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Feasting in Florida: Evidence of Swift Creek Ceremonial Feasting and Multi-Group Interactions at Byrd Hammock South (8WA30), Wakulla County, FL

Joseph Michael O'Keefe
Louisiana State University and Agricultural and Mechanical College, jsphokeefe@yahoo.com

FEASTING IN FLORIDA: EVIDENCE OF SWIFT CREEK CEREMONIAL FEASTING AND MULTI-GROUP INTERACTIONS AT BYRD HAMMOCK SOUTH (8WA30), WAKULLA COUNTY, FL

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Joseph O'Keefe
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Table of Contents

List of Tables

List of Figures

Dedication and Acknowledgements

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Abstract

During the LSU 2015 Summer Field School at the Byrd Hammock South site (8WA30) in Wakulla County, Florida, excavations uncovered a large stratified pit-fill feature (Length 78 cm x Width 65 cm x Depth 136 cm) associated with the Early Swift Creek culture (A.D. 0 – 500). The Swift Creek have been generally identified as a transegalitarian society, and are believed to have participated in the phenomenon known as the Hopewell Interaction Sphere. The feature, Feature 1 (F1), was located approximately 60 meters south of Burial Mound B on the western edge of a semi-circular midden that surrounded a clean plaza. Profile maps and photographs of F1 showed no evidence of sediment disturbance, such as water marking, suggesting F1 was filled rapidly. Compared to the other units excavated during the Field School, F1 contained the highest quantity of total artifacts, including exotic and rare items such as quartz crystal and mica. The analysis of ceramic designs, faunal materials, and lithic and exotic artifacts, along with evidence of rapid deposition suggests F1 was created during a large-scale feasting event which may have had other events occurring at the same time. Based on the proximity of F1 to Burial Mound B, the overarching event may have been associated with mortuary activities. The feasting activities may have involved inter-local, and possibly extra-local, group interactions at Byrd Hammock South site.

Chapter 1 – Introduction

Almost every year I travel 1,296 miles in order to participate in a family event related to the holidays. I fly from New Orleans, Louisiana, to Denver, Colorado, where I rendezvous with friends, family, and newly acquired acquaintances. We all convene at a pre-determined location, usually a parent's house, where we hold a large feast in order to commemorate existing family bonds and, when someone invites a new member, create new ones. With me I might bring exotic gifts from the Deep South such as traditional beignets mix, recordings of local music, and *fleur de lis* with French words scrawled on the surface informing the recipient to "Let the Good Times Roll." After the feasting event and all other associated activities conclude, we all return to our places of residence both near and far. The memory of the event is maintained through photographs, letters, and holiday cards given to one another. These items allow the original participants or someone else, possibly an outside observer, to understand who participated and why the ceremonial feasting event occurred.

In the prehistoric Southeast, discernable items of memory exist in the form of mounds, other earthworks, and in the material culture items used in a special event. Archaeologists, however, have not yet pinpointed how to translate these cyphers for our own understanding. Instead, participants of prehistoric large-scale events, such as feasting, leave behind faunal and other remains that archaeologists and anthropologists interpret based on refuse patterns. Yet refuse patterns alone cannot inform researchers about some of the important questions concerning possible ceremonial feasting events: Who was involved? Where did they come from? How long did the event last? Why was the event conducted in the first place? Although not all of these questions can be answered through evidence of one refuse pit, archaeologists can address some of these questions when a feature containing strong signs of large-scale ceremonial feasting

involving many individuals is revealed. This situation may be the case at the Byrd Hammock South site (BHS) in Wakulla County, Florida.

During the LSU 2015 Summer Field School, excavations at the Byrd Hammock South site (8WA30) revealed a large midden-filled, stratified pit feature associated with the Swift Creek culture, a fishing-hunting-and-gathering culture that occupied the area between ca. A.D. 250 and 700. The feature was excavated to its base at approximately 140 centimeters below surface (cmbs) and was designated as Feature 1 (F1). The feature was identified as a refuse pit.

The size of a long-term, daily-activity refuse pit may be relatively small (length, depth and width), and may be associated with a commonplace location, such as near a residence. If the pit was left open for long-term daily refuse, then layers of Aeolian and alluvial sediments, along with trampling and other disturbances would be present in the feature's stratigraphy. Also, if the feature were created for secular purposes, low quantities or fauna and other materials such as low quality plain ceramics may be present. A long-term pit for daily activities would potentially lack rare and/or exotic materials such as mica and ochre, or high quality, ornately crafted items.

Conversely, a pit for refuse created during a ceremonial event would probably be much larger (length, depth, and width) than a pit for daily, long-term use, and would be placed near an area of importance, such as burial mounds or a ceremonial plaza. During the event, the pit would be filled rapidly, which could be observed in the pit's stratigraphy. This rapid fill would not allow for soil disturbances that would be otherwise seen in pits created for long-term refuse. The rapid fill would permit artifacts to maintain a higher quality of preservation. For example, because rapid fill removes instances of disturbance to the pit's strata, articulated faunal remains would be present in the artifact assemblage. A pit created during a ceremonial event ~~would~~ may

also contain high quality artifacts, as well as items associated with ritual paraphernalia, for example mica or ochre, that would have been used during the event.

Due to: the vast size of the pit (determined through coring) compared to other features at BHS; stratigraphic evidence suggesting episodes of rapid deposition; the unusual linear shape of the base; and the abundance of artifacts and food remains within, F1 remains are hypothesized as the result of a large-scale communal feasting event(s). The feasting event(s) likely involved populations that inhabited the area surrounding the site and who actively participated in the Hopewell Interaction Sphere. In this thesis, I provide ethnographical and archaeological evidence along with data from F1 to support this hypothesis. Results shed light on a few of the important questions discussed above.

In Chapter 2, I discuss transegalitarian societies of the prehistoric Southeast in order to understand how the Swift Creek culture may have structured their social and political systems. Next, I consider the social, political, and cultural implications of feasting, including the relevance that synesthesia, the manipulation of different senses using multiple stimuli, provided to the event. This is followed by ethnographic examples of communal and competitive feasting events, which reveal how one feasting event may have multiple social and political purposes. I also briefly describe the concept of "Style" as it pertains to ceramics, including how designs and finishing techniques are relevant when discussing activities associated with large-scale events. Finally, because faunal remains are so plentiful in the refuse pit and included some unusual species, I use ethnographic accounts of historic Southeastern Indians and archaeological reports to inform a brief discussion of the cultural significance that may have been attached to specific animals.

Chapter 3 provides information concerning the geographic location of the Byrd Hammock South site, along with seasonal data such as how much precipitation the region receives and average temperatures of a given year. The surrounding environment and microenvironments, such as areas of fresh- and salt-water, and the fauna that inhabit these different areas, will be recounted to better understand the resources available at Byrd Hammock. Following the environmental data, the site itself will be described. This discussion includes information on the importance of mounds and earthworks to the prehistoric cultures of the Southeast in general and the Swift Creek in particular. The following section of this chapter will discuss the significance of the Hopewell interaction sphere to the prehistoric Southeast and what a *sphere* means. The chapter concludes with a description of the influence that Hopewell practices had on the Southeastern cultures, as well as a discussion about the Swift Creek culture itself.

Chapter 4 recounts previous archaeology conducted at the Byrd Hammock site, from the earliest excavations by Clarence B. Moore in 1918 to the 2015 LSU Archaeological Field School. A section explaining the methods for data collection follows. The data collection discussion includes how excavations were conducted, reasons for the placement of the units, digital map creation, and how ceramic, lithic, and faunal artifacts from F1 were analyzed for the purpose of this thesis.

Chapter 5 describes the excavation of F1. The chapter includes descriptions of soil changes by level, the recognition of patterns in deposition, the occurrence of artifacts and their increase and decrease per level, and other details associated with the excavation of F1. The chapter concludes with a brief overview of the results of the excavation.

Chapter 6 focuses on the artifacts collected during the excavation of F1, including counts, weights, and a more detailed description of ceramic, lithic, and faunal materials. Also, this section discusses the findings of Jacob Mendoza's (2016) more thorough analysis of the fauna in Level 7. The chapter concludes with the general analysis of F1, along Mendoza's more in depth study, which assisted in determining if F1 is the product of a large-scale feasting event.

Chapter 7 discusses the data collected during the analysis of F1. The chapter begins with a comparison of the artifact assemblage from F1 to other excavated units of BHS as well as to other Swift Creek sites along the coast. I then discuss ceramic evidence suggesting that a large-scale feasting event(s) at BHS involved groups from the immediate and surrounding areas of this site. I demonstrate inter- and intra-site interactions through paddle matching and design similarities found between BHS and other Swift Creek sites. The lithic materials will also support the evidence for trade networks and episodes of interactions occurring over large geographic regions. I conclude with indications of large-scale feasting provided by the faunal remains and the overall depositional patterns of F1.

Chapter 8 summarizes the results and conclusions. I suggest that F1 contains the remains of a large-scale, cooperative or communal feasting event. This event involved transegalitarian Early Swift Creek populations from the coastal Florida panhandle.

Chapter 2 – Theory: Feasting, Ceramics, Objects and Identity

Introduction

Feasting event(s) sponsor different activities that utilize a "variety of strategies for political maneuvering and social advancement" (Twiss 2012:371). The possibility to enhance social status has perpetuated feasting events throughout both prehistoric and contemporary societies. Each feast and feasting-related activity creates distinguishable patterns in the archaeological record. In order to study prehistoric feasting events, archaeologists must first distinguish, and then decipher, the remains created by such an event. To do this, archaeologists rely heavily on refuse patterns, material remains, and ethnographic accounts to identify and attach social significance to feasting events.

Large-scale feasting events have the ability to attract groups of people from different regions, who may share similar ideals, beliefs, and social and/or cultural practices. In order to draw populations to a specific event, hosts use large quantities of food and/or special or rare food items, exotic artifacts signifying social status, well-made, locally crafted items, such as ceramics demonstrating a high degree of skill, and long-distance items acquired through trade for ritualistic and/or ceremonial purposes. While conducting the event, large quantities of refuse would be deposited over a short period of time. The combination of special items and distinctive refuse patterns suggests that prehistoric feasting events revolved around ceremonial and ritualistic social events and possessed strong social and cultural significance (Dietler 2001; Hayden 2001, 2014; Hayden and Dietler 2001; Kelly 2001; Pauketat et.al. 2002; Pollock 2003; Potter 2000).

For this thesis, *ceremonial* events are those that involve multiple groups for special occasions such as marriages and funerals. Events considered to be *ritual* involve a single

individual or specific group of people. However, because ceremonies may involve rituals, these events are not necessarily mutually exclusive (http://www.differencebetween.com). Feasting events associated with either ceremony or ritual can generate social unity, as well as instigate competition between and within cultural groups (Clark 2001; Dietler 2001; Hayden 2001, 2014; Hayden and Dietler 2001; Potter 2000). The physical remains from a feasting event and the associated culture group(s) social/political practices assist in determining the possible function for the large-scale event.

This chapter has been divided into two sections. First, I discuss transegalitarian societies in the prehistoric southeastern United States and their potential social and political foundations, including the impacts and evidence for involvement in the Hopewell Interaction Sphere by the Swift Creek. I also discuss the definition of feasting I will use for this thesis and why, along with the influence feasting has on the senses, mainly memory, and the idea of *synesthesia* (Hayden 2011; Sutton 2010a). This discussion will be followed by cultural implications of feasting through prehistoric and ethnographic accounts as well as material remains.

The second half of this chapter focuses on the theory behind ceramic production and its implications for feasting events. This includes how shape, size, and finishing technique can indicate vessel use; what style is and the elements of a design style; and how, by combining each of these categories, archaeologists are able to distinguish between ceremonial and domestic ware. The ceramics section will conclude with a brief discussion focusing on how the movement of ceramics may be interpreted as an extension of the potter and therefore, an extension of identity.

2.1. Feasting

2.1.1. Transegalitarian Societies

According to Brian Hayden and D'Ann Owens (1997:124), transegalitarian societies "arguably constituted the initial context for the development of socioeconomic complexity." That is, transegalitarian behavior is the social, cultural, and political transitional period between egalitarian to chiefdoms. In the southeastern United States, evidence of transegalitarian behavior began to develop quite early, in the Late Archaic (3000 – 1000 B.C.), but true chiefdoms did not emerge until ca. A.D. 1000. In transegalitarian societies, like the Swift Creek, changes in social status could be achieved on a temporary bases.

Generally, physically strong individuals who were considered wealthy by either possessing prestige items and/or control over food stores could acquire social status. These individuals, or aggrandizers, did not give commands or lead. However, they would have had some degree of social influence within their community (Hayden and Owens 1997). Within a single transegalitarian society there could be multiple aggrandizers, each vying for status through the procurement of resources and allegiances. By creating and maintaining extensive trade networks with outside cultures and societies, aggrandizers were able to continuously acquire ritual and ceremonial paraphernalia that would be presented, gifted, and traded at feasting events (Hayden 2009). The extensive gifting, lavish food items, and larger resource stores facilitated constant changes in political and social status while creating and maintaining social bonds. However, feasting events were not only socially or politically beneficial. In transegalitarian societies, feasting events increased overall chances for survival by creating risk-reducing strategies that could be utilized by multiple groups during different periods of environmental stresses (Hayden 2001; 2009; 2014; Hayden and Owens 1997).

In transegalitarian societies, resources could be "unstable and fluctuating" allowing for some groups to flourish while others faltered (Hayden 2009:599). Feasting events enabled communities to aggregate while allowing shared access to resources, exotic items, and acquire spouses while reducing negative impacts associated with environmental stresses. Thus, feasts were conducted with the expectation that those who attended would reciprocate by hosting their own feasting event at a later time. The future feasting event could be held to celebrate different social occurrences, such as funerals, or created to assist communities during episodes of resource depletion. However, reasons for feasting events may not be mutually exclusive. A cyclical pattern of reciprocal feasting and resource sharing reduced certain risks associated with transegalitarian societies and enhanced chances for survival (Hayden 2009; Hayden and Owens 1997; Russo et al. 2014). This pattern was amplified when surrounding cultures interacted more frequently during the cultural phenomenon identified as the Hopewell Interaction Sphere.

2.2. Hopewell Interaction Sphere

Joseph Caldwell (1977:137) defined the Hopewell Interaction Sphere (B.C. 100 – A.D. 500) as "a number of distinct societies and separate cultures" with a cultural connection "in mortuary-religious matters but not, primarily, at least, in other departments of culture." In other words, multiple culturally distinctive groups that existed before the emergence of the Hopewell tradition became intertwined through item exchange and communication concerning political, ritual, and ceremonial ideals. However, these influences did not interfere with or modify cultural practices concerning "subsistence, technology, and local crafts" (Taché 2011:8).

Archaeological evidence suggests that Hopewellian culture placed emphasis on mortuary rituals and death, which were accompanied by large-scale feasting, mound building, aggrandizing behaviors, and similarities in iconographic representations (Coon 2009; McGimsey

2010; Jo Thompson and Jakes 2005). At archaeological sites associated with Hopewell, large-scale feasting has been identified through "high quality wares" that appear to be "polished to the point of having a glossy finish" (Coon 2009:56). These ceramics also possess elaborate decorations and rim treatments. Resemblances in iconography such as serpents and birds, that are carved onto wood or bone or incised and stamped on pottery, suggest a ritualistic or ceremonial "corporate cognitive code" (Coon 2009:61) that would have been understood, or at least recognized, by the attending population. Also, evidence for "hoarding of exotic materials (such as copper, obsidian, and mica)" (Coon 2009:51) has been observed at some Hopewell sites. Many of these sites are located a long distance from the source of the materials. The distribution of said materials throughout the Southeastern region exemplifies the emphasis placed on long-distance trade networks and communication.

The Block-Sterns site (8LE148), located 15 miles (24 km) north of the Byrd Hammock site in Leon County, Florida, shows evidence for trade networks associated with the Hopewell Interaction Sphere. The site contains four mounds, and salvage excavations revealed two possible structures based on post molds, over 180 archaeological features, and over 100,000 collected artifacts (Jones and Tesar 1996). At the Block-Sterns site, exotic materials such as mica and copper were acquired through trade, perhaps with individuals associated with the Copena-Hopewell, a culture that occupied areas along the Tennessee River principally in northern Alabama. Other artifacts collected, such as polished mandibles from local animals, and a "classic Hopewellian painted [ceramic] figurine" (Jones and Tesar 1996:397) collected during previous excavations, created further correlations to the Hopewell Interaction Sphere and suggests ceremonial or ritual activities occurred at the site (Jones and Tesar 1996). Artifacts of this nature

have been recorded from mortuary contexts at other Hopewell sites and are believed to be associated with mortuary rituals.

However, all rituals and ceremonies at an event may not have been specifically for funerals. With multiple groups convening in order to celebrate the dead, there is equal opportunity to celebrate the living. This celebration could have been recognized during events such as the exchanging or gifts and the joining of kin groups through marriage. Gifts as well as spouses may have solidified already created and newly created trade networks (Hayden 2009; Hayden and Owens 1997). The Hopewell Interaction Sphere had a large impact on trade, communications, and even feasting.

2.3. Social, Political, and Cultural Implications of Feasting

2.3.1. Defining Feasting

Purposes and/or reasons for feasts, or what constitutes a feasting event, is a subject of debate in anthropology and archaeology. Therefore, "[n]o single definition [for a feast] dominates the archaeological literature" (Twiss 2012:364). For the purpose of this thesis, I will use Brian Hayden's (2014:8) definition of feasting, which he describes as "any sharing between two or more people of a meal featuring some special foods or unusual quantities of foods…hosted for a special purpose or occasion." This definition does not include activities such as church communion, family dinners, or the "cafeteria-style meals" that occur in work areas (Hayden 2001:28). Nor does the definition state that the event must have a specific ritual purpose. Ethnographically however, many feasting events are commonly related to specific ritualistic and ceremonial events (Dietler 2001; Hayden 2014; Junker 2001; Sutton 2010; Twiss 2012). Hayden's definition allows for the classification of feasting through the archaeological materials alone (Table 2.1).

Table 2.1 – Archaeological materials associated with feasting: Adapted from Hayden 2001; Claassen 2014; Reitz and Wing 2008

Feasting	Domestic Consumption
Rare, labor intensive, or “special” foods	No rare, labor intensive, exotic or "special" foods
Large quantities of remains and concentrations of similar remains	Low to moderate quantities of remains
Evidence of waste of food items – e.g., deposition of articulated joints, unprocessed bone	Little to no wastage
Large vessels for serving and preparation	Comparably normal vessel size
Large number of vessels present in refuse	Low to moderate quantities of vessel remains
High quality ceramics – highly decorated or specially finished pottery	Lower quality, domestic wares with little to no decoration or surface finish
Located in an area associated with community spaces – e.g., central plaza	Located in more common areas associated with everyday activities
Prestige items/exotic Materials – e.g., foreign materials such as micas and quartz crystal	Little or no prestige items/exotic materials
Presence or absence of ritual paraphernalia – e.g., ritual display items	Little or no ritual paraphernalia
Destruction or intentional internment of prestige items – e.g., depositing of tools or bones	No evidence for intentional deposition of ritual items

On the other hand, Michael Dietler (2001:104) believes that in order to recognize a feasting event, archaeologists must create a “well-developed theoretical understanding of the nature of feasting” in order to understand the group’s social/political reasons for the feast. Although Dietler states that feasts are multi-faceted and “events of communal food and drink consumption,” his approach places a stronger emphasis on the ritual aspect of the event and relies heavily on the social, symbolic, and political complexities associated with feasting. In comparison, Hayden attempts to create a “general framework” for the recognition of feasts through the archaeological remains, while Dietler argues for the “inherently political role of feasts” focusing on the complex and theoretical “relationship between feasts, commensality, and

power" (Dietler and Hayden 2001:6). Thus, for the Swift Creek and their transegalitarian lifestyle, Hayden's perspective focusing on the tangible artifacts better suits this thesis.

2.3.2. Communal vs. Competitive

Generally speaking, archaeological examinations have produced two categories for feasting events: alliance feasts created to reinforce community and group solidarity, and competitive feasting which increases an individual's or group's economic and/or sociopolitical status (Clark 2001; Dietler 2001; Hayden 2001; Potter 2000; Twiss 2012). However, because of the complex nature of feasting events, "it is rare to find a 'pure' feast in terms of function" (Hayden 2001:587). In other words, feasting events seldom occur for one specific cultural or social purpose and most "simultaneously involve both social integration…and competition for social capital" (Twiss 2012:364). Also, the purpose of a feasting event changes depending on the time period and complexity of the society or culture involved in the event. With that in mind, anthropologists and archaeologists recognize feasting categories, activities, and the associated depositional and cultural patterns as guidelines rather than absolute identifiers. Below I compare and contrast archaeological evidence for communal feasting versus competitive feasting, and provide an ethnographic example of a multi-faceted feasting event.

In transegalitarian societies, such as the Swift Creek, alliance and/or promotional (communal) feasts were common. Ethnographic accounts demonstrate that preparing for a communal feasting event requires "strategic planning" (Spielmann 2002:197) over days, months, or even years. During this time, acquisition of specific food resources, socially desired goods, ceramic vessels for serving and cooking, and the creation of garments and ornamentation would intensify "in order to underwrite communal ritual" (Spielman 2002:197) associated with ceremonial and ritual feasting and feasting events.

Through communal feasting events, neighboring and/or long distance groups had the opportunity to convene and interact. Once gathered, food resources and other items, such as ceramics or items used for ritual or prestige, were traded and redistributed to participants. Each individual or group would be expected to contribute to the feasting event. At times, social and/or environmental circumstances would allow some to provide more than others, creating a sense of indebtedness and resource reciprocation at a later event. Ultimately, this type of feast promotes solidarity and reduces the "risks involving subsistence, reproduction, and violent confrontations" (Hayden 2009:597).

Such feasts are held for rites of passage including birth, marriage, and death, as wells as other "lineage or clan affairs in which the success of the social group at large is on display" (Hayden 2001:55). Although these feasts are created with the ultimate goal of unification, some may possess an undercurrent of competition, and lead to temporary status differences within a social unit. When this undercurrent becomes the main focus of a feast, the purpose for feasting changes from group solidarity to competitive self-promotion. These competitive feasts are conducted to increase social status and for the acquisition of "direct economic gains [through] the promise of increased returns on feast investments" (Hayden 2014:30). In other words, through competitive feasting, individuals or groups increase their status and political strength through the accumulation of social debt and increased access to goods and resources (Hayden 2001).

These different types of feasts can be distinguished by dissimilar patterns in archaeological deposits (Claassen 2014; Dietler 2001; Dietler and Hayden 2001; Hayden 2001; Reitz and Wing 2008). Archaeologically, alliance/promotional feasts may be represented in oversized pit features along with a spatial distribution of artifacts and faunal remains that

suggests resources were shared communally and were not "partially monopolized" (Potter 2009:477) by specific individuals. In addition, temporary structures might be erected for specific purposes, such as drying or smoking racks for meat, but not created to distance or remove one group from another (Hayden 2001; Potter 2000). Also, the abundance of skillfully crafted vessels, along with the size of serving and preparation vessels, increases, allowing for shared consumption of resources.

Presumably the labor for the event, including resource procurement and the creation of earthworks, would have been enlisted through kin groups. In this scenario, a temporary leader or a potential "Big Man" would have "extract[ed] labor from spouses, offspring, and other persons closely attached to the kin group" (Arnold 1996:59). These temporary leaders would include, but were not limited to, the group's elders, heads of households, or possibly individuals who held a shaman-like social status (Arnold 1996). After the event, the temporary status would be removed or lessened, allowing for the individual or group to retain a slightly higher status, but few or no leadership roles.

Cooperative or communal feasting events directly contrasts competitive feasting, which is associated with craft specialization, more elaborately decorated and larger vessels (I will discuss vessels in more detail below), and evidence of more permanent structures, which facilitated multiple events and removed elite members from the general populace. Unique or exotic artifacts and high trophic-level foodstuffs are present, and their distribution is more restricted, with specific individuals or groups having access to the bulk of available resources and prestige items (Hayden 2001; VanDerwarker 1999). This restriction of resources can be recognized by confined areas of refuse associated with elite structures, such as along the sides of platform mounds or temples. Platforms or mounds, such as those at the Mississippi period

chiefdom site of Cahokia, and the materials found at the bottom and top of the mounds, suggests this type of social division occurred during feasting events (Kelly 2001).

Other features at the Cahokia site, such as sub-Mound 51, also contained artifacts generally associated with gatherings where participants were not of "ordinary status" (Pauketat et. at. 2002:275). However, after analyzing the artifacts collected from sub-Mound B during the 1967-1968 excavations, Timothy Pauketat and colleagues (2002:275-76) concluded that sub-Mound B "contains the remains of public rites focused around feasting" that "simultaneously [involved] low status and high status" individuals. In this example, archaeological evidence provided from sub-Mound B demonstrates the difficulty in distinguishing between strictly "communal or political" (Pauketat et al. 2002:276) feasting events. At the Cahokia site, feasting events may have been multi-faceted where individuals or groups would use single events for multiple social, cultural, or ceremonial purposes.

2.3.3. Example of a Multi-Faceted Feasting Event

As stated earlier, feasting events usually show evidence of both alliance and competition. Marriage feasts conducted by the Akha in northern Thailand is one such example of a multi-functional feasting event. Michael J. Clark (2001:144) describes Akha feasts as "social mechanisms" that allow for the creation of a "life-crisis support network" and serve as "arenas for competition between extended family groups for control" over general resources, procurement of labor, and social status.

Certain families adhere to specific roles during the Akha marriage feasting events. Being appointed as "organizer[s], workers, and servers," creates a social bond between the hosting parties and the individuals. Providing tasks and roles to members of the families is considered to represent "symbolic act[s] of friendship and cooperation" between different kin groups (Clark

2001:158). For a wedding feasting ceremony, the father of the groom obtains large amounts of food and luxury goods such as cigarettes and tea through increased activities of trade and extensive monetary exchange, to please the feast's attendees. For the father of the groom, obtaining these items is considered a very expensive endeavor.

In order to successfully prepare the food, the family of the groom must "borrow a large assortment of cooking and serving vessels" (Clark 2001:157). This places the groom's family into a situation of indebtedness (Dietler 2001; Hayden 2009). By borrowing from others, obligations of reciprocity are created for future events. In order to maintain social ties, the family would need to honor this debt and help other members in the same way, creating a social and cultural solidarity for the present event and for future occurrences (Clark 2001; Hayden 2009).

The father's economic expenditure not only created ties within the community, but also increased his individual status. Along with "integrat[ing] the young groom…into a greater lineage support group," the father was able to portray his family's worth and success, ultimately "revalidate[ing] his position as the village Ritual Reciter" (Clark 2001:158), a high status position within the social and political network. The Akha marriage feast demonstrates how cultural, social, and political ties can be influenced through the use of debt, providing food and prestige items, and economic spending.

Both modern and historic examples of certain feasting events show that the participants are generally made up of the majority of a regional population (Dietler 2001; Hayden 2001; Knauft 2016; Sutton 2010). These populations can be related through kin, geographic location, cultural practices, or by any means of social or political organization. During a feasting event, lavish and elaborate displays are created through community participation. Activities such as song and dance occur along with mass consumption and distribution of food and goods. Groups

may spend months or even years collecting and harvesting the resources needed in order to have an ample supply for the feasting event (Dietler 2001; Hayden 2001; Knauft 2016).

The Gebusi Coming of Age Ceremony for young males and the Potlatch ceremony of the Kwakiutl are excellent examples of contemporary feasting events held for different social and cultural reasons but produced similar outcomes. Prior to the 1970's, the Gebusi, in Papua New Guinea, held ceremonies involving all of the local community and members from other territories that may or may not have familial ties to one another. One such Gebusi ceremony takes several months to plan and is conducted over several days. For approximately six-months, the settlements prepared for the upcoming event by acquiring large amounts of food, such as plantains, and devote time and resources to fattening pigs, making them expensive resources. Members of the society contribute to the event by spending many hours creating ceremonially specific and elaborately decorated head-dresses and garments, while other more expensive and uncommon resources are collected for gifting and consumption. For several days, the participants will dance, sing, feast, and wear ceremonial headdresses and jewelry created specifically for the ceremony. The event culminates with the entirety of the attending population witnessing a type of arranged marriage, which transforms young boys into men of the society. The Coming of Age event is created to bring communities together and to introduce and admit new adult male members into the society and creates alliances through marriage (Knauft 2016).

The potlatch ceremony, which was held by the Kwakiutl along the northwestern coast of North America, was a large ceremony conducted to mark major events such as births, marriages, and deaths. Unlike the Gebusi ceremony in which everyone participates equally, only those with higher social status host the potlatch. During this event, different groups would bring gifts and resources that were then either gifted to others or destroyed by the chief (depending on the social

power of the receiving or gifting group). With its lavish gift giving, property destruction, and transmission of goods and, historically, slaves, the potlatch is a vivid example of a competitive feast (Hayden 2014; Piddocke 1965; Ringer 1979). Although apparently based on greed, the potlatch is in fact more concerned with pride and community solidarity, while at the same time identifying hierarchy and allowing for the distribution goods through gift exchange (Piddocke 1965; Ringer 1979).

Both types of feasts promote social cohesion through resource sharing and exchange and demand a high degree of preparation of both food and luxury items. Incorporating activities to the events, such as singing and dancing, create group interactions and solidarity through repetition. Culturally, these events perpetuate political and social conditions that ultimately affect the social status of the future generations of their respective cultural populations (Knauft 2016; Piddocke 1965). However, in order to maintain group solidarity, trade, and alliance arrangements, reciprocity through future feasting events is expected, placing attendees into a scenario of indebtedness to hosting parties.

2.3.4. Cultural, Social, and Political Implications of Debt and Indebtedness

Feasting has been correlated with social indebtedness (Hayden 2001; Potter 2000). By accepting an invitation to a feast, the attendee enters into a social contract which obligates them to reciprocate by creating a feast of their own and inviting the previous hosting party (Hayden 2001; 2014). The Kwakiutl potlatch is based on gifting, re-gifting, and maintaining social and political binds and status through these actions. Similarly, Laura Lee Junker (2001) presents sixteenth-century, contact-period Spanish documents that provide evidence of pre-Hispanic Philippine culture groups spending more than they could afford in order to reciprocate their debt and maintain their status within their cultural and political hierarchy.

However, if individuals or groups are unable, or unwilling, to honor their social debt, they may incur cultural stigmas and repercussions. Hayden (2009:600) identifies these people as "freeloaders and cheaters" who are intentionally excluded from future events removing their access to resources, destroying allegiances, and eliminating their involvement in "support networks." This fear of social ostracism strongly influences people to honor their social obligations, and provide payment of debt in order to maintain social status (Hayden 2001).

2.3.5. Food and Memory

In Western societies, there are many items strongly associated with feasting events. For example, in traditional North American culture, American Thanksgiving is a holiday focused on solidarity symbolized through communal feasting with the centerpiece being the Thanksgiving turkey, a staple food item (Holtzman 2006; Siskind 1992). Some families, mine included, have specific people responsible for carving the meat off of the bone each year.

However, turkey is not a special or rare source of food. People commonly consume turkey on sandwiches and in other dishes. Rituals conducted during Thanksgiving that create memories of family and connectedness through the consumption of food are what makes the item culturally significant. Family and community are connected through yearly repetition of the holiday on both a domestic and national level and "reaffirms values and assumptions about cultural and social unity, about identity and history, about inclusion and exclusion" (Siskind1992:168). The anticipation of creating more positive memories and feelings of unity through ceremony and consumption creates cycles of continuation for future feast. In this example, the turkey takes on the role as "a locus for historically constructed identity," (Holtzman 2006:364) creating a specific bond between the food and the associated memories of a holiday traditionally practiced in North American culture.

Food items can also hold ritual importance associated with remembering and honoring the dead (Holtzman 2006; Sutton 2001). David Sutton (2001) explains the importance of *kolliva* bread to the Greek culture and the bread's important role in remembering and memorializing the deceased. During All Souls' days, feasting days dedicated to the deceased, Greek women will bake the kolliva specifically for ritual and ceremonial offering. This bread is broken up and mixed into the communal wine while the names of the deceased are spoken out loud to the congregation. The left-over bread is redistributed to the community. Saying the names of the deceased allows the deceased to symbolically "participate in life again" (Sutton 2001:35), while the redistribution of the bread represents the deceased's generosity in life and in death. According to Sutton (2001:39), this creates a "culturally-valued image of the dead" that both reinforces memories and celebrates the life of the deceased both individually and communally.

The aforementioned examples demonstrate only two of the possible correlations between a feasting event and memory. In both cases, special foods are expected and perhaps required, in order for the event to be considered culturally acceptable or complete. Memories created during new events that resemble ingrained memories from previous events reaffirm its cultural and social significance, generating a communal desire to repeat the feasting event in the future.

Along with providing special food items, memories associated with feasting can be created by the offering of other tangible items, i.e., the gifting of luxurious and rare objects. Although food is perishable, an item such as jewelry lasts longer and is mobile. The possession of items acquired during the feasting event allows for objects to represent the event through association. The items become intertwined with the memories associated with the event, and as the person travels with the item, so does the memory of the feasting event (Dietler 2001; Hayden 2001; Sutton 2010a). Gifting increases the possibility of a positive memory associated with

feasting and increases the event's chances of group participation at a similar future event. By creating a tangible representation of the feast through gifting, the attendee's senses are invoked in a way that differs from those attached to food alone. Along with food and gifted items, feasting events may involve dance, music, and even physical discomfort, allowing for most or all of the senses to be stimulated simultaneously. The successful combination and utilization of multiple activities that enhance the senses produces what researchers suggest is a sense of *synesthesia* (Hayden 2014; Sutton 2010a).

2.3.6. Synesthesia

Synesthesia has been defined as the "condition in which stimulation of one sensory modality causes unusual experiences in a second, unstimulated modality" (Hubbard and Ramachandran 2005:509). In other words, synesthesia occurs when senses that are not inherently associated with one another, such associating colors with sounds or shapes with food, become simultaneously stimulated during an activity (Grossenbacher and Lovelace 2001; Hubbard and Ramachandrand 2005). Synesthesia is considered rare and "not experienced by most people" (Grossenbacher and Lovelace 2001:36). Events that produce "multisensory convergence in the brain" (Grossenbacher and Lovelace 2001:40) such as illicit drugs, dancing, food, drink, and intense physical activities are suspected avenues for the occurrence of a synesthetic state.

Feasting events are considered excellent arenas for the creation of synesthesia through the emotional, physical, and mental manipulation of the senses. As previously discussed, during feasting events rituals are conducted and ceremonies are held that demonstrate the importance of the past, present, and future events. Some scholars (Hayden 2009, 2014; Holtzman 2006; Sutton 2010a) suggest that activities such as dancing, music, gifting, and the consumption of food and beverage during these rituals and ceremonies are created and recreated due to a desire for the

state of synesthesia these activities produce. The attendees would remember what they felt during the rituals and ceremonies in the past and would want to recreate the feelings both individually and communally. The "prospect of experiencing a pleasantly altered state" (Hayden 2014:13) draws people to a feast and creates new memories and expectations associated with past, current, and future events. Manipulation of the sense of smell, sound, taste, visual stimulation using objects, and physical pleasure or pain, creates stronger memories and increases the importance of the event (Hayden 2014). Participation and experiencing this altered state is remembered and, because the occurrence was perceived as positive, the event is repeated.

Examples of synesthesia have been documented in different rituals, each pertaining to a specific cultural event (Dietler 2001; Eves 1996; Hayden 2014; Holtzman 2006). Mike Sutton (2010b) recounts ethnographic evidence for the "Black Drink" ritual, a tea featuring the leaves of the coastal holly plant *Ilex vomitoria*, as practiced by Native Americans in the Southeastern region of the United States during the period of European contact. Along with acting as a "stimulating social beverage" similar to the use coffee or alcohol (Hudson 1979:2), the beverage was attached to ceremonial events. In one ritual, Native American warriors ingested large quantities of hot black drink from ceramic beakers and large whelk shells collected from the Gulf coast (Crown et al. 2012). The warriors would yell, drink the brew from containers, and then vomit for ritualistic cleansing purposes. Black drink was consumed well before the arrival of Europeans, and its use was widespread at contact. Today, Black Drink Ceremonies are still conducted by Native American individuals. This continuation of ritual is possibly due to the historic connections and ideological beliefs correlated with ancestry (Crown et al. 2012; Hudson 1979; Sutton 2010b).

2.4. Ceramics

2.4.1. Ceramics for Feasting: Size, Shape, and Shine

Ceramic vessels were, and still are created, through the "decisions potters make to modify properties toward particular kinds of use" (Rice 1987:207). Each vessel has the potential to be used for several purposes, including storage, transformation or processing of food items, transporting goods and resources, or serving (Rice 1987). The vessel's physical attributes are created by the potter with one or more of these purposes in mind. The attributes included in this study are size, shape, and aspects of design style and design elements, and exterior/interior finish of the vessels. I conclude with a consideration of another possible function of pottery-- how a ceramic vessel can represent an individual.

