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Riverfront Village and the Practice of Storage: A Subterranean Feature Analysis

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A SUBTERRANEAN FEATURE ANALYSIS

by

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Under the Direction of Despina Margomenou

ABSTRACT

As the focus in southeastern archaeology shifts away from large scale hierarchical analyses in favor of agency based approaches, our understanding of Mississippian settlements has changed. This research is an attempt to fill the "fuzzy gap" in Mississippian archaeological literature left by decades of research premised on Neo-evolutionary models and theories. In this thesis, I present my case study on Riverfront Village, a small Mississippian "hamlet" located in the Savannah River Valley. Through an analysis of subterranean pit features, I present a new feature classification scheme open to variability, and address how variations within the practice of subterranean storage relate to social complexity.

INDEX WORDS: Southeastern archaeology, Mississippian, Storage, Feature analysis, Savannah River valley, Riverfront Village

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DEDICATION

The main source of my inspiration for this thesis came from the unwavering love and support of my family. Foremost, I would like to dedicate this thesis to my dad, Walter “Buzz” Wescott Jr., who has been very patient throughout my research, and the ensuing writing process. By setting his own example, he challenged me early on to adhere to a motto of “service before self.” As an adult, I continue to strive towards this notion of “service” through my own professional endeavors and personal life. I also dedicate this thesis to my younger siblings: Mathew, Cristina, and Daniel. Thank you for inspiring me to accomplish my goals.

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1. EXPLORING VARIATION IN MISSISSIPPIAN PREHISTORY

Introduction

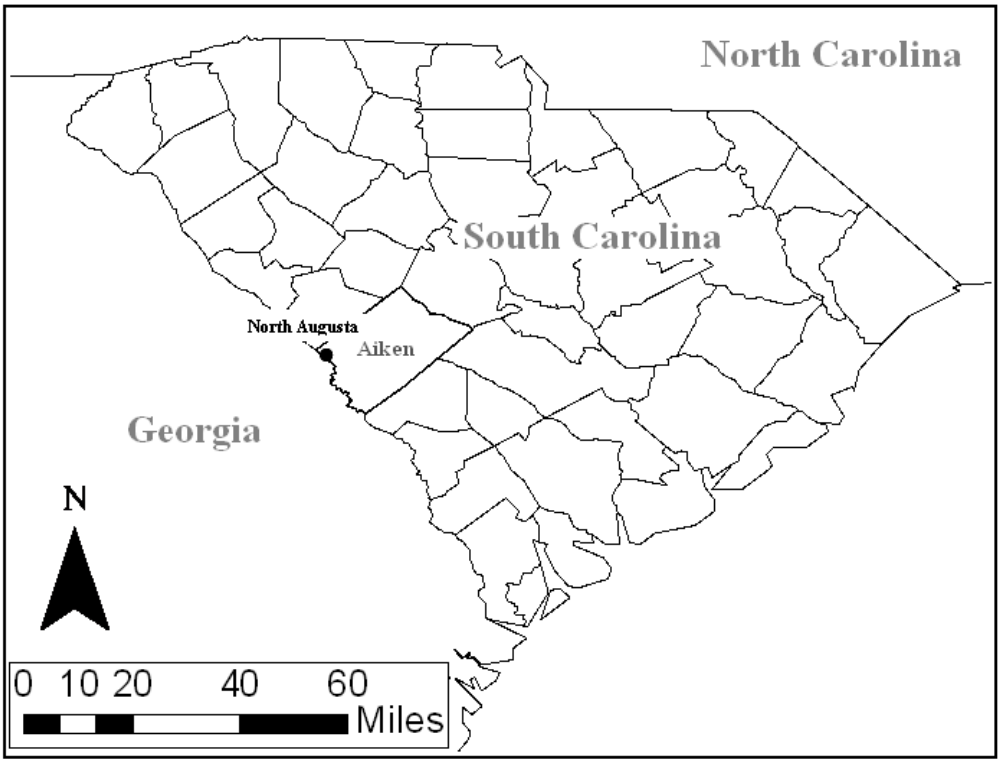
This thesis investigates the practice of subterranean storage and its relation to complexity within societies identified as "Mississippian" in southeastern archaeological research. How was subterranean storage practiced within various aspects of domestic life? What role did subterranean storage play in the emergence of social complexity? This study was also developed to fill a "fuzzy gap" in archaeological literature left by decades of research on large-scale hierarchical analyses derived from Neo-evolutionary theory. Rather than interpreting the archaeological record from yet another top-down approach, I base this research on agency and practice theory to examine subterranean storage within the context of a small Mississippian village community.

The case study I present here is a site called Riverfront Village located in North Augusta, Aiken County, South Carolina (Map 1.1). Unlike large mound sites traditionally associated with Mississippian chiefdom-level society, Riverfront is a small village without any earthen mound constructions. Small sites such as Riverfront Village afford the opportunity to look at this issue of complexity from a "bottom-up" perspective.

The Savannah River valley region has been discussed extensively in Mississippian chiefdom research, most notably by Chester Depratter (2003) and David Anderson (1994). According to Depratter (2003:15), various indigenous groups inhabited this region as far back as twelve thousand to fifteen thousand years ago. According to Anderson (1994:2), large-scale external and internal factors from harsh weather and sociopolitical turmoil resulted in the abandonment of the Savannah River valley between 1450 and 1650. The Westo, a group of displaced Iroquois-speaking Erie, then entered the Savannah River valley region around AD

1660 (Depratter 2003:18). Radiocarbon dates from Riverfront Village echo this chronology. Based on 12 calibrated samples, Riverfront was roughly inhabited between AD 1000 and AD 1730, but vacated between AD 1250 and AD 1610.

Unfortunately, this long period of occupation makes it difficult to establish contemporaneity at the site. What is more, Riverfront Village is a palimpsest containing evidence of numerous superimposed structures from various habitation periods. There is little chronological resolution aside from "historic" versus "pre-historic" artifacts.



Map 1.1: Map of North Augusta, Aiken County, South Carolina

Two types of storage structures are associated with Mississippian sites: above-ground silos and subterranean pits (Pauketat 2004:103). Though the bulk of surplus stores was most likely kept in above-ground structures, subterranean pits still possessed considerable storage potential (ibid). Unfortunately subterranean storage is often ignored in southeastern archaeology because "types" of subterranean pits are difficult to distinguish. Furthermore, in kinship-based

societies without institutionalized inequality, storage is under-theorized (Halperin 1994:167-168; Margomenou 2005:35; Smyth 1991). It is, therefore, necessary to re-evaluate existing theories on Mississippian storage and surplus. One of the main goals of this thesis is to address the archaeological record from a fresh approach to variation. This objective culminated in a scheme designed to interpret variability within the practice of subterranean storage.

In summary, the epistemological approach to southeastern archaeology is slowly moving away from Neo-evolutionary models in favor of agency derived research. Several historical "moments" have shaped the practice of southeastern archaeology, which in turn have altered our perception of indigenous Native American peoples. In the following section I provide a short historical overview of southeastern archaeology from its early beginnings to its contemporary expression in cultural resource management.

History of Southeastern Archaeology

In pre-Columbian times, indigenous populations spread across the land inhabiting areas as far north as Alaska and as far south as Patagonia, the southernmost region of South America. From coast to coast groups encountered a range of physiographic landscapes. Individuals moved through each physical and social space in unique ways manifesting infinite combinations of interpretation and lived experience. Migrations motivated by fluctuations in social and political stability also added variation and nuance to many regional populations (Pauketat 2003). As a result, pre-Columbian North America was multi-ethnic and diverse. Rather than accommodating the history of "a people," this continent accumulated alternative histories of peoples (Pauketat & Loren 2005).

Some of the earliest ethnohistorical accounts of Native American societies date back to 1540, from Hernando De Soto's expedition into the Southeast. These first European explorers

referred to territories inhabited by indigenous populations as “provinces” (Pauketat 2007:11). Throughout the Mississippi River valley region most indigenous people resided in small farming communities. These villages belonged to what appeared to be regional polities governed by large settlements often containing plazas and earthen mound structures. On top of these earthen mounds rested temples and houses occupied by elites (Scarry 1996:12). According to early European descriptions, “kings” and “princesses” ruled over these vast regions, some of which required several days to traverse across (Scarry 1996:12).

Despite the contribution of ethnohistorical sources to our contemporary understanding of North America’s past, Hernando De Soto and other European expeditions did not travel to the New World looking for ethnographic material; these explorers were ultimately seeking gold and other resources desirable in Europe. Like many other encounters between Europeans and indigenous populations in North America, De Soto’s expedition sadly resulted in the plundering of many prominent indigenous 16th century settlements. Although numerous people were killed in skirmishes between early explorers and Native American groups, Europeans possessed a far more potent arsenal of weapons (Wright 1992:13). Western diseases such as small pox, malaria, and yellow fever ravaged the New World decimating native populations (Diamond 1997). Unlike Europeans, indigenous peoples possessed little or no immunity to fight off these diseases.

Back in Europe, the indigenous Americans also suffered from stereotypes. “Othering” Native Americans placed them in direct opposition with “white” European customs and cultures. Denying them their own distinct identities justified exploitation of indigenous groups (McGuire 1992:817). During the 18th century, two contrasting stereotypes of North American peoples became prominent. One portrayed Native Americans as “noble savages,” while the other depicted them as “ignoble savages.” From the first perspective, Indian people lived close to

nature and were free from the evils of society and corruption (Trigger 1989). From the second perspective, Indians were deemed untamable and, to a certain extent, demonic.

