted for elite use (King 2007). The trade of these items represented a larger cultural sphere and connected people throughout the Mississippian world (King 2007: 1-14).

Patterns and characteristics of architecture and artifacts provide evidence for elite power and social stratification. The community planning and organization of Cahokia described by Demel and Hall indicate that these characteristics were purposefully linked and utilized to connect time and space (1998: 225). This culturally and symbolically created environment was reinforced through religion and socio-political power and controlled by the elite through public and private barriers and restricted access to certain areas, such as mounds and elite structures (Wesson 1998: 93-122, Lewis et al. 1998: 1-21, Anderson 1994: 79-84). Similar patterns can be seen in artifact type and distribution. Domestic structures contain subsistence-related artifacts involved with resource procurement, preparation, and processing, while platform mounds and larger structures contain ritualistic and/or ceremonial items with smaller numbers of domestic artifacts (Anderson 1994).

Historic accounts from early Europeans explorers add to our knowledge of social stratification and segregated spaces. De Soto landed in "La Florida" in A.D. 1539 and traveled the southeast in his search for gold, where he came into contact with the Ocute in Georgia and Cofitachequi in South Carolina (Kane and Keeton 1993: 126-136). The sacred Cofitachequi town of Talimeco contained a large structure on top of a platform mound with strings of pearls, conch shells, large human statues, and other culturally significant items (Kane and Keeton 1993: 135-136). These accounts describe interactions with chiefs who lived at the political center and other representatives of the ruling elite along with subservient people and habitation areas.

Beaverdam Creek mound and village in the Savannah River valley exhibits many of these traits (Anderson 1994: 196-205). This site contains a platform mound with structures atop the platform, and burials containing items such as shell beads, copper ear spools, and shell gorgets. An area south of the mound is suggested to be a plaza based on the low artifact density and a common occurrence of chunky stones. A habitation area surrounds the mound which contains evidence for subsistence-related activities:

lithic tools, pottery, and debris. Domestic houses are of similar size and construction as other nearby sites in the region (*e.g.* Rucker's Bottom) and contain non-elite burials.

Subsistence

Evidence shows that the people of this period practiced horticulture, hunting, and gathering. Data from archaeological sites exhibit a wide variety of resources exploited: both cultivated and wild. Steere notes that when communities first adopted more intensive, sedentary practices, domestic structures became smaller and widely-spaced, while well-established intensive, sedentary practices resulted in larger structures with more partitioning, likely relating to indoor storage and subsistence activities (2017: 177-178). He also states that this evidence became less apparent in the Southeast where people of the time period practiced a more mixed economy, displaying well-made and similar domestic structures along with more lightly built and less partitioned structures intended for shorter use (Steere 2017: 87, 177-178). Steere concludes that this difference may be explained by household economics and household composition based on type and location of the habitation site (2017: 177-178).

Hunting and gathering provided important nutrients and calories alongside cultigens. Typical game included mammals (white-tailed deer, squirrels, raccoons, opossum), fish (catfish), and birds (turkey, duck, other small birds) (Anderson 1994, Bowne 2013: 15-61). Hunting and fishing techniques included bow and arrow, traps, fish weirs, and nets to name a few (Bowne 2013). Evidence of wild and cultivated resources include shellfish (mussels), fruits (persimmons, grapes, blueberries, gooseberries), nuts (hickory, chestnuts, pecans, acorns), seeds, legumes, herbs, and greens (Bowne 2013, Smith 1978: 479-503). The people of this period exploited the resources available to them, both wild and cultivated as a means for maximum diet supplementation. For example, sites in the Savannah River valley (Rucker's Bottom, Clyde Gulley, and Beaverdam Creek) display evidence of berries, grape, persimmon, maypop, acorn, hickory, deer, turtle, turkey, bear, fish, bird, and freshwater mussels (Anderson 1994: 228-230, 317-322). Another site in Coastal Plain South Carolina, 38BK235, shows evidence of blackberry, hickory, walnut, acorn, goosefoot, turtle, turkey, and raccoon (Brooks et al. 1984: 253-254).

Horticulture and domesticated crop varieties became more intensive and culturally important through time beginning in the Late Woodland period and culminated in use and importance during the Middle to Late Mississippian period (Anderson 1994: 317-322). The three main crops or the "three sisters" include corn, beans, and squash most likely grown by techniques like slash and burn in the floodplains. Other important crops include pumpkin, marsh elder, gourd, and sunflower (Smith 1978, Bowne 2013). Sites in the Savannah River valley (Rucker's Bottom, Clyde Gulley, and Beaverdam Creek) display evidence of corn and gourd (Anderson 1994: 228-230, 317-322). Another site in Coastal Plain South Carolina, 38BK235, also shows evidence of corn (Brooks et al. 1984). These sites display similar hunting and gathering practices and contain a wide variety of exploited resources, with less reliance on cultigen crops as evident in the flora specimens.

Subsistence data not only shows what people ate and how they lived but sometimes exhibits evidence of social stratification and tribute activities. Rucker's Bottom, discussed previously, displays the intensive use of corn between A.D. 1200 and 1300, with a decline around A.D. 1400 likely due to a poor growing season (Anderson 1994: 319). A highly diversified subsistence strategy remained important from A.D. 1200 through A.D. 1400. But based on skeletal analysis, this evidence of a rich and diversified diet was not evident in the skeletal remains dating between A.D. 1200 and 1300 (Anderson 1994: 318-322). Anderson suggests that most of the corn was grown as a tribute to the political center during A.D. 1200-1300, contributing to the skeletal stress of the inhabitants (1994: 319). However, skeletal remains dating from around A.D. 1400 did not show any evidence of skeletal stress, suggesting that resources no longer left the site as tribute (Anderson 1994: 318-322). Social stratification and tribute activities can also be seen from A.D. 1200 to 1300 through the absence of hindquarter cuts of meats, with the presence of these prime cuts of meats reappearing around A.D. 1400 (Anderson 1994: 318-322). Anderson concludes that tribute practices likely occurred early on in the founding of the subservient Rucker's Bottom site (A.D. 1200-1300), with the site increasing in socio-political significance later on (around A.D. 1400), no longer required to contribute their resources to the political center (1994: 318-322).

Settlement

The use of more intensive horticultural practices along with changes in socio-political organization resulted in a variable and a more sedentary Mississippian cultural landscape when compared with the earlier Woodland period. The Mississippian adaptive strategy required rich, farmable soils and a diverse environment for hunting and gathering. Therefore, settlements were focused along and in the river floodplain which offered rich soils for growing crops and a prime location for hunting and gathering a variety of resources (Smith 1978: 479-503, Muller 1997). Smith states that this adaptive niche required a certain level of settlement dispersion in order to support a larger more sedentary population, which also needed to be balanced with "the internal problem of social cohesion and cooperation and the external problem of defense of land and people" (1978: 489-490). These factors are thought to have contributed to a dynamic landscape balancing between nucleated and dispersed settlements throughout the landscape of the Mississippian world.

Hally (2006) provides insight into this dichotomy by analyzing patterns in location and size of polities in Georgia. He states that an individual polity tended to expand approximately 15 to 20 kilometers along a river floodplain with a surrounding sparsely occupied or unoccupied area measuring approximately 10 to 30 kilometers between neighboring polities (Hally 2006: 26-27). Each of these polities contained at least one "administrative center with one or more platform mounds, a plaza, and a surrounding habitation zone" with approximately 2,000 to 5,000 people, depending on the number of administrative centers within that particular polity, and surrounding smaller communities varying in size, location, and function (Hally 2006: 26-30). Environmental and socio-political factors, such as limited local resources and governance, would have restricted the size of any particular polity. He also identifies that mound sites greater than 32 kilometers apart were politically independent, while mound sites less than 18 kilometers apart were likely considered part of the same polity (Hally 1999: 104-113).

Within these polity areas, the level of dispersion and aggregation varies based on time and location, but general patterns are observed. A more dispersed settlement system contains a ceremonial center with a platform mound and/or other mounds, often with a habitation area. Other smaller sites

typically located in the same geographic region or river valley contained the majority of the population living in single or multi-family households surrounding this ceremonial center (Dickens 1978: 115-139, Emerson 1997, Muller 1978: 269-292). A nucleated settlement system contains a ceremonial center, with the majority of the population living at this center and at other larger sites within the same geographic region or river valley (Hally 2008, Wood 2009: 2).

Similar patterns are seen elsewhere in the Southeast, particularly in the Oconee River valley. Hatch discusses year-round settlements of uplands, also identified as farmsteads (1995). These types of sites consist of one circular and one to four rectangular structures with likely habitation for nuclear or extended family groups, with crops grown in the floodplains (Hatch 1995: 154-155). These smaller sites are located within 23 kilometers of five mound sites. In addition, Mark Williams states that "the presence or absence of farmsteads seems to be the basic settlement pattern" and that mound centers in the Southeast "had many farmsteads as an integral part of their organization" (1995a:133).

Anderson analyzes sites and chronologies in the Savannah River valley as evidence for polity cycling—or the emergence and collapse of simple-complex chiefdoms where stability or instability causes variations in these settlements, ranging from the paramount or complex chiefdom to simple chiefdoms or smaller, local communities (1994). Anderson provides multiple reasons and factors of possible emergence and collapse of these societies while control or power changed hands with every episode. He also provides a discussion and classification of non-mound sites, such as villages, hamlets, and special activity sites, identified in the Savannah River valley during the Richard B. Russell Reservoir survey (1994: 218-234). These discussions include possible relationships between these sites, but it is unclear as to how these sites fit into the polities of this area.

Other researchers have built upon Savannah River valley site and settlement data, including Blitz, who discusses a fission-fusion pattern based on historical descriptions of Choctaw and Muscogee settlement data (1999). Blitz shows "the chiefdom fission-fusion process brought together or pulled apart mound-affiliated political units to create large or small chiefdoms" which inadvertently caused a variety of settlement patterns over a landscape (1999: 586). This research concludes that political entities

fluctuated between dispersed and concentrated centers where these entities moved and changed the organization to reflect the extent and complexity of the political unit.

This fluctuation created two patterns archaeologically: grouped single-mound sites and isolated multiple-mound sites. Grouped single-mound sites involve contemporaneous single-mound sites within a 20 km radius, while isolated multiple-mound sites involve one multiple-mound site over 20 km away from another contemporaneous mound center (Blitz 1999). Blitz applies this model to mound sites in the Savannah River valley and finds that the most common settlement pattern was the simple chiefdom (n=17), while the least common was the complex chiefdom (n=3). Both the grouped single-mound sites (n=5) and isolated multiple-mound sites (n=10) occurred in greater frequency than evidence for a complex chiefdom. This analysis highlights the complexities in the occupation of the Savannah River valley that typical sociopolitical and settlement pattern studies do not fully explain primarily due to a lack of research and data.

Williams and Shapiro present evidence from two mound sites approximately 16 kilometers apart in the Oconee River valley that represented one chiefdom which alternated between two mound locations, rather than both sites being occupied simultaneously (1990). The authors refer to these types of sites as "paired towns" and further explain how either chiefly succession or exhaustion of resources such as soil depletion, firewood and wild food resources explain the periodic abandonment of sites, with movement to others nearby (1990: 164-173). Proposed pairs in this study are Hollywood and Mason's Plantation, Beaverdam and Rembert, and Red Lake and Lawton sites, all located in the Savannah River valley. However, additional research by Wood (2009: 424) discovered an additional mound site, Spring Lake, in the proximity of the Red Lake and Lawton sites, along with a third mound at Red Lake, making these sites inapplicable to this explanation.

Conclusions

Overall characteristics and patterns present within the larger Mississippian world provide context for understanding the Fitzner North End site. Many non-mound sites exist outside of the Savannah River valley and provide the potential of a greater understanding for this case study examination. Comparative descriptions and architectural grammar over this broad cultural spectrum.

SITE TYPES AND FUNCTIONS

This chapter describes examples of the variety of ways a built human environment is defined and described, also called architectural grammar, from different regions of the Mississippian world. The strategy of how each polity adapted to the environment within the confines of social and political constraints display a unique distribution of sites over the landscape with a balance between nucleated and dispersed settlements. These sites can be arranged into five types of sites: mound sites, "town" or "village," "hamlet," "farmstead" or "homestead," and "limited activity" or "special-use." A "town" or "village" may or may not contain mounds. For the purposes of this study, this chapter will focus on sites with no mounds: "town" or "village," "hamlet," "farmstead" or "homestead," or "homestead," and "limited activity" or "special-use." A "town" or "special-use."

Williams states that an understanding of what qualifies a site as a village, town, or farmstead is vague, and concludes that "clearer use of these terms...is essential if we are to understand the political evolution of Mississippian societies" (Williams 1995a: 133). These terms become convoluted when the definitions and characteristics change based on the region and research history of the site locale.

The terms "town" and "village" are sometimes used interchangeably to refer to a site with many domestic structures, a plaza and habitation area, with or without a mound, together covering 2-8 ha (Mehrer and Collins 1995, Jackson and Scott 1995, Lewis et al. 1998, Payne and Scarry 1998, Hally and Kelly 1998, Schroedl 1998, Stout and Lewis 1998, Gougeon 2007). These sites were occupied year-round, often grew through time, and varied in size and number of occupants. This definition is similar to Lewis and colleague's definition of a "town" where a distinction is made between a "town" and "village" (1998: 9). This study describes a village as a site that has not yet developed into a town but contains no clear definition as to the characteristics or functions of a village (1998: 1-21). Some have referred to a village as a hamlet surrounded by farmsteads; however, most sources agree that a village is a nucleated community (versus a dispersed community). For the purposes of this study, a "town" and "village" are considered to be similar in characteristics and functions based on current literature discussed more indepth in the following section.

Generally, a "hamlet" is thought to be smaller than a village. Definitions range from approximately 10-15 or more domestic structures, together covering a 1-6 ha area (Jackson and Scott 1995, Smith 1995, Kidder 1998). These were occupied year-round, and sometimes have ceremonial/communal structures and/or a plaza and mound. Alternative definitions cite hamlets as seasonally occupied having 3-4 houses and a larger special structure containing burials. Some refer to hamlets as "nodal" locations that socially connected smaller dispersed sites, such as farmsteads and homesteads, to the larger community or chiefdom (Emerson 1997).

A "farmstead" is understood to be smaller than a hamlet. Definitions include 1-3 seasonal or yearround domestic structures over a 0.3-1 ha area, with no communal or ceremonial structure and located near or within farmable, rich soils (Rogers 1995b, Sullivan 1995, Williams 1995a, Hatch 1995, Jackson and Scott 1995, Scarry 1995, Smith 1995). Farmsteads are typically associated with a dispersed settlement system that is part of a larger community or chiefdom. A "homestead" is sometimes used interchangeably with "farmstead" because they are similar in size and function. Pauketat refers to these sites as "household clusters" with "rural house activity" and prefers to use this term over "farmstead" because "farm" implies a specific function and seasonal occupation (1989: 288-310). For the purposes of this study, a "farmstead" and "homestead" are considered to be similar in characteristics and functions based on current literature discussed more in-depth in this chapter.

Another site type is "special-use" or "limited activity." These sites are smaller in size (<0.1 ha) and are used to fulfill a community need (e.g. food procurement, specialized production) (Anderson 1994, Hatch 1995). Artifact density is sparse and contains minimal if any, evidence of structures or seasonal to year-round habitation.

Acknowledging that human activities are fluid and complex, discussions of architectural grammar would naturally reflect the same. The following discussions highlight these types of sites and the variation in characteristics that exist within these terms. For example, two hamlet sites, Emerson and Gray Estate, discussed later in the chapter, are associated with low mounds that have not been excavated, so the context of these mounds is unknown. Some might, therefore, classify these sites as towns or villages, but in this particular case, these sites were classified as hamlets. This problem highlights the need for clarification within the existing literature.

The goal of this chapter is to highlight and summarize existing variation in site descriptions and architectural grammar to compare with results from excavations from Fitzner North End (9SN256). These descriptions will provide context for how the Fitzner North End site might fit into existing community patterns.

Towns and Villages

King (9FL5)

The King site (A.D 1450-1550), located on the Coosa River in Georgia, contains a 1300-footlong ditch and palisade, plaza with one large post in the center, a 48-foot square building or ceremonial structure, and other smaller structures, primarily domestic in function (Hally 2008). This site covers a 2.05 ha area (with three-quarters of this area excavated) and is single-component and likely occupied for 30-40 years with a population of 200-300 people. Elite burials suggest members of the elite resided here along with the remaining population.

Domestic functions usually occur in or around a structure and include refuse relating to food preparation and consumption and craft activities such as pottery making and flint knapping. This domestic structure, or what Hally (2008: 4) refers to as a primary domestic structure (PDS), is a square building constructed in a shallow basin with a wall of posts, outer posts, interior partition walls, and a central hearth. He further explains that this structure is usually associated with a smaller rectangular structure, outer work area, and burials.

King is part of a larger polity known as Rome. This polity contains six sites similar to King, with one site, Nixon, containing a platform mound (Hally 2008: 36-37). Rome covers a distance of 20 km, a manageable day walk, with King as the westernmost site and Nixon as the easternmost site.

There are smaller sites surrounding King that are described as farmsteads and hamlets. Hally concludes that "small Mississippian farmsteads do not appear to be a very common type of site" (2008: 34). There is a possibility that Morton Bend north of King may contain these sites, but Hally concludes

that this is unlikely. Overall, it appears that most people in this region lived in larger towns like King as opposed to dispersed settlements.

Hally (2008: 8-21) discusses historical accounts of site descriptions and uses the term "town" to describe this site. He states that "towns like King constituted distinct communities and formal administrative units within Mississippian chiefdoms... [and] to be identified as such, towns probably had to possess one or more items symbolizing that status" (2008: 145). This site has the most similarities to a village site without a mound: many domestic structures, a plaza and habitation area, occupied year-round and grew through time. The King site also fits into definitions for both villages and hamlets discussed in the next section but based on size and characteristics this site is most like a town or village.

It is hard to say which term is most appropriate-- "town" or "village" since the characteristics of each appear to be fluid. When describing the King site in one instance, Hally states that a *village* chief may have been politically constrained by a *town* council (2008: 138). This suggests that the town council had more power than the village chief. However, it is unclear as to what is specifically meant by this change in terminology. "Village" is used in other instances but not to describe the King site specifically. In many instances, these terms are used interchangeably and are ubiquitous in site descriptions.

Town Creek (31MG2-3)

Town Creek (A.D. 1150-1400), located on the Little River in the Pee Dee River valley in North Carolina, consists of a platform mound, over 40 structures with at least one larger ceremonial structure, palisades, and a plaza over a 1.5 ha area (Boudreaux 2005 and 2013, Ricciardelli 2014). Occupied from A.D. 1150 to 1400, this site exhibits extensive temporal changes, particularly in architecture. Boudreaux discusses a variety of structures: circular, enclosed circular, large rectangular, small rectangular, and medium rectangular (2005). Mississippian occupation begins with small circular structures around a plaza or "a nucleated town," and concludes as a larger site with a platform mound or "a [relatively] vacant center" (Boudreaux 2013: 484). It is unknown how many people would have lived at this particular site. Total Mississippian burials consist of 218 individuals with an elite few buried with prestigious grave goods (Boudreaux 2005).

The socio-political organization changed when public structures replaced domestic houses around the plaza at the time of mound construction (Boudreaux 2007: 112). Mound use appears to be more communal in nature as opposed to a restricted symbolic or ceremonial function. Armour (2014: 1-33) and Boudreaux (2007: 112-115) report that activities on the mound summit most likely included political decision-making and communal feasting and other social events.

Coe (1995) reports 515,589 sherds, 10,994 Mississippian PP/Ks, ceremonial blades, drills, scrapers, hoes, celts and axes, chunky stones, pipes (domestic and ceremonial), human effigies, beads, spoons, gorgets, ear pins, copper, and mica items discovered at the Town Creek site. This wide variety of items represent the domestic and ceremonial/ritualistic activities that took place at this site.

Town Creek is surrounded by smaller sites and is the largest site in the region, therefore functioning as the administrative center for this polity. Ricciardelli (2014: 66) analyzes "hinterland" sites within a 40-km area around Town Creek and notes two interesting patterns. Town Creek reached its maximum population between A.D. 1150 and A.D. 1300 with few dispersed sites within an 18-kilometer area, suggesting a more nucleated settlement pattern with the majority of the population living at the administrative center (Ricciardelli 2014). After A.D. 1300, however, Town Creek was depopulated with the majority of the population relocating to smaller dispersed sites still located within 18 kilometers of Town Creek. With these changes, it is apparent that Town Creek remained the location for ceremonies and rituals for the occupants of this area. Sizes and functions of these "hinterland" sites are discussed but not analyzed or compared.

Boudreaux states that "town" is a useful designation when describing the Town Creek site in regard to domestic and public areas (2013: 486). Extensive regional studies have not been performed to compare this site to others in the area (e.g., what are the characteristics of these "hinterland" sites? And is there a larger site with one or more platform mounds nearby?). Boudreaux does state that this site is "the political and ceremonial center of a simple chiefdom" but admits that this designation gets in the way without larger regional studies (2007: 5). The overall site size is rather small (1.5 ha) and contains a platform mound, making this site a likely ceremonial center instead of a "town" or "village."

This particular site was chosen for this discussion to show the similarities in characteristics between a ceremonial center and a town or village. In some cases, the platform mound is the only obvious architectural difference in characteristics.

Snodgrass and Turner (23BU21)

The Snodgrass site (23BU21b), occupied from approximately A.D. 1300 to A.D. 1450 and located in the Little Black River valley in Missouri, contains 93 structures, 19 burials, a plaza, and a fortification ditch within a 0.82-hectare area (O'Brien and Perttula 2001, Steere 2017). The Turner site (23BU21a) is located 160 meters to the northwest from Snodgrass and was occupied during the same time. Turner contains approximately 43 structures, corn cribs, and 118 burials within a 0.6 ha area (Price 1978, O'Brien and Perttula 2001). Price states that Turner likely served as a burial ground for both Turner and Snodgrass (1978: 227). Combined, these sites total 1.42 hectares.

Artifact types and densities indicate typical household functions at both sites. Larger and deeper structures are located in the western portion of the sites and are separated by a white clay wall at Snodgrass with a possible wall at Turner (Price 1978, O'Brien and Perttula 2001). It is not suggested that this separation indicates status differentiation. Cogswell et al. indicate that artifact type and density vary based on how long the structure was occupied (e.g. the longer the structure was occupied, the more artifacts it would contain) (2001: 227). No structures were identified as ceremonial in nature, but social segmentation is apparent at Snodgrass based on an internal compound surrounding larger structures (Price and Griffin 1979: 139).

Turner and Snodgrass are part of a larger polity associated with the Powers Fort site which contains four mounds (one platform, three burial) over a 4.4 ha area within the Little Black River valley (Perttula 1998). Powers Fort represents the civic center for all other sites in the region and likely served as the location of ceremonies for the surrounding habitation areas (Perttula 1998, Cogswell et al. 2001, Price 1978, O'Brien and Perttula 2001). In addition, ten village, five hamlet, and four farmstead sites are currently identified in this region. The hamlets appear to contain 9-12 structures within a 0.1 ha area but have not been excavated (only surface collections and stain observation). O'Brien and Perttula surmise that perhaps hamlets are "early stages of villages that were abandoned before they grew in size" (2001: 133, Smith 1978). Excavated farmsteads display 1-3 structures <0.1 ha in size. Price categorizes these sites as limited-activity areas based on "minimal population units articulated with the natural environment for extractive and maintenance purposes" (1978: 226); however, O'Brien and Perttula (2001) maintain the "farmstead" designation.

Snodgrass and Turner appear to be classified as "villages" based on site size and not necessarily on characteristics. Within this "village" designation, Price considers these sites to have two size designations: large and small (1978: 227). Snodgrass represents the large variety, and Turner represents the smaller. In comparison to the King site discussed previously, there are approximately 67 structures within a 2.05 ha area, while there are approximately 93 structures within 0.82-hectare area at the Snodgrass site. If categorization is based on size only, some may classify Snodgrass and Turner as hamlets or farmsteads instead of villages or towns.

Annis Village (15BT20)

Annis Village (A.D. 1100-1500), estimated at 1.8 ha in size, is located in the Green River valley in Butler County, Kentucky and consists of a platform mound (15BT2), habitation area with 16 structures, three palisades, and a bastion (Hammerstedt 2005, 2007). It is likely that a portion of the site has eroded away. Hammerstedt states that a plaza was not apparent, but structures could have been built on top during a later time (2005, 2007). The majority of construction occurs within three major building phases.

Artifacts from these excavations reveal mostly habitation related activities: pottery and animal bone with some stone, daub, and shell. The mound and structures in the village did not contain any burials. Hammerstedt states that "excavations of elite contexts at large sites such as Moundville and Cahokia are expected to reveal evidence of nonlocal or prestige goods and extending to control over residents of the nearby area" (2005:17). No specialized treatment seemed to occur for those living on the mound because of the absence of burial or specialized/exotic goods. Therefore, Hammerstedt concludes that "local leaders engaged in their own subsistence tasks… [but that] status distinctions… came with being a chief likely were more symbolic than economic" (2005: 23).

The Annis site is in an area not well understood for regional comparisons. The closest platform mound site is the Andalex mound 56 kilometers away (Hammerstedt 2007). Other smaller sites in the river valley have been excavated, but none similar to Annis to provide any comparison data for larger regional studies.

The Annis site is broken down into two separate sites: the mound and the village. Hammerstedt states that the village portion "can be treated as a distinct entity... [because] surface surveys show that the density of artifacts drops off considerably outside the area circumscribed by the palisades, indicating that significant habitation did not occur outside this area" (2007: 68). No evidence of deferential treatment for a small number of individuals was noted at the mound or within the habitation area (no specialized/exotic goods or elite burials). This evidence deviates from the traditional administrative center with at least one or more platform mounds. Based on these characteristics and functions, Annis is most similar to either an administrative center or "town" or "village," but additional survey, excavation, and analysis within the region will provide context to better understand this site.

Hamlets

Emerson (16TE104)

The Emerson site, located on Lake Formosa in the Mississippi River valley, Louisiana, consists of two midden patches that likely represent two houses (Kidder et al. 1993). A small mound is located near these midden areas, but it is unknown if it is prehistoric in nature. The extent of this site is unknown and only 5.5 square meters has been excavated. Kidder states that similar sites are "roughly 20 to 30 meters in diameter" which is approximately 0.008 hectares (1998: 145). Two radiocarbon dates show time periods of A.D. 1066-1157 and A.D. 1415, respectively.

Artifacts include sherds, stone tools and debitage, and fauna and flora materials with corn present in all samples. Kidder and colleagues state that corn "assumed a significant role in the diets of the Emerson inhabitants," with other wild foods for supplementation (1993: 133). The current artifact assemblage is void of any specialized and/or non-local goods; however, the mound still needs to be excavated. Kidder et al. state that this site is a short-term, year-round, single component site (1993: 110). Other sites similar in size and function occur in the area, indicating a dispersed settlement pattern. It is unknown how Emerson fits into the larger Mississippian world, but it was likely socially integrated and linked to larger sites (Kidder et al. 1993: 137). Kidder concludes that Emerson and similar sites appear to "emerge as the predominant non-mound Mississippian settlement type" (1998: 144).

Kidder and colleagues classify Emerson as "a house site, or possibly a small farmstead/hamlet" (Kidder et al. 1993: 110) and a "small house site or hamlet" (Kidder 1998: 144). In this case, the terms "hamlet" and "farmstead" are used interchangeably and not clearly defined. In some cases, definitions of these two types of sites are very different. The low mound located nearby has not been fully investigated and does potentially suggest that Emerson could have played a larger role in socio-political activities and be classified as a hamlet. However, based on current information and excavations, site characteristics demonstrate the most similarities with either a farmstead or homestead because there is no evidence of social stratification.

Gray Estate (11LW243)

The Gray Estate site (A.D. 1050-1500), located in the floodplain of the Wabash River valley in Illinois, consists of a central plaza, a low mound, a dark midden area, and approximately 1-2 rows of houses within a 2-hectare area (Winters 1967). No extensive excavation has occurred at this site; therefore, there is no knowledge of mound function, architecture, burials or other features.

Artifacts include sherds, stone tools, effigy vessels, and gorgets (Winter 1967). This wide variety of artifacts indicates domestic habitation along with ritualistic/ceremonial activities. A large amount of animal bone and mussel shell shows local resource exploitation of the rich floodplain sources. There is no direct evidence of horticulture, but the floodplain location indicates this is a high probability. It is unknown if this site was occupied seasonally or year-round.

Nearby sites include the multi-mound Otter Pond ceremonial center and other similar hamlet sites that are "tightly clustered with distances of one to five miles between settlements (Winters 1967:71).

Winters also mentions smaller "minor occupations" such as farmsteads or camps on the "lower outliers of hill masses" but does not discuss artifacts or characteristics of these sites in any detail (1967: 71-72).

The Gray Estate site fits into the definitions of a "hamlet:" likely domestic structures and ceremonial/ritualistic architecture, a plaza, and a dark midden area. Winters states that this site is "the best picture of a hamlet" in the region primarily because of its single occupation and undisturbed nature (1967: 72). Barth also indicates that this is "probably a typical hamlet" (1991: 259). However, because the function of the mound is unknown (platform or burial mound), this site could also be classified as an administrative center or "town" and/or "village."

Farmsteads and Homesteads

Monroe (9PM1428)

The Monroe site (A.D. 1500-1550), located on an upland ridge in the Little River valley in Putman County, Georgia, contains a large circular house (7 m diameter) with little refuse inside, two smaller rectangular structures, presumed to be a cooking shed and a storage building within an approximately 0.56 ha area (Williams 2006). Three larger circular features are thought to represent clay processing pits for wall daub. No burials are present, suggesting that this site was occupied less than 10 years. It is assumed that the residents had close relationships or kinship ties in the surrounding community.

Williams (2006) reports a high-density of sherds (n=16,274) along with chert and stone tools (*e.g.* hammerstone, PP/K, biface) and debitage (n=3,053). Other artifacts include ceramic disks, pipe fragments, and beads. Disks are common at mound sites and special purpose sites, yet their function is unknown. Williams reports the presence of only four disks from Monroe and notes that other similar sites in Greene County, Georgia also contain low numbers of these artifacts (2006: 39-40). Williams states that a high-density of pipe fragments likely indicates not only ceremonial tobacco use but tobacco use in "family-based ceremony[ies]" with no inter-site use locale (pipe fragments were found all over the site) (2006: 40). Beads reflect personal adornment and are found at the administrative center (Little River

9MG46) and similar sites surrounding Monroe. These more permanent, self-sufficient sites possibly produced beads to trade for income supplementation (Blanton 1995: 23-24).

Monroe is surrounded by similar sites in function and economy that have been classified as "farmsteads." Hatch (1995: 154-155) explains that farmsteads in the Oconee River valley were typically constructed on gentle slopes on uplands a good distance away from either the Oconee or other tributary streams. Erosion, soil nutrient depletion, and labor costs due to weeding of farming plots are cited as reasons for site abandonment and relocation. This intensive land use strategy, such as land clearing, created "more habitat for small game as well as edge and disturbed habitat plants" (Hatch 1995: 155).

The Monroe site fits into the definitions of a "farmstead:" one circular domestic structure, two smaller structures (likely corn crib and kitchen or cooking shed), 0.56 ha in size with no communal/ceremonial structure, located within farmable soils, and associated with a larger dispersed settlement system. The term "homestead" could also be used to describe this site but is not typically used to describe these types of sites in this particular area.

Alarka (31SW273)

The Alarka site (A.D. 1640-1665), located on an upland mountain cove in the Little Tennessee River valley, contains a circular or octagonal structure, a rectangular structure, an outbuilding, and storage areas spanning a 0.32 ha area. Structure rebuilding and repair is not evident. Shumate and colleagues state that this site was used by a single-family unit, with the rectangular structure representing a summer house and the circular or octagonal structure representing a winter house (2005: 8.6). No burials are present at this site.

Artifact types and numbers indicate domestic functions and include sherds, lithic debitage and other stone tools, pipe fragments, trade beads, and an iron celt. Shumate and colleagues state that the diagnostic sherds exhibit social integration of Alarka into the larger Cherokee world (2005). Sites like Alarka (*e.g.* farmsteads) are typically located near other similar sites; however, current surveys in the area of Alarka have not documented evidence of these sites. The closest known site is Tessentee Town,

approximately 1.5 km away, which probably served as the ceremonial and social center for the Alarka inhabitants.

The location of Alarka likely allowed the residents to easily adapt to climate variation by providing a rich floodplain and source of water/moisture for horticultural activities. Despite these conditions, this site exhibits no direct evidence of farming activities, except for carbonized peach pits. Shumate, Riggs, and Kimball state that this site was ideal for horticultural activities and could have been a peach orchard as opposed to a cornfield (2005).

Alarka fits into the definitions of a "farmstead:" two domestic structures with no communal/ceremonial structure, 0.32 ha in size, located near rich soils, and associated with a larger dispersed settlement system. The term "homestead" could also be used to describe this site. *Apalachee Hill (8LE148)*

Apalachee Hill (approx. A.D. 1500-1700), located off Piney Z Lake east of Tallahassee, Florida, consists of a circular/oval structure (6.8 m diameter) and a rectangular/oval structure (3.65 m wide) interpreted to be a winter and summer house, respectively, along with a possible barbacoa and a 2.4 m diameter circular storage structure and a storage pit (Bierce-Gedris 1981). The limits of this site are approximately 0.1 hectares with apparent rebuilding. Bierce-Gedris states that "horticultural fields were tentatively identified as two roughly east-west bands" (1981: 320). No structures display possible social stratification or ceremonial/ritualistic functions.

Artifacts include sherds, stone tools and debitage, pipe fragments, disks, glass beads, and iron fragments. Apalachee Hill experienced or was affected by Europeans later in its occupational history. No artifacts displayed stratification or ceremonial/ritualistic functions except for the disks which are currently unknown in function. This site contains flora and fauna evidence—fish, reptiles, birds, corn, nuts, berries, and persimmons (Bierce-Gedris 1981: 326). This shows that the inhabitants farmed and exploited local, wild resources for diet supplementation.

Scarry states that "Apalachee settlements were hierarchically structured" (1995: 215). The Fort Walton platform mound is located approximately three miles from Apalachee Hill (Bierce-Gedris 1981: 5-6). Scarry aggregates data from seven other similar sites and concludes that most Apalachees lived in homesteads likely consisting of single nuclear families located near exploitable natural resources (1995: 212-215). These sites likely contributed goods and labor to the larger society.

Bierce-Gedris states that the Apalachee Hill site was a long-term occupation site, typical of "Leon-Jefferson period mission-village sites" (1981: 320-329). Scarry interprets this same data as an "Apalachee homestead" representing the base level of settlement order (1995: 203-221). New data since the original excavation in 1981 likely changed the original designation of a "village" site to a "homestead" site.

Apalachee Hill fits into the definitions of a "homestead:" two domestic structures with no communal/ceremonial structure, 0.1 ha in size, located near rich soils, and associated with a larger dispersed settlement system. The term "homestead" could also be used to describe this site.

Esterlein (11MS598)

The Esterlein site (A.D. 1000-1150), located in the Mississippi River valley, Illinois, consists of four occupation areas within an eighteen-hectare area, and two rectangular structures in two out of the four occupation areas (Jackson and Dunavan 1990). The first rectangular structure is identified in an area referred to as "Cluster 1" and is associated with four pit features, while the second rectangular structure is identified in an area referred to as "Cluster 2" and is associated with two internal pits and one external pit (Jackson and Dunavan 1990: 151-169). Each "cluster" appears relatively small in size based on report maps, but the size of each individual cluster is not well defined by the report authors. Jackson and Dunavan state that "each cluster is believed to represent a discrete settlement area" (1990: 169). Therefore, the Esterlein site consists of at least two individual farmsteads/homesteads. No burials are present, and no structures display social stratification or ceremonial/ritualistic functions at any internal "cluster locations."

Artifacts include sherds, lithic tools and debitage, hammerstones, and a metate. No artifacts displayed stratification or ceremonial/ritualistic functions. This site contains evidence of corn, squash/pumpkin, may grass, and nuts. Jackson and Dunavan state that there is no evidence of year-round

occupation based on these remains (1990: 194). Inhabitants likely exploited the rich floodplain through horticulture/agriculture and wild seasonal plant foods.

The largest site near Esterlein is McDonough Lake which has not been subjected to intensive excavations (Jackson and Dunavan 1990). Another larger site is Bishop which consists of one mound but has also not been subjected to intensive excavations. Other sites in the vicinity include smaller sites with ceremonial/ritualistic functions (i.e., Davinroy East and Sponemann) and other sites like Esterlein (Willoughby, Sandy Ridge, Olszewski, and Karol Rekas) (Jackson and Dunavan 1990: 199).

Jackson and Dunavan conclude that Esterlein consists of "Mississippian feature clusters...interpreted as short-term, family-occupied homesteads" (1990: 204). They define "homestead" as "a type of settlement consisting of an isolated habitation compromised of a small number of subsurface features occupying [a]...restricted segment of land [with no apparent] ...specialized ceremonial purpose" (1990: 9). The layout of Esterlein is atypical to traditional site reporting methods (i.e., made up of more than one "homestead" site). However, at least one occupational area appears to relatively fit into the definition of a "homestead:" one domestic structure, no evidence of communal/ceremonial structures or activities, located near rich soils, and associated with a larger dispersed settlement system. The term "farmstead" could also be used to describe this site.

Special-Use or Limited Activity Sites

Punk Rock Shelter (9PM211)

The Punk Rock Shelter site (A.D. 1250-1650), flooded by Lake Oconee in the Oconee River valley, Georgia, consists of a pile of large granite boulders that provides minimal shelter from the elements and is only accessible through a narrow opening in the side or through an opening at the top (Williams 1990: 2-4). The floor area consists of approximately 29.75 square meters (0.003 hectares) and is too small for habitation. No burials or evidence of structures were observed at this site.

Artifacts include pottery, fire-cracked rock, possible hammer stones, red pebbles, pipe fragments, and evidence of wood burning (charcoal and ash) with no evidence of flora or fauna remains or tool production/use (Williams 1990). This limited variety of artifact types displays non-habitation or temporary/special use functions. Other sites in the area include 9GE175 across the river which contains evidence of food processing (Williams 1990: 53). The area outside of the rock pile was not investigated.

Williams compares data to six possible site functions: normal habitation, seasonal habitation, pottery production, spring site, clay source, and "ceremonial" area (1990: 53-63). By process of elimination, he concludes that this site likely fell into the "ceremonial" area category and suggests a sweat bath function. Historically "considered a medical cure rather than a religious activity," Williams discusses how the importance of tradition likely created a local, cultural sacredness for the location (1990: 56-57).

Punk Rock Shelter fits into the definitions of a "special-use" or "limited activity" site: no structures or evidence of habitation and approximately 0.003 hectares ha in size. This site likely fulfilled a sacred or medicinal need for the local community from about A.D. 1250-1650.

Great Salt Spring

The Great Salt Spring site (A.D. 900-1600), located on the Saline River in Illinois, consists of prepared clay hearths 50-100 cm in size, storage pits, a large midden, and artifact scatter over a 9-hectare area (Muller 1984). Muller states that people during this time period likely traveled from their habitation area(s) to specialize in salt production (1984: 494-506). A saltpan was likely filled with water from the Saline River and would have either been heated with boiling stones and/or placed on a fire in a prepared clay hearth to hasten the evaporation process in order to obtain the salt from the water (1984: 491-492). Habitation at this site would have been temporary in nature and there is no evidence of structures or burials.

Artifacts include large numbers of broken rock and salt pan sherds, stone tools and debitage, elaborate/exotic sherd designs and adorns. The salt was likely exchanged/traded for these exotic items. Muller states evidence of mussels and animal bone indicate food processing activities and some type of minimal habitation (1984: 504). These artifacts occur in a uniform pattern over the expanse of the excavated area.

Sites surrounding Great Salt Spring include Kincaid and Angel, both multiple mound ceremonial centers, surrounded by smaller sites, including hamlets, homesteads, and isolated farmsteads. Muller

notes that there is no reported evidence on "limited activity" sites in the area (1984: 490). There is a village reported nearby the Great Salt Spring site, but it has yet to be tested.

Muller concludes that this site is a "classic example of a 'limited activity' or specialized site" and functioned as a part-time or seasonal, small-scale production site with a possibility of full-time specialization based on the larger prepared clay hearths and domestic activities at the site (1984: 504-505). The Great Salt Spring site fits into the definitions of a "special-use" or "limited activity" site: minimal evidence of habitation, no structures, and utilized for resource exploitation. The site size is much larger than traditional definitions—a difference of 8.9 hectares—but this is likely because of continuous use spanning from the Late Woodland to the Late Mississippian time periods and space needed for resource processing.

Conclusions

Overall, data of non-mound sites exists over the Southeast with more studies beginning to define the architectural grammar of smaller social units. However, sites that fall into this category appear to be more complicated to describe and report without a defined architectural grammar based on characteristics and patterns of a particular community. Intensive excavations at hamlet sites are particularly hard to locate for the following possible reasons: limited use or unpopular terminology, based on where a researcher went to school, a term used to describe a settlement in Europe (according to the Oxford English Dictionary), not applicable to Mississippian habitation sites, similar to or "lumped" in with towns or villages, or because no such sites fall into this category.

This cursory look into site functions and 'types' begs the question: What conclusions and summaries can be made for classifying site types and economies? Is there quantifiable data to confirm or deny these current classifications? Stanley South states that

Pattern recognition is a basic methodological approach... Without quantification, however, there can be no explicit pattern recognition. Without pattern recognition, there can be no archaeological science (1977: XIV).

This pattern recognition happens regularly, but a clear architectural grammar or ways to describe the built environment is needed in order for archaeologists to begin to further understand this information. Based on this literature review and for the purposes of this study, I define a town or village as containing from approximately 20 to 100 domestic structures, one or more ceremonial/communal structures, and no platform mound over a 1.5 hectare or greater area. These sites can have elite burials and communal architecture such as a plaza, ditch and/or palisade. Communities considered to be hamlets have a wide variety of characteristics and range in size from large (3 to 6 hectares, 10 to 15 domestic structures) to small (1 to 3 hectares, 3 to 4 domestic structures) with no platform mound, at least one ceremonial or communal structure, and sometimes may contain a plaza and elite burials. The data on these types of sites is limited and convoluted, making it difficult to clearly define. This type of site is similar to a town or village but is usually smaller in size and does not contain the variety of communal architecture and a large number of domestic structures. This variety might have developed through time if a particular hamlet was inhabited for a longer period of time.

A farmstead or homestead is usually located near farmable and rich soils and contains 1 to 3 domestic structures with no communal/ceremonial structure or mound over a 0.3 to 1-hectare area. These types of sites contain a variety of artifacts and features associated with domestic habitation with no evidence of larger communal gathering or exotic goods relating to social stratification.

Limited activity and special-use sites are similar in characteristics: little to no domestic or ceremonial/communal structures, no mounds, and fulfill a community need. The size of these sites can vary, as we saw with Punk Rock Shelter (0.003 hectares) and Great Salt Spring (9 hectares). These types of sites lack the variety of domestic artifacts and features seen in habitation sites like farmsteads and homesteads.

Site type definitions are presented in Table 3.1.

Site Type	Size	Habitation Area/ Domestic Structure(s)	Ceremonial or Communal Structure(s)	Mound(s)	Notes	Example(s)
Town or Village	≥1.5 ha	20-100	≥1	No Platform Mound	Can have a plaza, ditch, palisade, and elite burials	King, Snodgrass and Turner
Hamlet	3-6 ha, 1-3 ha	10-15, 3-4	≥1	No Platform Mound	Can have a plaza and elite burials Similar to a town or village but on a smaller scale	Gray Estate
Farmstead or Homestead	0.3-1 ha	1-3	None	None	Near farmable and rich soils	Monroe
Limited Activity and Special-Use	≤0.1 ha, ≥0.1 ha	Little to none	Little to none	None	Fulfills a community need	Punk Rock Shelter, Great Salt Spring

Table 3.1. Summary of Non-Mound Site Types.

COASTAL PLAIN ENVIRONMENT

The Coastal Plain physiographic region of the Savannah River valley exhibits a range of environmental characteristics that affect cultural occupations. The Mississippian Period (A.D. 1000-1600) occurs in the later postglacial period of the Holocene (7,000 B.P. to present). During this time, pines largely replaced oak forests, then water levels rose to create cypress swamps, interior wetlands, floodplains, etc. (Brooks et al. 1990). It is hypothesized that these extensive pine forests created "barren" resource areas, restricting habitation to "periodically flooded terraces" ideal for cultigen production (Anderson 1994: 260-261). Since this time, large-scale environmental changes have leveled off and modernized with yearly variation with dry or wet seasons still occurring (Schnell and Wright 1993: 6). The modern active floodplain areas in this region have been in place for approximately 2000 years (Brooks et al. 1990). These types of environmental changes along with location of natural resources can be utilized to explain certain cultural behaviors, such as habitation location based on farmable soils and lithic and clay resources for tool and vessel production.

Limited geoarchaeological research completed in the Savannah River valley creates a problem in fully understanding environmental change through time to present day. Paleo-environmental studies offer general information but do not provide a holistic understanding of the local environments in context with archaeological site data. Brooks et al. state that most of the studies occurring in the Coastal Plain physiographic region relate archaeological evidence with riverine systems (1990: 19). These studies also provide valuable information but not a well-rounded cultural environmental history of the region.

A summary of available environmental data follows in order to contextualize the Fitzner North End site and link cultural adaptations to the environment.

Physiographic Province – The Coastal Plain

The Fitzner North End site is located within the Vidalia Uplands, just north of the Barrier Island district of the Coastal Plain physiographic province (Figures 4.1 and 4.2). Located below the Fall Line and Piedmont, the Coastal Plain exhibits sandy soils, floodplains, and low-elevation ranging from approximately 650' to less than 100' descending step-like coastal terraces towards the Atlantic Ocean.

The Vidalia Uplands are defined by Clark and Zisa as gravelly, clayey sands with narrow floodplains and expanding swamps along major rivers with the southeastern boundary terminating at the Orangeburg Escarpment (150' elevation) at the Savannah River (1976). The Barrier Island district also contains coastal terraces with barrier islands and salt marshes.

Similarly, Schnell and Wright discuss another physiographic categorization based on Francis Harper's 1930 work where the Fitzner North End site is located in the Flat Pine Land, near the Lime Sink and Wire Grass regions (1993). This particular sub-region is characterized by sands and low elevations (below 30 m) with poor drainage and forests consisting of pines, cypress, bay, and black gum trees. The Lime Sink region is dominated by limestone with long-leaf pine and wiregrass as the prominent vegetation but also contains oak, slash-pine, pond cypress, and various hardwoods. The Wire Grass region consists of moderate hills, streams, swamps, and sands over clays with both pines and hardwoods.

These different district types show that the Coastal Plain is environmentally diverse with local variation making a potentially inhabitable area easier to occupy when other nearby districts contain different resources. The Fitzner North End site is located near the confluence of a creek and river with low elevation uplands, floodplains, marshes, sandy and clayey soils, and pines and hardwoods (Figure 4.3). These environments provide a variety of resources for sustenance and travel by rivers and streams for inhabitants.