2.4.2. Vessel Size and Shape

When determining the size and shape of a ceramic vessel, archaeologists use "ratios of height to maximum diameter, and kind or size of orifice" the vessel would have possessed (Rice 1987:215). Understanding the ratios, anthropologists and archaeologists are able to recreate the overall size of the complete vessel and assign functionality based on ethnographic data and observations of pots of similar size and shape. John H. Blitz (1993) suggests that during ceremonial activities or feasts, ceramics with larger openings and increased overall volume and surface area would be present in refuse middens created by these large-scale events. These larger pots are expected due to the increased quantities of food required for feasts and would have been used for one or more of the previously mentioned purposes (Blitz 1993; Hayden 2001; Knight 2001; Pluckhahn, Compton and Bonhage-Freund 2006).

Evidence for large preparation vessels has also been recognized in ceremonial events occurring in contemporary societies. During the previously discussed Akha feasting event,

Clarke (2001) observed a family borrowing several large preparation vessels, or woks, ranging from 30 to 50 cm in diameter. Normally, an average Akha family (approx. 5 people) would require only two cooking vessels, each with a diameter of about 30 cm (Clark 2001:157).

Vessels explicitly used for serving are expected to have a different shape than those for preparation. This may be the case at the Late Archaic Stallings Island site along the coast of Georgia. Previous excavations at the Stallings Island site produced concentrations of human burials, leading early researchers to describe the site as a "necropolis" (Jones 1861 *in* Sassaman et al. 2006:557) for early Native Americans. Currently, the site is believed to have been "the 'center' of a regional population" (Sassaman 2004:34), where prehistoric peoples congregated to conduct and attend mortuary feasts, as well as other social and political activities. The assumption that the site hosted large-scale events is supported by the large amount of decorated fiber-tempered wares and a distinctive ceramic shape, the carinated bowl, found almost exclusively at the site. These bowls have a "low, flat profile" and a "wide orifice" (Sassaman 2004:36), some have a diameter of as large as 50 cm. Sassaman (2004) believes these vessels were for serving and not for preparation. The absence of sooting on carinated bowls offers further support for a serving function.

The size and shape allow for evaluation of the vessel's potential use and possible association with large-scale events involving increased populations, such as feasting. However, other ceramic characteristics, such as exterior decoration and finishing techniques, can provide insight into cultural contexts of vessel production. During a vessel's creation, the potter intentionally creates the physical characteristics based on their social or cultural affiliation (Hegmon 1992). This suggests that the cultural influence of the potter can be seen on the

surfaces of a given vessel. One way of recognizing cultural affiliation is through understanding the style and components of the design placed on a ceramic vessel.

2.4.3 Style Theory

Along with different vessel shapes and sizes, ceramics associated with a large-scale feasting event often display different characteristics as designs, compared to private and/or less extravagant gatherings. For instance, surface decoration may be more complicated, and designs might be produced with clearer and more consistent lines and shapes. Reasons for the enhanced attention to detail is due to the desire to display prowess as a potter, to signal identity, and perhaps skill through elaborate and highly crafted materials created for exhibition during the event. A vessel is an excellent canvas for communicating social and/or cultural messages during large-scale feasting events.

H. Martin Wobst (1977) suggests that to accurately portray an intended social or cultural message visually, the vessel's creator would put more emphasis on clear, bold, and precise designs. Also, the amount of information visually portrayed varies depending on the social and/or cultural context for which the vessel is intended. For example, Michelle Hegmon (1992:521) suggests that items meant primarily for private contexts are "more likely to convey messages about ritual or belief systems, whereas highly visible materials often indicates group or ethnic boundaries." Large-scale transegalitarian feasting events that were held for aggregated populations, such as those posited for the Swift Creek, had the potential to produce concentrations of these "highly visible materials" associated with different groups.

Warren R. DeBoer and James Moore (1982) observed this phenomenon during their study of variations in Shipibo-Conibo rim designs. According to DeBoer and Moore (1982:146) the Shipibo-Conibo "are a populous people" consisting of villages with populations ranging from

small, nuclear families to hundreds of people. Although each village is independent of the other, each follows a similar "building block" (DeBoer and Moore 1982:148). Each village generally consists of individual compounds created by extended matrilocal families with husbands from other villages. The villages are normally located within minutes of one another, allowing for "inter-compound visiting" to be a common occurrence (DeBoer and Moore 1982:149). The inter-compound interactions range from small gatherings, to larger, more extravagant fiestas.

Each compound uses different rims designs in order to distinguish one from another. However, the social context in which the vessel was intended produces variations in the elaboration of rim designs. For instance, during larger events involving the mixture of compounds, there was evidence of "showing off" by each compound through elaborate and detailed rim designs. In contrast, ceramic designs were simpler and more uniform when vessels were used in interactions between individuals of the same compound. DeBoer and Moore (1982:152) concluded that "the greater the public exposure to the vessel category, the greater the diversity of its rim designs." In this example, individual groups within a larger population displayed their skill through increased time of vessel production, and identified themselves by manipulating the style of the visual message conveyed on the ceramic vessel.

2.4.4. Style and Components of Ceramic Design

The academic definition of style changes depending on the discipline. In the school of literature, style represents "a manner or mode of expression…and the distinction, originality and character of that expression" (Rice 187:245), or how someone writes. In anthropology, the definition of style revolves around the importance of "communication and information transfer" and can be recognized as "culturally structured" (Rice 1987:245). However, style is malleable, allowing for changes within the system in order to portray new information within an already

recognizable culture group. For example, in the English language, the same word can have multiple meanings, and that meaning can change through time. Style in material culture shares these characteristics. In ceramics, there may be several styles or style variants within one overarching style. For the purpose of this thesis, I will use Prudence Rice's (1987:245) definition of style, which focuses on the "surface embellishments of an object." Rice (1987:248) documented several different components that when combined create these surface embellishments, or designs. According to Rice, these components are:

- **Element** – Smallest self-contained component of a design that is manipulated or moved around as a single unit
- **Motif** – Fixed combinations of elements that are used to form larger components of the decoration
- **Configuration** – The way the decorative motifs are arranged to fill a spatial division, constituting a visual complex that is essentially recognized as "the design"
- **Basic Unit** – The conceptual category the artist uses to fill in the design space. The most immediately recognizable components of a design. Can be easily borrowed or imitated from artist to artist
- **Layout or Structure** – Where the decoration appears on the surface area and how the decoration is represented

Through recognizing the occurrence, manipulation, and reorganization of these attributes on the surface of ceramics, it may be possible to understand interactions among different groups within a similar cultural sphere. As Rice (1987:252) states: "[T]he similarity (or comparative frequencies) of design elements between groups will be proportional to the direction and intensity of social interaction between members of those groups." In other words, by recognizing where certain components are found in relation to a given culture group, lines of interaction may become apparent both spatially and temporally. For Swift Creek sites, complicated stamped

ceramics that demonstrate similar components that are reorganized, or modified, may be the product of group interactions represented visually through a style of decoration.

Understanding design components and their relation to culture groups is pertinent to the study of prehistoric Swift Creek interactions. The carved paddle designs created by the Swift Creek incorporate a minimal amount of elements in order to create “a virtually limitless number of design motifs” (Saunders 1998:156). Through recognizing where certain elements are re-created, adjusted in the layout, and modified can allow for archaeologists to ascertain potential pathways of communication and interaction in the prehistoric southeastern United States.

2.4.5. Finishing Techniques

Certain finishing techniques, in particular burnishing or hard tooling, are often found on vessels used in feasting or other ceremonial events (Blitz 1993; Saunders 2004). Although called a finishing technique, it is not necessarily the final process in vessel production. Finishing techniques are conducted after the vessel has been modeled into its final shape and “any irregularities have been eliminated” (Rice 1987:138). Additional decorations or surface modifications may occur after the finishing technique has been completed.

Surface-finishing techniques can be divided into two different methods: smoothing or texturing (Rice 1987:138). Smoothing is a continuum, from smoothing the surface with a soft cloth, which leaves a “finer more regular surface” (Rice 1987:138) surface, to hard-tooling and burnishing. In hard-tooling, a hard tool (usually a pebble) is repeatedly rubbed against the vessel surface(s), which evens out the surface of the vessel to a greater extent than smoothing. Hard-tooling also assists in cohering the coils used to create the vessel. According to Rice (1987:138), after hard-tooling the “final surface has a matte rather than a lustrous finish.” Burnishing is simply additional hard-tooling when the surface of the vessel is in a "leather-hard" state.

Rubbing causes the fine clay particles to align and become highly compacted. This compacted surface is lustrous, as well as waterproof. Hard-tooling and burnishing increase the time dedicated to the production of the vessel, but they create a more aesthetically pleasing appearance to the observing population while improving vessel function.

Texturing the vessel's surface can have both utilitarian and decorative purposes. Surfaces that have been roughened, brushed, or stamped, provide better grip. However, recent studies suggest that a textured surface may not necessarily provide an improved thermal response, as previously thought (Rice 1987, 1996). Texturing may occur over the entire surface, or may be restricted to one specific area, or zone, such as a band around the neck of a jar. In the case of zone or complete texturing, the intent appears to be more decorative than utilitarian (Rice 1987). Some texturing techniques, particularly stamping, also serve to compress coils, improving firing and use life of the vessel.

In sum, the choices prehistoric potters made when vessels were not "kneejerk response[s] to desired performance" (Rice 1996:140). All aspects of the vessel form and decoration were permeated with, and through, cultural, ideological, and relations to historical practices (Hegmon 1992; Rice 1996).

2.4.6. Domestic vs. Ceremonial

Researchers have observed different attributes for utilitarian ceramic vessels, those used for daily and commonly occurring activities, and ceremonial ceramic vessels, those used for special or more prestigious events such as feasts. Julia Hendon (2003) found that at Copán, plain Maya ceramics were associated with domestic preparation activities such as daily, small-scale cooking. In contrast, she (2003:218) associates the more "elaborately decorated" ceramic vessels

with food and drink consumption that would have occurred during feasting events held by, or that honored, the elite class.

Laura Junker (2001) found a similar trend in decorated versus plain ceramics in the assemblages from fifteenth- and sixteenth-century Philippine chiefdoms. Junker found that during a competitive feasting events, the sponsoring elites would use imported and locally made fine earthenwares. The finest of these earthenwares were elaborately decorated, porcelain serving vessels, such as Vietnamese Blue-on-White dishes (see Junker 2001), which was imported from mainland Asia. The elite's collection of special serving vessels was considered "a ritually and socially significant ceramic assemblage that was distinct from 'everyday' domestic wares" (Junker 2001:285). In this example, the status of the person increased exponentially with number and quality of their special vessels.

Prehistoric examples of more elaborately crafted materials associated with large-scale social events have been recognized along the Atlantic coast of Florida. Rebecca Saunders (2004) observed patterns between site function and ceramic finishing techniques at the Late Archaic (ca. 3500 cal B.P.) Rollins Shell Ring site; a site she posited was created for ceremonial use by aggregated populations. Through analysis of plain versus decorated ceramics and the finishing techniques used (hard tooling and burnishing) from Rollins and several smaller sites in the vicinity, Saunders (2004:61) recognized that "there is far less decorated pottery at sites in the immediate area of Rollins than at Rollins itself." The quantity and quality of designs in the Rollins ceramic assemblage, along with an almost complete lack of sooting on vessels, the prevalence of hard tooling and burnishing, and the presence of unique vessel forms from Rollins led Saunders to conclude that vessels from the Rollins site "functioned differently" (Saunders 2004:62) than those from other sites in the area. As in the Stallings Island example, the more

elaborately designed and crafted vessels from Rollins are suggestive of public feasting occurring within this coastal ring site.

These examples, differentiated geographically and temporally, help support the notion that elaborate and more precise designs may be associated with feasting. Compared to utilitarian cooking pots and serving vessels, elaborately decorated ceramics demonstrate an increase in time dedicated to the creation process. The increase in time could be associated with the potter's intent to create a vessel that would enhance the feasting event while allowing for group affiliation and recognition through stylistic differences used in the creation of the ceramic vessels.

2.5. Objects and Identity

During a large-scale feasting event, elaborately designed ceramics, along with other socially and culturally significant objects would be displayed and possibly gifted, or otherwise distributed to members of the attending population. These items would have possessed social and cultural implications and were not "passive signifiers of meaning" (Knappett et al. 2010:604). Each item would have been created and presented for specific purposes allowing for the representation of an idea, such as identity, to be understood through tangible objects. Ceramics and their association with the ritual consumption of food and feasting events (Knappett et al. 2010), allowed for vessels to be an excellent vehicle for the movement of resources along with extending social identities, including the deceased, through the movement of ceramics.

Placing a social or cultural identifier, e.g. design, on the exterior of the ceramic allows for the vessel to become a physical manifestation of the socially and culturally recognized people. In a mortuary context, the Swift Creek Complicated Stamped designs would visually "embody personhood in a corporeal way…disseminating the image, and therefore the person, across the

landscape and through time" (Wallis 2011:199). Through the physical act of trading the stamped ceramic, individuals would extend the memory of the deceased, ultimately "maintaining social relationships between lineages" (Wallis 2011:18), allowing for successful future interactions involving trade. Through the act of future trading with other groups, the stamped ceramics continued to "extend the bodies and identities" (Knappett et al. 2010:406) of the original social/cultural group through a social time and space (Knappett et al. 2010; Wallis 2011). In this example, the designed vessel symbolizes the individual who created or owned the vessel, and trade and personal interactions allows for the movement of that person and associated memories throughout a physical landscape.

2.6. Conclusion

Feasting has been seen as integral to the construction and continuation of culture, in part because "feasting revolves around the creation or maintenance of important social relationships" (Hayden 2001:30). Feelings of synesthesia created during feasts and associated activities assisted in engraining the events into the memories of the attendees. In order to create successful feasts in the future, hosts attempt to reproduce past feasts by maintaining certain traditional expectations and anticipated feasting activities. During large-scale feasts, social bonds are created and/or destroyed, hierarchies are validated or sustained, and ancestors are remembered allowing them to continue their journey through time and space.

Each feasting event and related activities creates a unique set of material remains. Understanding the material remains allows anthropologists to recognize which of these activities occurred, creating insight into the emic values associated with this culturally specific yet universal event.

Chapter 3 – Geography, Resources, and Culture of the Florida Panhandle Swift Creek

3.1. Geographic Location

The Byrd Hammock site (8WA30) is located approximately 20 miles (32 kilometers) south of Tallahassee, and just two miles north of the Gulf coast (Apalachee Bay), in Wakulla County, Florida (Figure 3.1). In 2015, the Archaeological Conservancy was able to purchase two acres of the Byrd Hammock site. On May 7, two sisters, the Reverend Lil Byrd Brown and Claudette Nolan Brown Helmick, donated the rest of the land containing the Byrd Hammock site. The entire site now lies within the St. Marks Wildlife Refuge.

The site is on a rise within a heavily forested hardwood hammock in the Gulf Coastal Lowlands (Bense 1969; Penton 1970). Other forested hammocks surrounding the site consist of pine, oak, and hickory trees, giving the area a rich assortment of floral and faunal resources. Byrd Hammock is also within a short distance of several different sources of fresh- and salt-water.

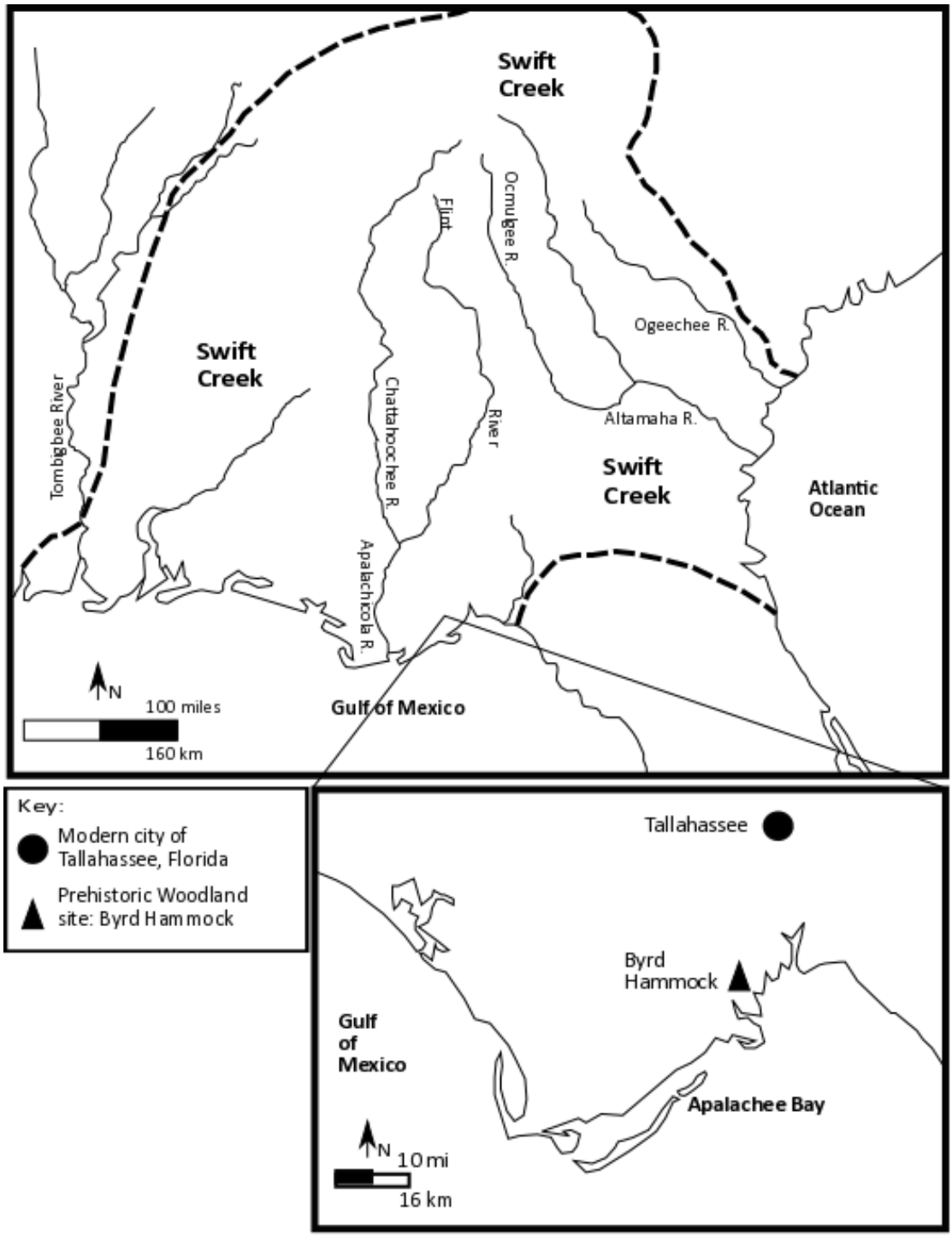


Figure 3.1 – Location of Byrd Hammock along the Florida panhandle in relation to Tallahassee.
Top Base Map: David G. Anderson et al. 2002, Figure 15.4
Bottom Base Map: GoogleEarth.com

3.2. Seasonal Changes

Although referenced as "The Sunshine State," Florida's yearly rainfall "is one of the highest in the nation" (Bense 1969:8). During the summer months (June – September), Florida receives much of the rain in the form of thundershowers, while during the winter months (November – March) the rain is "slow and drizzly," with large drops in temperature and occasional freezing (Bense 1969:8). In Wakulla County, the yearly average rainfall is reported as 55.7 inches (1,414.78 mm). The average high temperature is 90.8° F (32.7° C) and the average low is 42.5° (5.8° C**)** (Table 3.1).

Table 3.1 – Data provided by Wakulla Statistics in Wakulla County FL 2016. http://www.FactsWeb.org

Weather Statistics for Wakulla Florida		
Rainfall		55.7 in (1,414.8 mm)
Snowfall		0.1 in (2.5 mm)
Precipitation Days		99
Sunny days		231
Average July High Temperature		90.8° F (32.7° C)
Average January Low Temperature		42.5° F (5.8° C**)**

3.3. Byrd Hammock Site: Characteristics and Cultural Habitation

The Byrd Hammock site consists of two, adjacent, semicircular-to-horseshoe-shaped middens, each of which surrounds a relatively debris-free plaza area (Figure 3.2). A burial mound is associated with each ring midden. Artifact assemblages, radiocarbon dates, and ceramic decorative practices indicate that Byrd Hammock was host to two successive cultures: Early Swift Creek and Late Swift Creek/Weeden Island.

To the south is the less discernable and earlier Swift Creek component, Byrd Hammock South (BHS, dated to A.D. 350-600), where surface topography is vague, but systematic subsurface testing indicates a semi-circular earth midden (with some areas of shell) surrounding

a plaza area. The northern portion, Byrd Hammock North (BHN) possesses the larger, and topographically recognizable Late Swift Creek/Weeden Island ring component (approx. A.D. 600-900). At present it is unclear if an entirely new group occupied the later portion of the site, or there was a shift in residence and pottery styles by the original Early Swift Creek group. The earlier, BHS component of the site, is the subject of this thesis.

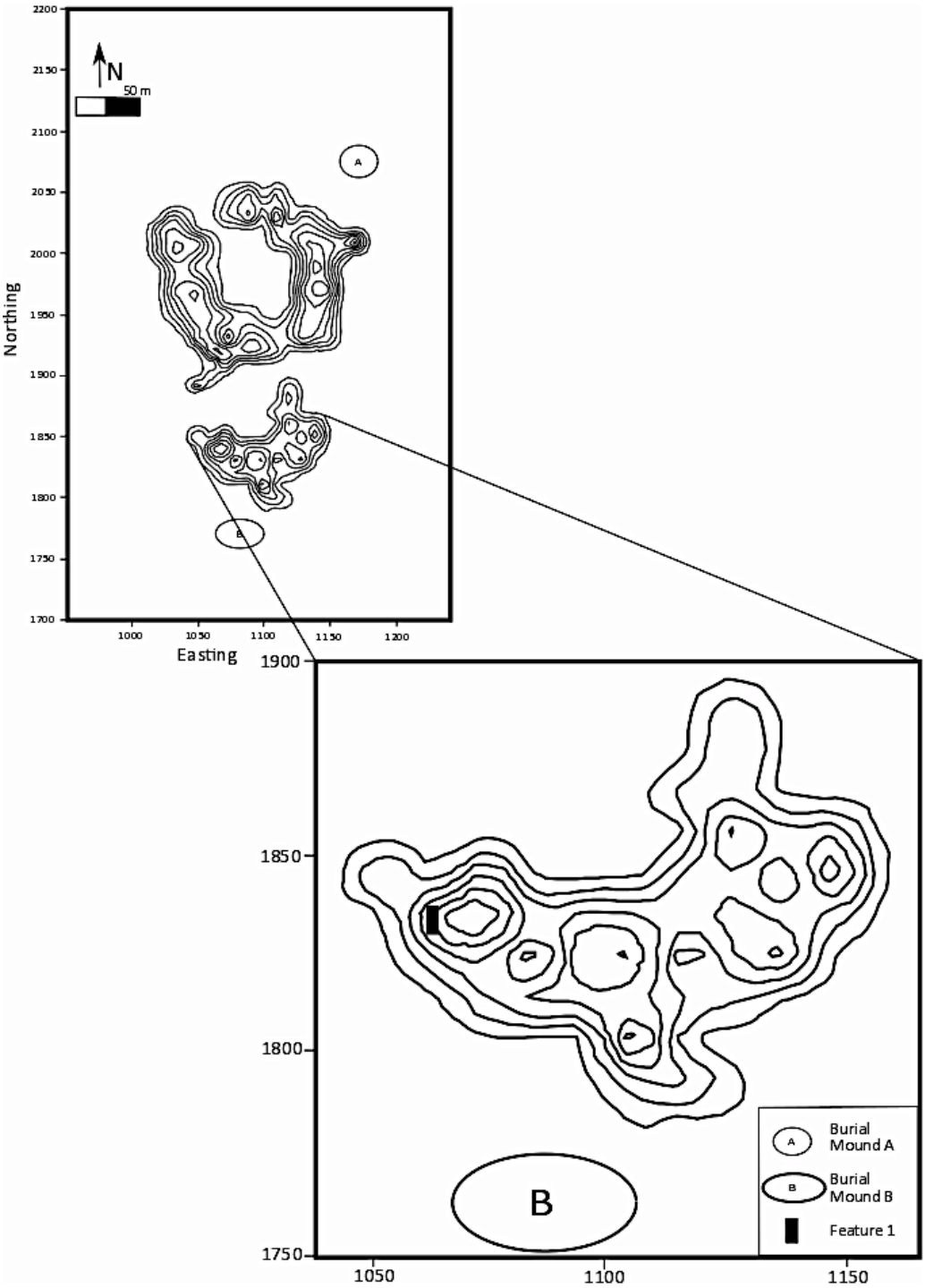


Figure 3.2 – Top: Byrd Hammock Site, map shows midden depth not topography
Bottom: Byrd Hammock South with Burial Mound B and Unit 3/4, which contains Feature 1
Base Map: National Park Service/Southeast Archaeological Center

3.4. The Swift Creek People

3.4.1. Introduction

The Swift Creek culture (ca. A.D. 100 – 800) has been identified throughout northwestern and northeastern Florida and the contiguous regions of Georgia, Alabama, and South Carolina by distinctive, complicated paddle stamped designs on the exterior of ceramic vessels (Figure 3.1). These intricate designs were carved onto wooden paddles and transferred to vessels by pressing the paddle on to the soft exterior of vessels before firing (Snow 1998; Wallis et al. 2010; Willey 1949). The wooden stamps were probably applied to many other media, like animal skins, mats, and clothing. The skill evident in paddle carving suggests that other wooden items also bore carved designs, including utensils, weapons, and wall posts (Williams and Elliot 1998).

Reasons behind the different combinations of curvilinear and rectilinear paddle designs are a topic of debate. Many archaeologists (Ashley 1998; Williams and Elliot 1998; Saunders 1998; Snow 1998; Snow and Stephenson 1998; Snow and Stoltman 1998; Wallis 2011) suggest these patterns were associated with particular social identities within a larger Swift Creek interaction sphere. Contact among different groups within the Swift Creek culture area has been documented through similar or the same paddle designs recovered from multiple Swift Creek sites. There are many instances of pots stamped with the same paddle at sites hundreds of kilometers distant from one another (Ashley and Wallis 2006). To date, the bulk of this "paddle matching" has been done in Georgia (Ashley and Wallis 2006; Broyles 1968; see also Snow 1998) and, more recently, northeastern Florida. Relatively little has been done concerning paddle matching along the northwestern Florida panhandle.

3.4.2. Subsistence and Settlement

The subsistence and settlement patterns of the Early Swift Creek are consistent with those of other cultures of the Southeastern Woodland period, relying more on hunting, fishing, and gathering (Anderson et al. 2002; Bense 2009). In the following section I will discuss the environmental conditions, resources available, settlement patterns, and ceremonial affiliations of the Early Swift Creek culture group.

3.4.3. Fresh- and Salt-Water Access

Individuals at the Byrd Hammock site would have had access to the multiple aquatic microenvironments created by Apalachee Bay, coastal marshes and estuaries, and fresh-water rivers, streams, and swamps. These environments would have provided plentiful water for consumption and abundant, easily procured subsistence resources.

A network of fresh-water sources feed into Apalachee Bay (Map 3.1). Fresh-water from the Ochlockonee, St. Marks, Ecofina, and Aucilla River (Encyclopaedia Britannica 2016) all debouche into Apalachee Bay (Figure 3.1) and mix with salty coastal water, reducing the salinity and creating brackish estuaries.

3.4.4. Fauna

The St. Marks Wildlife Refuge encompasses some 70,000 acres (28,328 hectares) (U.S. Fish & Wildlife Service 2010) including the northern portion of Apalachee Bay along the Florida panhandle Since Byrd Hammock has long been within or immediately adjacent to the Refuge, the fauna are assumed to "correspond closely to that during aboriginal occupation" (Bense 1969:12).

According to the U.S. Fish and Wildlife Service (2010), the St. Marks Wildlife Refuge has as many as 38 species of amphibian, 69 species of reptile, and 44 species of mammal, depending on the season. The Refuge also hosts 274 species of birds. During the months of November and December, the bird populations increase due to winter migration patterns (U.S. Fish & Wildlife Service 2007). The Wakulla River, fed by a fresh-water spring, is located approximately two miles (3.2 Km) east of the Byrd Hammock site and attracts a variety of the reported faunal species.

In the prehistoric American Southeast, deer was a staple food source (Hudson 1976). This would probably have been true for the prehistoric inhabitants of the Byrd Hammock site as well. According to the Florida Fish and Wildlife Conservation Commission (Garrison and Gedir 2006), the region that Byrd Hammock occupies is home to several different populations of sub-species of deer. Deer sub-species include the Virginia white-tailed deer (*Odocoileus virginianus virginianus*), Florida white-tailed deer (*Odocoileus virginianus siminolus*), and Florida Coastal white-tailed deer (*Odocoileus virginianus osceola*). Other mammals found along the coast include bobcat, bear, and a variety of smaller mammals such as raccoon and opossum.

The Florida Fish and Wildlife Conservation Commission (2016) list a wide variety of both salt- and fresh-water fish inhabiting the waters near the Byrd Hammock site. The fresh-water fish include but are not limited to several species of bass *(Micropterus spp.)* and catfish (*Ictalurus spp*.), redear (*Lepomis microlophus*) and spotted sunfish (*Lepomis punctatus*), and the Florida gar (*Lepisosteus platyrhincus*). Salt-water fish include several species of drum (*Aplodinotus spp.*), flounder (*Paralichthys albiguttata*) grouper (*Mycteroperca spp*.), sheepshead (*Archosargus probatocephalus*), Seatrout (*Cynoscion nebulosus*), crevalle jack (*Caranx hippos*),

and several species of shark. A number of these species, such as shark, are seen more often during warmer months.

Florida is home to a large number of edible species of terrestrial and marine reptiles, such as turtles, alligators, and snakes. Due to their cold-blooded nature, some of these faunal resources would have been more frequently observed during the day, and mostly in warmer months. For instance, alligators spend most of the cooler, winter months dormant in constructed burrows near water. In the warmer summer months, many terrestrial and freshwater turtles are most active during the early morning and after rain, hiding in dark, cool areas when the heat index reaches its apex. However, during the spring and fall turtles are active throughout the day.

Certain coastal marine turtles spend most or their lives in the water, eating and resting throughout the day, only venturing onto dry land to lay their eggs. For instance, the Alligator Snapping turtle (*Macrochelys temminckii*), found in river systems, lakes, and swamps in the Southeast, spends most of days submerged under water and are only seen when they emerge for air, or at night when they are most active (U.S. Fish & Wildlife Services Service 2016).

According to Daniel Penton (1970:21), brackish water environments would have provided many edible species of shellfish year round, including coastal oysters (*Crassostrea virginica*), scallops (*Argopecten irradians*), and varieties of conch (e.g., *Melongena corona*). The small, edible clams known as coquina (*Donax variabilis*) are found in high abundance in the sandy beaches (Bense 1969). Also, several varieties of crab including Blue (*Callinectes sapidus*) and Stone (*Menippe mercenaria*) crabs, and edible shrimp can be collected from estuaries and the surrounding marine environments. Assuming the geographic conditions and microenvironments along the Florida coastal panhandle were as productive during the

Southeastern Woodland period as they are today, the Early Swift Creek would have had a wide variety of faunal resources at their disposal.

3.4.5. Middens and Mounds

Middens associated with the Swift Creek on the Florida panhandle are generally in the shape of a ring, crescent, or horseshoe. The middens commonly surround a central plaza, which either lacks or contains minimal evidence of midden debris (Russo et al. 2014). Gordon Willey (1949:403) explained that ring middens are the result from "old village fortifications or … had only a ceremonial significance." Currently, the exact reason for the creation of these ring middens is unclear.

Bense (2009:159) characterized Swift Creek ring midden sites as large "base camps." Typically, these base camps were located along bays, stream banks, and the Gulf Shore. Along with base camps, temporary satellite camps were created near waterways such as streams and rivers (Bense 2009; Willey 1949). Stephenson and colleagues (2002:346) suggest the middens that surround the central plaza were "formed through the disposal of refuse in proximity to individual structures," along with debris from "plaza-related activities." Despite the presence of burial mounds, ring midden sites have been categorized as "de facto habitation sites in normative models" (Russo et al. 2014:126).

However, recent studies conducted at the Harrison Ring and Hare Hammock site complex, in northwestern Florida indicate some ring middens were more than base camps. The presence of mica, ochre, and ceramic effigies found at the ring middens, suggest spatial use "other than those related strictly to quotidian shelter, consumption, and refuse disposal" (Russo et al. 2014:129). According to Mike Russo and colleagues (2014:130), exotic materials such as mica, ochre, and ceramic effigies, "have no apparent utilitarian purposes, and their presence

implies some aspect of ritual" activity. Also, large cooking features and pit middens (2 to 8 m in length) found at the Bernath site (8SR986), a ring midden site with burials in the plaza, may indicate "consumption activities [occurred] on a scale far greater than one would expect for a sing family" (Russo et al. 2014:127). Russo and colleagues (2014:129) suggest the presence of exotic materials, large midden deposits, and clean plazas with surrounding ring middens, "may have served as arenas for…rituals" including "mound burials, where these [exotic] materials are also found."

Many of these sites are associated with a burial mound. Some mounds provide evidence of continuous use, while other mounds indicate only single use. Continuous use suggests that well-established extended families or lineage groups either lived in the area surrounding the burial mound or, if some lineage members lived further away, they returned episodically to inter their deceased members (Ashley 1998; Bense 2009). While clearly connected in time and space, archaeologists have designated single-use mounds as the Yent ceremonial complex (100 B.C.-A.D. 100) and multiple-use mounds as the Green Point ceremonial complex (A.D. 100-300) (Milanich et al. 1997; Sears 1962).

Bense (2009:161) describes Yent mounds as "conical or dome-shaped" that were constructed by adding new burials to the surface of the previous mound, then covering the new burials with earth and other materials. Green Point mounds were smaller and built for a single a burial event and not reused. In both cases, Yent-Green Point ceremonial centers consisted of "[m]ound and mound centers" that were constructed by Swift Creek peoples who "actively [participated] in the Hopewellian ceremonial complex" (Bense 2009:159). Artifacts placed with the deceased include mica cutouts, mandibles of predators such as puma and wolf, pottery, and other items that have been associated with ceremonial and ritual activities (Bense 2009; Penton

1970; Pluckhahn 2003). The presence of a burial mound and the occurrence of trade items characteristic of Hopewell interactions clearly indicate that the Early Swift Creek peoples at Byrd Hammock were tied into the Hopewell Interaction Sphere.

3.5. Regional Variations of Hopewell Ideologies

Although not all Yent-Green burial mounds contain the same materials (Bense 2009; Sears 1962) all show some aspect of Hopewell characteristics. The spread of Hopewellian practices involved increased inter-group interactions, which "facilitated the evolution of sociopolitical organization from the extended family household to the segmented lineage or tribe" (Bense 2009:162). The increased interactions created extensive trade networks connecting the coastal region to the interior North America. The networks allowed for the dispersal of ritual and non-utilitarian items, and enabled the transfer of ideologies and practices between different culture groups. Certain ideologies were modified and reinterpreted in order to suit the specific cultural needs of different Southeastern groups (Bense 2009; Pluckhahn 2003), as evidenced from artifacts collected from mounds and ring middens suggesting ceremonial and ritual activity.

3.6. Conclusion

The Swift Creek people of the coastal panhandle of Florida utilized an area that was rich in resources at a time when trade and ceremonial interaction increased as a result of the Hopewell Interaction Sphere. The Byrd Hammock site is located within an area that contains different microenvironments, which provided excellent conditions for hunting, gathering and abundant sources of freshwater. The ring midden and associated burial mound at the Byrd Hammock South site links the Swift Creek people to the Hopewell Interaction Sphere, a cultural phenomenon associated with intensified inter-group interactions. Through these intensified

interactions, exotic materials and ideologies were traded, transferred, and modified in order to accommodate cultural specific requirements.

Chapter 4 – Research at Byrd Hammock: Methods of Data Collection

4.1. 1918 – Present

Clarence B. Moore was the first professional archaeologist to conduct excavations at Byrd Hammock, in 1918 (Moore 1918; Russo 2015). The site was named after the landowner at the time, Robert Byrd. However, Moore misspelled the landowner's last name calling the site Bird Hammock instead of Byrd Hammock. This was corrected and changed to Byrd after the acquisition of the site by the St. Marks Refuge in 2014 (Russo 2015).

Moore encountered 15 burials in both Mound A (associated with BHN) and Mound B (associated with BHS). However, due to the poor condition of the skeletal remains, collection was impossible. Moore and his team focused on Mound A at BHN, reportedly removing the entire eastern portion of the mound during excavations (Moore 1918). The artifacts collected were mainly ceramic sherds that he interpreted to be the remains of larger vessels. Along with plain or undecorated sherds, Moore identified exterior decoration techniques such as small check stamped, a variety of complicated stamping, and "finely executed incised decoration" (Moore 1918:562). A single deposit located away from burials produced sheet mica and quartz (Moore 1918).

Moore's excavation at BHS consisted of a 75-foot (22.8 m) trench beginning of Mound B. This trench cut through the surrounding midden soils and intruded 21-feet (6.4 m) into the mound itself. Artifacts recorded from the midden included both plain and decorated ceramic sherds. Moore identified "flint lancepoints," fragmented and complete "arrowheads (dart points)" (Moore 1918:563), knives, sandstone hones, and one red and white slipped ceramic sherd associated with the burials in Mound B. More suggests that artifacts such as quartz pebbles and ferruginous sandstone, were originally deposited with burials and had become disassociated.