At the same time, colonists were intrigued by the earthen mound structures visible at many places in North America, especially concerning their use and origin. One of the most enduring "mysteries" has been that of the "Moundbuilders." According to this theory, known today as the "Moundbuilder Controversy," indigenous Americans were incapable of coordinating public works projects because they were primitive and uncivilized. A lost race of moundbuilders was therefore responsible for constructing the mounds; a civilization possibly advanced enough to be considered ancient European in decent (McGuire 1992:820). Further attacks on Indian peoples argued that American Indians destroyed this lost race and annexed the mounds for their own utility. Eventually these ideologies would be manipulated enough to legitimize the taking of Native American lands.

The Moundbuilder Myth persisted well into the 19th century. Frontiersmen desperate to fulfill their own Manifest Destinies actively supported movements to relocate American Indians. Native Americans stood in the way of progress because they possessed highly desirable lands (McGuire 1992:821). In the end, the Indian Removal Act of 1830 was partially justified through the Moundbuilder Controversy. The "Five Civilized Tribes," Cherokee, Chickasaw, Choctaw, Muscogee, and Seminole, were forced to abandon their lands in the east and move to less desirable land in the west. Many Native Americans suffered from disease, starvation, and even death during this period. The "Trail of Tears" refers to the forced removal of Cherokee tribe members from the southeastern region of North America to land west of the Mississippi River.

One of the first American archaeologists to study these earthen mounds was President Thomas Jefferson. During the late 18th century, Jefferson supervised the excavation of a mound

located on his property in Monticello, Virginia. Using some of the first systematic procedures in archaeology, he exhumed several prehistoric burials within the earthen mound structure. His notes exposed several parallels between Native American funerary customs and moundbuilder funeral practices (Jefferson 1853). Jefferson's work deliberately recast American Indians as the "first" Americans. Jefferson and other Enlightenment thinkers sought to borrow Native American identity for the foundation of America's burgeoning heritage (McGuire 1992:820).

Cyrus Thomas, an ethnologist and student of archaeology, was one of the first individuals fully credited with dispelling the Moundbuilder Controversy. Through his investigations into the origins of the mounds, he provided hard evidence that Native Americans were in fact responsible for their construction. Few people objected to these findings. Besides, by 1894 most people no longer felt obligated to justify the taking of Indian land (McGuire 1992:823).

Another influential figure in archaeology around the early 20th century was Clarence Bloomfield Moore. Though he excavated mounds throughout the United States, much of his efforts were focused in the southeastern region. With his steamship, *the Gopher*, C.B. Moore traveled up and down the Georgia and South Carolina coast looking for mounds "worthy" of excavation. Specifically, Moore sought out large sites containing artifacts of the highest quality and aesthetic value. Though he is credited with discovering some of the most elaborate objects found in southeastern archaeology, compared to today's methods his techniques were extremely crude (Walthall 1990:117). His excavations ultimately resulted in the loss of invaluable data. However, for some sites his records are the only records in existence today.

From the 1950s to the latter half of the 20th century, efforts in southeastern archaeology concentrated on retracing historical trajectories (Steponaitis 1986:363). This approach to studying archaeology was largely inspired by V. Gordon Childe's work on cultural history and

diffusionism. Southeastern archaeologists during this period also studied archaeological sites from a material-ecological perspective (Steponaitis 1986:363). Rather than searching for similar traits between sites, this approach stressed that each culture was adaptive and adjusted to external pressures in the environment. Overall, developments in New Archaeology brought a breath of fresh air to the practice of archaeology in the southeast region. Unfortunately, many archaeologists still managed to lump prehistoric sites into cross-cultural social typologies, or universal categories of development. For example, several studies during this phase focused on describing the socio-political hierarchy of chiefly societies located in temperate regions.

Federal Regulations and CRM

Federal laws passed throughout the 20th century also had a large impact on the practice of American archaeology. For example, the Antiquities Act of 1906 protected cultural resources on federal land designated for public use. As a result, permission to excavate sites on these properties required a permit from the government. Perhaps the most influential legislature passed, the National Historic Preservation Act of 1974, required all federal agencies to identify, evaluate, and protect significant historic and prehistoric resources. This new statute and its provisions inspired a surge in conservation efforts to preserve historic and prehistoric places in time and space (Barthel 1996:347). Many individuals during this period felt a responsibility to salvage and preserve the past. Individuals feared that future generations would be culturally impoverished without tangible landmarks (Murtagh 1997:11).

Several projects funded by large governmental agencies including the National Park Service and Army Corps of Engineers resulted from compliance with these and other federal regulations (Steponaitis 1986:365). As construction and development increased, archaeological activity also increased. Efforts to save sites from impending destruction became known as,

"Salvage Archaeology." Sometime during the late 1970s, these activities eventually blossomed into a new field called Cultural Resource Management (CRM). Due to a large demand for federally mandated archaeological surveys and testing, several archaeologists left governmental agencies and created CRM firms in the private sector.

Today, a significant portion of archaeological work in North America is conducted by CRM agencies (Green & Doershuk 1998:121). Yet, CRM is also based on a process that has incurred several snags along the way. From a practical standpoint, many CRM firms function in the same manner as other competitive businesses. Tight deadlines, low budgets, and clients' needs affect each company's quality of work (Butler 1987:828). Also, CRM investigations have unearthed a massive amount of material culture. These materials must be kept to certain standards resulting in a "curation crisis" due to lack of adequate storage space (Childs 2006). Most importantly, all CRM work is based on an arbitrary concept called "significance." Significance is a value judgment based on current trends and western ascetics (Glassow 1977; Grayson 1979; Raab & Klinger 1977). Due to changing perceptions in what is significant and what is not, significance is a concept seldom understood (Butler 1987). Due to these inconsistencies in the evaluation process, archaeologists often find themselves questioning what resources are worth saving and which ones are worth letting go. This of course significantly impacts our understanding of prehistoric remains at a local and regional level.

Conclusion

In this chapter, I presented a brief overview of the history of southeastern archaeology. My objective in providing this background information was to demonstrate how certain historical events in southeastern archaeology have shaped our perception of indigenous people. Despite the limitations of CRM, it is still an extremely useful avenue for archaeological research.

These companies afford access to an array of material culture – information necessary for synthesizing a narrative based on variation and diversity. This thesis is a product of information gathered during a CRM investigation. It is also part of an effort to investigate a Mississippian community from an alternative perspective.

Thesis Overview

Chapter 1 was a brief overview of the history of southeastern archaeology. I discussed how the practice of archaeology shapes our interpretation of prehistory.

In Chapter 2, I focus on theoretical literature pertinent to my research. This chapter is organized into several sections. In the first part I offer a brief discussion concerning the definitions of “Mississippian” and “chiefdom” in southeastern archaeological literature. I also critique several chiefdom models derived from Neo-evolutionary and Marxist theory. Next, I discuss the concept of “complexity” and its interpretation within Mississippian archaeology. This section is followed by a short review of agency and practice theory, and then a discussion on storage and surplus. Finally, I mention theoretical research on domestic use of space, particularly in regards to activity areas. In this chapter I map out a theoretical foundation for an analysis geared towards interpreting complexity through the practice of subterranean storage.

In the following chapter, I introduce my case study on Riverfront Village. The first half of Chapter 3 consists of a summary of excavation methods. This includes a description of the subterranean feature excavation procedures used during Riverfront Village’s latest data recovery. Through the presentation of these initial data collection procedures and the site’s subsequent feature classification system, I endorse a new approach to subterranean feature analysis based on variability.

In the second half of Chapter 3, I present the methods used in my data analysis. It is in this section I lay out a new scheme capable of detecting variation within subterranean pit structure, contents, and distribution. This approach was developed as a means of possibly classifying subterranean features into more "meaningful" groups. Overall, this scheme is geared towards detecting variation within pit features that may have been associated with subterranean storage.

In Chapter 4, I discuss the results of my data analysis. The first section of this chapter looks for measurable differences in the initial typological system described in Chapter 3. This section developed mostly out of a concern that some eroded burials may have been misclassified as potential storage pits. In the second section of this chapter, I conduct an analysis on pit contents in an attempt to distinguish between primary, secondary, and *de facto* refuse. This section is followed by an examination of diversity among trash deposits found in subterranean features possibly associated with storage. Can trash be used to distinguish between different domestic uses of space? In the last section of this chapter, I specifically compare pits from observable activity areas to determine how subterranean storage may have been manifested in various aspects of domestic life.

The fifth chapter presents my findings based on all of the research described in the previous chapters and discusses my results. Foremost, I examine subterranean storage from a technological perspective. What can these features tell us about the cognitive decisions and external factors that went into their construction? In the next section, I describe variations within the practice of subterranean storage. How does variability within subterranean storage features relate to domestic use of space? In conclusion, I evaluate the use of subterranean storage as an indicator of social complexity.

In the last chapter of this thesis I express my overall thoughts. My main desire for this study was to craft a scheme that could be applied to cultural resource management research. In summary, I discuss how agency-oriented research is possible within the limitations of cultural resource management.