Geology

Geology of the Coastal Plain consists of sedimentary rock, sands, and clay over a low, relatively flat plain. Veatch and Stephenson subdivide the province into six regions where the Fitzner North End site is located in an area called the Altamaha Uplands (1911). This region, considered only an upland based on the comparison to other physiographic regions, consists of "gray, yellow, or light brown, unconsolidated, structureless quartz sand" parallel to most streams/rivers and ranges to three miles thick (1911: 33). Across the Savannah, Coastal Terraces are located adjacent to the river. These terraces contain clays, sands, and gravels characterized by low elevations and prehistoric shorelines (Cooke 1936). The Georgia Environmental Protection Division and the U.S. Geological Survey describe typical soils within this geological region (USGS 2017). Based on this information, the site is located in a stream alluvium area with undifferentiated terrace deposits created from Holocene sediments (12,000-11,500 years ago) from the Neogene period (23-2.6 mya) of the Quaternary era (2.6 mya-present) (Figure 4.4). Just outside of this area to the west are Neogene undifferentiated soils with outcrops of sandstone and clay including Altamaha Grit, Citronelle Formation, and Hawthorne Formation created from Miocene and Pliocene sediments from the Neogene period. Across the Savannah, soils are classified as Alluvial Valley Swamp consisting of unconsolidated deposits of gravels, silts, sands, and clays from the Holocene, and Duplin and Waccamaw Formation on weathered coastal terraces of silty and shelly sands, and sandy and silty clays over sandstone created from Pliocene sediments from the Neogene period (USGS 2017). Microcrystalline quartz or chert outcrops can be found in these geological conditions thanks to the meandering, alluvial water systems.

Web Soil Survey (WSS) through the USDA's Natural Resources Conservation Service (NRCS) lists the soils at Fitzner North End site as Chastain and Tawcaw (CAA) clay loam over loamy sand with slopes of 0-2 percent in the floodplain that is frequently flooded and somewhat poorly drained (NRCS 2016, Figure 4.5). To the south of the site are Bladen fine sandy loams (BdA), which are similar to CAA soils but occasionally flooded and located on stream terraces. Directly to the west is Eulonia sandy loam (EuA) with slopes of 0-3 percent on stream terraces that are moderately well drained and classified as "prime farmland." Web Soil Survey describes "prime farmland" as

"land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops...[to] be cultivated land, pastureland, forestland... [with] soil quality, growing season, and moisture supply...needed for the soil to economically produce sustained high yields of crops [which includes] adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges from 0 to 6 percent." (2016)

Figure 4.6 displays the acreage of farmable land based on soil data from the NRCS mentioned previously within a one-mile radius of the Fitzner North End site. The 107.9 acres (43.67 hectares) of ideal soils show that horticulture was feasible at this location despite frequent flooding episodes of the Savannah River and Brier Creek.

Water Systems

The Savannah River watershed (Figure 4.7) is divided into sub-basins with the site located at the convergence of the Middle Savannah River, Lower Savannah River, and Brier Creek sub-basins (GA DNR 2001). The Middle Savannah River begins near Augusta and ends at Brier Creek and is dominated by floodplains and wetlands. The Lower Savannah River begins at Brier Creek and ends at the Atlantic Ocean and contains mostly blackwater streams, wetlands, and floodplains. Brier Creek is a tributary of the Savannah beginning near the city of Warrenton and ending just north of the Fitzner North End site. This sub-basin is similar to the others in that it contains extensive floodplains and wetlands. Underground water systems consist of the Floridian aquifer which extends south from Burke County to the coast and ranges from approximately 30 to 400 feet thick under sandy clay with sands and shale, and limestone beds (GA DNR 2001).

The Savannah and Brier Creek water systems remove and deposit sediments through time, creating a dynamic and changing environment needed for the successful wetland ecosystem. Frequent or constant flooding over low elevations creates and maintains the wetlands and floodplains. Low elevations and "soft" geology also cause water bodies to meander, removing and depositing soils, which cause cutoffs, oxbow lakes, topographic diversity and sediment sinks in the floodplain (Constantine et al. 2010). Additional changes result from two hydrologic seasons of the meandering, alluvial water systems: the low-flow from June to October consists of channel meandering, and the high-flow (hydroperiod) from November to May consists of flooding and inundation (Hupp 2000). This alluvial system causes seasonal floodplain changes that support other ecosystems such as forested wetlands or Bottomland Hardwood (BLH) forests discussed in the following section (Constantine et al. 2010).

Stream and river terraces are formed over long periods of time by fluvial processes such as levees and point bars. Saucier defines a terrace as "a relatively linear level to gently inclined surface that is bounded on one side by a steeper ascending slope (e.g. a dissected upland) and on the other by steeper descending slope to a lower level (e.g. a stream floodplain)" (1994: 81). Levees increase in size over time and are located on the cut bank or concave side of the river, while point bars are eroding, preexisting levees located on the other side (aka convex side) of the river. These processes form the stream and river terraces typical of this region.

The area of Fitzner North End between Brier Creek and the Savannah River is part of this meandering floodplain and wetland system which provides access to a variety of ecosystems. The geologic data shows stream terraces located nearby. The Federal Emergency Management Agency (FEMA 2010) lists the site in a 100-year floodplain (Zone A) subject to a one percent annual flood rate (Figure 4.8). Over the course of excavations of the past year, flooding occurred in January or the high-flow (hydroperiod) season. This flooding extended approximately 50 feet north of the site location (Figure 4.9). These flooding events likely deposited nutrient-rich silts at Fitzner North End, renewing soils and creating an ideal growing environment for crops and low maintenance horticultural practices.

Flora and Fauna

Flora and fauna are affected by geologic and fluvial systems through elevation and seasonal lowflow and high-flow or flooding (deposition and removal of sediments) episodes. Hupp states that "small differences in elevation, often measured in centimeters, may lead to pronounced differences in the hydroperiod, and thus to community composition" (2000: 11). Plants and animals have adapted to these anaerobic conditions, causing changes in vegetation within short distances based on minute elevation differences forming ecosystems.

The primary ecosystem in this area is the Bottomland Hardwood (BLH) Forest located in the palustrine system or forested wetlands. These forests are in the floodplain near streams or rivers where yearly flooding is necessary to maintain the ecosystem balance. The BLH ecosystem is further subdivided into Level IV ecoregions of similarities based on patterns and characteristics of the environment such as

geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology as defined by the EPA (2013), Allen and colleagues (2001), and Omernik (1987). The Fitzner North End site is located in the Floodplains and Low Terraces and surrounded by Southeastern Floodplains and Low Terraces, Sea Island Flatwoods, Atlantic Southern Loam Plains, and Carolina Flatwoods (Figure 4.10).

Floodplains and Low Terraces and Southeastern Floodplains and Low Terraces are similar in that they are characterized by slow rivers and backwaters (ponds, swamps, oxbow lakes) with hardwood forests containing hardwoods and softwoods (cypress, water tupelo, and oak); however, Floodplains and Low Terraces are lower in elevation and contain more stream alluvium, and, subsequently, more fluvial sediment movement (Griffith et al. 2001). Sea Island Flatwoods are poorly-drained to semi-drained with pines (loblolly, slash) and hard and softwoods (water oak, willow oak, sweetgum, black gum, cypress) in the wetter areas. Atlantic Southern Loam Plains or Vidalia Upland are poorly-drained to semi-drained with pines (longleaf), turkey oak forests, and evergreen shrubs. Carolina Flatwoods are wider uplands and lower poorly drained areas with pines (loblolly) and a wide variety of plants (Griffith et al. 2002).

Hupp cites that these ecosystems maintain the water quality and support "the greatest biodiversity in the world" (2000: 2-3). Hardwood tree species include oak, green ash, sweetgum, elm, red maple, water hickory, and others; and softwood species include bald cypress, water-tupelo, cedar, and others (Allen et al. 2001). Other plant resources include seeds, shoots, shrubs (e.g., berries), vines, and herbs (Brooks et al. 1990). Prehistoric cultigens utilized for horticultural/agricultural practices included corn, beans, squash, pumpkins, gourds, sunflowers, types of greens, and tobacco (Bowne 2013). Examples of terrestrial fauna include deer, rabbit, beaver, raccoon, squirrel, bear, wood ducks, turkey, geese, and hawks; while aquatic fauna includes mussels, fish, and turtles. Brooks et al. state that these resources would have been easy, low-cost subsistence strategies depending on the season (1990: 46). The archaeological record shows that these biodiverse floral and faunal resources have attracted and supported human populations since the mid to late Holocene when the environment "stabilized" compared to previous epochs. In addition to an ideal growing environment due to seasonal flooding episodes, the ecosystem at Fitzner North End offered a variety of flora and fauna for diet diversification. This site is located nearby five different ecoregions, offering its inhabitants a wide range of exploitable plants and animals for sustenance.

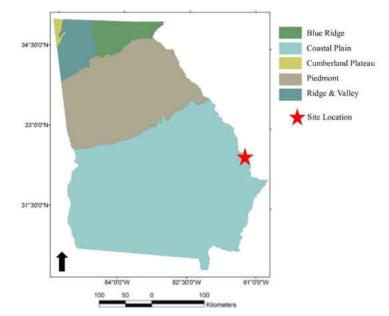
Climate

Climates affect geology, water systems, and flora and fauna. Weather from the west mixes with weather from the Atlantic Ocean and warmer weather from the south creating a yearly variation of temperatures ranging from 48 to 81 degrees Fahrenheit with a mean of 70 percent humidity (Brooks et al. 1990: 36). This produces a "humid, subtropical climate with mild winters and extended warm humid summers" (Elliott and Doyon 1981: 11). Brooks et al. state that this region is "characterized by warm, humid summers and mild winters, having an average annual rainfall of 117 cm" (1990: 1).

The mild climes promote the diverse environment at Fitzner North End making resource procurement easy and ideal for its inhabitants.

Conclusions

The environmental characteristics of the Savannah River and Brier Creek floodplain and surrounding ecoregions display enough variety and productivity to support human habitation. The local physiography, geology, and fluvial patterns surrounding the Fitzner North End site allowed the people at this location access to a diversity of seasonal subsistence methods, including horticultural potential, with mild temperatures and moderate precipitation. This next chapter will discuss how past populations adapted to this environment through time and the major cultural changes seen archaeologically.



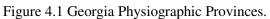


 Image: Construction of the second second

From William Z. Clark and Arnold C. Zisa Georgia Department of Natural Resources, 1976

Figure 4.2 Physiographic Map of Georgia (Clark and Zisa 1976).

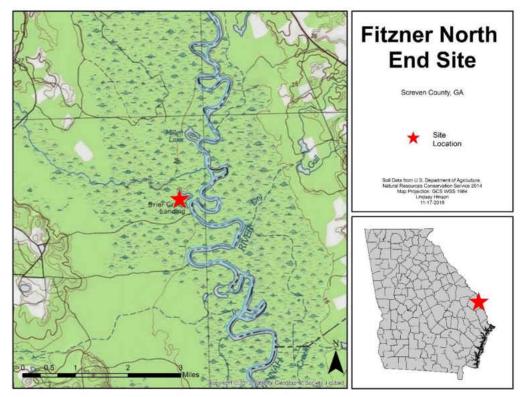


Figure 4.3: Fitzner North End Site Location.

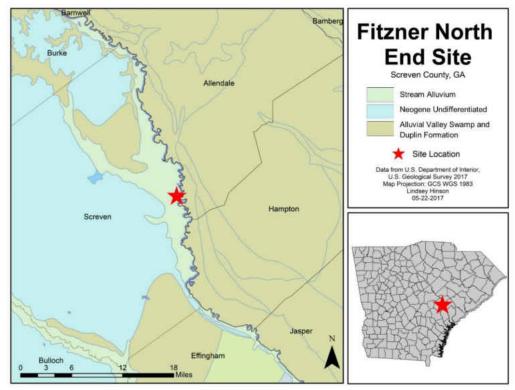


Figure 4.4 Map of Soils (USGS 2018).

Figure 4.5: Soils Surrounding Site Location (NRCS 2016).

Figure 4.6: Farmable Land Based on Soil Type (NRCS 2016).

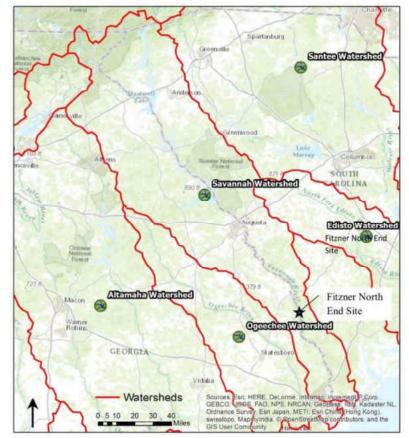


Figure 4.7: Savannah River Watershed (GA DNR 2001).

Figure 4.8 FEMA FIRM 100-year Floodplain (FEMA 2010).



Figure 4.9 View from the site, facing north (1/7/17).

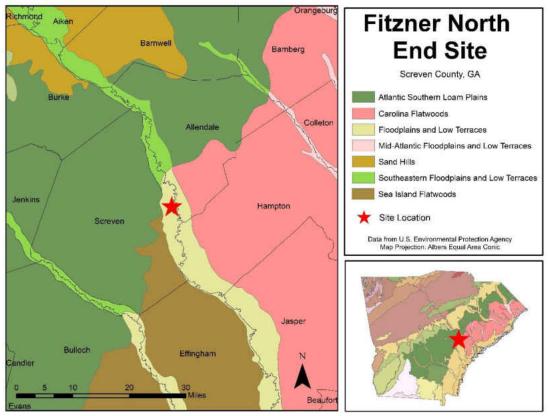


Figure 4.10 Level IV Ecoregions (EPA 2013, Omernik 1987).

SAVANNAH RIVER VALLEY CULTURAL OCCUPATION

Chronology

The interior Coastal Plain region or middle Savannah River begins south of the Fall Line and ends north of the coastal zone and exhibits a unique cultural history, where the "Mississippian" lifeways developed gradually and spread slowly through. This cultural chronology is still being studied and refined for this region. Wood discusses the well-defined Middle Mississippian Hollywood (A.D. 1250-1350) phase and the provisional Early Mississippian Lawton (A.D. 1100-1250) and Late Mississippian Silver Bluff (A.D. 1350-1450) phases (2009, Table 5.1). King and Stephenson (2016) with data from Brummitt (2007) further refine the Late Woodland (Savannah I) and Early Mississippian (Sleepy Hollow and Lawton) period based on work at the Savannah River Site (SRS) (Table 5.2).

Time Period	Phase	Dates
Late Woodland	No defined ceramic phase	A.D. 650-900
Early Mississippian	Lawton (provisional)	A.D. 1100-1250
Middle Mississippian	Hollywood	A.D. 1250-1350
Late Mississippian	Sliver Bluff (provisional)	A.D. 1350-1450

Table 5.1 Cultural Sequence of the Middle Savannah River. (Wood 2009).

Time Period	Phase	Dates
Middle Woodland	Deptford	500 B.CA.D. 500
Late Woodland	Savannah I	A.D. 900-1200
Early Mississippian	Sleepy Hollow	A.D. 900-1100
Early Mississippian	Lawton	A.D. 1100-1250
Middle Mississippian	Hollywood	A.D. 1250-1350
Late Mississippian	Sliver Bluff	A.D. 1350-1450

Table 5.2 Cultural Sequence of the Middle Savannah River. (King and Stephenson 2016).

Late Woodland is characterized by dispersed upland settlements occupied by small-scale egalitarian communities who utilized cord marked pottery and hunting and gathering supplemented by horticulture as primary subsistence strategies (King and Stephenson 2016). Rarely, Napier and Woodstock Complicated Stamped are found in this region but are typical of sites in the Piedmont (Wood 2009:60). Around A.D. 900, the appearance of complicated stamped pottery, identified as Sleepy Hollow indicates "Mississippian" attributes, while no other cultural changes, such as more reliance on horticulture and cultigen crops, are apparent. The Sleepy Hollow phase is based on a collection from one site and is still considered provisional (Stephenson 2011: 107). Pottery associated with this phase consists of rectilinear and curvilinear designs like Pisgah in North Carolina. Brummitt finds that the inhabitants at these two locations adapted to their local environments differently and concludes that this pottery is representative of a regional culture sphere developed through communication and exchange networks (2007).

King and Stephenson (2016) identify Lawton (A.D. 1100-1250) as a third phase occurring in the Early Mississippian period based on research by Anderson (1994) at the Lawton site. Lawton pottery is described as rectilinear complicated stamped designs with corncob impressions, occurring alongside Etowah Complicated Stamped, Savannah Complicated Stamped, plain, burnished plain, cord marked, and check stamped (Anderson 1994). However, excavations by King and Stephenson (2016), Wood (2009), and Nelson (2005) at the Lawton site suggest that primary occupation occurs during the Middle Mississippian Hollywood (A.D. 1250-1350) phase, hence the "provisional" designation assigned in Table 5.1.

King and Stephenson posit that these three traditions, Savannah I, and provisional Sleepy Hollow and Lawton, occur simultaneously in this region, indicating an overlap of three different groups with Savannah I sites as the majority (2016).

In the upper Savannah River, the first platform mounds were constructed around A.D. 1100 to 1150 at Tugalo (one mound, 9ST1) and Chauga (one mound, 38OC1) (Figure 5.1). These two platform mounds represent the adoption of "Mississippian" lifeways in the Savannah River valley (Anderson 1994: 235, Blitz 1999: 587).

The Middle Mississippian period (A.D. 1250-1350) is well-defined and is represented by pottery named for the Hollywood site, located just below the Fall Line, that consists of high percentages of check stamping, burnished plain, and plain pottery types along with curvilinear Savannah complicated stamping, and small numbers of Etowah complicated stamping and corncob marked (Wood 2009: 61). Evidence for social stratification in the form of platform mounds and intensified horticulture spread from the upper to

the middle Savannah River. Also, settlement pattern evidence from the Savannah River Site (SRS) indicate that land-use declined between mound sites and intensified around mound sites (King and Stephenson 2004). This more nucleated settlement is described as "dispersed households and possibly small multiple-household hamlets" surrounding mound sites like Red Lake and Lawton (King and Stephenson 2016: 40). Interestingly, King and Stephenson report that evidence of mortuary practices, based on indirect evidence and secondhand looting accounts, does not indicate social differentiation (2016).

Five known platform mound sites are constructed during this time: Mason's Plantation (six mounds, 38AK15), Hollywood (two mounds, 9RI11), Lawton (two mounds, 38AL11), Red Lake (three mounds, 9SN4), and Spring Lake (one mound, 9SN215); and two burial mound sites: Fitzner (one mound, 9SN220) and Hudson's Ferry 1 and 2 (two mounds, 9SC3 and 9SC242) (Anderson 1994, Wood 2009 and 2014, Stephenson 2011, King and Stephenson 2016) (Figure 5.1). Several authors suggest different processes and timing for site establishment and duration, but all recent research agrees on phase-level contemporaneity. Mason's Plantation was the largest of these sites, containing six mounds, but has since been destroyed due to fluvial processes. Wood (2009) states that pottery and absolute dates indicate that Hollywood was likely established first, then Lawton, then Red Lake, and finally Spring Lake. Stephenson (2011: 130) also compares absolute dates and finds that Hollywood was likely established first, then Red Lake. It is agreed that additional dates are needed to refine this timeline and that these sites were likely occupied off and on throughout this period, with some contemporaneity.

The Hollywood site contains the only evidence of the Southeastern Ceremonial Complex (SECC) items in the Savannah River valley (King and Stephenson 2010). Examples of these elaborate items include plates, gorgets, vessels, pins sometimes made from non-local materials and are found outside of the valley at sites such as Ocmulgee, Etowah, and Cahokia. These items represent a particular ideology that spanned over a large expanse of the Southeast during this time.

The Fitzner mound is located approximately a half mile south of the Fitzner North End site, and the two Hudson's Ferry mounds are located south of the Fitzner mound (Figure 5.1). The Fitzner mound contained at least five secondary interments (Wood 2014), while one mound at Hudson's Ferry (9SC3) contained four burials and the other (9SC242) contained at least one cremation (Anderson 1994: 186-187). All three mounds were located on sand ridges and functioned for burial purposes only.

Outside of the middle Savannah River, platform mound sites, Tate (one mound, 9EB86) and Beaverdam Creek (one mound, 9EB85), are constructed above the Fall Line and south of Tugalo and Chauga, and burial mounds at I.C. Few (three mounds, 38PI2) are constructed northeast of Tugalo and Chauga in the upper Savannah River. Another platform mound site, Irene (two mounds, 9CH1), and a burial mound site, Haven Home (one mound, 9CH15), are constructed in the lower Savannah River near the coast.

The Late Mississippian occupation in the middle Savannah River is represented by Silver Bluff phase (A.D. 1350-1450) pottery, which contains characteristics of Rembert to the north and Irene I to the south (Anderson 1994). Evidence comes from the Mason's Plantation site which, as stated previously, has all but been destroyed. Typical pottery includes Lamar/Irene complicated stamping, burnished plain, and check stamping. Wood (2009: 62) states that a few radiocarbon dates accompanied by pottery reflect dates from the earlier Hollywood phase.

Outside of the middle Savannah River, the Rembert platform mound site (five mounds, 9EB1) is occupied until approximately A.D. 1450; while the Irene platform mound site is occupied until approximately A.D. 1400 (Anderson 1994).

After A.D. 1450, migration/abandonment of the middle and lower Savannah River occurs. King and Stephenson postulate that this was due to the political structure: the smaller elite group demanded resources from the larger population when they did not have crop surplus, likely due to a decrease in rainfall (2016: 41). Anderson discusses the evidence for increased warfare as an additional reason for political instability (1994: 253). Whatever the reason, no cultural evidence to-date exists for the region during this time.

Mound and Non-Mound Sites in the Upper Savannah River Valley

Limited archaeological survey has occurred in the middle Savannah River valley, except for research in South Carolina at the U.S. Department of Energy's Savannah River Site (SRS) located in Barnwell and Aiken counties, SC and Groton Plantation located across the river from the Fitzner North End site in Allendale and Hampton counties, SC (Figures 5.2 and 5.3). Outside of the region, most of the work has focused on the upper Savannah River (Figure 5.4). Because the available data on non-mound sites in this area does not contain detailed investigations, a discussion of sites in the upper Savannah River, specifically in the Russell B. Reservoir, will be used to examine and compare characteristics and functions of known sites. The sites in the two surveyed areas will be discussed in a later section.

Anderson (1994: 218-234) provides summaries of both mound and non-mound sites in the Richard B. Russell Reservoir area, which are located above the Fall Line in the Piedmont region of the Savannah River valley (Figure 5.5). The mound sites include Tate (one mound), Rembert (five mounds), and Beaverdam Creek (one mound). Tate was excavated by Williams who concludes that the site was likely occupied by the chief and his family "perhaps no greater than 50 years," while the remaining population likely lived in small farmsteads (1996: ii). Rembert was tested archaeologically in 1948, but the four smaller mounds could not be found and much of the larger mound has been destroyed due to flooding and historic agriculture (Anderson 1994). The mound and a small portion of the habitation area at Beaverdam Creek have been subjected to intensive excavations and is discussed below along with nearby non-mound sites: Rucker's Bottom, Simpson's Field, 9EB208 (Beaverdam Sites Group), Clyde Gulley, and Van Creek.

The cultural occupations of these sites in the upper river valley differ slightly from those of the middle river valley. The Early Mississippian is represented by the Jarrett phase (A.D. 1100-1200), the Middle Mississippian is represented by the Beaverdam phase (A.D. 1200-1300), and the Late Mississippian is represented by the Rembert (A.D. 1350-1450) and Tugalo (A.D. 1450-1600) phases.

Beaverdam Creek (9EB85)

Beaverdam Creek site, located on a floodplain at the confluence of Beaverdam Creek and Savannah River, dates to the Beaverdam phase (A.D. 1200-1300) and contains one platform mound with burials and a circular sub mound structure with an approximately 1.5-hectare village area surrounding the mound (Anderson 1994, Anderson and Joseph 1988). A high-density of features and one confirmed square structure possibly domestic or ceremonial in use are present. A plaza area is suspected but was not confirmed. These excavations included the entire platform mound along with mechanical stripping of portions of the habitation area surrounding the mound.

Out of fifty-two excavated burials, forty-two were in the mound while ten were in the habitation area. One-third of the mound burials contained grave goods, while only one burial in the habitation area contained grave goods. Grave goods from the mound included beads, a pendant, shell cup, square shell ornaments, two ear spools, and three gorgets. A copper-covered celt was discovered in pothunter's back dirt indicating that other elite burials were present but destroyed. Skeletal data indicates that these individual's overall health was better than the individuals recovered from Rucker's Bottom, a smaller most likely subservient site located approximately 12 kilometers upriver.

Artifacts include Etowah and Savannah complicated stamped, check stamped, plain, burnished plain and corncob impressed pottery, with a low number of lithic tools such as bifaces, drills, perforators, and debitage. It is inferred that local soapstone manufacturing of items such as chunky stones/disks and pipes occurred at this location due to the number of debris and nearby outcrop (Anderson 1994: 201). A wide variety of plant remains including squash, gourd, sunflower, acorn, persimmon, hickory, berries, maypop, amaranth, and a high-density of maize indicates a horticultural/agricultural subsistence with general foraging supplementation. The animal remains include large numbers of deer and smaller numbers of aquatic and terrestrial species.

Nearby mound sites include Tate, containing one mound and located approximately 6 kilometers to the west, and Rembert, containing five mounds and located approximately 12 kilometers to the southeast. It is unknown how the Beaverdam site fits into the larger cultural sphere due to minimal

excavations at these two sites. Nonetheless, Anderson (1994: 204-205) states that the Beaverdam site likely functioned as the ceremonial center for smaller sites like Rucker's Bottom and other non-mound sites discussed below. The burials indicate high and low-status individuals, while artifacts indicate a wide range of mostly domestic activity. In addition, plant and animal remains show a varied subsistence strategy with high amounts of corn. A high number of features and extensive midden deposits with only two confirmed structures indicate either a low density, long-term population or a high-density, short-term population. Because of these traits, the Beaverdam site can be classified as a "town" or a "village" where people traveled from their homes to attend ceremonial/ritualistic activities and to pay tribute to the chief and/or ruling elite. This site could also be classified as a "hamlet" due to no evidence of a large, long-term population and number of surrounding non-mound sites similar to "farmsteads" and "homesteads." *Rucker's Bottom (9EB91)*

The Rucker's Bottom site dates to both the Beaverdam phase (A.D. 1200-1300) and the Rembert phase (A.D. 1350-1450) and contains approximately twenty structures over an approximately 1-hectare area on a terrace levee outcrop in the Savannah floodplain. The Beaverdam phase contains a plaza surrounded by mostly circular (4-8 m diameter) and some square domestic houses, a larger 14-meter diameter circular structure facing the plaza, and burials throughout the site, some in clusters and one containing shell beads, possibly indicating an elite individual. The Rembert phase occupation contains a plaza, circular and square domestic houses with possible barbacoas and/or storage structures, a larger 13 to 14-meter diameter circular structure facing the plaza, and two ditch-and-stockade lines. Anderson states that between fifteen to thirty domestic structures were occupied at a given time, estimating a population of approximately ninety to one-hundred and fifty people (1994: 299). No mound is present.

Twenty-four out of forty-one documented burials have been excavated (Anderson 1994: 223-225). Nine were located inside the ditch-and-stockade lines, while fifteen were located outside. Thirteen of these burials date to the Beaverdam phase period with seven containing grave goods, and ten of these burials date to the Rembert phase with one containing grave goods. Only one of these burials indicates an elite status, while the remaining individuals contain either no grave goods or utilitarian items such as pots and tools. The one elite burial contains shell beads.

Anderson states that the high feature density revealed an overall low artifact density that suggests intentional trash disposal (1994: 221). Recovered sherds include complicated stamped, check stamped, fabric and corncob impressed, and plain with rim treatments including pinched, folded, punctated, incised, and notched (Anderson and Schuldenrein 1985). Other ceramic artifacts include pipe fragments, discoidals or chunky stones/disks, and miniature pots. Lithic tools include triangular points, perforators, debitage, cracked rock, and cores. More elaborate items recovered include effigy beads, effigy head, and shell beads. A wide variety of flora and fauna remains found at the site include deer, turtle, turkey, bear, fish, some freshwater mussels, corn, hickory, and acorn. Based on this variety, Anderson and Schuldenrein (1985) conclude that year-round occupation is likely.

For the Beaverdam phase of Rucker's Bottom, the closest mound site is Beaverdam Creek located approximately 12 kilometers down river. The Tate mound site is located south of Rucker's Bottom, and west of Beaverdam Creek (Figure 5.5). Williams (1996: 30) reports that Beaverdam Creek and Tate were likely paired-towns (Williams and Shapiro 1990) or represented a migration of a "chiefly compound" from one location to the other.

All three of these sites share the same ceramic tradition which socio-politically connects these locations. It is likely that Rucker's Bottom was subservient to these two mound sites based on architecture alone. Anderson (1994: 299-302) provides additional information by comparing the assemblage to Beaverdam Creek, noting that the inhabitants of Rucker's Bottom were in poorer health, shorter in stature, and interred with fewer to no grave goods. It is also noted that the most prized portions of deer were likely leaving the site indicating possible imposed tributary demands.

In the Rembert phase occupation, the Rembert mound is constructed approximately 24 kilometers downriver from Beaverdam Creek. During this time, the inhabitants were in better health compared to the earlier occupation, and no evidence exists that food was leaving the site. Anderson (1994: 300) states that this indicates the site likely had more autonomy from the larger Rembert mound site. The smaller, more

isolated habitation sites surrounding Rucker's Bottom likely relied on this location for communal ceremonies/rituals and for protection due to the construction of the two ditch-and-stockade lines.

Anderson (1994) describes this site as a "village." However, based on size, Rucker's Bottom is small (1 ha) and contains more characteristics similar to that of a "hamlet." Particularly, evidence from the Rembert phase period indicates that this site connected smaller sites like farmsteads/homesteads to the larger cultural sphere and was subservient to larger sites like Beaverdam Creek.

Simpson's Field (38AN8)

Simpson's Field is a transitional site from the Beaverdam to Rembert phases (approx. A.D. 1300-1350) and contains one approximately 10 by 7.5-meter structure and two sub-floor burials on a terrace near the Savannah River (Anderson 1994, Anderson and Joseph 1988). Approximately 680 square meters (0.07 ha) were excavated, with a portion of the site containing a Late Woodland structure, complicating the stratigraphy.

The two burials consist of a child buried with five small ceramic bowls and an adult female buried with one ceramic bowl. Anderson and Joseph (1988: 304-305) state that these ceramic bowls are most similar to early Lamar pottery. In addition, the adult female shows signs of tooth loss and bone reabsorption, indicating a strenuous lifestyle. This characteristic is like trends noted at Rucker's Bottom during the Beaverdam phase (A.D. 1200-1300) (Anderson 1994: 230).

Ceramic designs include Savannah complicated stamped, Lamar complicated stamped accompanied by rim treatments (folded, notched, stamped, pinched, rosettes), and corncob impressed. Anderson (1994) did not report on lithic tools and debitage likely due to the similarities with earlier occupations and no evidence of Mississippian triangulars. Flora and faunal remains include deer, rabbit, turkey, turtle, and raccoon, and corn, gourd, acorn, hickory, grape, persimmon, and berries. Seasonal exploitation of these resources is noted indicating year-round habitation (Anderson 1994: 231).

Simpson's Field is located approximately 22 kilometers north of Rucker's Bottom which likely functioned as the location for communal ceremonies/rituals and for protection for this smaller isolated habitation site. Anderson (1994: 230) states that this site is possibly a "hamlet." However, based on size,

Simpson's Field is small (<1 ha) and contains more characteristics similar to that of a "farmstead" or "homestead." Evidence indicates that this site was likely inhabited by a nuclear family over an extended period. No communal/ceremonial structure or artifacts are present, indicating that the residents traveled elsewhere to participate in the larger cultural sphere.

9EB208

This unnamed site, 9EB208, located on an upland ridge on Beaverdam Creek near the confluence of the Savannah River, dates to the Beaverdam phase (approx. A.D. 1200-1350) and is located near three other sites collectively identified as the Beaverdam Site Group by Bandy and colleagues (1984) due to the proximity to the Beaverdam mound approximately 2 kilometers to the east (Figure 5.5). All sites were mechanically stripped, then shovel-scraped and troweled, revealing features of past occupation.

Excavations at 9EB208, just west of 9EB207 (Bandy et al. 1984), focused on isolating habitation areas and evaluating a possible quarry or tool manufacturing previously identified. Results showed two concentrations of post molds, one more defined than the other, revealing at least one circular structure and refuse pit. Lithic debris and tools typical of domestic use are scattered throughout the area with no evidence of a quarry area. Ceramic surface treatments include Savannah complicated stamped, check stamped, net impressed, and other rectilinear and curvilinear designs. None of these artifacts are ceremonial in nature. No burials are present, and no flora or fauna data is available.

There is some question as to the extent of this site. Bandy and colleagues (1984) state that previous shovel testing by Taylor et al. (1978) likely only covered the open field, an approximately 2.5-hectare area, and the nature of their work focused on excavating three smaller portions of the site approximately 850 square meters (0.085 ha) in size.

The sites of the Beaverdam Site Group likely all served a culturally similar function. The sites are located 2 kilometers from the Beaverdam mound site and are similar to data from Simpson's Field with no burial and flora/fauna data. Because no burials are present, a shorter occupation period can be inferred. The lithic and ceramic artifacts along with features indicate that 9EB208 was occupied for a longer period than a typical "special-use" or "limited activity" site, and the number of possible houses indicates a smaller population than a typical "hamlet" site with no evidence of ceremonial/ritualistic behaviors. Therefore, this site is most similar to either a "farmstead" or "homestead," but lack of flora data for corn production precludes evidence for a "farmstead."

Clyde Gulley (9EB387)

Clyde Gulley, located on a terrace adjacent to the Savannah River, dates to the Jarrett phase (A.D. 1100-1200) and contains a 3-meter diameter circular structure with two trash pits inside the structure and one outside, a large midden (approx. 0.5 ha) with three slightly thicker areas possibly representing habitation or trash concentrations (Tippitt and Marquardt 1984). Unfortunately, the entire midden area could not be excavated, and one 10 by 10-meter unit and six 2 by 2-meter units were randomly placed over the midden.

Recovered artifacts include Savannah burnished plain, plain, Etowah complicated stamped, pipe fragments, Mississippian triangular, small blades, bipolar cores, and debitage. Fauna remains include deer, turtle, bird, fish; and flora remains include maypop, hickory, acorn, and one maize fragment. One ceramic duck effigy indicated possible ritualistic/ceremonial activity. No burials were discovered. The entire Mississippian occupation spans over an approximately 0.78-hectare area.

Site remains give evidence for late summer and fall occupations (Anderson 1994: 228). There is no indication of tribute demands similar to evidence from Rucker's Bottom where portions of deer were leaving the site. Only a representative portion of the site was excavated, making it difficult to assign site size. Most artifacts recovered indicate domestic functions; however, the duck effigy hints at a more complicated interpretation.

Clyde Gulley is located approximately 18 kilometers upriver from Beaverdam Creek and approximately 6 kilometers upriver from Rucker's Bottom. A nearby site, 9EB388, contains similar ceramics possibly representing a similar site function. Tippitt and Marquardt state that these sites "may represent small agricultural camps that were seasonally occupied, with the main occupation being centered around Beaverdam Creek mound" (1984: 9-5). The degree of interaction between these sites is unknown, but it can be assumed that a portion of the occupation was contemporaneous with Beaverdam Creek and Rucker's Bottom.

Anderson and Joseph (1988: 300) classify this site as either a small "village" or "hamlet" and compares stratigraphy to that of Rucker's Bottom. Past archaeology excavation precludes data on function and total number of houses (e.g. population, communal structures), and flora/fauna evidence indicates only a seasonal occupation. Based on available evidence, this site likely is a "farmstead" based on its seasonal occupation, approx. 0.78-hectare size, domestic artifacts, location in the floodplain, and remnants of corn. However, the duck effigy indicates possible ceremonial/ritualistic activities, implying a larger socio-political role. In this case, a "village" or "hamlet" designation could be appropriate. *Van Creek (9EB382)*

The Van Creek site, located on a terrace 400 meters west of Rucker's Bottom, dates to the Rembert phase (A.D. 1350-1450). The site expands over a 0.5-hectare area and is dominated by lithic artifacts consisting of twenty-nine identifiable triangular points, broken PP/Ks, bifaces, unifaces, and other expedient tools (Anderson 1994, Anderson and Joseph 1988). Ten complicated sherds are representative of the nearby Rucker's Bottom assemblage. Extensive excavations revealed no features or burials.

Anderson describes this site as a "probable special purpose butchering/processing area," stating that the site was likely utilized for short-term tasks geared toward resource exploitation for the nearby Rucker's Bottom site (1994: 233). Evidence-based on the high-density of lithic artifacts and expedient tools along with no habitation structures indicates that the Van Creek site fulfilled a community need to be geared toward food procurement, specifically hunting.

Mound Sites in the Middle Savannah River

To give context for non-mound sites in the middle Savannah River valley, summaries of mound sites in this area will proceed. Seven mound sites occur in this region: Mason's Plantation (six mounds, 38AK15), Hollywood (two mounds, 9RI11), Lawton (two mounds, 38AL11), Red Lake (three mounds, 9SN4), and Spring Lake (one mound, 9SN215); and two burial mound sites: Fitzner (one mound,

9SN220) and Hudson's Ferry 1 and 2 (two mounds, 9SC3 and 9SC242) (Anderson 1994, Wood 2009 and 2014, Stephenson 2011, King and Stephenson 2016) (Figure 5.1). A significant amount of research has been performed at a number of these sites, allowing archaeologists to refine site chronologies and pottery phase characteristics. As mentioned previously, additional dates are needed to refine individual site chronologies.

Mason's Plantation (38AK15)

Mason's Plantation, located just below the Fall Line in the floodplain on a ridge and swale feature, has been mostly destroyed due to fluvial processes; however, Anderson (1994: 194) notes that modern deposition of at least one meter covers the area, making it possible for some surviving cultural deposits underneath this layer. Written accounts from the 18th and 19th centuries by William Bartram, Charles C. Jones, and Clarence B. Moore indicate the presence of at least six mounds, making it the largest site in the Savannah River valley (Anderson 1994). A more recent pedestrian survey by Anderson (1994) indicates a Hollywood occupation based on surface pottery. Wood (2009: 62) mentions two radiocarbon dates to indicate a Hollywood occupation as well.

Hollywood (9R11)

The Hollywood site, located just below the Fall Line in the floodplain on a ridge and swale feature formed by fluvial processes, dates to the Hollywood phase (A.D. 1250-1350) and contains one platform, one burial mound, and a possible village area (Anderson 1994: 192, King and Stephenson 2010: 98-100). This site is located just across and downriver from Mason's Plantation (Figure 5.1). A village area is likely based on the large number of artifacts (Anderson 1994: 192) but has not been investigated likely due to the approximately 1.5 meters of historic alluvium covering these cultural deposits.

The platform mound was first excavated in 1965 by de Baillou who put a trench into the western elevation. These excavations revealed two burials with no associated elaborate items, ceramic pipe fragments, a ceramic effigy, and a large number of Savannah Plain, Check Stamped, and Complicated Stamped pottery (Anderson 1994). This pottery was distinct enough to warrant a different designation that represents the Hollywood phase (Hally and Rudolph 1986).

The burial mound was excavated in 1891 by Reynolds, and again in 1965 by de Baillou who found intact mound fill and pre-mound midden. Reynolds found two construction stages with two associated burial groups: seven in the earlier group and four in the later group (Anderson 1994: 189-193). The earlier group contained items such as a bottle with a cross and sunburst motif, a human effigy pipe, an elaborate copper ax and plates, shell beads, earspools, and pipes. These items resemble artifacts from other Mississippian sites, known as Southeastern Ceremonial Complex (SECC), and are thought to represent a larger Mississippian cultural sphere (Wood 2009:42-43). The Hollywood site is the only location to date in the Savannah River valley to contain this type of materials (Wood 2009: 43). The later burial group contained no SECC grave items, except for a repousse copper plate (Stephenson 2011: 148).

No other excavations have occurred at this site.

Lawton (38AL11)

Lawton, located in the floodplain on a river terrace, dates to the Hollywood phase (A.D. 1250-1350) and contains two platform mounds, a fortification ditch/embankment, a likely plaza and palisade wall, and a habitation area over a 1.6 ha extent (Wood 2009, Stephenson 2011: 149-157). These cultural occupations are protected by a layer of 25-30 cm of silty-clay historic alluvium (Stephenson 2011). The site is located downriver from Hollywood and the Savannah River Site (SRS) and just north of Red Lake and Spring Lake (Figure 5.1).

The southernmost mound revealed three construction stages with evidence of a burned structure in the last construction phase (Stephenson 2011: 166-169). The northernmost mound revealed three strata over a pre-mound midden of freshwater shell, animal, and botanical remains, evidence of one structure, uncremated and cremated remains along with 412 Hollywood phase sherds (Wood 2009). Stephenson interprets this mound as a "temple/mortuary facility subject to periodic rebuilding and reuse" (2011: 163).

An excavation trench was placed north of the northernmost mound which revealed a palisade feature. This palisade, investigated by Stephenson et al., revealed a slot-trench with post holes inside and 452 pounds of fired daub which were likely burned around A.D. 1300 (2010: 10-12, Stephenson 2011: 169-176). It is unknown what caused the palisade to burn. The plaza was also investigated between the

two mounds and showed an absence/low numbers of cultural material, but no prepared clay area was apparent.

Excavations by Nelson (2005) in the habitation area revealed two pit features and post molds. No daub or apparent post mold patterns were observed, and the shape of a structure was not apparent, but likely represented a more temporary structure based on the absence of wall-trench(es) or straight line of posts, hearth, or burned daub (Stephenson 2011: 183). Additional excavations and an analysis by Bonhage-Freund (2004) revealed corn kernels and cobs, hickory and acorn shell, and maypops, suggesting a possible seasonal occupation during winter (Stephenson 2011: 187-190).

Red Lake (9SN4)

Red Lake, located on a natural levee next to an oxbow lake, dates to the Hollywood phase (A.D. 1250-1350) and contains three mounds arranged in a triangular shape, a likely plaza, and three highdensity artifact concentrations interpreted as habitation areas over a 3.8 ha space (Wood 2009, Stephenson 2011, Dale 2007). The site is downriver from Lawton and Spring Lake (Figure 5.1).

Wood (2009) reports that the largest mound, Mound A, revealed four strata with a submound midden containing mussel shell, pottery, stone tools, vertebrate bone, charcoal along with three likely posts. The second mound, Mound B, also revealed four strata with a submound midden and no features; while the third mound, Mound C, contained six strata, one burnt post, four post molds (Stephenson 2011: 192-196). Based on extensive pottery analysis, Wood determined that Mound A is likely older than Mound C (2009: 234).

Two units were utilized to investigate a possible habitation area between Mound B and C (Dale 2007 and Stephenson 2011). Unfortunately, the last stratum of the first unit was not excavated fully due to inclement weather, and the second unit adjacent to the first was never completed.

Spring Lake (9SN215)

Spring Lake, located in the floodplain on a natural levee, dates to the Hollywood phase and contains one mound with a likely plaza and habitation area over a 2.16 ha area (Wood 2009). These

cultural occupations are protected by a layer of approximately 20 cm of silty-clay historic alluvium (Wood 2009:83). This site is downriver from Lawton and approximately 1 km upriver from Red Lake.

The site was first excavated in 1898 by C.B. Moore (1998) and relocated by Wood in 2005. Subsequent excavations revealed that the mound contains four prehistoric strata over a premound midden with no features discovered (Wood 2009: 82-90). No burials have been located to date. Two small units were placed in a high-density midden area located in the suspected habitation area and revealed two possible post molds (Wood 2009).

Fitzner (9SN220)

The Fitzner burial mound, located approximately a half mile south of the Fitzner North End site, dates to the Hollywood phase and contains at least five secondary burials (Wood 2014). This mound is a single construction over an intense firing with no evidence of a summit structure. One post mold was found in the approximate mound center. The entire mound was excavated due to erosion into the Savannah River. Ceramics include Savannah burnished plain, complicated stamped, check stamped, cob and fine fabric marked with some notched applique rims. The surrounding property tract was surveyed and did not reveal any Mississippian habitation areas except for the Fitzner North end site.

Hudson's Ferry 1 and 2 (9SC3 and 9SC242)

Hudson's Ferry 1 and 2, both located in the floodplain on an upland terrace south of Fitzner, each contain a burial mound and are approximately 0.8 km apart (Wood 2009: 43). Both mounds were excavated by C.B. Moore (1998) who found four burials in the first mound containing grave goods such as a clay owl effigy pipe and stone discoidals (Anderson 1994: 186-187). These artifacts were similar to artifacts dating to the Middle Mississippian period (A.D. 1200-1400) from other sites such as Rucker's Bottom and Irene (Wood 2009). Moore found one possible cremation burial in the second mound with no apparent associated artifacts; therefore, the time span of use for this mound is unknown. No other excavations have been conducted at these two locations.

Non-Mound Sites in the Middle Savannah River

As stated previously, limited archaeological survey has occurred in the middle Savannah River valley. Primary data comes from the U.S. Department of Energy's Savannah River Site (SRS) and Groton Plantation in South Carolina (Figures 5.2 and 5.3). Groton Plantation is located across the river from the Fitzner North End site in Allendale and Hampton Counties. The following discussion will summarize available data on sites in these two areas.

Savannah River Site (SRS)

The primary source for the SRS data (Sassaman et al. 1990) unfortunately does not contain intensive excavations at non-mound Mississippian sites but does allow for settlement and ceramic studies, and therefore, a change through time, as displayed by Stephenson with the primary site file data (2011). Stephenson (2011: 23) summarizes the research of this area and states that survey bias does exist but is hard to assess. He also explains the absence of floodplain sites is due to little survey performed in these areas. It is important to note that no mound sites have been recorded in this area to date, with Lawton, Red Lake, and Spring Lake located downriver and Mason's Plantation and Hollywood located upriver below the Fall Line (Figure 5.1). The work by Stephenson (2011) provides an opportunity for insight into the occupational history and distribution in a well-studied area for non-mound sites in the middle Savannah River.

Approximately 1,800 sites have been documented in the SRS with one-hundred of these designated as Mississippian (Stephenson 2011). Out of these one-hundred sites, however, only fifty-one can be assigned to a ceramic phase. Deptford phase pottery (Middle Woodland) occurs from 500 B.C. to A.D. 500. Savannah I (Late Woodland) and Sleepy Hollow (Early Mississippian) phase pottery occur simultaneously beginning around A.D. 900. The Savannah I occupation accounts for one-hundred and forty fairly evenly distributed sites occurring primarily in the interfluvial uplands; while the Sleepy Hollow occupation accounts for twenty-four sites occurring primarily in the uplands in the approximate northern center of the SRS. The Sleepy Hollow pottery consists mostly of rectilinear complicated stamped pottery. The Lawton phase (Early Mississippian) begins around A.D. 1100 when Sleepy Hollow is phased out and Savannah I phase still occurs. The Lawton occupation only accounts for six sites occurring in both the uplands and riverine terraces. This pottery consists mostly of Etowah complicated stamped and corncob marked.

The Hollywood occupation occurs in the Middle Mississippian around A.D. 1250 and accounts for only three upland sites in the SRS. Pottery consists of Savannah complicated stamped with curvilinear designs (filfot scroll/cross), check stamped, cord marked, and corncob marked. Finally, the Silver Bluff phase occurs in the Late Mississippian when Hollywood is phased out around A.D. 1350 and accounts for nineteen upland sites. This pottery consists of incised bowls, complicated stamped jars similar to Hollywood with decorated rims: pinched, notched applique, and punctated. Stephenson states that the differences of these two pottery types are often difficult to distinguish, however, some data suggest that high frequencies of check stamping indicate a Hollywood phase occupation over a Silver Bluff occupation (2011: 25-26). As discussed earlier, the Silver Bluff phase is based on data from the now destroyed Mason's Plantation site.

Stephenson concludes that this site data reveals the highest occupational frequency of non-mound sites during the Sleepy Hollow phase, a decline beginning during the Lawton phase which continues into the Hollywood phase, then a slight increase during the Silver Bluff phase (2011: 25-26). The decline of non-mound sites, most apparent during the Hollywood phase, is likely a reflection of the construction of the five platform mound sites and the subsequent aggregation of populations at these floodplain locations. Stephenson also concludes that this data indicates upland sites were occupied year-round with a generalized subsistence strategy over time, relying on hunting and gathering and horticultural/agricultural supplementation (2011: 27-32).