Away from the mound, Moore identified multiple midden deposits across the entire Byrd Hammock site, although no ring midden was recognized. Instead, Moore explained that the "humps, rises, and low ridges" between the mounds were "places of abode" (Moore 1918:564) containing pottery and various faunal remains.

Gordon R. Willey (1949) re-examined Byrd Hammock in 1940. Willey did not conduct any excavations of his own, but was able to relocate Moore's previous mound excavations. He assigned the mounds separate site designations: Mound A in BHN became 8WA9 and Mound B in BHS became 8WA10. During Willey's visit to 8Wa10, he collected a small number of ceramic sherds (n = 41) from the "fresh excavations" (1949:295) in and around Mound B. Willey classified the sherds as unclassified plain (n = 27), Weeden Island Plain (n = 6), Swift Creek Complicated Stamped (n = 7), and Franklin Plain (n = 1; associated with the Santa Rosa-Swift Creek culture). Based on his ceramic collection and Moore's previous work, Willey concluded that both Mound B and Mound A dated to the Weeden Island I period (A.D. 250-700).

Glenn T. Allen (1954) was the first to recognize that BHN was a ring midden surrounding a central plaza, which he described as a village complex (Allen 1954:63; Russo 2015). Allen placed four five-by-five foot test pits in "strategic portions of the circular midden" within BHN (Allen 1954:63). Test pits A and B were located on the southwestern portion of the midden and pits C and D were directly across from A and B on the northeastern section. Allen recognized the presence of Swift Creek Complicated Stamped ceramics throughout both the lower and upper levels of his excavations. However, because of previous ceramic chronologies suggested by W.H. Sears (Sears 1956; see also Pluckhahn 2003), Allen misinterpreted the stratigraphic evidence and concluded that the presence of Swift Creek Complicated Stamped pottery indicated that the ring midden and Mound A were a Weeden Island II occupation, or a

mature Mississippian culture as understood at the time. These temporal assignments are now known to be in error, but Allen's identification of the ring midden at Byrd Hammock North has assisted current hypotheses in site function and social practices (Russo 2015).

The Weeden Island classifications for both the northern and southern components of Byrd Hammock persisted during the excavations in 1959 by avocational archaeologist R. B. Holliman (Holliman 1968; Russo 2015). Holliman placed two large trenches (45 sq. m), which joined to form an L-shape, along the western part of Mound B, an area not previously excavated by Moore. During these excavations, Swift Creek pottery with characteristics that were then known to be early (e.g., ticked or scalloped rims) were collected along with cut sheets of mica and projectile points. As with previous analyses, the evidence was misinterpreted and Willey's original classification of Mound B as a Weeden Island culture earthwork was maintained (Holliman 1968; Penton 1970).

Judith Bense (1969) finally challenged earlier assumptions that Mound B was built during a Weeden Island occupation and provided the first topographic map for Byrd Hammock (Bense 1968; Russo 2015). Based on her excavations in the northern ring midden at Byrd Hammock, Bense noted that Late Swift Creek Complicated Stamped ceramics consistently occurred below Weeden Island series ceramics. Bense concluded that the northern midden was intentionally created during a Late Swift Creek occupation and that Swift Creek Complicated Stamping was "replaced gradually by…incising and punctuating techniques" (Bense 1969:63). Bense proposed that the southern Mound B was not the product of a Late Weeden Island culture, but one created during an Early Swift Creek occupation.

Daniel Penton re-surveyed Byrd Hammock in 1970, creating an updated topographic map that corrected an error in Bense's map (Penton 1970:2). Penton's excavations consisted of nine

units (18.5 sq. m) in BHS. Based on the ceramic assemblage, Penton concluded that the midden at BHS was exclusively Early Swift Creek and not contemporaneous with the northern midden previously excavated by Bense (Penton 1970). Penton also argued that the northern circular midden was not intentionally created, an idea proposed by both Allen and Bense (Penton 1970:11), but was the result of refuse from village habitation. However, Penton did acknowledge that midden accumulation from BHS could be the result of activities other than domestic occupation and that "an alternate explanation should be presented" (1970:53), such as dump areas created over a short period of time. Artifacts collected by Penton suggested participation in the Hopewell Interaction Sphere. The artifacts included ochre, sheet mica, graphite, and polished animal jaws. Each of these items had been found in previously excavated Hopewell-related sites, and have been identified as ritual paraphernalia (Penton 1970).

Since Penton's thesis work, little has been done with the collections from Byrd Hammock. Two faunal analyses have been conducted: one on Penton's faunal collection (Byrd 1994) and another using Bense's faunal material (Nanfro 2004). Before the field school excavations by the Louisiana State University in 2015, archaeological fieldwork has been limited to small-scale surveys and testing by the National Park Service in 2014 to determine the northern boundaries of the Byrd Hammock site. Besides the three previously mentioned projects, no other professional excavations or artifact analysis have been completed for the site (Russo 2015).

4.2. 2015 Archaeological Field Methods and Data Collecting

4.2.1. Excavations

Excavations during the 2015 Louisiana State University field school were conducted in association with the National Park Service Southeastern Archaeological Center (NPS-SEAC) based in Tallahassee, Florida. LSU students conducted fieldwork on the Swift Creek component

in the southern portion of Byrd Hammock (BHS). At the same time, students from Florida State University participated in excavations at BHN, the designated Weeden Island component of the site.

Before the LSU students arrived, SEAC had completed 121 shovel test pits (STPs) at 20-meter intervals at BHS. During the LSU field school, students filled in the grid so that STPs were excavated at 10-meter intervals. The closer interval testing was done to gain a better understanding of site variability; results were used to determine the placement of larger units.

Once the STPs at 10-m intervals were completed, area excavations were initiated. Units were 1-x-2 m, but were dug with 1m horizontal controls. Thus, the first 1-x-2 m was comprised of Units 1 and 2; the second, Units 3 and 4; etc. A total of five 1-x-2 m units were excavated. A local datum placed at the highest corner of each of the 1-x-2 units served as the unit's northern and eastern coordinates.

Units were dug horizontally in 10 cm arbitrary levels with soils sifted through $1/4^{th}$ inch (8 mm) screens. All artifacts, including animal bone, were bagged except for shell per NPS standards. All shell was weighed, dominant species noted, and then discarded on the site. Artifacts were bagged by level provenience (Zone, Area, or Feature) and each provenience was given a Field Specimen (FS) number for reference. At the base of each 10 cm level, the unit floor was troweled clean and, unless the floor was completely homogeneous, the floor was photographed, and a map was drawn displaying any color or texture changes, whether natural or cultural. A level record form was completed using NPS – provided documentation. Excavation continued until sterile sand was encountered, although feature excavations often required additional depth. Once all features and area bases were recorded, the excavation was closed, all

four walls were cleaned and photographed, and the profiles were drawn. These maps displayed changes in soil color using on the Munsell color system, texture, and inclusions.

The BHS artifact collections from the field school were then relocated to the LSU Museum of Natural Science archaeology (LSUMNS) lab. Since June of 2015, student workers, undergraduate and graduate students, and I have cleaned, analyzed, and prepared artifacts for permanent curation in a federal curation facility.

4.3. Ceramic Analysis

4.3.1. Identifying Vessel Anatomy and Exterior Design Using Ceramic Sherds

Ceramics were categorized as plain or decorated sherdlets, body sherds, shoulders, rims, and bases. Ceramics were then classified using the surface decoration, or lack thereof. Evidence of sooting was recorded for each ceramic regardless of category. Unique and/or rare inclusions, such as large quartzite, mica, or unknown white material, were recorded when observed in the paste or surfaces of the sherds. Finishing techniques on ceramics such as hard-tooling and burnishing also were recorded.

Sherdlets were any sherd that was less than 1 inch in overall size. These ceramics categorized as either decorated or plain. Unless the sherdlet was a rim fragment, no attempt was made to identify decoration technique, vessel form, or part of vessel due to the small size of the sherds. The number of rim fragments were noted and included in the sherdlet collection.

Surface decoration was catalogued for body, shoulder, and rim sherds. Decoration was recorded using the LSUMNS designated Master Type identification catalogue: Plain, Check Stamped, Cord Marked, Curvilinear Paddle Stamped, Curvilinear and Check Stamped, Curvilinear and Rectangular Stamped, Zoned Complicated Stamped, Diamond Check Stamped, Diamond Dot Stamped, Incised, Punctated, Rectilinear Paddle Stamped, Rocker Stamped,

Surface Roughened, stamp unidentifiable, and unidentifiable surface. If possible, more detail was assigned using the LSUMNS designated Type Variety catalogue: Bold Incised Stamped, Deptford Check Stamped, Deptford Simple Stamped, Deptford Bold Check Stamped, Santa Rosa Swift Creek Punctated, Swift Creek Complicated Stamped, Crooked River Complicated Stamped, St. Andrews Complicated Stamped, Panola Check Stamped, Weeden Island Incised, Weeden Island Plain, Carrabelle Punctated, Franklin Plain, Gulf Check Stamped, and West Florida Cord Marked,

More information was recorded for rims. A macroscopic paste analysis was done for each rim by removing a small fragment of the rim sherd below and parallel to the lip, to identify the size of the granules in the paste. In order to determine size of inclusions, I referenced the Sand-gauge© by WF. McCollough.

Distinct elaborations to the lip – i.e. rolled, scalloped, ticked, etc. – were identified. Also, the highest median color of the interior and exterior was recorded using the Munsell Soil Color Chart. Where possible, vessel form was identified. Proper orientation of the rim was determined by placing the lip onto a flat surface and rotating until at least three points along the edge of the lip aligned horizontally on the surface (see Rice 1987:222). Categories of vessel form included bowl, jar, bowl/jar undecided, outslanting bowl, restricted neck bowl, restricted neck jar, and unidentifiable form. If possible, the vessel diameter was determined using a chart of concentric circles of known diameter. However, few rims were large enough to provide diameters.

Bases were catalogued as flattened, curved, square, rounded, or by the presence of vestigial podal supports.

4.3.2. Design Analysis

The design analysis was completed in several stages. First, I created a print of the complicated stamped design on all sherds large enough to contain recognizable design elements (see chapter 2 for design terminology). Sherds with illegible designs or that were too small to have a recognizable elements (generally less than one inch in size) were removed from the comparison process. The print was created using a semi-soft lithographer's brayer, one - ply bathroom tissue, and ordinary water-based block printing ink. Each sherd was covered in plastic wrap to prevent contamination of the sherd and then seated in a plasticine ring. The bathroom tissue was draped over the sherd and held taut with weights; the plasticine ring held the sherd steady as the inked brayer was rolled over the sherd and the design was transferred to the tissue. The advantage of the inked design is that all color and other background "noise" are removed while carving characteristics are retained.

After creating the ink print, I photographed the inked design and transferred the digital picture to my personal computer, a 2012 MacBook©. I then moved the picture to a Word document, where I enhanced the ink print using color and sharpening filters. I placed the enhanced picture next to the unaltered picture of the inked print. This process allowed for comparison of the sharpened, brighter design to the distinct black outline of the same design, (Figure 4.1). This process was done for all of the excavated units (analyzed as a single provenience) at BHS, Feature 1, BHS Feature 12, and the sherd collection recovered from the backfill in Penton's Unit B (which produced abundant, large stamped sherds). In total, 420 prints were created (Table 4.1).

Figure 4.1 – Left to Right: Original ceramic used to create ink print; print created by brayer and ink; digital picture; digitally enhanced design.

Table 4.1 – Number of Swift Creek Complicated Stamped pottery prints per Unit/Site

Site	Feature/Excavated Units	Prints
Harrison Ring/Bakers Mound	Entire Site	88
Byrd Hammock South	Feature 1 (Excavated Unit 3 and 4)	207
Byrd Hammock South	Excavated Unit 1 and 2	21
Byrd Hammock South	Excavated Unit 5 and 6	18
Byrd Hammock South	Excavated Unit 9 and 10	23
Byrd Hammock South	Feature 12	63
Byrd Hammock South	Penton/Looter	88
Total		508

The second stage of analysis consisted of comparing all individual paddle designs and identifying common elements, designs, and/or paddle matches. The BHS copies were then compared to paddle designs previously collected from two other sites along the Florida panhandle, Harrison Ring (8BY1359) and Bakers Mound Ring Midden (8BY29), both on

Tyndall Air Force Base (Figure 4.6). Similar recording of designs had already been completed for those sites. Through this process, several reoccurring designs were recognized. However, for the purpose of this thesis, only four of the reoccurring designs were used (Figure 4.2 – Figure 4.5). These four designs were chosen based on design frequency at BHS and other sites, clarity, and distinct design elements.

Figure 4.2 – Concentric circles with radiating lines

Figure 4.3 – Central 'S' shape. Yellow circle showing 'S'

Figure 4.4 – Diamond Dot or Panola Check Stamp

Figure 4.5 – Connected "Double Ridge" with diamond shape

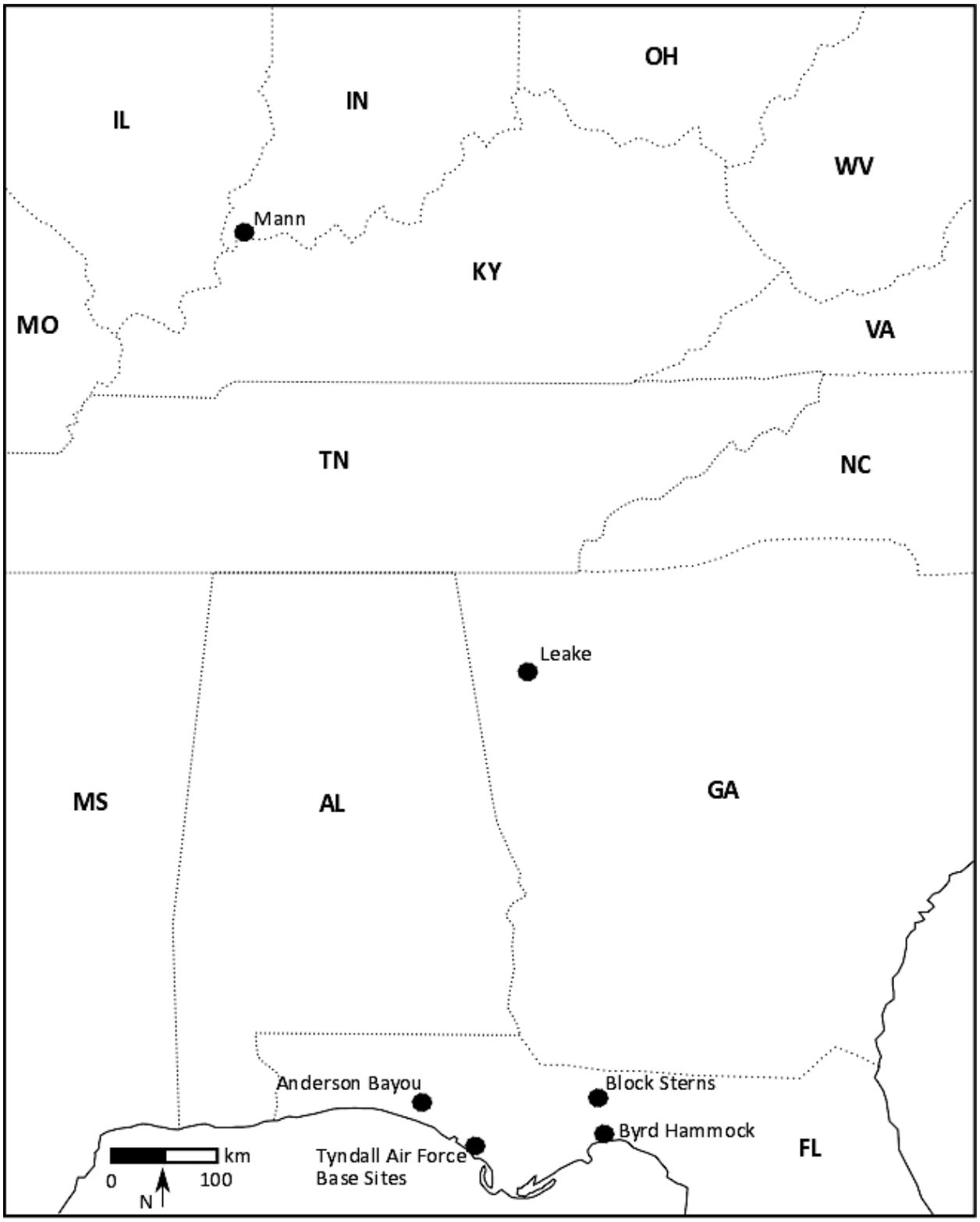


Figure 4.6 – Map of sites discussed throughout thesis
Base map: Keith 2010, Figure 521

The final stage focused on determining design similarities through measurements and/or visual comparisons of the four chosen designs. Measurements were taken of the lands and grooves: width, length, and depth of each recognizable motif, element, similar configurations, repeated basic units, possible core designs (see Smith and Knight 2014), and flaws or distinct identifiers found in the paddle print (Figure 4.7). This was done using a Mitutoyo© brand digital caliper. Depending on the design, three different points of each element or motif were chosen at random. For example three separate measurements would be collected from each land, groove, or the overall diameter for one circle. This would be repeated for other components of the design. The measurements from the three points would then be added and divided by three in order to get an average measurement for each element of the design. These averages would be compared to other measurements from different ceramics sherds within the same design grouping.

In many cases, determining the elements and designs on the sherds was difficult. Many sherds were eroded, over-stamped, and/or broken. However, because the ink prints depict the more prominent lands and grooves, the prints often provided better visual representations of the designs. To determine whether sherds were stamped with the same paddle, the prints of similar designs were placed on top of one another over a large table light. Aligning the translucent prints allowed for recognition of design similarities based on the size and shape of lands and grooves, and the configurations of elements and motifs. Critical to this was the use of paddle flaws or specific identifiers unique to a carved paddle (Figure 4.7).

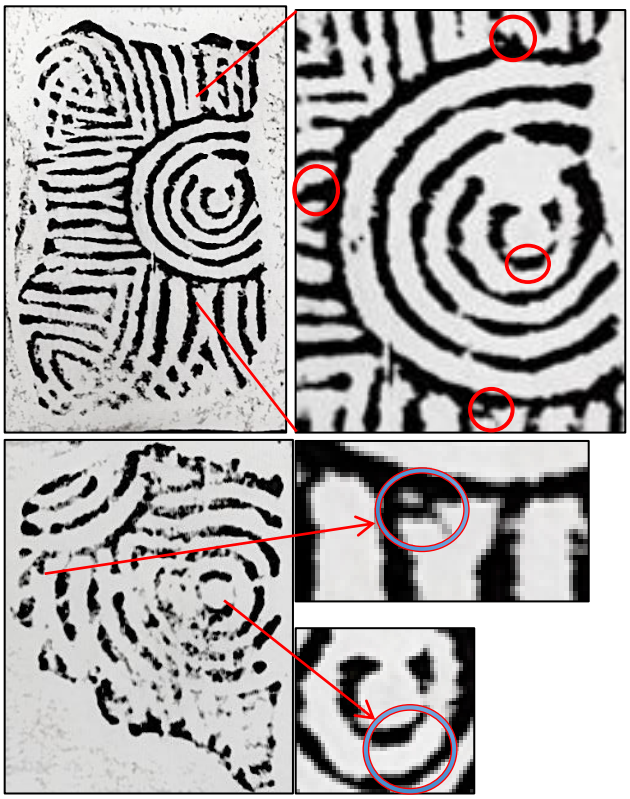


Figure 4.7 – Example of paddle identifiers: Red circles indicate paddle-identifying marks Top: Feature 1 (Excavated units 3&4), Level 10. Bottom: Feature 12 (Excavated units 7&8), Level 3

4.4. Faunal Analysis

A preliminary faunal analysis was conducted for every level of F1. The faunal collection for Level 7 was the focus of an undergraduate thesis conducted by Jacob Mendoza and was therefore analyzed more thoroughly (Mendoza 2016). Identification of faunal remains for F1 was conducted using Stanley J. Olsen's (1964) *Mammal Remains from Archaeological Sites*, Olsen's (1968) *Fish Amphibian and Reptile Remains from Archaeological Sites*, and the LSU Museum Natural Science Zooarchaeological Comparative Collection. James Delahoussaye, a zooarchaeologist with University of Louisiana at Lafayette, was a consultant on this study. For the preliminary analysis, bone was categorized, minimally, to Class, and counted and weighed. If possible, bone was classified further, and in some instances to genus and species. The condition

and distinct attributes of the faunal remains such as burning, calcification, cuts, grooves, drilled holes, and articulation were recorded throughout the analysis of F1.

Chapter 5 – Description and Site Report of Excavated Levels of Feature 1

5.1. Introduction

Excavations at the BHS site indicate different areas of the site were used for distinct purposes (Figure 5.1). Units 1 and 2 showed evidence of structures, with over 10 postholes exposed, and produced ceramic sherds (n = 1,025; wt. = 3497.5 g) and lithics (n = 270; wt. = 372.6 g). On the other hand, Units 9 and 10 contained large amounts of stone debitage (n = 871; wt. = 414.8 g) with a lower quantity of ceramics (n = 742; wt. = 2,791 g) and no postholes, suggesting the area was possibly used for lithic tool production. Units 5 and 6 produced earth ovens (35 cm x 53 cm x 20 cm below point of origin) with charred bases and shell inclusions, suggesting small scale cooking, while Units 7 and 8 contained a large, deep earth oven (24 cm x 53 cm x 54 cm below point of origin) with a series of fills and abundant limestone fragments suggesting continuous, large scale cooking. In Units 3 and 4, another distinct activity area was uncovered as indicated by Feature 1 (F1). F1 was initially identified below a stratum of earth midden at 35 cmbs. The feature was well-defined at the base of Level 4 (40 cmbs) with the recorded dimensions of 78 cm by 65 cm, with a final depth of approximately 136 cm below point of origin. F1 represents what may be the remains of a large-scale feasting event and/or events. Given the proximity of F1 to Burial Mound B (Figure 5.1), the feasting may have been done in conjunction with mortuary rituals.

In this chapter, I describe the excavation of F1 and provide information on feature fills and artifacts. Comparative tables, maps, and graphs displaying the overall depositional patters associated with F1 will be presented in future chapters.

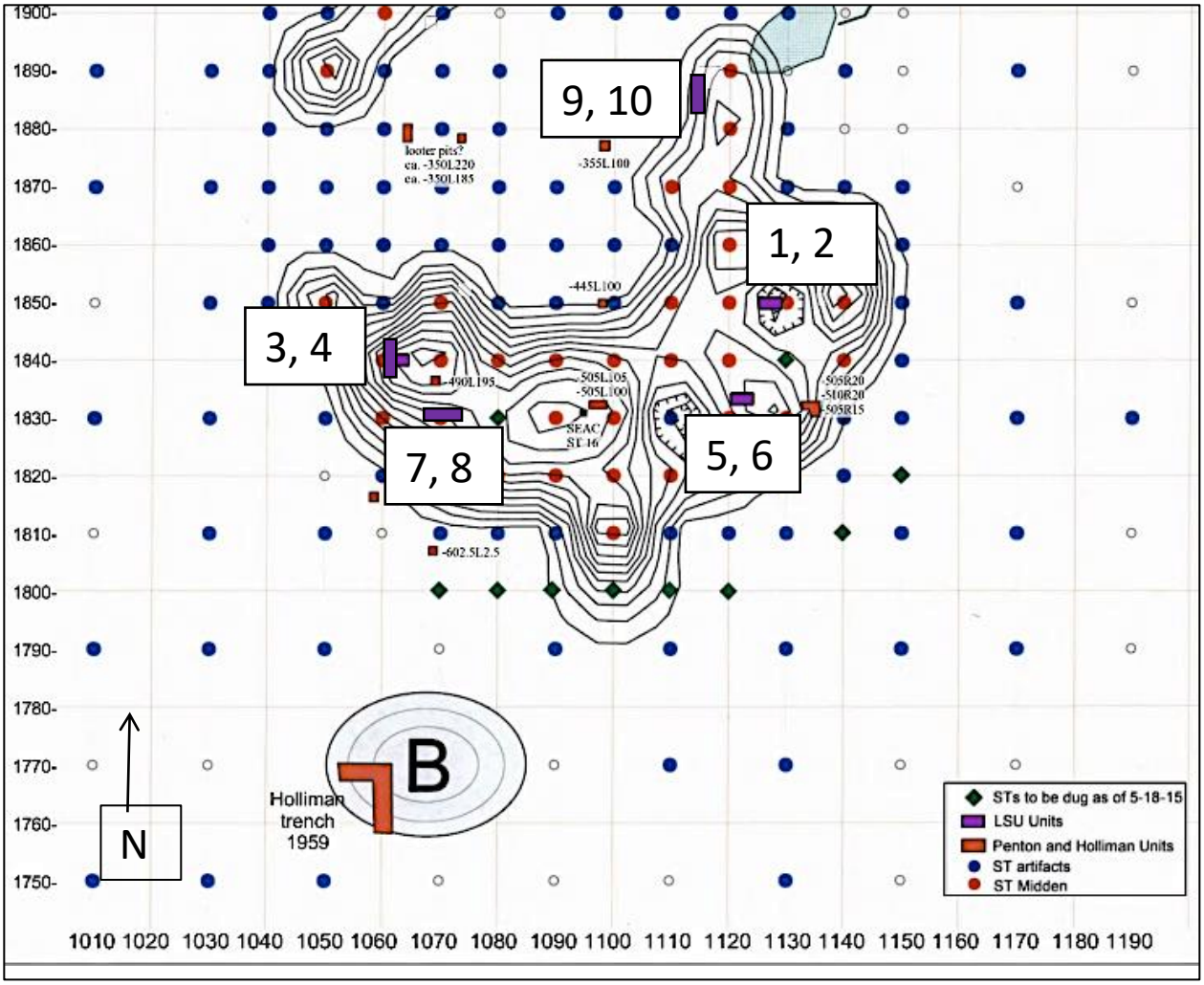


Figure 5.1 – Excavated units during the Louisiana State University 2015 Field School. Map shows earth/shell midden depth, not topography.
Base map credit: National Park Service/Southeast Archaeological Center

5.2. Feature 1: Artifacts and Dimensions

With F1 present in both excavated units 3 and 4, these two units were excavated, photographed, and mapped together. For simplicity's sake, I will refer to Units 3 and 4 as "the unit." Unless specified, all levels were excavated using flat shovels and trowels, and were screened through 1/4th inch screens.

F1 was a deep pit or trench (approx. 156 cm, 1.56 m) filled with earth and shell midden and containing abundant ceramics (n = 1,856; wt. = 87,982 g), shellfish (70.4 Liters; wt. = 44,475.6 g), vertebrate faunal remains (n = 45,455; wt. = 16,960.3 g), lithics (n = 1,135; wt. = 3,245.7 g), and modified shell (n = 19; wt. = 180.8 g) and bone (n = 30; wt. = 37.5 g) (Appendix 1, Table 5.1 – Table 5.4).

The feature was recognized in two stages during excavations of Level 4 conducted in the unit. First the transition from earth midden to an amorphous area of darker sands was observed at 35 cm below surface (cmbs). These were mapped, and F1 was designated (Figure 5.3 and Figure 5.4). By 40 cmbs, it was clear that the area was a cultural feature with clear definition of darker sand colors in a roughly circular pattern, more humic soils, and an increase in artifacts.

In Levels 4 through 7, F1 occupied all of Unit 4 and the majority of Unit 3. The linear quality of F1 was first observed at Level 7, became definitive at Level 8, and continued until the termination of F1. Throughout the excavation of Levels 7-13, F1 continued to occupy the entirety of Unit 4, but receded to the south in Unit 3. F1 maintained the north-to-south linear pattern throughout the later levels of the excavations while reducing in width. Ultimately, the feature had a rounded base at approximately 150 cmbs (Figures 5.13 – Figure 5.15). Based on soil cores taken along the N 1840 transect, the feature spanned between 9 and 11 meters from east to west.

5.3. Feature 1: Units 3 (N 1841, E 1062) and Unit 4 (N 1840, E 1062)

The unit was located on the southern portion of a sloped area along the western edge of the semi-circular midden (Figure 5.2). Placement of the unit was based on the high amount of bone, shell, and ceramics collected from a nearby STP (N 1840, E 1060). The datum used for the unit's excavation was located on the northeast corner of Unit 3 (N 1841, E 1062).

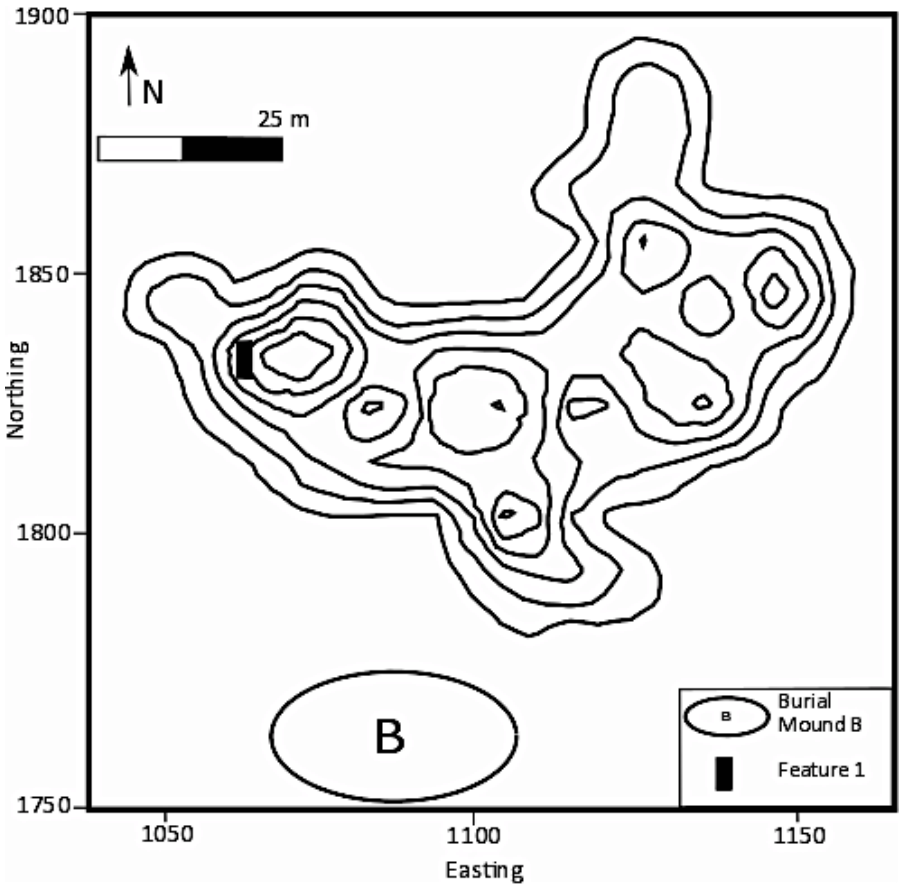


Figure 5.2 – Byrd Hammock South with Burial Mound B. Feature 1 located along western edge of midden. Map based on earth/shell midden depth, not topography. Base map credit National Park Service/Southeast Archaeological Center

5.3.1. Level 1: 0 – 10 cm below surface

The sand in Level 1 of the unit was designated as Zone A. After the thin humic layer (grasses and root mat) was removed, fine, gray sand (10YR 4/1, dark gray) was found consistently throughout the level. Materials collected from Level 1 include ceramics, both plain and complicated stamped, lithic debitage, and low amounts of bone and shellfish remains, mainly oyster (*Crassotrea virginica*) (Appendix 1, Tables 5.1 – 5.4).

5.3.2. Level 2: 10 – 20 cm below surface

Zone A continued throughout Level 2 as a 10YR 4/1, dark gray, fine sand with root intrusions. Sand color began to darken slightly near the northern wall. However, the change in color was not enough to designate an area or different zone. Artifacts increased in quantity but were similar to those recovered in Level 1.

5.3.3. Level 3: 20 – 30 cm below surface

During Level 3 excavations, Zone A became darker sands (10YR 3/1, very dark gray). The matrix continued to be fine sand, although with a higher organic content, more wet sands, more artifacts, faunal remains, and charcoal were present. Level 3 produced the first quartz crystal fragments in the unit (n = 3; wt. = 1.7 g). Other materials collected were similar to earlier levels. At the base of Level 3, more humic sands with similar coloring (10YR 3/1, very dark gray) were observed along the central portion of the northern wall of the unit.

5.3.4. 30 – 35 cm below surface and 35 – 40 cm below surface

At the base of Level 3, the sand color transitioned enough to designate a different zone, Zone B, with a Munsell color of 10YR 4/2, dark grayish brown. This coloration continued through the first 5 cm of excavations of Level 4. At 35 cmbs, a large, semi-circular stain that was

much darker than the previous level (10YR 2/2, very dark brown) extended from central portion of the northern wall into the units. A concentration of shellfish, mainly oyster and clam (*Mercenaria mercenaria*) and roughly 35 cm by 25 cm, was uncovered in the circular stain. The shellfish was left in situ, photographed, mapped, and collected. The unit was cleaned up at 35 cmbs and photographed and mapped (Figure 5.3).

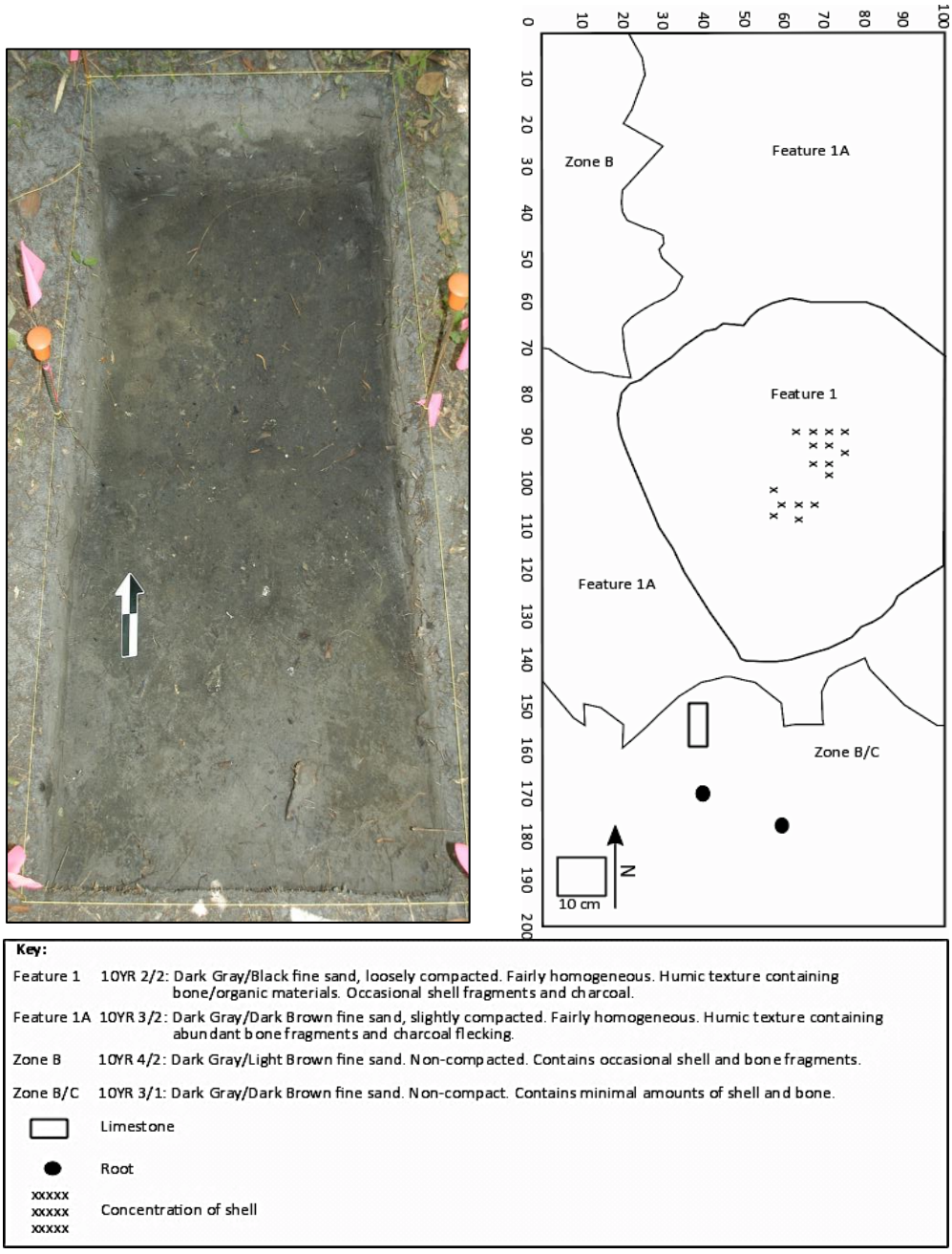


Figure 5.3 – Left: Field Photo at 35 cmbs. Right: Plan map at 35 cmbs

The darker area along the northern, which extended into the center of the unit was designated as F1 (10YR 2/2, very dark brown) and was surrounded by three other deposits distinguished by sand color, composition, and texture. Feature 1A (10YR 3/2, very dark grayish brown) was defined along the northern and southern boundary of F1. A remnant of Zone B remained in the northwestern corner (10YR 4/2, dark grayish brown). Zone B/C, which was interpreted as a slightly humic transitional zone between the anthrosols and the parent material Zone C (the C Horizon), was mottled with dark gray and dark brown sands. This appeared along the southern wall (10YR 3/1 and 10YR 3/2, very dark gray).