2. THEORETICAL BACKGROUND

Introduction

In this chapter I outline the theoretical framework of my thesis. Although most of this review includes literature from southeastern archaeology, in some under-theorized areas I bring in research from other regions of the world, particularly concerning storage and surplus. As discussed in Chapter 1, the general goal of this thesis is to examine the practice of subterranean storage as it relates to complexity within the context of a small Mississippian village community.

In many of the following sections of this chapter, I introduce classic theoretical approaches to southeastern archaeological research. As I discovered (see Chapter 1) some of this research is somewhat problematic, although many of the concepts and models in southeastern archaeology are slowly changing. Many southeastern archaeologists (e.g., Maxham 2000; Pauketat 2007; Wilson 2008) have already expressed dissatisfaction with the Neo-evolutionary models proposed over the last few decades. Following these scholars, I challenge several pre-existing assumptions in southeastern archaeology many of which are still prevalent within contemporary research. Critiquing southeastern archaeological theories will hopefully offer new insights into the study of indigenous Native American groups.

Here I propose an agency-based approach to the study of social complexity. Through an examination of the practice of subterranean storage, I seek to understand its various roles within a small-scale Mississippian community. I also seek to understand the role of surplus in maintaining and establishing local and regional networks. Furthermore, I propose that variations within subterranean pit content may be useful for interpreting domestic use of space.

Chapter Outline

In the first part of this chapter, I discuss several traditional definitions and concepts associated with Mississippian archaeology. What sets of criteria are used to identify Mississippian sites? Another important concept introduced in this section is, "chiefdom," a term often used when discussing the social, political, and economic systems of Mississippian societies. I argue that there are several Neo-evolutionary assumptions still prevalent within the practice of southeastern archaeology. Rather than generalizing a large portion of sites located in the central and southeastern United States, these typologies should be abandoned to focus on the complex interplay between individuals and groups within Mississippian society.

In part two, I introduce and critique several models proposed over the last few decades for analyzing Mississippian chiefdoms. Most of the previous work in Mississippian archaeology is based on large-scale hierarchical analyses derived from Neo-evolutionary theory or Marxism. What can we learn from these outdated approaches in order to move beyond them?

Following this, I examine the notion of complexity and its interpretation within Mississippian archaeology. What does complexity mean within broader archaeological discourse? Is it measurable? In this part, I also discuss hierarchy and heterarchy.

The fourth part of this chapter addresses agency and practice theory. Both of these approaches were proposed to challenge top-down models of social change and complexity from a bottom-up perspective. How are structure and agency related? In this section, I also examine various agency-inspired theories, particularly Blanton and colleagues' (1996) network and corporate strategy approach.

Next, this chapter includes a short overview of storage and surplus theory. Storage may be viewed as a technology and a strategy, but it is also a practice that may occur in a variety of

contexts. How are storage and surplus related to the emergence of social complexity? What are some of the social implications of surplus? Furthermore, I discuss how surplus may be used to legitimize social relationships.

This part is followed by a brief discussion on place, activity areas, and household archaeology. How are spaces socially constructed? What can we learn from approaching archaeological evidence of subterranean storage from a spatial perspective?

My research is informed by all of these theoretical approaches. Through my case study on Riverfront Village, I seek to investigate the practice of subterranean storage from the perspective of a small Mississippian village community. By studying sociopolitical phenomena from the ground-up, this research may provide new insight into the greater Mississippian sociopolitical landscape.

"Mississippian" Societies in Southeastern Archaeology

"Mississippian" is a term used to describe a large portion of prehistoric sites located in the central and southeastern regions of North America. This classification also carries with it a specific set of qualities and attributes. As a result, much of southeastern archaeological research revolves around a limited number of research topics. These questions typically relate to large-scale phenomena, particularly the emergence of maize-based agriculture and chiefdom-level society (Pauketat 2007:82).

In the following section I present various sets of criteria that have been used to identify Mississippian sites. The goal of this section is to describe how these typologies influence southeastern archaeological research. As mentioned in the previous chapter, the practice of archaeology directly affects archaeological representations of the past. Through this discussion I

prove that despite the rise of agency-based approaches in southeastern archaeology, Neo-evolutionary concepts are still prevalent.

Establishing Criteria in Southeastern Archaeology

W.H. Holmes was one of the first scholars to research Native American cultural heritage after Cyrus Thomas officially dispelled the "Moundbuilder" Myth. Using materials collected from the Mississippi River valley, Holmes developed a comprehensive regional assessment based on prehistoric ceramics (Griffin 1985:44). During a pivotal moment in his research, he observed a major trend in pottery production; many of the ceramics in his regional sample were manufactured from a powdered or pulverized shell-tempered paste. After Holmes' findings were published, shell-tempered ceramics were identified as far south as Florida and as far west as Oklahoma. Early 20th century scholars later observed that shell-tempered pottery from the central and southeastern regions of North America also occurred in conjunction with distinct patterns of architectural design and settlement arrangement (Pauketat 2007:82).

Eventually these sites became known as "Mississippian." This term paid homage to the high concentration of prominent indigenous settlements located in the Mississippi River valley region. Cahokia, for example, stretched across vast acres and included numerous earthen mound structures. Due to its size and scale, early scholars made several inferences in regards to its sphere of influence. Accordingly, Cahokia was an epicenter from which Mississippian culture radiated out from (Pauketat 1998:45). Additionally, "Mississippian" sites were defined according to the presence or absence of specific normative attributes. These traits included: shell-tempered pottery, trench wall construction, and towns with flat-topped earthen mound pyramids.

In addition to being geographically bounded, Mississippian civilization was also ascribed a temporal niche, AD 1050 to 1600 (Pauketat 2004:10-13). Neo-evolutionary scholars focused on two major occurrences in southeastern archaeology, the emergence of maize-based horticulture and sedentary towns and villages (Essenpreis 1978:152). Attributing these advancements to Mississippian society, Mississippian sites were contrasted with sites from an earlier phase called the "Woodland" period which lasted from 800 BC to AD 1050 (Pauketat 2004:7-9). This latter term was coined to describe a period in time in which indigenous populations in the same region lived in semi-sedentary groups and relied on seasonal hunting and gathering subsistence strategies (Steponaitis 1986:380).

Archaeologists also identified specific characteristics for Mississippian social and political organization (e.g., Steponaitis 1986:388). Unlike previous societies, Mississippian settlements appeared to transcend local autonomy. For example, the Southeastern Ceremonial Cult (SCC) consisted of a suite of finished goods found throughout the Mississippi River Valley region. These objects were embellished with a distinct set of iconographic motifs. Archaeologists interpreted these artifacts as evidence of a widespread system of shared symbols associated with elaborate ritual and ceremonial activity (Muller 1989:15). Based on ethnohistorical accounts and visual observations, archaeologists also assumed Mississippian settlements were hierarchically arranged. According to this notion, Mississippian societies were governed by an elite ruling class, a small group of nobles with chiefly status.

Later, archaeologists realized that many of these settlements failed to conform to this Woodland and Mississippian dichotomy (e.g., Cobb & Garrow 1996). Many sites contained traits from both cultural historic epochs, evidence of a problem with southeastern archaeological typologies. Frustrated with unsuccessful attempts to classify societies based on lists of attributes,

archaeologists began to re-evaluate the Mississippian emergence. As a result, Mississippianization was re-characterized as a gradual process, rather than a punctuated step from one period to another (Griffin 1985:61).

The definition of Mississippian is still being debated. According to Pauketat (2007:85), Mississippian is best described as a "transregional spacio-cultural phenomenon;" an historical process closer to Appaudurai's concept of ethnoscape (1996). Culture-history lumped Mississippian communities into a "Mississippian" collective; however, some communities shared lived experiences, while others did not. Despite similarities in geographic landscape and the material record, settlements in the central and southeastern regions of North America contained a multitude of indigenous populations. These groups were both culturally and linguistically pluralistic (Pauketat 2007:85).

Therefore, "Mississippian" is an arbitrary category created by archaeologists to classify sites. This culture-history approach to southeastern archaeology describes the archaeological record through a series of checkboxes, geographical boarders, and temporal ranges. Furthermore, this approach over-generalizes a large percentage of sites located in the central and southeastern regions of North America. As I have argued, this "Mississippian" concept also projects a false identity and sense of collectivity onto indigenous peoples. In its current state, the term "Mississippian" is no longer relevant or meaningful within southeastern archaeological research.

In order to restore meaning to the Mississippian concept, we need to investigate new schemes open to variation. Practice theory is one approach that allows for interpretations based on variability. Creating false categories from lists of normative attributes merely perpetuates existing assumptions. In the next section of this chapter I discuss the problematic concept of "chiefdom," a term also used often to describe Mississippian societies.

Mississippian Chiefdoms

Searching for broad patterns in the development of civilization, anthropologists compared and contrasted societies using a number of Neo-evolutionary models. One of these scholars, Elman Service (1962), approached social evolution from a political economic standpoint. Through ethnographic studies he identified four universal types of social organization: bands, tribes, chiefdoms, and states. Southeastern archaeologists adopted Service's concept of "chiefdom" as a foundation for describing the political and social systems of Mississippian civilization. Characterizing Mississippian societies as chiefdoms further allowed archaeologists to compare them with societies found elsewhere in the world.

In contemporary southeastern archaeology, "chiefdom" has been used in reference to various social, political, and economic systems within regional Mississippian networks. These range from large-scale hierarchical systems centered on large ceremonial sites to small farming communities. As previously mentioned, the concept of chiefdom was derived from Neo-evolutionary theory, an approach that is now considered outdated in archaeology. What does this concept represent in a broader archaeological context? How does this notion apply to southeastern archaeological research?