Groton Plantation

Groton Plantation is in Allendale and Hampton counties, South Carolina, across the Savannah from the case study site (Figure 5.3). Stoltman (1974) examined this area and recorded twenty-one sites, and later by DePratter (1992) who led salvage work at the looted Ware Creek Ridge site (38HA148).

Archaeology included identification of sites by surface collections, test units at known sites, and larger excavations at Rabbit Mount and Clear Mount.

Rabbit Mount (GR-1)

Located in the floodplain on a sand knoll, Rabbit Mount dates from the Woodland to Mississippian periods and contains one pit feature, one possible house with a baked clay floor and three possible posts along with one dog and one human burial. The pit feature likely dates to either Hollywood or Silver Bluff, while the dog burial dates to an earlier period, approximately A.D. 1050. The human burial contains artifacts from the Late Archaic to the Middle Mississippian. The possible house remnants are located under a thick shell midden containing Late Archaic and Middle Mississippian artifacts (Savannah check stamped, Mississippian triangulars). Stoltman interprets this structure to date to the Late Archaic (Stallings), but this interpretation may not be accurate (1974: 54). Stoltman (1974: 39) estimates this site to span over 6 hectares.

Ceramics include Savannah complicated stamped, check stamped, burnished plain, and plain. The shell midden is overlain by Mississippian/Woodland occupations, making dating by lithic tools difficult, but Mississippian triangular points were present.

This site presents challenges due to the unknown extent of Mississippian occupations and previous intensive occupations. Interpretations based on current data can assume that this site was likely a habitation area with seasonal to year-round occupations associated with the nearby Lawton, Spring Lake, and Red Lake mound sites. A "farmstead" or "homestead" designation could be applied, but more data is needed.

Clear Mount (GR-2)

Clear Mount, located in the floodplain on a sand fount, dates to the same time periods as the nearby Rabbit Mount and contains two burials, one with bone and shell beads dated to either the Hollywood or Silver Bluff phase. The other burial is mapped but not discussed by Stoltman (1974). This site is estimated to be approximately the same size as Rabbit Mount but has not been confirmed through site delineation.

Ceramics include Savannah complicated stamped, check stamped, burnished plain, and plain. Stoltman (1974: 162) states that most lithics were functional in nature with approximately eleven Mississippian triangulars. Flora/fauna data was not recovered.

The relationship between Rabbit Mount and Clear Mount is unknown. It is possible that these sites could be a larger continuation of one site due to the close proximity of these two locations. This site was likely inhabited year-round due to the presence of two burials and had associations with the nearby Lawton, Spring Lake, and Red Lake mound sites. The presence of a wide range of artifacts indicates that this site was likely domestic in function. The beads associated with the known burial shows specialized treatment of a likely elite individual. This site could be a "hamlet," "town," and/or "village" due to the presence of an elite burial. It could also be a smaller habitation area, possibly a "farmstead" or "homestead." The full extent of this site is not known and there is no evidence of corn to make a clear distinction between relevant site characteristics and function.

Ware Creek Ridge (38HA148)

This site, located on a sand ridge, dates to the Hollywood (A.D. 1250-1350) and Silver Bluff (A.D. 1350-1450) phases and contains at least eighteen burials and two structures. Chester DePratter reports that this site was heavily looted with more than 600 holes over a probable twenty-year period (1992). Approximately 3,000 sherds and 800 lithics were collected by Depratter (Stephenson 2011: 34-35). If ceremonial/ritualistic artifacts were present, they are either gone due to the heavy looting activity or unexcavated.

The density and range of artifacts along with the two probable domestic structures indicate that this site was inhabited over a long period of time. These characteristics are consistent with "farmsteads" or "homesteads;" however, when considering the number of burials, the population was likely similar to that of a "hamlet." This site could also have functioned as a "special-use" site or cemetery with a year-round household family unit(s) to maintain the burials. More excavations and site delineation can provide additional information.

Summary of Nineteen Sites Presented in the Groton Plantation (Stoltman 1974)

The majority of these nineteen sites were surface collected, with only a few investigations using small test pits (Stoltman 1974). Ten of these sites contain evidence for Mississippian occupations based on ceramics with one chert quarry. Most of these ten sites are located on sand ridges containing evidence for occupations from approximately the Late Archaic up to the Late Mississippian. The Middle Mississippian occupations usually consist of Savannah complicated stamped, burnished plain, and possibly plain, with either none or a small number of small triangular points. These sites appear to be either seasonal to year-round occupations (Stoltman 1974). It can be assumed that these inhabitants interacted with the nearby Lawton, Spring Lake, and Red Lake mound sites due to the spatial proximity. The chert outcrop contains a large number of surface debris from untested and tested materials to preforms to flaked debitage. It was likely a known quarry site throughout prehistory by the locals.

Conclusions

Sparse excavation data and frequent looting activities prevent further discussions of these sites. A few sites do indicate possible year-round habitation activities but cannot be confirmed. Stephenson (2011: 33-37) discusses a suite of burial sites located on relict sand ridges in the area including the Ware Creek Ridge site. He states that these sites were likely occupied "as short-term hunting and extraction camps," and "often utilized on a permanent basis as a riverine-setting for cemetery internments" (2011: 33). It is possible that many of the sites investigated by Stoltman fit into this designation; however, at a minimum, the Rabbit Mount and Clear Mount sites have the potential to contain more intensive occupations.

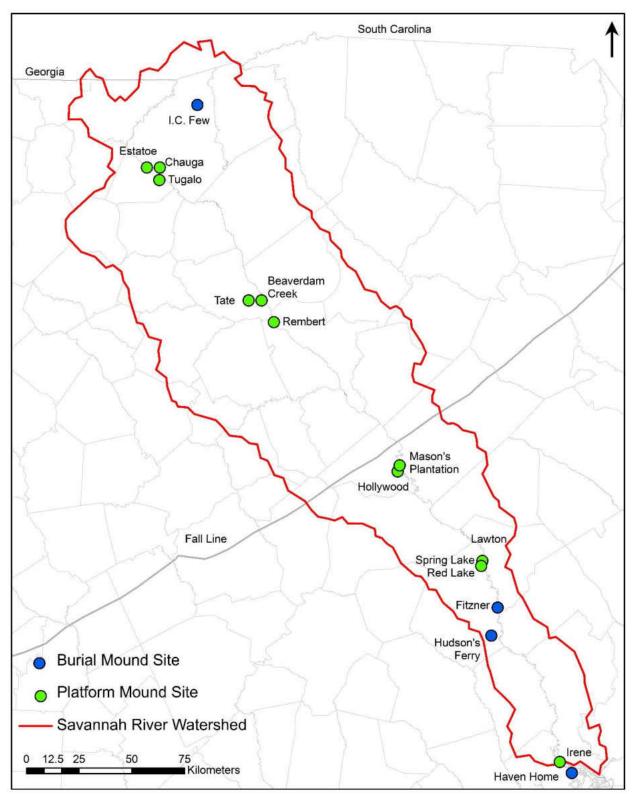


Figure 5.1. Mound Sites in the Savannah River Valley.

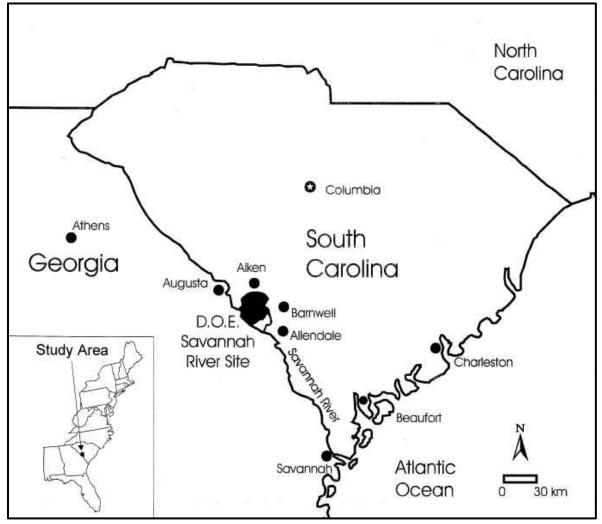


Figure 5.2 U.S. Department of Energy's Savannah River Site (SRS). (From Burger et al. 1999)

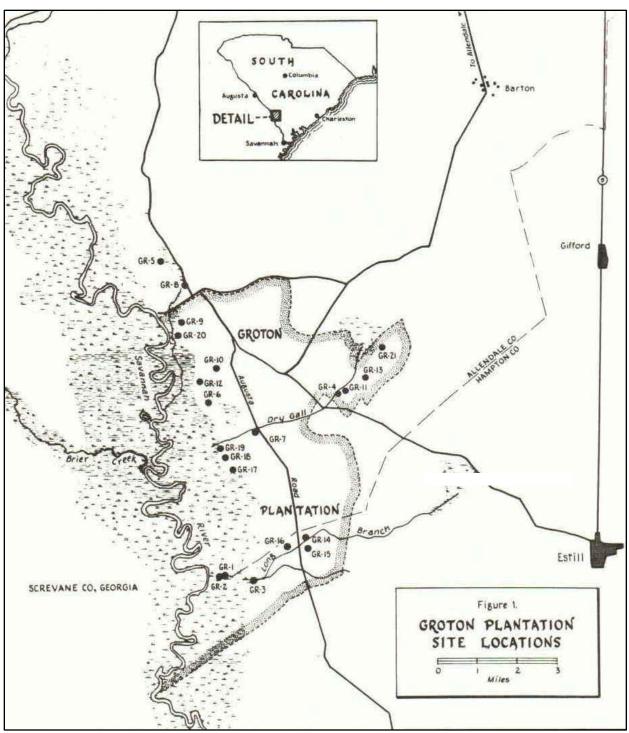


Figure 5.3 Map of Groton Plantation. (From Stolman 1974)

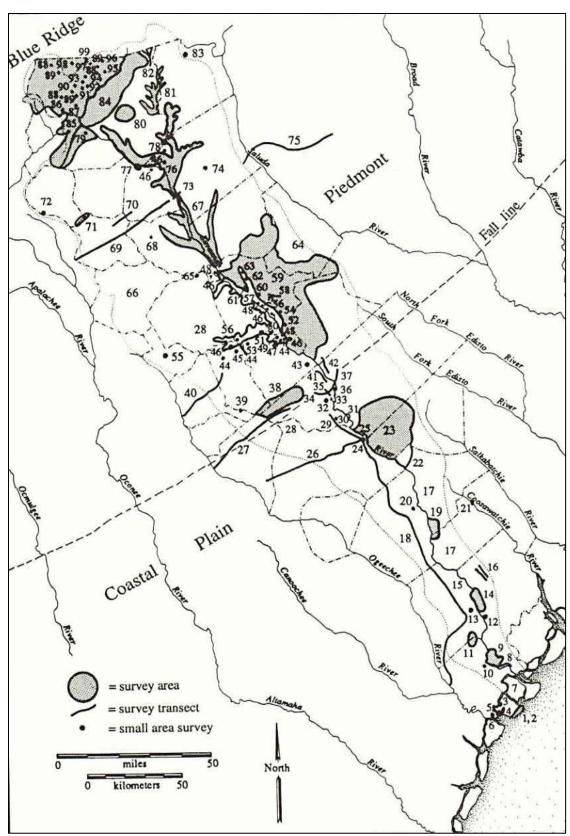


Figure 5.4 Previous Surveys in the Savannah River Valley. (Anderson 1994: 166)

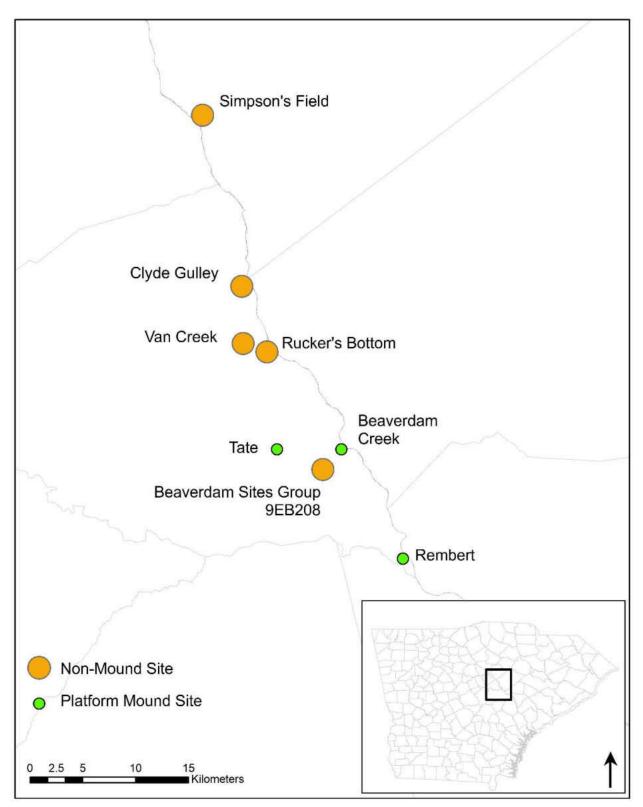


Figure 5.5 Discussed Mound and Non-Mound Sites in the Upper Savannah River valley.

METHODS

This chapter describes the methods and analyses employed in this study to gather data at Fitzner North End (9SN256). Diversity and distribution of artifacts and features from block excavations provide data and characteristics of the site. The goal of these methods is to develop data focusing on characteristics such as architecture and function/economy. These data can be compared with existing data from other similar sites and allow for a greater understanding of the under-studied non-elite Mississippian lifestyle.

Excavations occurred at Fitzner North End from 2013 to 2014 and from 2016 to 2017. Below is a discussion of the methods and rationale of decisions employed during these excavations and also during the laboratory analysis and the artifact categorization process.

2013-2014 Excavations

Fitzner North End (9SN256) was discovered through 20-meter interval systematic shovel testing of a 90-acre property tract located just south of Brier Creek and extending along the western side of the Savannah River in the summer of 2013 and 2014 by M. Jared Wood and the Georgia Southern University Summer Field School (2014). The Fitzner burial mound (9SN220) is located on this same property tract approximately a half mile south of Fitzner North End (Figure 6.1). The 20-meter interval shovel testing grid lined up with a survey grid previously established in the central portion of the property just north of the access road. The boundaries of Fitzner North End were then delineated by 10-meter interval shovel tests (Figure 6.2). All shovel tests measured 30 cm diameter and were dug by strata, when possible, to subsoil (approximately 20 cm). All soils were dry screened through ¼-inch wire mesh and artifacts were bagged and labeled in brown paper bags. A total of twenty-eight (28) shovel tests were completed: fourteen (14) positive and fourteen (14) negative. This site is approximately 0.3 hectares in size.

Student field notebooks from 2013 describe the shovel test stratigraphy as approximately 2 to 5 cm of dark humus layer over approximately 5 to 22 cm of brown to dark brown (7.5YR 4/4, 3/4) clay over approximately 5 to 15 cm of dark yellowish brown to yellowish brown (10YR 4/4, 5/4) clay. Minimum excavation depths are 21 cm below surface, while maximum excavation depths were 37 cm

below surface. Shovel tests 132, 133, 134, 138, 140, 147, 148, 153, 156, 158, 160, 161, 162, and 163 contained cultural material (Figure 6.2). A summary of these artifacts is presented in Table 6.1.

Once the site boundaries were defined, an arbitrary datum point, called Datum 1 (N1000 E1000) was assigned near the eastern limits of the site, while a second point, called Datum 2 (N1000 E974) was mapped 28 meters from Datum 1. Datum 2 was given an arbitrary elevation of 100, while the Datum 1 elevation was based on the elevation difference from Datum 2. These datum points were mapped in using a Sokkia CX-105 Total Station with a prism and range pole to be sure they matched up with the shovel testing grid previously employed. This same total station set-up was used to record elevation points in 2013-2014 and 2016-2017 of the site area (results are shown in Figure 6.2).

To test Fitzner North End, two 2 x 2-meter units (XU1 and XU2) were excavated from June 10 to June 14, 2013, while a third 2 x 2-meter unit (XU3) was completed from July 17 to July 22, 2014 (shown in Figure 6.3). Unit numbers were assigned in sequential order through time (*e.g.* XU 1 excavated prior to XU3) and coordinates based on the location of the southwestern unit corner (*e.g.* N1000 E998) on the established local grid. XU1 (N1000 E991) was placed near shovel test 140 and XU2 (N1000 E 979) was placed on top of shovel test 160 because both of these shovel tests had higher sherd densities. XU3 (N990 E 979) was placed on top of shovel test 156. This shovel test contained two tertiary flakes and no sherds. These three units were dry screened through ¼-inch wire mesh and excavated by 10 cm arbitrary levels to 30 cm below the datum point (BDP), located 10 cm above ground surface (AGS) on the SW corner stake. Excavation data were recorded on standardized level excavation forms (Level 1 and Level 2). Three profiles and opening and closing plan views were drawn for XU1 and XU2, while two profiles and one closing plan view were drawn for XU3. An opening and closing photograph was taken for each unit.

Excavations revealed two occupation periods, Woodland (most likely Late) and Middle Mississippian, based on projectile points with Woodland characteristics and complicated stamped and burnished pottery typical of the Savannah pottery types. These cultural occupations were approximately 4-7 cm thick (identified as Zone C) and were covered with an approximately 6-13 cm thick historic clay alluvium (identified as Zone B) most likely deposited as a result of historic agricultural practices. This same historic red clay alluvium is found at other sites such as Lawton, Spring Lake, and Red Lake in the floodplain of this region (Stephenson 2011: 156, Wood 2009: 83, 100). The historic clay alluvium was finally covered with a thin dark layer consisting of humus or decayed and decaying leaves and other organic material. Bioturbation activity from tree roots, burrowing animals and bugs created a "blending" of the historic red clay alluvium or Zone B and the tan clay cultural layer or Zone C. Therefore, a mottling between Zones B and C was apparent in the stratigraphy. It was not possible to tell the difference between which artifacts belong to the respective time periods, as all artifacts appeared to be in the same cultural layer according to the site stratigraphy, just below the historic clay alluvium. This discussion continues in the subsequent excavation strategies discussed below. No plow zone was evident.

2016-2017 Excavations

From May of 2016 to July 2017, I led additional testing and block excavations at Fitzner North End (9SN256). Man-power included many helpful volunteers, and Georgia Southern undergraduate and graduate student volunteers along with the Summer 2016 and Spring 2017 Field Schools. As mentioned previously, elevation and feature location data were recorded with a Sokkia CX-105 Total Station and subsequently mapped using Golden Software's Surfer 11 and ArcMap 10.4. Elevation changes over the site are minute but are still important to note. A visible slope makes up the northern limits of the site that denotes a wetland area frequently flooded by Brier Creek (Figure 6.2). The appendices include the Field Specimen (FS) log (Appendix A), the artifact catalogs (Appendix B), photographs of unit and feature excavations (Appendix C), and detailed information and photographs regarding projectile points/knives (Appendix D).

All subsequent excavations mimicked the previous three test units to obtain controlled, comparable data. Fourteen 2 x 2-meter units (XU4 – XU17) were completed from 2016 to 2017 (Figure 6.3). Unit numbers were assigned in sequential order through time (*e.g.* XU4 excavated prior to XU8) and coordinates based on the location of the southwestern unit corner (e.g. N1000 E998) on the previously established local grid. The existing datums from previous work were also utilized, with a third datum (Datum 3) established at N1000 E981. Datum 2 had to be removed when XU9 was excavated. XU16 was shifted approximately 40 cm north on the E1000 line to avoid a large tree but is otherwise located on the established grid.

Unit placement was guided by location and patterns of features observed within the excavated units (post molds, storage pits, etc.) and artifacts. All artifacts recovered were bagged by unit and level. Soils from these units were dry screened through ¼-inch wire mesh, dug by zones (Zones A and B, Zone C), and excavated to 30 cm below the datum point (BDP), located 10 cm above ground surface (AGS) typically on the southwest corner stake or the stake with the highest elevation. Stratigraphy revealed the same from previous investigations discussed above and includes three zones: humus or leaf litter/organic Zone A (approx. 1-2 cm deep), a red clay historic alluvium (2.5-5 YR) Zone B (approx. 8-14 cm deep), and a generally yellowish (10 YR) clay Zone C. Excavations revealed two occupation periods, Woodland (most likely Late) and Middle Mississippian located in Zone C, covered with an approximately 10-15 cm thick historic clay alluvium (identified as Zone B).

Zones A and B were excavated together to save time when previous excavations revealed little to no prehistoric cultural material present in either zone. This layer typically contained historic material such as glass, a penny, and gun shot. Excavation data were recorded on standardized zone excavation forms. Two profile views and one plan view were drawn along with a closing photograph for each unit.

All features encountered were given a sequential number, beginning at "Feature 10" as to denote past excavations from the present and to avoid overlapping any previous designations. These features were bisected E-W or length-wise with the southern half screened and the northern half bagged for curation. When this standard was not possible, usually due to the location within the unit, this practice was reversed (northern half screened, southern half bagged). Portions of Feature 59 were not fully exposed and located beyond the limits of the unit walls. In this case, these features were excavated to the unit wall and all soils were dry screened through ¼-inch wire mesh. For Feature 62, however, excavation results revealed that most of this feature was located within the unit, therefore all soils were bagged for curation. Photographs before and after bisection of each feature were taken and profiles were drawn.

Feature 43 was a pit feature that contained charcoal pieces ideal for radiocarbon (¹⁴C) analysis. The Graduate Student Professional Development Fund offered by the Georgia Southern University Jack N. Averitt College of Graduate Studies provided monies for two charcoal samples to be dated by the University of Georgia's Center for Applied Isotope Studies (CAIS). Laboratory methods and results will be discussed in Chapter 7.

Figure 6.1 Property Tract Boundary and Site Locations

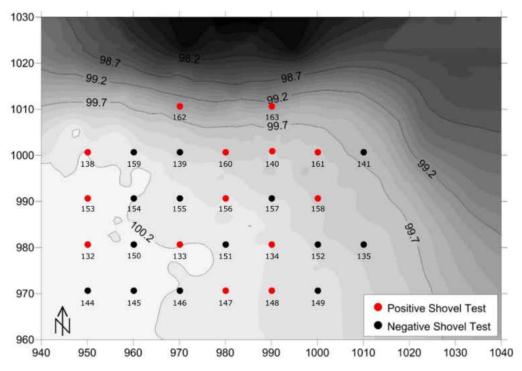


Figure 6.2 Map of Shovel Tests at Fitzner North End (9SN256)

ST #	Level	Artifacts
132	0-16 cm	2 Check Stamped Body Sherds (7.56 g)
132	15-20 cm	1 UID Eroded Body Sherd (2.3 g), 1 UID Decorated Body Sherd (2.6 g), 1 Sherd $< 1/2$ " (0.3 g)
133	0-20 cm	1 Heat Treated Secondary Flake (10.2 g), 2 Sherds < 1/2" (1.2 g)
134	0-15 cm	34 Tertiary Flakes (13.7 g), 64 Heat Treated Tertiary Flakes (33 g), 3 Heat Treated Secondary Flakes (1.1 g), 1 Heat Treated Primary Flake (1 g)
138	0-27 cm	1 UID Decorated Body Sherd (9.5 g), 1 Sherd $\leq 1/2$ " (0.3 g)
140	0-12 cm	1 Heat Treated Tertiary Flake (1.5 g), 1 Cane Punctated Body Sherd (1.3), 1 Sherd < 1/2" (0.9)
147	10-13 cm	2 UID Eroded Body Sherds (5.4 g)
148	12 cm	1 Fired Clay (4.4 g)
153	3-27 cm	2 Fired Clay (2.3 g)
156	0-27 cm	2 Heat Treated Tertiary Flakes (0.5 g)
158	0-21 cm	1 Fired Clay (4.4 g)
160	0-10 cm	1 UID Eroded Body Sherd (8.1 g), 2 Check Stamped Body Sherds (46.4 g), 1 Plain Body Sherd (6.6 g), 1 Sherd < $1/2$ " (0.6 g)
161	0-26 cm	1 Fired Clay (1.8 g)
162	0-28 cm	25 Fired Clay (162.3 g), 4 UID Eroded Body Sherds (15.2 g), 1 Pebble (0.3 g)
163	10 cm	1 UID Eroded Body Sherd (4.7 g)

Table 6. 1 Shovel Test Artifact Summary

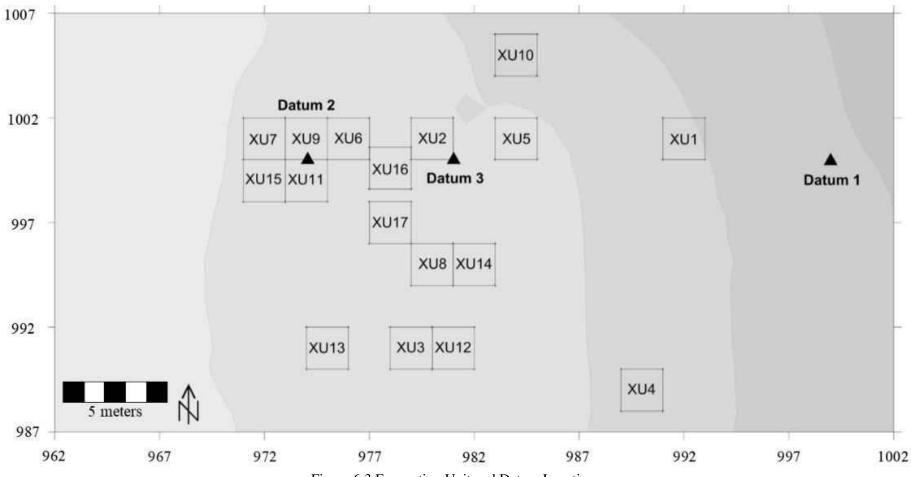


Figure 6.3 Excavation Unit and Datum Locations

Artifact Analysis

All artifacts recovered were washed by provenience in the archaeology laboratory with water and a brush except for brittle charcoal and brittle low-fired sherds which were dry brushed. Artifacts were then analyzed by type (*e.g.* lithic, ceramic, charcoal, unmodified rock) and subtype (*e.g.* flake, biface, pp/k; surface treatment, tempering, rim type). Artifacts were counted, weighed, and bagged based on types and sub-types in association with respective locations. Each artifact type and subtype were put into a 4-mil polyethylene bag with site name and number, field specimen (FS) number, catalog number, count, weight (grams), and artifact type written on the outside in permanent marker and printed on acid-free paper inside each bag. All artifacts from feature bisections were analyzed in accordance with these same methods. Artifacts recovered from 2013-2014 shovel tests were analyzed during this time and subsequently verified in accordance with the methods discussed above. The 2016 GSU Summer Field School along with volunteers assisted in the initial analysis phase of artifacts recovered from unit excavations. After this initial phase, I reanalyzed the pottery to ensure consistency.

Feature bisection soils brought back to the lab were placed in paper or plastic feed bags then laid out to dry on a cleaned metal tray before being placed in a 4-mil polyethylene bag with site name and number, field specimen (FS) number, catalog number, and weight (grams). A catalog of all feature soils is located in Appendix B. These soil samples have future research potential outside the scope of this study included but not limited to: flotation for smaller artifacts/ecofacts such as flora and fauna, carbon dating, environmental reconstruction, soil characteristics, and any other future research technologies.

Soil sample sizes were relatively small, excluding Feature 57, where only a small portion was kept due to the large feature size. The remaining soils were water screened through a 1.59 mm (1/16 in) wire mesh window screen. The recovered artifacts from this feature were laid out to thoroughly dry, then sorted by size into heavy (2 mm), medium (0.1 mm), and fine (0.01 mm) using a geological sieve. The artifacts in the heavy and medium fraction sizes were analyzed using the methods discussed above. All organic material (except for roots) were weighed and bagged. Sorting began on the artifacts from the fine

fraction size but was not completed due to time issues. All artifacts from this feature are excluded from the following artifact analysis discussion due to the difference in sample size methods.

All artifacts, except for projectile points, and feature soil samples will be curated at the Georgia Southern University R M Bogan Archaeological Repository. At the request of one of the property owners, all projectile points will be kept on the property where Fitzner North End is located and not at Georgia Southern University's repository facilities. Therefore, extensive measurements and photographs were taken of these projectile points (Appendix D).

Ceramic Artifacts

Ceramic artifacts include clay that has undergone a firing episode, which consists of fired clay and sherds from both shovel tests and unit excavations totaling 1,182 pieces and 3,726.92 grams (Table 6.2). The total fired clay count is 610 pieces and 1,230.2 grams and includes mostly amorphous or spherical shapes except for a fired clay coil, fired clay pieces with impressions, and a larger piece containing a visible flake (Figure 6.1-6.3). No fired clay with cane impressions or daub are present in the collection; however, there is one piece of fired clay that does contain an impression, but the shape of this impression is not apparent. The total sherd count is 487 and 2,450.42 grams, while the total count for sherds less than ½ inch in size is 85 and 49.3 grams.

Sherds smaller than $\frac{1}{2}$ inch are excluded from the pottery analysis. Sherds larger than $\frac{1}{2}$ inch are classified as "sherd" and are included in the surface treatment discussion below. Body sherds make up the majority of the collection, for a total of 448 sherds and 2,207.09 grams, while rim sherds make up a total of 37 sherds and 241.83 grams (Table 6.4). Two sherds in the collection were not able to be identified as either rim or body sherds due to the amount of erosion (n=2, 1.5 grams).

During the analysis process, cross-mendable sherds were identified whenever possible and counted separately. Some sherds had a dark "film" on one side, possibly indicating contact with water or some type of long-term saturation. Many of these same sherds are eroded and difficult to identify, so low angle lighting was utilized with a 500-watt portable halogen work light. This light can be moved and

placed at different angles when sherds are on a flat surface to show shadows, making surface treatments more recognizable.

Artifact tables are presented in Tables 6.3 through 6.8 at the end of the chapter. A total of 185 (1,146.4 g) sherds were smoothed on the inside or concave side. Approximately 85% of these sherds were check stamped. In addition, a small portion of sherds was low-fired, friable, and fragile (n= 68, 221.78 g). In some cases, these sherds were broken or chipped in-field or during the cleaning process. Surface treatment of these sherds was typically not apparent and most appeared to be broken along the coil line.

Surface treatments include curvilinear complicated stamped (n=6, 52.57 g), burnished plain (n=12, 103.71 g), check stamped (n=231, 1,431.14), linear check stamped (n=5, 28.16 g), cob marked (n=2, 6.69 g), cord marked (n=7, 42.69 g), cane punctated (n=1, 1.3 g), plain (n=30, 132.63 g), fine fabric marked (Wood 2014) (n=1, 4.6 g), smoothed/possibly burnished (n=6, 23.47 g), unidentified (UID) decorated (n=36, 172.57 g), and unidentified (UID) eroded (n=150, 450.89 g) (Table 6.5 and Figures 6.7-6.11). Sherd tempering includes organic fibers (n=14, 48.12 g), grit (n=113, 601.9), sand (n=36, 211.36 g), and a relatively equal ratio of grit and sand (n=324, 1,589.04 g) (Table 6.6). All complicated stamped sherds contained curvilinear designs.

Rim treatments include rolled (n=8, 33 g), rounded (n=16, 135.07 g), squared (n=9, 50.43 g), unidentified (UID) (n=4, 23.33 g), while lip treatments include simple (n=28, 172.06 g), unidentified (UID) decorated (n=3, 36.45 g), and unidentified (UID) eroded (n=12, 87.24 g). A rolled rim has a lip that has been smoothed or "rolled" outward so that it overhangs slightly. A rounded rim has a lip that curves convexly, while a squared rim is squared at the top with a flat lip. A visual representation of each type is shown in Figure 6.12. No vessel shape analysis was completed for this study.

In some instances, pottery types are assigned to a surface treatment. All curvilinear complicated stamped and burnished plain sherds are assigned to Savannah Complicated Stamped and Savannah Burnished Plain, respectively. Sherds that were smoothed, but not quite burnished were categorized as "smoothed/possibly burnished." Check stamping is difficult to distinguish between Savannah Check and Deptford Check Stamped. Design shape and measurements are recorded for all check stamping with the

goal to discover design pattern similarities and differences that may lead to paddle identification. The shape was determined by the overall representative shape, for instance, if only three out of fifteen carved "checks" appeared rectangular, the sherd was assigned a square shape. Measurements were taken of one clearly visible, representative "check" on the sherd. Plain sherds are also difficult to distinguish between Savannah and Deptford Plain. Cord marking with grit and grit/sand tempering occurs and is either Savannah Fine Cord Marked or Deptford Cord Marked. Deptford Linear Check Stamped represents a small portion of the collection (n=5, 28.16 g). Fine Fabric Marked was first reported by Wood (2014) at the nearby Fitzner mound site and contains fine fabric impressions when compared with other fabric marked types. Cane punctations and cob markings do not belong to a specific pottery type but are usually utilized to decorate pots containing burnished plain, check, and complicated stamped designs typical of the Savannah types (Wood 2009: 162-168).

Most of these pottery types are assigned to the Savannah ceramic complex consisting primarily of Savannah Complicated Stamped, Savannah Check Stamped, and Savannah Burnished Plain that date to the Hollywood phase (A.D. 1250-1350) (Wood 2014). This complex also includes Savannah Plain and Savannah Cord Marked (Wood 2009: 156). Pottery from Fitzner North End is typically thick and poorlymade sand and grit tempered (64.1% total weight of collection). A small portion of the collection is Deptford Linear Check Stamped (n=5, 28.16 g) which suggests that a portion of the check stamped sherds could be Deptford Check Stamped. The differences between Savannah and Deptford Check Stamped are minute and not apparent based on surface treatment alone.

Pottery Type Descriptions

Curvilinear Complicated Stamped (n=6, 52.57 g) includes Savannah Complicated Stamped (n=4, 36.46 g) and UID Curvilinear Stamped (n=2, 16.11 g) (Table 6.5). Savannah Complicated Stamped sherds were identified as having concentric circles and curves, while the UID Curvilinear Stamped could not be assigned to a possible motif type. These sherds are relatively small in size with erosion/wear on some sherds making the stamping difficult to identify. Represented motifs were likely the concentric

circle, or bull's eye, and the concentric circle, or hollow center. Temper includes fine to medium sand and grit. This sample contains no rim sherds or rectilinear designs.

The Savannah Burnished Plain (n=12, 103.71 g) sherds consist of 8 (81.88 g) body and 4 (21.83) rim sherds and are similar to the sample shown in Wood (2014) (Table 6.5). All rim sherds are squared with a simple flat/smoothed lip. Tempering ranges from fine to medium sand and grit to heavier grit. A portion of the sherd sample is identified as "smoothed/possibly burnished" (n=6, 23.47 g). One of these sherds is a rounded rim sherd with a simple lip. These sherds are not classified as Savannah Burnished Plain because close inspection with a magnifying glass did not reveal stone burnishing marks, but the surface had clearly been smoothed. Erosion could have worn down these types of markings over time, making them undetectable with a magnifying glass. Tempering also ranges from fine to medium sand and grit to heavier grit.

Savannah Check Stamped (n=231, 1,431.14) makes up the largest category of sherds at 47.4% in count and 58.4% of weight in grams (Table 6.5). Total rim sherd count is 17 (143.24 g) and consists of rounded (n=5, 85.54 g), rolled (n=7, 30.92 g), squared (n=3, 20.9 g), and unidentifiable (UID) eroded (n=2, 5.88 g). The lips of six of these rim sherds contain unidentifiable (UID) decorated lips (47.44 g), while eleven contain simple lips (95.8 g). Check stamping designs consist of diagonal, square, and rectangular shapes with a range from 0.2 to 0.64 mm. This design variation naturally reflects craftsmanship or heritage of the potter. Some sherds were either over stamped or eroded with stamping shape and measurements unrecordable. Tempering ranges from fine to medium sand and grit to heavier grit. Because there is a small number of Deptford Linear Check Stamped, discussed below, there is a possibility that a portion of the sherds classified as Savannah Check Stamped is Deptford Check Stamped which display similar characteristics and are unrecognizable to the naked eye.

Deptford Linear Check Stamped (n=5, 28.16 g) consists of body sherds only and made with a medium sand and grit temper (Table 6.5). These designs are denoted by thick, bold lines with perpendicular thin lines with thinner parallel lines reminiscent of railroad tracks. Savannah Check Stamped contains both perpendicular and parallel lines that similar in thickness. When compared to

Deptford Linear Check Stamped, the differences are obvious based on the thickness of these perpendicular and parallel lines. The Deptford ceramic complex dates to the Middle Woodland period and likely represents a small portion of the Fitzner North End ceramic collection.

Savannah Fine Cord Marked is described by Caldwell and Waring (1939) and is similar to Deptford Cord Marked, but was made using a smaller, twisted cord. Sometimes these similarities are unrecognizable, making it hard to tell the difference between these two ceramic complexes. A total of seven cord marked body sherds (42.69 g) are present in this collection with a fine to medium sand and grit temper.

Savannah Plain is similar to Deptford plain with both containing no surface designs or alterations. A total of thirty plain sherds (132.63 g) are present in the ceramic collection with a fine to medium sand and grit, heavier grit, and organic fibrous temper (Table 6.5). Total rim sherd count is 5 (20.72 g) and consists of rounded (n=1, 5.53 g), squared (n=2, 7.7 g), and unidentifiable (UID) eroded (n=2, 7.49 g). Six of these rim sherds contain unidentifiable (UID) decorated lips (7.49 g), while eleven contain simple lips (13.23 g). Eleven of these sherds (41.63 g) (one UID eroded rim sherd, 3.69 g) are tempered with fibrous material which is similar to the Stallings Island ceramic complex, indicating a Late Archaic period date.

Fine Fabric Marked was first found at the nearby Fitzner mound site and described by Wood (2014). One sherd (4.6 g) with a fine to medium sand and grit temper is present in the collection. The surface treatment is reminiscent of an extremely detailed, fine check stamping. Personal communications with Wood (2017) indicate that a sample was sent off to a textile expert who confirmed that the impressions were made with a fabric or textile.

Unidentified (UID) decorated sherds (n=36, 172.57 g) show evidence of a decorative surface treatment but are not able to be classified to any category (Table 6.5). Three of these sherds (10.65 g) are rounded rim sherds with simple lips. Tempering ranges from a fine to medium sand and grit.

Unidentified (UID) eroded sherds (n=150, 450.89 g) have not been assigned to a category because they are too eroded or damaged (Table 6.5). Total rim sherd count is 5 (26.03 g) and consists of

rounded (n=1, 2.7 g) and unidentifiable (UID) eroded (n=4, 23.33 g). The lips of all of these sherds are classified as UID eroded. Tempering ranges from a fine to medium sand and grit to a heavier grit. Three of the body sherds (6.49 g) are tempered with fibrous material similar to the Stallings Island ceramic complex, indicating a Late Archaic period date.

As noted previously, cob markings and cane punctations do not belong to a specific pottery type but are usually utilized to decorate pots containing burnished plain, check, and complicated stamped designs typical of the Savannah types (Wood 2009: 162-168). The samples present in this collection (cob marked: n=2, 6.69 g; cane punctated: n=1, 1.3 g) do not have any other surface decoration; and therefore, cannot be assigned to a specific pottery type (Table 6.5).

Energy Dispersive X-Ray Fluorescence (ED-XRF) Spectrometry Ceramic Analysis

The goal of this ED-XRF study is to identify compounds present in a small sample of 12 sherds and 1 fired clay coil (Figure 6.7, Table 6.6), to compare and contrast any noticeable differences between individual sherds to determine if the same clay source was used, and to evaluate the practicality of expanding the sample size in future XRF studies for Fitzner North End and possibly the Fitzner mound. Georgia Southern University's Jack N. Averitt College of Graduate Studies provided monies for this study through the Graduate Student Professional Development Fund. The ED-XRF analysis was performed by the University of Georgia's Center for Applied Isotope Studies (CAIS).

The goal of clay sourcing or provenance studies is to produce comparable and reproducible data using standardized procedures for all researchers in the field (Speakman et al. 2011). These studies compare the chemical makeup of pottery to natural clay sources in order to quantify similarities and differences. If a sherd or pot can be designated to a specific natural clay source, it can be assumed that the pot was made nearby. In addition, if other sherds or pots in the same collection (that date to the same time period) do not match this same chemical makeup, the raw material was collected from a different location. Clay sources have been used repeatedly through time with locations usually passed down from generation to generation. If a family travels to a different location, the pot they fired at their former home will no longer be of a similar molecular makeup when compared to any new pots the family makes. These studies can begin to recreate human movement and relationships over a region or river valley.

Energy dispersive x-ray fluorescence (ED-XRF) spectrometry provides particulate compositional data so that trace elements in samples are identified and compared. Spectrometers work when a heated filament (usually tungsten) emits high energy electrons at a target (usually rhodium) that emits high energy x-rays (Shackley 2011). These x-rays are then directed at a sample which results in radiation emitted from this sample. This radiation is recorded and measured using discrete energy levels (keV) that are converted into element concentrations and subsequently "calibrated" or compared to known element concentrations (Shackley 2011). The trace elements, opposed to the major elements, in a sample are often used to compare/contrast to other samples.

This type of analysis works best with homogeneous materials such as obsidian and metals. Sherds are more heterogeneous in nature due to the uneven mixing of clay paste and temper that occurs during the construction process, as opposed to a more homogeneous mixing that occurs during metal alloy production of lead balls. This problem can be solved by grinding then pressing each sample into pellets and/or disks, ultimately destroying the sample. This method is not ideal. Surface analysis for whole sherds can be completed for cleaned and relatively flat samples where the XRF beam is not larger than the sample size; however, a study by Speakman and colleagues concludes that instrumental neutron activation analysis (INAA) produces similar results to ED-XRF but is more accurate in measuring trace and rare elements especially for sourcing or provenance studies (2011).

The sherd samples were chosen very carefully. It was important to get a representative sample without pottery type assignments (e.g. check stamp surface treatment) and with pottery type assignments (*e.g.* Savannah Complicated Stamped) from both Woodland and Mississippian periods. Sherds include burnished plain (n=2), check stamped (n=2), plain (n=2), curvilinear stamped (n=2), cord marked (n=2), cob marked (n=1), and fine fabric marked (n=1) (Wood 2014). The fired clay coil was also chosen. Three locations on the same artifact were analyzed then calculated into a mean and percent relative standard deviation (%RSD) of each element and compound. For the purposes of this study, percent RSD of

compounds was utilized for comparisons. The results of this study are presented in Chapter 7. The similarities and differences between these artifacts could offer additional information for the unidentifiable sherds and fired clay coil, primarily where the clays were sourced—different or the same local source or a non-local source—and if pottery production occurred.



Figure 6.4 Fired Clay Coil



Figure 6.5 Fired Clay with an Impression



Figure 6.6 Fired Clay with Flake



Figure 6. 7 Ceramics Used in XRF Study (from left to right) Top row: Cob marked, Fine Fabric Marked, fired clay coil, plain, plain; Second row: Burnished plain, Burnished plain, Check stamped, check stamped; Third row: Savannah Complicated Stamped, Savannah Complicated Stamped, Cord marked



Figure 6. 8 Cane Punctated Sherd



Figure 6. 9 Smoothed/Possibly Burnished Sherd



Figure 6. 10 Low Fired Sherds



Figure 6. 11 Linear Check Stamped

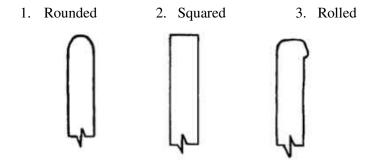


Figure 6. 12 Rim Types (from Wood [2009: 206]).

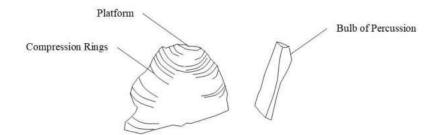
Lithic Artifacts

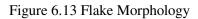
Most lithic artifacts consist of culturally modified Coastal Plain chert from both shovel tests and unit excavations, and include flakes (n=3,918, 2,843.69 g), shatter (n=280, 367.4 g), bifaces (n=3, 70.13 g), worked unifacial tools (n=2, 28.25 g), and projectile points (PP/K) and fragments (n=19, 76.64 g) (Table 6.7). In addition, one piece of quartz tested material (n=1, 35.3 g) is present in this collection. All lithic artifacts total 4,223 pieces and weigh 3,421.41 grams. Out of these artifacts, 3,922 (3,326.71 g) are heat treated and 344 (705.85 g) are "utilized" or expedient tools with apparent use-wear. Typical lithic artifacts are presented in Figures 6.15-6.23. All diagnostic projectile points (n=9, 57.28 g) date from the Middle Archaic to Late Woodland period. The undiagnostic artifacts in this category consist of broken bases and tips.

For the purposes of this study, a flake is defined as debitage resulting from the chipping and flaking of lithic material resulting in the flake having a platform, bulb of percussion, and/or compression rings, shown in Figure 6.13. Shatter is angular debitage inadvertently produced during this process that does not contain the characteristics of a flake. Flakes and shatter are subclassified as primary, secondary, and tertiary. Primary flakes and shatter contain 50% or more cortex, secondary flakes and shatter contain less than 50% of cortex, and tertiary flakes and shatter contain no cortex. A biface is defined as a piece of lithic material that has been flaked on both sides, while a unifacial tool is defined as a flake that has been worked on one edge. Tested material is "raw" or "natural" lithic material that has been flaked in order to test the viability and workability of the material. A projectile point or knife (PP/K) is a lithic tool that has been worked on both sides to form a blade or blades with a hafting area for attachment onto a shaft.

Once the lithic artifacts were separated from other artifact types (*e.g.* ceramics, other) as previously discussed, they were sorted by represented materials (Coastal Plain chert and quartz) and types (flake, shatter, biface, worked unifacial tool, tested material, and PP/K). These artifacts were further analyzed for any thermal alteration or heat treatment, which can turn chert and quartz a light pink to a darker red color. In some cases, a magnifying glass was used to determine if an artifact had undergone thermal alteration. Flakes and shatter were sorted as either primary, secondary, or tertiary per the previously discussed definitions. Flakes and shatter were then analyzed to determine if edges had been utilized in any way. In some instances, use-wear was apparent to the naked eye, while other instances a magnifying glass was used. These types of artifacts were an expedient tool of convenience and usually not re-sharpened for long-term use. The two unifacial tools had been chipped and flaked on one side to sharpen and most likely re-sharpen the edge for use as a tool. The bifaces had been worked on both sides with the likely intention of being further worked into a PP/K. Broken PP/Ks were also included in this category and typically consisted of broken tips with no base attached (and no longer diagnostic). Each lithic type was cataloged and bagged separately. For instance, a heat treated primary flake with the same provenience information was given a different catalog number than a primary flake that was not heat treated.

Because of the requests of the property owner discussed above, all diagnostic PP/Ks were further analyzed based on Whatley (2002) and photographed. These points were measured in length, thickness, blade tip width and maximum width of blade, and then assigned a point typology: lanceolate, stemmed, and triangular (Figure 6.14). A lanceolate point expands outward from the tip of the blade, then curves down to the base. These types usually have "ears" with a concave base. Additional measurements included: base width, hafting area width, and basal concavity. A stemmed point has a stem that functions as the hafting area and relatively flat blade edges. Additional measurements included: haft width of the base and top (near shoulder), haft length (from hafting area), and width from hafting area to the barb or shoulder. Finally, a triangular point expands outward from the tip of the blade to make a triangular shape. The base is either flat or convex. Additional measurements included the base width. Four of the PP/Ks were lanceolate in shape, three were stemmed with one possible stem (base was broken), and one triangular. The dates for these points likely range from Middle Archaic (represented by one Morrow Mountain) to Late Woodland (represented by one Woodland Triangular). The data regarding these points are further discussed in the following chapter and located in Appendix D.