Even in the small, five-centimeter deep excavation, F1 and surrounding zones produced a significant increase in artifacts and faunal remains, and some unusual artifacts were present. A shark's tooth (n = 1; wt. = 0.4 g) and mica (n = 2; wt. = < 0.1 g) were collected from Zone B. Zone B also contained a concentration of bone near roots protruding into the unit from the eastern wall and minimal amounts of plain and complicated stamped ceramics and shell. Zone B/C had the most root disturbance and the smallest quantity of artifacts and faunal remains in Level 4.

At the base of Level 4 (40 cmbs), the second map of the level was created (Figure 5.4). F1 was mapped with approximate dimensions of 78 cm by 65 cm. Feature 1A merged into F1; Zones B (10YR 3/2, very dark grayish brown) and B/C (predominantly 10 YR 3/1, very dark gray, mottled with brown and dark gray sands) remained.

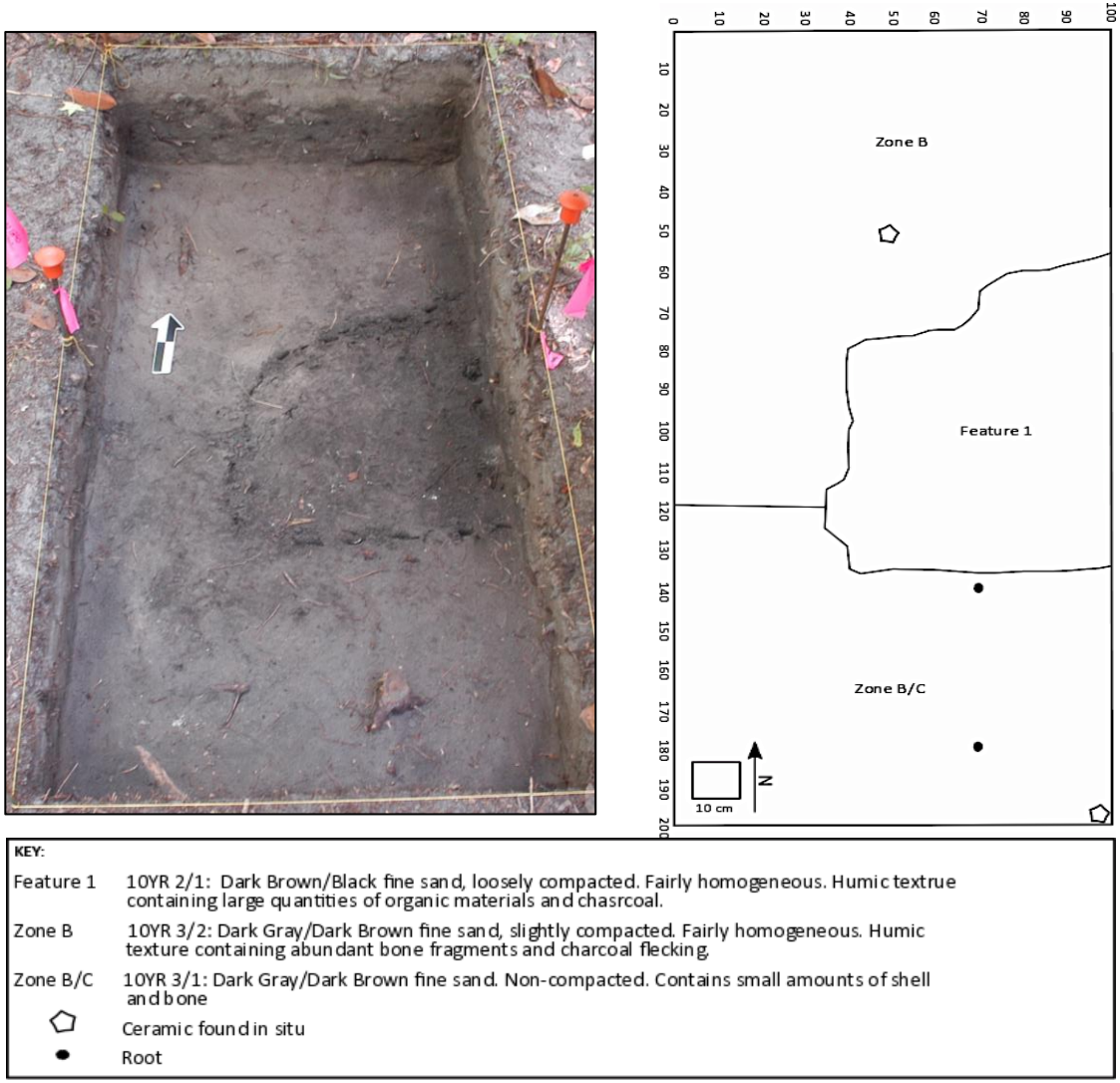


Figure 5.4 – Left: Field photo at 40 cmbs. Right: Plan map at 40 cmbs

5.3.5. Level 5: 40 – 50 cm below surface

Level 5 was excavated in three different proveniences. The previous Zone B/C became drier and less compact and was designated as Zone C (the C-horizon sand). Zone C (10YR 5/2, grayish brown) was largely sterile, although a few artifacts were recovered in transitional areas (both horizontally and vertically). This zone extended the full length of the northern wall of the unit. F1 (10YR 2/1, black) produced a high quantity of artifacts, similar to the previous F1 collections from Level 4.

A concentration of shellfish, conch (*Melongena corona*), oyster, and clam was uncovered during the excavation of Level 5. The concentration of shell was approximately 15 cm by 20 cm and extended towards the center of the unit from the eastern wall. The shell was treated as separate deposit and excavated and screened separately from F1. However, since the artifacts associated with the shell showed no significant differences, the artifacts and bone were merged with the rest of F1.

With the exception of the shell concentration, there was little change in the color and texture of the fill in F1 from 40 – 50 cmbs, but the feature continued to increase in width and length throughout the level, ultimately occupying approximately 75% of the unit. F1 was bordered to the north by a semi-sterile Zone C (Figure 5.5).

KEY:

Feature 1	10YR 2/1: Dark Brown/Black fine sand, loosely compacted. Fairly homogeneous. Humic texture containing large quantities of organic materials and charcoal.
Zone C	10YR 5/2: Lightly mottled with 10YR 7/2 - Light Gray/Tan colored fine sand. Non-compact containing charcoal flecking.
xxxx xxxx xxxx	Concentration of shellfish

Figure 5.5 – Left: Field photo at 50 cmbs. Right: Plan map at 50 cmbs

5.3.6. Level 6: 50 – 60 cm below surface

Level 6 excavations of F1 produced a large number of ceramics, lithics, and, faunal materials (Appendix 1, Tables 5.1 – 5.4). F1 sands continued as a fine, dark (10YR 2/1, black), and humic, and the sand was more compacted throughout the excavation of Level 6. At 60 cmbs, the dark, humic sands of F1 began to retreat towards the southern portion of the unit (Figure 5.6). In the northern area of the unit, Zone C was reinterpreted as Zone B/C (10YR 4/1, dark gray mottled with lighter brown sands) except for two small areas of a C-horizon (10YR 6/1, gray) sands along the northwestern wall (Unit 3).

A small concentration of modified catfish fish spines (n = 6; wt. = 3.7 g), were collected near the northern wall. These spines had polished exteriors and were sharpened at their distal ends, indicating possible tool use. Besides the modified fish spines, artifacts collected from the excavations of Level 6 were consistent with previous levels.

At the base of Level 6, an area of brownish-reddish sand (10YR 5/4, yellowish brown mottled with red and brown sands) appeared in the southwest corner of the unit. It was a small, rectangular area, approximately 15 cm by 60 cm. This area of discoloration was designated as Area 1, and treated as a separate provenience.

KEY:

Feature 1	10YR 2/1: Dark Brown/Black fine sand, loosely compacted. Fairly homogeneous. Humic texture containing large quantities of organic materials and charcoal.
Zone B/C	10YR 4/1: Brown/Gray fine sand, loosely compacted. Slight humic texture containing organic materials and charcoal.
Zone C	10YR 6/1: Light Gray fine, loose sand. Rare amounts of organic materials and charcoal flecking.
Area 1	10YR 5/4: Brown/Red mottled sand, slightly compacted. Humic texture containing organic materials and cnarcoal.

Figure 5.6 – Left: Field photo at 60 cmbs. Right: Plan map at 60 cmbs

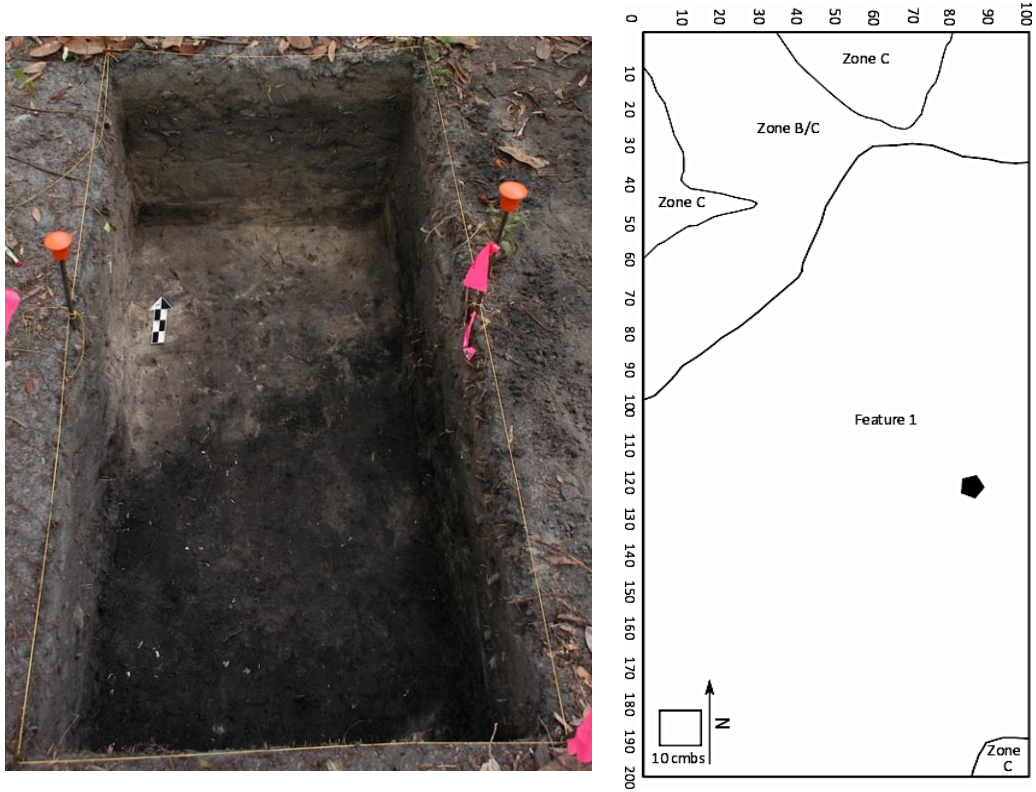
5.3.7. Level 7: 60 – 70 cm below surface

F1 sands were consistent with previous levels (Appendix 1, Table 5.1 – Table 5.4). However, artifacts and faunal remains increased dramatically in number and weight, and some unusual artifacts were recovered, such as graphite (n = 1; wt. = .4 g). At the base of Level 7, a distinctive Swift Creek Complicated Stamped was mapped in situ, and collected as Map Specimen 1.

Zone B/C gave way to Zone C along the north and northwestern wall and the southeastern corner of the unit. A few artifacts were collected from Zone C, probably as a result of the difficulty of segregating the sands from adjacent proveniences.

F1 appeared to increase in size at the base of Level 7 (Figure 5.7). Feature fill in this area seemed to indicate the reappearance of darker (10YR 2/1, black) humic sands into the northern portion of the unit below what had been mapped as a transitional Zone B/C. The excavators believed that the transitional Zone B/C was probably the beginning of Feature 13.

Traces of Area 1, first documented at the base of Level 6, had completely disappeared by the base of Level 7. The area bottomed out onto F1 sands. Because artifacts were similar, artifacts from Area 1 were incorporated into those from F1.



KEY:

Feature 1	10YR 2/1: Dark brown/black, loosely compacted, fine sand. Fairly homogeneous. Humic texture containing large quantities of organic materials and charcoal.
Zone B/C	10YR 4/2: Dark gray/light brown, non-compact, fine sand. Contains minimal amounts of shell, organic materials, and charcoal.
Zone C	10YR 6/3: Light brown, non-compact, fine sand. Non-humic, dry texture. Contains minimal amounts of organic materials and shell fragments.
Zone C	10YR 6/2: Light brown/Gray, non-compact, fine sand. Non-humic, dry texture. Contains minimal amounts of organic materials and shell fragments.
Zone C	10YR 5/2: Brown/gray, non-compact, fine sand. Semi-humic textrue containing low quantities of organic materials, shell fragments, and charcoal flecking.
⬟	Map Specimen #1: Ceramic sherd

Figure 5.7 – Top: Field photo at 70 cmbs. Bottom: Plan map at 70 cmbs

5.3.8. Level 8: 70 – 80 cm below surface

At the base of Level 8, as F1 began to bottom out onto Zone C along its northern and southern boundaries, the linear, east-to-west orientation of F1 became apparent (Figure 5.8). Sands from F1 were similar to previous levels, but artifacts and faunal materials decreased in number and in weight compared to Level 7, possibly due, in part, to the reduction in size of F1 Feature 1 bottomed out onto what was designated Zone B/C on the northern border. In retrospect, this may be point at which Feature 13 (F13), an earlier feature that F1 intruded upon, could be distinguished. Area 2 became clear at the base of Level 8. The area may represent a discrete activity (posthole or pit). Whether or not the activity was related to F1 is unknown.

Zone C continued to increase in size, as F1 bottomed out. As in the previous level, a few artifacts were incorporated into the provenience during excavation.

During the floor cleanup of Level 8, a complete deer femur appeared in the east wall right at the boundary between the two 1-x- 1-m units. The femur extended some 10 cm west into the unit and was bordered on the north by a concentration of shellfish remains. The deer femur and shellfish concentration were mapped and the femur was collected as Map Specimen 2. Another concentration of shellfish was located along the western wall near the center of the unit.

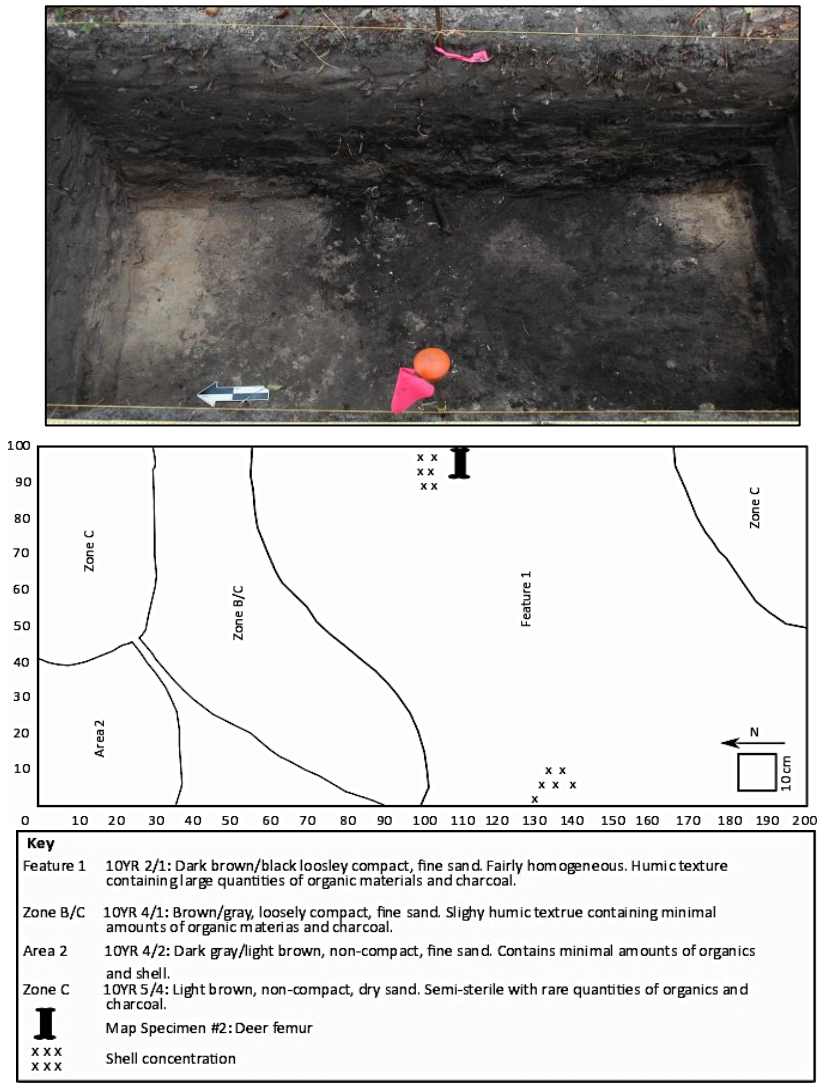


Figure 5.8 – Top: Field photo at 80 cmbs. Bottom: Plan map at 80 cmbs

5.3.9. Level 9: 80 – 90 cm below surface

At the base of Level 9, F1 decreased slightly in size, but feature fill and artifacts were consistent with previous levels (Figure 5.9). Level 9 contained large amounts of highly fragmented bone and shell.

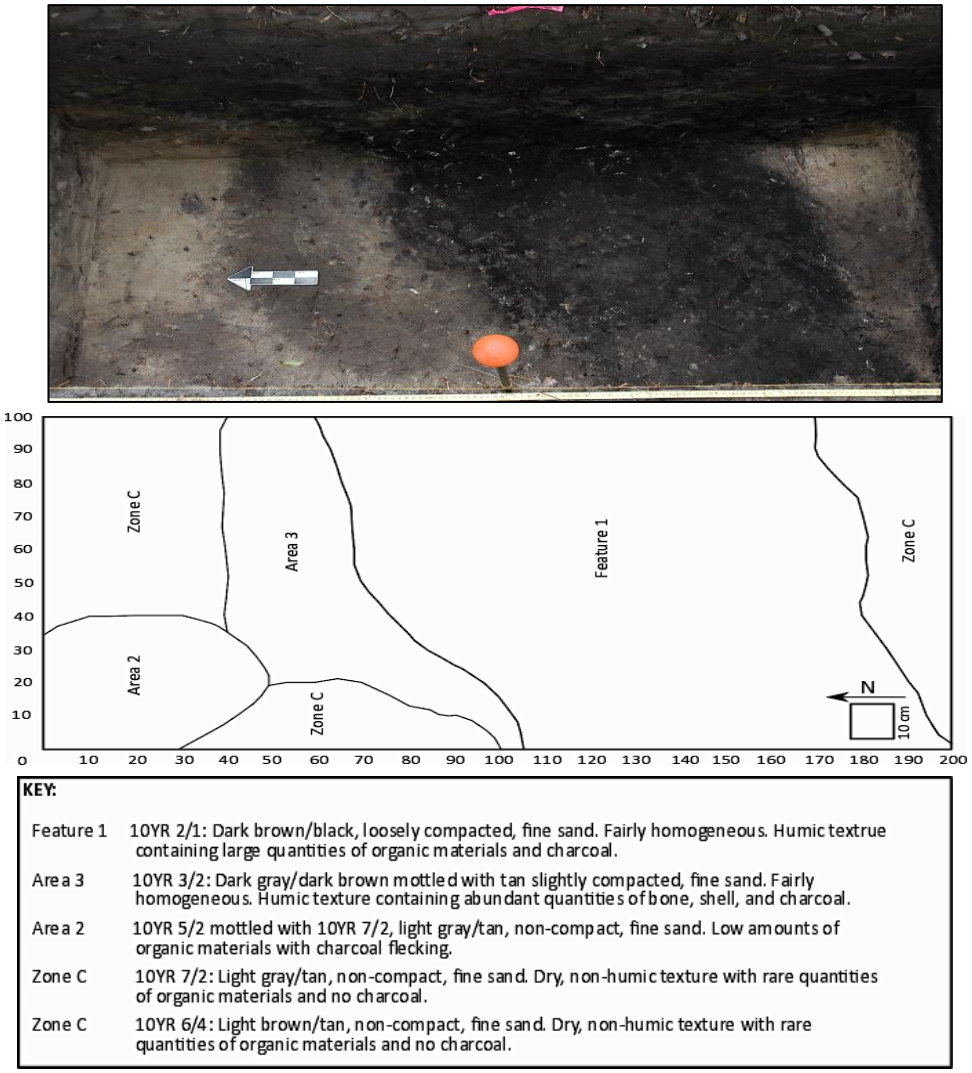
Area 2, designated at the base of Level 8, continued to occupy the northwestern corner of the unit, increasing slightly in overall surface area. Area 2 produced faunal remains (n = 193; wt. = 155.1 g) and no other artifacts. At the base of Level 9, it was still unclear as to whether or not Area 2 was a natural or a cultural feature.

Because "Zone B/C" was not transitioning to Zone C along the borders of Feature 1 as would be expected, the sands bounding F1 were designated Area 3 during the excavation of Level 9. At the time of the excavations it was unclear whether Area 3 represented a leachate area along the northern boundary of F1, a separate fill episode of F1, or an underlying feature intruded upon by F1(we now know that this is F13). The newly named Area 3 produced mainly faunal remains, although not nearly as many as F1, along with two plain ceramics. Sands were described as tan/dark gray, fine-grained, and slightly compacted. There was noticeably more conch shell in this level, both in F1 and Area 3.

Zone C expanded only slightly. However, by 90 cmbs, F1 gave way to Zone C along the southern wall, creating a definitive southern boundary for F1. In this area, Zone C (10YR 7/2, light gray) was entirely sterile. In the northern portion of the unit along the eastern wall and in the northwestern corner, Zone C continued to produced minimal amounts of ceramic sherds (n = 2; wt. = 7.9 g) and faunal remains (n = 104; wt. = 54.2 g). Sterile Zone C sands in the northeastern corner were slightly darker (10YR 6/4, light yellowish brown) than the sterile, light

gray sands from the southern sterile Zone C, alluding to the occurrence of sand mixing between the different zones.

By the base of the level, only three proveniences remained: Feature 1, Area 3, and an almost completely sterile Zone C.



KEY:

Feature 1	10YR 2/1: Dark brown/black, loosely compacted, fine sand. Fairly homogeneous. Humic textrue containing large quantities of organic materials and charcoal.
Area 3	10YR 3/2: Dark gray/dark brown mottled with tan slightly compacted, fine sand. Fairly homogeneous. Humic texture containing abundant quantities of bone, shell, and charcoal.
Area 2	10YR 5/2 mottled with 10YR 7/2, light gray/tan, non-compact, fine sand. Low amounts of organic materials with charcoal flecking.
Zone C	10YR 7/2: Light gray/tan, non-compact, fine sand. Dry, non-humic texture with rare quantities of organic materials and no charcoal.
Zone C	10YR 6/4: Light brown/tan, non-compact, fine sand. Dry, non-humic texture with rare quantities of organic materials and no charcoal.

Figure 5.9 – Top: Field photo at 90 cmbs. Bottom: Plan map at 90 cmbs

5.3.10. Level 10: 90 – 100 cm below surface

By the base of Level 10, F1 had almost entirely retreated from the northern half of the unit (Figure 5.10). Feature fill, presence of bone and shell fragmentation, and artifacts were consistent with previous levels. However, gray and brown sand mottling increased, indicating that the feature might be bottoming out. F1 continued to display a linear east-to-west orientation. Another concentration of shellfish remains within the feature was collected and designated as Map Specimen 3. The concentration was collected from roughly the center of the feature; it was removed and bagged separately. At the base of Level 10, a bulk sand sample was collected from F1. This sample was roughly half a liter in volume and was brought back to the LSUMNS for analysis and curation. During analyzes of the sand sample at the LSU laboratory, artifacts were removed and bagged separately. The sand sample was dried and re-bagged.

Area 3 increased in size at the base of Level 10, extending north from the edge of F1 into the northern portion of the unit. Sands changed to a darker 10YR 4/2, dark grayish brown, with gray mottling. The sands were semi-compacted and slightly wet to the touch. Area 3 continued to follow the same east-to-west trajectory along the direct northern boundary of F1. The behavior of Area 3 was unexpected. The excavators believed Area 3 would disappear by the base of Level 10. The continued linear quality of discolored sands and artifacts shadowing the northern border of F1 further suggested that Area 3 was a separate feature intruded upon by F1.

Zone C became more prominent along the northern wall and within the northern unit (Unit 3) extending further south into the unit. The C-horizon along the southern wall also increased in size.

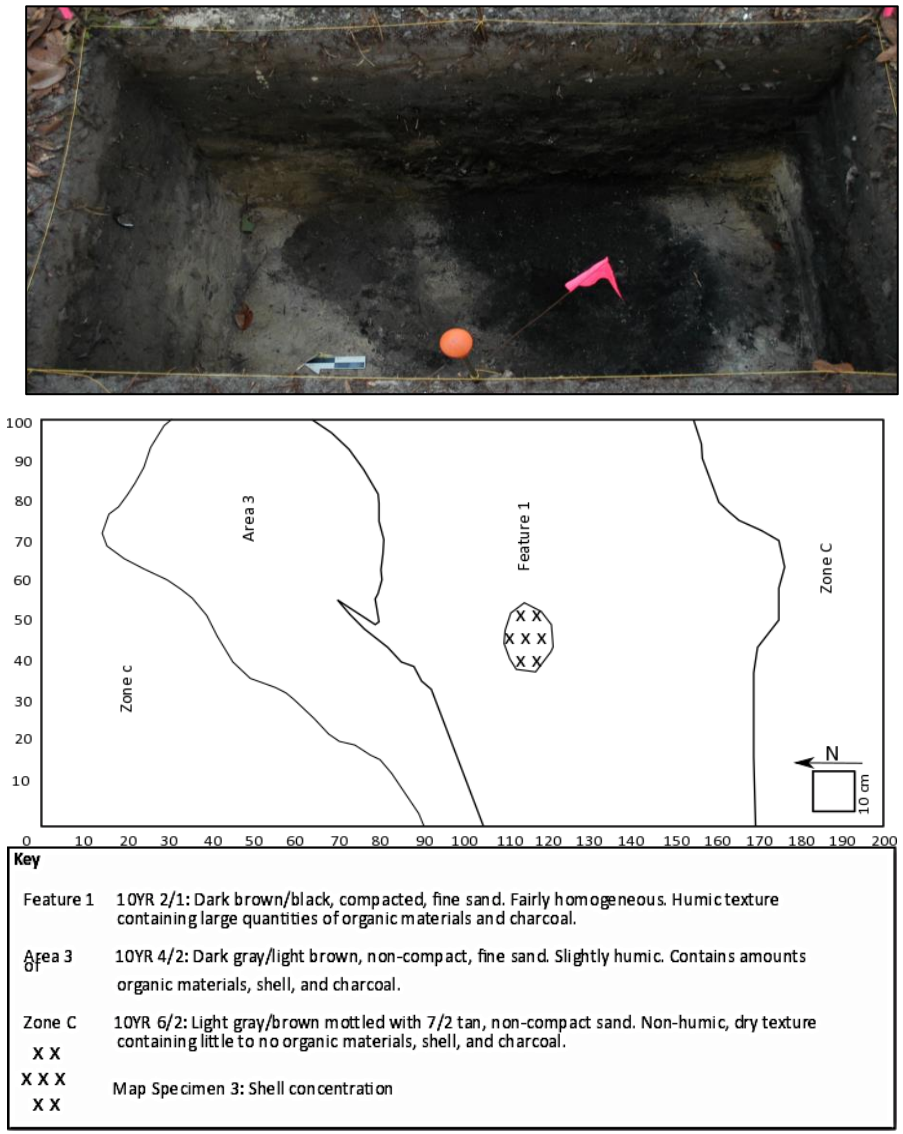


Figure 5.10 – Left: Field photo at 100 cmbs. Right: Plan map at 100cmbs

5.3.11. Level 11: 100 – 110 cm below surface

Darker midden sands of F1 (10YR 2/1, black) persisted, but decreased in size during the excavation of Level 11. Ceramic sherds and lithic debitage were found in small quantities, with bone, shell, and charcoal fragments dominating the materials collected (Figure 5.11). At the base of Level 11, F1 appeared to underlie the southern C-horizon. This may be due to a fill episode related to F1 or possibly a wall collapse during the Swift Creek phase excavations.

Area 3 coverage was about the same as in Level 10, and continued to follow the northern boundary of F1. Sands of Area 3 consisted of slightly compacted, mottled light tan and dark gray sands, with charcoal flecking. The sand mottling was more pronounced near the boundary of F1.

Zone C increased in size along the northern wall of the unit, extending further south at the base of Level 11.

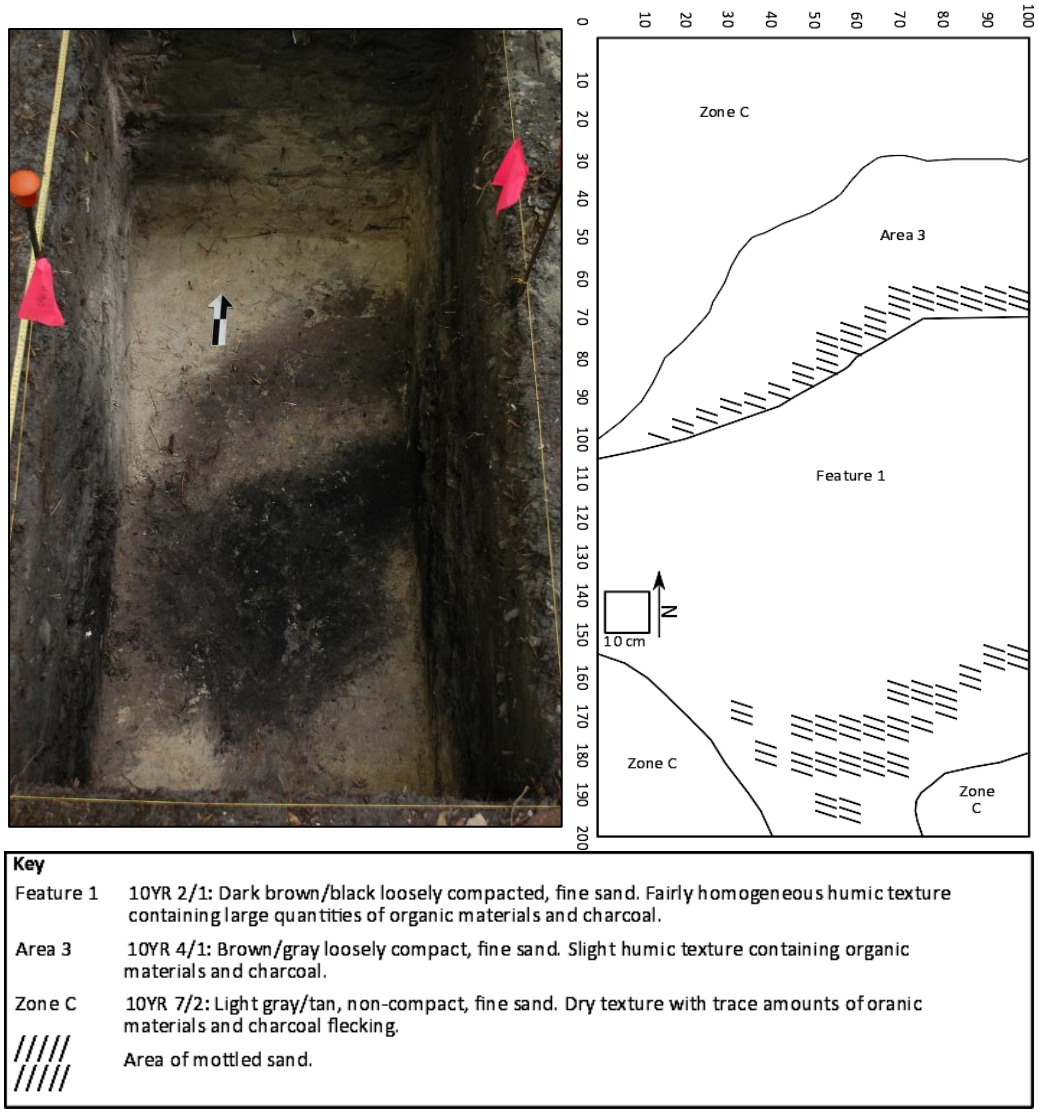


Figure 5.11 – Left: Field photo at 110 cmbs. Right: Plan map at 110 cmbs.

5.3.12. Level 12: 110 – 12 cm below surface

At the base of Level 12, F1 was slightly smaller than in the previous level. The feature fill became slightly lighter, a 10YR 3/1, very dark gray, humic, fine sand (Figure 5.12). Materials collected from F1 were consistent with Level 11. Ceramics and lithic debitage were scarce, while bone, shell, and charcoal continued to be recovered in modest (relatively speaking) amounts. As with previous levels, the charcoal was noted and discarded.

At the base of Level 12, the excavator determined that Area 3 was definitely a previous feature. The identification of Area 3 was changed to Feature 13, a designation that persisted throughout the remaining excavated levels. F13 maintained a relatively similar size and the same linear east-to-west pattern as in the previous level, with areas of dark gray/brown heavily mottled sands immediately adjacent to F1. Sands of Area 3 changed slightly compared to the previous Level 11 excavations and were described as 10YR 4/1, dark gray, slightly compacted, a mottled with light brown and gray sands and charcoal flecking.

Completely sterile areas of Zone C increased marginally in the northern portion of the unit, extending further south at the base of Level 12. The Zone C along the southern wall of the unit replaced the odd occurrence of F1 in the previous level.

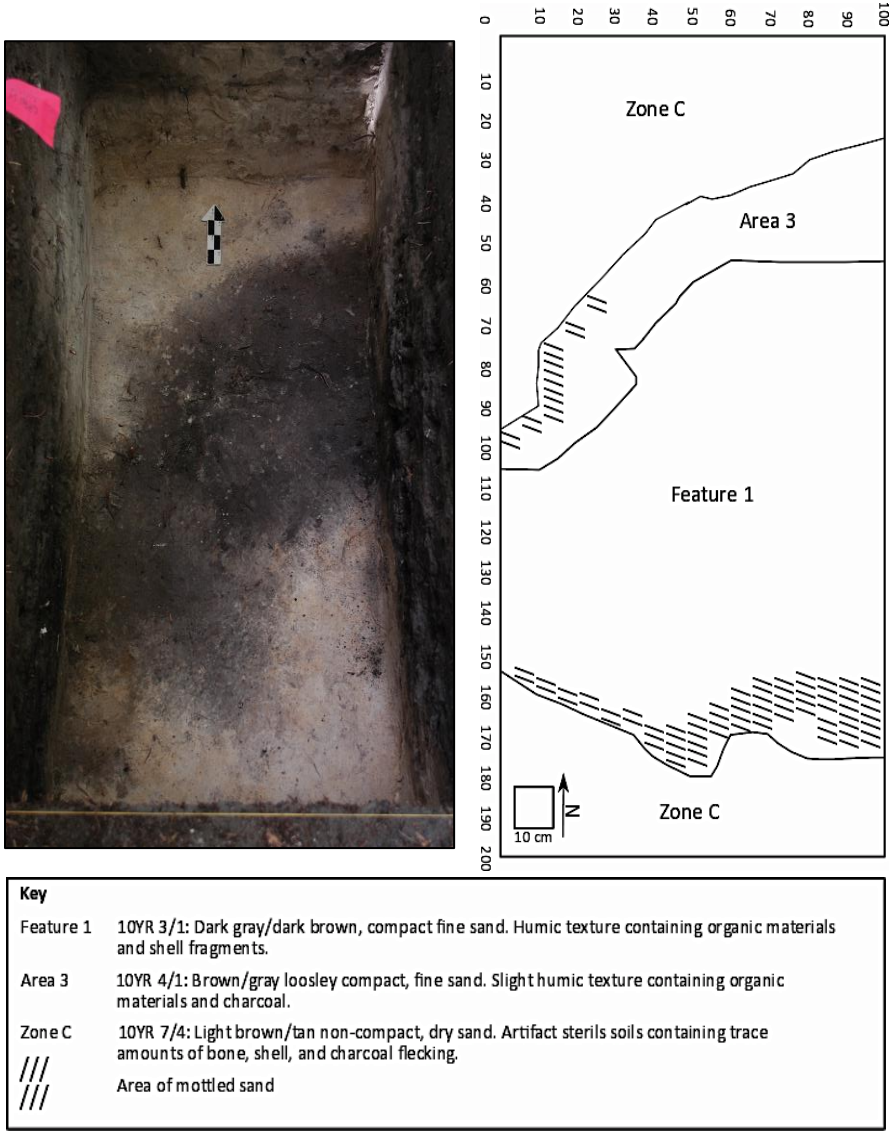


Figure 5.12 – Left: Field photo at 120 cmbs. Right: Plan map at 120 cmbs

5.3.13. Level 13: 120 – 166 cm below surface

At 120 cmbs, the unit consisted of completely sterile, Zone C sands, F13, and F1. Because we saw no significant reason to distinguish arbitrary levels, F1 was excavated as a single provenience from 120 cmbs to the base, approximately 166 cmbs. F13 was excavated separately from 150 cmbs to 166 cmbs. At roughly 150 cmbs, the circular base of F13 was uncovered to the north of the base of F1.