Universal Definitions of Chiefdom

"Chiefdom," the most variable category in Service's model, refers to a political or governmental unit that transcends local autonomy (Curet 2003; Marcus 1998:4). As stated by Carneiro (1970:733), in many pre-state societies the formation of regional entities was a necessary step towards the emergence of state-level society. From distinct kinship-based semi-egalitarian tribes emerged regional polities; settlements governed by institutionalized

bureaucracies. In comparison, states were more complex because their bureaucracies were specialized and extended beyond kinship. Thus, chiefdoms lacked benefits afforded through the development of internal administration. In some instances, these benefits included the power to draft labor, and the ability to decree or enforce laws (Carneiro 1970:733). Excluding religious specialists, chiefdom-level societies also lacked occupational stratification. For example, craft specialists were still required to farm and fulfill other miscellaneous roles and responsibilities.

Archaeologists and ethnologists also defined several sub-categories of chiefdoms. These classifications relied on two primary criteria. The first measured inequality among people. The second assessed centralization of power. Two of the subtypes I briefly mention here, are "simple" and "complex" chiefdoms. Simple chiefdoms were supposed to be societies containing groups ranked according to distance from common ancestors (Yoffee 1993:60). For instance, Mississippian kinship systems consisted of "conical clans" oriented towards core groups containing individuals of noble lineage (Knight 1990:4). In contrast, complex chiefdoms consisted of regional hierarchies of three or more tiers. As part of large-scale sociopolitical systems, decision-making abilities in these societies were divided between provincial and paramount chiefs. Paramount chiefs were capable of procuring resources from outlying regions; however, due to a lack of internal specificity competition was inherent (Yoffee ibid.).

Scholars vehemently opposed to Neo-evolutionary theory, view models such as Service's as ethnocentric ideologies based on the notion of progress (Shennan 1993:53). In many of these models, progress is a determining factor. For example, one of these evolutionary theories proposed by Flannery (1972) argued that states evolved from chiefdoms due to certain "prime-movers," or mechanisms of state formation. In another approach described by Carneiro (1970:733) called the Automatic theory, invention of agriculture led to food surplus, enabling

individuals to divorce themselves from food production and devote their time to a range of other labor intensive activities from pottery production to weaving.

Bender (1989) opposed explanations such as the Automatic theory arguing that farming was not a prime-mover in the development of complexity. As she points out, theories of this kind were based on western assumptions that technology is a necessary pre-condition for the emergence of state-level societies. Instead, she argues, that inequality emerged prior to technological advancements. Furthermore, inequality was a product of varied social configurations and ideologies formulated in hunter-gatherer societies (Bender 1989:210).

Rather than further breaking societies up into types, Feinman and Neitzel (1984) argued that change in prehistoric societies was a continuous process. They reclassified these groups as "Middle-range societies," to draw attention to the enormous amount of diversity within pre-state societies exhibiting little or no socioeconomic stratification (Rousseau 2001:117). Middle-range societies are also capped at 30,000 individuals because they are incapable of handling additional stratification without transitioning into states (Pauketat 2007:143).

Hayden (2001) also proposed a new category called "trans-egalitarian" societies. These societies belonged to the "gray area" between egalitarian hunter-gathers and clearly stratified chiefdoms. Some of the characteristics they exhibited were private ownership of resources, low-level sharing, and institutionalized hierarchies including wealth, kinship, and political dominance (Hayden 2001:232). Hayden argues that significant inequalities first emerged from trans-egalitarian societies. In his model, individualization of food procurement and consumption led to a reduction in sharing. Resultant inequalities drove individuals to use aggrandizing strategies to control various forms of surplus. However, this approach is also somewhat problematic.

Hayden's model assumes that competition and aggression are universal drives in decision-making (Margomenou 2005:74).

Hence, much of the discussion about chiefdoms and many of the models proposed for chiefdoms, centered on the notion that culture is a *system* containing multiple subsystems that function to regulate fluctuations in the external environment. According to New Archaeology, culture is also adaptive. As a large-scale system, its subsystems tend toward balance or homeostasis. Societies that fail to adapt to external pressures risk the possibility of collapse, or even worse, total extinction. Alternatively, societies that adapt well to external factors are more capable of competing effectively within their environments (Johnson 2006:76).

One of the drawbacks of functional frameworks of this kind is that they result in gross over-generalizations and ultimately do not provide archaeologists with a way to investigate the dynamics of past societies.

Conclusion

From a Neo-evolutionary perspective, Mississippian societies fit into the category of chiefdom because they practiced maize-based agriculture and were organized into non-institutionalized kinship-based networks. As mentioned in the previous section, Mississippian societies also fell within the gray area between egalitarian bands and highly stratified societies because they were perceived as sedentary and appeared to exhibit a baseline division of labor, yet displayed clear instances of social inequality.

I argue that similar to the Mississippian concept, the concept of "chiefdom" has become a catch-all term in southeastern archaeology. Though it is not necessarily a "dirty word," in many ways it still represents an idealized step in human history (Earle 1987:280). In the next section of

this chapter, I critique some of the major models developed for Mississippian sociopolitical organization derived from general evolutionary frameworks.

Chiefdom Models in Mississippian Archaeology

Various models have been proposed to interpret hierarchical formations within Mississippian societies (e.g., Anderson 1994; Blitz 1993; Peregrine 1992). Most of this research examines politicization at the chiefdom-level, a top-down approach. Decades of such studies have resulted in an over abundance of large-scale analyses. In this section, I introduce some of these models and discuss their relevance within contemporary research.

Mississippian Chiefdom Models

In southeastern archaeology, early models proposed for Mississippian societies were derived from the Neo-evolutionary interpretation of "chiefdom," discussed in the previous section. These early models tended to emphasize cooperation or conflict (e.g., Carneiro 1970; Fried 1978; Service 1975). For Service (1975), chiefdoms were societies that predominantly participated in redistribution. Variability in external conditions favored the development of alternative production strategies and surplus distribution (Muller 1997:258). Fried (1978) introduced an alternative model stressing the importance of rank. According to this approach, differential access to resources resulted in political and social hierarchies. Elite subgroups emerged to compete over the allocation of surplus goods through institutionalized networks of tribute (Peregrine 1992).

The problem with such models is that they are limited in scope. Service and Fried's models were based on stages within large-scale models of evolutionary progression. Neo-evolutionary models essentialized societies and reduced their analysis down to negligible exercises in pigeonholing (Paynter 1989; Yoffee 1993; Sherratt 2004). These models were also

restricted because they were based on Marxist assumptions concerning exploitation. Theorists took contemporary state-level sociopolitical structure and worked backwards, rather than developing models specifically tailored to non-state societies. Furthermore, Marxism was a discourse originally intended to critique capitalism. In Mississippian archaeology, for example, Neo-evolutionary archaeologists equated chiefs with bourgeois in western society. They argued that elites controlled regional networks through institutionalized production and redistribution of surplus and raw materials (Blitz 1993:20; Muller 1997:19). These chiefs were characterized as wealthy powerful men, but where were the non-elites, or women for that matter?

In less coercive models, Mississippian elites were portrayed as small groups of privileged individuals who manipulated society through ideology and other tactics of persuasion. For example, some archaeologists referred to public works projects as strategies of exploiting labor or gaining compliance (Paynter 1989:384).

Pauketat and Alt (2003) advise against this assumption. Public works projects altered the landscape to depict hierarchical relationships, but they also embodied the social identity, or *habitus*, of laborers. In some instances, earthen mound constructions were used as a medium for resistance. Neo-evolutionary theory in archaeology also relied on the premise that control could extend from one settlement to another. Overall, chiefs were assumed to exploit Mississippian laborers across geographic boundaries.

Another model used to discuss Mississippian chiefdoms was influenced by Wallerstein's (1976) World Systems theory and centered on the notion that political control stretched across time and space through the production and exchange of material goods. World-systems theory separated the world into three zones: the core, periphery, and semi-periphery. In Marxist fashion, raw materials were collected in the periphery and slowly transformed by processes of refinement

as they made their way to the semi-periphery and eventually to the core. Core societies harnessed authority through maintaining access and control of the latest advancements in technology. Once converted into finished products and ascribed value, these materials eventually returned to the periphery through asymmetrical transactions.

Southeastern archaeologists borrowed this model to account for the emergence of specialized political economies during the Mississippian period. Peregrine's work (1992) focused on the use and influence of prestige-items, such as beads and personal ornaments, on internal and external political hierarchies. Prestige-goods functioned within the Mississippian world system as a means of repaying social debts. Considered symbols of status, elites ultimately controlled the production and distribution of these valuables.

Even though archaeologists attempt to use the world systems model as a guide for applying Neo-evolutionary theories, this approach is problematic. Drawing circles around sites manufactures closed units (Paynter 1989:377). Proponents of the world-systems theory in archaeology who study complexity and social inequality also ignore an important concept; culture is manifested from ideas. Neo-evolutionary theories are faulty because they perpetuate the attitude that individuals in prehistoric societies were, "cultural bearers rather than cultural creators" (Paynter 1989:377). In a counter-example to this assumption, archaeologists have now discerned that in addition to exchange-value, prestige-goods contained intrinsic value in the form of esoteric knowledge. Individuals purposely manipulated the exchange and meaning of these status symbols in order to legitimize their hierarchical positions of power and authority (Saitta 1999:136).