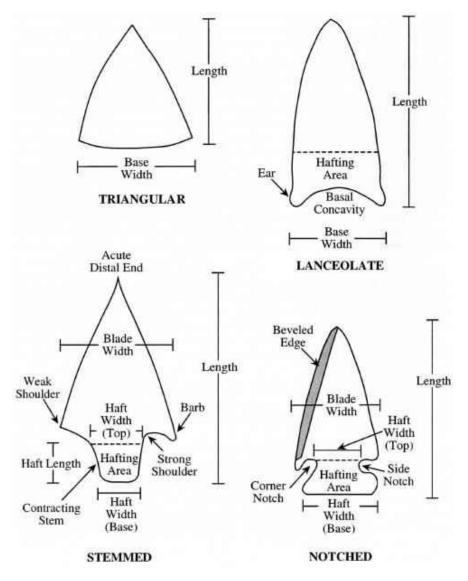


Figure 6.14 Point Typologies (Whatley 2002: 10)



Figure 6. 15 Bifaces

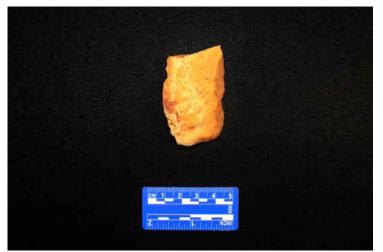


Figure 6. 16 Unifacial Tool

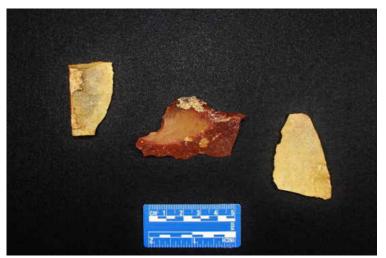


Figure 6. 17 Utilized Flakes



Figure 6. 18 Primary Flakes



Figure 6. 19 Secondary Flakes



Figure 6. 20 Tertiary Flakes



Figure 6. 21 Primary Shatter



Figure 6. 22 Secondary Shatter



Figure 6. 23 Tertiary Shatter



Figure 6. 24 Hertzian Cone

Other Artifacts

Other cultural artifacts include charcoal (89.27 g) and red pebbles (n=305, 198.35 g). The charcoal could not be counted during the analysis process because of the friable and fragile nature of this artifact. Red pebbles are river pebbles that have had direct contact with hot coals and are distinguishable from natural river pebbles based on their red color that does not occur naturally. Williams conducted a study with unmodified river pebbles and hypothesizes that these pebbles could have been used for cooking directly on the pebbles or as a cooking/nestling medium for pots with rounded or conoidal bases (1995b).

Number and weight of other historic and culturally unmodified materials are presented Table 6.8.

Conclusions

Results from this laboratory analysis will be compared with existing literature on non-mound Mississippian sites, with specific attention to artifact and feature diversity and distribution. If the site is special-use or limited activity, it should have an identifiable specific function, such as stone tool manufacture, but not reflect the variety of activities assumed with a seasonal or year-round domestic site: tool manufacture and use, food processing, cooking, and consumption, refuse disposal, burial, construction and use of houses and outbuildings. If it is domestic, it should have this diversity of activity reflected in artifacts and features. If domestic, overall site size, number and type of structures, activity areas, and arrangement will be used to compare with published types of non-mound sites to help determine its function and purpose.

The goal of the excavation and artifact analysis is to learn the type, number, and variety of artifacts present in this sample to identify possible activities to determine site function or purpose. Artifact types and totals are one layer of data to be compared with previously discussed sites to determine differences and similarities between those sites and Fitzner North End. These results and conclusions will be discussed in the following chapters.

Ceramic Artifact	Number	Percent	Grams	Percent
Fired Clay	610	51.610	1,134.830	32.980
Sherds > $\frac{1}{2}$ "	487	41.200	2,450.420	65.700
Sherds < 1/2"	85	7.190	49.300	1.320
Total	1,182	100	3,634.55	100

Table 6.2 Total Ceramic Artifacts

> ½" Sherd Type	Number	Percent	Grams	Percent
Body	448	91.990	2,207.090	90.090
Rim	37	7.600	241.830	9.860
UID	2	0.410	1.500	0.050
Total	487	100	2,450.42	100
	Table 6.3 S	Sherd Type		

Table 6.	3 Sherd	Type
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Surface Treatment	Number	Percent	Grams	Percent
Curvilinear Complicated Stamped	6	1.232	52.570	2.145
Burnished Plain	12	2.464	103.710	4.232
Check Stamped	231	47.433	1,431.140	58.404
Linear Check Stamped	5	1.027	28.160	1.149
Cob Marked	2	0.411	6.690	0.273
Cord Marked	7	1.437	42.690	1.742
Cane Punctated	1	0.205	1.300	0.053
Plain	30	6.160	132.630	5.413
Fine Fabric Marked	1	0.205	4.600	0.188
Smoothed/Possibly Burnished	6	1.232	23.470	0.958
UID Decorated	36	7.392	172.570	7.042
UID Eroded	150	30.801	450.890	18.401
Total	487	100	2,450.42	100

Table 6.4 Sherd Surface Treatments

Temper	Number	Percent	Grams	Percent
Sand	36	7.392	211.360	8.625
Grit	113	23.203	601.900	24.563
Grit/Sand	324	66.530	1,589.040	64.848
Organic/Fibrous	14	2.875	48.120	1.964
Total	487	100	2,450.42	100

Table 6.5 Sherd Temper

			Туре		
Sample No.	Unit #	Artifact Category	of Sherd	Tempering	Surface Treatment
XRF 63.001.LH	XU01	Fired Clay Coil		Grit/Sand	
XRF 04.002.LH	XU5	Sherd	Rim	Sand	Burnished Plain
XRF 65.003.LH	XU02	Sherd	Rim	Grit/Sand	Burnished Plain
XRF 27.004.LH	XU14	Sherd	Body	Grit/Sand	Check Stamped
XRF 04.005.LH	XU5	Sherd	Rim	Grit	Check Stamped
XRF 04.006.LH	XU5	Sherd	Rim	Grit	Plain
XRF 02.007.LH	XU4	Sherd	Body	Grit	Plain
XRF 04.008.LH	XU5	Sherd	Rim	Grit/Sand	Cob Marked
XRF 15.009.LH	XU09	Sherd	Body	Grit/Sand	Curvilinear
XRF 21.010.LH	XU11	Sherd	Body	Grit/Sand	Curvilinear
XRF 02.011.LH	XU4	Sherd	Body	Grit	Cord Marked
XRF 29.012.LH	XU15	Sherd	Body	Grit	Cord Marked
XRF 12.013.LH	XU8	Sherd	Body	Grit/Sand	Fine Fabric Marked (Wood 2014)

Table 6. 6 Ceramics	Utilized in 2	XRF Analysis
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Lithic Artifact	Number	Percent	Grams	Percent
Flakes	3,918	92.778	2,843.69	83.115
Shatter	280	6.630	367.400	10.738
Biface	3	0.071	70.130	2.050
PP/K	19	0.450	76.640	2.240
Tested Material (quartz)	1	0.024	35.300	1.032
Unifacial Tool	2	0.047	28.250	0.826
Total	4,223	100	3,421.41	100

Table 6.7 Total Lithic Artifacts

Artifact	Number	Percent	Grams	Percent
Charcoal			89.270	4.874
Red Pebbles	305	12.408	198.350	10.830
Total Glass (Amber, Clear, Green)	122	4.963	304.250	16.613
Bullets/Shot	8	0.325	21.610	1.180
Nails (Wire, Cut)	5	0.203	9.300	0.508
Brick Fragments	16	0.651	274.400	14.983
Penny	1	0.041	2.97	0.162
Historic Sherd	1	0.040	0.7000	0.038
Tooth	1	0.040	0.080	0.004
Unmodified Chert	3	0.122	0.710	0.039
Limestone	23	0.285	13.900	0.759
Pebbles	1,989	80.919	1,005.180	54.884
Total	2458	100	1831.45	100

Table 6.8 Other Artifacts

RESULTS

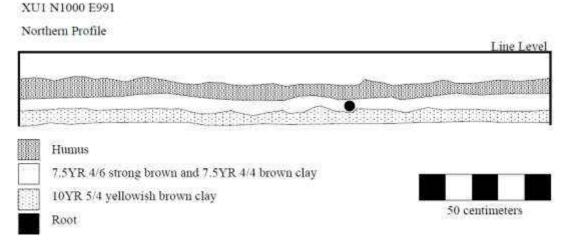
This chapter will present unit excavation results from 2013-2014 and 2016-2017, artifact density and feature distribution, Energy Dispersive X-Ray Fluorescence (ED-XRF) spectrometry and radiocarbon (¹⁴C) analyses based on the methods described in the previous chapter.

Unit Excavation

The unit excavation discussion below focuses on the Mississippian occupation of the Fitzner North End (9SN256) site and excludes all fiber tempered and linear check stamped pottery. The artifact catalog is located in Appendix B, while final closing unit and feature bisection photographs are located in Appendix C.

XU1 (N1000 E991)

XU1 stratigraphy exhibited approximately 0-6 cm of humus over approximately 6-12 cm of (Munsell) 7.5YR 4/6 strong brown clay mottled with 7.5YR 4/4 brown clay over approximately 12-18 cm of 10YR 5/4 yellowish brown clay (Figure 7.1). Final closing depths were 30 cm below datum (cmbd). The plan view contained an amorphous feature approximately 40 x 20 cm in size with 7.5YR 4/6 strong brown and 10YR 5/4 yellowish brown clays, and a 13 cm diameter circular feature with 10YR 4/4 dark yellowish brown clay. Neither of these features was numbered or excavated.





This unit is located in the eastern portion of the site and is dominated primarily by lithic debitage with some fired clay, red pebbles, and a few sherds (Tables 7.1-7.5). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Both check stamped and curvilinear complicated stamped sherds are found in this unit indicating a possible Woodland occupation and probable Middle Mississippian occupation. An artifact of note is the fired clay coil that was mentioned in Chapter 6. This artifact was pinched off during the pottery-making process and fired, most likely by accident, and is evidence that pottery was likely made at this location.

Artifact Type	Count	Weight (g)
Sherds	9	36.55
Fired Clay	22	30.07
Red Pebbles	23	11.20
Lithics	40	57.95
Total	94	135.77

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	2	5.00
Curvilinear	1	8.87
UID Decorated	2	12.57
UID Eroded	4	10.11
Total	9	36.55

Table 7.1 XU1 Artifact Types

Table 7.2 XU1 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	2	7.86
Flakes	38	50.09
Total	40	57.95

Table 7.3 XU1 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	7	24.96
Utilized Shatter	0	0.00
Total	7	24.96

Table 7.4 XU1 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	38	50.96
Shatter	2	7.86
Total	40	57.95

Table 7.5 XU1 Heat Treatment

XU2 (N1000 E979)

XU2 stratigraphy exhibited approximately 0-5 cm of humus over approximately 5-12 cm of (Munsell) 10YR 4/6 dark yellowish brown clay over approximately 12-20 cm of 10YR 5/6 and 10YR 5/4 yellowish brown clay. The plan view drawing also describes Zone C as mottled 10YR 6/2 light brownish gray and 10YR 5/8 yellowish brown clay. Final closing depths were 30 cm below datum (cmbd). This unit contained a 20 cm diameter circular feature, labeled as "Feature 1" with 10YR 4/6 dark yellowish brown clay. This feature was not excavated.

This unit is located in the central portion of the site and is dominated by sherds, primarily check stamped, with nominal totals of fired clay and red pebbles and minimal lithic debitage but five broken PP/K fragments (Tables 7.6-7.10). Both check stamped, curvilinear complicated stamped, and plain sherds are found in this unit indicating a possible Woodland occupation and probable Middle Mississippian occupation. The burnished plain sherds in this unit represent a concentration similar to XU4 and XU14 when compared to the other excavated units. When compared with the other units, XU2 contains one of the highest sherd densities indicating that this location functioned as a refuse area. Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment.

Artifact Type	Count	Weight (g)
Sherds	150	678.35
Fired Clay	18	6.42
Red Pebbles	21	7.10
Lithics	45	35.03
Total	234	726.90

Table 7.6 XU2 Artifact Types

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	110	543.02
Curvilinear	1	9.66
Burnished Plain	4	20.58
Plain	2	5.23
UID Decorated	14	44.30
UID Eroded	19	55.56
Total	150	678.35

Table 7.7 XU2 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	3	2.14
Flakes	37	24.55
PP/K	5	8.34
Total	45	35.03

Table 7.8 XU2 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	5	8.53
Utilized Shatter	0	0.00
Total	5	8.53

Table 7.9 XU2 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	36	24.43
Shatter	3	2.14
PP/K	5	8.34
Total	44	34.91

Table 7.10 XU2 Heat Treatment

XU3 (N990 E978)

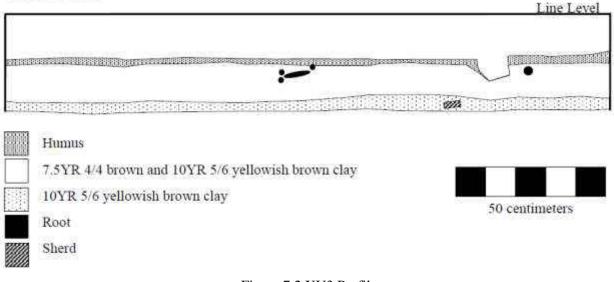
XU3 stratigraphy exhibited 0-2.5 cm of humus over approximately 2.5-13 cm of (Munsell) 7.5YR 4/4 brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 13-19 cm of 10YR 5/6 yellowish brown fine silty clay (Figure 7.2). Final closing depths were 30 cm below datum (cmbd).

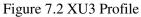
The plan view drawing showed three features labeled Feature 1 through Feature 3. Feature 1 was shovel test 156, while Feature 2 was described as a root run or old burrow filled with soil from the upper stratum. Feature 3 was approximately 25 x 20 cm in size and circular in shape and contained 10YR 4/2

dark grayish brown fine silty clay mottled with 10YR 4/3 brown fine silty clay (Figure 7.3). This feature contained a relatively flat base located 16 cmbd with no artifacts present.

XU3 N990 E978

Northern Profile





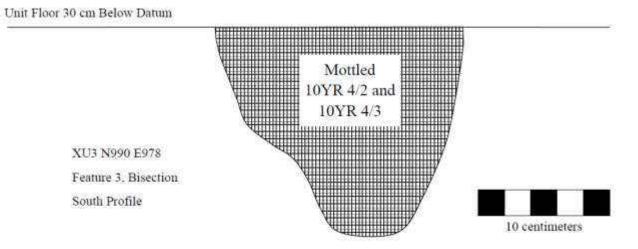


Figure 7. 3 XU3 Feature Profile

This unit is located in the southern portion of the site and is dominated by lithic tools and debitage with nominal totals of sherds, fired clay, and red pebbles (Tables 7.11-7.15). Lithic tools include bifaces and PP/K and PP/K fragments. Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. This high-density lithic area likely represents a possible lithic tool-making area focused on biface and PP/K production. When compared with the other units, XU3 contains one of the highest densities of lithics and lowest number of red pebbles. Few plain sherds are found in this unit indicating a possible Woodland occupation and probable Middle Mississippian occupation.

Artifact Type	Count	Weight (g)
Sherds	12	32.72
Fired Clay	44	65.64
Red Pebbles	4	1.40
Lithics	420	365.87
Total	480	465.63

Sherd Surface Treatment	Count	Weight (g)
Plain	4	6.53
UID Decorated	1	10.40
UID Eroded	7	15.79
Total	12	32.72

Table 7.11 XU3 Artifact Types

Table 7.12 XU3 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	22	63.18
Flakes	393	239.58
PP/K	3	5.58
Biface	2	57.53
Total	420	365.87

Table 7.13 XU3 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	31	56.43
Utilized Shatter	0	0.00
Total	31	56.43

Table 7.14 XU3 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	367	233.86
Shatter	22	63.18
PP/K	3	5.58
Biface	2	57.53
Total	394	360.15

Table 7.15 XU3 Heat Treatment

XU4 (N988 E989)

XU4 stratigraphy exhibited approximately 0-3 cm of humus over approximately 3-15 cm of (Munsell) 2.5YR 4/4 reddish brown clay mottled with 10YR 6/4 light yellowish brown clay over approximately 15-22 cm of 10YR 6/4 light yellowish brown clay. Final closing depths were 33 cm below datum (cmbd) in the southwest corner and center, 34 cmbd in the northwest and northeast corners, and 36 cmbd in the southeast corner. No features were present in this unit.

This unit is located in the southeast portion of the site and contains a low density of artifacts including lithic debitage, sherds, fired clay, and red pebbles (Tables 7.16-7.20). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Interestingly, sherds represent a variety of surface treatments: check stamped, curvilinear complicated stamped, burnished plain, plain, UID eroded, smoothed/possibly burnished, and cord marked. These sherds indicate a possible Woodland occupation and probable Middle Mississippian occupation. The burnished plain sherds in this unit represent a high concentration similar to XU2 and XU14 when compared to the other excavated units.

Artifact Type	Count	Weight (g)
Sherds	11	97.62
Fired Clay	2	2.97
Red Pebbles	8	5.30
Lithics	63	90.34
Total	84	196.23

Table 7.16 XU4 Artifact Types

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	1	4.72
Curvilinear	1	7.24
Burnished Plain	3	43.30
Plain	1	7.64
UID Eroded	3	11.64
Smoothed/Possibly Burnished	1	12.67
Cord Marked	1	10.41
Total	11	97.62

Table 7.17 XU4 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	11	44.63
Flakes	52	45.71
Total	63	90.34

Table 7.18 XU4 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	13	13.7
Utilized Shatter	0	0.00
Total	13	13.7

Table 7.19 XU4 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	48	44.58
Shatter	10	44.32
Total	58	88.90

Table 7.20 XU4 Heat Treatment

XU5 (N1000 E983)

XU5 stratigraphy exhibited approximately 0-3 cm of humus over approximately 3-12 cm of

(Munsell) 5YR 5/4 reddish brown clay mottled with 10YR 6/4 light yellowish brown clay over approximately 12-16 cm of 10YR 6/4 light yellowish brown clay. Final closing depths were 25 cm below datum (cmbd) in the northeast corner, 26 cmbd in the southwest and southeast corners, 27.5 cmbd in the center, and 28 cmbd in the northwest corner. No features were present in this unit. Two flakes were drawn in the plan view and not collected.

This unit is located on the eastern side of the central portion of the site and contains a nominal number of artifacts including lithic debitage, sherds, fired clay, and red pebbles (Tables 7.21-7.25). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Interestingly, sherds represent a variety of surface treatments: check stamped, burnished plain, plain, UID eroded, UID decorated, and cord marked. The plain and rim sherds in this unit represent a high concentration when compared to the other excavated units. These sherds indicate a possible Woodland occupation and probable Middle Mississippian occupation.

Artifact Type	Count	Weight (g)
Sherds	21	164.01
Fired Clay	2	2.51
Red Pebbles	11	15.30
Lithics	44	44.29
Total	78	226.11

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	8	86.07
Burnished Plain	1	8.52
Plain	4	27.98
UID Decorated	1	4.97
UID Eroded	5	29.78
Cob Marked	2	6.69
Total	21	164.01

Table 7.21 XU5 Artifact Types

Table 7.22 XU5 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	4	9.98
Flakes	40	34.31
Total	44	44.29

Table 7.23 XU5 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	8	10.02
Utilized Shatter	0	0.00
Total	8	10.02

Heat Treatment	Count	Weight (g)
Flakes	44	44.29
Shatter	0	0.00
Total	44	44.29

Table 7.24 XU5 Utilized Lithics

Table 7.25 XU5 Heat Treatment

XU6 (N1000 E975)

XU6 stratigraphy exhibited 0-3 cm of humus over approximately 3-12 cm of (Munsell) 7.5YR 4/6 strong brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 12-20 cm of 10YR 5/6 yellowish brown clay (Figure 7.4). Final closing depths were 27 cm below datum (cmbd) in the southwest corner, 28 cmbd in the center, 28.5 cmbd in the southeast corner, 29 cmbd in the northeast corner, and 29.5 cmbd in the northwest corner.

XU6 N988 E989

Eastern Profile

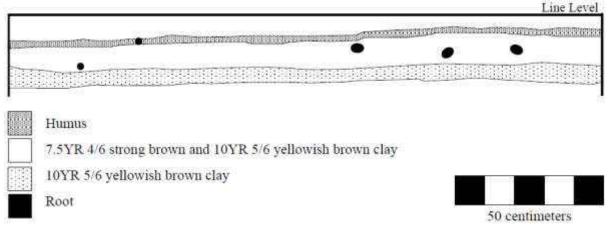


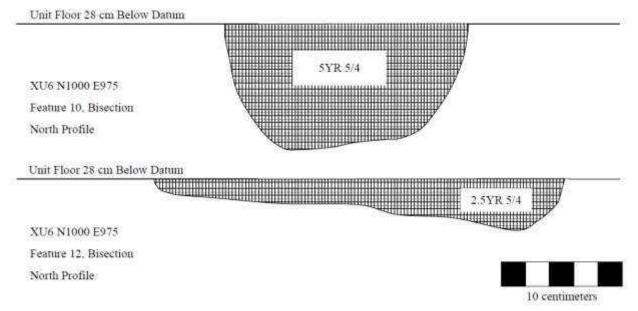
Figure 7.4 XU6 Profile

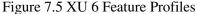
The plan view drawing showed four features labeled Feature 10 through Feature 13. Feature 10 was circular in shape, 22 x 20 cm in size, and contained 5YR 5/4 reddish brown sandy clay. This feature

had a relatively flat base and measured 8.5 cmbd in depth from the bottom of the unit (28 cmbd) (Figure 7.5).

Feature 12 measured approximately 31 x 12 cm and contained 2.5 YR 5/4 reddish brown sandy clay. This feature was bisected along its length from east to west. The maximum depth was 32 cmbd on the western side and 30 cmbd on the eastern side. One heat treated secondary shatter (0.52 g) was present in this feature.

Feature 11 extended into XU9 and the exposed portion measured approximately 13 x 11 cm in size. This feature initially contained 2.5YR 5/6 red sandy clay but was no longer visible when XU9 was completed six months later. Feature 13 was a root run or old burrow filled with soil from the upper stratum and was not excavated.





During the artifact washing phase, Zones A and B from XU6 and XU7 were inadvertently combined. In an effort to "normalize" the artifact numbers, combined artifacts were divided in half by each category and added to existing artifact categories for each of these units. Affected categories are: 64 fired clay, 6 UID eroded sherds, 2 red pebbles, and 134 lithics (secondary and tertiary shatter; primary, secondary, and tertiary flakes; and one broken PP/K tip).

This unit is located in central portion of the site and contains a moderately high number of lithic debitage and tools with a nominal number of sherds, fired clay, and red pebbles (Tables 7.26-7.30). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. XU6 contains the greatest concentration of PP/Ks and PP/K fragments when compared to the other excavated units. Fired clay totals are also relatively high when compared to other units. Check stamped and burnished plain sherds indicate a possible Woodland occupation and probable Middle Mississippian occupation.

Artifact Type	Count	Weight (g)
Sherds	12	53.37
Fired Clay	53	11.65
Red Pebbles	12	5.82
Lithics	218	205.78
Total	295	276.62

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	4	18.18
Burnished Plain	1	2.61
UID Decorated	4	19.88
UID Eroded	3	12.70
Total	12	53.37

Table 7.26 XU6 Artifact Types

Table 7.27 XU6 Sherd Surface Treatments

Lithics	Count	Weight (g)
Shatter	12	7.92
Flakes	202	161.27
PP/K	3	23.99
Biface	1	12.60
Total	218	205.78

Table 7.28 XU6 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	16	41.07
Utilized Shatter	0	0.00
Total	23	51.45

Table 7.29 XU6 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	194	159.12
Shatter	11	7.70
PP/K	3	23.99
Biface	1	12.60
Total	209	203.41

Table 7.30 XU6 Heat Treatment

XU7 (N1000 E971)

XU7 stratigraphy exhibited 0-4 cm of humus over approximately 4-10 cm of (Munsell) 10YR 6/4 light yellowish brown sandy clay mottled with 10YR 6/6 brownish yellow fine sandy clay over approximately 10-20 cm of 10YR 6/6 brownish yellow fine sandy clay. Final closing depths were 29 cm below datum (cmbd) in the southwest corner, 29.5 cmbd in the southwest corner, 30 cmbd in the northwest corner and center, and 33 cmbd in the northeast corner.

The plan view drawing showed three features labeled Feature 14 through Feature 16. Feature 15 was a root run or old burrow filled with soil from the upper stratum and was not excavated. Feature 14 was circular in shape, 17 x 16 cm in size, and contained 7.5YR 5/4 brown sandy loam. The profile view shows natural curvatures of root activity, with the base curving and ending at a small point at 64 cmbd. Artifacts included one heat treated tertiary flake (0.11 g) and two pebbles (0.84 g). These artifacts were likely from the upper stratum due to root activity.

Feature 16 was circular in shape, 13 x 10 cm in size, and contained 10YR 5/6 yellowish brown sandy clay. The profile view shows the maximum width of 16 cm at 38 cmbd and 3 cm at 87 cmbd. The excavation showed this feature was a decayed root similar to Feature 14.

During the artifact washing phase, Zones A and B from XU6 and XU7 were inadvertently combined. In an effort to "normalize" the artifact numbers, combined artifacts were divided in half by each category and added to existing artifact categories for each of these units. Affected categories are: 64 fired clay, 6 UID eroded sherds, 2 red pebbles, and 134 lithics (secondary and tertiary shatter; primary, secondary, and tertiary flakes; and one broken PP/K tip).

This unit is located in western portion of the site adjacent to XU9 and XU15 and contains one of the highest densities of lithic debitage with a nominal number of sherds, fired clay, and red pebbles

(Tables 7.31-7.35). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. This high-density lithic area likely represents a possible lithic tool-making area. All 8 sherds are UID eroded and are, therefore, non-diagnostic.

Artifact Type	Count	Weight (g)
Sherds	8	19.53
Fired Clay	40	73.925
Red Pebbles	14	9.35
Lithics	938	631.445
Total	1000	734.25

Sherd Surface Treatment	Count	Weight (g)
UID Eroded	8	19.53
Total	8	19.53
	10 0 0	

Table 7.31 XU7 Artifact Types

Table 7.32 XU7 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	86	97.955
Flakes	852	533.49
Total	938	631.445

Table 7.33	XU7	Lithics
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Utilized Lithics	Count	Weight (g)
Utilized Flakes	72	148.32
Utilized Shatter	0	0
Total	72	148.32

Table 7.34 XU7	Utilized Lithics
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Heat Treatment	Count	Weight (g)
Flakes	848	531.97
Shatter	86	97.955
Total	934	629.925

Table 7.35 XU7 Heat Treatment

XU8 (N994 E979)

XU8 stratigraphy exhibited 0-3 cm of humus over approximately 3-10 cm of (Munsell) 5YR 4/6 yellowish red clay mottled with 7.5YR 5/6 strong brown clay over approximately 10-18 cm of 7.5YR 5/6 strong brown clay. Unit depths taken on July 1, 2016, were 26 cm below datum (cmbd) in the northwest and northeast corners, 26.5 cmbd in the southwest corner, and 27.5 cmbd in the southeast corner and center. A plan view exhibited root activity that made it difficult to ascertain feature shapes. Because of this, it was decided to take this unit down further in order to clarify feature shapes. Final closing depths

were 28 cm below datum (cmbd) in the southwest corner, 29 cmbd in the southeast corner and center, and 30 cmbd in the northeast and northwest corners.

The plan view drawing showed nineteen features labeled Feature 17 through Feature 36. A portion of these features was excavated approximately seven months after the final plan view drawing. When the unit was re-troweled, features 18, 21, 23, 32, 33, and 36 were no longer visible. Features 28, 30, 31, and 35 were roots. Features 17, 22, 27, 29, and 34 were not excavated because they were root runs or old burrows filled with soil from the upper stratum. Profile of excavated features is shown in Figure 7.6.

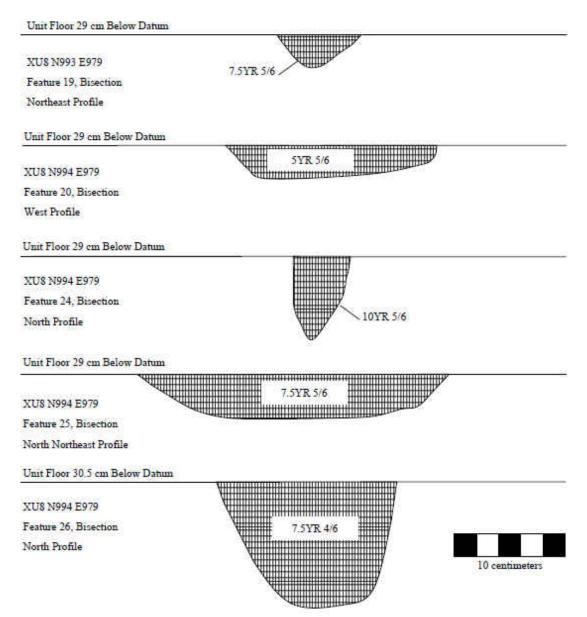


Figure 7.6 XU 8 Feature Profiles

Feature 19 was 15 x 10 cm in size and contained 7.5YR 5/6 strong brown clay. The profile view in Figure 7.6 shows a curved base with the maximum depth of 32 cmbd, similar to Feature 10 in XU6. Feature 20 was 23 x 21 cm in size and contained 5YR 5/6 yellowish red clay mixed with small charcoal pieces. Feature 24 was 6 x 6 cm in size and contained 10YR 5/6 yellowish brown clay. The maximum depth for this feature was 7.5 cm deep (6.5 cm deep based on 30 cmbd). Feature 25 was 33 x 7 cm in size and contained 7.5YR 5/6 strong brown clay. The maximum depth for this feature was 4 cm deep (3 cm deep based on 30 cmbd). Feature 26 was 13 x 13 in size and contained 7.5YR 4/6 strong brown clay. The base of this feature is relatively flat with a maximum depth of 11 cm deep (11.5 cm deep based on 30 cmbd).

This unit is located in central portion of the site and contains a nominal number of lithic debitage, sherds, fired clay, and red pebbles (Tables 7.36-7.40). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Sherd surface treatments consist of check stamped, curvilinear complicated stamped, plain, and Fine Fabric Marked which is also found at the nearby Fitzner mound site dating to the same time period. These sherds indicate a possible Woodland occupation and probable Middle Mississippian occupation. Interestingly, this unit contains one of the lowest densities of fired clay and one of the highest in probable post mold features when compared with the other units.

Artifact Type	Count	Weight (g)
Sherds	31	198.78
Fired Clay	6	4.00
Red Pebbles	21	9.10
Lithics	192	143.94
Total	250	355.82

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	21	142.99
Curvilinear	1	5.40
Plain	1	10.13
UID Decorated	1	1.90
UID Eroded	6	33.76
Fine Fabric Marked	1	4.60
Total	31	198.78

Table 7.36 XU8 Artifact Types

Table 7.37 XU8 Sherd Surface Treatment

Lithics		Count	Weight (g)
Shatter		10	7.08
Flakes		182	136.86
Total		192	143.94

Utilized Lithics	Count	Weight (g)
Utilized Flakes	13	48.9
Utilized Shatter	0	0
Total	13	48.9

Table 7.38 XU8 Lithics

Table 7.39 XU8 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	182	136.86
Shatter	10	7.08
Total	192	143.94

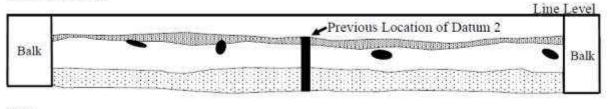
Table 7.40 XU8 Heat Treatment

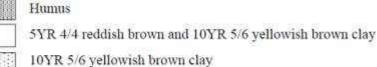
XU9 (N1000 E973)

XU9 stratigraphy exhibited 0-2 cm of humus over approximately 2-13 cm of (Munsell) 5YR 4/4 reddish brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 13-20 cm of 10YR 5/6 yellowish brown clay (Figure 7.7). Final closing depths were 29 cm below datum (cmbd) in the southeast corner, 30 cmbd in the southwest corner and center, 30.5 cmbd in the northeast corner, and 33 cmbd in the northwest corner.

XU9 N1000 E973

Southern Profile





Root



50 centimeters

Figure 7. 7 XU9 Profile

The plan view initially showed six features labeled Feature 37 through Feature 43. Features 39 and 41 were root runs or old burrows filled with soil from the upper stratum. Feature 40 was mapped in on December 16, 2016; however, when the unit was re-troweled, this feature was no longer visible. Feature 37 was approximately 91 x 35 cm in size and contained 7.5YR 5/4 brown clay mixed with small charcoal pieces (Figure 7.8). The profile showed the majority (approximately 70 cm) of this feature to be shallow, approximately 3 cmbd with a smaller portion curving down an additional 24 cm, indicative of root activity. Artifacts included one piece of fired clay (0.2 g), one pebble (<0.00 g), and charcoal (17.4 g).

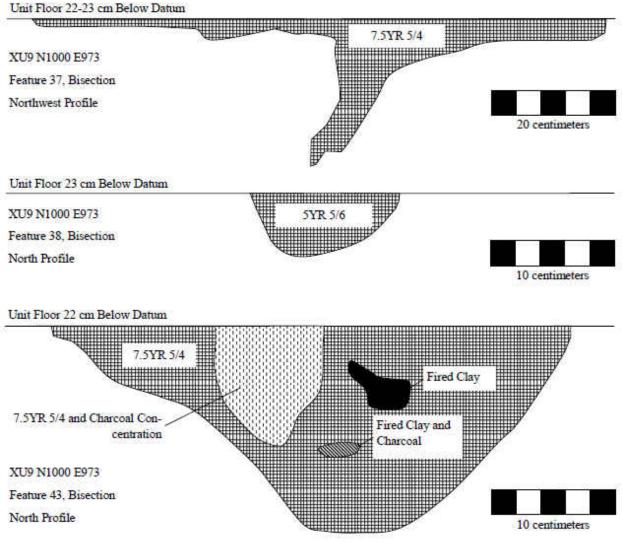


Figure 7.8 XU9 Feature Profiles

Feature 38 contained 5YR 5/6 yellowish red clay and was 15 x 13 cm in size and circular in shape with a relatively flat base. This feature was very shallow when compared to other, measuring from 23 cmbd to 28 cmbd. Feature 43 was in the southwestern corner with the top of this feature exhibiting fired clay and large charcoal pieces at 21.5 cmbd with 7.5YR 5/4 brown clay. XU11 was placed directly to the south in order to excavate the majority of this feature. A small portion also extended into XU 15, but faded in color and appeared to be a charcoal "smear." After excavation, this feature was 42 cm at its maximum length and 17 cm at its maximum depth. There was a charcoal concentration pocket that was approximately 10 x 10 cm in size and shaped like a strawberry. There was also a 5 x 2.5 cm fired clay pocket and 3.5 x 1 cm fired clay and charcoal pocket. Artifacts included 25 fired clay (10.29 g), 1 pebble (0.48 g), and charcoal (5.48 g). Two charcoal samples were collected from the soils in the northern bisection and utilized for radiocarbon (14 C) analysis discussed later in this chapter.

This unit is located in western portion of the site adjacent to XU6, XU7, and XU11 and contains a relatively high number of fired clay and nominal totals of lithic debitage, sherds, and red pebbles when compared to the other units (Tables 7.41-7.45). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Sherd surface treatments consist of check stamped and curvilinear complicated stamped which indicate a possible Woodland occupation and probable Middle Mississippian occupation.

Artifact Type	Count	Weight (g)
Sherds	6	20.10
Fired Clay	73	96.79
Red Pebbles	17	18.80
Lithics	59	48.60
Total	155	184.29

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	3	15.30
Curvilinear	1	3.30
UID Eroded	2	1.50
Total	6	20.10

Table 7.42 XU9 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	3	2.50
Flakes	56	46.10
Total	59	48.60

ithics	Count	We

Table 7.43 XU9 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	3	2.90
Utilized Shatter	0	0.00
Total	3	2.90

Table 7.44 XU9 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	56	20.80
Shatter	3	2.50
Total	59	23.30

Table 7.45 XU9 Heat Treatment

XU10 (N1004 E983)

XU10 stratigraphy exhibited 0-3 cm of humus over approximately 3-15 cm of (Munsell) 5YR 4/4 reddish brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 15-19 cm of 10YR 5/6 yellowish brown clay. Final closing depths were 26 cm below datum (cmbd) in the southwest and southeast corners, 29 cmbd in the center, and 30 cmbd in the northwest and northeast corners.

This unit contained two circular features. Feature 44 was 19 x 15 cm in size at 21.5 cmbd when a cut nail was exposed perpendicular within the feature fill. At 31 cmbd, it was approximately 11 x 12 cm in size and contained 5YR 5/6 yellowish red clay. Bisection revealed a relatively flat base 5 cm deep

(Figure 7.9). This feature is likely historic in nature. Other artifacts included 3 pebbles (1.3 g) and 3 limestone pieces (0.3 g).

Feature 45 was 18.5 x 18 cm in size and contained two different soil types and color (Figure 7.9). The first portion of this feature contained 5YR 5/6 yellowish red clay from 28 cmbd and had a relatively flat base at 42 cmbd. The second portion contained 5YR 4/3 reddish brown loamy clay from 42 to 63.5 cmbd (21.5 cm deep or 19.5 cm deep [corrected]). This portion resembled a root run filled with clay mixed with an organic, loamy substance.

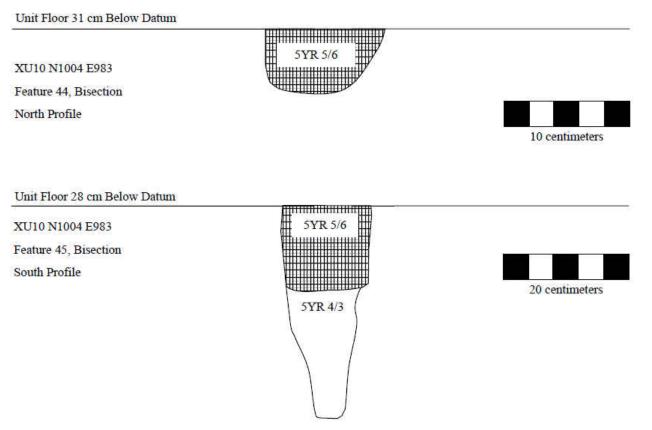


Figure 7. 9 XU10 Feature Profiles

This unit is located in northern portion of the site and contains one of the greatest concentrations of red pebbles with nominal totals of lithic debitage, sherds, and fired clay when compared to the other units (Tables 7.46-7.50). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. All sherds were either UID eroded or decorated.

Artifact Type	Count	Weight (g)
Sherds	12	48.50
Fired Clay	8	12.60
Red Pebbles	42	18.90
Lithics	11	4.00
Total	73	84.00

Table 7.46 XU10 Artifact Types

Sherd Surface Treatment	Count	Weight (g)
UID Decorated	2	6.60
UID Eroded	10	41.90
Total	12	48.50

Table 7.47 XU10 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	1	0.40
Flakes	10	3.60
Total	11	4.00

Table 7.48 XU10 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	1	0.70
Utilized Shatter	0	0.00
Total	1	0.70

Table 7.49 XU10 Utilized Flakes

Heat Treatment	Count	Weight (g)
Flakes	10	3.60
Shatter	0	0.00
Total	10	3.60

Table 7.50 XU10 Heat Treatment

XU11 (N998 E973)

XU11 stratigraphy exhibited approximately 0-2 cm of humus over approximately 2-10 cm of (Munsell) 5YR 4/4 reddish brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 10-12 cm of 10YR 6/4 light yellowish brown clay. Final closing depths were 28 cm below datum (cmbd) in the southeast corner, 29 cmbd in the southwest corner and center, 30 cmbd in the northeast corner, and

31 cmbd in the northwest corner. A small portion of Feature 43 extends into this unit. No other features were present in this unit.

This unit is located in northern portion of the site adjacent to XU9 and XU15 and contains one of the greatest concentrations of red pebbles, fired clay, PP/Ks and PP/K fragments with nominal totals of lithic debitage and sherds when compared to the other units (Tables 7.51-7.55). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Sherd surface treatments consist of check stamped, curvilinear complicated stamped, plain, and cord marked which indicate a possible Woodland occupation and probable Middle Mississippian occupation. The adjacent XU9 also contains a high number of fired clay and red pebbles, possibly indicating a cultural activity area associated with heat or firing episode(s). The pit feature 43 is located within these two units.

Artifact Type	Count	Weight (g)
Sherds	7	42.50
Fired Clay	97	353.40
Red Pebbles	35	26.10
Lithics	27	85.10
Total	166	507.10

Count	Weight (g)
1	10.30
1	18.10
1	1.50
2	1.80
2	10.80
7	42.50
	Count 1 1 2 2 7

Table 7.51 XU11 Artifact Types

Table 7.52 XU11 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	2	0.80
Flakes	22	58.50
PP/K	3	25.80
Total	27	85.10

Table 7.53 XU11 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	0	0.00
Utilized Shatter	1	0.50
Total	1	0.50

Table 7.54 XU11 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	19	57.80
Shatter	1	0.50
PP/K	3	25.80
Total	23	84.10

Table 7.55 XU11 Heat Treatment

XU12 (N990 E980)

XU12 stratigraphy exhibited approximately 0-3 cm of humus over approximately 3-16 cm of (Munsell) 5YR 4/4 reddish brown clay mottled with 7.5YR 6/6 reddish yellow clay over approximately 16-21 cm of 7.5YR 6/6 reddish yellow clay. Final closing depths were 29.5 cm below datum (cmbd) in the southwest corner and center, 30 cmbd in the southeast corner, 31 cmbd in the northwest corner, and 32 cmbd in the northeast corner. All four features (Features 47-50) recorded were either root runs or old burrows filled with soil from the upper stratum.

This unit is located in southern portion of the site adjacent to XU3 and is dominated by lithic tools and debitage with nominal totals of sherds, fired clay, and red pebbles similar to the totals of XU3 (Tables 7.56-7.60). Lithic tools include a unifacial tool and PP/K and PP/K fragments. Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. This high-density lithic area likely represents a possible lithic tool-making area focused on tool production. A few check stamped and plain sherds are found in this unit indicating a possible Woodland occupation and Middle Mississippian occupation.

Artifact Type	Count	Weight (g)
Sherds	15	74.90
Fired Clay	12	11.20
Red Pebbles	17	7.30
Lithics	446	354.60
Total	490	448.00

Table 7.56 XU12 Arti	ifact Types
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Sherd Surface Treatment	Count	Weight (g)
Check Stamped	2	7.90
Plain	1	3.80
UID Decorated	1	9.20
UID Eroded	11	54.00
Total	15	74.90

Table 7.57 XU12 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	21	11.80
Flakes	422	312.10
PP/K	2	4.20
Unifacial Tool	1	26.50
Total	446	354.60

Table 7.58 XU12 Lithics

Count	Weight (g)
44	84.70
0	0.00
44	84.70
	44 0

Table 7.59 XU12 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	379	290.70
Shatter	21	11.80
PP/K	2	4.20
Unifacial Tool	1	26.50
Total	403	333.20

Table 7.60 XU12 Heat Treatment

XU13 (N990 E974)

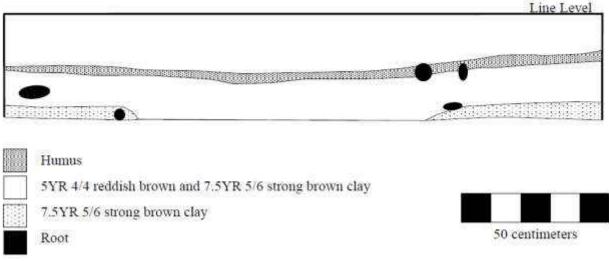
XU13 stratigraphy exhibited approximately 0-3 cm of humus over approximately 3-12 cm of

(Munsell) 5YR 4/4 reddish brown clay mottled with 7.5YR 5/6 strong brown clay over approximately 12-

20 cm of 7.5YR 5/6 strong brown clay (Figure 7.10). Final closing depths were 29.5 cm below datum

XU13 N990 E974

Eastern Profile





(cmbd) in the center, 30 cmbd in the southeast corner, 30.5 cmbd in the northwest corner, and 31 cmbd in the northeast corner.

Feature 51 was a rotted root apparent in the profile view. Feature 52 was either a root run or old burrow filled with soil from the upper stratum. Feature 53 contained 7.5YR 4/4 brown clay and was 24 x 22 cm in size and circular in shape with a rounded base. The top of this feature was at 30 cmbd and extended down 7.5 cm (Figure 7.11).

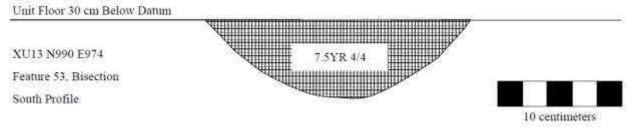


Figure 7.11 XU13 Feature Profile

This unit is located in the southwestern portion of the site near XU3 and contains nominal numbers of lithic debitage, sherds, fired clay, and red pebbles (Tables 7.61-7.65). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Interestingly, the few sherds represent relatively diverse surface treatments: check stamped, burnished plain, and smoothed/possibly burnished. These sherds indicate a possible Woodland occupation and Middle Mississippian occupation. The low numbers of artifacts in this unit could represent the outer limits of the site or activity area.

Artifact Type	Count	Weight (g)
Sherds	8	27.90
Fired Clay	8	8.60
Red Pebbles	2	2.00
Lithics	64	59.40
Total	82	97.90

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	1	1.60
Burnished Plain	1	7.90
UID Decorated	1	2.80
UID Eroded	3	8.00
Smoothed/Possibly Burnished	1	3.20
Cord Marked	1	4.40
Total	8	27.90

Table 7.62 XU13 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	2	4.50
Flakes	62	54.90
Total	64	59.40

Table 7.63 XU13 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	10	20.30
Utilized Shatter	1	2.90
Total	11	23.20

Table 7.64 XU13 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	52	51.90
Shatter	2	4.5
Total	54	56.40

Table 7.65 XU13 Heat Treatment

XU14 (N994 E981)

XU14 stratigraphy exhibited approximately 0-2 cm of humus over approximately 2-12 cm of (Munsell) 5YR 4/6 yellowish red clay mottled with 7.5YR 5/6 strong brown clay over approximately 12-20 cm of 7.5YR 5/6 strong brown clay. Final closing depths were 25.5 cm below datum (cmbd) in the southwest corner, 26 cmbd in the northwest corner and center, 27 cmbd in the southeast corner, and 30 cmbd in the northeast corner.

Feature 54 contained 7.5YR 5/6 strong brown clay and was 18 x 14 cm in size and circular in shape with a convex side and relatively flat base. The top of this feature was at 28 cmbd and extended down 8.5 cm (Figure 7.12).

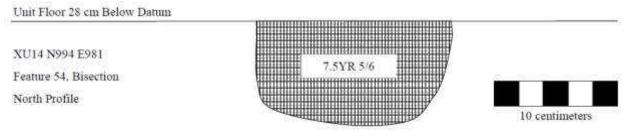


Figure 7.12 XU14 Feature Profile

This unit is located in central portion of the site adjacent to XU8 and contains moderate totals of lithic PP/K and PP/K fragments and debitage, sherds, fired clay, and red pebbles (Tables 7.66-7.70). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Sherd surface treatments consist of check stamped, burnished plain, plain, and smoothed/possibly burnished which indicate a possible Woodland occupation and probable Middle Mississippian occupation. Interestingly, burnished plain sherds are concentrated in this unit along with XU4 and XU2.

Artifact Type	Count	Weight (g)
Sherds	39	148.10
Fired Clay	14	8.10
Red Pebbles	28	13.30
Lithics	132	135.10
Total	213	304.60

	Table 7.	66 XU	14 Art	ifact T	ypes
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Sherd Surface Treatment	Count	Weight (g)
Check Stamped	5	58.80
Burnished Plain	2	20.80
Plain	2	7.70
UID Decorated	3	16.80
UID Eroded	23	36.40
Smoothed/Possibly Burnished	4	7.60
Total	39	148.10

Table 7.67 XU14 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	12	16.60
Flakes	119	115.80
PP/K	1	2.70
Total	132	135.10
Table 7.68 X	KU14 Lithics	

Utilized Lithics	Count	Weight (g)
Utilized Flakes	25	38.10
Utilized Shatter	0	0.00
Total	25	38.10

Table 7.69 XU14 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	112	114.30
Shatter	2	1.10
PP/K	1	2.70
Total	115	118.10

Table 7.70 XU14 Heat Treatment

XU15 (N998 E971)

XU15 stratigraphy exhibited 0-2 cm of humus over approximately 2-12 cm of (Munsell) 5YR 4/4 reddish brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 12-19 cm of 7.5YR 5/6 strong brown clay. Final closing depths were 27 cm below datum (cmbd) in the southeast corner, 30 cmbd in the northeast corner, 31 cmbd in the southwest corner and center, and 33 cmbd in the northwest corner.