With the profile view afforded by clearing sterile sands away from the feature borders it was apparent that F13, which appeared at 70 cmbs and disappeared at roughly 160 cmbs, was a distinct feature that was intruded on by F1. The sands of F13 were defined as a 10YR 2/1.5, black to very dark brown, fine, and slightly compacted. F13 contained mostly faunal remains (n = 84; wt. = 50.6 g).

Excavation of Zone C continued to a depth of approximately 180 cmbs to provide a clear view of the base of F1. Profile maps of each wall were drawn at the base of Level 13 (Figure 5.13 and Figure 5.14). (A "step" of sterile Zone C was left along the southern wall at approximately 140 cmbs for easier access to the unit).

5.4. Profile Maps

Profile maps of the unit (Figure 5.13 – Figure 5.15) show a deep pit containing organically enriched sand extending to a depth of between 150 and 160 cmbs and terminating in a semi-rounded base. Although slight variations in texture, color, and inclusion were recorded throughout excavated levels, sands of F1 displayed overall homogeneity. Also, profile maps show no evidence of disturbances or sediments (e.g., water-marking) suggesting that F1 was left open for any length of time. It appears the pit was filled rapidly.

5.5. Summary

The stratigraphy of the unit includes Zone A, an earth midden, overlying Feature 1. From Level 4 to approximately 156 cmbs, additional zones, areas, and a distinct deposit of refuse were uncovered in the units. The refuse was identified as F1, which had intruded upon another, previous feature, F13. The abundance of artifacts, faunal materials, and humic sands observed during excavations of F1 suggests that the feature is the result of a single, large-scale event that presumably involved ceremonial feasting conducted by a relatively large population.

Figure 5.13 – Top: Field photo of east wall profile with sterile sand “step”
Bottom: Field photo of west wall profile with sand “step”

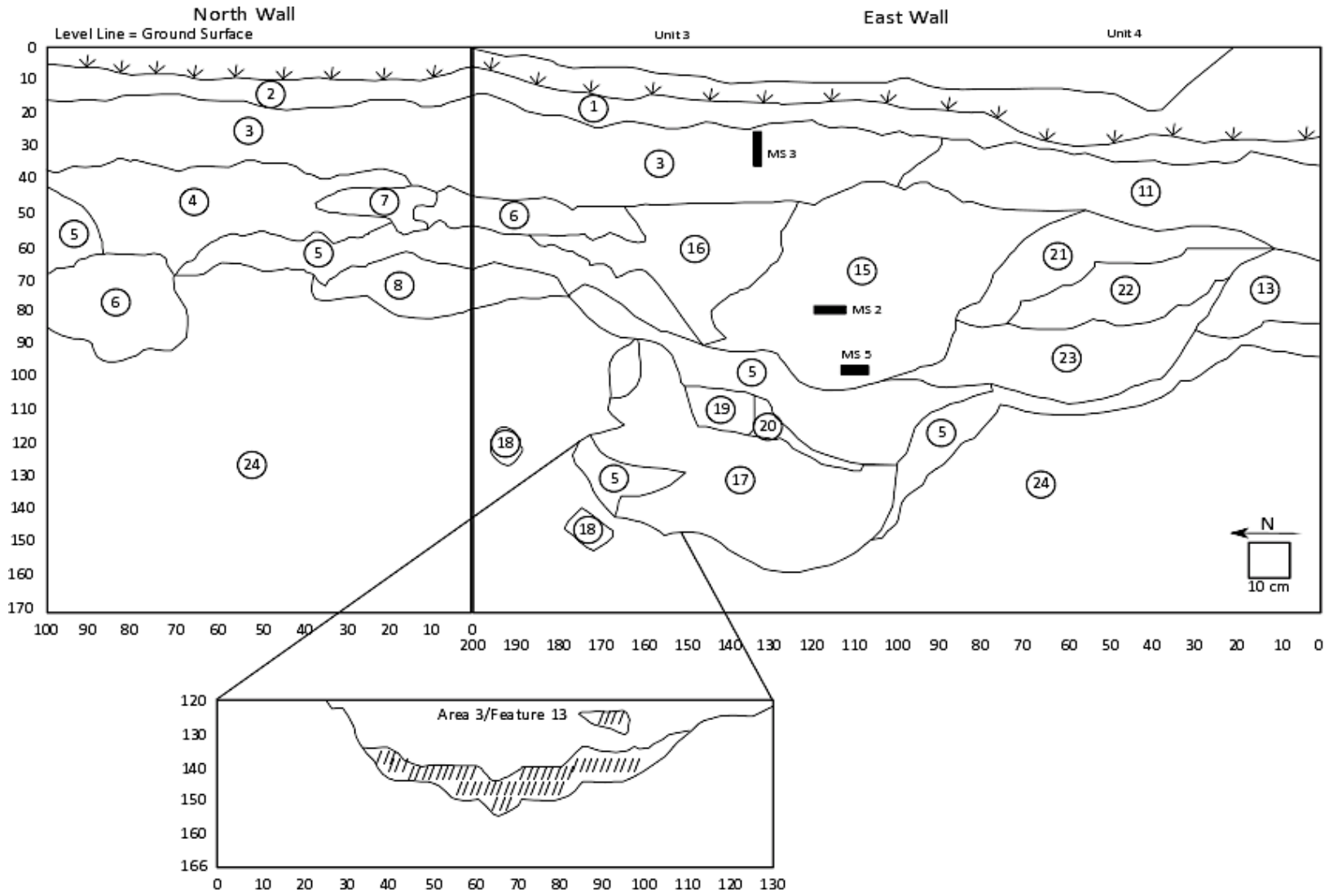


Figure 5.14 – North and east wall profile map of excavated units 3 and 4 (For Munsell colors see Figure 5.16)

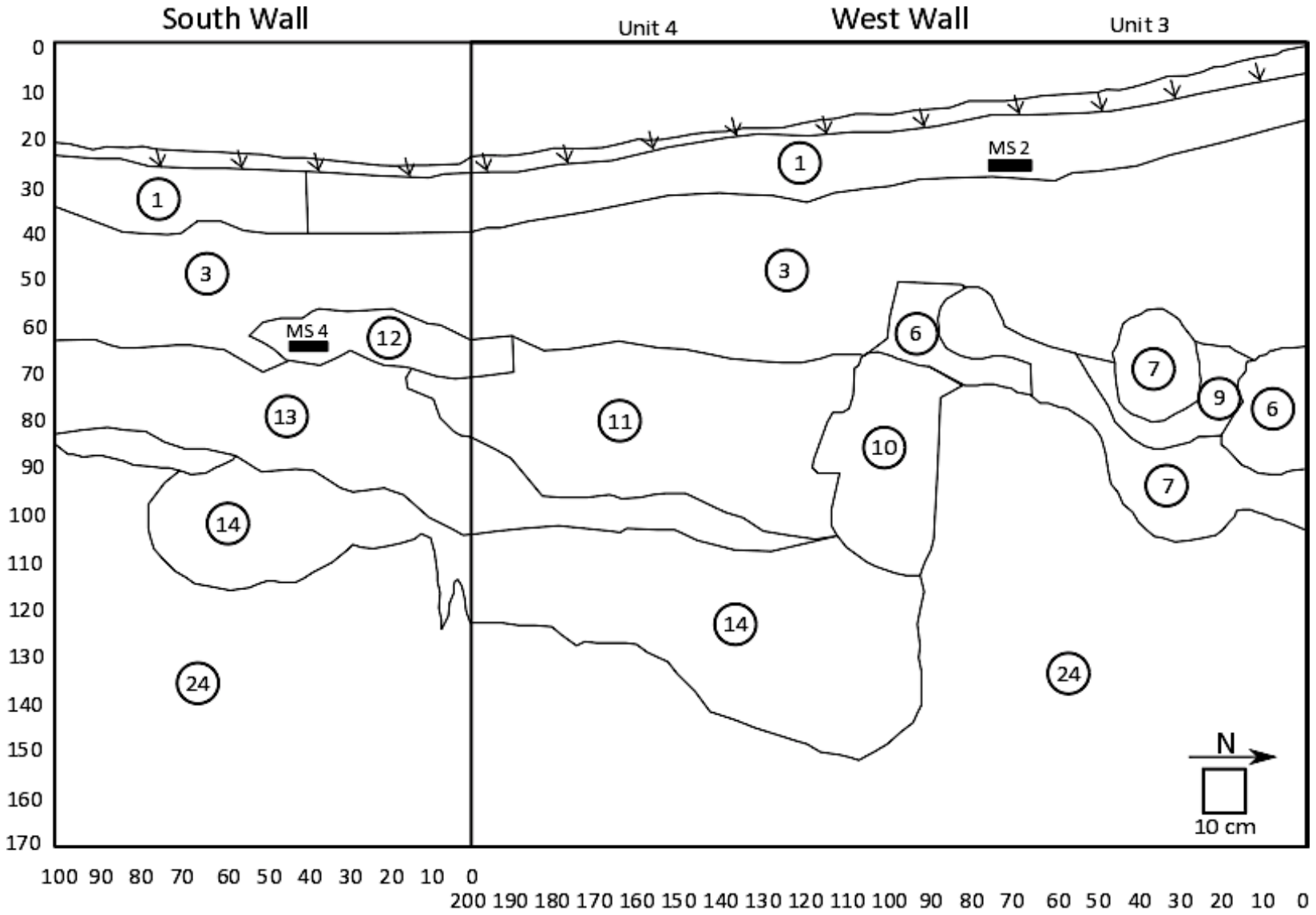


Figure 5.15 – South and west profile map of excavated units 3 and 4 (For Munsell colors see Figure 5.16)

Figure 5.16 – Key for F1 Wall Profiles

1 – 10YR 3.5/1: Dark brown/black slightly compact, fine soils. Fairly homogeneous humic texture containing organic materials and charcoal flecking

2 – 10YR 4/1.5: Dark brown/gray slightly compact, fine soils. Dry soils.

3 – 10YR 4/1 mottled with 10YR 4/2 fine soils. Shell fragments and occasional large shell pieces. Bone fragments and charcoal flecking.

4 – 10YR 4/2: Dark gray/light brown non-compact, fine soils mottled with 10YR 5/3. Slightly humic, contains trace amounts of shell and bone.

5 – 10YR 6/3: Light Brown non-compact fine soils. Non-humic, dry texture containing little trace amounts of organic materials, shell, and charcoal.

6 – 10YR 5/2: Lightly mottled with 10YR 7/2 – Light Gray/Tan colored non-compact fine soils containing charcoal flecking.

7 – 10YR 3/2: Dark gray/dark brown slightly compact, fine soils. Fairly Homogeneous with a humic texture containing abundant bone fragments and charcoal flecking.

8 – 10YR 4/2: Dark gray/light brown non-compact, fine soils. Fairly homogenous with a humic texture containing organic materials and charcoal flecking.

9 – 10YR 5/2 heavily mixed with 10YR 7/2. Fine sands containing charcoal flecking.

10 – 10YR 5/2 mottled with 10YR 7/2 and 10YR 4/2. Contains limestone on extreme South edge

11 – 10YR 3/2 with visibly more bone then #7.

12 – 10YR 2/1.5 with 10YR 3/2: Homogeneous medium/fine soils.

13 – 10YR 2/1.5: Dark brown/black slightly compacted, fine soils. Abundant amount of organic materials. Occasional whole/partial shell, large bone fragments, and charcoal flecking.

14 – 10YR 4/2: Fairly homogeneous except for mottling with lighter soils along the edges. Contains large fragments of charcoal and charcoal flecking. Mottling of lighter soils differs throughout the zone.

15 – 10YR 1.5: Large clumps of whole/partial shell. Bone was not visibly abundant.

16 – 10YR 2/2: Dark gray/black compact fine soils, Fairly homogeneous. Humic texture containing bone/organic material. Occasional shell fragments, charcoal flecking.

17 – 10YR 3/2: Darker and more homogeneous then #14. Contains charcoal flecking.
18 – Area with root disturbance: 10YR 5/1, 3/2, 7/1. Contains charcoal flecking.

19 – 10YR 4/2: Dense concentrations of mostly complete shell. Occasional bone.

20 – 10YR 2/1: Heavily organic/humic soils. Trace amounts of shell with charcoal flecking

21 – 10YR 3.5/2 lightly mottled with 10YR 3/1: Abundant amounts of bone with trace amounts of shell and charcoal flecking.

22 – 10YR 2/1: Black in color. Heavily organic/humic compact soils. Trace amounts of shell fragments and charcoal flecking.

23 – 10YR 2/1: Contains more whole and partial shell then #20. Contains charcoal flecking.

24 – 10YR 7/2: Light gray/tan, non-compact, fine soils. Dry texture with trace amounts of organic materials and charcoal flecking.

Chapter 6 – Results and Artifact Analysis of Feature 1

Introduction

F1 is located on the western exterior edge of the large semi-circular midden (Figure 5.2). Due to the feature's proximity to the mound, it is possible the feature was created during a ceremony involving funerary rituals accompanied by other social events. The mound would have been visible from all areas of the site, including the location of F1, where items such as tools and lithic debitage, ceramics, exotic materials such as crystal quartz, and certain faunal remains were intentionally deposited.

As noted in the previous chapter, F1 (or at least, the area that we excavated) appears to have been created and filled in a single event. Therefore, the feature was analyzed as a single provenience. The excavations of F1, and the surrounding proveniences located in the unit produced a large variety and high quantities of artifacts. Shell accounted for most of the material by weight, followed by faunal remains, ceramics, and lithics (Appendix 1, Table 5.1 – 5.4).

To analyze the artifacts and ecofacts, I separated the unit material into three proveniences: 1) the overlying earth midden (levels 1 to 35 cmbs), 2) F1 and neighboring proveniences (35 cmbs through Level 13) and 3) F13 (levels 7 through 13; Zone B/C, Area 3, F13). F1 and the surrounding proveniences were combined based on their immediate spatial relationship and similarities in ceramic, lithic, and faunal artifacts.

6.1. Ceramics

The 2015 excavations conducted at the BHS produced a total of 4,737 ceramic sherds. Thirty-nine percent of those ceramics were from the unit (n = 1,856; wt. = 7,982 g). Plain sherdlets made up forty-six percent of the ceramic assemblage from the unit (n = 862; wt. = 1,247.3 g), and decorated sherdlets made up twenty-eight percent (n = 527; wt. = 1,364.2 g). The

remaining twenty-six percent of the unit's ceramic assemblage (n = 467; wt. = 5,370.5 g) consisted of body (n = 393; wt. = 4,501.8 g), rims (n = 68; wt. = 760.5 g), and base sherds (n = 6; wt. = 108.2 g). In the following discusses the 467 analyzed sherds, sherdlets are not included.

6.1.2. Surface Decoration

Ceramic sherds with Swift Creek Complicated Stamped designs (SCCS) had the highest proportion at fifty-two percent of the 467 (n = 247; wt. = 2971.8 g), followed by plain ceramic sherds making up forty percent (n = 189; wt. = 2,036.4 g) (Table 6.1). One percent of the ceramic assemblage was a collection different ceramic decorative styles including Panola Check Stamp (n = 2; wt. = 10.9 g), Gulf Check Stamp (n = 1; wt. = 7.9 g), one Cord marked (wt. = 34 g), Brushed (n = 1; wt. = 13.2 g), Rockerstamped (n = 1; wt. = 14.7 g), and one sherd with a "series of stamped circular impressions" (wt. = 27.4 g) (Scott 2011:337, Figure 341 and Figure 342). The remaining five percent consisted of sherds with an unidentifiable surface or unidentifiable surface decoration (n = 25; wt. = 254.2 g).

Table 6.1 – Exterior decoration per provenience (sherds >1 inch)

	Swift Creek Complicated Stamped		Plain		Panola Check Stamp (Diamond Dot)		Other		Unidentified Surface		Surface Unidentifiable		Totals	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	74 (16%)	880 (16%)	76 (16%)	555.1 (10%)	1 (<1%)	5.2 (<1%)	2 (<1%)	41.9 (<1%)	3 (<1%)	45.5 (1%)	7 (1%)	74.5 (1%)	163 (35%)	1,602.2 (30%)
Feature 1 and proveniences	169 (36%)	2,048.8 (38%)	110 (24%)	1,423.4 (27%)	1 (<1%)	5.7 (<1%)	3 (<1%)	55.3 (1%)	1 (<1%)	13.2 (1%)	13 (3%)	121 (2%)	297 (64%)	3,667.4 (68%)
Feature 13	4 (6%)	43 (1%)	3 (<1%)	57.9 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	7 (1%)	100.9 (2%)
Unit Total	247 (53%)	2,971.8 (55%)	189 (40%)	2,036.4 (38%)	2 (<1%)	10.9 (<1%)	5 (1%)	97.2 (1%)	4 (1%)	58.7 (1%)	20 (4%)	195.5 (3%)	467 (100%)	5,370.5 (100%)

6.1.3. Exterior/Interior Finishing Techniques

Hard-tooling and burnishing were both recognized on plain and decorated sherds from the unit's ceramic assemblage (Table 6.2). Hard-tooling occurred on ninety-two percent of sherds (n = 430; wt. = 4,836.3 g), and eight percent (n = 37; wt. = 534.2 g) were hard tooled to a burnished finish. SCCS sherds made up fifty-one percent of the 37 burnished sherds (n = 19), and the remaining forty-nine percent were plain (n = 18). The presence of Hard-tooling and burnishing on almost all of the sherds indicates that stamped vessels must have been Hard-tooled before the application of the stamp.

Table 6.2 – Hard-tooled vs. Burnished per provenience (sherds >1 inch)

	Hard-tooled		Burnished		Totals	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	157 (34%)	1,571.2 (29%)	6 (1%)	31 (<1%)	163 (35%)	1,602.2 (30%)
Feature 1 and proveniences	266 (57%)	3,164.2 (59%)	31 (6%)	503.2 (9%)	297 (64%)	3,667.4 (68%)
Feature 13	7 (1%)	100.9 (2%)	0 (0%)	0 (0%)	7 (1%)	100.9 (2%)
Unit Total	430 (92%)	4836.3 (90%)	37 (8%)	534.2 (10%)	467 (100%)	5,370.5 (100%)

6.1.4. Inclusions, Presence of Soot, Miscellaneous

A total of eight sherds from the unit contained white material in the paste. To determine whether or not the white material was composed of calcium carbonates, a hydrochloric acid test was administered on these sherds. The white material did not fizz when the acid made contact, removing the possibility for material being comprised of calcium carbonates.

The presence of soot on sherds occurred on five percent of the collection from the unit (n = 26). Soot exclusively on the interior wall occurred on fifty percent of the 26 sherds (n = 13). Six SCCS sherds had interior carbon, along with six plain sherds, and the Brushed sherd. The presence of exterior carbon occurred on fifteen percent of the sherds (n = 4): three plain sherds and one SCCS. Soot on both the exterior and interior was present on thirty-five percent of the sherds (n = 9): five plain, burnished sherds, and SCCS. A total of four rims, two SCCS and two plain, had soot on the exterior and interior.

6.2. Rims

6.2.1. Rim Treatments

A total of 68 rim sherds were collected from the unit (Table 6.3). The form or treatment of the rim was documented for each rim sherd larger than a sherdlet. Rim sherds were either SCCS (n = 27; wt. = 475.7 g) or plain (n = 41; wt. = 284.8 g). Both the SCCS and plain rim sherds were categorized as scalloped, ticked, flattened, rounded, or rolled (Table 6.3).

Twenty-seven SCCS rims collected from the unit made up forty-percent of the collection and consisted of twenty-nine percent scalloped (n = 20, wt. = 376.2 g), three percent was ticked (n = 2; wt. = 27.1 g), flattened (n = 2; wt. = 42 g), and rolled (n = 2; wt. = 19.8 g), and one percent was rounded (n = 1; wt. = 10.6 g). The plain rim sherds made up the remaining sixty percent consisted of twenty-eight percent scalloped (n = 19; wt. = 106.6 g), twenty-two percent

flattened (n = 15; wt. = 115.5 g), seven percent rolled (n = 5; wt. = 49.7 g), and one ticked (n = 1; wt. = 6.6 g) and rounded (n = 1; wt. = 6.4 g).

Table 6.3 – Rim treatments by provenience (rims >1 inch)

	Swift Creek Complicated Stamped											
	Scalloped		Ticked		Flattened		Rounded		Rolled		Total	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	5 (7%)	109 (14%)	0 (0%)	0(0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	5 (18%)	109 (14%)
Feature 1 and proveniences	15 (22%)	267.2 (35%)	2 (3%)	27.1 (4%)	2 (3%)	42 (5%)	1 (1.5%)	10.6 (1%)	1 (1.5%)	5.7 (<1%)	21 (31%)	352.6 (43%)
Feature 13	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1.5%)	14.1 (2%)	1 (1%)	14.1 (2%)
Total	20 (29%)	376.2 (49%)	2 (3%)	27.1 (4%)	2 (3%)	42 (5%)	1 (1.5%)	10.6 (1%)	2 (3%)	19.8 (2%)	27 (40%)	475.7 (63%)
	Plain											
	Scalloped		Ticked		Flattened		Rounded		Rolled		Total	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	12 (17%)	39.7 (5%)	0 (0%)	0 (0%)	7 (10%)	10.1 (1%)	1 (1.5%)	6.4 (<1%)	2 (3%)	16 (2%)	22 (32%)	72.2 (9%)
Feature 1 and proveniences	7 (10%)	66.9 (9%)	1 (1.5%)	6.6 (<1%)	8 (11%)	105.4 (14%)	0 (0%)	0 (0%)	3 (4%)	33.7 (4%)	19 (28%)	212.6 (28%)
Feature 13	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (%0)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	19 (28%)	106.6 (14%)	1 (1.5%)	6.6 (<1%)	15 (22%)	115.5 (15%)	1 (1.5%)	6.4 (<1%)	5 (7%)	49.7 (6%)	41 (60%)	284.8 (37%)
Unit Total	39 (57%)	482.8 (63%)	3 (4%)	33.7 (4%)	17 (25%)	157.5 (20%)	2 (3%)	17 (2%)	7 (10%)	69.5 (9%)	68 (100%)	760.5 (100%)

6.3. Bases

Six, Hard-tooled bases were collected (wt. = 108.2 g), all from F1 and neighboring proveniences. Base forms were catalogued as rounded, flat, or having podal supports. Two of the bases had podal supports (wt. = 31.2 g) and the remaining four were catalogued as rounded (wt. = 73 g).

6.4. Vessel Form

Based on the analysis of rim sherds and information from other Swift Creek sites (Wallis 2011; Willey 1949), we established two primary vessel forms at BHS, bowl and jar (Figure 6.1). These two forms were further broken down into restricted neck bowl or jar and unrestricted or open bowl or jar.

Restricted neck bowls and jars are similar to the typical open bowl with one large difference. For restricted vessels, the greatest diameter is below the lip whereas the maximum diameter for open vessels is at the lip (Rice 1987:236; Wallis 2011). In order to distinguish between a restricted and open vessel, the lip of the rim was placed on a flat surface and rotated back and forth until the lip rested firmly on the surface. If the widest diameter was below the rim, the sherd was designated as part of a restricted vessel. If the widest diameter was at the lip of the rim, the sherd was assigned as part of an unrestricted or open vessel.

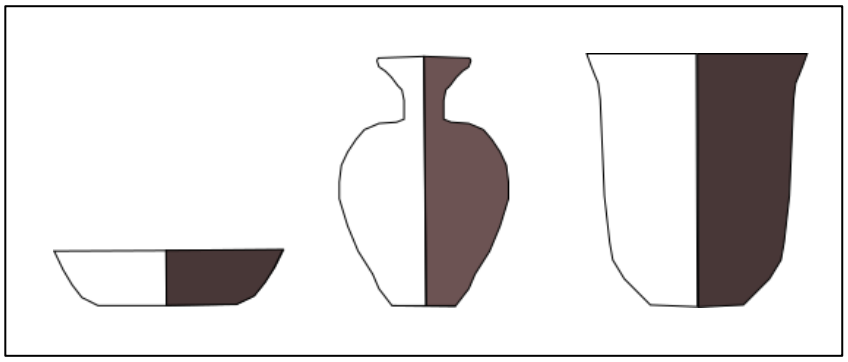


Figure 6.1 – Left to right: outslanting bowl, restricted neck jar, open neck jar

Although determining a restricted versus an unrestricted neck vessel was possible for most rim sherds, the small size of the rims and lack of curvature below the rim generally prohibited specifying whether the vessel was a bowl or jar. In these cases, the term ‘bowl/jar’ was used. Analysis of the 68 rim sherds produced thirty-one restricted necked bowl or jar sherds (wt. = 240.3 g), twenty-seven open bowl or jar sherds (wt. = 313.2 g), five unrestricted neck jar sherds (wt. = 124.9 g), four outslanting bowl sherds (wt. = 81.3 g), and one rim sherd from an unidentified vessel (wt. = .8 g) (Table 6.4).

Table 6.4 – Vessel form by provenience (rims >1 inch)

	Unrestricted Bowl		Unrestricted Jar		Unrestricted Bowl or Jar		Restricted Neck Bowl or Jar		Unidentified Vessel Form		Totals	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	0 (0%)	0 (0%)	3 (4%)	97.6 (13%)	9 (14%)	38.7 (5%)	14 (20%)	44.1 (6%)	1 (1%)	0.8 (<1%)	27 (40%)	181.2 (24%)
Feature 1 and proveniences	4 (6%)	81.3 (11%)	2 (3%)	27.3 (3%)	18 (26%)	274.5 (36%)	16 (24%)	182.1 (24%)	0 (0%)	0 (0%)	40 (59%)	565.2 (74%)
Feature 13	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	14.1 (2%)	0 (0%)	0 (0%)	1 (1%)	14.1 (2%)
Unit Totals	4 (6%)	81.3 (11%)	5 (8%)	124.9 (16%)	27 (40%)	313.2 (41%)	31 (45%)	240.3 (32%)	1 (1%)	0.8 (<1%)	68 (100%)	760.5 (100%)

6.5. Ceramic Distribution per provenience

The overlying earth midden contributed thirty-five percent (n = 163; wt. = 1,602.2 g) of the total amount of analyzed ceramics from the unit (Table 6.1). SCCS was recorded for sixteen percent of the ceramics (n = 74; wt. = 880 g). Plain was also recorded at sixteen percent (n = 76; wt. = 55.1 g), followed by sherds with unidentifiable surfaces or unidentifiable stamping at one percent (n = 10; wt. = 120 g). The remaining two percent of the earth middens ceramic contribution consisted of one Gulf Check Stamped (wt. = 27.4 g), one Panola Check Stamped sherd (wt. = 5.2 g), and one cord marked ceramic (wt. = 34 g).

F1 and neighboring proveniences contained sixty-four percent of the total amount of analyzed ceramics from the unit (n = 297; wt. = 3,667.4 g). SCCS sherds made up thirty-six percent of the 297 (n = 169; wt. = 2,048.8 g), with twenty-four percent plain (n = 110; wt. g 1,423.4 g). The remaining four percent consisted of one possible Rocker stamped sherd (wt. = 14.7 g), one Panola Check Stamped, or Diamond Dot, sherd (wt. = 5.7 g), one sherd with a brushed exterior (wt. = 13.2 g), one ceramic with an unidentifiable stamped surface (n = 1; wt. = 55.3 g), and one sherd with the earlier mentions “stamped circular impressions” (wt. = 27.4 g). Except for the Rocker stamped and “circular” stamped sherd, the ceramic paste for F1 body sherds consisted of medium and course grained sands with rare quartz inclusions.

The Rocker stamped sherd collected from Level 10 of F1, and the “large circular paddle print” designed sherd collected from Level 13 of F1 showed similarities in paste and exterior coloring. Both sherds had very dark exteriors and interiors (10YR 3/2, very dark, grayish brown) with pastes that consisted of much coarser sands with unidentified white material inclusions. When the white material was subjected to a 5% solution of hydrochloric acid, the material did

not fizz suggesting it was not calcareous. This test ruled out the possibility that the material was bone or shell.

Feature 13, the earlier feature intruded upon F1, contained the remaining one percent (n = 7; wt. = 100.9 g) of the sherds from the unit. This percentage consisted of four Swift Creek Complicated Stamped ceramics (wt. = 43 g) and three plain sherds (wt. = 57.9 g).

6.5.1. Distribution of surface treatments per provenience

The earth midden contained thirty-four percent of Hard-tooled sherds (n = 157; wt. = 1571.2 g), and six (wt. = 31 g) of the burnished sherds (Table 6.2). The six burnished sherds were SCCS and were burnished on the interior and exterior: one rim and one body sherd from Level 2, and four body sherds from Level 3. Soot was noted on three plain Hard-tooled sherds (wt. = 18.4 g) from Level 3.

F1 and surrounding proveniences provided fifty-seven percent of the Hard-tooled collected from the unit (n = 266; wt. = 3164.2 g), and had the highest number of burnished sherds in the unit (n = 31; wt. = 503.2 g) (Table 6.2). Forty-five percent of the 31 burnished sherds were SCCS (n = 14; including one rim frag). The remaining fifty-five percent consisted of plain body sherds (n = 17).

The presence of soot on sherds occurred on nine percent of the collection from F1 and neighboring proveniences (n = 22). Carbon exclusively on the interior wall occurred on sixty percent of the 22 sherds (n = 18): six SCCS sherds had interior carbon, along with five plain sherds, and the Brushed sherd. Exterior carbon occurred on twenty percent of the sherds (n = 4): three plain sherds and one SCCS.

F13 sherds had interior and exterior hard tooling, but none displayed a burnished exterior or interior. One plain body sherd (wt. = 19.3 g) from Level 7, Zone B/C had soot on the interior wall.

6.6. Distribution of Rims per provenience

6.6.1. Paste Analysis (Rims Only)

Clay pastes generally contained a combination of medium and coarse sands with rare inclusion of coarse quartz granules (.5-1.0 mm). Mica was not present in any sherd collected from the unit.

Along with the previously mentioned Rockerstamped and "circular print" sherds, two rim sherds from F1, one from Level 5 (FS1162.07) and one from Level 6 (FS 1151.004) contained white material resembling limestone in the paste. However, the material did not fizz when subjected to a small drop of hydrochloric acid (5% solution). The acid test indicated that the material was not a calcium carbonate, removing the possibility of limestone (except dolomite) or shell inclusions.

6.6.2. Rim Treatment

Forty percent of the rim sherds were collected from the earth midden (n = 27; wt. = 181.2 g). Rims were predominantly tapered (n = 15), followed by flared out (n = 10), and thickened at the lip (n =2). The earth midden produced five scalloped SCCS rim sherds (wt. = 109 g). Twenty-two plain rims were collected from the earth midden (wt. = 72.2 g), and consisted of twelve scalloped (wt. = 39.7 g), seven flattened (wt. = 10.1 g), one rounded (wt. = 6.4 g), and two rolled (wt. = 16 g) (Table 6.3).

F1 and neighboring proveniences contained the majority of rim sherds with fifty-nine percent (n = 40; wt. = 565.2 g). This large percentage was made up of seventy-seven percent of SCCS rim sherds (n = 21; wt. = 352.6 g), and forty-six percent of the plain rim sherds (n = 19; wt. = 212.6 g) (Table 6.3). Fifty-one percent of the 40 sherds were flared (n = 21), followed by tapered (n = 16), and straight (n = 3). The SCCS rim sherds were predominantly scalloped at twenty two percent (n = 15; wt. = 109 g), ticked (n = 2; wt. = 27.1 g), flattened (n = 2; wt. = 42 g), and rolled (n = 2; wt. = 19.8 g) rim sherds each contributed three percent, and rounded made up one percent (n = 1; wt. = 10.6 g). The plain rim sherds consisted of eleven percent flattened (n = 8; wt. = 105.4 g), ten percent scalloped (n = 7; wt. = 66.9 g), four percent rolled (n = 3; wt. = 33.7 g), and one percent ticked (n = 1; wt. = 6.6 g). F13 produced one rolled, SCCS rim sherd (wt. = 14.1 g).

One large, scalloped SCCS rim sherd from Level 10 (FS1225.005) possessed an intentionally created drilled hole. The drilled hole occurred on a vessel with the concentric circle design (Figure 6.2), and may have been created in order to re-assemble the broken vessel. The drilled hole may also have been created for the sherd to be worn as a pendant. This sherd was the only one found to have a drilled hole within the entire assemblage from the unit.

Figure 6.2 – FS1225.005. Swift Creek Complicated Stamped scalloped rim with drill hole

Three crossmended plain rim sherds collected from F1 (Figure 6.3), Level 4, had firing characteristics that resembled St. John's Tradition ceramics (see Willey 1949), with a light-colored vessel interior and exterior and a wide dark core. The interior coloration was 10YR 6/5, light yellowish, brown, and the exterior was 10YR 3/5, dark yellowish, brown. When crossmended these sherds created the rim and partial body of an outslanting bowl with a diameter of 25-27 cm. One body sherd that displayed very similar paste, color, and texture characteristics to the St. Johns bowl was collected from F1, Level 7. However, I was unable to crossmend the body sherd with the three rim sherds. The paste of these sherds contained fine-grained sands with a trace mica. Sponge spicule inclusions were not observed under 70x magnification, but, because further crossmends are possible, no fresh break was made.

Figure 6.3 – FS1158.03 – St. John's style ceramic: Left to Right: Exterior, interior, profile

Fire clouding, a product of the firing process during the vessel's creation, was observed on seventeen of the rim sherds collected from F1 and neighboring proveniences, both plain and decorated. Soot on the other hand was much rarer; five of the rim sherds, all from F1 and neighboring proveniences, had exterior and/or interior sooting.

6.7. Vessel forms per provenience

The vessel forms identified from the earth midden contributed twenty percent of the restricted neck bowl or jar sherds (n = 14; wt. = 44.1 g), fourteen percent of the unrestricted bowl or jar sherds (n = 9; wt. = 38.7 g), four percent of the unrestricted jar sherds (n = 3; wt. = 97.6 g), and one sherd did not provide a vessel form (wt. = .8 g).

F1 and neighboring proveniences provided twenty-six percent of the unrestricted bowl or jar sherds (n = 18; wt. = 274.5 g), twenty-four percent of the restricted neck or bowl sherds (n = 16; wt. = 182.1 g), and three percent of the unrestricted jar sherds (n = 2; wt. = 27.3 g). Six percent of F1 sherds suggested unrestricted bowls (n = 4; wt. = 81.3 g). F13 provided one percent of the restricted neck or bowl sherds (n = 1; wt. = 14.1 g) (Table 6.4).

A single ceramic plain sherd from F1, Level 5, Zone B/C (FS# 1155.004; wt. = 39.2 g) was a suspected restricted necked jar. The sherd consisted of the portion of the body and flaring neck, but lacked the rim. Also, pieces of carbonized material adhered to the interior of the vessel's wall. Although the terminal rim edge was broken off, there was enough definition in the sherd to estimate a diameter of ca.19 cm (Figure 6.4).

Figure 6.4 – FS1155.004 – Restricted Neck Jar: Right to left: Exterior, interior, profile

6.8. Summary: Ceramic Analysis

F1 and surrounding proveniences within the unit produced a total of 1,856 ceramic sherds weighing 7,982 grams. After removing the plain (n = 862; wt. = 1247.3 g) and decorated sherdlets (n = 527; wt. = 1364.2 g) from the collection, a total of 467 sherds weighing 5,370.5 grams were analyzed for the purposes of this thesis. The overlying earth midden (Levels 1 through 35 cmbs) was responsible for thirty-five percent (n = 163; wt. = 1,602.2 g), F1 and neighboring proveniences (35 cmbs through Level 13) produced sixty-four percent (n = 297; wt. = 3,667.4 g), and F13 (Level 7 through Level 13) contributed the least to the ceramic collection with one percent (n = 7; wt. = 100.9 g).

The decorative style of the ceramics was predominantly SCCS (53%), followed by plain sherds (40%). The remaining seven percent consisted of Panola Check Stamped sherds (n = 2; wt. = 10.9 g), one Gulf Check Stamped sherd (wt. = 7.9 g), one variety of Cord marking (wt. = 34 g), one Brushed sherd (wt. = 13.2 g), one Rocker stamped (wt. = 14.7 g), a sherd with "large circular print" stamping (wt. = 27.4 g), and unidentifiable surface or stamped sherds (n = 24; wt. = 254.2 g) (Appendix 1, Table 5.2 and Table 6.1).

F1 and neighboring proveniences contributed the most to the ceramic collection producing thirty-six percent of the SCCS sherds (n = 169; wt. = 2,048.8 g) and twenty-four percent of the plain sherds (n = 110; wt. = 1,423.4 g). The overlying midden contributed sixteen percent of the SCCS sherds (n = 74; wt. = 880 g) and plain sherds (n = 76; wt. = 555.1 g). F13 provided the least with six percent of the SCCS ceramics (n = 4; wt. = 43) and less than one percent of the plain (n = 1; wt. = 57.9 g) (Table 6.1).