Dissatisfaction with models that portrayed individuals as cultural sponges surfaced during the mid-twentieth century. Even after incorporating Wallerstein's world system's model

into the analysis of Mississippian chiefdoms, resulting interpretations were still too broad. Alone, core-periphery models in Mississippian archaeology merely duplicated pre-existing static generalizations. In order to create a more dynamic model for discussing chiefdom-level organization in Mississippian societies, Anderson (1994) proposed the notion of cycling. He argued that political control rotated through periods of strengths and weaknesses. In this model political change resulted from competition among elites (Anderson 1994:31). As disagreements over agricultural land, trading networks, raw materials, and hunting territories increased, cohesiveness decreased (Anderson 1994:35). Stress placed on the Mississippian sociopolitical system eventually boiled over resulting in political collapse. Periods of indecision led to fragmentation in political solidarity. During these periods of decentralization and shift in chiefly influence, subgroups of local leaders were responsible for the bulk of political decisions. Eventually, most of these episodes were followed by periods of recentralization. Centers of power shifted and rotated across the landscape (Anderson 1994:10).

Anderson's model introduced dynamic components to otherwise static models, but much of his work was still heavily influenced by systems theory and notions concerning sociopolitical adaptation to the physical environment, an environmentally deterministic approach. Anderson correlated oscillations in centrality with fluctuations in the ability of elites to make collective decisions in response to social, political, and environmental conditions. Factors from rainfall to warfare were attributed to escalations in governmental instability (e.g., Anderson *et al*. 1995).

Although his work identified several correlational factors that may have contributed to the rise and fall of Mississippian societies, Anderson's model only addressed large-scale phenomena. Dissatisfied with top-down research, southeastern archaeologists began to approach Mississippian sites from an agency perspective. I discuss this perspective below.

In sum, Mississippian chiefdom models historically have examined the archaeological record from a top-down perspective. Although they are supposedly "loose" theoretical frameworks, assumptions built within these models mask the diversity within the archaeological record. Furthermore, none of these models adequately describe the dynamic relations among the "Mississippian" communities for the 650 years of their existence. Instead, this approach to the analysis of Mississippian sites has produced a large quantity of repetitive research. One way to critically assess these models may to approach the archaeological record from a bottom-up perspective. Investigations on individual sites are necessary before regional trends can be understood.

Do Chiefdoms Really Exist?

According to Yoffee (1993), scholars began to chip away at the notion of chiefdoms during the 1970s and 1980s. Critics of Neo-evolutionary approaches argued that most of the theories and models developed for chiefdom-level societies were outdated. These studies attempted to weave regional narratives into worldwide chronicles of human history (Shennan 1993:53). Analyzing arbitrary stages of civilization perpetuated ideologies that Western societies represented a pinnacle in human development. Egalitarian bands filled out the base of the human evolutionary pyramid. Hence, these models instigated a "less than" attitude towards non-state societies as precursors to state-level civilizations (Shennan 1993:53).

Questioning the Chiefdom Concept

Earle (1977) was one of the first scholars to question Service's definition of chiefdom. Through his studies on societies in Hawaii, he discredited redistribution as a universal trait of chiefdoms. This work set the stage for future critiques on Neo-evolutionary approaches to studying past societies. Yoffee (1993) followed Earle's work by criticizing the unilinear nature

of Neo-evolutionary models. His research pointed out that not all chiefdoms produced states, and not all states evolved from chiefdoms. According to Yoffee, social change follows different trajectories that Neo-evolutionary models fail to account for. Pauketat (2007) further accused Neo-evolutionary scholars of perpetuating models based on pointless exercises in pigeon-holing. He argues that chiefdoms were merely myths perpetuated in the minds of archaeologists. He also points out that blindly propagating these delusions and other Neo-evolutionary ideologies result in blanketing diversity in Pre-Columbian North America.

Taken as a whole, gross generalizations and assumptions have resulted from the adoption of the "chiefdom" concept in Mississippian research. By breaking these models apart, it is possible to understand how social relations are created, negotiated, and contested in the process of constituting society. The alternative approach to social change used here was originally put forth by Shennan (1993). Foremost, it is necessary to look for real social actors; individuals or groups of individuals responsible for observable social change. Rather than assuming "Big-men" made all the decisions, we must look for evidence of agency from a bottom-up perspective. After these intended and unintended actions are understood, only then can we examine this evidence for long-term phenomena. Finally, this approach requires the abandonment of "type" sites in southeastern archaeological research. Typologies are useful as "loose" frameworks in the beginning, but only when they can accommodate variation in the archaeological record.

Complexity in Southeastern Archaeology

In southeastern archaeological literature "complexity" typically refers to political aspects of Mississippian societies. Some of these discussions utilize physical space and population size as proxies for complexity (Cobb 2003:65). In some cases, mortuary and settlement data are then used to support these chiefdom organization assessments (ibid.). However, complexity is far

more intricate than population size and geographic scale. Therefore, in southeastern archaeology complexity is still an elusive concept.

The "fuzzy nature" of complexity within southeastern archaeology has led me to question: What is the meaning of complexity within a broader anthropological sense? Or, is it something that can be measured? Most importantly, what does social complexity mean from the perspective of a small Mississippian village community?

Defining Complexity

According to Paynter (1989:369), the concept of complexity, "concerns the degree of internal differentiation and the intricacy of relations within that system." Complexity implies that there are a variety of paths an individual may take (Sherratt 2004:84). Complex societies contain many different social entities, while simple societies contain entities that are similar and react in similar ways (Paynter 1989:369). Inequality results from differential access to strategic resources. This differentiation gives entities with access to resources power; in other words, the ability to control the actions of others without access (Paynter 1989:370). This concept is often confused with stratification, a term that refers to institutionalized rights and privileges usually involving hereditary status, economic rights, and roles (Hayden 2001:233).

Complexity is also a multi-dimensional concept with vertical, horizontal, and spatial components. Vertical dimensions of inequality or "hierarchy," are measurable differences. These differences are aligned in the same dimension, such as wealth and chain of command (Hayden 2001:234). This concept is similar to rank, yet simply implies that some groups may exert control over others by means of whatever criteria is of interest (Hayden 2001:233).

Horizontal dimensions of complexity called "heterarchy," describe the relation of elements to one another. These elements are unranked or possess the potential to be ranked in a

variety of different ways (Crumley 1995:3). In contrast to hierarchy, heterarchy indicates a relative diffused sharing of power by a number of groups, or groups with specialized purposes (Hayden 2001:234). Yet heterarchies are quite complex. They may also consist of hierarchies that interact as equal entities (Hayden 2001:234; Brumfiel 1995:125).

Social Complexity of Mississippian Societies

As previously stated, many of the models proposed in Mississippian research over the last few decades focused on hierarchical distributions of wealth and power. These hierarchical studies obscured a range of additional connections shared among people living in Mississippian societies (Maxham 2000:338). With Neo-evolutionary models in decline, southeastern archaeologists began to utilize alternative approaches to the study of complexity during the Mississippian period.

These studies on Mississippian social complexity were largely concerned with how individuals legitimized power and authority. In *Ascent of Chiefs*, for example, Pauketat (1994) argues that regional political consolidation resulted from competition among elites. More specifically, strategies initiated by elite individuals or subgroups to improve or maintain their positions eventually led to the development of class hegemony. While it is important to have a broad understanding of chiefly strategies of power and control, it is still necessary to look for historical particularities of social complexity (Wilson 2008:8).

Overall, complexity in southeastern archaeology is a “fuzzy” concept. In its current state, Mississippian complexity consists of a discourse on political economy tied to issues of power (Cobb 2003:65). I argue that heterarchical analyses afford us the opportunity to rank social elements in a variety of ways. Hence, this notion of heterarchy lends itself to a better understanding of the intricacies within regional Mississippian social complexity, as it allows us

to consider power relations from a bottom-up rather than a top-down perspective (Mehrer 2000:46).

Looking at Agency

Agency and practice theories are interrelated approaches for examining the relationship between the actions of individuals and larger social phenomena (Wilson 2008:3). These theories were developed out of a reaction to top-down approaches that attempted to study human behavior from a structural perspective. Structure may be defined as beliefs, environmental variables, or social institutions capable of influencing human behavior (Scarry 2001). Alternatively, bottom-up approaches examine the role of agents in producing and altering structure.

Practice Theory

Practice theory is centered on the reflexive nature of structure and agency (Giddens 1979). According to this approach, structure conditions individuals by influencing their beliefs and behaviors – but individuals also influence structure by their actions. Day-to-day routines result in unintentional or intentional consequences (Shennan 1993:56). These behaviors contain deeper meanings capable of altering or reproducing cultural norms. Thus, structure is not external but internalized through perceptions of the world shaped from *habitus*, the enactment of day-to-day routines (Bourdieu 1977). Therefore, individuals and groups of individuals, acting as agents, alter or perpetuate social structure based on the intended or unintended consequences of their practices (Shennan 1993:55).

This relationship between social systems and the actions of agents often goes unnoticed because most of these routines are rooted in tradition (Wilson 2008:3). From generation to generation, knowledge is acquired by agents regarding their place in society through the

observation and participation in day-to-day activities. As Shennan (1993) has argued, mundane behaviors reflect how we perceive the world, or in other worlds, surface phenomena may be used to interpret society writ large. Traditions are also flexible in that their physical manifestations and implications may be altered if necessary. Thus, it is important that archaeologists look for evidence of strategies used to veil, manipulate, or alter existing social orders (Wilson 2008:4).