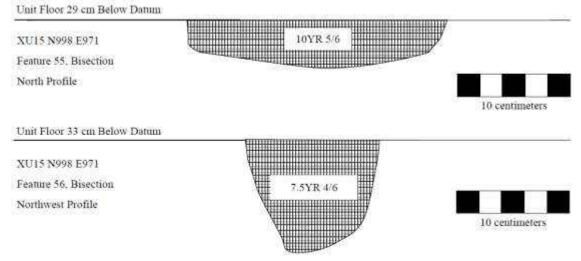


Figure 7.13 XU15 Feature Profiles

This unit contained two circular features with relatively flat bases (Figure 7.13). Feature 55 was 23.5 x 16 cm in size and contained 10YR 5/6 yellowish brown clay mixed with small charcoal pieces. The top of this feature was at 29.5 cmbd and extended down 4 cm. Feature 56 contained 7.5YR 4/6 strong brown clay and was 12 x 11 cm in size. The top of this feature was at 33 cmbd and extended down 10 cm.

This unit is located in western portion of the site adjacent to XU7 and XU11 and contains lithic PP/K and PP/K fragments, a piece of quartz tested material, and debitage and nominal numbers of sherds, fired clay, and red pebbles (Tables 7.71-7.75). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. One cord marked sherd is present in this unit which indicates a possible Woodland or Middle Mississippian occupation. Interestingly, this unit contains a low number of fired clay, while XU11 directly to the east contains one of the highest fired clay concentrations.

Artifact Type	Count	Weight (g)
Sherds	4	17.50
Fired Clay	15	10.00
Red Pebbles	16	12.40
Lithics	75	109.90
Total	110	149.80

Sherd Surface Treatment	Count	Weight (g)
UID Eroded	3	7.00
Cord Marked	1	10.50
Total	4	17.50
	10 0 7	

Table 7.71 XU15 Artifact Types

Table 7.72 XU15 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	7	14.40
Flakes	66	58.80
PP/K	1	1.40
Quartz Tested Material	1	35.30
Total	75	109.90

Table 7.73 XU15 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	6	17.20
Utilized Shatter	0	0.00
Total	6	17.20

Table 7.74 XU15 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	65	58.50
Shatter	7	14.40
PP/K	1	1.40
Quartz Tested Material	1	35.30
Total	74	109.60

Table 7.75 XU15 Heat Treatment

XU16 (N998.6 E977)

XU16 stratigraphy exhibited approximately 0-2 cm of humus over approximately 2-15 cm of (Munsell) 7.5YR 4/6 strong brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 15-30 cm of 10YR 5/6 yellowish brown clay. Final closing depths were 31.5 cm below datum (cmbd) in the southeast corner, 32 cmbd in the southwest corner, 33 cmbd in the center, 34 cmbd in the northwest corner, and 35 cmbd in the northeast corner. No features were present in this unit.

This unit is located in central portion of the site just north of XU17 adjacent to XU6 and XU2 and contains one PP/K, a high-density of red pebbles, and nominal numbers of lithic debitage, sherds, and fired clay (Tables 7.76-7.80). Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. Check stamped sherds indicate a possible Woodland or Middle Mississippian occupation. This unit is located just north of XU17 which contains the highest densities of features, lithics, and sherds when compared to the other units.

Artifact Type	Count	Weight (g)
Sherds	27	132.26
Fired Clay	5	2.02
Red Pebbles	17	22.49
Lithics	148	157.15
Total	197	313.92

Table 7.76 XU16	Artifact Types
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Sherd Surface Treatment	Count	Weight (g)
Check Stamped	4	53.03
UID Decorated	3	24.91
UID Eroded	20	54.32
Total	27	132.26

Table 7.77 XU16 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	10	21.46
Flakes	137	131.06
PP/K	1	4.63
Total	148	157.15
Table	7.78 XU16 Lithics	

Utilized Lithics	Count	Weight (g)
Utilized Flakes	10	18.87
Utilized Shatter	0	0.00
Total	10	18.87

Table 7.79 XU16 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	124	128.27
Shatter	10	21.46
Total	134	149.73

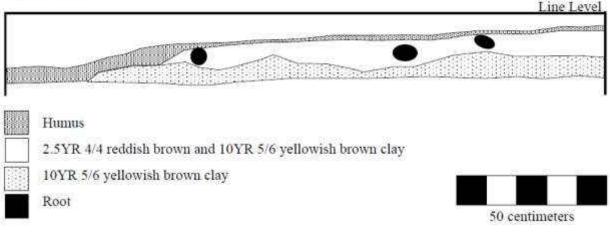
Table 7.80 XU16 Heat Treatment

XU17 (N994 E977)

XU17 stratigraphy exhibited 0-2 cm of humus over approximately 2-13 cm of (Munsell) 2.5YR 4/4 reddish brown clay mottled with 10YR 5/6 yellowish brown clay over approximately 13-20 cm of 10YR 5/6 yellowish brown clay (Figure 7.14). Final closing depths were 30 cm below datum (cmbd) in the southeast and southwest corners and 32 cmbd in the northwest and northeast corners and center. This unit exhibited a high amount of root and tree activity in the northern half of the unit. A rotted tree

XU17 N994 E977

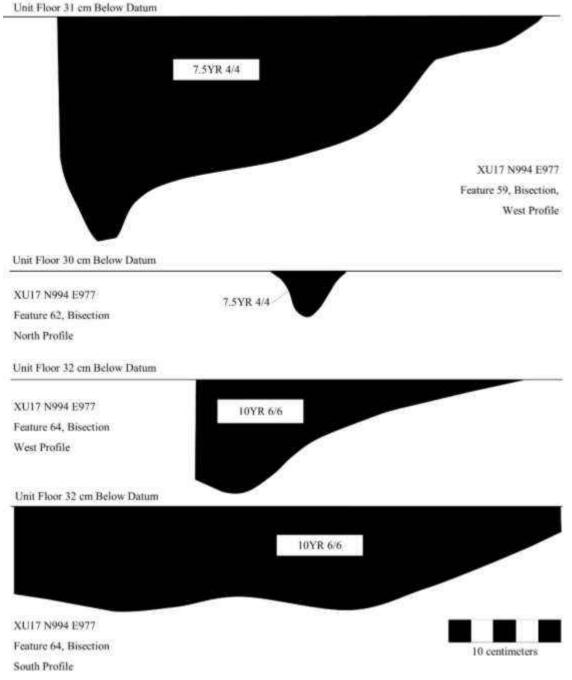
Eastern Profile

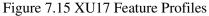




depression was in the northeast corner that measured 29.5 cmbd before excavation. Several recorded features are associated with this rotted tree (Features 58, 60-61). A large tree was at the northwest corner with roots extending into the unit and unit walls.

Five features in this unit were excavated (Figure 7.15). The majority of Feature 62 was located along the northern unit wall with the exposed portion measuring 18 x 9 cm in size. This feature contained





7.5YR 4/4 brown sandy clay and had a rounded bottom. Excavations revealed that the majority of the feature was exposed and extended down 4 cm from 30 cmbd to 34 cmbd. Feature 63 was circular in shape, 14 x 14 cm in size, and contained 2.5YR 5/3 reddish brown sandy clay. This feature tapered down 21 cm from 32 cmbd to 53 cmbd. Excavations confirmed this was likely a root run filled with soil from the upper stratum. Artifacts were present in the matrix which turned out to be cultural fill for Feature 64 discussed below.

Feature 64 was located in and just south of Feature 63 and converged with Feature 59 in the western wall near the northern unit corner. This feature was very light in color, 10YR 6/6 brownish yellow sandy clay and difficult to see. The visible portions measured 86 x 21 cm to form an oblong shape. This feature extended down 9 cm from 32 cmbd. Using the corrected depth for comparison (30 cmbd) based on the northern rounded portion, this feature was 11 cm deep. The base was relatively flat and contained 5 body sherds (25.04 g) (1 plain [11.8 g], 1 check stamped [10.49 g], 3 UID eroded [2.75 g]), 1 <1/2" sherd, 83 lithics (55.75 g) (2 tertiary shatter [1.17 g], 4 primary flakes [3.46 g], 13 secondary flakes [17.57 g], 66 tertiary flakes [34.72 g]). 4 of the flakes were utilized (9.77 g).

Feature 59 contained 7.5YR 4/4 brown loamy sandy clay and extended 10 cm east from the western unit wall and 43 cm along the western unit wall from north to south. The entire size of this feature is unknown. A tree root was just above this feature and likely caused some disturbance. The top of this feature was at 31 cmbd and extended down approximately 15 cm. It appears a tree root grew down through the southern portion, extending this feature down an additional 5 cm. Using the corrected depth for comparison (30 cmbd) based on the northern rounded portion, this feature was 14 cm deep. All soils from this feature were screened and artifacts included 130 fired clay (95.37 g), 1.12 g of charcoal, 12 lithics (6g) (1 worked flake [1.75 g], 3 secondary shatter [0.85 g], 3 secondary flakes [1.97 g], and 5 tertiary flakes [1.43 g]).

Feature 57 was located in the southern half of the unit and measured 200 x 101 cm in size and contained 5YR 5/6 yellowish red clay with small charcoal pieces (Figure 7.16). Excavations revealed that the eastern portion was mostly exposed while the western portion was not fully exposed. An

50 centimeters

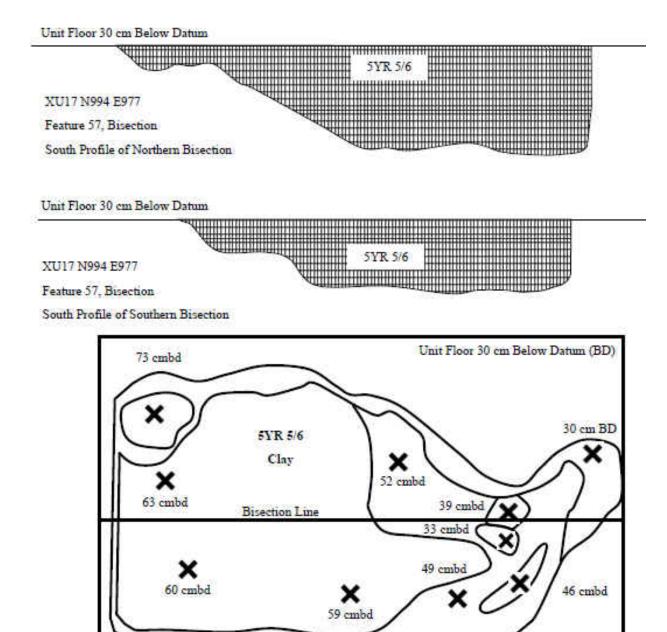


Figure 7.16 XU17 Feature 57 Profile and Plan View

XU17 N994 E977

Plan View with Depths

Feature 57

approximately 5 cm thick buffer was left between the western wall and this feature excavation. At 52 cmbd on the western side in the northern bisection, mottled 10R 5/8 red and 2.5Y 6/3 light yellowish brown clay pockets began to show (Figure 7.17). There was a possibility that this area could be a sub-feature, so this was excavated separately. It was taken down to 73 cmbd when a corer was used in two

locations in the deepest portions of the eastern and westerns sides. The corer showed that these soils continued and proved to be subsoil. For the remaining areas of the base, the deepest portions were on the western side with an eastward upward gradient. Two heat treated flakes were observed on this floor of this upward slope. The eastern side contained the shallowest depths. The maximum depth of Feature 57 was 63 cmbd in the northern bisection of the western side, while the minimum depth was 33 cmbd in the southern bisection of the eastern side (Figures 7.16). Artifacts included 1 red pebble (0.27 g), charcoal (0.05 g), and 6 heat treated tertiary flakes (4.67 g), one of which was utilized (2.2 g).

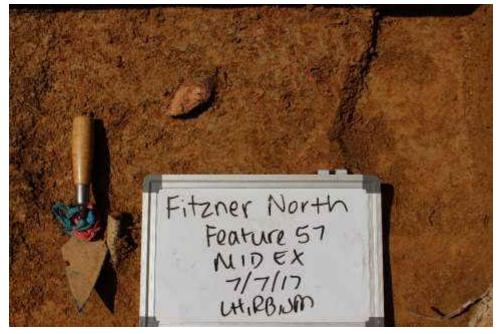


Figure 7. 17 Feature 57 Soils

Soils from the southern bisection were brought back to the lab in approximately 25 plastic mesh soil bags. A small portion was kept for curation, while the remaining soils were water screened by the methods described in the previous chapter. Heavy fraction artifacts include 12 red pebbles (2.35 g), 100 pebbles (23.77 g), charcoal (0.06 g), organic material (7.18 g), 1 shell (<0.00 g), 37 lithics (11.81 g): 7 shatter (2.92 g) (1 primary [0.48 g], 1 secondary [1.52 g], 5 tertiary [0.92 g]) and 30 flakes (8.89 g) (2 primary [0.31 g], 6 secondary [5.04 g], 22 tertiary [3.54 g]). One secondary flake has use-wear (1.26g). All lithics exhibit heat treatment except for 6 tertiary flakes (0.5 g).

This unit is located in the central portion of the site just south of XU16 and northwest of XU8 and contains moderate numbers of red pebbles, and the highest densities of lithic debitage, sherds, and fired clay (Tables 7.81-85). This unit also contains three pit features and one probable post mold. Some of the lithic debitage exhibits use-wear, while the majority exhibits heat treatment. There is one unifacial tool present in this unit. High sherd densities are similar to XU2 with surface treatments mostly consisting of check stamped with a few plain and cord marked sherds indicating a possible Woodland and/or Middle Mississippian occupation. In addition, fired clay is concentrated in XU17 and XU11. These high-densities likely indicate either a trash area or cultural activity area associated with heat or firing episodes.

Artifact Type	Count	Weight (g)
Sherds	82	478.28
Fired Clay	161	255.11
Red Pebbles	17	12.49
Lithics	1196	832.70
Total	1456	1578.58

Sherd Surface Treatment	Count	Weight (g)
Check Stamped	65	430.27
Plain	2	13.89
UID Decorated	1	6.14
UID Eroded	12	21.40
Cord Marked	2	6.58
Total	82	478.28

Table 7.81 XU17 Artifact Types

Table 7.82 XU17 Sherd Surface Treatment

Lithics	Count	Weight (g)
Shatter	72	54.18
Flakes	1123	776.77
Unifacial Tool	1	1.75
Total	1196	832.70

Table 7.83 XU17 Lithics

Utilized Lithics	Count	Weight (g)
Utilized Flakes	64	120.34
Utilized Shatter	0	0.00
Total	64	120.34

Table 7.84 XU17 Utilized Lithics

Heat Treatment	Count	Weight (g)
Flakes	979	740.98
Shatter	72	54.18
Unifacial Tool	1	1.75
Total	1052	796.91

Radiocarbon (¹⁴C) Analysis

Two charcoal samples from Feature 43 located in XU9 and XU11 were radiocarbon (¹⁴C) dated by the University of Georgia's Center for Applied Isotope Studies (CAIS). Results are listed in Table 7.86.

Sample Number	C14, BP ± 1σ	68.20%	95.40%			
C14 32.001.LH	940 ± 25	A.D. 1037-1151	A.D. 1030-1155			
C14 32.002.LH	920 ± 25	A.D. 1046-1157	A.D. 1039-1161			
Table 7 86 Padiocarbon Posults						

 Table 7. 86 Radiocarbon Results

These results confirm a Late Woodland to Early Mississippian transitional component for the Fitzner North End site. Both samples have a tight time range: A.D. 1030-1155 and A.D. 1039-1161, respectively. These dates fit between the termination of the Late Woodland period and the beginning of the Early Mississippian period or Lawton (provisional) phase. As discussed in Chapter 5, no ceramic phase exists for Late Woodland in this region, and the Early Mississippian Lawton ceramic phase is based on pottery from the Lawton mound site, located upriver, which has been designated as provisional because primary occupation likely occurs during the Middle Mississippian Hollywood (A.D. 1250-1350) phase (Wood 2009).

Lawton pottery is described as rectilinear complicated stamped designs with corncob impressions, occurring alongside Etowah Complicated Stamped, Savannah Complicated Stamped, plain, burnished plain, cord marked, and check stamped (Anderson 1994). The majority of these surface treatments are present at Fitzner North End and therefore, likely represent a Middle Mississippian ceramic phase based on Wood's 2009 analysis of Lawton, Spring Lake, and Red Lake mound sites.

Features

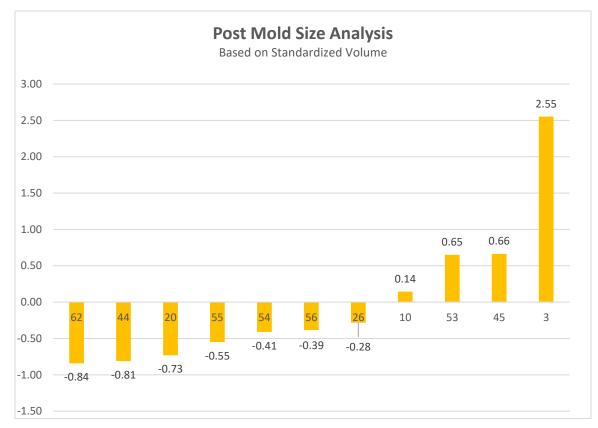
Excavation results of features are discussed in the previous section, but not all these features qualify as cultural in nature. Table 7.87 shows likely post molds (determined by size, shape, and volume) with variables including plan view shape with dimensions, base shape, Munsell soil colors, and textures, area of a cylinder, and standardized volume. Probable post molds are ordered from smallest to largest according to standardized volume (Figure 7.18). Features 43, 57, 59, and 64 are pit features and details are presented in Table 7.88 for comparison. A site layout with all features is presented in Figure 7.19.

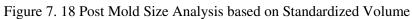
To obtain comparable data, formulas for area of a cylinder were completed in Excel for post mold features. I acknowledge that post molds are not exact cylinder shapes, but these calculations provide a way to compare these features outside of shape and depth. Once the area of a cylinder was calculated, the mean and standard deviation was calculated. The "standardize" function in Excel was then utilized based on the area of a cylinder, mean, and standard deviation. This standardize function returns a normalized value or z-score based on the mean and standard deviation for the value that needs to be standardized, or in this case, the area of a cylinder. Post mold comparison based on standardized volumes is presented in Figure 7.18 and includes Features 3, 10, 20, 26, 44-45, 53-56, and 62.

One feature, 38 in XU9, is not included in the post mold discussion due to its shallow nature. It is 15 x 13 cm in size and measures 23 cmbd to 28 cmbd deep. The majority of the post molds extend below 30 cmbd. Steere points out that Mississippian interior features tend to occur more frequently and can be shallower than the preceding Woodland period likely due to increased use inside houses such as resource storage and food consumption and/or production (2017: 54-55). These features usually consist of "small storage pits, refuse pits, and perhaps the footprint of food processing and tool making areas" (Steere 2017: 54). This feature is located in the vicinity of post features 10, 55, and 56, and pit Feature 43. These three posts could have formed a possible structure, albeit small. This possible structure is discussed in the following section. It is possible that this smaller, shallower feature could represent an activity area within a structure or a shallow post when compared to the other adjacent post molds.

Feature No. Unit No.		Туре	Plan View	Dimensions (cm)		Base	Area of	Volume	Munsell	Artifacts	
NO.			Shape	L	W	D	Shape	Cylinder	(std)		
62	XU17	Potential Post Mold	Circular	18	9	4	Rounded	572.56	-0.84	7.5YR 4/4 brown sandy clay	None
44	XU10	Historic Post Mold	Circular	12	11	5	Relatively Flat	623.21	-0.81	5YR 5/6 yellowish red clay	1 cut nail (4 g), 3 pebbles (1.3 g) and 3 limestone (0.3 g)
20	XU8	Potential Post Mold	Oval	23	21	3	Relatively Flat	760.27	-0.73	5YR 5/6 yellowish red clay mixed with small charcoal pieces	None
55	XU15	Potential Post Mold	Circular	23.5	16	4	Relatively Flat	1072.24	-0.55	10YR 5/6 yellowish brown clay	None
54	XU14	Likely Post Mold	Circular	18	14	8.5	Relatively Flat	1306.9	-0.41	7.5YR 5/6 strong brown clay	None
56	XU15	Likely Post Mold	Circular	12	11	10	Relatively Flat	1350.3	-0.39	7.5YR 4/6 strong brown clay	None
26	XU8	Likely Post Mold	Circular	13	13	11	Relatively Flat	1526.42	-0.28	7.5YR 4/6 strong brown clay	None
10	XU6	Likely Post Mold	Circular	22	20	8.5	Relatively Flat	2251.34	0.14	5YR 5/4 reddish brown sandy clay	None
53	XU13	Likely Post Mold	Circle	24	22	7.5	Rounded	3116.07	0.65	7.5YR 4/4 brown clay	None
45	XU10	Likely Post Mold	Circular	18.5	18	14	Relatively Flat	3139.04	0.66	5YR 5/6 yellowish red clay	None
3	XU3	Likely Post Mold – but larger than others	Circle	25	20	16	Relatively Flat	6361.73	2.55	Mottled 10YR 4/2 dark grayish brown fine silty clay and 10YR 4/3 brown fine silty clay	None

Table 7. 87 Probable Post Molds





Feature	Unit	Туре	Planview	Dime	nsions ((cm)	Base Shape	Munsell	Artifacts	
No.	No.	турс	Shape	L	W	D	Dase Shape	wunsen		
43	XU9	Refuse Pit	Circular	42	28.5	22	Relatively Flat	7.5YR 5/4 brown clay	25 fired clay (10.29 g), 1 pebble (0.48 g), and charcoal (5.48 g) Radiocarbon dates of charcoal: A.D. 1030 to A.D. 1155 and A.D. 1039-1161	
59	XU17	Refuse Pit	Circular	43*	10*	15	Rounded	7.5YR 4/4 brown loamy sandy clay	130 fired clay (95.37 g), 1.12 g of charcoal, 12 lithics (6g) (1 worked flake [1.75 g], 3 secondary shatter [0.85 g], 3 secondary flakes [1.97 g], and 5 tertiary flakes [1.43 g])	
64	XU17	Refuse Pit	Oblong	86	21	9	Relatively Flat	10YR 6/6 brownish yellow sandy clay	 5 body sherds (25.04 g) (1 plain [11.8 g], 1 check stamped [10.49 g], 3 UID eroded [2.75 g]), 1 <1/2" sherd, 83 lithics (55.75 g) (2 tertiary shatter [1.17 g], 4 primary flakes [3.46 g], 13 secondary flakes [17.57 g], 66 tertiary flakes [34.72 g]). 	
57	XU17	Large Pit	Circular	200*	101*	63	Relatively Flat	5YR 5/6 yellowish red clay with small charcoal pieces	1 red pebble (0.27 g), charcoal (0.05 g), and 6 heat treated tertiary flakes (4.67 g)	

*Not completely exposed

Table 7. 88 Pit Features

Post Molds

There is a total of eleven post molds. Feature 44 in XU10 in the northernmost area of the site is the only post mold to contain artifacts, one of which is historic in nature (cut nail). The cut nail could be intrusive; however, no intrusive soil colors or textures were observed. The volume of this feature is comparable to other post molds. Feature 45 is located approximately 1.2 m south of Feature 44 in XU10 and could be associated with Feature 44 because both contain the same soils. The volume of this feature is comparable to Feature 53 in XU13 located in the southwestern portion of the site approximately 16.5 meters to the southwest but contains a different soil color. Feature 45 and Feature 53 are the second and third largest post molds when compared to the other nine. Feature 3 in XU3 is located 4.5 meters to the east from Feature 45 and contains a significantly larger volume when compared to the other post molds (Figure 7.18). The size of this post mold could mean the location of a larger, central post or possibly a small pit feature.

These post molds are shown in Figure 7.19 along with pit features that are discussed in the following section. Due to the low number of post molds and the possibility of some of these features being associated with a different time period, it is difficult to interpret any possible structures. Figure 7.20 offers two possible structure outlines, identified as Structure 1 and 2. More excavation around these areas needs to occur before these structures can be confirmed as real. However, the presence of post molds suggests that at least one structure was present, indicating that habitation did occur at this site.

Features 20, 26, 54, and 62 begin to form a circular pattern approximately 4 meters in diameter, identified as Structure 1 (Figure 7.20). In the vicinity of this possible structure, pit features 59 and 64 in XU17 are located just northwest, while Feature 57 in XU17 is located within and to the west. These pit features may or may not be associated with this possible structure. Feature 57 is in the southern half of XU17 and extends into the area of this possible structure. Because of this, it likely does not date to the same time period as Structure 1. Feature 57 is discussed in detail in the following section.

Artifact densities around possible Structure 1 show interesting patterns. XU8 in the southern portion of the structure displays minimal ceramics (sherds and fired clay) and lithics, while XU17 in the

eastern portion of the structure and XU2 located north of the structure contains some of the highest densities of ceramics and lithics. Pit and refuse features are usually located outside of habitation structures and function as trash areas. Based on this data, it appears that there were two possible trash areas surrounding this structure: one located northwest in XU17 (Feature 59 and 64) and one to the north in XU2. XU17 could have also been a tool-making area due to the high amount of lithic debitage in addition to functioning as a general trash area. In other similar sites, the habitation areas are typically swept and kept clean, while trash areas were located outside of the structure, but still relatively nearby.

Structure 1 measures approximately 12.57 m² in area and is likely a domestic structure based on artifact and feature densities. Steere offers comparable data on the area of domestic structures in the Southeast from Middle Woodland to the Historic period (2017: 21-33). Middle Woodland structures range in size from 7.1 to 146.6 m² with a median of 40 m² (Steere 2017: 22). These structures are larger when compared to later structures. Late Woodland houses range in size from 3 to 94.7 m² with a median of 8.4 m² (Steere 2017: 22-24). Regional variation in size does exist with smaller structures (3-16.4 m²) occurring at Late Woodland/ Early Mississippian transitional sites in the American Bottom, west-central Alabama, and the Cairo lowlands in Missouri. Steere states these houses are "so small that it is hard to imagine them inhabited by any group larger than a small nuclear household" (2017: 24). Domestic structures occurring at Late Woodland sites in northern Georgia are noticeably larger (17.8-48.9 m²) and reminiscent of Middle Woodland structures (Steere 2017: 24). Early Mississippian structures range in size from 3 to 118 m² with a median of 21 m² with the majority of domestic structures less than 41 m² and non-domestic structures averaging 85 m² (Steere 2017: 24). Houses of this time period are the smallest in size. Finally, Middle Mississippian structures range from 1.9 to 86 m² with a median of 23 m² with a slight increase in size when compared to the Early Mississippian (Steere 2017: 26).

The possible Structure 1 is relatively small in size when compared to these data. Based on average Middle Woodland houses, this structure is well below the 40 m² average and likely does not date to this time period. The Late Woodland houses of northern Georgia are larger (17.8-48.9 m²) and are reminiscent of Middle Woodland structures. Houses at Late Woodland/ Early Mississippian transitional sites outside of Georgia are smaller and are of a similar size to Structure 1 (3-16.4 m²). This trend continues into the Early Mississippian period where houses are the smallest (3-118 m², median 21 m²). Structures in the Middle Mississippian period are slightly larger (1.9-86 m², median 23 m²), but appear to be relatively similar in size.

The data from the Late Woodland/ Early Mississippian transitional to Middle Mississippian periods appears to be somewhat similar, making it difficult to fit Structure 1 into one of these time periods, especially with no data available regarding structure characteristics such as internal partitioning or hearths. However, it appears that the 12.57 m² area of Structure 1 fits in relatively well with the 3 to 16.4 m² range of houses dating to the Late Woodland/ Early Mississippian transitional period. This estimated area also fits in well with the 1.9-86 m² range (median of 23 m²) for typical Middle Mississippian structures. Radiocarbon dates from Feature 43, approximately 4 meters to the northwest of Structure 1, place one occupation at Fitzner North End from A.D. 1030-1155 to A.D. 1039-1161, which is a Late Woodland to Early Mississippian transitional component. Based on this relative data, the possible Structure 1 likely dates to the Late Woodland/ Early Mississippian transitional time period with the potential for a Middle Mississippian date.

Even if the possible structure shape presented in Figure 7.20 is incorrect, the discussed artifact densities and nearby pit features indicate that a domestic structure is in the general vicinity of Structure 1. Additional excavation and radiocarbon dates can shed light on the shape, size, and time period of this structure.

In the northwestern portion of Fitzner North End, features 10, 55, and 56 possibly form a rectangular pattern approximately 3.5 x 1 meter in size and oriented in an NE-SW direction across XU9 and XU15. This possible structure is identified as Structure 2 and is shown in Figure 7.20. Pit feature 43 is located in the approximate center of Structure 2 with radiocarbon dates of A.D. 1030-1155 and A.D. 1039-1161. During this time period in this region, Late Woodland and Early Mississippian traditions occurred simultaneously, while the adoption of "Mississippian" lifeways, such as the use of corn, did not

occur until the Middle Mississippian period. This pit feature may or may not be associated with this possible structure.

The orientation of this structure is located diagonally across two units which makes artifact density patterns harder to identify. Lithic densities show that there is a high number of lithic debitage in XU7 to the northwest of Structure 2, while a high number of PP/Ks and PP/K fragments are located in XU6 and XU11 to the southeast of Structure 2. For fired clay and red pebble densities, XU9 contains relatively high numbers, while XU15 contains relatively low numbers. A firing episode likely occurred in the area around XU9 that did not occur in XU15. This could have been caused by burning of the possible structure, but one would expect artifact densities in XU15 to contain similar totals and a high density of charcoal. It is likely that a fire was located in or around XU9 to cause the fired clay and red pebbles that did not include the area of XU15. This heating area was likely associated with Feature 43, which is located in the southwest corner of XU9 and extends into XU11. A minimal number of sherds is located in these units. Evidence from the Monroe site (Williams 2006: 53) interprets a small rectangular structure 5.5 x 3 meters in size as a cooking shed due to the high number of sherds in association with smaller sherds (< ½") that are indicative of constant use. However, the area of Structure 2 at Fitzner North End is likely not a cooking shed due to the low density of sherds and high-density of lithics.

The artifact patterns show that there is a likely lithic tool-making area or possible tool-working shed in the area of Structure 2 specifically in XU7. Rogers discusses evidence of workshops in the Cahokia area centered around the context of craft specialization areas (1995a: 26). In addition, other works (Eastman et al 1998, Hallman and Pickles 2004) discuss lithic workshops, but these areas are not associated with posts or possible structures. Artifact densities for possible Structure 2 are similar to the patterns seen in these studies which contain higher densities of lithic debitage with evidence of tool making consisting of bifaces, PP/Ks, and expedient tools.

If these posts represent a domestic structure, it is approximately 3.5 m² in area and is small when compared to Steere's ranges and averages of house sizes discussed earlier (2017). In addition, the high-

density of lithic debitage makes habitation in this area difficult because the sharp edges of chert easily cause cuts. Because of these reasons, this possible structure is likely not domestic in nature.

Due to the proximity of a possible domestic structure to the southeast (approximately 4.5 meters), this structure could have functioned as a storage building. Evidence from the King site in Georgia (Hally 2006) indicates domestic clusters of 2 to 3 structures with associated storage buildings. Hally suggests that these rectangular structures were likely raised above the ground surface and served as a storage area for corn and other plants (2006: 106). This could apply to the Fitzner North End site, but on a much smaller scale. In addition, he states that "rectangular structures are more difficult to identify... because they were constructed on the aboriginal ground surface, their floor surfaces and associated features such as hearths and wall posts are vulnerable to destruction by erosion and plowing" (Hally 2006: 106). Corncribs are storage buildings for corn and appear in the Middle Mississippian period, but are predominant in the Late Mississippian period (Steere 2017: 96). These structures are more ancillary and temporary in nature, making identification more challenging.

Other possible functions of these posts are also relatively temporary in nature. These functions include a women's/menstrual hut, lean-tos, hide tanning racks/frames, drying racks, and sun shades (Hally 2006: 50, Trinkley 1985: 113). At Cahokia, Mehrer and Collins note a category of structures approximately 11 m² and located on the outside of a household that they interpret to be women's huts due to the ubiquitous nature of these structures (1995: 45). This possible structure measures only 3.5 m² making it an unlikely candidate for a women's hut.

Little research is available for the remaining types of architecture (lean-tos, hide tanning racks/frames, drying racks, and sun shades) because these features lack diagnostic characteristics (Hally 2006: 50). These "structures" usually consist of a few posts that are sometimes hard to identify archaeologically. It is possible that Structure 2 represents one of these features but would remain undiagnostic due to the type of architecture and limited comparative data.

Post molds can also occur as stand-alone posts which likely represent markers. Pauketat et al. (2013: 214) discuss evidence of isolated marker posts in the Cahokia area and its hinterland as being

removed and reset. These posts usually denoted a message or clan designation. In addition, Benson et al. discuss single marker posts as sometimes occurring at the approximate center of communities in Cahokia proper (2009: 470). It is unlikely that this grouping of posts at Fitzner North End represents one of these marker posts because no "rebuilding" or resetting is apparent, and it is located within the northwestern portion of the site instead of the approximate center.

After considering all these potential functions, the simplest and most likely explanation for the area of the possible Structure 2 is that it functioned as a tool-making area that might have contained a small sun-shade or framed structure based on artifact densities and locations, and features. Artifact patterns show that some sort of tool-making activity occurred at this location, but interpretations are limited to the available excavated data.

Pits

Features 43, 59, and 64 are similar in size and are classified as refuse pits based on characteristics in Table 7.88. These features contain household artifacts such as lithics, ceramics, and fired clay. Feature 59 is in the western wall of XU17 and the entire extent of this feature is unknown.

Features 59 and 64 are in XU17 just north of Feature 57 and are located to the west of possible Structure 1 (Figure 7.20). These features contain household trash indicative of a habitation area. Typical artifacts include fired clay, charcoal, sherds (plain, check stamped), a worked flake, and lithic debitage. Possible functions of Structure 1 are further discussed in the preceding section.

Two radiocarbon dates, A.D. 1030-1155, and A.D. 1039-1161, show Feature 43 dating from the termination of the Late Woodland period and the beginning of the Early Mississippian period or Lawton (provisional) phase. During this time period in this region, Late Woodland and Early Mississippian traditions occurred simultaneously, while the adoption of "Mississippian" lifeways, such as the use of corn, did not occur until the Middle Mississippian period. The nearest post molds are Features 10, 55, and 56 that seem to form an almost rectangular structure, approximately 3.5 m² in size (Figure 7.20). It is possible that Structure 2 is associated with Feature 43. Possible functions of Structure 2 are discussed in the preceding section.

Feature 57 is significantly larger than the other pit features and contains minimal artifacts when compared to the other smaller pit features. Cultural artifacts include red pebbles and lithic debitage. No identifiable plant remains were recovered. Soils display 5YR 5/6 yellowish red clay with small pieces of charcoal. The exposed portion of this feature is 200 cm long, 101 cm wide, and approximately 63 cm deep with portions extending into the western and southern unit walls. The northern wall of this feature slightly curves southward while the eastern wall slightly slopes westward toward the base which is relatively flat. The eastern half depths range from 52 cmbd to 30 cmbd and is comparably shallower when compared to the western half (from 63 to 59 cmbd) (Figure 7.16). This feature is located just south of Features 59 and 64 and encroaches on the domestic habitation area or the possible Structure 1 discussed in the in the preceding section.

This feature is likely not a refuse pit but instead served some other function. The first possible function is a borrow pit for structure construction (daub) similar to features discussed by Williams (2006) at the Monroe site. The largest feature (Feature 2) at the Monroe site measures 120 cm long, 107 cm wide, and 35 cm deep and is associated with a circular habitation structure. This feature is comparable in size to Feature 57 at Fitzner North End which is also located near a circular habitation structure.

Evidence of pottery making (e.g. the fired clay coil) at Fitzner North End could mean that this feature was also utilized as a borrow pit for raw clay for pottery construction. Riggs and Rodning (2002) discuss traditional pottery making techniques originally described by Harrington in 1909 where once the pot is initially constructed (dried out, then placed near a fire until it hardens), a hole is dug the size of the pot and a charcoal fire started inside to further harden the pot for cooking. In addition, Wilson (1985: 77) discusses a type of pit that contains a "reddish clay" fill with small pieces of charcoal and identifies these types of features as "prepared clay bases of hearths" but does not describe size or shape. Feature 57 could have been utilized in these ways. Small pieces of charcoal are located within the feature fill; however, one would assume that the clay sides would also harden under intense heat.

If both of the possible Structure 1 and Feature 57 occurred simultaneously, the borrow pit function is flawed due to the proximity these two features. Typically, borrow pits are located a farther

distance from the habitation structure and would have likely been filled with household trash, which Feature 57 lacks (Williams 2006). This large pit encroaches upon the domestic habitation area, making it likely that these two features were utilized at different time periods and are unrelated in context.

One possible function of Feature 57 is an E-W entryway to the domestic area or possible Structure 1. Steere (2017) discusses these structures and features and states that entryways are usually shallow and typically are destroyed by plowing or erosion (2017: 35). He also discusses interior "pits or depressions used for storage and cooking" and shallow basins associated with rectangular structures during the Late Woodland and Emergent Mississippian periods (2017: 43-55). The depth of Feature 57 extends from 52 cmbd to 30 cmbd in the eastern half and extends from 63 to 59 cmbd in the western half. These depths are not classified as shallow, therefore making this possible function unlikely.

The final possible function of Feature 57 is the floor of a semi-subterranean structure due to the depth and known shape, and the unlikely possibilities discussed previously. Evidence of these structures exists during the Woodland period. Pluckhahn describes a large pit feature from Kolomoki as approximately 2.5 to 3 m² in area and 30 to 50 cm deep below the plow zone (30 cm below the ground surface) (2003). Similar to Feature 57 at Fitzner North End, artifact densities show that this feature was relatively free of artifacts "indicating that the floor of the pit house had been swept clean through its final occupation" (Pluckhahn 2003: 148). Pluckhahn states that this house likely served as a cold weather dwelling with a central fire pit and either a bent pole or arbor roof with wall posts, some likely plowed away, located around the circumference of the pit (2003). He goes on to note that most evidence of semi-subterranean or keyhole houses occurs in the Midwest with little evidence from the Southeast in the Georgia area during this time period. He states that evidence from Kolomoki suggests similar structures were previously excavated but were not identified as semi-subterranean houses and that these likely occurred in other instances at other sites (2003).

Hally discusses evidence of semi-subterranean structures dating to the Mississippian period at the King site in northwest Georgia (2008). He states that five house basins extend approximately 9 to 30 cm below the plow zone with some containing preserved fire pits and describes these structures as square,

approximately 5 to 10 meters (average of 7.3 meters or 53.29 m²) in size, with "earth-embanked walls, and steeply pitched roof of thatch, cane, or bark that is plastered on its underside with clay" (Hally 2008: 69 and 115). Hally notes that extensive plowing and erosion caused the destruction of some of these features (2008).

The Beaverdam Creek site, also discussed in Chapter 3, contains two superimposed earth lodges located on the mound (Anderson 1994: 196). The first structure measured 56 m² in size and contained a burial with exotic burial goods such as shell beads, copper ear spools, and a shell gorget, and a wall trench entranceway with an earthen embankment measuring approximately 0.4 to 0.7 meters above the ground surface and 1.7 to 1.8 meters wide; while the second structure was smaller and measured 38.4 m² in size and contained a wall trench entranceway with an earthen embankment measuring 1.25 meters above the ground surface and 2.2 to 2.7 meters wide (Anderson 1994: 196-198). A platform mound was later built on top of these structures. This evidence suggests that these particular subterranean structures were ceremonial/political in nature and did not have a primary domestic function due to the presence of a burial with exotic goods and the area later constructed into a platform mound which hints at the cultural significance of this area.

Because Feature 57 could not be excavated in its entirety, the exact shape and size are unknown. The maximum depth of Feature 57 is 53 cmbs (cm below the surface), comparable to the depth of the pit feature at Kolomoki which is 60 to 80 cmbs. We know that the structures at King extended approximately 9 to 30 cm below the plow zone. The depth of the plow zone is unknown, but one can assume that this layer is approximately 20 cm or less in depth based on typical soils of northwest Georgia making approximate depths ranging from 29 to 50 cm below the surface. These depths are shallower, but relatively comparable to structures at Kolomoki.

Feature 57 contains minimal artifacts which likely means that this area was a living space that was maintained or cleaned in a similar fashion to the structure at Kolomoki. In terms of a time period designation, the current data is unclear. Current literature on characteristics of semi-subterranean houses does not give diagnostic information outside of associated ceramics and/or radiocarbon dates. Feature 57

lacks both associated ceramics and radiocarbon dates. Future excavations could reveal additional artifacts and diagnostic information in order to better interpret this potential house pit feature.

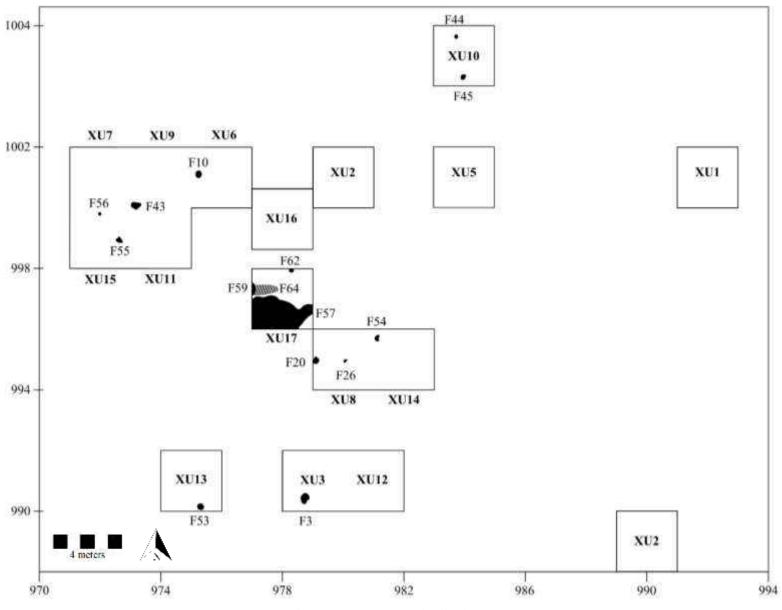


Figure 7. 19 Feature Distribution

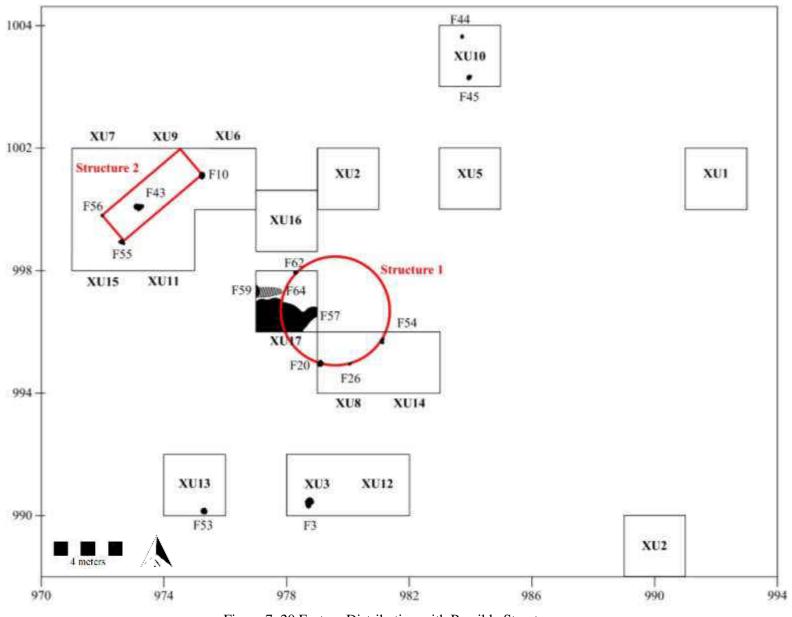


Figure 7. 20 Feature Distribution with Possible Structures

Artifact Densities

The following artifact density maps (Figures 7.20-7.33) were created using Golden Software's Surfer 11 using artifact data from unit excavations only. Artifacts from shovel tests were not used due to a different sample size. During this process, I felt that it was ideal to visually show count and weight of each artifact category since count and weight were different in some cases. A heat map was utilized to represent count and weight totals where darker red colors represent dense totals, and lighter red colors represent sparse totals for each unit.

Ceramics

Fired clay densities are highest in XU11 (n=97, 353.4 g) and XU17 (n=161, 255.11 g) (Figure 7.20). In XU11, fired clay pieces are lower in number and weigh more than XU17, indicating that fired clay pieces in XU11 are larger. XU17 contains a high-density of cultural features, while XU11 contains minimal features. The units nearest XU17 contain the lowest numbers of fired clay: XU8 (n=6, 4 g) and XU16 (n=5, 2.02 g). XU7, XU6, and XU9 near XU11 contain relatively high numbers (n=40, 73.925 g, n=53, 11.645 g and n=73, 96.79 g, respectively); while XU15 located directly west of XU11 contain relatively low numbers of fired clay (n=15, 10 g). The pieces of fired clay with impressions are located in both XU11 and XU17. The fired clay coil is located in XU1, approximately 12 meters east of XU17, which contains a median number of fired clay pieces (n=22, 30.7 g).

Based on these numbers, it appears that fired clay is concentrated around XU11 and XU17. Red pebble densities discussed later in this chapter also reflect this pattern. As previously discussed, the domestic habitation area (Structure 1) is located within XU17 while the tool-making area or possible shed (Structure 2) is located within/near XU11.

Sherd densities are concentrated in XU2 (n=150, 678.35 g) and XU17 (n=82, 478.28 g) (Figure 7.21). Body sherd densities reflect these same patterns, while rim sherds reflect similar patterns except for a higher density of rim sherds in XU5 (36.8% of total sherd weight) (Figures 7.20 and 7.21). XU17 contains a high number of cultural features, while XU2 contains one 20 cm in diameter circular feature, possibly cultural in nature. XU5 contains no features. XU2 likely represent a disposal area just outside of

an activity area. XU17 is likely closer to the main activity area due to the high number of cultural features, but still contains a high-density of "trash."

Fiber tempered sherds were located in XU1 and XU2. XU1 contained three body sherds (6.49 g), while XU2 contained ten body sherds (37.94 g) and one rim sherd (3.69 g). Density maps were created for burnished plain, curvilinear stamped, check stamped, and plain surface treatments (Figures 7.24-7.27). Check stamped densities contain the same patterns as total sherd densities likely because this type of sherd makes up the majority of the ceramic collection. The other sherds have significantly different patterns most likely due to lower overall totals of each type. Interestingly, burnished plain sherds are concentrated in XU4 (n=3, 43.3 g), XU2 (n=4, 20.58), and XU14 (n=2, 20.8 g). XU4 is the southeastern most unit located approximately 18 meters from XU2 and contains a total of 11 sherds (97.62 g). The minimal number of sherds and other artifacts along with no features do not make it a likely activity area that would leave behind artifacts such as lithic debris or ceramics present in a tool-making or cooking location. XU14 is located 4 meters south of XU2 and likely represents an outer portion of the activity area near XU17 approximately 3 meters away.

All six curvilinear sherds occurred in different units: XU1, 2, 4, 8, 9, and 11. XU1 and XU4 are the only two units away from the activity area discussed above. These units also contain other meaningful artifacts, such as the fired clay coil (XU1) and the majority of burnished plain sherds (XU4). The significance of the location of these two units is unknown since no cultural features are located in these units except for one 13 cm diameter circular feature in XU1.