All of the analyzed sherds from the unit were either Hard-tooled (n = 430; wt. = 4836.3 g), or burnished (n = 37; wt. = 534.2 g) on both the interior and/or the exterior of the original vessel. The 297 sherds from F1 and neighboring proveniences contributed fifty-seven percent of the Hard-tooled (n = 266). The 31 burnished sherds from F1 made up six percent of the total collection (wt. = 503.2 g). The earth midden contributed thirty-four percent of the Hard-tooled sherds (n = 157), and had six burnished sherds that made up one percent of the total collection. F13 produced on Hard-tooled ceramics (1%) and with no evidence of burnishing (Table 6.2).

Soot was rare on the sherds from the unit. Only 26 sherds, five percent, had carbon on the exterior and/or the interior. This low number may be directly correlated to removal during excavation or cleaning. However, field and lab workers were told to be careful to preserve evidence of sooting or food residue. The lack of sooting may suggest the vessels in the unit were

not used for cooking, but rather for serving, storage, or other activities that did not involve heat. Unfortunately, there is little definitive vessel form information to contribute to this discussion.

Clay paste was generally medium- and coarse-grained sand, with rare occurrences of coarse- and medium-grained sand. Inclusions in the paste quartz fragments and an unidentified white material that did not provide evidence for materials comprises of calcium carbonates such as shell or bone.

Rim sherds made up fifteen percent of the analyzed ceramic collection (n = 68; wt. = 760.5 g) and were identified as either SCCS or plain (Table 6.2). Rim sherds for both stamped and plain were catalogued as scalloped, ticked, flattened, rounded, or rolled. Twenty-nine percent of the SCCS sherds were scalloped (n = 20; wt. = 376.2 g), followed by ticked (n = 2; wt. = 27.1 g), flattened (n = 2; wt. = 42 g), and rolled (n = 2; wt. = 19.8 g) at three percent, and rounded at one percent (n = 1; wt. = 10.6 g). Scalloping was also higher for plain rims at twenty-eight percent (n = 19; wt. = 106.6 g), followed by a higher percentage of flattened at twenty-two percent (n = 15; wt. = 115.5 g). Plain rolled sherds occupied ten percent the rim collection (n = 7; wt. = 69.5 g), followed by plain ticked at four percent (n = 3; wt. = 33.7 g), and plain rounded at three percent (n = 2; wt. = 17 g).

F1 and neighboring proveniences provided twenty-one percent of the SCCS rim sherds (n = 21; wt. = 352.6 g) and twenty-eight percent of the plain. The overlying earth midden contained eighteen percent of the SCCS sherds (n = 5; wt. = 109 g) and thirty-two percent of the plain (n = 22; wt. = 72.2 g). F13 contributed the least containing one percent of the SCCS rim sherds (n = 1; wt. = 14.1 g).

Vessel forms identified from the unit consisted of outslanting bowls (6%), unrestricted neck jars (8%), unrestricted neck bowls or jars (40%), restricted neck bowls or jars (45%), and unidentifiable vessel forms (1%) (Table 6.4).

6.9. Lithics

A total of 1,135 lithic artifacts weighing 3,254.7 grams were collected from the unit (Appendix 1, Table 5.3). Lithics were cataloged as debitage, which consisted of tertiary and secondary flakes. Tools were identified based on evidence of wear, striations, evidence for re-working, intensive bifacial or unifacial knapping, and shape. Also, exotic materials such as mica, graphite, and quartz crystal were identified. Debitage made up sixty-two percent of the collection (n = 704; wt. = 519.5 g), tools comprised four percent of the collection (n = 49; wt. 736.7 g), and exotic material made up the least with three percent (n = 37; 72.6 g). The remaining thirty-one percent consisted of various lithic materials such as sandstone, limestone fragments, chert shatter, and unidentified lithic materials (n = 345; wt. = 1,916.9 g) (Table 6.5).

The materials for lithic artifacts were identified as Coastal Plain chert, Tallahatta chert, Two-Egg chert, and unidentifiable or "residual" chert (Moorehead n.d.). Coastal Plain and Two-Egg cherts occur naturally in Florida limestone deposits in the area (Table 5.3). On the other hand, Tallahatta chert is less common on the Florida panhandle. Although the Tallahatta formation can be found above the surface in southern Alabama and Mississippi, Tallahatta chert is generally only found below ground along the Florida panhandle (Moorehead n.d.).

Table 6.5 – Lithics per provenience

	Debitage		Tool		Exotic		Other		Total	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	319 (28%)	198.5 (6%)	21 (2%)	166.4 (5%)	5 (<1%)	38.7 (1%)	67 (6%)	396.6 (12%)	412 (36%)	800.2 (25%)
Feature 1 and proveniences	382 (33%)	319.3 (10%)	28 (2%)	570.3 (18%)	30 (3%)	27.9 (1%)	223 (20%)	978.2 (30%)	663 (58%)	1,895.7 (58%)
Feature 13	3 (<1%)	1.7 (<1%)	0 (0%)	0 (0%)	2 (<1%)	6 (<1%)	55 (5%)	542.1 (17%)	60 (6%)	549.8 (17%)
Unit Total	704 (62%)	519.5 (16%)	49 (4%)	736.7 (23%)	37 (3%)	72.6 (2%)	345 (31%)	1,916.9 (59%)	1135 (100%)	3,245.7 (100%)

6.9.1. Lithic distribution per provenience

The overlying earth midden produced thirty-six percent of the collected lithics (n = 412; wt. = 800.2 g), F1 and neighboring proveniences contained fifty-eight percent (n = 663; wt. = 1,895.7 g), and F13 made up six percent (n = 60; wt. = 549.8 g).

Debitage from the earth midden contributed twenty-eight percent to the total collection (n = 319; wt. = 198.5 g) (Table 6.5). Of the 319 debitage flakes sixty-eight percent were eight percent were tertiary Coastal Plains chert (n = 219; wt. = 111.2 g). Coastal Plain secondary flakes (n = 24; wt. = 41.8 g) and Tallahatta chert tertiary flakes (n = 27; wt. = 13.7 g) both made up eight percent. Ten percent consisted of unidentifiable chert tertiary flakes (n = 33; wt. = 14.5 g), and the remaining six percent was made up of unidentifiable chert secondary flakes (n = 17; wt. = 17.3 g).

Twenty-one lithics identified as tools were collected from the earth midden, contributing two percent to the overall collection. The lithic tools collected from the overlying earth midden consisted of: one projectile point knife (ppk) (wt. = 12.1 g), twelve blades (wt. = 63.9 g), one drill fragment (wt. = 1 g), three endscrapers (wt. = 77.3 g), and four utilized flakes (wt. = 12.1 g).

Exotic materials made up a minute percentage of the lithic collection (<1%), consisting of three flakes of quartz crystal (wt. = 1.7 g). The remaining lithics collected were sandstone, limestone fragments, and unidentified lithic materials (n = 67; wt. = 396.6 g).

Lithic debitage collected from F1 and neighboring proveniences contributed fifty-eight percent to the overall collection (n = 663; wt. = 1,895.7 g) (Table 6.5). Of the 663 debitage flakes forty-seven percent were Coastal Plains tertiary (n = 309; wt. = 188.2 g), five percent was Coastal Plains secondary (n = 32; wt. = 95.1 g), four percent was Tallahatta chert tertiary flakes (n = 25; wt. = 22.2 g), one percent was Two-Egg chert tertiary (n = 6; wt. = 4.4 g), and a small percent (<1%) was Tallahatta chert secondary flakes (n = 3; wt. = 4.8 g). Generic chert tertiary made up one percent (n = 7; wt. = 4.6 g).

A variety of lithic tools (n = 50) were collected from F1 and neighboring proveniences, contributing two percent to the lithic collection (Table 6.5). The tools included two ppk (wt. = 10.3 g), blades (n = 9; wt. = 49.3 g), one endscraper (wt. = 22 g), one sidescraper (wt. = 11.4 g), four mano/hammerstone fragments (wt. = 400.6 g), one large core (wt. = 35.6 g), and ten utilized flakes (wt. = 41.1 g).

One of the most interesting tools was a ppk collected from Level 5 of F1, which was identified as a West Florida *var. Chipola*. (Figure 6.5) (see Justice 1987).

Figure 6.5 – FS# 1162.001: West Florida vars. Chipola PPK

As the name suggests, this style of projectile point is observed in West Florida and shares "morphological traits with San Patrice" (Faar 2006), a variation within the Dalton Cluster points. Dalton Cluster projectile points have been documented across much of the southeastern region and into parts of the Plains of North America and are associated with the Early Archaic (8500-7900 B.C.) (Justice 1987). The unusual aspect of the point (to Swift Creek peoples), and the possible intentional deposition into the refuse midden suggests that the point may have been involved in ancestor worship.

Exotic materials collected from F1 and neighboring proveniences contributed a higher percentage to the overall collection than the overlying midden (3%). Exotic materials included eight fragments of ochre (wt. = 4.5 g), one fragment of graphite (wt. = 0.4 g), mica (n = 2; wt. = 0.1 g), ten pieces of quartz (wt. = 7.9 g), five pieces of quartz crystal (wt. = 3.1 g), and four fragments of rose quartz (wt. = 11.9 g). The remaining 223 lithics collected consisted of sandstone, limestone fragments, and unidentified lithic materials (wt. = 978.2 g).

Lithics collected from F13 were far less diverse than the earth midden and F1, contributing the lower percentage to the overall collection (6%) (Table 6.5). The lithic collection was made up of three tertiary Coastal Plain chert flakes (wt. = 1.7 g), three pieces of unidentified chert (wt. = 5.1 g), and two fragments of ochre (wt. = 6 g). The remaining 55 lithics collected were sandstone, limestone fragments, and unidentified lithic materials (wt. = 542.1 g). No tools were collected from F13 proveniences.

Of the 37 fragments of exotic materials collected from the unit, quartz was the most abundant exotic material collected from the unit at thirty-two percent (n = 12; wt. = 44.9 g), followed by ochre at twenty-seven percent (n = 10; 10.5 g), quartz crystal at twenty-two percent (n = 8; wt. = 4.8 g), rose quartz at five percent (n = 2; wt. = < 0.1 g), mica at five percent (n = 2; wt. = 0.4 g) and graphite at two percent (n = 1; wt. = 0.4 g) (Appendix 1, Table 5.3). Ochre was discriminated from sandstone if the fragment produced a reddish/brownish streak when tested against a hard surface. Mica was rare within F1. The mica recovered from both BHN and BHS consisted of small and very thin fragments (< 1 cm). The ¼ inch screen used during the 2015 excavations may have allowed for smaller fragments of mica to fall into the back dirt during screening. This may also be the case for amount of graphite represented in the collection. Although ochre is available along the panhandle coast, mica, quartz, quartz crystal, and graphite probably originated in the Appalachian region, approximately 300 miles (483 km) to the north of BHS (Moorehead n.d.).

6.10. Modified Shell and Bone

6.10.1. Modified Shell

All modified shell was collected between Level 4 and Level 10 of the unit (n = 20; wt. = 198.2 g). Shell that showed signs of modification consisted of columellas from unidentifiable

gastropods, and whorls that had an intentional hole placed in order to remove the meat. It is possible that the number of modified shells was higher and that those with less obvious wear were discarded along with the unmodified shell.

Eighteen of the modified shells were catalogued as a 'punch or other' due to what appeared to be intentional sharpening or use-wear of the posterior end of the columella and swirl lines radiating from the sharpened tip (Figure 6.6). Swirl lines and lines that ran parallel along the columella (point to top) indicated rotation of the point or a puncture action of the point onto the surface of a material. These lines were noticed under magnification of the columella and were identified by comparing the deeper and sometimes more random appearing lines created through human use, to the natural, more systematic contour lines of the shell. The nineteenth modified shell was Map Specimen # 3, a Fighting conch shell (*Strombus alatus*) with an intentional hole in the whorl (Figure 6.5)

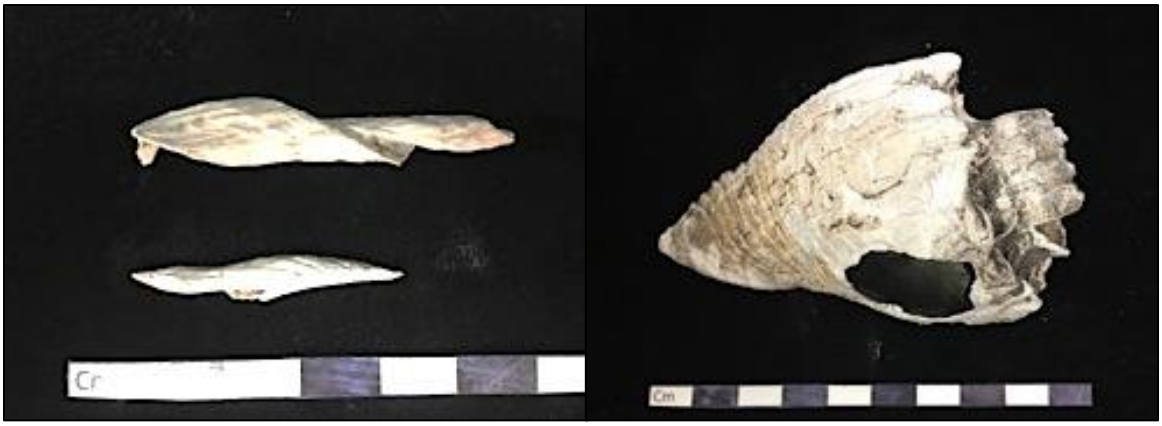


Figure 6.6 – Left: FS1166.82, Modified columellas from Feature 1
Right: Map Specimen #3, *Strombus alatus* with hole in whorl from Feature 1

6.10.2. Modified Bone

All of the modified bone from the units was collected between Level 4 and Level 12 of F1 and neighboring proveniences (n = 30; wt. = 37.5 g). Modified bone was created for both utilitarian purposes and for ornamentation. Along with modified fish spines (see chapter 5), a polished antler tine (wt. = 12.9 g), two mammal long bone punch/awls (wt. = 7.5 g), and two modified shark teeth were collected from F1. The shark's teeth showed evidence of intentional drilling. One tooth had a hole drilled through the upper gum section, while another had a circular mark in the same area of the gum and may be the result of unfinished drilling (Figure 6.7). Shark's teeth are sometimes used as drills themselves in the southeastern United States, with the hole providing a means to attach the tooth to a handle (Reitz and Wing 2008). However, the drilled tooth and the other shark's teeth collected during excavations of F1 showed no signs of wear on the enamel. The drilled tooth, and other shark's teeth may have been used for personal adornment by attaching the teeth to twine other items.

Three small, cartilaginous fish vertebrae had the central hole enlarged (where the notochord passes through). Associating these vertebrae with tool use is improbable due to the small and fragile nature of the bone (the three vertebrae had a combined weight of 2.8 g). Thus, it is likely that the vertebrae were suspended for adornment.

Figure 6.7 – Four (4) of the six (6) sharks teeth collected from F1.
Top Left to Right: Drilled hole (blue circle), evidence of drilling (red circle)
Bottom: Unmodified

6.11. Faunal Remains

As previously stated, faunal remains from Level 7 (n = 12,441; wt. = 4,074.61 g) were analyzed by Jake Mendoza for his undergraduate Honors Thesis. In addition to the inclusion of smaller vertebrate remains, Mendoza (2016) was able to spend the time to identify many of the fauna to Genus and Species, while all but the most commonly occurring bone was identified only to the Class level for the site as a whole. Therefore, Level 7 will be discussed separately in this section. However, data from Level 7 will be included in the overall discussion of faunal materials.

For this project, faunal remains from each level were identified minimally to Class, and, if possible, down to Genus and Species. Faunal remains that could not be assigned to Class, either because the fragment was too small or the condition or the bone was poor, were catalogued as Unidentifiable Bone (UBON). As noted previously (Chapter 5), unmodified shell was measured by volume, weighed, and discarded in the field.

Shell was recovered primarily from F1and neighboring proveniences (35 cmbs to Level 13), producing 69.63 liters of shell weighing 43,535.6 g, and consisted of mainly oyster, conch, clams, and scallops. The overlying midden contained less than one liter with a total weight of 530 grams, with the most shell collected at 35 cmbs above. No shell was collected from F13 and associated proveniences (Appendix 1, Table 5.1). Although no precise quantitative data are available for this shell, field notes indicate that oyster, conch, clams, and scallop were common in the F1 collection. The amount of shell collected from the unit is remarkable when compared to the other excavated units at BHS, which produced a combined 5.9 liters of shell weighing of 5,314 grams, with only oyster recognized in field notes (Table 6.6).

Table 6.6 – Shell collected from units at Byrd Hammock South

Excavated Unit	**Liter**	**Weight (g)**
1	1.8	940
2	1.1	1040
3 and 4	70.5	44065.6
5	< 0.1	45
6	0.5	1300
7	< 0.1	< 0.1
8	0.5	190
9	2	1799
10	< 0.1	< 0.1
Total	76.4	49379.6

Excavations from the unit produced a total of 45,455 vertebrate faunal remains weighing 16,960.3 grams (Appendix 1, Table 5.4). The overlying earth midden had the least amount of faunal remains, contributing less than one percent (n = 287; wt. = 121.8 g). Faunal remains from the F13 proveniences were higher than the earth midden (n = 1,535; wt. = 728.5 g), contributing three percent of the total remains. The remaining ninety-six percent of the faunal remains were collected from F1 and neighboring proveniences (n = 43,633; wt. = 16,019 g) (Table 6.7). Thus, only F1 fauna are described below. Additional information is available in Appendix 1, Table 5.4.

Table 6.7 – Vertebral faunal remains per provenience

	Mammal		**Fish**		**Reptile**		**Bird**		**Unidentified Bone**		**Totals**	
	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)	Count	Wt. (g)
Earth Midden	37	82.9	48	56.7	18	17.8	0	0	184	55.4	287 (<1%)	212.8 (1%)
Feature 1 and proveniences	834	2,063.2	27,178	9,023	2,557	2,117.6	138	95.6	12,926	2,719.6	43,633 (96%)	16,019 (94%)
Feature 13	44	87.6	618	243.8	284	276.2	2	1.4	587	119.5	1,535 (3%)	728.5 (4%)_
Unit Total	915 (2%)	2,233.7 (13%	27,844 (61%)	9,323.5 (55%)	2,859 (6%)	2,411.6 (15%)	140 (<1%)	97 (<1%)	13,697 (30%)	2,894.5 (17%)	45,455 (100%)	16,960.3 (100%)

6.12. Fish and Cartilaginous Fish

Fish accounted for sixty-two percent (n = 27,178) of the vertebrate fauna in F1 and fifty-six percent (9,023 g) of the total weight. Several fish were identified to species based on specific teeth, pneumatic bones, otoliths, and mandibles. These included black and red drum, crevalle jack, and catfish (Table 6.8).

Cartilaginous fish, sharks and rays, were rare at 0.002% (n = 129) of the total number and 0.001% (29.4 g) of the total weight. All of the shark's teeth collected from F1 belonged to the Bull Shark (*Carcharhinus leucas*).

6.13. Reptile

The second-most common Class in F1 was Reptile, which made up six percent (n = 2,557) of the total count and thirteen percent (2,177.6 g) of the total weight (Table 6.8). Turtle was the largest contributor (n = 2,008; wt. = 1,840.4 g), followed by snake (n = 275; wt. = 90.2 g), and then alligator (*Alligator mississippiensis*) (n = 37; wt. = 74.7 g). The majority of turtle remains were the plastrons and carapaces of a variety of species, although some vertebrae and long bones were present. Snake was identified through vertebrae only. Alligator was represented by phalanges, vertebrae, and scutes (bony plates within the skin of the alligator).

6.14. Mammal

Mammal accounted for only two percent (n = 834) of the vertebrate faunal count, but thirteen percent (2,063.2 g) of the total weight (Table 6.8). Deer (*Cervidae spp.*) was responsible for eleven percent (n = 93) of the mammalian faunal count but forty-nine percent (1,006.2 g) of the total mammal weight. Deer was identified through long bones, vertebrae, phalanges, antler tines, and cranial bones such as mandibles and teeth. Smaller mammals, such as opossums (n =

1; wt. = 3.5 g) (*Didelphis virginiana*), lagomorphs (n = 7; wt. = 5.6 g), rodents (n = 7; wt. = 2 g), and medium-sized mammals such as bobcat (*Lynx rufus*) (n = 1; wt. = 10.6 g), and a specimen belonging to the *Canidae* family (n = 1; wt. = .3 g) were also present in the faunal collection.

6.15. Birds

Except for the analysis of Level 7, all bird remains were catalogued as unidentifiable. This was due to both time constraints and the large quantity of faunal remains being analyzed. Bird remains (n = 138; wt. = 95.6 g) consisted of fragmented long bones that at times, closely resembled those of hares and rabbits (lagomorphs).

6.16. Amphibians

Amphibian (n = 1; wt. = 0.9 g) was only documented in the analysis of Level 7.

Table 6.8 – Faunal class, F1 and neighboring proveniences

Class	Count	Weight. (g)
Fish	27178 (62%)	9023 (56%)
Reptile	2557 (6%)	2117.6 (12%)
Mammal	834 (2%)	2063.2 (13%)
Bird	138 (<1%)	95.6 (<1%)
Unidentified Fauna	12926 (30%)	2719.6 ((17%)
Total	43633 (100%)	16019 (100%)

6.17. Faunal Analysis of Level 7

Level 7 produced the highest amount of bone in F1. From Level 7, 11,881 faunal remains weighing 3,871.2 grams were collected using a 1/4th inch screen. We were fortunate to have an

Honors College student, Jake Mendoza, interested in zooarchaeology in the lab, and we chose Level 7 as a good provenience for his Undergraduate Honor's thesis (Mendoza 2016).

Fish dominated the faunal assemblage in Level 7, making up eighty-seven percent of the total count (n = 10,330) and seventy-two percent of the total weight (2,802.2 g). Reptiles were the second-most abundant class, at six percent by count (n = 754), with mammal following at two percent (n = 245). However, by weight, the two classes are reversed. Mammal represented twelve percent of the total weight (483.7 g) and reptiles only represented ten percent (400 g). Bird, cartilaginous fish, and one amphibian (Bull Frog, *Lithobates catesbeianus*) contributed less than one percent of the total count (n = 57) and one percent of the total weight (50.7 g). Unidentified remains made up the remaining four percent of the total count (n = 495) and three percent of the total weight (134.6 g) (Table 6.9).

Table 6.9 – Level 7 faunal percentages by Class

Class	Count	Weight (g)
Fish	10,330 (87%)	2,802.2 (72%)
Reptile	754 (6%)	400 (10%)
Mammal	245 (2%)	483.7 (12%)
Birds, Amphibians, Cart. Fish	57 (<1%)	50.7 (1%)
UBON	495 (4%)	134.6 (3%)_
Total	11,881 (100%)	3,871.2 (100%)

Analysis of the faunal remains from Level 7 produced a total of thirty-six identifiable taxa (Mendoza 2016). The different species indicate exploitation of freshwater, saltwater, and terrestrial ecosystems (Table 6.10). In addition, the range of taxa suggests multiple hunting

practices were used. Inshore netting would have been used for smaller fish, and offshore use of spears would have been used for the larger fish such as mature crevalle jack (*Caranx hippos*). Turtles, rabbits, and smaller fish such as bowfin (*Amia calva*), could have been trapped in large quantities, also using nets, baskets, or other containers. The larger animals, such as alligator, bobcat, deer, and even shark may have been speared or hunted using atlatl and darts.

Table 6.10 – Common and scientific names of identified species and their preferred environmental condition for habitat (Mendoza 2016)

Mammal	**Scientific Name**	**Preferred Habitat**
American mink	*Neovison vison*	Freshwater/Terrestrial
Bobcat	*Lynx rufus*	Terrestrial
Deer	*Odocoileus virginianus*	Terrestrial
Dog	*Canidae*	Terrestrial
Rabbit	*Sylvilagus floridanus*	Terrestrial
Raccoon	*Procyon lotor*	Terrestrial
Skunk	*Mephitis mephitis*	Terrestrial
Fish	**Scientific Name**	**Preferred Habitat**
Black drum	*Pogonias cromis*	Saltwater
Bowfin	*Amia calva*	Freshwater/Saltwater
Burrfish	*Chilomycterus schoepfi*	Saltwater
Crevalle jack	*Caranx hippos*	Saltwater
Flounder	*Paralichthys albigutta*	Saltwater
Mullet	*Mugil cephalus*	Fresh or Saltwater
Red drum	*Sciaenops ocellatus*	Saltwater
Saltwater catfish	*Ariidae*	Saltwater
Sand seatrout	*Cynoscion regalis*	Saltwater
Sheepshead	*Archosargus probatocephalus*	Saltwater
Spot	*Leiostomus xanthurus*	Saltwater
Reptile	**Scientific Name**	**Preferred Habitat**
Alligator snapping turtle	*Macrochelys temminckii*	Freshwater
American alligator	*Alligator mississippiensis*	Terrestrial/Freshwater
Black racer	*Coluber constrictor*	Terrestrial
Box turtle	*Terrapene carolina bauri*	Terrestrial
Cooter	*Pseudemys*	Freshwater
Mud turtle	*Kinosternon subrubrum*	Freshwater
Pine snake	*Pituophis melanoleucus*	Terrestrial
Slider	*Trachemys*	Freshwater
Softshell turtle	*Apalone ferox*	Freshwater
Snapping turtle	*Chelydra serpentina*	Freshwater
Water moccasin	*Agkistrodon piscivorus*	Terrestrial/Freshwater
Water snake	*Nerodia*	Terrestrial/Freshwater
Amphibian	**Scientific Name**	**Preferred Habitat**
Bull frog	*Lithobates catesbeianus*	Freshwater/Terrestrial
Bird	**Scientific Name**	**Preferred Habitat**
American woodcock	*Scolopax minor*	Terrestrial
Canada goose	*Branta canadiensis*	Terrestrial/Freshwater
Common gallinule, cf.	*Gallinula galeata*	Terrestrial/Freshwater
King rail	*Rallus elegans*	Terrestrial/Fresh/Saltwater
Turkey	*Meleagris gallopavo*	Terrestrial

6.17.1. Level 7: Fish

As previously stated, fish was the dominant fauna in Level 7 and in F1 overall. A total of thirteen different species were identified in Level 7; creating an NISP of 9,849 and an MNI of 117 fish (Table 6.11) (Mendoza 2016). Different taxa of fish were determined through comparison with the Zooarchaeological Comparative Collection at the LSUMNS.

Striped mullet (*Mugil cephalus*) had the highest MNI (n = 77) of all of the fish, and overall faunal within Level 7 (Mendoza 2016). Other species of fish identified included red drum (*Sciaenops ocellatus*), black drum (*Pogonias cromis*), crevalle jack, catfish (*Ariidae spp.*), burrfish (*Chilomycterus schoepfi*), bowfin (*Amia calva*), spot (*Leiostomus xanthurus*), flounder (*Paralichthys albigutta*), and Sand Seatrout (*Cynoscion arenarius*) (Table 6.3). Mendoza (2016:11) states that "[m]any of the fish species identified…are known predators of striped mullet" and that the mullet and its predators may have been caught in the same location. Mendoza (2016:11) also states that several species of fish, such as black drum, sheepshead, and spot, "feed on shellfish."

Table 6.11 – Fish species, MNI and NISP (Mendoza 2016)

Fish Species	**MNI**	**NISP**
Black drum	3	11
Bowfin	1	1
Burrfish	1	1
Catfish	1	15
Crevalle jack	4	66
Flounder	3	12
Red drum	6	15
Sand sea trout	2	2
Sheepshead	4	25
Spot	4	4
Striped Mullet	77	82
Unidentified Drum	1	1
Unidentified	10	9,614

6.17.2. Level 7: Reptiles

Reptile faunal remains from Level 7 consisted of 754 bones weighing a total of 400 grams (Table 6.9). Turtle made up the majority of these remains: eighty-five percent of the total count (n = 641) and ninety-one percent of the total weight (366.6 g). Turtle remains included box turtle (*Terrapene Carolina bauri*), mud turtle (*Kinosternon subrubrum*), soft shell turtle (*Apalone ferox*), and Alligator Snapping turtle (*Macrochelys temminckii*), and snapping turtle (*Chelydra serpentine*) (Table 6.12). The remains of snakes, identified by vertebrae only, represented eleven percent of the total number (n = 87) and six percent of the total weight (23.5 g). Species included pine and gopher snakes (*Pituophis melanoleusus*), Black racer (*Coluber constrictor*), water moccasins (*Agkistrodon piscivorus*), and pit vipers such as the Copperhead rattlesnake (*Agkistrodon contortrix*) (Mendoza 2016).

The variety in turtle species indicates utilization of multiple environments. For instance, Mendoza (2016:14) states that, "softshell, sliders, cooters, and mud turtle are…generally associated with bodies of freshwater," whereas box turtles prefer drier areas. This is similar to snake species as well. For example, species of pine or gopher snake prefer terrestrial areas that provide shaded areas, whereas water snakes inhabit both terrestrial and freshwater habitats (Mendoza 2016).

Table 6.12 – Reptile species, MNI and NISP (Mendoza 2016)

Species	MNI	NISP
American alligator	1	9
Alligator Snapping Turtle	1	1
Box Turtle	1	6
Colubrid snakes	2	33
Mud Turtle	1	9
Pseudemys spp.	1	2
Snapping Turtle	1	2
Soft Shell Turtle	1	12
Trachemys spp.	1	2
Viperidae	1	14
Water moccasin	2	7
Water snake	1	9

6.17.3. Level 7: Mammals

Mammal in Level 7 totaled 245 bones weighing 483.7 grams. Deer was eight percent (n = 19) of the total mammal collection, but fifty-four percent (259.1 g) of the total weight. Although deer remains are the dominant species by weight, only a single individual was represented. Other mammals were identified as bobcat, cottontail rabbit (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), and mink (*Neovison vison*). The rest of the mammal remains were assigned to generic categories of small, medium, and large mammal, or unidentifiable mammal. All identified species had an MNI of one (Table 6.13). According to Mendoza (2016:12), the low MNI for each species may be due to underrepresentation and sample size.

These identified taxa represented in Level 7 ranged from small mammals such as rabbit and skunk, to medium and large mammals such as bobcat and deer. Although the sample size is small, Mendoza (2016:12) noted the people at BHS did not appear to place an emphasis on "a particular species of mammal for subsistence, instead collecting a range of small mammals associated with the area." Some species, such as the rodent (Figure 5.4), may have entered into

the midden independently, or may have been in the contents of another animal's stomach, such as a snake (Mendoza 2016).

Table 6.13 – Mammal species, MNI and NISP (Mendoza 2016). UID added by Author

Species	MNI	NISP
American Mink	1	1
Bobcat	1	1
Canidae	1	1
Cottontail rabbit	1	3
Deer	1	23
Raccoon	1	6
Striped skunk	1	1
UID Mammal	1	197

One faunal specimen identified during the analysis of Level 7 may connect prehistoric events and previous excavations at the site: a bobcat pelvis. Penton (1970) reports that several items associated with ritual activities were collected from the 1970 BHS excavations including "five cut polished animal mandibles…a perforated carnivore canine, [and] both halves of a polished bobcat mandible." These modified bones were collected from a block excavation done by Penton on the opposite side of the ring from the units. The series of units also produced drilled shark vertebra, a "perforated phalanx," and other polished bone fragments (Penton 1920:47) (Figure 6.8). All of the modified bone was associated with shell, which allows for a higher quality of bone preservation (Penton 1970).

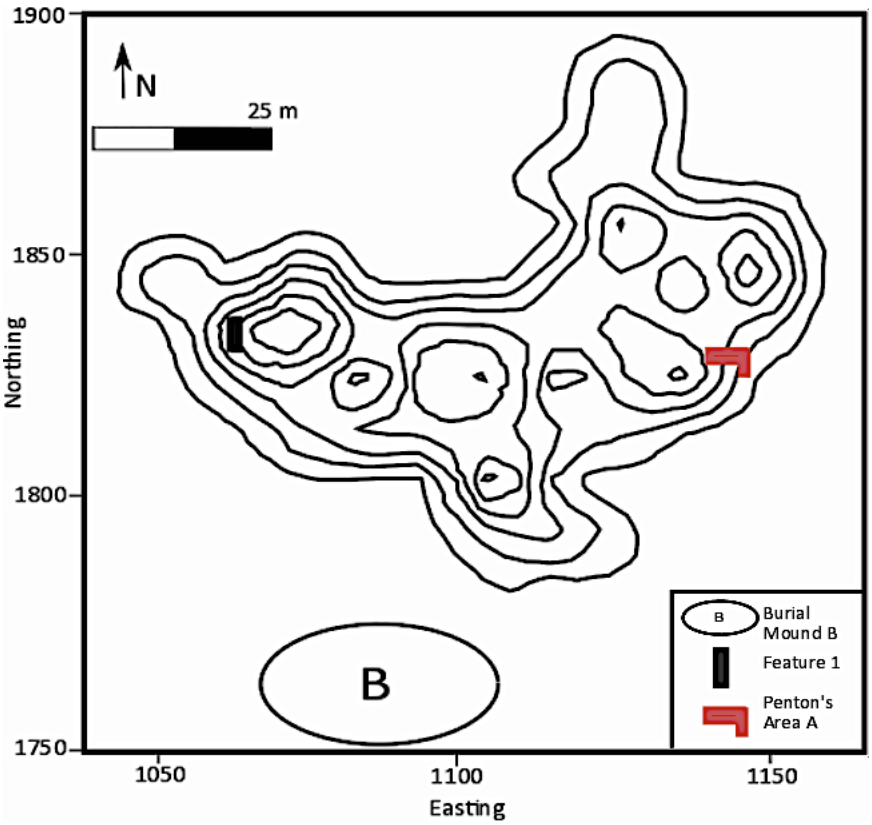


Figure 6.8 – Byrd Hammock South; Location of Penton's 1970 excavated Area A in relation to Louisiana State University 2015 excavations of Feature. Base map: National Park Service/Southeast Archaeological Center

6.17.4. Birds

Five different species of bird were identified. These included the common gallinule (*Gallinul Galeata*), Canada goose (*Branta canadensis*), turkey (*Meleagris gallopavo*), King rail (*Rallus Elegans*), and American woodcock (*Scolopax minor*) (Mendoza 2016) (Table 6.14). Mendoza (2016:16) suggests that the low quantity of bird faunal remains indicates birds were not a staple of the diet and were probably "taken opportunistically."

However, the bird species represent different ecosystems. According to Mendoza (2016), American woodcock and turkey favor wooded areas, whereas King rail, the common gallinule, and Canada goose can be found in more wet environments such as marshlands, and near sources

of freshwater. The variation of bird species "represent[s] diverse habitats," (Mendoza 2016:16) further promoting the notion that the inhabitants of Byrd Hammock were exploiting their diverse environmental surroundings.

Table 6.14 – Bird species, MNI and NISP (Mendoza 2016)

Species	MNI	NISP
American woodcock	1	1
Canada goose	1	1
Common gallinule	1	2
King rail	1	1
Turkey	1	2

6.18. Summary

Levels 1 through 35 cmbs contained remnants from an earth midden, which overlay F1, which comprised the bulk of the unit from 35 cmbs to approximately 150 cmbs. Feature 1 intruded on F13, which began to be segregated in Level 7. Compared to the quantities in F1, low amounts of bone and shellfish were collected the overlying midden and F13. Ceramics were represented in moderate quantities in the earth midden and consisted of a more diverse collection of decorated sherds when compared to F1 and F13. These included Swift Creek Complicated Stamped, Gulf Checked Sherd, Cord marked, and plain sherds. In addition, the earth midden had slightly more rim sherds compared to F1 (Table 6.3). The amount of lithic debitage collected the overlying midden was comparable to F1. However, the quantity of exotic materials was much lower in the earth midden than in F1 (Table 6.5).

Excavations of F1 – 35 cmbs through Level 13 – produced a sizeable number and weight of artifacts including stamped and plain ceramic sherds, large amounts of faunal remains, shellfish, exotic materials such as mica and graphite, modified shell and bone, and stone tools

(Appendix 1, Table 5.1 – Table 5.4). The diversity and quantity of artifacts collected from F1, including exotics, indicated that the fill contained the remains of special activities at the site.

F13 – levels 7 through 13 – contained low amounts of artifacts when compared to the overlying earth midden and F1. However, the artifacts were consistent with the other proveniences. Also, F13 contained humic soils (see chapter 5), a characteristic similar to F1 but not to the overlying midden. Similarities in artifacts, physical placement, and humic sands may suggest that F13 may have been created for a similar purpose, and/or by similar group(s) of people.

The low quantity of faunal materials, low amount of organic content as compared to F1 (see chapter 5), the diverse collection of decorated sherds, and low quantity of exotic materials suggests the earth midden was not a purposeful creation, as opposed to F1. Instead, the earth midden may have been created when more mundane activities were accomplished in this area.

Chapter 7 – Discussion of F1 Excavations at BHS

7.1. Feasting and Interactions: Ceramic Assemblage

Analysis of the ceramic assemblage provides evidence for inter- groups interactions at BHS, which I suggest is associated with these groups attending a large-scale feasting event that created F1. Although I was unable to cross-mend most of the pottery, and was therefore unable establish a size of the vessels, the shape of vessels suggested by rim orientation, the decorative practices, finishing techniques, and the large amount of ceramics suggests special use associated with ceremonial or ritual feasting events.