Network and Corporate Strategies

Blanton and colleagues (1996) expanded on earlier discussions of agency to include strategies (or modes) of power acquisition. Their original scheme distinguished between two strategies, "network" and "corporate." Network strategies produced power through the fostering of external relationships. For example, communities engaged in long-distance exchange to gain additional allies. Corporate strategies generated differences in power through the manipulation of local labor and surplus. In some instances, these strategies were also used to share power and foster solidarity among social groups.

One of the major problems with the network/corporate approach is that network and corporate strategies may coexist, making it impossible to identify one or the other (Saitta 1999:139). As Saitta (1999) points out, a theory is needed that will accommodate multiple ideologies, agents, and strategies to account for variability in the archaeological record.

Conclusion

Through the unintended and intended consequences of routine behaviors, individual entities alter or perpetuate social systems. Individuals may also legitimize power and authority through a variety of strategies. Ultimately, it is through the actions of individual, group, and regional entities that social inequalities are created and institutionalized.

As previously stated (see Chapter 1), the objective of this thesis is to examine the archaeological record for variations within the practice of subterranean storage. I am interested in investigating how different social agents altered or legitimized existing social orders through the intended or unintended consequences of routine behaviors associated with subterranean storage. How were the social and political systems within Mississippian societies internalized through the practice of subterranean storage?

The Practice of Storage

Food storage may be conceptualized in a variety of ways. From a subsistence perspective, storage allowed prehistoric agricultural-based societies to compensate for seasonal fluctuations in production (Gross 1992:241). As a strategy and a technology, storage preserves surplus in instances of crop shortfall or crop abundance (Smyth 1991:3). Moving on beyond these traditional notions of food storage, the practice of storage also involves cognitive decisions. For example, previous knowledge is required to discern surplus location based on notions of how long particular staples preserve when exposed to certain environmental conditions (D'Altroy and Earle 1992:43).

Functionalists argue that centralized political organization formed to manage resources because increases in population density caused problems in the intensification of agricultural production (Service 1962;1966). This model emphasizes the role of competition in the emergence of elites to direct surplus through efforts to limit access to storage facilities (Service 1975). According to this narrative, surplus was collected in the form of tribute and then kept in centralized granaries. Individuals with access to these resources became responsible for the allocation and redistribution of communal surplus. As I have previously argued, Neo-evolutionary models perpetuate existing assumptions and over-generalize sociopolitical

phenomena. Additionally, top-down approaches only grant agency to a small number of individuals. Therefore, this approach to the study of storage is not followed here.

D'Altroy and Earle (1992:43-44) also discuss the social functions of storage, but as it relates to political economy, specifically the political economy of the Inka Empire. One of their key points is that effective storage is necessary for maintaining and controlling political and social institutions. In this manner, effective storage is needed to finance seasonal part-time labor. Additional surplus stores are also needed to finance a society in the event of a crisis, such as war or famine. Thus, storage is necessary in the maintenance of stratified societies. Therefore, the institutionalization of storage is fundamental in the centralization of power.

This model is somewhat problematic. D'Altroy and Earle emphasize the social and political factors of storage in stratified societies, but deemphasize them in small agricultural communities. As a result, storage in agrarian societies is predominately explained through subsistence economics. D'Altroy and Earle also largely attribute ecological factors to storage strategies employed by small agricultural societies. In its current state, D'Altroy and Earle's model is not particularly useful in an investigation of the sociopolitical aspects of storage in non-state societies (Margomenou 2005:44).

Studying Storage within the Context of Mississippian Archaeology

According to Pauketat (2004:103), there were two types of subterranean storage structures associated with Mississippian sites: bell and basin shaped pits. These pits have variable depths ranging from an arm's length to a person's height. Several distributional patterns of subterranean storage pits have also been observed. In the first pattern, storage pits are centralized granaries (e.g., Mehrer & Collins 1995:37; Nass & Yerkes 1995:61). These subterranean storage facilities are often located near central plazas. According to this pattern,

these pits functioned as subterranean cribs; storage containers for communal surplus. In a second pattern, subterranean storage pits are associated with individual households (e.g., Nass & Yerkes 1995:75). This type of storage distribution is often attributed to private household consumption. In a third pattern, storage pits co-exist with other subterranean features, particularly burials and trash pits. These features appear to surround domestic areas devoid of refuse (e.g., Dunnell 1983). Finally, all three subterranean storage patterns could have operated mutually at a given site.

Interestingly, despite the fact that subterranean storage pits are identified at Mississippian sites, subterranean storage technology is often associated with the Woodland period, while above-ground storage is associated with the Mississippian period (DeBoer 1988; Dickens 1985; Ward 1985). Some archaeological evidence has been found suggesting that the Mississippian period was marked by a decrease in subterranean storage pit use (Blitz 1993:100). Above-ground storage is mentioned in ethnographic research on Creek and Seminole groups (e.g., Bartram 1958:56), but subterranean storage pits are not. According to ethnohistorical accounts, during the Mississippian period food storage was a public activity. Surplus was centralized and displayed conspicuously in above-ground structures (Wesson 1999:149). Yet, subterranean storage pits are less visible by nature, thus may not have been easily detected. As a result, subterranean pits may have also been used to hide or conceal items (Hendon 2000). Southeastern archaeologists have found caches in Mississippian subterranean pits (e.g., Mehrer & Collins 1995:44). Therefore, the notion that subterranean storage is a Woodland period technology while above-ground storage is a Mississippian technology may be accentuated by existing assumptions that centralization of power implies centralization of surplus.

In southeastern archaeological literature, subterranean storage has also been considered a strategy of resistance. For example, during the late prehistoric and early historic periods (AD 1400-1600), subterranean storage practices seem to re-appear at Mississippian sites (Wesson 1999:157). Using practice theory (Bourdieu 1977) to account for archaeological occurrences, Wesson (1999) interprets this re-emergence of subterranean storage as an act of resistance to paying tribute. This interpretation is based on the communal storage scenario that surplus stores within centralized facilities were subject to tribute. It also assumes that some people did not want to contribute to tributary payments institutionalized by the polity. Thus, removing a part of the surplus from communal storage allegedly removed it from political control. By adopting old traditions, individuals in Mississippian societies may have undermined practices used to legitimize chiefly rule (ibid.).

Examining Surplus

When we measure storage capacity, what exactly are we measuring? In most cases, storage capacity is used to estimate "surplus," a concept used to infer social complexity through production and manipulation of speculative surplus.

However, the connection between storage and surplus is not so straightforward. This relationship between storage and surplus production cannot be assumed, especially in the case of societies without institutionalized inequality and bureaucracy (Margomenou In press:7). Halperin's work (1994:89-90) points out that what is stored may not be derived from production, but may accumulate through distribution, whereas certain types of staples may not be stored (Halperin ibid.). Hayden's research (2001), furthermore, points out that for "trans-egalitarian socities" evidence of surplus is best measured at consumption or destruction.

Thus, before connecting storage to complexity via surplus it is necessary to investigate what constitutes "surplus" for each particular society (Margomenou 2005). Enough surplus stores may be necessary for covering basic needs and providing insurance against crop short fall (Halstead's "normal surplus" 1989), but excess surplus may also be required beyond basic subsistence. Thus, the definition of "surplus" may include financing trade, conspicuous consumption, gift giving, and prestige exchange; practices driven by political ambitions and other such imperatives besides safeguarding subsistence needs (Margomenou 2005).

Conclusion

During the Mississippian period, external conditions in the environment favored the development of alternative strategies for storing and allocating surplus. Social practices developed to regulate the distribution of resources throughout a sphere of local and regional networks. Consequently, these agricultural societies survived through technological adaptations to short and long-term fluctuations in climate, but also through creativity and diversification in everyday storage practices.

Though many storage structures may have held surplus, these facilities and spaces most likely carried significance beyond their utilitarian purpose (Margomenou In press:7). I propose that evidence of storage may be used to draw indirect inferences on surplus and its role in establishing and maintaining sociopolitical relationships.

Space, Activity Areas, & Household Archaeology

In this thesis, I examine variations in the distribution of storage pits as they relate to various activities involving subterranean storage. Therefore, it is necessary to understand the spatial dimensions of the practice of subterranean storage. The storage pits I examine in this case

study are also associated with households. Thus, it becomes necessary to define "household" and "activity areas" since these concepts inform my analytical tools in the following chapters.

Space and Place in Archaeology

Many archaeologists have sought to reconstruct social organization from the archaeological record based on the spatial distribution of artifacts and features (Ashmore 2002:1173). These scholars share in common an understanding that spaces are actively inhabited (Ashmore 2002:1172). In other words, spaces influence social relations, yet social relations in turn transform space.

The concept of "place" first emerged during the 1980s beginning with the acknowledgement that particular locations fulfilled multiple and temporal roles (Binford 1982; Ingold 1993; Rapoport 1990). Places were defined as products of repeated human activity, as evidenced by observable differences in artifact frequencies and variations in methods of construction. These activities constructed social memory, while simultaneously inscribing social meaning onto particular places in space.