Plain sherds occur relatively evenly across the excavated units, with the two highest density units being XU5 (n=5, 27.98 g) and XU17 (n=2, 13.89 g). XU17 densities reflect similar patterns previously discussed, while XU5 is located near the activity area and just happens to have a high number of plain sherds.

The different disposal patterns of sherd types could mean different functional uses, context and/or time period. Reid discusses a specific example at Grasshopper Pueblo where the ceramic assemblage represented mortuary, domestic, community, and discard functions; therefore, "the surface-derived

distribution does not reflect these different use-contexts and cannot be assumed to represent quantitative values of the past ceramic assemblages" (1985: 21). Density patterns in surface treatment sherds are likely not significant, but the presence of these sherds could suggest different community functions, occupations, or time periods.

The presence of a high number of fired clay and sherds centralized around XU2 and XU17 likely represent a refuse area associated with a domestic habitation area or structure located to the south and east. Lithic totals display a similar pattern by being concentrated in XU17, but densities show other patterns discussed below. In addition, red pebble totals are discussed later in this section and contain similar patterns but are concentrated in XU11 two meters west of XU17.

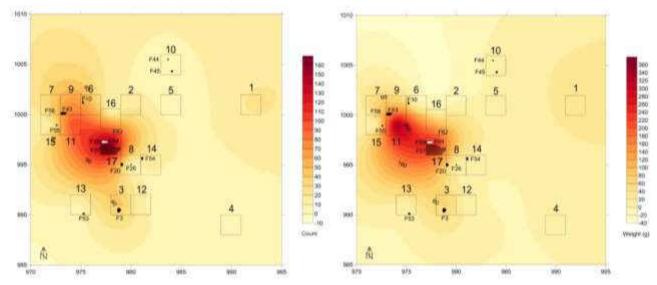


Figure 7. 21 Fired Clay Count and Weight (g) Densities

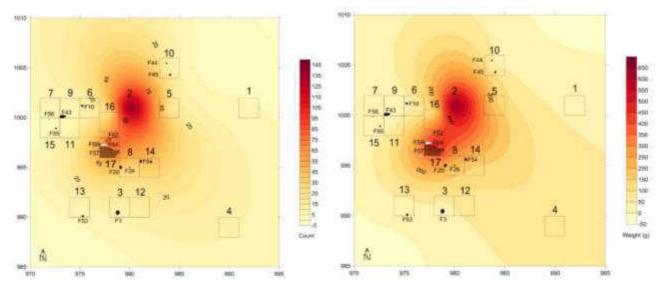


Figure 7. 22 Sherd Count and Weight (g) Densities

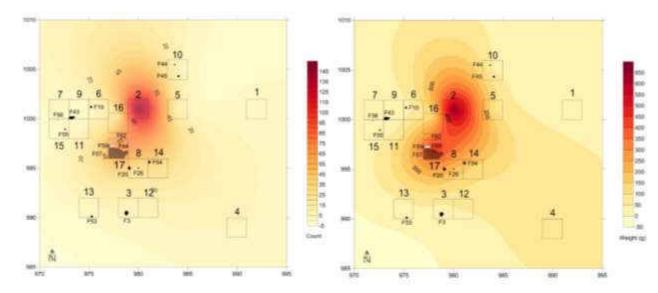


Figure 7. 23 Body Sherd Count and Weight (g) Densities

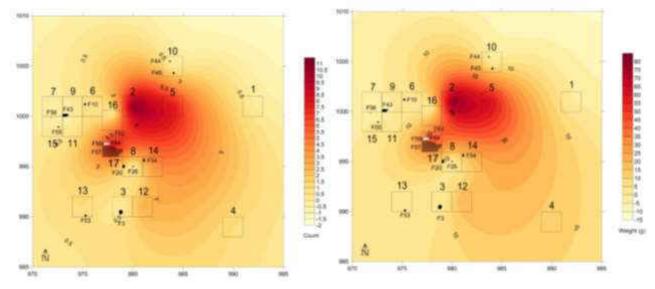


Figure 7. 24 Rim Sherd Count and Weight (g) Densities

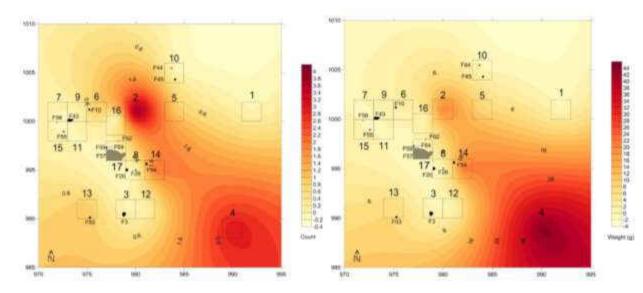


Figure 7. 25 Burnished Plain Sherd Count and Weight (g) Densities

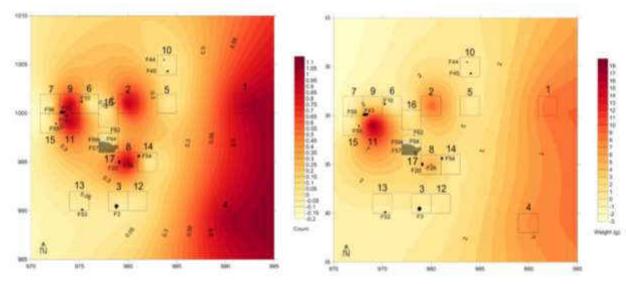


Figure 7. 26 Curvilinear Stamped Sherd Count and Weight (g) Densities

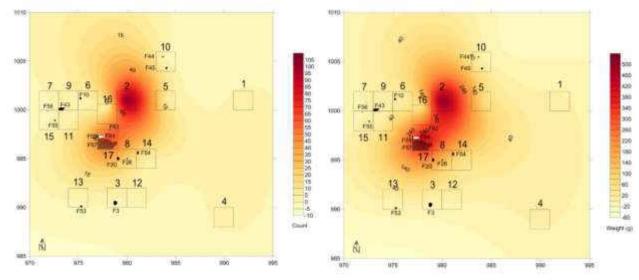


Figure 7. 27 Check Stamped Sherd Count and Weight (g) Densities

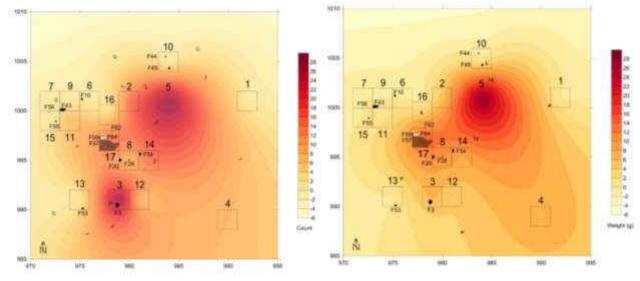


Figure 7. 28 Plain Sherd Count and Weight (g) Densities

Lithics

Lithic artifacts are concentrated in XU17 (n=1196, 832.7 g) and XU7 (n=938, 631.27 g) (Figure 7.28). XU3 and XU12 also contain relatively high numbers of lithics (n=420, 365.87 g; n=446, 354.6 g, respectively). Lithics with heat treatment display these similar patterns (Figure 7.27). XU17 continues to contain some of the highest artifact densities most likely associated with a trash area, while the high numbers in XU7 indicate a possible lithic tool-making area. Lithic densities in XU3 and XU12 also warrant the possibility of an additional tool-making area. Prehistorically, people designated lithic tool-making areas because the waste material can be harmful, especially to children. These areas were likely separated from habitation and cooking areas. These artifact density numbers show evidence of these intrasite activity areas.

An interesting pattern of note is that XU2 contains one of the least amounts of lithics (n=45, 35.03 g), while this unit also contains the highest number of sherds. It is possible that XU2 could be the trash area for cooking-related activities, while a different area could have been designated as the tool-making trash area. It is important to note that XU17 contains some of the highest numbers of both sherds and lithics, possibly indicating a combined trash area or an area of convenience between two different functional areas (*e.g.* cooking area and tool-making area). The artifact densities in these two locations could also represent different functional areas from different occupational time periods.

Projectile points and/or knives (PP/Ks) indicate the final product, failed attempts at a final product, or broken while in-use. Units 2, 3, 6, 11, 12, 14, 15, and 16 all contain either PP/Ks or PP/K fragments. Units with the greatest concentration are XU6 (n=3, 23.99 g) and XU11 (n=3, 25.8 g) (Figure 7.30). Both units contained relatively whole PP/Ks except for one. The density map shows XU2 as having a high-density of PP/Ks, but this is due to the presence of five PP/K fragments (8.34 g) which causes this discrepancy. XU17 contains the highest number and weight of lithic artifacts, but no PP/Ks or PP/K fragments are present in this unit. Density patterns of PP/Ks are generally different from lithic debitage patterns discussed below. These locations could possibly indicate different functions within this site such as habitation or cooking areas.

The dates for these points range from Middle Archaic (represented by one Morrow Mountain) to Late Woodland (represented by one Woodland Triangular). Out of the nine PP/Ks, four were lanceolate in shape, one was triangular, and three were stemmed with one possible stem (base was broken). The lanceolate points are most similar to Eared Yadkins. Whatley dates these points from the Late Early Woodland to the Early Middle Woodland (approx. 2400-1700 B.P.) and describes them as medium in size with a triangular or recurvate blade with "ears" at the base (2002: 40). All four of these points are most similar to Whatley's description of Eared Yadkins. The single triangular point is most similar to Late Woodland Triangular PP/Ks. Whatley dates these points to the Late Woodland period (1500-850 B.P.) with shapes ranging from isosceles to equilateral triangles where blades can be straight, incurvate, or excurvate (2002: 64). Late Woodland Triangulars are similar to Mississippian Triangulars but are larger in size.

The possibly stemmed point is broken at the base, inhibiting further identification and classification. The first of the identifiable stemmed points most resembles a Morrow Mountain with a contracting stem. Whatley dates these points to the Middle Archaic (7500-7000 B.P.) and describes them as medium in size with a "characteristic short tapered stem that may be rounded or pointed" (2002: 81-82). This point is characteristic of Whatley's description. The second stemmed point is most similar to a Bakers Creek with an expanding stem. Whatley dates these points to the Early Woodland (1500-2000 B.P.) and describes them as medium sized with prominent shoulders and an expanding stem (Whatley 2002: 18-19). The third stemmed point is harder to identify. It is relatively small in size with a short and flat stem, perpendicular shoulders, and an incurvate blade edge that appears to have been re-sharpened over time. Possible PP/K types described by Whatley include Small Savannah River, Ottare, and Swannanoa. Small Savannah River points date to the Late Archaic (3400-3800 B.P.) and are medium in size and triangular in shape with either excurvate or incurvate blade edges, depending upon the amount of re-sharpening (2002: 102-103). According to Whatley, Ottare points date to from the Late Archaic to Early Woodland (4600-2600 B.P.) and are triangular in shape with straight or excurvate edges and a diagnostic narrow straight stem (2002: 88-89). Swannanoa points date to the Early Woodland (2700-2200

B.P.) and are medium in size with typically weak blade shoulders, excurvate blade edges, and either straight or excurvate stems (Whatley 2002: 114-115). Based on these descriptions, this PP/K is most similar to a Small Savannah River due to the fact that this point has been re-sharpened. This re-sharpening is most characteristic to earlier time periods like the Late Archaic.

Primary flakes and shatter indicate lithic reduction of a larger, less culturally modified chert core usually before the final tool construction phase occurs. Chert acquisition usually involves testing the raw material, then reducing its size for ease of transportation. Chert was likely collected from the local quarry in this manner and brought to this location for final tool construction. Primary flakes and shatter are concentrated in XU3 (n=26, 40.57 g) and XU17 (n=39, 27.36 g) (Figure 7.31). XU12 and XU7 also contain a higher density of primary flakes and shatter when compared to other units (n=26, 17.9 g; n=19, 17.7 g, respectively). The patterns of total lithic densities are reflected in these numbers: all four units are high in density, however, XU3 contains the highest weight density which deviates from these trends. It is possible that XU3 could be an activity area for tool reduction.

Secondary and tertiary flakes and shatter are usually associated with the final tool production stage. Secondary flakes and shatter are concentrated in XU17 (n=257, 342.87 g) (Figure 7.32). Densities in XU7 (n=123, 151.88 g), XU3 (n=117, 136.63 g), and XU12 (n=90, 123 g) are also relatively high. Tertiary flakes and shatter are concentrated in XU7 (n=795, 461.6) and XU17 (899, 460.72) (Figure 7.33). Densities in XU12 (n=327, 183 g) and XU3 (n=172, 125.38 g) are relatively high, but densities for XU7 and XU17 are approximately 40% higher. These three locations (XU7, XU17, and XU3 and XU12) appear to be primary locations for final tool production debitage with a heavy emphasis on XU17. It is unknown as to why both lithic and ceramic densities are high in XU17 unless this area was considered a more generalized refuse location where trash was removed or swept from its original location to the area of this unit. In addition, PP/K and PP/K fragments are only located in the area of XU3 and XU12 possibly indicating different function uses than the other two areas (XU7 and XU17). The artifact densities in these locations could also represent different functional areas from different occupational time periods, likely dating to the Late Archaic to Late Woodland based on the diagnostic PP/Ks.

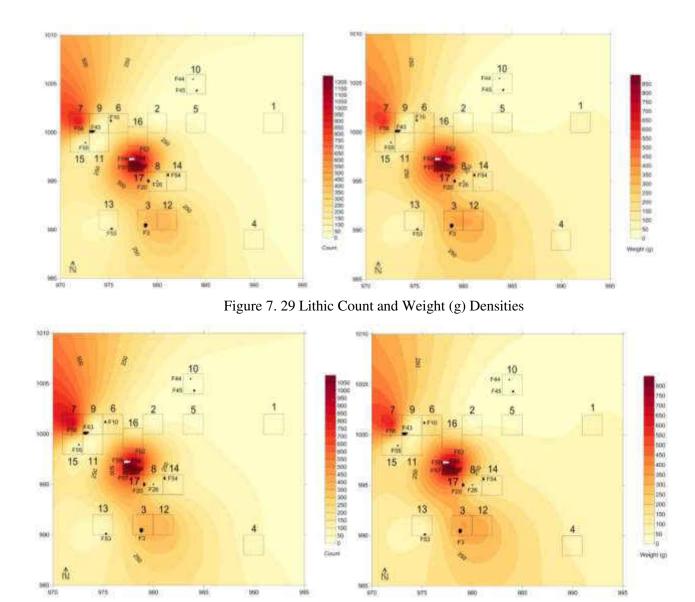


Figure 7. 30 Heat Treatment Count and Weight (g) Densities

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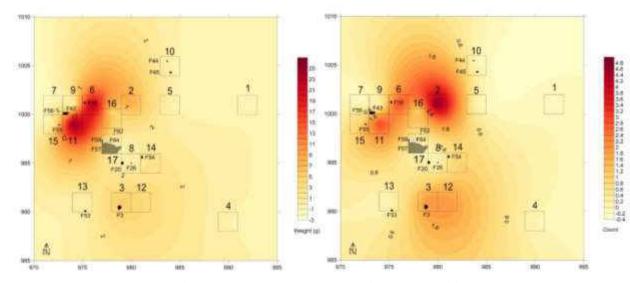


Figure 7. 31 PP/K Count and Weight (g) Densities

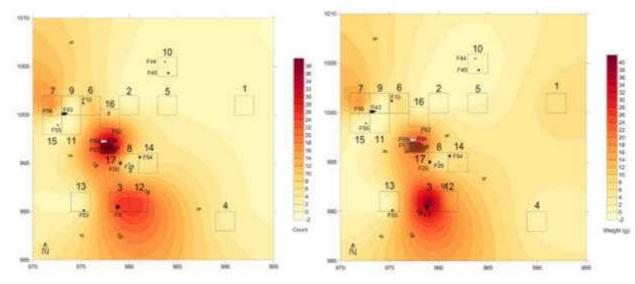


Figure 7. 32 Primary Flake and Shatter Count and Weight (g) Densities

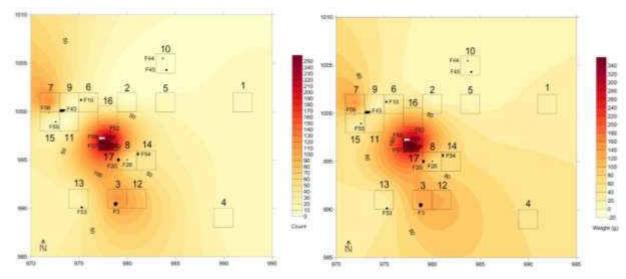


Figure 7. 33 Secondary Flake and Shatter Count and Weight (g) Densities

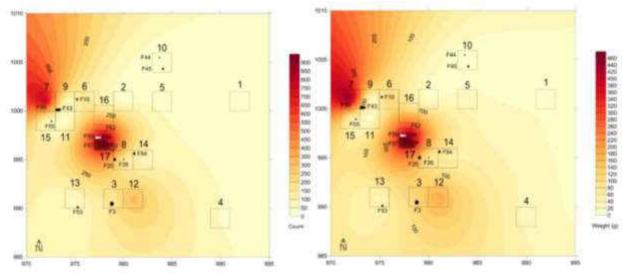


Figure 7. 34 Tertiary Flake and Shatter Count and Weight (g) Densities

Red Pebbles

Red pebble densities change significantly when focusing on count versus weight (Figure 7.35). For example, XU10 contains the highest number of pebbles (n=42) with a total weight of 18.9 g; while XU11 contains the densest weight (26.1 g) with a total count of 35. It is also possible that elevation played a part in moving smaller red pebbles down the slight elevation towards XU10 (see elevation map, Figure 6.4). Therefore, I will focus my discussion primarily on weight since the count variable appears to fluctuate.

Red pebbles tend to be relatively distributed over the entire site with weight densities highest in XU11 (n=35, 26.1 g), XU16 (n=17, 22.49 g), XU10 (n=42, 18.9 g), and XU9 (n=17, 18.8 g) (Figure 7.32). XU10 and XU11 also contain the highest count of red pebbles. XU9 and XU11 contain a relatively high-density of cultural features, while XU10 and XU16 contain no prehistoric cultural features. XU16 is located 2 meters east of XU9 and XU11, while XU10 is located downslope approximately 10 meters from these units. XU3 and XU13 contain the lowest numbers of red pebbles possibly indicating the outer limits of the site or activity area.

XU9 and XU11 contain high numbers of fired clay, red pebbles, and feature activity possibly associated with XU17 which contains median numbers of red pebbles. XU9, XU11, and XU17 likely represent a cultural activity area associated with heat or firing episode(s) and features. Williams (1995b, 2006: 56) states that these artifacts are likely associated with cooking as a way to stabilize pots with rounded bottoms. Structure 2 is also located within a portion of XU9.

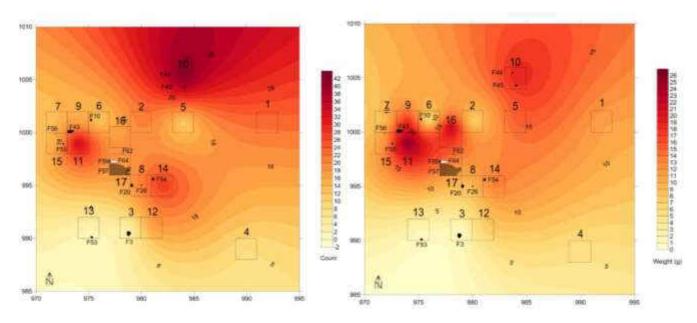


Figure 7. 35 Red Pebble Count and Weight (g) Densities

Energy Dispersive X-Ray Fluorescence (ED-XRF) Spectrometry Ceramic Analysis

The ceramic samples for this ED-XRF study exhibit five comparable compounds (Table 7.89): potassium oxide (K₂O), calcium oxide (CaO), titanium dioxide (Ti O₂), manganese oxide (MnO), and iron (III) oxide (Fe₂O₃). A comparative composite of these compound can be seen in Figure 7.36.

	K2O %	CaO %	TiO2 %	MnO %	Fe2O3 %
Fired Clay Coil (No. 63.001)	1.217	0.630	1.748	1.419	0.161
Burnished Plain 1 (No. 04.002)	0.903	3.891	1.685	1.370	0.410
Burnished Plain 2 (No. 65.003)	0.382	3.333	1.387	8.183	0.184
Check Stamped 1 (No. 27.004)	1.543	2.177	1.374	9.236	0.084
Check Stamped 2 (No. 04.005)	1.243	4.274	1.890	8.100	0.130
Plain 1 (No. 04.006)	0.533	2.022	0.505	4.537	0.141
Plain 2 (No. 02.007)	1.936	3.361	2.034	4.592	0.190
Cob Marked (No. 04.008)	1.171	1.698	0.604	0.314	0.318
Curvilinear 1 (No. 15.009)	0.401	1.771	1.314	3.363	0.151
Curvilinear 2 (No. 21.010)	2.441	1.697	0.740	4.068	0.408
Cord Marked 1 (No. 02.011)	0.336	2.006	0.682	3.026	0.300
Cord Marked 2 (No. 29.012)	0.744	0.562	2.123	6.851	1.859
Fine Fabric Marked (No. 12.013)	1.542	0.903	0.649	5.267	0.262

Table 7. 89 Percent Relative Standard Deviation Element Results

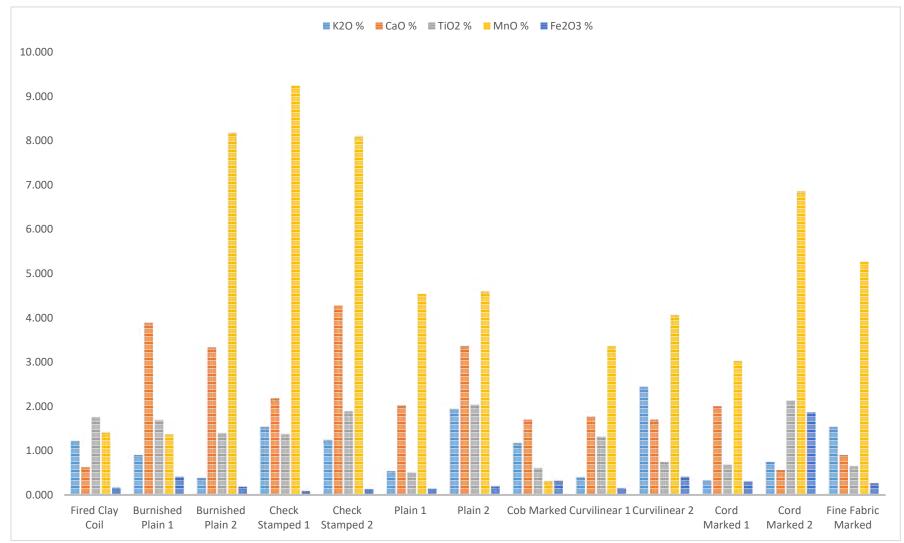


Figure 7.36 Composite of XRF Compounds

The fired clay coil (No. 63.001), both check stamped (Nos. 27.004, 04.005), cob marked (No. 04.008), fine fabric marked (No. 12.013) sherds contain the highest levels (1.936-2.441 %RSD) of potassium oxide (K₂O) (Figure 7.37). Cob and fine fabric marked surface treatments date to the Mississippian period, so it can be assumed that a similar clay source was utilized for the other samples with similar percentages of this compound and possibly date to the same time period. Both cord marked and burnished plain (Nos. 02.011, 29.012, 04.002, 65.003), the first curvilinear (No. 15.009), and the first plain (No. 04.006) sherds contain the lowest levels (0.336-0.903 %RSD) of this compound. The cord marked and plain sherds have the possibility of representing a Woodland component, but the burnished plain and curvilinear sherds date to the Mississippian time period. These results show that sherds possibly dating to the Woodland period could in fact date to the Woodland period where the same or similar clay source was used.

Both burnished plain (Nos. 04.002, 65.003), the second check stamped (No. 04.005) and second plain (No. 02.007) sherds contain the highest levels (1.697-2.177 %RSD) of calcium oxide (CaO) (Figure 7.38). The fired clay coil, fine fabric marked (No. 12.013), and second cord marked (No. 29.012) sherds contain the lowest levels (0.562-0.903 %RSD) of this compound. Interpretations of these patterns are similar to potassium oxide (K₂O) percentages where there are no clear distinctions between the chemical make-up of diagnostic to undiagnostic sherds and ceramic.

The clay coil, first burnished plain (No. 04.002), second check stamped (No. 04.005), second plain (No. 02.007), and the second cord marked (No. 29.012) sherds contain the highest levels (1.685-2.123 %RSD) of titanium dioxide (Ti O₂) (Figure 7.39). The fine fabric marked (No. 12.013), cob marked (No. 04.0008), first cord marked (No. 29.012), first plain (No. 04.006), and second curvilinear (No. 21.010) sherds contain the lowest levels (0.505-0.74 %RSD) of this compound. Interpretations of these patterns are similar to other compound percentages where there are no clear distinctions between the chemical make-up of diagnostic to undiagnostic sherds and ceramic.

The fine fabric marked (No. 12.013), both check stamped (Nos. 27.004 and 04.005), both cord marked (Nos. 02.011 and 29.012), and the second burnished plain (No. 65.0003) sherds contain the highest levels (5.267-9.236 %RSD) of manganese oxide (MnO) (Figure 7.40). The clay coil, cob marked (No. 04.0008), and first burnished plain (No. 04.002) sherds contain the lowest levels (0.314-1.419 %RSD) of this compound. Interpretations of these patterns are similar to other compound percentages where there are no clear distinctions between the chemical make-up of diagnostic to undiagnostic sherds and ceramic.

Most samples exhibit minimal levels of iron (III) oxide (Fe₂O₃) ($<0.6 \ \%$ RSD) except for the second cord marked sherd (No. 29.012) which contains 1.859 (%RSD) (Figure 7.41). It is not clear as to why this percentage is significantly higher than the other ceramics, specifically, the other cord marked sherd (No. 02.011). Comparisons of this element are less meaningful since there is not enough variation in the results. The iron (III) oxide percentage of the cord marked sherd (No. 29.012) could potentially be an outlier. Additional samples will need to be tested for confirmation.

The main assumption is that sherds with similar surface treatments would contain a similar makeup if made by the same person or small family group. In many cases in this study, sherds with the same surface treatment did not contain similar compound percentages and similarities and differences in these results were difficult to identify. This could be caused by multiple factors. Speakman et al. (2011) stress that ceramics must be clean of dirt, slip, paint, and glaze in order to maximize homogeneity of the results. These samples were cleaned with water and a brush, so lingering dirt on the sherd surface could have affected these results. Also, burnished sherds will likely have a different compound profile due to the burnishing process of rubbing the outer surface with water and a smoothed rock and possibly with a clay slip before burnishing. As state previously, some of the sherds were smoothed on the inside of the sherd surface. These types of surface treatments and the specific location of the XRF scan location can also affect results.

Different pastes and tempers during pottery construction could also affect these compound percentages. For instance, if the potter used the same clay source but decided to use a different paste

formula or temper typically used, the results of the XRF study would be comparatively different from the "normal" sources the potter utilized. In that same vein, workmanship varies from potter to potter where some individuals will better work the paste and temper into the clay. If paste and temper are not well mixed in with the clay, the XRF study will show these heterogeneous qualities.

Ensuring the sherd is clean of "impurities," sampling and testing nearby clay sources, and exponentially increasing the sample size to include sherds from other nearby sites in addition to Fitzner North End has the potential to clarify any future studies.

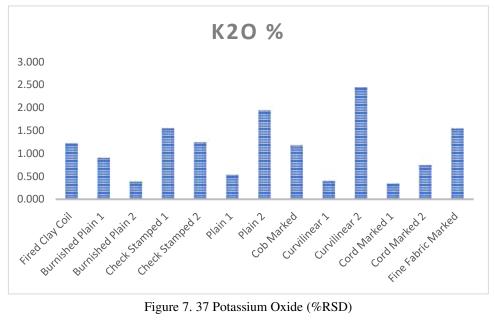


Figure 7. 37 Potassium Oxide (%RSD)

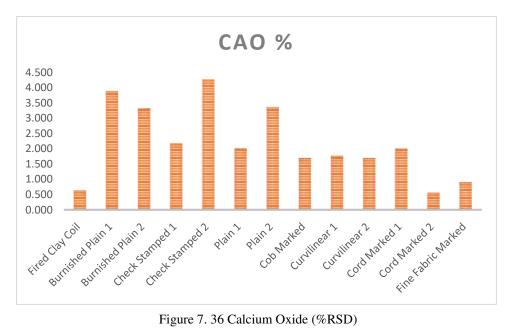


Figure 7. 36 Calcium Oxide (%RSD)

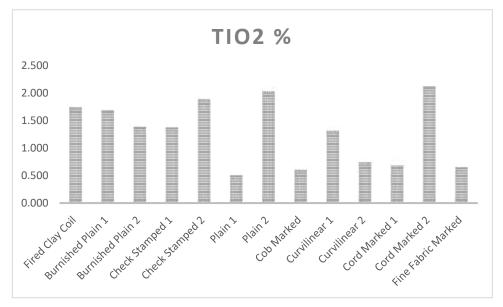


Figure 7. 38 Titanium Oxide (%RSD)



Figure 7. 39 Manganese Oxide (%RSD)

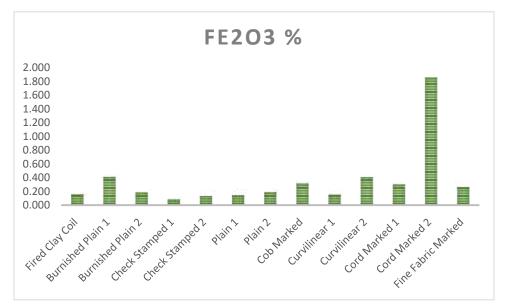


Figure 7. 40 Iron (III) Oxide (%RSD)

CONCLUSIONS

What are the characteristics and functions of non-mound Mississippian sites?

The majority of people living in Mississippian polities lived at non-mound sites. The research question asks what these sites look like, how researchers classify and describe them, and what community needs they fulfill. Based on the literature review and analysis in this study, non-mound sites are classified into five different types based on size, habitation area/domestic structures, ceremonial or communal structures, and the presence or absence of a mound, burials, and other architectural characteristics such as plazas, ditches, and palisades (Figure 8.1).

Typically, the largest type of site is a town or village and contains approximately 20 to 100 domestic structures, one or more ceremonial/communal structures, and no platform mound over a 1.5 hectare or greater area. These sites can have a plaza, ditch and/or palisade, and elite burials. These types of sites functioned as non-elite and/or elite residences and a space for communal aggregation for social and/or ceremonial purposes.

Communities considered to be hamlets have a wide variety of characteristics and range in size from large (3 to 6 hectares, 10 to 15 domestic structures) to small (1 to 3 hectares, 3 to 4 domestic structures) with no platform mound, at least one ceremonial or communal structure, and sometimes contain a plaza and elite burials. This type of site is similar to a town or village but is usually smaller in size and does not contain the variety of communal architecture and a large number of domestic structures. This variety might have developed through time if a particular hamlet was inhabited for a longer period of time. The term "hamlet" is used less often than the other five site types due to several possibilities: an unpopular or regional-specific term, too similar to a town or village, not applicable to or rarely occurs in Mississippian settlements, or because it has been historically used to describe a type of European settlement (according to the Oxford English Dictionary).

A farmstead or homestead is usually located near farmable, rich soils and contains 1 to 3 domestic structures with no communal/ceremonial structure or mound over a 0.3 to 1-hectare area. These types of sites contain a variety of artifacts and features associated with domestic habitation with no

evidence of larger communal gathering or exotic goods relating to social stratification. A farmstead or homestead functioned as a seasonal to year-round resource procurement location and non-elite residences usually located within a day's journey to the nearby mound site.

Limited activity and special-use sites are similar in characteristics: little to no domestic or ceremonial/communal structures, no mounds, and fulfill a community need such as hunting/butchering, gathering, raw material quarrying, salt production, and a ceremonial location (e.g. sweat bath). The size of these sites can vary, as we saw with Punk Rock Shelter (0.003 hectares) and Great Salt Spring (9 hectares). These types of sites lack the variety of domestic artifacts and features seen in habitation sites like farmsteads and homesteads.

Fitzner North End (9SN256)

Fitzner North End is approximately 0.3 hectares in size and located on an upland area within the floodplain near the confluence of Brier Creek and the Savannah River. Diagnostic artifacts date occupations at this site to the Middle Archaic (5500-5000 B.C.) (Morrow Mountain PP/K), Late Archaic (2500-1000 B.C.) (Savannah River PP/K and fiber tempered pottery), Early Woodland (500 B.C.-A.D. 0) (Bakers Creek PP/K), Middle Woodland (300 B.C.-A.D. 600) (Eared Yadkin PP/K and Deptford pottery), Late Woodland (A.D. 500-1150) (Late Woodland Triangular PP/K), and Middle Mississippian (A.D. 1250-1350) (Savannah pottery).

Artifact densities and the presence of post molds (n=4) and refuse pits (n=2) in the central portion of the site indicate a likely domestic habitation area, identified as possible Structure 1 for the purposes of this study (Figure 7.20). This possible structure is hypothesized to be about a 4-meter diameter or 12.57 m² area where two main sherd disposal areas are located to the north and west. There is also a highdensity of lithic tools and debitage to the west. Data from Steere's structure inventory (2017) indicate that this structure fits in relatively well with the 3 to 16.4 m² range of houses dating to the Late Woodland/ Early Mississippian transitional period and also with the 1.9-86 m² range (median of 23 m²) for typical Middle Mississippian structures. A second possible structure in the northwestern portion of the site is identified based on a highdensity of lithic tools and debitage, post molds (n=3), and a refuse pit (n=1) that indicate either a possible tool-making area or temporary shed (Figure 7.20). The pit feature is located in the approximate center of this area with two radiocarbon dates of A.D. 1030-1155 and A.D. 1039-1161. The simplest and most likely explanation for this area is a possible tool-making location that might have contained a small sunshade or framed structure based on few and relatively small post molds.

There is a total of three refuse pits with two radiocarbon samples indicating dates of A.D. 1030-1155 and A.D. 1039-1161 during the Late Woodland period and Early Mississippian transitional period. A fourth pit, Feature 57, contains yellowish red clay with small charcoal pieces and minimal artifacts. This feature is located to the west and partially within the likely domestic habitation area or structure. Minimal artifact densities and current literature suggest that this feature is a likely house pit for a semisubterranean house. It is unknown when this structure was occupied. Based on current excavations, no burials are present at this site. In addition, no identifiable flora or fauna remains are present in the artifact collection.

Pottery types date from the Late Archaic, Middle Woodland, and Middle Mississippian time periods with the following surface treatments: plain fiber tempered, Deptford (check, linear check, cord marked, and plain), and Savannah (complicated stamped, check stamped, burnished plain, plain, in addition to cob markings and cane punctations). Pottery from Fitzner North End is typically thick and poorly-made sand and grit tempered (64.1% total weight of collection). This makes certain surface treatments such as check stamping, cord marking, and plain difficult to distinguish between Deptford or Savannah ceramic complexes. Projectile points/knives (PP/Ks) include Morrow Mountain, Savannah River, Bakers Creek, Eared Yadkin, and Late Woodland Triangular dating from the Middle Archaic up to the Late Woodland. Other artifacts include fired clay, a fired clay coil, red pebbles, bifaces, worked unifacial tools, and a high number of lithic debitage (flakes and shatter). These artifacts are primarily utilitarian and domestic in nature and do not display social stratification or specific ceremonial/ritualistic functions. The location of Fitzner North End suggests that inhabitants were able to easily adapt to climate variation by utilizing the rich floodplain for resource exploitation and horticultural activities. Based on the discussion in Chapter 4, 107.9 acres (43.67 hectares) of farmable land based on soil data from the NRCS is located within a one-half mile radius around this site (Figure 4.6). The local physiography, geology, and fluvial patterns suggest that the people living at this location utilized diverse seasonal subsistence methods including horticulture, and hunting and gathering that provided environmental variety and productivity needed to support human habitation.

The Fitzner (9SN220) burial mound site is located approximately a half mile south of Fitzner North End. This site contains Hollywood phase pottery in addition to Fine Fabric Marked pottery also found at Fitzner North End (Wood 2014). The inhabitants of Fitzner North End likely interacted with the Fitzner mound on a regular basis, possibly performing upkeep and utilizing the space for ritualistic/ ceremonial activities.

Lawton (38AL11), Red Lake (9SN4), and Spring Lake (9SN215) mound sites occur during the same time period and are located approximately 10 miles (16 km) upriver. According to Hally's polity size, an individual polity tended to expand approximately 7.5 to 10 km (or 15 to 20 km in diameter) in all directions from the mound site(s) along a river floodplain with a surrounding sparsely occupied or unoccupied area measuring approximately 5 to 15 km (or 10 to 30 km in diameter) in all directions from the mound site(s) between neighboring polities (2006). Fitzner North End is located approximately 16 km away or 32 km in diameter from these mounds sites and falls about 2 km outside of Hally's suggested outermost polity area. Hally suggests that the outer zones contained attractive resources, but also an increased threat of hostile neighbors which made it unfavorable to remain in these areas for a long period of time (2006: 33). This suggests a different socio-political environment surrounding the Fitzner North End site.

Evidence from the Savannah River Site (SRS) just north of Lawton, Red Lake, and Spring Lake suggests that upland sites occupied prior to the construction of these mound sites were inhabited yearround with a generalized subsistence strategy over time, relying on hunting and gathering and

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horticultural supplementation (Stephenson 2011: 27-32). However, a significant decrease in the use of uplands occurs when these mound sites were later constructed in the Middle Mississippian period, indicating that the people left the area to live at or near these mound sites (Stephenson 2011). This evidence indicated that these people left their homes that supplied an environment rich in resources to construct these three mound sites to form a Mississippian polity. However, when these people aggregated, the inhabitants of Fitzner North End remained far from these nucleated mound sites. The inhabitants of Fitzner North End participated in a more dispersed settlement organization and located outside of Hally's polity model (2006) when compared to the sites up the Savannah River suggesting that this location participated in a different socio-political organization altogether.

A dispersed adaptive strategy occurs in the Oconee River valley due to environmental restrictions. Hatch states that this region contained small year-round farmsteads/homesteads where inhabitants utilized a generalized subsistence strategy relying on hunting, gathering, and horticulture similar to the people of the Savannah River valley (1995: 136). Population increase, and environmental strain required these settlements to be located in the uplands and far from water sources where ideal floodplain soils for crops were located. In most cases, soil depletion, higher labor costs, and erosion were likely contributors to the reasons why these sites were not occupied for long (Hatch 1995: 154). Platform mound(s) was located nearby but have smaller habitation areas when compared to regions with low numbers of farmsteads/homesteads. Williams suggests that this type of settlement system with many farmsteads/homesteads results in smaller mound site habitation areas that housed the chief and his family (1995a: 127).

When compared to the Lawton, Spring Lake, and Red Lake mound sites, the habitation areas supported a population larger than just the chief and his family (Wood 2009, Stephenson 2011). The hills and ridges of the Oconee River valley required this particular adaptive strategy to obtain the necessary resources for the larger Mississippian polity. However, the Savannah River valley and Brier Creek region offered large areas of ideal farmland and different nearby ecosystems, making resource procurement less

labor intensive. A dispersed settlement was less attractive or not necessarily required to sustain Fitzner North End or even the larger populations of Lawton, Spring Lake, and Red Lake.

Smith (1978) discusses possible socio-political and environmental reasons for settlement dispersion. He states that the adaptive niche requires a certain level of settlement dispersion in order to support a larger more sedentary population, which also needed to be balanced with "the internal problem of social cohesion and cooperation and the external problem of defense of land and people" (1978: 489-490). Mehrer and Collins offer evidence from the outskirts of Cahokia where rural communities were relatively isolated, established long-term stability, and developed a different hierarchy "based on the civic and mortuary ceremonialism that helped integrate them as a community" (1995: 47). It is possible that a similar adaptive strategy is represented by Fitzner North End, particularly based on the presence of the nearby Fitzner burial mound. However, no hierarchy or civic ceremonialism is evident at Fitzner North End.

Little to no archaeological survey has occurred up Brier Creek and no Mississippian mound sites have yet to be reported. There is evidence of a Mississippian site located just north of Fitzner North End closer to the creek (Personal Communications, Wood 2018). This suggests that other non-mound sites associated with Fitzner North End were located in this region and likely formed their own cultural identity separate from the inhabitants of Lawton, Spring Lake, and Red Lake. However, archaeological data to confirm or deny this is unavailable.

When the characteristics of Fitzner North End are compared to other non-mound sites (Table 8.1), the site most closely resembles a farmstead or homestead. This site displays a variety of activities assumed with a seasonal or year-round domestic site: tool manufacture and use, cooking and consumption, refuse disposal, and habitation area. Because burials have yet to be located at this site, it is possible that this location was more seasonal in nature with a relatively short occupation period. This diversity in activities is reflected in artifacts, features, patterns in site size, activity areas and inter-site arrangement. These characteristics are comparable to published types of domestic non-mound sites or specifically, farmsteads and homesteads. Fitzner North End likely functioned as a seasonal to year-round habitation site with at least one non-elite residence.

Fitzner North End was occupied intermittently through time from the Late Archaic to Middle Mississippian periods indicating that this location was successful in encouraging and supporting repeated use, likely due to attractive resources the area had to offer. The fact that the inhabitants did not relocate to participate in the Mississippian polity upriver, similar to the settlements in the SRS, suggests that Fitzner North end was not included in the cultural identity of the people at Lawton, Spring Lake, and Red Lake, and were instead a part of a separate cultural identity. More archaeological survey and data are needed to investigate this possibility.

This research acknowledges the convoluted terms used to describe human habitation and summarizes and begins to develop a clearer architectural grammar utilized to describe prehistoric settlements without mounds. The case study site, Fitzner North End, provides an opportunity to test these working descriptions and functions in site variety. The excavations provide data on non-mound sites in an understudied area located outside of the Lawton, Spring Lake, and Red Lake polity where larger settlement studies have yet to be completed.

Future investigations at Fitzner North End can further explore the domestic area with the goal of dating and defining the location and shape of the domestic structure. In addition, excavations can date and define the shape of the large pit feature (Feature 57) to confirm if this pit is indeed a semi-subterranean structure. Additional radiocarbon dates will help to contextualize this site in time. Further processing of the water-screened artifacts from Feature 57 will also provide information on potential botanical remains that could be analyzed by a specialist. This data could help to determine a seasonal or year-round occupation.

The relationship between Fitzner North End and the Fitzner burial mound can also be further explored. Comparing and contrasting sherds from both sites will show surface treatment design and pottery construction differences. The XRF analysis can also be expanded upon to include large samples of sherds from both sites to determine more molecular differences/similarities. Finally, a more expansive survey of the area, specifically along Brier Creek, is needed. It is important to understand the presence of neighboring sites to determine how the landscape was utilized. Additional evidence may also shed light on whether or not the inhabitants of Fitzner North End participated in the cultural sphere of the people at Lawton, Spring Lake, and Red Lake, or were instead a part of a separate sociopolitical group.

This case study on the Fitzner North End site adds to the growing literature base and invites future research studies of excavated non-mound sites in the Savannah River valley. With each excavated site, we have the opportunity to learn more about the cultural history and social organization of the people in this area who lived outside of the larger mound sites.