7.1.1. Rim Elaboration and Vessel Shape

Although rim sherds were generally too small to provide information of vessel size, the elaboration of rims and the vessel shape based on rims provides evidence for ceramics used for both preparation and serving.

F1 produced a higher number of decorated sherds, and decorated rims with elaboration than the overlying earth midden (Table 6.1 and Table 6.3). As with the Shipibo-Conibo example from Chapter 2, the Swift Creek people may have used different rim treatments depending on different social and cultural events, such as feasting. The different rim treatments would have been visually stimulating, drawing attention to the vessel and the vessel's exterior design. Also, more elaborate and time-consuming rim treatments allow for the potter to showcase their skill. Vessels with the more elaborate lip treatments may have been intended for display and serving, and not for preparation

The shape of the vessel can also assist in determining possible vessel function. In F1, thirteen rim sherds were from restricted neck vessels (see Chapter 6). Gary Shapiro (1984:702) suggests that the restricted neck helps "facilitate containment while affording protection from

spillage" during preparation, serving, and/or storage. In addition, the restricted neck would allow for less heat loss to occur (Wallis 2010), keeping the vessel's contents warmer for a longer period of time.

Cooking would likely occur in open bowls or jars with wider orifices that were better suited for "frequent turning and stirring" (Wallis 2011:151) during extended periods of low heat cooking (Wilson and Rodning 2002). The prepared food would then be transferred to restricted neck vessels "prior to consumption" (Shapiro 1984:703) in order to be served. In addition, the wide opening would allow for bowls to act as "communal serving vessels" (Wilson and Rodning 2002:33). Activities such as frequent stirring and communal serving, would have been hindered by the smaller orifices of restricted necked vessels. At BHS, the presence of restricted neck vessels may suggest activities associated with serving, while other vessels used for the initial preparation.

7.1.2. Ceramic Exterior Designs and Finishing Techniques for Feasting

Ceramics are excellent canvases for depicting social and cultural messages. In order to accurately portray a message to an observing public, potters and/or paddle carvers must dedicate more time to the creation process (see chapter 2). During a large-scale event, such as feasting, the larger population would allow increased opportunities for the transfer of information. To ensure successful communication or representation of ideals, beliefs, norms, or even identities, crafted and decorated items needed to be clear, concise, and visually appealing. At BHS, the time dedicated to creating clear and precise designs was evident on many of the ceramics sherds collected from F1. Although some sherds were overstamped, I was able to identify a set of different designs present in F1 that were clearly stamped and present in other areas of BHS. The

clarity of the stamped designs and their distribution throughout BHS suggests inter-site interactions and possible social/cultural significance associated with the designs (see Chapter 4).

Similar to the Late Archaic Stallings Island site (see Chapter 2), the vessel finishing techniques at BHS may indicate creation and use in ceremonial and/or large-scale events. All of the ceramic sherds that were large enough for analysis were either hard tooled or burnished (see Chapter 6). As mentioned in Chapter 2, this activity requires a large amount of time. The potter would probably not place so much emphasis on ceramics vessels used for domestic purposes, where the vessels would not be seen by others.

Precise decoration techniques and extensive hard-tooling/burnishing suggests that the potters created these vessels in order to display their talent, ideologies, and/or other cultural or social messages to a general populace. Throughout a social or public event, i.e. feasting, multiple groups would have the opportunity to display social and cultural identities and beliefs through visual representations placed on expertly crafted wares.

Ceramics are also highly mobile, meaning items and associated message can move more freely throughout a crowd. The more people within a group that come in contact with the vessel means more exposure of the visual message to the population. However, the message can only be seen and interpreted if the vessel has the ability to be moved around multiple times without breaking. In order to accomplish vessel quality the potter would dedicate extra time to ensure vessel durability and to create a clear and concise exterior design.

7.1.3. Ceramic Designs throughout BHS

Spatial distribution of ceramic designs may suggest intra- and inter-community interactions were common throughout BHS and the southeastern region. Movement of people, their designed paddle, the vessel, or a combination of these would have allowed for the transfer

of objects as well as ideas. Feasting events, such as those associated with mortuary ceremonies would have facilitated this movement.

Although several other designs have been recognized, and there are certainly many more that have yet to be catalogued due to the condition of the ceramics, for the purpose of this thesis I focused on the four designs previously mentioned in Chapter 4: Concentric circles with radiating lines (CON), Diamond Dot or Panola Check Stamp (DIDO), Central 'S'-shape (CS), and connected Double Ridge (DR).

A combination of the four designs were present in the other eight units at BHS (Table 7.1). Using the methods for design comparison discussed in Chapter 4, I was able to paddle match the four designs in each of the excavated units at BHS, indicating that each of the designs was created using the same carved paddle. The ubiquity of these designs at BHS strongly indicates communal sharing. Although each unit provided evidence for distinct areas of activity, the presence of paddle-matched ceramic sherds suggests attendees of the feasting event acted as a cohesive unit, sharing resources and goods throughout the site. With each of these designs represented in the collection from different levels of F1, there is a probability that the midden was not restricted. This allowed for the attending population to deposit materials into a designated area throughout the feasting event, further demonstrating social cohesion.

Table 7.1 – Ceramic designs per levels of excavated units at Byrd Hammock South

Excavated Units	**Level**													
3 and 4	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**Total**
Concentric circles		1	2	1	2	1			3	4	1			15
Central 'S'				2			5				1		1	9
Diamond Dot			1						1					2
Double ridge			1				1		2					4
1 and 2	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Concentric circles		3	1											4
Central 'S'				1	1									2
Diamond Dot														0
Double ridge			1	1										2
5 and 6	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Concentric Circles			1											1
Central 'S'														0
Diamond Dot														0
Double ridge		1	2											3
7 and 8	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Concentric circles		1	3											4
Central 'S'														0
Diamond Dot			2	1										3
Double ridge			1											1
9 and 10	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	
Concentric circles		2	3											5
Central 'S'														0
Diamond Dot														0
Double ridge														0
Total	0	8	18	6	3	1	6	0	6	4	2	0	1	55

7.1.4. Paddle Designs: Byrd Hammock South and Other Swift Creek Panhandle Sites

Designs from BHS have been recognized on several sherds from the 2012 LSU excavations at the Tyndall Air Force Base sites (Harrison Ring, 8BY1359 and Bakers Mound, 8BY29) and the Block-Sterns site (8LE148) in Tallahassee, Florida, as well as the Mann site (12PO2) in southwest Indiana, and the Leake site (9BR2) in Bartow County, Georgia (Figure 7.1).

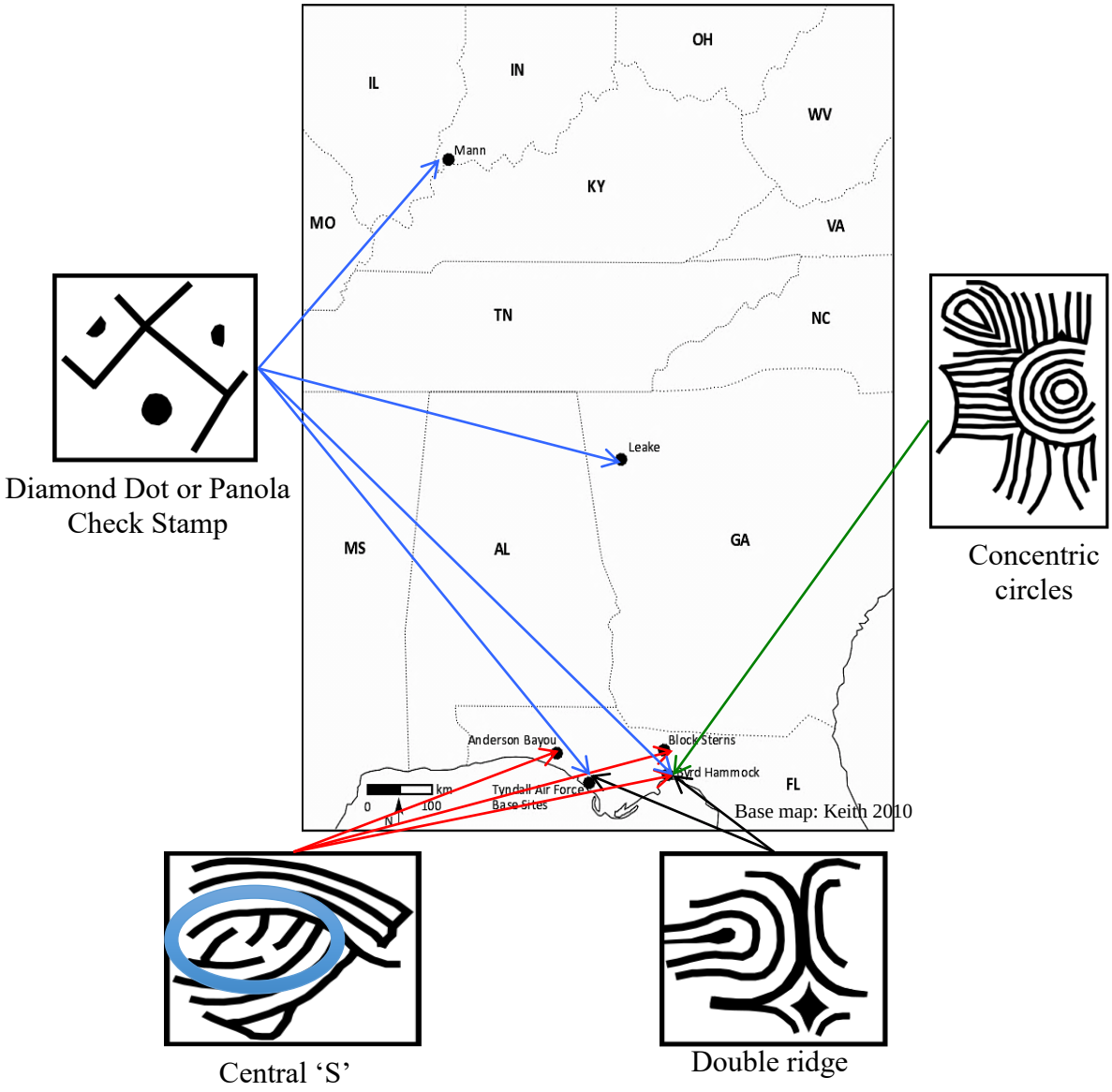


Figure 7.1 – Spatial distribution of Swift Creek designs discussed in this thesis
Base map: Keith 2010, Figure 521

The DR (Figure 7.2) stamp is one of the designs. Although there are slight variations in the size of the lines, shape, and the thickness of the lands and grooves, there are strong parallels between the two designs. Both sherds demonstrate two sets of four concentric ovoid lands coming together and creating a central diamond border. Within the diamond shaped border, a raised diamond shape can be identified on both sherds.

Figure 7.2 – Double ridge design
Left: Bakers Mound FS119.01. Right: Byrd Hammock South FS1164.04
Photographs by the author

The CS design has been recognized at Anderson Bayou (8BY21) near Panama City, Florida, and the Block-Sterns sites (Figure 7.3). Unfortunately, I was only able to collect measurements from the BHS CS sherd. Therefore, the differences and similarities noted in this discussion are only from visual analysis based on published archaeological reports. As with the DR designs, there are variations between the designs. However, there are also strong similarities. One of the most prominent differences is the positioning of the central 'S' shape: they are reversed. The 'S' from the Anderson Bayou and Block-Sterns sites (left and center) resembles

what we would recognize as a correctly oriented ‘S,’ whereas the ‘S’ from BHS (right) is backwards. Also, the amount of raised lands on either side of the ‘S’ varies. On the Anderson Bayou and the BHS sherds the ‘S’ is bordered by a total of six raised, arching lands – three on top and three on bottom. The sherd from the Block-Sterns site is bordered by a total of eight raised, arching lands – four on top and four on bottom. Each sherd possesses a diamond motif near the ‘S’ shape. The CS found at the Block-Sterns site has a decoration layout that looks almost identical to the Anderson Bayou ceramic sherd, although this is not based on direct observation.

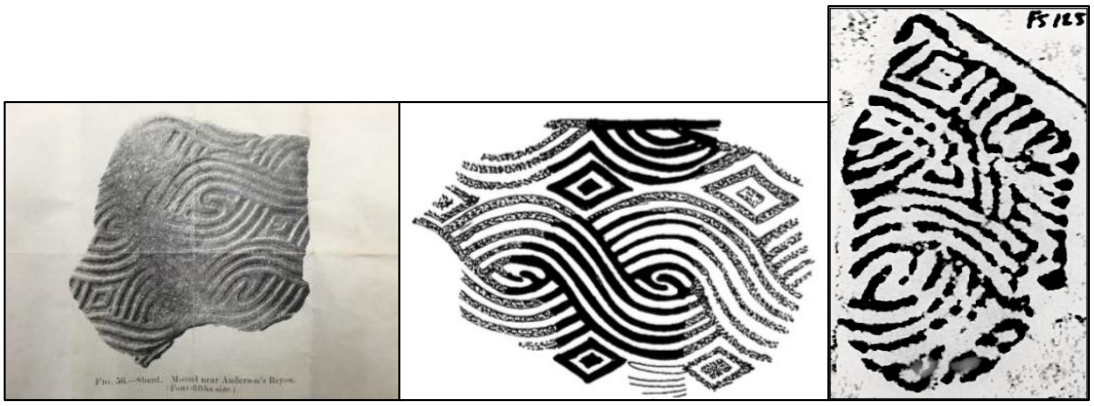


Figure 7.3 – Central ‘S’ Shape design
Left: Anderson Bayou (Moore 1918). Center: Block-Sterns, (Jones and Tesar 1996)
Right: Byrd Hammock South; FS1158, photograph by the author

The DIDO surface design (Figure 7.4) has been recognized in the Harrison Ring ceramic collection, the Mann site, and the Leake site (Figure 7.1). Each of these sites has a different style of the diamond check stamp with the raised central circle, but the designs are strikingly similar. Each design is a diamond check, with the diamond either elongated or square. Each has a raised circle or diamond in the approximate center of the diamond.

Figure: 7.4 – Diamond Dot, or Panola Check Stamp design
Top Left to Right: Leake site Specimen 2340 (Keith 2010), Mann site (Keith 2010)
Bottom Left to Right: Byrd Hammock South FS1252VV, Harrison Ring FS370
Photographs by the author

The CON design was the most common design found at the BHS site (Table 7.1). Although concentric circles were common motif on Swift Creek sherds from BHS and other sites, the specific configuration of the CON design was not recognized from any of the ceramic collections from other sites that I examined for this thesis.

However, the concentric circles and radiating lines may be an earlier representation of a Native American cosmological, four-field concept that is displayed on many native America flags (Healy et al. 2003): the filfot cross, or world symbol. Charles Hudson (1976) provides an ethnographic interpretation for the filfot cross, a variant of the four-field cross and circle design

in the southeastern United States. Hudson explains that the outermost circle is a symbolic representation of a flat world resting on a body of water. The interior circles demonstrate the groups perceived occupation of the center of the world, with other circles possibly representing the sun; a "principal Southeastern deit[y]" for some groups (Saunders 2000:50). The lines that extend from the outermost circle in each cardinal direction represent the four chords that suspend the world in the sky. Along with ceramics, the filfot symbol was "replicated in a number of media," (Saunders 2000:50) including personal adornments made of copper or shell. As styles of ceramic decorative styles "including cord marking and check stamping, completely disappeared" (Saunders 2000:51), variants of the world symbol continued to incised onto ceramics by southeastern societies.

At BHS, two different ceramics, one from F1, Level 10, and another recovered from an STP (FS 752) closer to BHN (N1920, E1070), may represent temporal design modifications to the world symbol (Figure 7.5). The ceramic from F1 is identified as Early Swift Creek, whereas the sherd collected from the STP shows characteristics of Late Swift Creek paddle stamping, which was part of the Weeden Island culture.

Figure 7.5 – Concentric circle design:
Left: Byrd Hammock South FS1225A, Early Swift Creek.
Right: Byrd Hammock South FS752.08, Late Swift Creek/Weeden Island

The overall CON design is simplified on the sherd on the right. Through this simplification, the size and number of the elements become smaller in size and in number on the Late Swift Creek/Weeden Island sherd. Also, compared to the Early Swift Creek sherd, which was hard tooled but not burnished, the Weeden Island sherd exterior and interior are burnished. The world symbol's significance to the southeastern culture and its presence on BHS ceramics may support the idea that large, ceremonial feasting events occurred at the site.

7.2. Lithics and Other Artifacts

The majority of lithic material collected from F1 and the BHS excavations was Coastal Plain chert. This is to be expected. Along with Two-Egg chert, Coastal Plains chert is local, or relatively so.

However, the exotic materials such as Tallahatta cherts, mica, the variety of quartz, and ochre could come from as far away as South Carolina (Morehead n.d.). In fact, all of the exotic materials collected from F1 and BHS are common in the Appalachian region. The materials may have been procured through down the line trade from person to person, or, directly procured from individuals who traveled to Byrd Hammock, or vise-versa, for purposes such as feasting or funerary rituals associated with Swift Creek ceremony. The lithic materials show interactions did occur between groups occupying different regions of the United States in order to obtain sumptuary materials and resources for social purposes.

7.3. Faunal Remains

The faunal remains of F1 show some of the most prominent archaeological evidence for feasting (Appendix 1, Table 5.4). According to Hayden (2001), a feasting event would produce an enormous quantity of faunal remains. This is definitely the case for F1, which produced

43,633 faunal remains from a small portion of the whole feature. Other features from different archaeological sites containing such a large amount of faunal remains have also been associated with feasting events. For instance, Timothy Pauketat and colleagues (2002) analyzed 10,626 faunal remains from the 1968 excavations conducted at Sub-Mound 51 from the Cahokia site. Through later analysis, the area of the feature that produced the wide faunal variety was determined to be the product of the "remains of public rites focused around feasts" (Pauketat et al. 2002:275).

In addition, faunal remains from F1 may have been associated with specific rituals, or had cultural significance (Claassen 2014; Hayden 2009; Hudson 1976; Potter 1997). Animals were important in both subsistence and ritual contexts in the prehistoric American Southeast (Claassen 2014; Hudson 1976). Specific animals were necessary for communal and individual rituals and ceremonies due to their spiritual and/or otherworldly qualities. Below, I provide brief examples of the cultural significances that Native North Americans have attributed to certain animals. These examples are provided in order to understand the potential social and cultural significance of the animal remains found at BHS. The comparison will be used to suggest that different areas of the site should be considered ritual, domestic, or both. All of the examples are from either ethnographic or archaeological accounts from North America.

7.3.1. Reptiles: Turtles and Snakes

7.3.1.1. Turtle

Excavations at the Block-Sterns site unearthed 27 almost complete box turtle carapaces. These carapaces may have served as containers, a use of turtle shell observed "in northern Hopewellian context" (Jones and Tesar 1996:388). Turtle shell may have been used as rattles and drums have been in both prehistoric North and South America (Claassen 2014; Hudson 1976).

The rattles and drums could have been used during ritual precessions and/or designated ceremonial events.

Spiritual and cosmological aspects have also been attributed to turtles. The Mandans, Sauk, Shawnee, Delaware are a few of the Native Americans of eastern North America that the Earth is actually supported on the back of a turtle. In their cultural accounts, four tortoises, or ambiguous serpents, support the world on their backs and are responsible for "the earth's stability" (Lankford 2007:22). The Algonquians in North America believe the turtle is responsible for the actual creation of the World. In their creation story, the Algonquians believe that "the mud turtle was the earth diver who brought up the mud from the bottom of the sea to create this earth" (Claassen 2014:145). In southeastern North America, fertility may have been attached symbolically to turtles around AD 600 (Claassen 2014). Similar to shells, the turtle symbolized birth and life, as well as stability and the Earth.

7.3.1.2. Snake

The remains of snake (all vertebrae) were found exclusively in levels 4 through 8 of F1. In addition, clusters of vertebrae belonging different Class of snake were identified during the analysis of Level 7 (see Chapter 6), possibly suggesting intentional deposition. However, there was no evidence of articulation suggesting the complete animal was interred. Snake has been associated with several important rituals associated with healing, death, and life.

Snakes were considered denizens of the Underworld and were believed to possess both negative and positive attributes. They were linked with thunder, lightning, and rain and were "epitomized by the rattlesnakes" (Hudson 1976:128). According to Hudson (1976:166), the snake was believed to be inherently dangerous due to the connection to the "ambiguous" Underworld, which was full of "monsters." However, the snake's ability to survive in the

dangerous Underworld was due to the positive attributes associated with water and fertility, with provided the snake a "means for coping with evil" (Hudson 1976:166). This dual nature of the snake, possessing both dangerous and beneficial qualities, may be the reason oral histories consistently depict the snake as both a trickster and a savior (see Hudson 1976).

Positive qualities associated with snakes made the animal an important addition to social and cultural rituals and ceremonies. For example, Hudson (1976:166) documents healers using "the teeth [of snakes] to scratch their patients and cure certain diseases." The oil produced by snakes was believed to be beneficial for rheumatism and joint problems (Hudson 1976). Other medicinal applications focused on gynecological issues and complications with childbirth. In some instances, individuals "tied a rattlesnake skin around the waist of a woman having birthing difficulties" (Claassen 2014:146) in hopes of alleviating the problem. Rattlesnake rattles were attached to Cherokee gourd rattles or feathers for ceremonial events.

7.3.1.3. Large Predators

Large predators, such as the alligator, shark, and bobcat found at BHS, may have been considered "noble game" (Dietler 2001:87) that possessed a form of sacred power that could be transferred to the individual hunter or the population involved in the hunt. Venomous snakes, such as rattlesnakes and moccasins, may have had similar symbolic attachments. Wearing or using specific parts of the animals: polished bobcat and alligator jaws, shark teeth, or snake fangs, would have perhaps displayed a person's ability as a hunter, courage, and possibly areas they had traveled. In 2006, Chad R. Thomas and associates found that 79 of the 854 Hopwellian burials located in Ohio, contained "animal power parts (e.g., jaws, teeth, talons, claws)"(Carr and Case 2006:331) directly associated with the deceased. These "power parts" were associated with

human-animal interactions such as hunting rituals, appeasing animal guardians, and identifying possible clan affiliations.

7.4. Condition of Faunal Remains in F1

The condition of the faunal remains provide additional evidence that F1 is the product of a large-scale feast and offers insight as to how fast the pit was filled. Articulated bones from Level 9 and Level 11, and one unopened clamshell from Level 11, were documented during analysis. Also, the shellfish remains collected from the concentrations were largely whole. The articulated remains and the whole shell suggests the materials were undisturbed after deposition, evidence for continuous episodes of rapid fill.

Further evidence for episodes of rapid fill is supported by the quantity of complete vertebrae collected. Vertebrae from each class of fauna were responsible for twenty-one percent (n = 9,550; wt. = 2,041.3 g) of the faunal collection from F1. Pauketat et al. (2002:264) suggested that fragile bones, such as "vertebrae, innominates, and scapulae" in the faunal collection from Mound 51 at the Cahokia site, were preserved because they were buried rapidly, and thus not subjected to post-depositional disturbances. In addition, excavations of F1 lacked any evidence of commensal snails, a terrestrial snail. If F1was filled with refuse deposited over a long period of time, the there would be more damage to fragile shell and bone and an abundance of the terrestrial snails.

7.5. The Materials from BHS in Relation to Synesthesia and Memory

During the feasting event at BHS, the population would possibly consist of local people all convening at one area in order to participate in a culturally, socially, and spiritually charged event. The individuals would bring finely crafted, visually attractive vessels that would be

displayed during feasting. Attendees of the feast may have participated in songs and dance while consuming large amounts of culturally significant and spiritually imbued fauna. Other items made of rare and exotic materials, such as quartz crystals and mica, might be traded or gifted. The exotic items received during a ceremonial event made a tangible representation for a moment in time. The memory of the event would travel with the attendee after the feast concluded.

In this example, the feast provided a synesthetic experience for the attendees by stimulating a variety of senses at the same time. The finely crafted items would have visually stimulated the attendees, while the smells and tastes were manipulated during the consumption of food items. The event may have involved song and dance, creating auditory stimulation combined with physical activity. The perpetuation of social and cultural rituals through the use of symbolic fauna would recreate established beliefs and ideals, further enhancing synesthesia while potentially promoting a sense of social cohesion.

This type of sensory manipulation may have enhanced the desire for traveling to feasting events. By providing high quality goods, food items, and tangible representations – i.e. exotic gifts – the ceremonial events are remembered. For F1, the presence of finely made wares, exotic materials, and abundance of a variety of food items suggests a large-scale feasting event that utilized synesthesia might have been responsible for the feature.

7.6. Summary

Rims and other ceramic sherds collected from F1 help support the hypothesis that F1 was created during a large-scale, ceremonial feasting event. Vessels bore elaborate stamped designs and were finely constructed and finished. Four of the designs recovered from F1 were recognized throughout BHS and a few designs were paddle matched at other coastal Swift Creek sites.

Design matching links BHS to sites as far north as southern Indiana, as well as other Swift Creek sites located along Florida's northwestern panhandle.

The exotic materials present, acquired through direct or down the line trade, may also suggest ceremonial activities at BHS. For example, mica and ochre at BHS has "no apparent utilitarian purposes, and their presence implies some aspect of ritual" (Russo et al. 2014:130) activities. In any case, the movement of people brought exotic items to BHS, which were incorporated into the suspected feasting event.

The abundance of faunal remains from F1 provides the strongest evidence for a large-scale feasting event. Over 40,000 faunal remains were collected from the nine excavated levels of F1, with Level 7 producing 36 different taxa. Some of the fauna and shell were articulated or mainly whole, suggesting rapid deposition and undisturbed fill. The collection from Level 7 indicates that faunal materials were acquired from the diverse micro-environments surrounding the BHS site. In addition, certain faunal materials from F1, such as snake, turtle, and large predators, have been directly associated with Hopewell ceremonial and ritual activities. Including the dangerous, sacred, or predatory fauna in the feasting event would have enhanced the cultural significance. The combination of fine ceramic wares, exotic and rare materials, and socially and culturally specific fauna would have invoked a sense of synesthesia, reminding the attendees of past feasting events that celebrated cultural and socially significant occasions.

Chapter 8 – Summary and Conclusions

8.1. BHS and Feature 1

In the summer of 2015, LSU conducted an Archaeological Field School at the Byrd Hammock site in Wakulla County, Florida, in conjunction with the National Park Service Southeastern Archaeological Center. The site consists of two semicircular-to-horseshoe-shaped middens, each of which is associated with a different burial mound (Figure 3.2). Artifact assemblages, radiocarbon dates, and ceramic decorative practices indicate that Byrd Hammock was host to two successive cultures: Early Swift Creek (A.D. 350-600) in the southern portion and Weeden Island (A.D. 600-900) to the north. During the field school, students from LSU conducted excavations at Byrd Hammock South (BHS), while at the same time students from FSU focused their attentions on Byrd Hammock North (BHN).

During the LSU 2015 Field School excavations at the BHS site, a large midden-filled, pit feature associated with the Swift Creek culture was excavated to its base at approximately 140 centimeters below surface (cmbs); this was designated as Feature 1 (F1). F1 is on the western edge of the ring midden, just outside of the plaza, and 60-meters due North of the burial mound (Figure 5.2) and was identified at 35 cm below on overlying earth midden. Soils of the overlying earth midden were less humic than the feature fill, and contained an exceptionally low amount of artifacts and faunal materials compared to the underlying midden feature (Appendix 1, Table 5.1 – Table 5.4).

Due to the vast size of the pit compared to surrounding features at BHS; the stratigraphic evidence suggesting an episode of rapid deposition; the unusual linear shape of the base; and the abundance of artifacts and food remains within, the feature was believed to contain the remains of a large-scale communal feasting event(s). These events likely involved the entirety of the

population that inhabited the area surrounding the site and quite possibly people throughout the Florida panhandle region.

The first recorded archaeological fieldwork at the Byrd Hammock site was the 1918 excavations conducted on both burial mounds by Clarence B. Moore. Moore discovered fifteen burials from each mound along with numerous vessels and other artifacts. Moore considered both the northern and southern portion of the site to the Weeden Island phase, a cultural affiliation that was maintained during subsequent excavations conducted by Gordon R. Willey (1940) and Glenn T. Allen (1954). Judith Bense (1969) was the first to suggest that although BHN was the product of Weeden Island interactions, BHS and the associated Mound B were not. Instead, Bense believed that BHS was created during the earlier Swift Creek phase. Daniel Penton's (1970) excavations and the ceramic assemblage collected provided evidence that BHS was indeed created during the Early Swift Creek phase, confirming Bense's hypothesis. Until the recent 2015 LSU Field School, no other professional, large-scale excavations have been conducted at the Byrd Hammock site.

Burial mounds are consistent with participation in the overarching Hopewell Interaction Sphere, a period of intensified interactions and trade, which occurred during the Early Swift Creek phase. Along with mounds, Hopewell influence has been identified through the presence of exotic materials, such as mica, and similarities in artifacts associated with ceremonies such as polished predator mandibles (Bense 2009; Penton 1970; Pluckhahn 2003). In the southeastern United States, the combination of middens, mound, and exotic and rare materials are associated with ceremonial complexes that were used by multiple culture groups in order to conduct ceremonies and rituals, such as those affiliated with death. These ceremonies might involve the exchanging, gifting, and/or presenting rare and exotic materials during communal feasting

events. The archaeological remains within F1 suggest the pit fill is the product of a large-scale feasting event that occurred during a ceremonial gathering at BHS.

The depositional patterns of F1 showed evidence for multiple cultural activities and constant episodes of deposition. Artifacts and materials were consistent throughout the levels of F1 as well. However, the amount of artifacts and materials increased each level, reaching a peak at Level 7, then decreased each level until the base of F1. In addition, F1 showed no evidence for disruption or abandonment (watermarking, lighter soil lenses, etc.). Instead, the profiles, along with articulated bones and complete shellfish remains, and material similarities throughout the feature suggests that one population created the feature through rapid deposition over a short length of time.

The faunal materials analyzed from F1 suggest the Early Swift Creek utilized the resources in each of the microenvironments in the area, perhaps even seeking out specific fauna that possessed ritual or ceremonial significance (see below). This exploitation of a diverse range of environmental conditions is consistent with the southeastern Early Swift Creek hunting-fishing-gathering subsistence patterns.

The layout of the mound and plaza area provides an excellent panoramic view of the entire site, regardless of where the observer stands. During ceremonies at BHS, individuals would have had full access to the events that took place, such as feasting, suggesting an egalitarian atmosphere surrounding the event. Communal sharing is evident in the material collected from F1 (Appendix 1, Table 5.2 – 5.4, Table 7.1). Faunal materials are not relegated to a specific species or anatomical portion of the animal, such as the aforementioned platform mound example (see Chapter 2). The ceramic assemblage is a mixture of both plain and highly crafted wares. The lithic materials are predominantly the by-product of tool production, and not

the tools themselves. This may indicate that the midden was utilized as a communal dumping area for general refuse produced during feasting events, along with ceremonial items. Each of these examples may represent the practice of communal resource sharing associated with risk-reducing strategies affiliated with transegalitarian societies (see Chapter 2). However, suggesting that F1 was the product of strictly a cooperative feasting event is unclear. Instead, F1 may be the result of a multi-faceted feasting event (see Chapter 2). First, the small portion of F1 excavated and analyzed for this thesis may not adequately represent the entire scope of artifacts within the feature. Other artifacts or remains in the remainder of F1 may be stronger determinants for cooperative vs. competitive feasting. Second, the building of an earthen mound suggests devoted time and labor, which usually requires some form of leadership. Further analysis and data collection would assist in determining social and/or political reasons for the feasting event.

However, the creation and maintenance of the burial mound, and the fact that some individuals in Mound B were associated with grave goods, suggests some status hierarchy at the site. One way to acquire a workforce is through feasting, which requires a certain degree of planning and extended periods of preparation (Spielmann 2002). A form of leadership, even temporary, would have been necessary in order to organize and persuade a viable workforce. Assuming or obtaining temporary leadership has been attributed to the transegalitarian form of social complexity associated with the Early Swift Creek.

Along with high amounts of faunal remains and exotic and rare materials from distant locations, the ceramic assemblage further supports the hypothesis that F1 was created during a large-scale feasting event that included inter-local, and possibly extra-local groups. Paddle matching at BHS demonstrate inter-site interactions, while similar designs from other sites may suggest the movement of ideas through extra-site interactions. Ceremonial events, such as

feasting, are arenas for the movement and sharing of ideals and beliefs through cultural and social interactions. Ceramics are excellent canvases for communication through the use of visual representations, or designs. Recognizing where similar ceramic designs have appeared at different archaeological sites can assist in providing evidence for the movement of ideas, and therefore, potentially the movement of people (see Chapter 2).

8.2. Conclusion: F1 – Evidence of a Transegalitarian, Early Swift Creek Feasting Event

Communal feasting in transegalitarian communities is vital when establishing "some mechanism of integration to maintain their social cohesion" (Potter 1997:353). Based on descriptions and categories created by Brian Hayden and other scholars (Figure 2.1) (Claassen 2014; Reitz and Wing: 2008; Potter 1997; 2000), analysis of F1 provides strong evidence supporting the assumption that the midden is the product of large-scale communal feasting event(s) possibly intended for ancestor worship. The event(s) included the populations that actively participated in the Hopewell Interaction Sphere, acquiring exotic and rare items through movement and trade for ceremonial and ritualistic purposes.

At BHS, the circular midden surrounding the clean plaza resembles the model assuming the midden was created by "a series of small domestic structures arranged in an arc around a central plaza" (Saunders and O'Keefe 2016:5). If the ring midden were made by a series of domestic arrangements, one would expect refuse that contained evidence of multiple activities to be found in each test unit. However, the 2015 excavations conducted by Louisiana State University do not support this model. Instead, each unit and test pit produced "material residues of distinctly different activities" (Saunders and O'Keefe 2016:5), including the production of lithic items and large scale cooking. The areas of distinct activities are integrated through the

occurrence of paddle-matched designs found throughout different strata of each excavated area (Figure 7.1).

Also, the vast size and shape of F1 (Figure 8.1) is unique to BHS and in the literature for coastal Swift Creek as a whole. The "unusually large" pit features from the Bernath site ranged from 2 to 8 meters in length. Feature 1 is between 9 and 11 meters in length and almost 1.5 meters deep. Although F1 may resemble other "basin-shaped" (Russo et al. 2014:126) refuse pit features recorded from other Swift Creek sites, the potential dimensions of F1 have not yet been observed in any other pit feature.

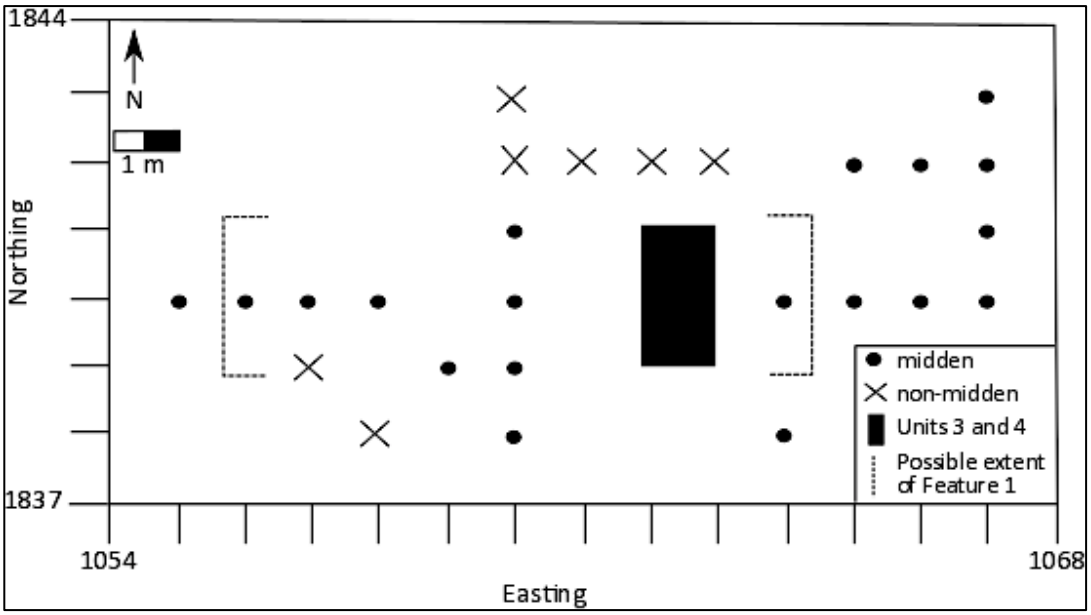


Figure 8.1 – Potential dimensions of the pit midden, Feature 1, based on core samples taken during the 2015 Louisiana State University Summer Field School

Due to the proximity of F1 to Burial Mound B, and because of ancestor worship is believed to have been a part of Hopewell rituals, the feasting event was likely intended to honor deceased ancestors. Evidence for ancestor worship may be recognized by the internment of curated items such as the Early Archaic period West Florida Chipola ppk (see Chapter 6). In addition, the snake vertebra, remains of alligator, and the shark teeth may be evidence for the

intentional internment of culturally powerful animals, a mortuary practice associated with possible clan affiliations in Hopewell burials (see Chapter 6).