Households and Activity Areas

As mapping techniques improved, archaeologists began to break settlement patterns down into smaller and smaller units. Theoretical shifts in spatial archaeology away from top-down elite centered research also led to an increasing interest in the study of household archaeology. Unfortunately, like many other concepts in archaeology, early definitions of the "household" were formulated from ethnocentric assumptions (Wilk & Netting 1984:1). Households were originally defined on the basis of "family" and typed according to morphological terms used to label kinship relations. These terms included: stem, joint, and multi-family (Wilk & Netting 1984:3). Early household studies were also heavily influenced by

Marxist discourse (e.g., Goody 1972). Consequently, households were interpreted as the basic unit of production and consumption (Wilk 1990:34).

Scholars opposed to these functional definitions redefined households as groups that participated in similar activities (Wilk & Netting 1984:5). These activities were classified into five categorical spheres: production, distribution, transmission, reproduction, and co-residence. Along these lines, activity areas are units of analysis in which recurrent behaviors are made visible. According to Manzanilla and Barba (1990:41), these areas may be defined as "concentrations of raw materials, instruments, semi-processed products, or residues on specific surfaces, or in quantities that reflect particular production, consumption, storage, or evacuation processes." Despite the organized appearance of activity area analyses, researches eventually discovered that none of these activities or processes are exclusive or inherent. According to Rapoport (1990:18) and Smyth (1991), activities are orchestrated systems in which practices in one setting may affect practices in another. These spheres overlap making it nearly impossible to separate individual households from the larger economic and political super-structure.

Households were also differentiated from household clusters (Winter 1976). As previously stated, households were defined according to groups of people who performed similar activities. In contrast, household clusters were defined according to archaeological remains. A household cluster might include 10 posts positioned in a circular pattern, two storage pits, and a hearth for instance. Archaeologists also discovered that formation processes affect interpretations of domestic use of space (Diehl 1998; Kent 1999; Santly & Kneebone 1993; Varien & Potter 1997).

One of the benefits of examining the archaeological record from a household perspective was that it allowed archaeologists to describe individuals and groups of individuals rather than

homogenous social entities (Hendon 1996:46). Households are composed of domestic groups; social actors differentiated according to age, gender, role, and power. Ultimately, this approach lends itself to an analysis based on agency and variability.

As Hendon (1996:49) states, "by looking at the distribution, nature, scale, and technology of activities within domestic units, archaeologists have the potential to reveal internal and external economic and social relations." This potential rests in the ability of archaeologists to examine the archaeological record from an agency perspective. Furthermore, spatial analysis may be useful for examining heterarchy, or horizontal relationships (Ashmore 2002:1175). Asymmetrical power relations are often built into the physical landscape (Nielsen 1995; Knight 1998; Wilson 2008:6).

Conclusion

In this thesis, I propose an approach to social complexity from an activity area perspective. This approach lends itself to an examination involving multiple actors, strategies, and scenarios. Therefore, spatial phenomena may be used to infer social inequalities in instances in which hierarchy and heterarchy are reflected in the physical environment.

Epistemological Implications

Research over the last few decades on social complexity in Mississippian society consisted of regional organizational assessments of chiefdoms (e.g., Anderson 1994; Blitz 1993). These archaeological explanations focused on moderate to large sites containing visible hierarchical social, political, and economic structures (Maxham 2000:337). Regional analyses produced an abundance of literature on the assent of chiefs. These studies were concerned with strategies in which individuals with chiefly status exerted power to mobilize raw materials and tribute in the form of surplus from smaller peripheral village towns and villages.

As these Neo-evolutionary models flourished throughout the archaeological literature, a "fuzzy space" in the representation of Mississippian society slowly emerged (Cobb 2003:68). Much was written about chiefs and how they extracted resources from outlying communities, but little was known or written about the majority of Mississippian society. Dissatisfied with Neo-evolutionary approaches, archaeologists began to investigate social complexity within smaller site categories. Larger sites were reinterpreted through agency oriented approaches. Pauketat's work (2001) has been largely influential in the study of Mississippian village communities and the role of human agency in creating and negotiating sociopolitical structures. Contemporary archaeological research is now moving beyond hierarchical regional analyses, to examining the practices of individual, group, and regional entities (Cobb 2003:65). Life during the Mississippian period was not solely dictated by the whims of elite individuals with chiefly status (Maxham 2000:338). Southeastern archaeology research is now focusing on how lower-ranked individuals made decisions and interacted accordingly.

Due to how little attention has been paid to village sites in the past, less is known about how individuals performed day-to-day activities and constructed their social environment. The identification and analysis of above ground and subterranean storage facilities has also been limited (Anderson *et al.* 1995:281). I argue that studies on the practice of subterranean storage provide an avenue for interpreting how individuals internalized large-scale and small-scale sociopolitical structures. Subterranean storage is an effective means of removing surplus from public ownership and reserving it for private consumption (DeBoer 1988). How did Mississippian communities exercise their own creative control to support sociopolitical structures or employ efforts to resist it?

3. METHODOLOGY

Introduction to Riverfront Village Case Study

Based on the theoretical framework outlined in the previous chapter, I now turn to my case study on Riverfront Village, a small Mississippian site located in the Savannah River valley region. Given the previous theoretical discussion, it is possible to view subterranean storage not only as a strategy, but also as a practice. It is also possible to investigate the role of subterranean storage as it relates to social complexity from the perspective of a small Mississippian village community.

In the first half of this chapter, I provide additional information relevant to my case study. Foremost, I present previous archaeological investigations conducted at Riverfront and mention several important observations made during these investigations. Furthermore, this section includes background on Riverfront Village's latest data recovery, particularly concerning the excavation of subterranean features. I also include a short overview of the initial subterranean feature classification system.

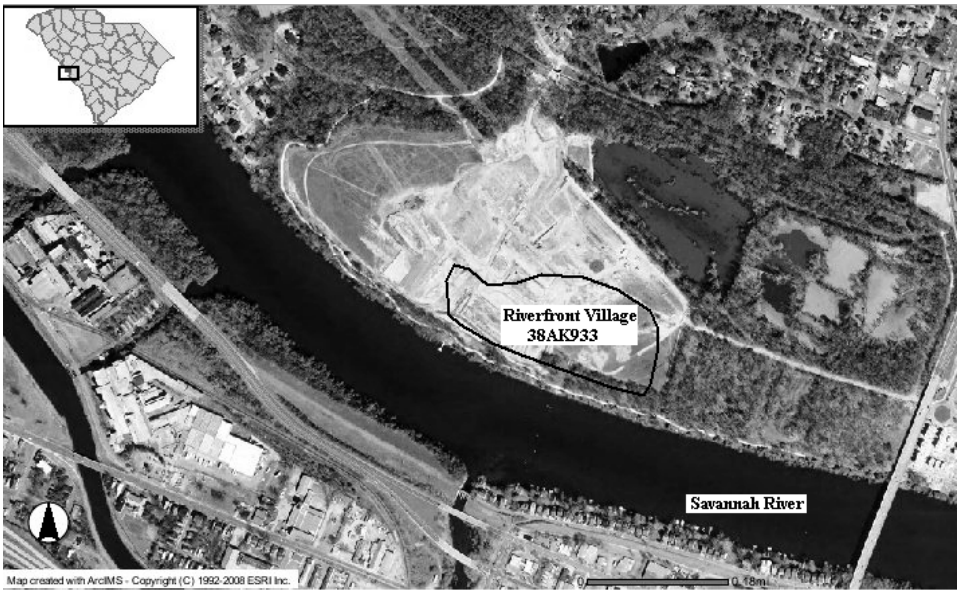
The second half of this chapter outlines the methodological approach I use in my data analysis (Chapter 4). This part begins with a brief overview of methodological research pertinent to my case study. In conclusion, I propose a new approach to feature analysis; a scheme open to variation within the archeological record.

Summary of Excavation Methods

During the initial archaeological investigations of Riverfront Village (Trinkley 2004) Chicora described it as a large, low density, Contact period (AD 1450-1700) site located on a T2 terrace of the Savannah River (Whitley 2005:30). These early investigations consisted of 41 auger tests and 9 backhoe trenches approximately 5 and 8 meters in length. Auger testing was

used to determine the extent of the site. Later, Chicora added two additional 5 foot by 5 foot test units. These units were placed in areas containing “average” artifact densities based on auger testing results.