Site Type	Size	Habitation Area/ Domestic Structure(s)	Ceremonial or Communal Structure(s)	Mound(s)	Other Characteristics	Function(s)
Town or Village	≥1.5 ha	20-100	≥1	No Platform Mound	Can have a plaza, ditch, palisade, and elite burials	Non-elite and/or elite residence, communal aggregation (social and/or ceremonial)
Hamlet	3-6 ha, 1- 3 ha	10-15, 3-4	≥1	No Platform Mound	Can have a plaza and elite burials	Non-elite and/or elite residence, sometimes communal aggregation (social and/or ceremonial); usually on a smaller scale when compared to a town or village
Farmstead or Homestead	0.3-1 ha	1-3	None	None	Near farmable and rich soils	Seasonal to year-round habitation site; non-elite residence
Limited Activity or Special-Use	≤0.1 ha, ≥0.1 ha	Little to none	Little to none	None	Temporary activity or variable based on type and community need, same location can be used throughout time	Fulfills a community need: hunting/butchering, gathering, raw material quarrying, salt production, ceremonial location (<i>e.g.</i> sweat bath)

Site	Size	Habitation Area/ Domestic Structure(s)	Ceremonial or Communal Structure(s)	Mound(s)	Other Characteristics	Function(s)
Fitzner North End	0.3 ha	1 possible structure	None	None	Near farmable and rich soils	Seasonal to year-round habitation site with possible non-elite residence(s)

Table 8.1 Site Type Summary

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Fitzner North End (9SN256) Field Specimen Log

FS No.	Unit	Level/ Zone/ Feature	Notes	Field Date(s)	Initials
BAG 62, 2013	XU1	1		6/16/2013	JW
BAG 63, 2013	XU1	2		6/16/2013	JW
BAG 64, 2013	XU2	1		6/16/2013	JW
BAG 65, 2013	XU2	2		6/16/2013	JW
BAG 42, 2014	XU3	1		2014	TN
BAG 43, 2014	XU3	2		2014	TN
BAG 44, 2014	XU3	Feature 3	Northern bisection soil	7/22/2014	TN
1	XU4	A&B		6/2/2016, 6/3/2016	CH, TC, RH, ZD
2	XU4	С		6/3/2016, 6/8/2016, 6/9/2016	ZD, RH, LH, TC
3	XU5	A&B		6/2/2016, 6/3/2016	RB, JM, SC, JB, KI, LH
4	XU5	С		6/9/2016, 6/10/2016	SC, JM, KI, RB, LH, JW, CH, JB, ZD
5	XU6	A&B	*Combined with XU7 Zones A&B	6/9/2016 & 6/13/16	JB, RB, JM, SC, ZD, LH, CH, RM, JC, KI
6	XU6	С		6/14/2016, 6/15/2016	ZD, LH, CH, RM, JC, KI
7	XU6	Feature 12	Artifact	7/23/2016	PE, FD, LH
8	XU7	A&B	*Combined with XU6 Zones A&B	6/8/2016, 6/9/2016	JB, RB, KI, JM, SC, LH
9	XU7	С		6/9/2016, 7/1/2016, 7/7/2016	JF, RB, KI, JM, SC, ZD, LH, RK

APPENDIX A: FIELD SPECIMEN (FS) LOG

Field S	pecimen L	og Feature 14	Artifacts	7/19/2016	
11	XU8	A&B		6/13/2016	CH, SC, RH, JB
12	XU8	С		6/14/2016, 6/15/2016, 8/4/2016, 8/5/2016, 3/16/2017	CH, SC, RH, JB, JW, LH, RB, LC
13	XU6	Feature 10	Northern bisection soil	8/5/2016	LH
14	XU9	A&B		12/4/2016	
15	XU9	С		12/4/2016, 12/12/2016, 12/15/2016, 1/8/2017	RB, ZD, NH, LH, DC, BC, JH, KH
16	XU9	Feature 37	Artifacts	1/28/2017	LH, DA
17	XU10	A&B		12/13/2016	
18	XU10	С		12/13/2016, 12/14/2016, 12/16/2016	BC, LH, JH, KH
19	XU10	Feature 44	Artifacts	1/16/2017	LH, MH
20	XU11	A&B		12/19/2016, 12/20/2016	
21	XU11	С		12/20/2016, 12/21/2016, 1/8/2017	LH, JH, BC, ZD, DC
22	XU12	A&B		2/4/2017	NH, LH, DA, NG, ZD, CH
23	XU12	С		2/4/2017, 2/10/2017, 3/4/2017, 3/11/2017	NH, LH, DA, MG, ZD, CH, SAW, SW, SHH, KLM, TJ, NH, CP, CM, HP
24	XU13	A&B		2/10/2017, 2/17/2017	CD, MH, CH, ZD
25	XU13	С		2/17/2017, 3/4/2017	DA, CH, LH, MH
26	XU14	A&B		2/10/2017, 2/17/2017	JB, VB, KS, SK, SW, JW, MR
27	XU14	С		2/17/2017, 3/15/2017	BC, LC, LH, ZD, VS, CH, SK, SW, JB, RB, BS, VB
28	XU15	A&B		2/17/2017, 3/5/2017	CP, LH, CM, HB, TJ, KM, NH, CH, DA
29	XU15	С		3/5/2017, 3/11/2017, 3/15/2017, 3/17/2017	LC, BC, LH, CH, ZD, VS, CP, DA
30	XU9&11	A&B	Balk on western side of unit	1/8/2017	ZD
31	XU9&11	С	Clean trowel Zone C	1/16/2017	MH, RB, CH, LH, DA
32	XU9&11	Feature 43	Artifacts	1/29/2017	
33	XU16	A&B		5/9/2017	CP, LH, CM, RB, DA
34	XU16	С		5/10/2017	CP, LH, CM, RB, DA
35	XU17	A&B		5/27/2018	LH, DC, RB

Field S	pecimen L	og			1 1
36	XU17	C		5/29/2017, 6/19/2017, 6/27/2017, 7/7/2017, 7/8/2017, 7/23/2017, 7/24/2017	RB, LH, DC, ZD, KF, JF, AF, CP, JM, ET
37	XU17	Feature 57		6/27/2017, 7/7/2017, 7/8/2017, 7/23/2017, 7/24/2017	AS, ET, RB, LH, ZD, JM
38	XU17	Feature 63		7/23/2017	ZD
39	XU17	Feature 63		7/23/2017	ZD
40	XU17	Feature 64		7/24/2017	LH, ZD, RB
41	XU8	Feature 20	Soil sample w/ charcoal	3/17/2017	MS
42	XU8	Feature 20	Western bisection soil	3/17/2017	MS
43	XU8	Feature 24	Northern bisection soil	7/8/2017	LH
44	XU8	Feature 26	Northern bisection soil	3/17/2017	MS
45	XU9	Feature 37	Northern bisection soil	1/28/2017, 1/29/2017	DA, LH
46	XU9	Feature 38	Northern bisection soil	1/29/2017	LH
47	XU9&11	Feature 43	Northern bisection soil	1/16/2017	DA, CH
48	XU10	Feature 44	Northern bisection soil	1/16/2017	LH
49	XU10	Feature 45	Southern bisection soil	1/28/2017	СР
50	XU13	Feature 53	Southern bisection soil and charcoal sample from northern bisection	3/17/2017	LH, RB
51	XU14	Feature 54	Northern bisection soil and charcoal sample from southern bisection	3/17/2017	LH, RB
52	XU15	Feature 55	Northern bisection soil and charcoal sample from southern bisection	3/17/2017	MS
53	XU15	Feature 56	Northern bisection soil and charcoal sample from southern bisection	3/17/2017	MS
54	XU17	Feature 57	Southern bisection soil sample, charcoal from northern, Subfeature C in southern bisection	7/7/2017, 7/24/2017	RB, LH, ZD
55	XU17	Feature 62	Southern bisection soil	7/8/2017	RB, LH
56	XU17	Feature 63	Northern bisection soil	7/23/2017	ZD
57	XU17	Feature 64	Southern bisection soil	7/24/2017	RB, LH, ZD
58	XU8	Feature 19	Northeastern bisection soil	10/13/2017	LH
59	XU9	Feature 39	Northern bisection soil	10/13/2017	RB, LH
60	XU17	Feature 59	Eastern bisection soils	7/24/2017	RB
44	ST132	0-16 cm	Shovel Test	6/3/2013	AS
45	ST132	15-20 cm	Shovel Test	6/3/2013	AS
46	ST138	0-27 cm	Shovel Test	6/3/2013	AS
48	ST133	0-20 cm	Shovel Test	6/3/2013	CR, JW
51	ST140	0-12 cm	Shovel Test	6/3/2013	LW

APPENDIX A: FIELD SPECIMEN (FS) LOG

Eight C	Tanaiman I				
Field S	^{pec} fillen L	^{og} 0-15 cm	Shovel Test	6/3/2013	LW
53	ST162	0-28 cm	Shovel Test	6/5/2013	KS
54	ST156	0-27 cm	Shovel Test	6/5/2013	KS
55	ST161	0-26 cm	Shovel Test	6/5/2013	VS
56	ST153	3-27 cm	Shovel Test	6/5/2013	VS
57	ST147	10-13 cm	Shovel Test	6/5/2013	AS
58	ST148	12 cm	Shovel Test	6/5/2013	AS
59	ST163	10 cm	Shovel Test	6/5/2013	AS
60	ST158	0-21 cm	Shovel Test	6/5/2013	PC
61	ST160	0-10 cm	Shovel Test	6/5/2013	PC

Catalog #	Unit	Level/ Feature	Date(s)	Artifact Category	Weight (g)	Count	Type of Sherd	Tempe r	Surface Treatment	Shape of Check Stamping	Size of Check Stamping	Type of Rim	Type of Lip	Lip Width (cm)
213	XU01	Level 1	6/10/2013	Ceramic - Fired Clay	1.63	1								
225	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Fired Clay	15.89	20								
226	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Fired Clay Coil	12.55	1								
227	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd < 1/2"	2.20	4								
229	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	6.49	3	Body	Fiber	UID Eroded					
230	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	8.87	1	Body	Sand	Curvilinear - UID					
231	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	5.00	2	Body	Grit/ Sand	Check Stamped	Shape of Check: UID Eroded	Size of Check: UID Eroded			
232	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	8.60	1	Body	Grit	UID Decorated					
233	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	3.97	1	Body	Sand	UID Decorated					
234	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	3.62	1	Body	Sand	UID Eroded					
241	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Fired Clay	6.42	18								

Ceramic A	rtifacts													
253	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	1.00	1	Rim	Grit/ Sand	UID Eroded			UID Eroded Rim	UID Eroded Lip	Lip Width: 0.3
254	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	10.70	2	Rim	Grit/ Sand	Burnished Plain			Squared Rim	Simple Lip - flat/smooth ed	Lip Width: 0.55
255	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	2.35	1	Rim	Grit	UID Decorated			Rounded Rim	Simple Lip	Lip Width: 0.3
256	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	40.65	1	Rim	Grit	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.47x0.425	Rounded Rim	UID Eroded Lip - Possibly Simple	Lip Width: 0.48
257	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	10.78	2	Rim	Grit	Check Stamped	Shape of Check: Square/Diagon al	Size of Check: 0.378x0.339	Rolled Rim	Simple Lip	Lip Width: 0.32
258	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	7.15	1	Rim	Grit	Check Stamped	Shape of Check: UID Eroded (Appears diagonal)	Size of Check: UID Eroded	Rolled Rim	UID Eroded Lip - Possibly stamped/de corated	Lip Width: 0.475
259	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	3.84	2	Rim	Grit	Check Stamped	Shape of Check: Not Measurable, Overstamping	Size of Check: Not Measurable Overstamping	Rolled Rim	UID Eroded Lip - Possibly stamped/ decorated	Lip Width: 0.4
260	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	19.97	7	Body	Grit	UID Decorated					
261	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	18.99	5	Body	Grit/ Sand	UID Decorated					
262	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	37.94	10	Body	Fiber	Plain					

Ceramic A	rtifacts	-												
263	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	3.69	1	Rim	Fiber	Plain			UID Eroded - Possibly Rounded Rim	UID Eroded Lip - Possibly Simple	Lip Width: 0.4
264	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd < 1/2"	17.09	27								
265	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	5.23	2	Body	Grit	Plain					
266	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	2.99	1	Body	Grit/ Sand	UID Decorated					
267	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	36.22	18	Body	Grit	UID Eroded					
268	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	18.34		Body	Grit/ Sand	UID Eroded					
269	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	9.66	1	Body	Sand	Curvilinear - Savannah					
270	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	9.88	2	Body	Grit/ Sand	Burnished Plain					
271	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	3.91	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Not Measurable	Size of Check: Not Measurable			
685	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	16.06	3	Body	Grit/ Sand	Linear Check Stamped	Shape of Check: Rectangular/Di agonal	Size of Check: 0.4x0.75 cm			
686	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	19.61	4	Body	Grit/ Sand	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.474x0.522			
687	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	104.30	13	Body	Grit/ Sand	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.641x0.42			

Ceramic A	Armacis												
688	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	60.07	14	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.408x0.441		
689	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	9.53	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.51x0.38		
690	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	13.82	4	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.391x0.28		
691	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	74.06	17	Body	Grit/ Sand	Check Stamped	Shape of Check: Not Measurable	Size of Check: Not Measurable		
692	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Ceramic - Sherd	195.30	49	Body	Grit/ Sand	Check Stamped	Shape of Check: Not Measurable	Size of Check: Not Measurable		
189	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Sherd	7.73	4	Body	Grit/ Sand	UID Eroded				
190	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Sherd	8.06	3	Body	Grit	UID Eroded				
191	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Sherd	6.53	4	Body	Sand	Plain				
192	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Sherd	10.40	1	Body	Grit/ Sand	UID Decorated				
193	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Fired Clay	65.64	44							
194	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Ceramic - Sherd < 1/2"	4.40	10							
15	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Fired Clay	2.97	2							
19	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	43.30	3	Body	Sand	Burnished Plain				

Ceramic A	Artifacts													
20	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	10.41	1	Body	Grit	Cord Marked					
21	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd < 1/2"	4.86	6								
22	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	12.67	1	Rim	Grit	Smoothed/ Possibly Burnished			Rounded Rim	Simple Lip	Lip Width: 0.4
23	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	7.64	1	Body	Grit	Plain					
24	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	4.72	1	Body	Grit	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.32x0.41			
25	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	7.09	2	Body	Grit	UID Eroded					
26	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	4.55	1	Body	Sand	UID Eroded					
27	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Ceramic - Sherd	7.24	1	Body	Sand	Curvilinear - UID					
39	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd < 1/2"	2.97	5								
40	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Fired Clay	2.51	2								
42	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	29.95	4	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.46x0.44			
43	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	24.80	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular and Square	Size of Check: 0.52x0.33 and 0.38x0.39			
44	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	3.33	1	Body	Grit	UID Eroded					

Ceramic A	Artifacts													,
45	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	18.12	2	Body	Grit	UID Eroded					
46	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	4.97	1	Body	Grit	UID Decorated					
47	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	22.45	3	Body	Grit	Plain					
48	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	6.69	2	Rim	Grit/ Sand	Cob Marked			Rounded Rim	Simple Lip	Lip Width: 0.4
49	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	8.33	2	Probable Rim	Grit	UID Eroded			UID Eroded - Possibly Simple Rim	UID Eroded Lip	Lip Width: 0.3
50	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	31.32	2	Rim and Body (Cross- mendable)	Grit	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.33x0.41	Rounded Rim	Decorated Lip	Lip Width: 0.5
51	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	5.53	1	Rim	Grit	Plain			Rounded Rim	Simple Lip	Lip Width: 0.5
52	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Ceramic - Sherd	8.52	1	Rim	Sand	Burnished Plain			Squared Rim	Simple Lip - flat/smooth ed	Lip Width: 0.5
71	XU06	Zone C	6/14/2016	Ceramic - Fired Clay	87.71	21								
74	XU06	Zone C	6/14/2016	Ceramic - Sherd < 1/2"	0.93	1								
76	XU06	Zone C	6/14/2016	Ceramic - Sherd	2.69	1	Body	Grit	Check Stamped	Shape of Check: UID Eroded	Size of Check: UID Eroded			

<u>Ceramic</u> /	Artifacts							-						
77	XU06	Zone C	6/14/2016	Ceramic - Sherd	2.61	1	Rim	Sand	Burnished Plain			Squared Rim	Simple Lip - flat/smooth ed	Lip
78	XU06	Zone C	6/14/2016	Ceramic - Sherd	15.49	3	Body	Grit	Check Stamped	Shape of Check: UID Eroded	Size of Check: UID Eroded			
79	XU06	Zone C	6/14/2016	Ceramic - Sherd	19.88	4	Body	Grit/ Sand	UID Decorated					
95	XU06	Zone C	6/15/2016	Ceramic - Sherd < 1/2"	0.72	1								
53	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Ceramic - Fired Clay	47.87	64								
57	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Ceramic - Sherd	7.12	3	Body	Sand	UID Eroded					
58	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Ceramic - Sherd	18.28	3	Body	Grit	UID Eroded					
60	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Ceramic - Sherd < 1/2"	1.52	2								
98	XU07	Zones A & B	6/9/2016	Ceramic - Fired Clay	0.17	1								
101	XU07	Zones A & B	6/8/2016	Ceramic - Fired Clay	49.82	7								
104	XU07	Zones A & B	6/8/2016	Ceramic - Sherd	3.22	3	Body	Grit	UID Eroded					
123	XU07	Zone C	6/9/2016	Ceramic - Sherd	1.33	1	Body	Grit	UID Eroded					
138	XU07	Zone C	6/8/2016	Ceramic - Sherd	2.28	1	Body	Grit	UID Eroded					
149	XU08	Zones A & B	6/13/2016	Ceramic - Sherd < 1/2"	0.26	1								
150	XU08	Zones A & B	6/13/2016	Ceramic - Sherd	1.90	1	Body	Grit	UID Decorated					

Fitzner North End (9SN256) Ceramic Artifacts

Ceramic A	Artifacts											 	
151	XU08	Zones A & B	6/13/2016	Ceramic - Fired Clay	0.70	2							
158	XU08	Zone C	6/14/2016	Ceramic - Sherd	4.85	1	Body	Sand	Check Stamped				
166	XU08	Zone C	8/4/2016	Ceramic - Sherd	5.05	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.44x0.28		
168	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd < 1/2"	5.12	11							
169	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	10.04	6	Body	Grit/ Sand	UID Eroded				
170	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	10.13	1	Body	Sand	Plain				
171	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	4.60	1	Body	Grit/ Sand	Fine Fabric Marked				
172	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	5.40	1	Body	Grit/ Sand	Curvilinear - Savannah				
173	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	51.20	4	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.35x0.34		
680	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	19.93	3	Body	grit	Check Stamped	Shape of Check: Square	Size of Check: 0.53x0.44		
681	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	13.93	2	Body	grit	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.48x0.33		
682	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	10.26	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.37x0.25		
683	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	3.11	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Diagonal	Size of Check: 0.52x0.38		
684	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	34.66	7	Body	Grit/ Sand	Check Stamped	Shape of Check: Not measurable	Size of Check: Not measurable		
174	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Sherd	23.72		Body	Grit/ Sand	UID Eroded				
177	XU08	Zone C	6/14/2016, 6/15/2016	Ceramic - Fired Clay	3.30	4							

Fitzner North End (9SN256) Ceramic Artifacts

Ceramic A	Artifacts						-				 	
272	XU09	Zones A & B	12/4/2016	Ceramic - Fired Clay	0.20	1						
274	XU09	Zone C	12/4/2016	Ceramic - Sherd	0.60	1	Not Sure	Grit/ Sand	UID Eroded			
275	XU09	Zone C	12/4/2016	Ceramic - Sherd	15.30	3	Body	Grit/ Sand	Check Stamped			
277	XU09	Zone C	12/4/2016	Ceramic - Fired Clay	29.40	18						
284	XU09	Zone C	12/12/2016	Ceramic - Fired Clay	25.10	26						
286	XU09	Zone C	12/12/2016	Ceramic - Sherd	3.30	1	Body	Grit/ Sand	Curvilinear - Savannah			
287	XU09	Zone C	12/12/2016	Ceramic - Sherd	0.90	1	Not Sure	Grit/ Sand	UID Eroded			
294	XU09	Zone C	12/15/2016	Ceramic - Fired Clay	31.60	2						
302	XU09	Feature 37	1/28/2017	Ceramic - Fired Clay	0.20	1						
566	XU09 & XU11	Feature 43	1/29/2017	Ceramic - Fired Clay	10.29	25						
534	XU10	Zone C	12/14/2016	Ceramic - Fired Clay	11.80	5						
543	XU10	Zone C	12/15/2016 - sherd cluster	Ceramic - Sherd	17.10	3	Body	grit	UID eroded			
547	XU10	Zone C	12/15/2016	Ceramic - Sherd	4.90	1	Body	Grit/ Sand	UID decorated			
548	XU10	Zone C	12/15/2016	Ceramic - Sherd	16.20	6	Body	grit	UID eroded			
549	XU10	Zone C	12/15/2016	Ceramic - Sherd	8.60	1	Body	sand	UID eroded			
550	XU10	Zone C	12/15/2016	Ceramic - Sherd	1.70	1	Body	Grit/ Sand	UID Decorated			
556	XU10	Zone C	12/15/2016	Ceramic - Fired Clay	0.80	3						
306	XU11	Zones A & B	12/19/2016	Ceramic - Fired Clay	0.20	3						
310	XU11	Zones A & B	12/20/2016	Ceramic - Fired Clay	6.90	3						

Ceramic A	· · · ·	51(250)												
312	XU11	Zone C	12/20/2016	Ceramic - Sherd	18.10	1	Body	Grit/ Sand	Curvilinear - Savannah					
313	XU11	Zone C	12/20/2016	Ceramic - Sherd	10.80	2	Body	Grit/ Sand	Cord Marked					
314	XU11	Zone C	12/20/2016	Ceramic - Sherd	1.80	2	Body	Grit/ Sand	UID Eroded					
315	XU11	Zone C	12/20/2016	Ceramic - Sherd < 1/2"	0.40	1								
316	XU11	Zone C	12/20/2016	Ceramic - Fired Clay	321.00	67								
335	XU11	Zone C	12/21/2016	Ceramic - Fired Clay	21.50	21								
336	XU11	Zone C	12/21/2016	Ceramic - Fired Clay with impression	2.20	1								
337	XU11	Zone C	12/21/2016	Ceramic - Sherd	1.50	1	Body	Sand	Plain					
338	XU11	Zone C	12/21/2016	Ceramic - Sherd	10.30	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.49x0.3			
340	XU11	Zone C	1/8/2017	Ceramic - Fired Clay	1.60	2								
353	XU12	Zones A & B	2/4/2017	Ceramic - Fired Clay	2.90	1								
360	XU12	Zone C	2/4/2017	Ceramic - Sherd	3.80	1	Probable Rim	Sand	Plain			UID Eroded - Possibly Rounded Rim	UID Eroded Lip - Possibly Simple	Lip Width: 0.4
361	XU12	Zone C	2/4/2017	Ceramic - Sherd	9.20	1	Body	Grit/ Sand	UID Decorated					
365	XU12	Zone C	2/10/2017	Ceramic - Sherd	14.00	1	Rim	grit	UID Eroded			UID Eroded Rim	UID Eroded Lip	Lip Width: 0.7

Ceramic .	Artifacts									-	-			
366	XU12	Zone C	2/10/2017	Ceramic - Sherd	2.70	1	Rim	grit	UID Eroded			Rounded Rim	UID Eroded Lip - Possibly Simple	Lip Width: 0.4
367	XU12	Zone C	2/10/2017	Ceramic - Sherd	18.00	3	Body	grit	UID Eroded					
368	XU12	Zone C	2/10/2017	Ceramic - Sherd	19.30	6	Body	grit	UID Eroded					
369	XU12	Zone C	2/10/2017	Ceramic - Sherd	7.90	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.41x0.33			
374	XU12	Zone C	2/10/2017	Ceramic - Fired Clay	8.30	11								
411	XU13	Zones A & B	2/17/2017	Ceramic - Sherd	3.20	1	Body	Sand	Smoothed/Possi bly Burnished					
414	XU13	Zones A & B	2/10/2017	Ceramic - Fired Clay	3.60	1								
418	XU13	Zones A & B	2/10/2017	Ceramic - Sherd	4.40	1	Body	Grit/ Sand	Cord Marked					
419	XU13	Zones A & B	2/10/2017	Ceramic - Sherd	2.80	1	Rim	Grit/ Sand	UID Decorated			Rounded Rim	Simple Lip	Lip Width 0.3
425	XU13	Zone C	2/17/2017	Ceramic - Sherd	5.00	1	Body	Grit/ Sand	UID eroded					
426	XU13	Zone C	2/17/2017	Ceramic - Sherd	7.90	1	Body	grit	Burnished Plain					
427	XU13	Zone C	2/17/2017	Ceramic - Sherd	1.60	1	Body	Grit/ Sand	Check Stamped					
428	XU13	Zone C	2/17/2017	Ceramic - Sherd	3.00	2	Body	Sand	UID eroded					
438	XU13	Zone C	2/17/2017	Ceramic - Fired Clay	5.00	7								
439	XU14	Zones A & B	2/17/2017	Ceramic - Sherd	20.80	2	Body	Grit/ Sand	Burnished Plain					
440	XU14	Zones A & B	2/17/2017	Ceramic - Sherd	33.10	2	Body	Grit/ Sand	Check Stamped					
445	XU14	Zones A & B	2/17/2017	Ceramic - Fired Clay	0.50	2								

Fitzner North End (9SN256) Ceramic Artifacts

Ceramic A	Artifacts												
453	XU14	Zone C	3/15/2017	Ceramic - Sherd	6.50	1	Body	grit	UID Decorated				
454	XU14	Zone C	3/15/2017	Ceramic - Sherd	5.50	1	Rim	grit	UID Decorated		Rounded Rim	Simple Lip	Lip Width: 0.5
455	XU14	Zone C	3/15/2017	Ceramic - Sherd	19.10	20	Body	Grit/ Sand	UID eroded				
456	XU14	Zone C	3/15/2017	Ceramic - Sherd	6.10	1	Rim	Grit/ Sand	Plain		Roughly Squared Rim	Simple Lip	Lip Width: 0.5
457	XU14	Zone C	3/15/2017	Ceramic - Sherd	7.60	4	Body	Grit/ Sand	Smoothed/Possi bly Burnished				
458	XU14	Zone C	3/15/2017	Ceramic - Sherd	1.60	1	Rim	Sand	Plain		Squared Rim	Simple Lip	Lip Width: 0.35
459	XU14	Zone C	3/15/2017	Ceramic - Sherd	3.80	1	Rim	Grit/ Sand	Check Stamped		UID Eroded - Possibly Rounded Rim	Simple Lip	Lip Width: 0.275
460	XU14	Zone C	3/15/2017	Ceramic - Sherd	7.20	1	Body	Grit/ Sand	UID eroded				
461	XU14	Zone C	3/15/2017	Ceramic - Sherd	21.90	2	Body	Grit/ Sand	Check Stamped				
462	XU14	Zone C	3/15/2017	Ceramic - Sherd < 1/2"	1.00	2							
466	XU14	Zone C	3/15/2017	Ceramic - Fired Clay	4.70	8							
487	XU14	Zone C	2/17/2017	Ceramic - Fired Clay	2.90	4							
489	XU14	Zone C	2/17/2017	Ceramic - Sherd	4.80	1	Body	grit	UID Decorated				
490	XU14	Zone C	2/17/2017	Ceramic - Sherd	10.10	2	Body	grit	UID Eroded				
499	XU15	Zone C	3/5/2017	Ceramic - Fired Clay	6.10	8							
500	XU15	Zone C	3/5/2017	Ceramic - Sherd	1.80	2	Body	Grit/ Sand	UID eroded				

Fitzner North End (9SN256) Ceramic Artifacts

Ceramic A	rtifacts											 	
501	XU15	Zone C	3/5/2017	Ceramic - Sherd	10.50	1	Body	grit	Cord Marked				
510	XU15	Zone C	3/11/2017	Ceramic - Fired Clay	3.90	7							
511	XU15	Zone C	3/11/2017	Ceramic - Sherd	5.20	1	Body	grit	UID Eroded				
570	XU16	Zones A & B	5/9/2017	Ceramic - Sherd	2.76	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.2x0.2		
583	XU16	Zone C	5/10/2017	Ceramic - Fired Clay	0.56	4							
584	XU16	Zone C	5/10/2017	Ceramic - Sherd < 1/2"	1.40	2							
586	XU16	Zone C	5/9/2017	Ceramic - Sherd	11.18	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular/Di agonal	Size of Check: 0.375x0.5		
587	XU16	Zone C	5/9/2017	Ceramic - Sherd	19.77	3	Body	Grit/ Sand	UID Eroded				
588	XU16	Zone C	5/9/2017	Ceramic - Sherd	18.03	15	Body	Grit/ Sand	UID Eroded				
589	XU16	Zone C	5/9/2017	Ceramic - Sherd	24.91	3	Body	Grit	UID Decorated				
590	XU16	Zone C	5/9/2017	Ceramic - Sherd	8.91	1	Body	Grit/ Sand	UID Eroded				
591	XU16	Zone C	5/9/2017	Ceramic - Sherd	7.61	1	Body	sand	UID Eroded				
592	XU16	Zone C	5/9/2017	Ceramic - Sherd	39.09	1	Body	sand	Check Stamped	Shape of Check: Square	Size of Check: 0.475x0.475		
593	XU16	Zone C	5/9/2017	Ceramic - Fired Clay	1.46	1							
614	XU17	Zones A & B	5/27/2017	Ceramic - Sherd	9.51	1	Body	grit	Check Stamped	Shape of Check: Square	Size of Check: 0.325 x 0.35		
615	XU17	Zones A & B	5/27/2017	Ceramic - Sherd	7.18	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.35 x 0.45		

Ceramic A	Artifacts													
616	XU17	Zones A & B	5/27/2017	Ceramic - Sherd	6.14	1	Body	Grit/ Sand	UID decorated					
617	XU17	Zones A & B	5/27/2017	Ceramic - Fired Clay	0.78	1								
627	XU17	Zone C	5/29/2017	Ceramic - Sherd < 1/2"	2.87	4								
628	XU17	Zone C	5/29/2017	Ceramic - Fired Clay	3.21	6								
629	XU17	Zone C	5/29/2017	Ceramic - Sherd	9.15	2	rim	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.48x0.38	Rolled Rim	Simple Lip	Lip Width: 0.42
630	XU17	Zone C	5/29/2017	Ceramic - Sherd	2.08	1	rim	Grit/ Sand	Check Stamped	Shape of Check: UID eroded	Size of Check: UID Eroded	UID Eroded - Possibly Rolled Rim	UID Eroded Lip - Possibly Simple	Lip Width: 0.55
631	XU17	Zone C	5/29/2017	Ceramic - Sherd	5.13	1	rim	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check:	Squared Rim	UID Decorated Lip	Lip Width: 0.56
632	XU17	Zone C	5/29/2017	Ceramic - Sherd	2.67	1	rim	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.42x0.34	Squared Rim	Simple Lip	Lip Width: 0.58
633	XU17	Zone C	5/29/2017	Ceramic - Sherd	13.57	2	rim	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.35x0.38	Rounded Rim	Simple Lip	Lip Width: 0.55
634	XU17	Zone C	5/29/2017	Ceramic - Sherd	13.10	1	rim	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.38x0.32	Squared Rim	Simple Lip	Lip Width: 0.5
635	XU17	Zone C	5/29/2017	Ceramic - Sherd	26.41	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.37x0.35			
636	XU17	Zone C	5/29/2017	Ceramic - Sherd	47.22	7	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check:			
637	XU17	Zone C	5/29/2017	Ceramic - Sherd	4.49	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.35x3			

Fitzner North End (9SN256) Ceramic Artifacts

<u>Ceramic</u> A	Artifacts											 	
638	XU17	Zone C	5/29/2017	Ceramic - Sherd	42.67	14	Body	Grit/ Sand	Check Stamped	Shape of Check: UID eroded	Size of Check: UID Eroded		
639	XU17	Zone C	5/29/2017	Ceramic - Sherd	19.81	4	Body	Grit/ Sand	Check Stamped	Shape of Check: UID eroded	Size of Check: UID Eroded		
640	XU17	Zone C	5/29/2017	Ceramic - Sherd	138.37	15	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check:		
641	XU17	Zone C	5/29/2017	Ceramic - Sherd	6.49	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.27x0.37		
642	XU17	Zone C	5/29/2017	Ceramic - Sherd	12.10	2	Body	Grit/ Sand	Linear Check Stamped				
643	XU17	Zone C	5/29/2017	Ceramic - Sherd	2.47	1	Body	Grit/ Sand	Cord Marked				
644	XU17	Zone C	5/29/2017	Ceramic - Sherd	16.13	7	Body	Grit/ Sand	UID Eroded				
645	XU17	Zone C	5/29/2017	Ceramic - Sherd	0.93	1	Body	sand	UID Eroded				
655	XU17	Zone C	6/19/2017	Ceramic - Sherd	1.59	1	Body	Grit/ Sand	UID Eroded				
656	XU17	Zone C	6/19/2017	Ceramic - Sherd	2.09	1	Body	Grit/ Sand	Plain				
657	XU17	Zone C	6/19/2017	Ceramic - Sherd	4.11	1	Body	Grit/ Sand	Cord Marked				
658	XU17	Zone C	6/19/2017	Ceramic - Sherd	3.09	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.41x0.27		
659	XU17	Zone C	6/19/2017	Ceramic - Sherd	14.49	4	Body	Grit/ Sand	Check Stamped	Shape of Check: Rectangular	Size of Check: 0.37x0.28		
660	XU17	Zone C	6/19/2017	Ceramic - Sherd	5.30	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.33x0.35		
661	XU17	Zone C	6/19/2017	Ceramic - Sherd	40.16	3	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.46x0.5		

Ceramic A	Artifacts												
662	XU17	Zone C	6/19/2017	Ceramic - Sherd	8.89	2	Body	Grit/ Sand	Check Stamped	Shape of Check: Not Measurable	Size of Check: Not Measurable		
663	XU17	Zone C	6/19/2017	Ceramic - Fired Clay	65.33	23							
668	XU17	Zone C	6/19/2017	Ceramic - Fired Clay with flake inside	90.42	1							
714	XU17	Feature 63/64	7/23/2017	Ceramic - Sherd	11.80	1	Body	Grit/ Sand	plain				
721	XU17	Feature 64	7/24/2017	Ceramic - Sherd	10.49	1	Body	Grit/ Sand	Check Stamped	Shape of Check: Square	Size of Check: 0.298x0.331		
722	XU17	Feature 64	7/24/2017	Ceramic - Sherd	2.75	3	Body	Grit/ Sand	UID Eroded				
723	XU17	Feature 64	7/24/2017	Ceramic - Sherd < 1/2"	0.26	1							
756	XU17	Feature 59	7/24/2017	Ceramic - Fired Clay	94.51	128							
757	XU17	Feature 59	7/24/2017	Ceramic - Fired Clay with impression	0.86	2							

FS #	Catalog #	Unit	Level/ Feature	Date(s)	Artifact Category	Weight (g)	Count	Type of Lithic	Material Type	Type of PP/K	Type of Flake/ Shatter	Utilized?	Heat Treated?
62	211	XU01	Level 1	6/10/2013	Lithic	0.23	1	flake	Coastal Plain		Secondary		Heat Treated
				6/11/2013,									
63	218	XU01	Level 2	6/12/2013, 6/13/2013	Lithic	10.92	4	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
				6/11/2013,									
63	219	XU01	Level 2	6/12/2013, 6/13/2013	Lithic	6.11	2	flake	Coastal Plain		Secondary	Utilized	Heat Treated
				6/11/2013,									
63	220	XU01	Level 2	6/12/2013, 6/13/2013	Lithic	7.93	1	flake	Coastal Plain		Primary	Utilized	Heat Treated
				6/11/2013,									
63	221	XU01	Level 2	6/12/2013, 6/13/2013	Lithic	7.86	2	Shatter	Coastal Plain		Secondary		Heat Treated
				6/11/2013,									
63	222	XU01	Level 2	6/12/2013,	Lithic	5.59	18	flake	Coastal Plain		Tertiary		Heat Treated
				6/13/2013									
				6/11/2013,									
63	223	XU01	Level 2	6/12/2013,	Lithic	16.79	11	flake	Coastal Plain		Secondary		Heat Treated
				6/13/2013									
63	224	XU01	Level 2	6/11/2013, 6/12/2013,	Lithic	2.52	1	flake	Coastal Plain		Tertiary		Heat Treated
05	227	7001	Level 2	6/13/2013	Liune	2.52		liake			i citiai y		ficat ficated
64	237	XU02	Level 1	6/10/2013	Lithic	0.12	1	flake	Coastal Plain		Tertiary		
				6/11/2013,									
65	242	XU02	Level 2	6/12/2013, 6/13/2013	Lithic	5.33	1	PP/K	Coastal Plain	Woodland			Heat Treated
				6/11/2013,									
65	243	XU02	Level 2	6/12/2013,	Lithic	2.3	3	PP/K	Coastal Plain	UID Broken Tips			Heat Treated
				6/13/2013									
				6/11/2013,									
65	244	XU02	Level 2	6/12/2013, 6/13/2013	Lithic	0.71	1	PP/K	Coastal Plain	UID Broken Tip		Utilized	Heat Treated

Fitzner North End (9SN256) Lithic Artifacts

Lithic A	rtifacts	-											
65	245	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	7.74	26	flake	Coastal Plain		Tertiary		Heat Treated
65	246	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	7.53	4	flake	Coastal Plain		Secondary		Heat Treated
65	247	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	0.63	1	flake	Coastal Plain		Primary		Heat Treated
65	248	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	2.15	3	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
65	249	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	6.38	2	flake	Coastal Plain		Secondary	Utilized	Heat Treated
65	250	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	0.35	1	Shatter	Coastal Plain		Tertiary		Heat Treated
65	251	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Lithic	1.79	2	Shatter	Coastal Plain		Secondary		Heat Treated
BAG 43	198	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	57.53	2	Biface	Coastal Plain				Heat Treated
BAG 43	199	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	3.45	1	PP/K	Coastal Plain	Woodland			Heat Treated
BAG 43	200	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	1.38	1	PP/K	Coastal Plain	UID Broken			Heat Treated
BAG 43	201	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	0.75	1	PP/K	Coastal Plain	UID Broken			Heat Treated
BAG 43	202	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	33.76	16	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
BAG 43	203	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	22.67	15	flake	Coastal Plain		Secondary	Utilized	Heat Treated

Fitzner North End (9SN256) Lithic Artifacts

Lithic A	rtifacts					1		1				
BAG 43	204	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	5.72	26	flake	Coastal Plain	Tertiary		
BAG 43	205	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	80.09	218	flake	Coastal Plain	Tertiary		Heat Treated
BAG 43	206	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	81.36	94	flake	Coastal Plain	Secondary		Heat Treated
BAG 43	207	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	15.98	24	flake	Coastal Plain	Primary		Heat Treated
BAG 43	208	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	24.77	2	Shatter	Coastal Plain	Primary		Heat Treated
BAG 43	209	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	5.81	12	Shatter	Coastal Plain	Tertiary		Heat Treated
BAG 43	210	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Lithic	32.60	8	Shatter	Coastal Plain	Secondary		Heat Treated
2	5	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	17.62	29	flake	Coastal Plain	Tertiary		Heat Treated
2	6	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	1.13	4	flake	Coastal Plain	Tertiary		
2	7	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	12.30	4	flake	Coastal Plain	Secondary		Heat Treated
2	8	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	0.96	2	flake	Coastal Plain	Primary		Heat Treated
2	9	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	4.65	5	flake	Coastal Plain	Secondary	Utilized	Heat Treated
2	10	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	9.05	8	flake	Coastal Plain	Tertiary	Utilized	Heat Treated

	Artifacts	() 51 (250)	,									
anne /				6/3/2016,								
2	11	XU04	Zone C	6/8/2016, 6/9/2016	Lithic	38.54	5	Shatter	Coastal Plain	Secondary		Heat Treated
2	12	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	1.60	1	Shatter	Coastal Plain	Primary		Heat Treated
2	13	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	4.18	4	Shatter	Coastal Plain	Tertiary		Heat Treated
2	14	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Lithic	0.31	1	Shatter	Coastal Plain	Tertiary		
4	32	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	1.80	2	flake	Coastal Plain	Primary		Heat Treated
4	33	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	5.47	11	flake	Coastal Plain	Secondary		Heat Treated
4	34	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	17.02	19	flake	Coastal Plain	Tertiary		Heat Treated
4	35	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	5.96	2	flake	Coastal Plain	Secondary	Utilized	Heat Treated
4	36	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	4.06	6	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
4	37	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Lithic	9.98	4	Shatter	Coastal Plain	Tertiary		Heat Treated
6	80	XU06	Zone C	6/14/2016	Lithic	18.44	11	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
6	81	XU06	Zone C	6/14/2016	Lithic	18.79	4	flake	Coastal Plain	Secondary	Utilized	Heat Treated
6	82	XU06	Zone C	6/14/2016	Lithic	1.97	5	flake	Coastal Plain	Primary		Heat Treated
6	83	XU06	Zone C	6/14/2016	Lithic	7.50	17	flake	Coastal Plain	Secondary		Heat Treated

	rtifacts	1 (9311230)											
6	84	XU06	Zone C	6/14/2016	Lithic	40.59	72	flake	Coastal Plain		Tertiary		Heat Treated
6	85	XU06	Zone C	6/14/2016	Lithic	1.35	7	flake	Coastal Plain		Tertiary		
6	86	XU06	Zone C	6/14/2016	Lithic	32.20	22	flake	Coastal Plain		Tertiary		Heat Treated
6	87	XU06	Zone C	6/14/2016	Lithic	2.53	2	flake	Coastal Plain		Secondary		Heat Treated
6	88	XU06	Zone C	6/14/2016	Lithic	4.33	4	flake	Coastal Plain		Primary		Heat Treated
6	89	XU06	Zone C	6/14/2016	Lithic	15.52	1	PP/K	Coastal Plain	UID Broken			Heat Treated
6	90	XU06	Zone C	6/14/2016	Lithic	8.27	1	PP/K	Coastal Plain	Woodland			Heat Treated
6	91	XU06	Zone C	6/14/2016	Lithic	12.60	1	Biface	Coastal Plain				Heat Treated
6	94	XU06	Zone C	6/15/2016	Lithic	0.19	1	flake	Coastal Plain		Tertiary		Heat Treated
6	96	XU06	Zone C	6/15/2016	Lithic	3.84	1	flake	Coastal Plain		Secondary	Utilized	Heat Treated
7	97	XU06	Feature 12	7/23/2016	Lithic	0.52	1	Shatter	Coastal Plain		Secondary		Heat Treated
5	62	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	9.55	17	Shatter	Coastal Plain		Tertiary		Heat Treated
5	63	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	4.80	4	Shatter	Coastal Plain		Secondary		Heat Treated
5	66	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	15.70	10	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
5	67	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	5.06	3	flake	Coastal Plain		Secondary	Utilized	Heat Treated
5	68	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	3.80	3	flake	Coastal Plain		Primary		Heat Treated
5	69	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	2.53	8	flake	Coastal Plain		Secondary		Heat Treated
5	70	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Lithic	30.39	86	flake	Coastal Plain		Tertiary		Heat Treated

Lithic Artifacts

Lithic A	Artifacts												,
5	61	XU06 & XU07 - Included with XU6	Zones A & B	6/9/2016 & 6/13/16	Lithic	0.20	1	PP/K	Coastal Plain	UID Broken			Heat Treated
5	64	XU06 & XU07 - Included with XU6	Zones A & B	6/9/2016 & 6/13/16	Lithic	0.24	1	Shatter	Coastal Plain		Tertiary		
5	65	XU06 & XU07 - Included with XU7	Zones A & B	6/9/2016 & 6/13/16	Lithic	0.79	1	flake	Coastal Plain		Tertiary	Utilized	
8	99	XU07	Zones A & B	6/9/2016	Lithic	0.13	1	flake	Coastal Plain		Tertiary		Heat Treated
8	105	XU07	Zones A & B	6/8/2016	Lithic	13.36	9	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
8	106	XU07	Zones A & B	6/8/2016	Lithic	6.05	2	flake	Coastal Plain		Secondary	Utilized	Heat Treated
8	107	XU07	Zones A & B	6/8/2016	Lithic	1.87	1	Shatter	Coastal Plain		Secondary		Heat Treated
8	108	XU07	Zones A & B	6/8/2016	Lithic	12.87	6	Shatter	Coastal Plain		Tertiary		Heat Treated
8	109	XU07	Zones A & B	6/8/2016	Lithic	0.06	1	flake	Coastal Plain		Tertiary		
8	110	XU07	Zones A & B	6/8/2016	Lithic	74.31	143	flake	Coastal Plain		Tertiary		Heat Treated
8	111	XU07	Zones A & B	6/8/2016	Lithic	1.47	5	flake	Coastal Plain		Primary		Heat Treated
8	112	XU07	Zones A & B	6/8/2016	Lithic	29.63	34	flake	Coastal Plain		Secondary		Heat Treated
8	113	XU07	Zones A & B	6/8/2016	Lithic	4.31	1	Shatter	Coastal Plain		Primary		Heat Treated
9	114	XU07	Zone C	6/9/2016	Lithic	0.67	2	flake	Coastal Plain		Tertiary		
9	115	XU07	Zone C	6/9/2016	Lithic	28.19	46	flake	Coastal Plain		Secondary		Heat Treated

	Artifacts	(9511250)	, 				1	1	1	1	1	1
9	116	XU07	Zone C	6/9/2016	Lithic	10.02	12	flake	Coastal Plain	Primary		Heat Treated
9	117	XU07	Zone C	6/9/2016	Lithic	167.97	380	flake	Coastal Plain	Tertiary		Heat Treated
9	118	XU07	Zone C	6/9/2016	Lithic	30.91	54	Shatter	Coastal Plain	Tertiary		Heat Treated
9	119	XU07	Zone C	6/9/2016	Lithic	36.05	8	Shatter	Coastal Plain	Secondary		Heat Treated
9	120	XU07	Zone C	6/9/2016	Lithic	32.29	7	flake	Coastal Plain	Secondary	Utilized	Heat Treated
9	121	XU07	Zone C	6/9/2016	Lithic	81.81	44	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
9	127	XU07	Zone C	7/7/2016	Lithic	0.80	7	flake	Coastal Plain	Tertiary		Heat Treated
9	128	XU07	Zone C	7/7/2016	Lithic	0.57	3	flake	Coastal Plain	Secondary		Heat Treated
9	129	XU07	Zone C	7/1/2016	Lithic	2.64	1	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
9	130	XU07	Zone C	7/1/2016	Lithic	0.78	4	flake	Coastal Plain	Tertiary		Heat Treated
9	131	XU07	Zone C	6/8/2016	Lithic	2.23	2	flake	Coastal Plain	Tertiary		Heat Treated
9	132	XU07	Zone C	6/8/2016	Lithic	1.64	1	flake	Coastal Plain	Secondary		Heat Treated
9	133	XU07	Zone C	6/8/2016	Lithic	3.51	3	flake	Coastal Plain	Secondary		Heat Treated
9	134	XU07	Zone C	6/8/2016	Lithic	11.28	24	flake	Coastal Plain	Tertiary		Heat Treated
9	135	XU07	Zone C	6/8/2016	Lithic	4.03	2	flake	Coastal Plain	Secondary	Utilized	Heat Treated
9	136	XU07	Zone C	6/8/2016	Lithic	4.26	2	Shatter	Coastal Plain	Tertiary		Heat Treated
9	139	XU07	Zone C	6/8/2016	Lithic	6.09	4	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
9	140	XU07	Zone C	6/8/2016	Lithic	0.89	2	flake	Coastal Plain	Secondary		Heat Treated
9	141	XU07	Zone C	6/8/2016	Lithic	13.47	15	flake	Coastal Plain	Tertiary		Heat Treated

	rtifacts	(9511250)	, 	_			I					1
9	143	XU07	Zone C	6/10/2016	Lithic	0.96	6	flake	Coastal Plain	Secondary		Heat Treated
9	144	XU07	Zone C	6/10/2016	Lithic	8.30	34	flake	Coastal Plain	Tertiary		Heat Treated
9	145	XU07	Zone C	6/10/2016	Lithic	0.51	3	Shatter	Coastal Plain	Tertiary		Heat Treated
9	146	XU07	Zone C	6/10/2016	Lithic	0.70	1	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
10	147	XU07	Feature 14	7/19/2016	Lithic	0.11	1	flake	Coastal Plain	Tertiary		Heat Treated
12	159	XU08	Zone C	8/5/2016	Lithic	0.31	3	flake	Coastal Plain	Tertiary		Heat Treated
12	160	XU08	Zone C	8/5/2016	Lithic	0.68	3	flake	Coastal Plain	Secondary		Heat Treated
12	162	XU08	Zone C	8/4/2016	Lithic	0.40	1	flake	Coastal Plain	Secondary		Heat Treated
12	163	XU08	Zone C	8/4/2016	Lithic	0.54	3	flake	Coastal Plain	Tertiary		Heat Treated
12	167	XU08	Zone C	8/4/2016	Lithic	0.24	1	Shatter	Coastal Plain	Tertiary		Heat Treated
12	179	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	5.55	4	Shatter	Coastal Plain	Secondary		Heat Treated
12	180	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	1.29	5	Shatter	Coastal Plain	Tertiary		Heat Treated
12	181	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	3.22	3	flake	Coastal Plain	Primary		Heat Treated
12	182	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	34.05	33	flake	Coastal Plain	Secondary		Heat Treated
12	183	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	48.76	123	flake	Coastal Plain	Tertiary		Heat Treated
12	184	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	21.45	3	flake	Coastal Plain	Secondary	Utilized	Heat Treated
12	185	XU08	Zone C	6/14/2016, 6/15/2016	Lithic	27.45	10	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
14	273	XU09	Zones A & B	12/4/2016	Lithic	1.10	3	flake	Coastal Plain	Tertiary		Heat Treated
15	280	XU09	Zone C	12/4/2016	Lithic	0.80	1	Shatter	Coastal Plain	Secondary		Heat Treated

	Artifacts		,										
15	281	XU09	Zone C	12/4/2016	Lithic	1.50	1	Shatter	Coastal Plain		Tertiary		Heat Treated
15	282	XU09	Zone C	12/4/2016	Lithic	8.50	7	flake	Coastal Plain		Secondary		Heat Treated
15	283	XU09	Zone C	12/4/2016	Lithic	25.30	20	flake	Coastal Plain		Tertiary		Heat Treated
15	290	XU09	Zone C	12/12/2016	Lithic	7.20	19	flake	Coastal Plain		Tertiary		Heat Treated
15	291	XU09	Zone C	12/12/2016	Lithic	0.90	3	flake	Coastal Plain		Secondary		Heat Treated
15	292	XU09	Zone C	12/12/2016	Lithic	0.80	2	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
15	293	XU09	Zone C	12/12/2016	Lithic	0.20	1	Shatter	Coastal Plain		Tertiary		Heat Treated
15	297	XU09	Zone C	12/15/2016	Lithic	2.10	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
15	298	XU09	Zone C	12/15/2016	Lithic	0.20	1	flake	Coastal Plain		Secondary		Heat Treated
18	533	XU10	Zone C	12/14/2016	Lithic	0.50	2	flake	Coastal Plain		Secondary		Heat Treated
18	542	XU10	Zone C	12/15/2016 - sherd cluster	Lithic	0.40	1	Shatter	Coastal Plain		Tertiary		Heat Treated
18	544	XU10	Zone C	12/15/2016	Lithic	0.70	4	flake	Coastal Plain		Tertiary		Heat Treated
18	545	XU10	Zone C	12/15/2016	Lithic	1.40	2	flake	Coastal Plain		Secondary		Heat Treated
18	546	XU10	Zone C	12/15/2016	Lithic	0.70	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
18	561	XU10	Zone C	12/16/2016	Lithic	0.30	1	flake	Coastal Plain		Secondary		Heat Treated
20	311	XU11	Zones A & B	12/20/2016	Lithic	10.50	1	PP/K	Coastal Plain	tip broken			Heat Treated
21	320	XU11	Zone C	12/20/2016	Lithic	0.50	1	Shatter	Coastal Plain		Tertiary	Utilized	
21	321	XU11	Zone C	12/20/2016	Lithic	8.40	1	PP/K	Coastal Plain	base broken			Heat Treated
21	322	XU11	Zone C	12/20/2016	Lithic	44.00	3	flake	Coastal Plain		Secondary		Heat Treated