Increase in taxonomic diversity has been associated with feasting events (Potter 1997; Potter; 2000; Rogers and Smith 1995; Spielmann 2002; Windham 2010). James Potter (1997:358) observed this characteristic in 1997 when he analyzed communal feasting events associated with the Anasazi in the Four Corners Region. He emphasizes that areas hosting a feasting event(s) would witness "more intensive ritual activities" that would be represented through "an increase in faunal diversity" (Potter 1997:358). Although the diversity in fauna collected from F1 resembles other coastal Swift Creek sites (see Byrd 1994 and Nanfro 2004), the sheer quantity of remains (see chapter 6) suggests food items were sought out and collected in bulk for the feasting event. In Level 7 alone, thirty-six different taxa were identified from animals that inhabit each of the microenvironments located around Byrd Hammock, suggesting full utilization of the local environment.

The depositional patterns and condition of faunal remains suggest that Feature 1 was filled by rapid deposition over a short period of time. Although minor changes in soil texture and color did occur throughout the lower levels of F1, no level floors or wall profiles displayed evidence (watermarking, Aeolian sands, presence of commensal snails, trampling) that the pit was left open for any length of time. The density of organic midden, along with the completeness of bones, shell, and articulated bones may all be considered as evidence for rapid burial (Kelly 2001; Pauketat et. al. 2002).

The spatial distribution of ceramic designs suggests inter-group interactions were common at the site. The extent of the travel is currently unknown. The similar designs seen at TAFB, Alligator Bayou, and Block Sterns may suggest that these different groups were in

contact with one another on a regular basis. Similarities between the coastal Diamond Dot, designs at the Leake and Mann sites suggests that the people at BHS were active participants in the Hopewell Interaction Sphere (Figure 7.5). This allowed them to acquire a small amount of exotic material for ceremonial and other non-utilitarian purposes. Movement of people, paddles, stamped vessels, or a combination of these would have created the movement and procurement of materials as well as social and cultural ideals and identities.

The quality of the ceramics vessels, the presence of rare and exotic materials, and faunal remains associated with ritual and/or ceremonial context provides evidence for the manipulation of the senses, ultimately creating a sense of synesthesia for the feast's attendees. The positive reinforcement associated with synesthesia experienced at feasting other ceremonial events would create a want to attend future events, in hopes of a similar experience.

Taken together, artifacts and stratigraphic evidence strongly suggests that F1was filled with the remains of a transegalitarian feasting event. Through trade and travel, the Early Swift Creek groups along the Florida panhandle were able to organize an event at BHS to honor their ancestors through ceremonial feasting.

Due to the large amount of waste created by the feast, a massive trench-pit for waste disposal was created in a location with a view of the burial mound was established for the deposition of the waste. This contained the food remains from feasting events, but also received spiritual or symbolic items in order to adequately remember and honor their dead. After the event ended, the population disbanded, returning to their homes with their gifts, their memories, and a sense of excitement and anticipation for future feasts. This left F1 as an undisturbed catalogue of the events that transpired at BHS over 1,600 years ago.

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Appendix 1

Table 5.1 – Shellfish weight and volume collected from Unit 3 and 5 per provenience

Units 3 and 4: Shellfish Amount (Liters) and Weight (grams) Per Level/Provenience			
Level	Provenience	Amount (L)	Weight (g)
1	Level 1	<.1	<.1
2	Zone A	<.1	20
3	Zone A	<.1	30
	Zone B	<.1	20
4	Zone B: 30-35 cmbs	0.5	450
	Feature 1: 35-40 cmbs	0.9	550
5	Feature 1	3	2270
	Zone B/C	0.3	88
6	Feature 1	8.5	7037
	Zone B/C	0.25	330
	Zone C	< .1	< .1
7	Feature 1/Area 1	18.5	10605
	Zone B/C	0.1	175
8	Feature 1	13	8218.6
	Zone C	< .1	< .1
9	Feature 1/A1/A2	6	3630
	Zone B/C	< .1	< .1
10	Feature 1	11	4900
11	Feature 1	4	2690
12	Feature 1	4	2975
13	Feature 1	0.1	77
	Feature 13 to Base	0	0
Total		70.15	44065.6

Table 5.2 – Ceramic designs collected from Unit 3&4

Level	Provenience	Sherdlet Dec < 1in		Sherdlet Plan < 1in		Check Stamped		Cord Marked		Curvilinear	
		Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	2	5.3	12	15.5	0	0	0	0	2	8.6
Level 2	Zone A	35	109.6	67	147.8	1	7.9	1	34	21	269.1
Level 3	Zone A	44	122.8	102	140.2	0	0	0	0	23	281.8
	Zone B	31	87.1	66	123.5	0	0	0	0	19	219.8
Level 4	30-35 cmbs	16	40.2	25	36.7	0	0	0	0	9	100.7
	35-40 cmbs	55	160.7	82	127.1	0	0	0	0	11	115.2
Level 5	Feature 1	30	70.6	54	78.8	0	0	0	0	22	369.5
	Zone B/C	13	25.2	23	30.7	0	0	0	0	5	42.8
Level 6	Feature 1	48	135.9	66	98.9	0	0	0	0	22	248.5
	Zone B	19	52.8	52	62.9	0	0	0	0	10	94.9
	Zone B/C	3	4.4	10	21	0	0	0	0	2	27.3
Level 7	Feature 1	101	233.9	168	139.5	0	0	0	0	45	481.3
	Area 1	6	17.4	21	43.4	0	0	0	0	0	0
	Zone B/C	4	9.3	13	17.6	0	0	0	0	1	5.9
Level 8	Feature 1	30	65.2	2	1.7	0	0	0	0	15	196.5
	Zone B/C	0	0	2	1.8	0	0	0	0	1	9.8
	Zone C	0	0	0	0	0	0	0	0	1	9
Level 9	Feature 1	32	83.1	28	30.6	0	0	0	0	13	143.8
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	2	0.6	0	0	0	0	0	0
	Zone B/C	0	0	1	1.5	0	0	0	0	1	14.1
	Zone C	0	0	1	5.3	0	0	0	0	0	0
Level 10	10 Feature 1	37	97.2	30	56.1	0	0	0	0	16	230.4
Level 11	Feature 1	12	24.9	16	34.8	0	0	0	0	4	64.5
	Area 3	1	0.4	2	2.6	0	0	0	0	0	0
Level 12	Feature 1	0	0	5	5.9	0	0	0	0	0	0
	Area 3	0	0	2	0.4	0	0	0	0	0	0
Level 13	Feature 1	5	8.3	9	21.9	1	27.4	0	0	0	0
	Feature 13	3	9.9	1	0.5	0	0	0	0	1	13.2
Total		527	1364.2	862	1247.3	2	35.3	1	34	244	2946.7

Table 5.2 – Ceramic designs collected from Unit 3&4 (continued)

Level	Provenience	Curv/Rect Stamp		Diamond Dot		Incised/Brushed		Plain		Rectilinear	
		Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	25	192.1	0	0
Level 3	Zone A	0	0	0	0	0	0	30	156.6	0	0
	Zone B	0	0	1	5.2	0	0	16	147.2	0	0
Level 4	30-35 cmbs	0	0	0	0	0	0	5	59.2	0	0
	35-40 cmbs	0	0	0	0	0	0	23	282.1	0	0
Level 5	Feature 1	0	0	0	0	0	0	20	287	0	0
	Zone B/C	0	0	0	0	0	0	2	45.8	0	0
Level 6	Feature 1	0	0	0	0	0	0	11	152.7	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	2	21.6	0	0	0	0	0	0	0	0
Level 7	Feature 1	0	0	0	0	0	0	18	254.9	1	3.5
	Area 1	0	0	0	0	0	0	3	45.4	0	0
	Zone B/C	0	0	0	0	0	0	1	19.3	0	0
Level 8	Feature 1	0	0	0	0	0	0	8	97.2	0	0
	Zone B/C	0	0	0	0	0	0	1	30.9	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	0	0	1	5.7	0	0	9	90.7	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	1	7.7	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	10 Feature 1	0	0	0	0	1	13.2	6	61.8	0	0
Level 11	Feature 1	0	0	0	0	0	0	3	28.9	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	0	0	0	0	0	0	5	56.5	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	0	0	0	0	2	20.4	0	0
	Feature 13	0	0	0	0	0	0	0	0	0	0
Total		2	21.6	2	10.9	1	13.2	189	2036.4	1	3.5

Table 5.2 – Ceramic designs collected from Unit 3&4 (continued)

Level	Provenience	Rockerstamp		Unidentifiable Stamp		UID Surface		Totals:	
		Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	16	29.4
Level 2	Zone A	0	0	0	0	1	8.6	151	769.1
Level 3	Zone A	0	0	0	0	3	33.4	202	734.8
	Zone B	0	0	0	0	3	32.5	136	615.3
Level 4	30-35 cmbs	0	0	3	45.5	0	0	58	282.3
	35-40 cmbs	0	0	0	0	5	53.8	176	738.9
Level 5	Feature 1	0	0	0	0	0	0	126	805.9
	Zone B/C	0	0	0	0	0	0	43	144.5
Level 6	Feature 1	0	0	0	0	0	0	147	636
	Zone B	0	0	0	0	0	0	81	210.6
	Zone B/C	0	0	0	0	0	0	17	74.3
Level 7	Feature 1	0	0	0	0	0	0	333	1113.1
	Area 1	0	0	0	0	0	0	30	106.2
	Zone B/C	0	0	0	0	0	0	19	52.1
Level 8	Feature 1	0	0	0	0	2	14.2	57	374.8
	Zone B/C	0	0	0	0	0	0	4	42.5
	Zone C	0	0	0	0	0	0	1	9
Level 9	Feature 1	0	0	0	0	0	0	83	353.9
	Area 1	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	2	0.6
	Zone B/C	0	0	0	0	0	0	3	23.3
	Zone C	0	0	0	0	0	0	1	5.3
Level 10	10 Feature 1	1	14.7	0	0	4	40.8	95	514.2
Level 11	Feature 1	0	0	0	0	0	0	35	153.1
	Area 3	0	0	0	0	0	0	3	3
Level 12	Feature 1	0	0	0	0	2	12.2	12	74.6
	Area 3	0	0	0	0	0	0	2	0.4

Level 13	Feature 1	0	0	1	13.2	0	0	18	91.2
	Feature 13	0	0	0	0	0	0	5	23.6
Total		1	14.7	4	58.7	20	195.5	1856	7982

Table 5.3 – Lithics collected from Unit 3&4

	Materials	Projectile Point/Knife		Blade		Drill		Endscrapher		Sidescraper	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	7	44.2	0	0	1	6.4	0	0
Level 3	Zone A	1	12.1	0	0	1	1	0	0	0	0
	Zone B	0	0	5	19.7	0	0	2	70.9	0	0
Level 4	30-35 cmbs	0	0	1	7.8	0	0	0	0	1	11.4
	35-40 cmbs	0	0	3	15.9	0	0	0	0	0	0
Level 5	Feature 1	1	5.8	1	5.5	0	0	1	22	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 6	Feature 1	0	0	0	0	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	1	3.5	0	0	0	0	0	0
Level 7	Feature 1	1	4.5	2	15.1	0	0	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	0	0	1	1.5	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	0	0	0	0	0	0	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	0	0	0	0	0	0	0	0	0	0
Level 11	Feature 1	0	0	0	0	0	0	0	0	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	0	0	0	0	0	0	0	0	0	0

	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	0	0	0	0	0	0	0	0
	Feature 13	0	0	0	0	0	0	0	0	0	0
Totals:		3	22.4	21	113.2	1	1	4	99.3	1	11.4

Table 5.3 – Lithics collected from Unit 3&4 (continued)

	Materials	Mano/Hammerstone		Groundstone		Core		Utilized Flake		Coastal Plain Chert Secondary Flake	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	10	13.5
Level 3	Zone A	0	0	0	0	0	0	3	10.6	0	0
	Zone B	0	0	0	0	0	0	1	1.5	14	28.3
Level 4	30-35 cmbs	0	0	0	0	1	35.6	0	0	0	0
	35-40 cmbs	2	111.1	0	0	0	0	4	10.7	10	18.6
Level 5	Feature 1	0	0	0	0	0	0	4	23.8	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 6	Feature 1	0	0	0	0	0	0	0	0	10	31.4
	Zone B	0	0	0	0	0	0	1	3.7	3	14.3
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 7	Feature 1	1	79.8	0	0	0	0	1	2.9	6	19.1
	Area 1	1	209.7	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	1	6
Level 9	Feature 1	0	0	0	0	0	0	0	0	2	5.7
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	0	0	0	0	0	0	0	0	0	0
Level 11	Feature 1	0	0	0	0	0	0	0	0	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0

Level 12	Feature 1	0	0	0	0	0	0	0	0	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	0	0	0	0	0	0	0	0
	Feature 13	0	0	0	0	0	0	0	0	0	0
Totals:		4	400.6	0	0	1	35.6	14	53.2	56	136.9

Table 5.3 – Lithics collected from Unit 3&4 (continued)

	Materials	Coastal Plain Chert Tertiary Flake		Tallahatta Chert Secondary Flake		Tallahatta Chert Tertiary Flake		Two-Egg Chert Tertiary Flake		Generic Chert Secondary Flake	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	18	8.7	0	0	0	0	0	0	0	0
Level 2	Zone A	62	32.2	0	0	3	1.3	0	0	16	14.1
Level 3	Zone A	63	29.5	0	0	5	2.9	0	0	0	0
	Zone B	75	40.8	0	0	19	9.5	0	0	1	3.2
Level 4	30-35 cmbs	23	14.5	0	0	6	10.1	0	0	0	0
	35-40 cmbs	77	43.7	0	0	9	5.1	0	0	0	0
Level 5	Feature 1	46	33.9	2	4.1	7	5.8	3	3.7	0	0
	Zone B/C	27	10.8	0	0	0	0	1	0.4	0	0
Level 6	Feature 1	23	24.7	0	0	0	0	2	0.3	0	0
	Zone B	7	5.8	0	0	0	0	0	0	0	0
	Zone B/C	7	3	0	0	0	0	0	0	0	0
Level 7	Feature 1	35	9.2	0	0	2	0.5	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	17	10.1	0	0	0	0	0	0	0	0
	Zone B/C	1	0.1	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	16	6.2	0	0	0	0	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
	Zone B/C	1	1.5	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	14	9	0	0	0	0	0	0	0	0
Level 11	Feature 1	11	10.5	0	0	0	0	0	0	0	0

	Area 3	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	3	2.1	0	0	0	0	0	0	0	0
	Area 3	1	0.1	0	0	0	0	0	0	0	0
Level 13	Feature 1	3	4.7	1	0.7	1	0.7	0	0	0	0
	Feature 13	0	0	0	0	0	0	0	0	0	0
Totals:		530	301.1	3	4.8	52	35.9	6	4.4	17	17.3

Table 5.3 – Lithics collected from Unit 3&4 (continued)

	Materials	Generic Chert Tertiary Flake		Chert/Lithic Shatter		Graphite		Mica		Ochre	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	4	7.3	0	0	0	0	0	0
Level 2	Zone A	32	14.4	15	29.3	0	0	0	0	0	0
Level 3	Zone A	0	0	11	9.2	0	0	0	0	0	0
	Zone B	1	0.1	13	24	0	0	0	0	0	0
Level 4	30-35 cmbs	0	0	7	8	0	0	2	0.1	0	0
	35-40 cmbs	1	0.7	15	18.4	0	0	0	0	0	0
Level 5	Feature 1	0	0	18	39.7	0	0	0	0	0	0
	Zone B/C	0	0	1	0.6	0	0	0	0	0	0
Level 6	Feature 1	1	0.4	17	55.1	0	0	0	0	2	1
	Zone B	0	0	4	4.8	0	0	0	0	1	0.6
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 7	Feature 1	0	0	28	79.6	1	0.4	0	0	2	0.8
	Area 1	0	0	4	3.6	0	0	0	0	0	0
	Zone B/C	0	0	3	5.1	0	0	0	0	1	0.9
Level 8	Feature 1	0	0	8	6.6	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	4	2.8	6	16.1	0	0	0	0	1	0.9
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	1	0.2	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	1	0.7	7	7.6	0	0	0	0	0	0

Level 11	Feature 1	0	0	7	10.1	0	0	0	0	2	1.2
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	0	0	2	8.8	0	0	0	0	0	0
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	3	4.7	0	0	0	0	0	0
	Feature 13	0	0	0	0	0	0	0	0	1	5.1
Totals:		40	19.1	174	338.8	1	0.4	2	0.1	10	10.5

Table 5.3 – Lithics collected from Unit 3&4 (continued)

	Materials	Quartz		Quartz Crystal		Rose Quartz		Sandstone		Other	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	1	1.7	0	0
Level 2	Zone A	1	1.3	0	0	0	0	3	1.7	1	116.1
Level 3	Zone A	0	0	2	1.6	0	0	11	28.4	5	51.3
	Zone B	1	35.7	1	0.1	0	0	2	35.3	1	92.3
Level 4	30-35 cmbs	1	0.7	1	0.7	0	0	0	0	10	116.7
	35-40 cmbs	0	0	1	0.2	0	0	0	0	10	137.8
Level 5	Feature 1	1	0.7	1	0.2	0	0	0	0	4	126.3
	Zone B/C	0	0	1	1	0	0	0	0	0	0
Level 6	Feature 1	0	0	1	1	1	5	3	57.5	3	2.1
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	1	3.6	21	47.5
Level 7	Feature 1	3	1.6	0	0	0	0	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	9	28.1
	Zone B/C	0	0	0	0	0	0	1	1.6	3	0.6
Level 8	Feature 1	2	3.5	0	0	2	5.5	4	5.2	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	2	1.1	0	0	0	0	1	6	10	19.7
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	3	6.4
	Zone B/C	0	0	0	0	0	0	0	0	3	24.2
	Zone C	0	0	0	0	0	0	0	0	0	0

Level 10	Feature 1	0	0	0	0	0	0	0	0	0	0
Level 11	Feature 1	1	0.3	0	0	1	1.4	0	0	4	39.4
	Area 3	0	0	0	0	0	0	0	0	10	63.8
Level 12	Feature 1	0	0	0	0	0	0	4	3.4	3	86.9
	Area 3	0	0	0	0	0	0	0	0	1	24
Level 13	Feature 1	0	0	0	0	0	0	0	0	5	27.7
	Feature 13	0	0	0	0	0	0	0	0	34	422.8
Totals:		12	44.9	8	4.8	4	11.9	31	144.4	140	1433.7

Table 5.3 – Lithics collected from Unit 3&4 (continued)

	Materials	Totals:	
Level	Provenience	Count	Weight
Level 1	Level 1	23	17.7
Level 2	Zone A	151	274.5
Level 3	Zone A	102	146.6
	Zone B	136	361.4
Level 4	30-35 cmbs	53	205.6
	35-40 cmbs	132	362.2
Level 5	Feature 1	89	271.5
	Zone B/C	30	12.8
Level 6	Feature 1	63	178.5
	Zone B	16	29.2
	Zone B/C	30	57.6
Level 7	Feature 1	82	213.5
	Area 1	14	241.4
	Zone B/C	8	8.2
Level 8	Feature 1	34	32.4
	Zone B/C	1	0.1
	Zone C	1	6
Level 9	Feature 1	42	58.5
	Area 1	0	0
	Area 2	4	6.6
	Zone B/C	4	25.7

	Zone C	0	0
Level 10	Feature 1	22	17.3
Level 11	Feature 1	26	62.9
	Area 3	10	63.8
Level 12	Feature 1	12	101.2
	Area 3	2	24.1
Level 13	Feature 1	13	38.5
	Feature 13	35	427.9
Totals:		1135	3245.7

Table 5.4 – Vertebral faunal remains collected from Unit 3&4

	Materials	Mammal									
		Deer		Large Mammal (60 lbs +)		Medium Mammal (10-59 lbs)		Small Mammal (<10 lbs)		Rodent	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	3	20.9	1	5.6	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
Level 4	30-35 cmbs	5	43.5	0	0	0	0	29	43.7	0	0
	35-40 cmbs	2	24.3	0	0	0	0	27	30.7	0	0
Level 5	Feature 1	18	160.9	0	0	0	0	68	115.9	0	0
	Zone B/C	3	28.4	1	30.5	0	0	1	2.6	0	0
Level 6	Feature 1	11	192.3	0	0	0	0	34	71.1	1	0.3
	Zone B	6	23.1	0	0	0	0	46	65.7	0	0
	Zone B/C	1	2.2	0	0	0	0	9	8	0	0
Level 7	Feature 1	19	259.1	5	17.2	8	20.7	5	1.4	3	1.3
	Area 1	0	0	0	0	0	0	14	10.4	0	0
	Zone B/C	4	32.4	0	0	0	0	27	17.5	0	0
Level 8	Feature 1	15	160.5	0	0	0	0	63	119.7	0	0
	Zone B/C	0	0	0	0	0	0	1	0.8	0	0
	Zone C	0	0	0	0	0	0	3	2.5	0	0
Level 9	Feature 1	4	28.6	0	0	0	0	36	63.6	2	0.3
	Area 1	0	0	0	0	0	0	0	0	0	0

	Area 2	3	30.6	0	0	0	0	10	18.9	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	1	1.3	0	0	0	0	2	7.4	0	0
Level 10	Feature 1	1	1.5	0	0	0	0	65	88.3	0	0
Level 11	Feature 1	2	21.3	0	0	0	0	42	45.3	1	0.1
	Area 2	0	0	1	18.6	0	0	1	3.1	0	0
Level 12	Feature 1	2	28.6	0	0	0	0	29	43.9	0	0
	Area 3	0	0	0	0	0	0	2	3.9	0	0
Level 13	Feature 1	0	0	1	8	0	0	19	32.3	0	0
	Feature 13	0	0	0	0	0	0	7	9.3	0	0
	Total:	100	1059.5	9	79.9	8	20.7	540	806	7	2

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Mammal (continued)				Fish					
		Rabbit		Unidentified Mammal		Jack crevalle		Generic Catfish (Saltwater)		Bowfin	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	0	0	27	42.6	0	0	0	0	0	0
	Zone B	0	0	6	13.8	6	22.9	0	0	0	0
Level 4	30-35 cmbs	3	1.6	0	0	13	36.6	0	0	0	0
	35-40 cmbs	0	0	4	2.8	9	33.9	0	0	0	0
Level 5	Feature 1	0	0	10	15.3	79	199.4	0	0	12	1.2
	Zone B/C	0	0	9	13.9	6	10	0	0	0	0
Level 6	Feature 1	0	0	0	0	51	185.8	0	0	7	0.8
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 7	Feature 1	4	4	187	169.6	66	232.4	20	7.1	7	0.7
	Area 1	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	0	0	0	0	34	104.9	5	3.1	0	0
	Zone B/C	0	0	1	2	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 9	Feature 1	0	0	0	0	18	80.7	6	4.3	0	0

	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	0	0	0	0	19	118.2	15	15.4	7	0.9
Level 11	Feature 1	0	0	0	0	25	106	4	13.4	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	0	0	0	0	36	134.6	11	7.2	1	0.1
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	0	0	3	9.8	0	0	0	0
	Feature 13	0	0	0	0	0	0	0	0	0	0
	Total:	7	5.6	244	260	365	1275.2	61	50.5	34	3.7

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Fish (continued)									
		Burrfish		Black Drum		Red Drum		Flounder		Mullet	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	1	0.5	0	0	0	0	0	0
Level 3	Zone A	0	0	3	0.3	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
Level 4	30-35 cmbs	0	0	3	0.7	0	0	1	0.1	0	0
	35-40 cmbs	0	0	11	5.5	0	0	0	0	1	0.3
Level 5	Feature 1	0	0	7	1.6	24	7.5	0	0	11	1.9
	Zone B/C	0	0	10	2	1	0.1	0	0	0	0
Level 6	Feature 1	0	0	1	5.1	14	4.4	0	0	13	1.9
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 7	Feature 1	1	2.8	11	41.1	16	5.7	12	2.9	82	16
	Area 1	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	1	1	19	19	0	0	1	0.1	3	0.4
	Zone B/C	0	0	2	0.3	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0

Level 9	Feature 1	1	2.2	22	33.8	0	0	0	0	2	0.3
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	2	0.6	0	0	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	1	2	9	55.5	72	24.3	0	0	12	1.7
Level 11	Feature 1	0	0	68	76.7	0	0	0	0	3	0.4
	Area 2	0	0	2	0.6	0	0	0	0	0	0
Level 12	Feature 1	0	0	23	10.7	6	14.4	0	0	8	1.1
	Area 3	0	0	0	0	0	0	0	0	0	0
Level 13	Feature 1	0	0	5	0.2	4	2.1	0	0	4	0.7
	Feature 13	0	0	2	0.1	0	0	0	0	0	0
	Total:	4	8	201	254.3	137	58.5	14	3.1	139	24.7

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Fish (continued)									
		Sheepshead		Seatrout		Spot		Shark		Cartilaginous Fish	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	0	0	0	0	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
Level 4	30-35 cmbs	3	0.5	0	0	0	0	1	0.4	2	0.1
	35-40 cmbs	0	0	0	0	0	0	0	0	3	1.2
Level 5	Feature 1	19	11.4	3	2.2	1	0.1	1	0.2	13	2
	Zone B/C	3	0.7	0	0	0	0	1	0.1	11	2.7
Level 6	Feature 1	20	12.9	0	0	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	58	14.1
	Zone B/C	0	0	0	0	0	0	0	0	9	2.5
Level 7	Feature 1	25	18.8	2	1	4	0.2	3	0.6	0	0
	Area 1	0	0	0	0	0	0	0	0	5	1.6
	Zone B/C	0	0	0	0	0	0	0	0	0	0
Level 8	Feature 1	13	3.9	0	0	1	0.1	0	0	1	0.5
	Zone B/C	0	0	0	0	0	0	0	0	4	0.4

	Zone C	0	0	0	0	0	0	0	0	3	0.7
Level 9	Feature 1	10	3	0	0	0	0	0	0	1	0.1
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	1	0.2
	Zone B/C	0	0	0	0	0	0	0	0	1	0.4
	Zone C	0	0	0	0	0	0	0	0	1	0.1
Level 10	Feature 1	13	16.5	0	0	0	0	0	0	5	0.8
Level 11	Feature 1	0	0	0	0	0	0	0	0	7	0.9
	Area 2	0	0	0	0	0	0	0	0	5	2.5
Level 12	Feature 1	1	1.6	0	0	0	0	0	0	1	0.3
	Area 3	0	0	0	0	0	0	0	0	2	0.9
Level 13	Feature 1	3	4	0	0	0	0	0	0	2	0.3
	Feature 13	0	0	0	0	0	0	0	0	2	0.4
	Total:	110	73.3	5	3.2	6	0.4	6	1.3	137	32.7

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Fish (continued)		Reptile							
		Unidentified Fish Remains		Alligator Snapping Turtle		Box Turtle		Cooter		Mud Turtle	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	30	30.7	0	0	0	0	0	0	0	0
	Zone B	8	2.3	0	0	0	0	0	0	0	0
Level 4	30-35 cmbs	170	110.1	0	0	0	0	0	0	0	0
	35-40 cmbs	108	69.7	0	0	0	0	0	0	0	0
Level 5	Feature 1	3062	814.3	0	0	0	0	0	0	0	0
	Zone B/C	210	65.5	0	0	0	0	0	0	0	0
Level 6	Feature 1	1410	433.8	0	0	0	0	0	0	0	0
	Zone B	1974	656	0	0	0	0	0	0	0	0
	Zone B/C	222	56.9	0	0	0	0	0	0	0	0
Level 7	Feature 1	9617	2363.8	1	2	6	10.7	2	3.1	10	6.4
	Area 1	459	107.5	0	0	0	0	0	0	0	0
	Zone B/C	310	93.8	0	0	0	0	0	0	0	0
Level 8	Feature 1	3469	995.3	0	0	0	0	0	0	0	0

	Zone B/C	63	24.2	0	0	0	0	0	0	0	0
	Zone C	18	2.7	0	0	0	0	0	0	0	0
Level 9	Feature 1	1406	350.9	0	0	0	0	0	0	0	0
	Area 1	4	0.8	0	0	0	0	0	0	0	0
	Area 2	92	46.4	0	0	0	0	0	0	0	0
	Zone B/C	17	11.5	0	0	0	0	0	0	0	0
	Zone C	28	20.8	0	0	0	0	0	0	0	0
Level 10	Feature 1	1807	591.6	0	0	0	0	0	0	0	0
Level 11	Feature 1	1009	288.8	0	0	0	0	0	0	0	0
	Area 2	62	23.9	0	0	0	0	0	0	0	0
Level 12	Feature 1	545	179.2	0	0	0	0	0	0	0	0
	Area 3	106	65.8	0	0	0	0	0	0	0	0
Level 13	Feature 1	379	109.3	0	0	0	0	0	0	0	0
	Feature 13	40	19	0	0	0	0	0	0	0	0
	Total:	26625	7534.6	1	2	6	10.7	2	3.1	10	6.4

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Reptile (continued)									
		Slider		Snapping Turtle		Softshell Turtle		Unidentified Turtle		Snake	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	0	0	0	0	0	0	10	7.7	0	0
	Zone B	0	0	0	0	0	0	6	8.9	0	0
Level 4	30-35 cmbs	0	0	0	0	0	0	37	42.5	5	1.5
	35-40 cmbs	0	0	0	0	0	0	34	37.2	1	0.2
Level 5	Feature 1	0	0	0	0	0	0	84	119.5	47	15.3
	Zone B/C	0	0	0	0	0	0	26	14.1	5	1.1
Level 6	Feature 1	0	0	0	0	0	0	285	414.4	24	11.6
	Zone B	0	0	0	0	0	0	83	152.6	8	1.9
	Zone B/C	0	0	0	0	0	0	38	20	3	0.6
Level 7	Feature 1	5	10.1	2	0.7	12	33.4	578	278.1	84	23.2
	Area 1	0	0	0	0	0	0	27	22.1	3	0.3
	Zone B/C	0	0	0	0	0	0	50	19.4	0	0

Level 8	Feature 1	0	0	0	0	0	0	97	110.9	26	9.8
	Zone B/C	0	0	0	0	0	0	12	12.4	0	0
	Zone C	0	0	0	0	0	0	1	0.8	0	0
Level 9	Feature 1	0	0	0	0	0	0	90	57.9	0	0
	Area 1	0	0	0	0	0	0	4	1	0	0
	Area 2	0	0	0	0	0	0	7	6.6	0	0
	Zone B/C	0	0	0	0	0	0	1	0.2	0	0
	Zone C	0	0	0	0	0	0	21	13	0	0
Level 10	Feature 1	0	0	0	0	0	0	262	234	54	21.3
Level 11	Feature 1	0	0	0	0	0	0	118	92.4	10	2.8
	Area 2	0	0	0	0	0	0	14	3.8	1	0.6
Level 12	Feature 1	0	0	0	0	0	0	89	76.2	0	0
	Area 3	0	0	0	0	0	0	180	223	4	2.2
Level 13	Feature 1	0	0	0	0	0	0	89	80.7	5	0.6
	Feature 13	0	0	0	0	0	0	11	8.4	0	0
	Total:	5	10.1	2	0.7	12	33.4	2254	2057.8	280	93

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Reptile (continued)						Bird			
		American Alligator		Bull frog		Unidentified Reptile		American woodcock		Snow Goose	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	0	0
Level 2	Zone A	0	0	0	0	0	0	0	0	0	0
Level 3	Zone A	0	0	0	0	2	1.2	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
Level 4	30-35 cmbs	0	0	0	0	14	16.8	0	0	0	0
	35-40 cmbs	0	0	0	0	5	5.5	0	0	0	0
Level 5	Feature 1	0	0	0	0	20	15.6	0	0	0	0
	Zone B/C	0	0	0	0	3	0.7	0	0	0	0
Level 6	Feature 1	2	5.7	0	0	0	0	0	0	0	0
	Zone B	0	0	0	0	0	0	0	0	0	0
	Zone B/C	0	0	0	0	2	1.6	0	0	0	0
Level 7	Feature 1	9	6.8	2	0.9	15	3.1	1	0.1	1	0.9
	Area 1	0	0	0	0	0	0	0	0	0	0

	Zone B/C	4	3.7	0	0	2	0.3	0	0	0	0
Level 8	Feature 1	11	13.3	0	0	1	0.6	0	0	0	0
	Zone B/C	0	0	0	0	0	0	0	0	0	0
	Zone C	0	0	0	0	1	0.1	0	0	0	0
Level 9	Feature 1	4	7.9	0	0	60	23.8	0	0	0	0
	Area 1	0	0	0	0	0	0	0	0	0	0
	Area 2	2	33.5	0	0	8	4.4	0	0	0	0
	Zone B/C	0	0	0	0	1	0.1	0	0	0	0
	Zone C	0	0	0	0	0	0	0	0	0	0
Level 10	Feature 1	6	2.5	0	0	93	37.6	0	0	0	0
Level 11	Feature 1	2	3	0	0	0	0	0	0	0	0
	Area 2	0	0	0	0	0	0	0	0	0	0
Level 12	Feature 1	0	0	0	0	14	3.6	0	0	0	0
	Area 3	0	0	0	0	2	1.7	0	0	0	0
Level 13	Feature 1	0	0	0	0	0	0	0	0	0	0
	Feature 13	0	0	0	0	2	0.4	0	0	0	0
	Total:	40	76.4	2	0.9	245	117.1	1	0.1	1	0.9

Table 5.4 – Vertebral faunal remains collected from Unit 3&4 (continued)

	Materials	Bird (continued)								Other			
		Common gallinue		King rail		Turkey		Unidentified Bird		Unidentified Faunal Remains		Total:	
Level	Provenience	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight	Count	Weight
Level 1	Level 1	0	0	0	0	0	0	0	0	5	0.4	5	0.4
Level 2	Zone A	0	0	0	0	0	0	0	0	7	14.8	8	15.3
Level 3	Zone A	0	0	0	0	0	0	0	0	140	33.8	216	142.8
	Zone B	0	0	0	0	0	0	0	0	32	6.4	58	54.3
Level 4	30-35 cmbs	0	0	0	0	0	0	0	0	349	92.8	635	390.9
	35-40 cmbs	0	0	0	0	0	0	0	0	404	96.6	609	307.9
Level 5	Feature 1	0	0	0	0	0	0	18	6	1702	252.4	5199	1742.7
	Zone B/C	0	0	0	0	0	0	0	0	347	69.8	637	242.2
Level 6	Feature 1	0	0	0	0	0	0	11	13.1	1886	695.7	3770	2048.9
	Zone B	0	0	0	0	0	0	5	1.2	1366	219.8	3546	1134.4
	Zone B/C	0	0	0	0	0	0	0	0	259	53.1	543	144.9
Level 7	Feature 1	2	0.5	1	0.9	2	18.8	48	28.6	371	105.9	11249	3700.6

	Area 1	0	0	0	0	0	0	0	0	124	28.7	632	170.6
	Zone B/C	0	0	0	0	0	0	0	0	146	23.8	543	190.9
Level 8	Feature 1	0	0	0	0	0	0	10	9.8	1430	265.6	5200	1818.5
	Zone B/C	0	0	0	0	0	0	1	1	159	35.8	243	76.9
	Zone C	0	0	0	0	0	0	0	0	38	12	64	18.8
Level 9	Feature 1	0	0	0	0	0	0	5	2.9	949	169	2616	829.3
	Area 1	0	0	0	0	0	0	0	0	20	2	28	3.8
	Area 2	0	0	0	0	0	0	1	0.5	67	13.4	193	155.1
	Zone B/C	0	0	0	0	0	0	0	0	56	8.7	76	20.9
	Zone C	0	0	0	0	0	0	0	0	51	11.6	104	54.2
Level 10	Feature 1	0	0	0	0	0	0	17	5.3	1795	317.1	4253	1534.5
Level 11	Feature 1	0	0	0	0	0	0	0	0	655	104.3	1946	755.4
	Area 2	0	0	0	0	0	0	1	0.4	84	17.8	171	71.3
Level 12	Feature 1	0	0	0	0	0	0	5	1.4	777	152.2	1548	655.1
	Area 3	0	0	0	0	0	0	0	0	130	30.2	426	327.7
Level 13	Feature 1	0	0	0	0	0	0	11	5.6	336	57.6	861	311.2
	Feature 13	0	0	0	0	0	0	0	0	12	3.2	76	40.8
	Total:	2	0.5	1	0.9	2	18.8	133	75.8	13697	2894.5	45455	16960.3

Vita

Joseph “Joey” O’Keefe, born in Eugene, Oregon and raised in Arvada, Colorado, received his bachelor’s degree from Colorado State University in 2011. After graduation, he began his career as an archaeological technician with CRM companies in Colorado, New Mexico, and Texas. Years as an archaeological technician increased his interest in North American archeology, and in 2014 he entered the graduate school in the Department of Geography and Anthropology at Louisiana State University. During his academic career at LSU, Joey was employed as a Curatorial Assistant with the Louisiana State University Museum of Natural Science. As a Curatorial Assistant, he participated in conference publications and gave talks at teaching seminars for the youth of Baton Rouge. He was also responsible for organizing and directing undergraduate museum staff and assisting in teaching the processes of museum curation to other students and faculty. He is currently employed as an A1 archaeologist with R. Christopher Goodwin and Associates in New Orleans, and in August of 2017 he will receive his master’s degree in anthropology.