	Artifacts	(9511230)											
21	323	XU11	Zone C	12/20/2016	Lithic	1.70	5	flake	Coastal Plain		Tertiary		Heat Treated
21	325	XU11	Zone C	12/20/2016	Lithic	0.50	2	flake	Coastal Plain		Tertiary		
21	326	XU11	Zone C	12/21/2016	Lithic	6.90	1	PP/K	Coastal Plain	Bakers Creek- Woodland			Heat Treated
21	327	XU11	Zone C	12/21/2016	Lithic	6.80	1	flake	Coastal Plain		Secondary		Heat Treated
21	328	XU11	Zone C	12/21/2016	Lithic	4.90	8	flake	Coastal Plain		Tertiary		Heat Treated
21	329	XU11	Zone C	12/21/2016	Lithic	0.20	1	flake	Coastal Plain		Tertiary		
21	343	XU11	Zone C	1/8/2017	Lithic	0.40	2	flake	Coastal Plain		Tertiary		Heat Treated
21	344	XU11	Zone C	1/8/2017	Lithic	0.30	1	Shatter	Coastal Plain		Tertiary		Heat Treated
22	345	XU12	Zones A & B	2/4/2017	Lithic	1.70	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
22	346	XU12	Zones A & B	2/4/2017	Lithic	0.50	2	flake	Coastal Plain		Tertiary		Heat Treated
23	355	XU12	Zone C	2/4/2017	Lithic	0.80	1	PP/K	Coastal Plain	UID Broken Tip			Heat Treated
23	356	XU12	Zone C	2/4/2017	Lithic	0.60	4	flake	Coastal Plain		Tertiary		
23	357	XU12	Zone C	2/4/2017	Lithic	0.50	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
23	358	XU12	Zone C	2/4/2017	Lithic	8.70	5	flake	Coastal Plain		Secondary		Heat Treated
23	359	XU12	Zone C	2/4/2017	Lithic	6.80	14	flake	Coastal Plain		Tertiary		Heat Treated
23	375	XU12	Zone C	2/10/2017	Lithic	8.20	13	Shatter	Coastal Plain		Tertiary		Heat Treated
23	376	XU12	Zone C	2/10/2017	Lithic	1.60	2	Shatter	Coastal Plain		Secondary		Heat Treated
23	377	XU12	Zone C	2/10/2017	Lithic	0.90	2	Shatter	Coastal Plain		Primary		Heat Treated
23	378	XU12	Zone C	2/10/2017	Lithic	26.50	1	Unifacial Tool	Coastal Plain			Utilized	Heat Treated
23	379	XU12	Zone C	2/10/2017	Lithic	3.40	1	PP/K	Coastal Plain	Eared Yadkin - Woodland			Heat Treated
23	380	XU12	Zone C	2/10/2017	Lithic	11.90	18	flake	Coastal Plain		Primary		Heat Treated

		()51(250)										
23	Artifacts 381	XU12	Zone C	2/10/2017	Lithic	2.20	4	flake	Coastal Plain	Primary		
23	382	XU12	Zone C	2/10/2017	Lithic	67.80	55	flake	Coastal Plain	Secondary		Heat Treated
23	383	XU12	Zone C	2/10/2017	Lithic	0.60	2	flake	Coastal Plain	Secondary		
23	384	XU12	Zone C	2/10/2017	Lithic	25.00	9	flake	Coastal Plain	Secondary	Utilized	Heat Treated
23	385	XU12	Zone C	2/10/2017	Lithic	8.40	2	flake	Coastal Plain	Secondary	Utilized	
23	386	XU12	Zone C	2/10/2017	Lithic	33.60	23	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
23	387	XU12	Zone C	2/10/2017	Lithic	1.00	1	flake	Coastal Plain	Tertiary	Utilized	
23	388	XU12	Zone C	2/10/2017	Lithic	7.00	25	flake	Coastal Plain	Tertiary		
23	389	XU12	Zone C	2/10/2017	Lithic	106.70	201	flake	Coastal Plain	Tertiary		Heat Treated
23	390	XU12	Zone C	2/17/2017	Lithic	0.00	1	Shatter	Coastal Plain	Secondary		Heat Treated
23	391	XU12	Zone C	2/17/2017	Lithic	1.10	3	Shatter	Coastal Plain	Tertiary		Heat Treated
23	392	XU12	Zone C	2/17/2017	Lithic	1.80	1	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
23	393	XU12	Zone C	2/17/2017	Lithic	2.10	1	flake	Coastal Plain	Secondary	Utilized	Heat Treated
23	394	XU12	Zone C	2/17/2017	Lithic	0.70	4	flake	Coastal Plain	Tertiary		
23	395	XU12	Zone C	2/17/2017	Lithic	0.90	1	flake	Coastal Plain	Secondary		
23	396	XU12	Zone C	2/17/2017	Lithic	4.80	16	flake	Coastal Plain	Tertiary		Heat Treated
23	397	XU12	Zone C	2/17/2017	Lithic	2.50	8	flake	Coastal Plain	Secondary		Heat Treated
23	398	XU12	Zone C	2/17/2017	Lithic	0.20	1	flake	Coastal Plain	Primary		Heat Treated
23	403	XU12	Zone C	3/11/2017	Lithic	4.60	15	flake	Coastal Plain	Tertiary		Heat Treated
23	404	XU12	Zone C	3/11/2017	Lithic	0.90	3	flake	Coastal Plain	Secondary		Heat Treated
23	405	XU12	Zone C	3/11/2017	Lithic	3.40	3	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
23	406	XU12	Zone C	3/11/2017	Lithic	4.50	1	flake	Coastal Plain	Secondary	Utilized	Heat Treated
23	407	XU12	Zone C	3/11/2017	Lithic	2.70	1	flake	Coastal Plain	Primary	Utilized	Heat Treated

Fitzner North End (9SN256) Lithic Artifacts

Lithic A	rtifacts							-				-	-
24	410	XU13	Zones A & B	2/17/2017	Lithic	3.40	1	flake	Coastal Plain	Т	ertiary	Utilized	Heat Treated
24	415	XU13	Zones A & B	2/10/2017	Lithic	2.00	2	flake	Coastal Plain	Sec	condary		Heat Treated
24	416	XU13	Zones A & B	2/10/2017	Lithic	2.10	1	flake	Coastal Plain	Т	ertiary		Heat Treated
24	417	XU13	Zones A & B	2/10/2017	Lithic	0.20	1	flake	Coastal Plain	Т	ertiary		
25	423	XU13	Zone C	3/4/2017	Lithic	1.60	1	Shatter	Coastal Plain	Sec	condary		Heat Treated
25	424	XU13	Zone C	3/4/2017	Lithic	0.60	1	flake	Coastal Plain	Sec	condary		Heat Treated
25	429	XU13	Zone C	2/17/2017	Lithic	2.90	1	Shatter	Coastal Plain	Sec	condary	Utilized	Heat Treated
25	430	XU13	Zone C	2/17/2017	Lithic	0.40	1	flake	Coastal Plain	Sec	condary		
25	431	XU13	Zone C	2/17/2017	Lithic	2.40	8	flake	Coastal Plain	Т	ertiary		
25	432	XU13	Zone C	2/17/2017	Lithic	0.80	1	flake	Coastal Plain		rimary		Heat Treated
25	433	XU13	Zone C	2/17/2017	Lithic	15.00	13	flake	Coastal Plain	Sec	condary		Heat Treated
25	434	XU13	Zone C	2/17/2017	Lithic	11.10	24	flake	Coastal Plain	Т	ertiary		Heat Treated
25	435	XU13	Zone C	2/17/2017	Lithic	16.90	9	flake	Coastal Plain	Т	ertiary	Utilized	Heat Treated
26	441	XU14	Zones A & B	2/17/2017	Lithic	1.70	1	flake	Coastal Plain	Т	ertiary	Utilized	Heat Treated
26	442	XU14	Zones A & B	2/17/2017	Lithic	1.60	1	flake	Coastal Plain	Sec	condary		Heat Treated
26	443	XU14	Zones A & B	2/17/2017	Lithic	1.10	1	Shatter	Coastal Plain	Т	ertiary		Heat Treated
27	467	XU14	Zone C	3/15/2017	Lithic	6.80	3	flake	Coastal Plain	P	rimary		Heat Treated
27	468	XU14	Zone C	3/15/2017	Lithic	28.20	18	flake	Coastal Plain	Sec	condary		Heat Treated
27	469	XU14	Zone C	3/15/2017	Lithic	17.90	44	flake	Coastal Plain	Т	ertiary		Heat Treated
27	470	XU14	Zone C	3/15/2017	Lithic	21.10	13	flake	Coastal Plain	Т	ertiary	Utilized	Heat Treated

	Artifacts		,										
27	471	XU14	Zone C	3/15/2017	Lithic	9.80	4	flake	Coastal Plain		Secondary	Utilized	Heat Treated
27	472	XU14	Zone C	3/15/2017	Lithic	2.70	1	PP/K	Coastal Plain	UID Broken Tip			Heat Treated
27	473	XU14	Zone C	3/15/2017	Lithic	6.70	3	Shatter	Coastal Plain		Secondary		Heat Treated
27	474	XU14	Zone C	3/15/2017	Lithic	2.60	4	Shatter	Coastal Plain		Tertiary		Heat Treated
27	475	XU14	Zone C	3/15/2017	Lithic	1.10	2	Shatter	Coastal Plain		Primary		Heat Treated
27	476	XU14	Zone C	3/15/2017	Lithic	0.80	5	flake	Coastal Plain		Tertiary		
27	477	XU14	Zone C	3/15/2017	Lithic	0.30	1	flake	Coastal Plain		Secondary		
27	478	XU14	Zone C	3/15/2017	Lithic	0.40	1	flake	Coastal Plain		Tertiary	Utilized	
27	479	XU14	Zone C	2/17/2017	Lithic	11.50	14	flake	Coastal Plain		Tertiary		Heat Treated
27	480	XU14	Zone C	2/17/2017	Lithic	10.60	8	flake	Coastal Plain		Secondary		Heat Treated
27	481	XU14	Zone C	2/17/2017	Lithic	5.10	2	Shatter	Coastal Plain		Secondary		Heat Treated
27	482	XU14	Zone C	2/17/2017	Lithic	0.80	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
27	483	XU14	Zone C	2/17/2017	Lithic	4.30	5	flake	Coastal Plain		Secondary	Utilized	Heat Treated
28	491	XU15	Zones A & B	2/17/2017	Lithic	10.00	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
28	492	XU15	Zones A & B	3/5/2017	Lithic	0.40	1	flake	Coastal Plain		Secondary		Heat Treated
28	493	XU15	Zones A & B	3/5/2017	Lithic	2.40	2	flake	Coastal Plain		Tertiary		Heat Treated
29	502	XU15	Zone C	3/5/2017	Lithic	3.00	1	flake	Coastal Plain		Secondary		Heat Treated
29	503	XU15	Zone C	3/5/2017	Lithic	18.30	21	flake	Coastal Plain		Tertiary		Heat Treated
29	504	XU15	Zone C	3/5/2017	Lithic	2.80	1	flake	Coastal Plain		Secondary	Utilized	Heat Treated
29	505	XU15	Zone C	3/5/2017	Lithic	2.10	2	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
29	506	XU15	Zone C	3/5/2017	Lithic	2.50	3	Shatter	Coastal Plain		Tertiary		Heat Treated

	Artifacts		,				1				1		
29	507	XU15	Zone C	3/5/2017	Lithic	0.40	1	Shatter	Coastal Plain		Secondary		Heat Treated
29	513	XU15	Zone C	3/11/2017	Lithic	35.30	1	tested material	Quartz				Heat Treated
29	514	XU15	Zone C	3/11/2017	Lithic	1.40	1	PP/K	Coastal Plain	Woodland Triangluar			Heat Treated
29	515	XU15	Zone C	3/11/2017	Lithic	9.00	27	flake	Coastal Plain		Tertiary		Heat Treated
29	516	XU15	Zone C	3/11/2017	Lithic	2.30	2	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
29	517	XU15	Zone C	3/11/2017	Lithic	7.60	6	flake	Coastal Plain		Secondary		Heat Treated
29	518	XU15	Zone C	3/11/2017	Lithic	0.30	1	flake	Coastal Plain		Tertiary		
29	519	XU15	Zone C	3/11/2017	Lithic	1.70	2	Shatter	Coastal Plain		Tertiary		Heat Treated
29	520	XU15	Zone C	3/11/2017	Lithic	9.80	1	Shatter	Coastal Plain		Secondary		Heat Treated
29	521	XU15	Zone C	3/15/2017	Lithic	0.60	1	flake	Coastal Plain		Tertiary		Heat Treated
33	569	XU16	Zones A & B	5/9/2017	Lithic	0.20	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
34	572	XU16	Zone C	5/10/2017	Lithic	0.41	4	flake	Coastal Plain		Tertiary		
34	573	XU16	Zone C	5/10/2017	Lithic	11.25	27	flake	Coastal Plain		Tertiary		Heat Treated
34	574	XU16	Zone C	5/10/2017	Lithic	0.13	1	flake	Coastal Plain		Primary		Heat Treated
34	575	XU16	Zone C	5/10/2017	Lithic	40.47	7	flake	Coastal Plain		Secondary		Heat Treated
34	576	XU16	Zone C	5/10/2017	Lithic	5.88	2	flake	Coastal Plain		Secondary	Utilized	Heat Treated
34	577	XU16	Zone C	5/10/2017	Lithic	5.75	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
34	578	XU16	Zone C	5/10/2017	Lithic	1.91	1	Shatter	Coastal Plain		Secondary		Heat Treated
34	579	XU16	Zone C	5/10/2017	Lithic	0.64	2	Shatter	Coastal Plain		Tertiary		Heat Treated
34	598	XU16	Zone C	5/9/2017	Lithic	3.57	5	flake	Coastal Plain		Tertiary	Utilized	Heat Treated

	Artifacts	1 (9511230))										
34	599	XU16	Zone C	5/9/2017	Lithic	3.47	1	flake	Coastal Plain		Secondary	Utilized	Heat Treated
34	600	XU16	Zone C	5/9/2017	Lithic	9.68	5	Shatter	Coastal Plain		Tertiary		Heat Treated
34	601	XU16	Zone C	5/9/2017	Lithic	9.23	2	Shatter	Coastal Plain		Secondary		Heat Treated
34	602	XU16	Zone C	5/9/2017	Lithic	2.21	8	flake	Coastal Plain		Tertiary		
34	603	XU16	Zone C	5/9/2017	Lithic	0.17	1	flake	Coastal Plain		Secondary		
34	604	XU16	Zone C	5/9/2017	Lithic	0.85	4	flake	Coastal Plain		Primary		Heat Treated
34	605	XU16	Zone C	5/9/2017	Lithic	19.08	15	flake	Coastal Plain		Secondary		Heat Treated
34	606	XU16	Zone C	5/9/2017	Lithic	23.99	59	flake	Coastal Plain		Tertiary		Heat Treated
34	607	XU16	Zone C	5/9/2017	Lithic	4.63	1	PP/K	Coastal Plain	Stemmed			
34	608	XU16	Zone C	5/9/2017	Lithic	13.63	1	flake	Coastal Plain		Hertzian Cone, tertiary		Heat Treated
35	609	XU17	Zones A & B	5/27/2017	Lithic	0.23	1	Shatter	Coastal Plain		Secondary		Heat Treated
35	610	XU17	Zones A & B	5/27/2017	Lithic	1.40	2	Shatter	Coastal Plain		Tertiary		Heat Treated
35	611	XU17	Zones A & B	5/27/2017	Lithic	1.21	1	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
35	612	XU17	Zones A & B	5/27/2017	Lithic	2.65	8	flake	Coastal Plain		Tertiary		Heat Treated
35	613	XU17	Zones A & B	5/27/2017	Lithic	2.00	2	flake	Coastal Plain		Secondary		Heat Treated
36	646	XU17	Zone C	5/29/2017	Lithic	9.04	4	Shatter	Coastal Plain		Secondary		Heat Treated
36	647	XU17	Zone C	5/29/2017	Lithic	2.19	1	Shatter	Coastal Plain		Primary		Heat Treated
36	648	XU17	Zone C	5/29/2017	Lithic	6.63	12	Shatter	Coastal Plain		Tertiary		Heat Treated
36	649	XU17	Zone C	5/29/2017	Lithic	21.57	6	flake	Coastal Plain		Secondary	Utilized	Heat Treated
36	650	XU17	Zone C	5/29/2017	Lithic	17.24	16	flake	Coastal Plain		Tertiary	Utilized	Heat Treated
36	651	XU17	Zone C	5/29/2017	Lithic	2.76	6	flake	Coastal Plain		Primary		Heat Treated

	Artifacts	1 (95N230)	, 									1
36	652	XU17	Zone C	5/29/2017	Lithic	66.46	64	flake	Coastal Plain	Secondary		Heat Treated
36	653	XU17	Zone C	5/29/2017	Lithic	128.14	206	flake	Coastal Plain	Tertiary		Heat Treated
36	654	XU17	Zone C	5/29/2017	Lithic	4.60	26	flake	Coastal Plain	Tertiary		
36	670	XU17	Zone C	6/19/2017	Lithic	25.64	99	flake	Coastal Plain	Tertiary		
36	671	XU17	Zone C	6/19/2017	Lithic	18.95	28	flake	Coastal Plain	Primary		Heat Treated
36	672	XU17	Zone C	6/19/2017	Lithic	174.35	380	flake	Coastal Plain	Tertiary		Heat Treated
36	673	XU17	Zone C	6/19/2017	Lithic	32.84	22	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
36	674	XU17	Zone C	6/19/2017	Lithic	35.51	14	flake	Coastal Plain	Secondary	Utilized	Heat Treated
36	675	XU17	Zone C	6/19/2017	Lithic	20.07	32	Shatter	Coastal Plain	Tertiary		Heat Treated
36	676	XU17	Zone C	6/19/2017	Lithic	11.72	12	Shatter	Coastal Plain	Secondary		Heat Treated
36	677	XU17	Zone C	6/19/2017	Lithic	170.83	128	flake	Coastal Plain	Secondary		Heat Treated
36	695	XU17	Zone C	6/27/2017, 7/7/2017, 7/8/2017	Lithic	0.74	5	flake	Coastal Plain	Tertiary		Heat Treated
36	696	XU17	Zone C	6/27/2017, 7/7/2017, 7/8/2017	Lithic	0.83	1	flake	Coastal Plain	Secondary		Heat Treated
36	697	XU17	Zone C	7/23/2017, 7/24/2017	Lithic	3.96	5	flake	Coastal Plain	Secondary		Heat Treated
36	698	XU17	Zone C	7/23/2017, 7/24/2017	Lithic	0.55	2	Shatter	Coastal Plain	Tertiary		Heat Treated
36	699	XU17	Zone C	7/23/2017, 7/24/2017	Lithic	0.33	1	Shatter	Coastal Plain	Secondary		Heat Treated
36	700	XU17	Zone C	7/23/2017, 7/24/2017	Lithic	3.84	11	flake	Coastal Plain	Tertiary		Heat Treated
37	701	XU17	Feature 57	7/23/2017, 7/24/2017	Lithic	0.24	2	flake	Coastal Plain	Tertiary		Heat Treated
37	706	XU17	Feature 57	6/27/2017, 7/7/2017, 7/8/2017	Lithic	2.23	3	flake	Coastal Plain	Tertiary		Heat Treated

	Artifacts	1 (7511250)										
37	708	XU17	Feature 57	7/8/2017	Lithic	2.20	1	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
38	709	XU17	Feature 63	7/23/2017	Lithic	0.83	1	flake	Coastal Plain	Primary		Heat Treated
38	710	XU17	Feature 63	7/23/2017	Lithic	2.01	2	flake	Coastal Plain	Tertiary		Heat Treated
38	711	XU17	Feature 63	7/23/2017	Lithic	0.89	1	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
38	712	XU17	Feature 63	7/23/2017	Lithic	0.12	1	flake	Coastal Plain	Tertiary		
39	715	XU17	Feature 63/64	7/23/2017	Lithic	2.63	3	flake	Coastal Plain	Primary		Heat Treated
39	716	XU17	Feature 63/64	7/23/2017	Lithic	14.37	11	flake	Coastal Plain	Secondary		Heat Treated
39	717	XU17	Feature 63/64	7/23/2017	Lithic	6.64	2	flake	Coastal Plain	Tertiary	Utilized	Heat Treated
39	718	XU17	Feature 63/64	7/23/2017	Lithic	17.48	36	flake	Coastal Plain	Tertiary		Heat Treated
39	719	XU17	Feature 63/64	7/23/2017	Lithic	3.38	13	flake	Coastal Plain	Tertiary		
39	720	XU17	Feature 63/64	7/23/2017	Lithic	1.17	2	Shatter	Coastal Plain	Tertiary		Heat Treated
40	724	XU17	Feature 64	7/24/2017	Lithic	0.82	2	flake	Coastal Plain	Tertiary		
40	725	XU17	Feature 64	7/24/2017	Lithic	0.96	1	flake	Coastal Plain	Secondary		Heat Treated
40	726	XU17	Feature 64	7/24/2017	Lithic	2.24	1	flake	Coastal Plain	Secondary	Utilized	Heat Treated
40	727	XU17	Feature 64	7/24/2017	Lithic	2.21	7	flake	Coastal Plain	Tertiary		Heat Treated
60	759	XU17	Feature 59	7/24/2017	Lithic	1.75	1	worked flake - unifacial	Coastal Plain	Secondary		Heat Treated
60	760	XU17	Feature 59	7/24/2017	Lithic	0.32	1	Shatter	Coastal Plain	Secondary		Heat Treated
60	761	XU17	Feature 59	7/24/2017	Lithic	0.53	2	Shatter	Coastal Plain	Secondary		Heat Treated
60	762	XU17	Feature 59	7/24/2017	Lithic	1.23	3	flake	Coastal Plain	Tertiary		

Fitzner North End (9SN256) Lithic Artifacts

60	763	XU17	Feature 59	7/24/2017	Lithic	0.20	2	flake	Coastal Plain	Tertiary	Heat Treated
60	764	XU17	Feature 59	7/24/2017	Lithic	1.97	3	flake	Coastal Plain	Secondary	Heat Treated

FS #	Catalog #	Unit	Level/ Feature	Date(s)	Artifact Category	Weight (g)	Count
63	228	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Red Pebbles	11.20	23
62	212	XU01	Level 1	6/10/2013	Other - Glass - Amber Bottle	0.50	2
62	214	XU01	Level 1	6/10/2013	Other - Pebbles	2.38	7
63	215	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Other - Glass - Amber Bottle	0.95	2
63	216	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Other - Pebbles	60.54	160
63	217	XU01	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Charcoal	5.44	
64	235	XU02	Level 1	6/10/2013	Charcoal	0.47	
64	236	XU02	Level 1	6/10/2013	Other - Pebbles	1.84	5
65	238	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Charcoal	9.69	
65	239	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Other - Glass - Green Bottle	7.00	6
65	240	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Other - Pebbles	160.92	386
65	252	XU02	Level 2	6/11/2013, 6/12/2013, 6/13/2013	Red Pebbles	7.10	21
BAG 42	187	XU03	Level 1	7/17/2014	Other - Nail - Cut	2.10	2
BAG 42	188	XU03	Level 1	7/17/2014	Other - Brick Fragment	38.00	2
BAG 43	195	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Charcoal	0.60	
BAG 43	197	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Other - Pebbles	56.29	70
BAG 43	196	XU03	Level 2	7/18/2014, 7/21/14, 7/22/14	Red Pebbles	1.40	4
1	1	XU04	Zones A & B	6/2/2016 & 6/3/2016	Other - Glass- Amber Bottle	156.80	29
1	2	XU04	Zones A & B	6/2/2016 & 6/3/2016	Other - Pebbles	0.50	2
1	3	XU04	Zones A & B	6/8/2016	Other - Glass - Amber Bottle	7.86	2
2	4	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Other - Pebbles	52.86	52
2	17	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Charcoal	3.40	
2	18	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Other - Glass - Amber Bottle	1.80	1
2	16	XU04	Zone C	6/3/2016, 6/8/2016, 6/9/2016	Red Pebbles	5.30	8
3	28	XU05	Zones A & B	6/2/2016, 6/3/2016	Other - 1982 Penny	2.97	1
3	29	XU05	Zones A & B	6/2/2016, 6/3/2016	Other - Pebbles	5.43	11

4	31	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Other - Pebbles	59.80	147
4	38	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Charcoal	1.20	
3	30	XU05	Zones A & B	6/2/2016, 6/3/2016	Red Pebbles	10.40	2
4	41	XU05	Zone C	6/2/2016, 6/9/2016, 6/10/2016	Red Pebbles	4.90	9
6	72	XU06	Zone C	6/14/2016	Charcoal	4.25	
6	73	XU06	Zone C	6/14/2016	Other - Pebbles	44.41	59
6	93	XU06	Zone C	6/15/2016	Other - Pebbles	0.80	2
6	75	XU06	Zone C	6/14/2016	Red Pebbles	4.70	9
6	92	XU06	Zone C	6/15/2016	Red Pebbles	0.80	2
5	54	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Other - Pebbles	7.14	9
5	55	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Other - Glass - Green Bottle	3.55	1
5	56	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Charcoal	1.41	
5	678	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Other - Unmodified Chert	0.53	2
5	59	XU06 & XU07	Zones A & B	6/9/2016 & 6/13/16	Red Pebbles	0.64	2
8	100	XU07	Zones A & B	6/8/2016	Other - Tooth - Probable Raccoon	0.08	1
8	102	XU07	Zones A & B	6/8/2016	Other - Pebbles	5.90	6
9	122	XU07	Zone C	6/9/2016	Charcoal	0.27	
9	124	XU07	Zone C	6/9/2016	Other - Pebbles	16.34	17
9	126	XU07	Zone C	7/7/2016	Other - Pebbles	1.80	3
9	142	XU07	Zone C	6/10/2016	Other - Pebbles	15.31	23
10	148	XU07	Feature 14	7/19/2016	Other - Pebbles	0.84	2
8	103	XU07	Zones A & B	6/8/2016	Red Pebbles	4.20	4
9	125	XU07	Zone C	6/9/2016	Red Pebbles	4.33	8
9	137	XU07	Zone C	7/7/2016	Red Pebbles	0.50	1
11	152	XU08	Zones A & B	6/13/2016	Other - Brick Fragment	20.10	2
11	154	XU08	Zones A & B	6/13/2016	Other - Pebbles	0.30	1
11	155	XU08	Zones A & B	6/13/2016	Other - Bullet/Shot - Lead Slag	3.83	1
11	156	XU08	Zones A & B	6/15/2016	Other - Glass - Green Bottle	4.88	5
12	157	XU08	Zone C	7/1/2016	Other - Pebbles	1.95	4
12	161	XU08	Zone C	8/5/2016	Other - Pebbles	1.42	4
12	164	XU08	Zone C	8/4/2016	Other - Pebbles	4.00	10
12	176	XU08	Zone C	6/14/2016, 6/15/2016	Other - Pebbles	71.00	115

12	178	XU08	Zone C	6/14/2016, 6/15/2016	Charcoal	3.81	
12	186	XU08	Zone C	3/16/2017	Other - Pebbles	0.80	2
11	153	XU08	Zones A & B	6/13/2016	Red Pebbles	1.00	2
12	165	XU08	Zone C	8/4/2016	Red Pebbles	1.90	5
12	175	XU08	Zone C	6/14/2016, 6/15/2016	Red Pebbles	6.20	14
15	276	XU09	Zone C	12/4/2016	Charcoal	1.30	
15	278	XU09	Zone C	12/4/2016	Other - Pebbles	5.30	6
15	285	XU09	Zone C	12/12/2016	Charcoal	8.20	
15	289	XU09	Zone C	12/12/2016	Other - Pebbles	6.50	17
15	295	XU09	Zone C	12/15/2016	Charcoal	3.20	
15	300	XU09	Zone C	12/16/2016	Other - Pebbles	0.90	2
15	301	XU09	Zone C	1/8/2017	Other - Pebbles	0.50	1
16	303	XU09	Feature 37	1/28/2017	Other - Pebbles	0.00	1
16	304	XU09	Feature 37	1/28/2017	Charcoal Sample - Southern Bisection	17.40	
15	279	XU09	Zone C	12/4/2016	Red Pebbles	2.10	3
15	288	XU09	Zone C	12/12/2016	Red Pebbles	15.50	11
15	296	XU09	Zone C	12/15/2016	Red Pebbles	0.40	1
15	299	XU09	Zone C	12/16/2016	Red Pebbles	0.80	2
30	563	XU09 & XU11	Zones A & B	1/8/2017	Other - Brick Fragment	67.30	1
31	564	XU09 & XU11	Zone C	1/16/2017	Other - Pebbles	0.40	2
31	565	XU09 & XU11	Zone C	1/16/2017	Other - Organic	0.20	1
32	567	XU09 & XU11	Feature 43	1/29/2017	Charcoal	5.48	
32	568	XU09 & XU11	Feature 43	1/29/2017	Other - Pebbles	0.48	1
17	523	XU10	Zones A & B	12/13/2016	Red Pebbles	0.30	1
18	530	XU10	Zone C	12/14/2016	Red Pebbles	6.50	17
18	552	XU10	Zone C	12/15/2016	Red Pebbles	10.60	21
18	560	XU10	Zone C	12/16/2016	Red Pebbles	1.50	3
17	524	XU10	Zones A & B	12/13/2016	Other - Pebbles	1.70	6
17	525	XU10	Zones A & B	12/13/2016	Other - Brick Fragment	0.60	1
17	526	XU10	Zones A & B	12/13/2016	Charcoal	0.10	
19	527	XU10	Feature 44	1/16/2017	Other - Pebbles	1.30	3

19	528	XU10	Feature 44	1/16/2017	Other - Limestone	0.30	2
18	529	XU10	Zone C	12/13/2016	Other - Pebbles	0.80	2
18	531	XU10	Zone C	12/14/2016	Other - Pebbles	49.80	164
18	532	XU10	Zone C	12/14/2016	Charcoal	1.10	
18	536	XU10	Zone C	12/14/2016	Other - Organic	1.80	13
18	537	XU10	Zone C	12/14/2016	Other - Bullet/Shot - Buck Shot	5.10	2
18	538	XU10	Zone C	12/14/2016	Other - Glass - Green Bottle	3.10	1
18	539	XU10	Zone C	12/14/2016	Other - Glass - Clear	3.10	3
18	540	XU10	Zone C	12/15/2016 - sherd cluster	Charcoal	0.00	
18	541	XU10	Zone C	12/15/2016 - sherd cluster	Other - Pebbles	0.40	2
18	551	XU10	Zone C	12/15/2016	Other - Pebbles	119.00	281
18	553	XU10	Zone C	12/15/2016	Other - Glass - Clear	2.20	2
18	554	XU10	Zone C	12/15/2016	Charcoal	3.90	
18	555	XU10	Zone C	12/15/2016	Other - Limestone	0.80	5
18	558	XU10	Zone C	12/16/2016	Other - Pebbles	8.90	20
18	559	XU10	Zone C	12/16/2016	Charcoal	0.50	
18	562	XU10	Zone C	1/28/2017	Other - Pebbles	0.60	2
18	535	XU10 - Feature 44	Zone C - Feature 44	12/14/2016	Other - Nail - Cut	0.30	1
18	557	XU10 - Feature 44	Zone C - Feature 44	12/15/2016	Other - Nail - Cut	3.70	1
20	307	XU11	Zones A & B	12/20/2016	Red Pebbles	1.10	4
21	318	XU11	Zone C	12/20/2016	Red Pebbles	12.00	10
21	332	XU11	Zone C	12/21/2016	Red Pebbles	13.00	21
20	305	XU11	Zones A & B	12/19/2016	Charcoal	0.60	
20	308	XU11	Zones A & B	12/20/2016	Other - Pebbles	1.40	4
20	309	XU11	Zones A & B	12/20/2016	Charcoal	0.80	
21	317	XU11	Zone C	12/20/2016	Other - Pebbles	11.30	24
21	319	XU11	Zone C	12/20/2016	Charcoal	0.70	
21	324	XU11	Zone C	12/20/2016	Other - Organic	0.00	1
21	330	XU11	Zone C	12/21/2016	Charcoal	0.70	
21	331	XU11	Zone C	12/21/2016	Other - Organic	0.00	1
21	333	XU11	Zone C	12/21/2016	Other - Pebbles	13.10	25
21	334	XU11	Zone C	12/21/2016	Other - Limestone	12.80	16
21	339	XU11	Zone C	1/8/2017	Charcoal	0.60	
21	341	XU11	Zone C	1/8/2017	Other - Organic	0.20	2
21	342	XU11	Zone C	1/8/2017	Other - Pebbles	4.20	10

23	363	XU12	Zone C	2/4/2017	Red Pebbles	1.40	3
23	372	XU12	Zone C	2/10/2017	Red Pebbles	4.60	11
23	401	XU12	Zone C	2/17/2017	Red Pebbles	0.80	2
23	409	XU12	Zone C	3/11/2017	Red Pebbles	0.50	1
22	347	XU12	Zones A & B	2/4/2017	Other - Pebbles	1.00	2
22	348	XU12	Zones A & B	2/4/2017	Charcoal	1.10	
22	349	XU12	Zones A & B	2/4/2017	Other - Nail - Wire	3.20	1
22	350	XU12	Zones A & B	2/4/2017	Other - Organic	0.30	1
22	351	XU12	Zones A & B	2/4/2017	Other - Bullet/Shot - Rim Fire (.22)	0.70	2
22	352	XU12	Zones A & B	2/4/2017	Other - Bullet/Shot - Bullet (.29 in, ~30 cal.)	4.60	1
22	354	XU12	Zones A & B	2/4/2017	Other - Brick Fragment	109.10	3
23	362	XU12	Zone C	2/4/2017	Charcoal	0.10	
23	364	XU12	Zone C	2/4/2017	Other - Pebbles	5.90	13
23	370	XU12	Zone C	2/10/2017	Charcoal	1.40	
23	371	XU12	Zone C	2/10/2017	Other - Organic	1.20	
23	373	XU12	Zone C	2/10/2017	Other - Pebbles	36.80	45
23	399	XU12	Zone C	2/17/2017	Other - Organic	0.20	1
23	400	XU12	Zone C	2/17/2017	Other - Pebbles	5.60	13
23	402	XU12	Zone C	3/4/2017	Other - Pebbles	1.00	2
23	408	XU12	Zone C	3/11/2017	Other - Pebbles	2.60	3
25	421	XU13	Zone C	3/4/2017	Red Pebbles	0.70	1
25	436	XU13	Zone C	2/17/2017	Red Pebbles	1.30	1
24	412	XU13	Zones A & B	2/10/2017	Charcoal	0.40	
24	413	XU13	Zones A & B	2/10/2017	Other - Pebbles	2.40	3
25	420	XU13	Zone C	3/4/2017	Charcoal	0.10	
25	422	XU13	Zone C	3/4/2017	Other - Pebbles	1.50	3
25	437	XU13	Zone C	2/17/2017	Other - Pebbles	9.40	18
27	463	XU14	Zone C	3/15/2017	Red Pebbles	11.40	25
27	484	XU14	Zone C	2/17/2017	Red Pebbles	1.90	3
26	444	XU14	Zones A & B	2/17/2017	Other - Brick Fragment	28.90	1
26	446	XU14	Zones A & B	2/17/2017	Other - Organic	0.30	2
26	447	XU14	Zones A & B	2/17/2017	Charcoal	0.40	
26	448	XU14	Zones A & B	2/17/2017	Other - Pebbles	3.20	6
26	449	XU14	Zones A & B	2/10/2017	Other - Pebbles	0.40	1
26	450	XU14	Zones A & B	2/10/2017	Other - Brick Fragment	10.40	6
26	451	XU14	Zones A & B	2/10/2017	Charcoal	0.40	

26	452	XU14	Zones A & B	2/10/2017	Other - Organic	1.00	7
27	464	XU14	Zone C	3/15/2017	Other - Organic	2.20	11
27	465	XU14	Zone C	3/15/2017	Charcoal	2.70	
27	485	XU14	Zone C	2/17/2017	Other - Pebbles	3.70	8
27	486	XU14	Zone C	2/17/2017	Other - Organic	0.50	1
27	488	XU14	Zone C	2/17/2017	Charcoal	0.60	
28	495	XU15	Zones A & B	3/5/2017	Red Pebbles	4.00	3
29	497	XU15	Zone C	3/5/2017	Red Pebbles	5.20	6
29	509	XU15	Zone C	3/11/2017	Red Pebbles	3.20	7
28	494	XU15	Zones A & B	3/5/2017	Other - Historic Sherd - Whiteware	0.70	1
28	496	XU15	Zones A & B	3/5/2017	Other - Pebbles	1.50	2
29	498	XU15	Zone C	3/5/2017	Other - Pebbles	7.20	11
29	508	XU15	Zone C	3/11/2017	Other - Pebbles	10.80	12
29	512	XU15	Zone C	3/11/2017	Charcoal	0.10	
29	522	XU15	Zone C	3/15/2017	Other - Pebbles	2.30	1
34	580	XU16	Zone C	5/10/2017	Red Pebbles	14.22	7
34	595	XU16	Zone C	5/9/2017	Red Pebbles	8.27	10
33	571	XU16	Zones A & B	5/9/2017	Other - Glass - Green Bottle	3.69	3
34	581	XU16	Zone C	5/10/2017	Other - Pebbles	28.40	50
34	582	XU16	Zone C	5/10/2017	Charcoal	2.50	
34	585	XU16	Zone C	5/10/2017	Other - Organic	0.10	2
34	594	XU16	Zone C	5/9/2017	Other - Glass - Green Bottle	3.64	3
34	596	XU16	Zone C	5/9/2017	Other - Pebbles	25.02	33
34	597	XU16	Zone C	5/9/2017	Charcoal	0.90	
36	623	XU17	Zone C	5/29/2017	Red Pebbles	7.84	6
36	666	XU17	Zone C	6/19/2017	Red Pebbles	4.38	10
37	704	XU17	Feature 57	7/23/2017, 7/24/2017	Red Pebbles	0.27	1
35	618	XU17	Zones A & B	5/27/2017	Other - Organic	0.04	1
35	619	XU17	Zones A & B	5/27/2017	Other - Pebbles	2.29	4
35	620	XU17	Zones A & B	5/27/2017	Other - Bullet/Shot - Wincherster Repeater, 12 gauge	4.24	1
35	621	XU17	Zones A & B	5/27/2017	Other - Glass - Green Bottle	50.83	26
36	622	XU17	Zone C	5/29/2017	Other - Glass - Green Bottle	51.72	34
36	624	XU17	Zone C	5/29/2017	Other - Bullet/Shot - Buck Shot	3.14	1
36	625	XU17	Zone C	5/29/2017	Other - Pebbles	20.03	32
36	626	XU17	Zone C	5/29/2017	Charcoal	1.41	
36	664	XU17	Zone C	6/19/2017	Charcoal	0.87	

36	665	XU17	Zone C	6/19/2017	Other - Pebbles	22.50	36
36	667	XU17	Zone C	6/19/2017	Other - Glass - Green Bottle	2.63	2
36	669	XU17	Zone C	6/19/2017	Other - Unmodified Chert	0.18	1
36	694	XU17	Zone C	6/27/2017, 7/7/2017, 7/8/2017	Other - Pebbles	1.40	2
37	702	XU17	Feature 57	7/23/2017, 7/24/2017	Other - Organic	0.57	2
37	703	XU17	Feature 57	7/23/2017, 7/24/2017	Charcoal	0.05	
37	705	XU17	Feature 57	7/23/2017, 7/24/2017	Other - Pebbles	3.47	7
37	707	XU17	Feature 57	6/27/2017, 7/7/2017, 7/8/2017	Other - Pebbles	7.05	11
39	713	XU17	Feature 63/64	7/23/2017	Other - Pebbles	0.57	1
60	758	XU17	Feature 59	7/24/2017	Charcoal	1.12	

Fitzner North End (9SN256) Feature Bisection Soil Catalog

Catalog #	Unit	Level	Feature #	Date(s)	Artifact Category	Bisection	Weight (kg)	Number of Bags
728	XU03	Level 2	3	7/22/2014	Soil	Northern	1.75	1
729	XU06	Zone C	10	8/5/2016	Soil	Northern	2.25	1
730	XU06	Zone C	N/A	6/14/2017	Soil	All	0.10	1
731	XU08	Zone C	20	3/17/2017	Soil/Charcoal	Eastern	0.08	1
732	XU08	Zone C	20	10/13/2017	Soil	Western	0.4	1
733	XU08	Zone C	24	7/8/2017	Soil	Northern	0.10	1
734	XU08	Zone C	26	3/17/2017	Soil	Northern	0.80	1
735	XU09	Zone C	37	1/29/2017	Soil	Northern	4.40	1
736	XU09	Zone C	38	1/29/2017	Soil	Northern	0.23	1
755	XU09	Zone C	39	10/13/2017	Soil	Northern	0.088	1
737	XU09 & XU11	Zone C	43	1/29/2017	Soil	Northern	4.80	1
738	XU10	Zone C	44	1/16/2017	Soil	Northern	0.20	1
739	XU10	Zone C	45	1/28/2017	Soil	Southern	2.95	1
740	XU13	Zone C	53	3/17/2017	Soil	Southern	1.05	1
741	XU13	Zone C	53	3/17/2017	Soil/Charcoal	Northern	0.01	1
742	XU14	Zone C	54	3/17/2017	Soil	Northern	0.78	1
743	XU14	Zone C	54	3/17/2017	Soil/Charcoal	Southern	0.10	1
744	XU15	Zone C	55	3/17/2017	Soil	Northern	0.60	1
745	XU15	Zone C	55	3/17/2017	Soil/Charcoal	Southern	0.05	1
746	XU15	Zone C	56	3/17/2017	Soil	Northern	0.70	1
747	XU15	Zone C	56	3/17/2017	Soil/Charcoal	Southern	0.05	1
748	XU17	Zone C	57	7/7/2017	Soil/Charcoal	Northern	0.20	1
749	XU17	Zone C	57	7/25/2017	Soil	Southern	4.50	1
750	XU17	Zone C	57c	7/25/2017	Soil	Northern, located in southern bisection of bigger Feature 57	1.70	1
751	XU17	Zone C	62	7/8/2017	Soil	Southern	0.40	1
752	XU17	Zone C	63	7/23/2017	Soil	Northern	0.40	1
754	XU8	Zone C	19	10/13/2017	Soil	Northeastern	0.03	1



Closing photograph of XU1.



Closing photograph of XU2.



Closing photograph of XU3.



Closing photograph of XU4.



Closing photograph of XU5.



Closing photograph of XU6.



Closing photograph of XU7.



Closing photograph of XU8.



Closing photograph of XU9.



Closing photograph of XU10.



Closing photograph of XU11.



Closing photograph of XU12.



Closing photograph of XU13.



Closing photograph of XU14.



Closing photograph of XU15.



Closing photograph of XU16.



Closing photograph of XU17.



Feature 3 Bisection.



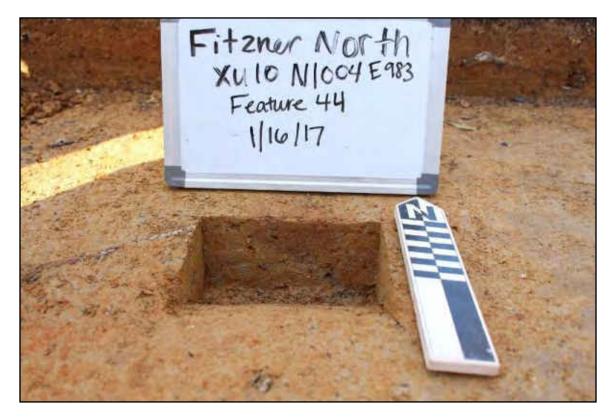
Feature 10 Bisection.



Feature 20 Bisection.



Feature 26 Bisection.



Feature 44 Bisection.



Feature 45 Bisection.



Feature 53 Bisection.



Feature 54 Bisection.



Feature 55 Bisection.



Feature 56 Excavation.



Feature 62 Bisection.



Feature 43 Bisection.



Feature 59 Bisection.



Feature 64 Bisection.



Feature 57 Bisection.



Feature 57 Bisection.



Feature 57 Full Excavation.

Projectile Points/Knives

5	1	2	3	4	5	6	7	8	9
Catalog #	90	199	242	311	326	379	514	607	321
Unit	XU6	XU3	XU2	XU11	XU11	XU12	XU15	XU16	XU11
Level/ Feature	Zone C	Level 2	Level 2	Zones A & B	Zone C	Zone C	Zone C	Zone C	Zone C
Weight (g)	8.27	3.45	5.33	10.5	6.9	3.4	1.4	4.63	8.4
Count	1	1	1	1	1	1	1	1	1
Type of PP/K	Likely Eared Yadkin	Likely Eared Yadkin	Likely Eared Yadkin	Morrow Mountain	Bakers Creek	Likely Eared Yadkin	Woodland Triangluar	Likely Small Savannah River	UID (broken base)
Point Typology	Lanceolate	Lanceolate	Lanceolate	Stemmed	Stemmed	Lanceolate	Triangular	Stemmed	Appears stemmed (broken base)
Length	44.82	32.22	38.98	45.53	36.69	26.7	32.06	48.24	40.08
Thickness	9.46	6.67	7.29	7.92	8.58	5.52	5.06	7.56	8.2
Max Width (Blade Width)	26	20.12	18.65	32.82	26.48	22.87	N/A	21.31	21.48
Base Width	19.24	20.12	18.14	N/A	N/A	22.87	12.21	N/A	15.73
Tip Blade Width	1.68	tip broken	tip broken	tip broken	N/A	tip broken	2.28 (very point of blade is broken)	1.97	N/A
Hafting Area Width	20.5	18.07	17.92	N/A	N/A	20.14	N/A	N/A	N/A
Basal Concavity	2.7	3.27	2.21	N/A	N/A	2.11	N/A	N/A	N/A
Haft Width - Base	N/A	N/A	N/A	6.94	19.61	N/A	N/A	10.05	N/A
Haft Width - Top	N/A	N/A	N/A	26.99	19.53	N/A	N/A	10	N/A

APPENDIX D: PROJECTILE POINTS/KNIVES CATALOG AND PHOTOGRAPHS

Fitzner North End (9SN256)

Haft Length (Height of Haft)	N/A	N/A	N/A	12.92	10.68	N/A	N/A	5.76	N/A
Barb/Shoulder Lengths from hafting area	N/A	N/A	N/A	N/A	4.17, 3.16	N/A	N/A	4.87, 5.97	2.29, 2.88
Notes				weak shoulders, contracting stem	Strong shoulders			Strong shoulders	Appears to have barbs/ shoulders, mostly whole

*All Measurements in Millimeters

APPENDIX D: PROJECTILE POINTS/KNIVES PHOTOGRAPHS



Photograph 1—All Projectile Points/Knives.



Photograph 2—PP/K No. 1.



Photograph 3—PP/K No. 2.



Photograph 4—PP/K No. 3.



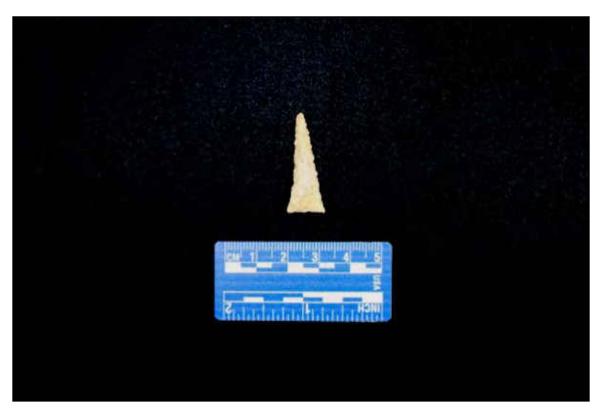
Photograph 5—PP/K No. 4.



Photograph 6—PP/K No. 5.



Photograph 7—PP/K No. 6.



Photograph 8—PP/K No. 7.



Photograph 9—PP/K No. 8.



Photograph 10—PP/K No. 9.