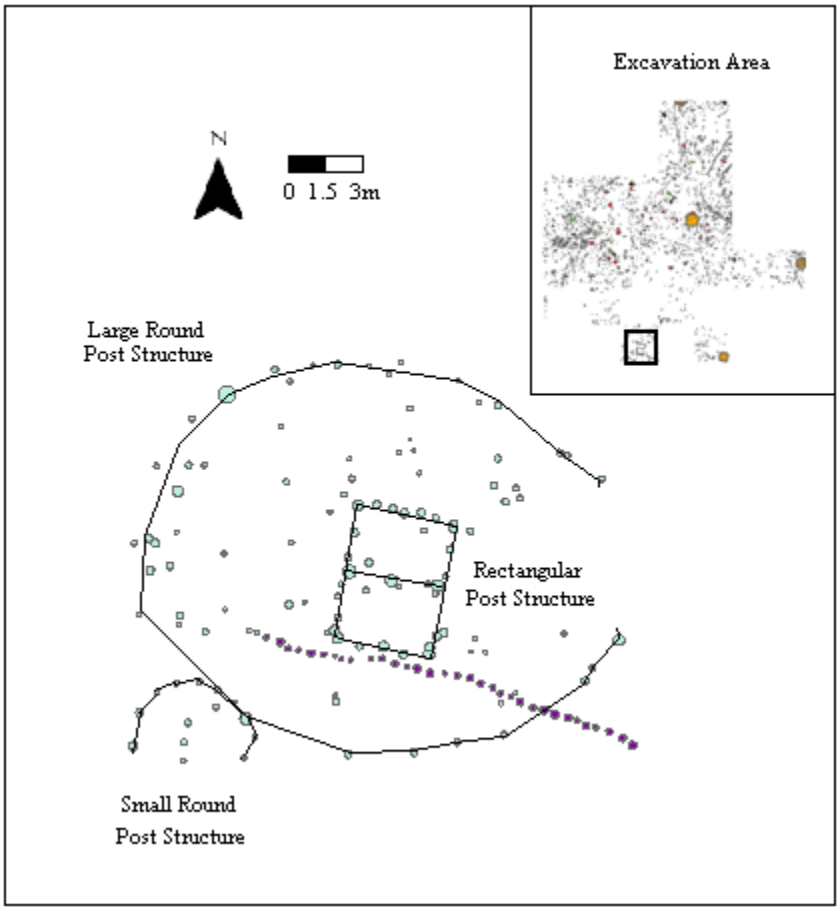
Follow-up investigations of Riverfront Village were conducted by Brockington and Associates, a cultural resource management company headquartered in Atlanta, Ga. Under the direction of Tom Whitley, phase II investigations consisted of shovel testing in 15 meter increments, and a 94 meter long, 1 meter wide, mechanically excavated trench (Whitley 2005:31). After permission was granted to extend the investigation beyond the original project area, Brockington field staff also completed an additional 269 shovel tests. Given its size and vulnerability to looting, Riverfront Village was recommended for further data recovery. During phase III investigations, the site was divided into 25, 15 meter by 15 meter excavation blocks. Approximately 7% of each block was hand excavated. The rest of this excavation area was mechanically stripped to expose features below the plow zone (Whitley 2006:6).



Map 3.1: Site Boundaries over Aerial Image

Riverfront Village is a midden site with some areas containing greater than 266 artifacts per square meter. Additionally, remnants of several subterranean features, some empty some not, were recovered during both survey and data recovery investigations. Although above-ground storage facilities were not identified, above-ground storage most likely occurred. Investigations by Brockington and Associates did, however, reveal several burials scattered across the site. Many of these burials contained severely eroded bones, and in some cases just teeth. Due to the poor condition of these remains, there is still a strong possibility that some of the subterranean features are misidentified burials.

Based on the large number of post holes identified during excavation (n=3,645), it is readily apparent that the settlement arrangement of Riverfront Village changed several times over the course of its occupation. The site is surrounded by a series of post and trench walls. Also, three types of post hole structures have been identified. The most common type of structure is round, often containing subterranean pit features along its walls. These structures may be similar to “winter houses,” large seasonal structures that have been identified at other Mississippian sites (Hally & Kelly 1998:56). The second type of post structure is also round yet considerably smaller, particularly in relation to floor area. The third type of post house at Riverfront Village is rectangular. These are contained within the winter house structures, although, occasionally appear in isolation. The three types of post structures are illustrated in Map 3.2.



Map 3.2: Three Types of Post Structures

Excavation also exposed four trench house buildings located in different areas of the site. According to Tom Whitley, these structures appear to resemble "sweatlodges," communal buildings found in the southwestern region of the United States (Thomas Whitley, August 22, 2008, Personal Communication). This interpretation is supported by their small size and evidence of a bench feature in the main trench wall structure. Evidence of sweatlodges has also been found at other Mississippian sites (Mehrer & Collins 1995:41). Compared to domestic (household) contexts, these sweatlodges yielded more exotic debris, as well as tools (Mehrer & Collins 1995:50).

Feature Excavation and Data Collection

All of the features included in this investigation were excavated by Brockington and Associates field personnel during phase II and III testing. Features were bisected and excavated one half at a time in order to record profile shape. For features with round planviews, excavators measured the diameter. For features that were square or rectangular in appearance, excavators collected length and width measurements. In both cases, depth was measured from the paleosol, or surface of scrape, down to each pit's deepest point. All of these measurements were calculated in centimeters, and are illustrated in Figure 3.1.

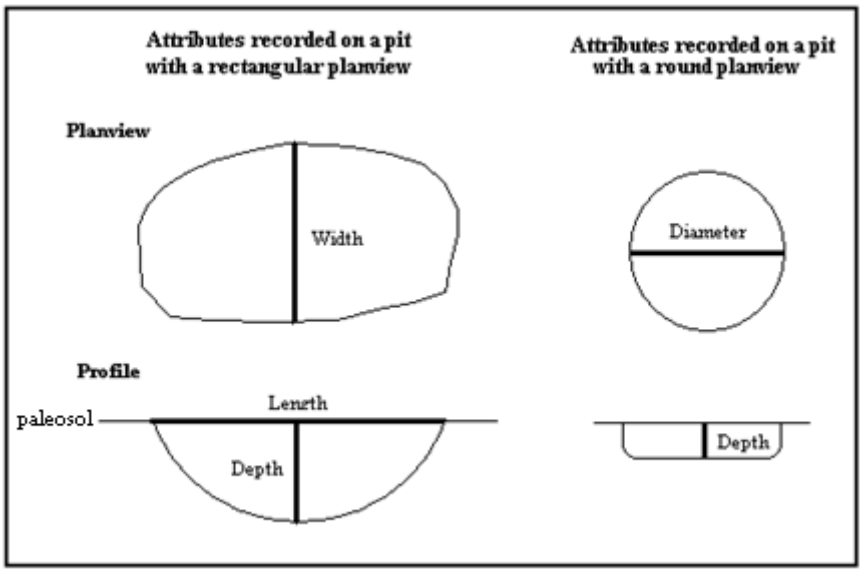


Figure 3.1: Attributes of Pit Features Measured during Excavation

In the initial feature classification system, pits were "typed" according to three categories: pit function, planview size, and profile shape. This classification system is outlined in Table 3.1. Five types of subterranean features were identified: post holes, burials, smudge pits, hearths, and miscellaneous subterranean pits. Excluding post features, 135 out of 175 subterranean pits were classified as miscellaneous, thereby lumping together the majority of subterranean features at Riverfront Village into a meaningless group.

Table 3.1: Initial Feature Classification System

Criteria	Type	Subtypes based on Planview	Subtypes based on Profile
Round planview, little or no contents	Post hole	large, medium, small	shallow, deep
Human bone	Burial		
Burned corn cobs	Smudge pit		
Evidence of high heat	Hearth		
Remaining features	Subterranean pit	large, medium, small	basin, bell, or irregular shaped

All of the features excavated during phase II and III testing were mapped using a Total Station. Point data and attribute information were later uploaded and combined using ArcGIS software. Whitley calculated the volume of each subterranean feature using length, width, and depth measurements. Algorithms were used to account for variations in pit shape.

All of the artifacts collected during both testing phases were cataloged by Brockington and Associates lab staff under the direction of the lab manager, Debbie Casselberry. During this time, I worked for Brockington and Associates as a lab technician. Over the course of a year (January to December 2007), I cataloged approximately 30 percent of the artifacts recovered from the phase III data recovery. After the artifact catalog was complete, I also labeled approximately 60 percent of the collection in preparation for curation.

Introduction to Methods

Here I contextualize my methodological approach. I begin with a discussion on previous methodological approaches relevant to my case study. Based on this research and the theoretical background presented in Chapter 2, I propose a new scheme for organizing evidence of subterranean storage based on measurable and observable patterns in the archaeological record.

Previous Methodological Approaches

In this research, I propose an approach to examining subterranean storage from an activity area perspective. This requires identifying observable patterns in the domestic use of space. Fixed or semi-fixed features may be useful in this identification process (Kent 1999).Yet, due to evidence of overlapping structures and changes to Riverfront's overall settlement arrangement, individual household structures are not readily apparent. Presented with a similar challenge, Wilson (2008) proposed a method for teasing apart individual households and household groups from clusters of subterranean features. Using a map of his site and ArcView software, he was able to observe patterns in posts and subterranean pits. Once an individual structure was identified, it was temporarily removed from the map along with any associated features. This procedure exposed several previously undocumented structures.

In this study, I also propose a scheme to describe measurable and observable variations in the practice of subterranean storage. Although variability in Mississippian storage pits has not been investigated, variability in ceramic vessels has been used as a proxy for examining the practice of feasting. Blitz (1993) argued that vessel volume may be helpful in separating ceramics reserved for feasting from ceramics intended for daily consumption. In the same study, Blitz (1993) also examined variations in faunal material. According to these findings, mounds associated with feasting and ritual activity contained higher frequencies of fish and turtle remains compared to areas associated with domestic activity.

Southeastern archaeologists have been studying the archaeological record for evidence of variability in ceramics and faunal material (e.g., Blitz 1993; Maxham 2000; Wilson 2008). However, examining artifact distributions is not enough for understanding the use and significance of space (Margomenou 2005:92). According to Rapoport (1990:15), the focus of

spatial investigations should be on activity systems, rather than individual settings. In Figure 3.2, I outline some of the activities that may be associated with subterranean pits at Riverfront Village.

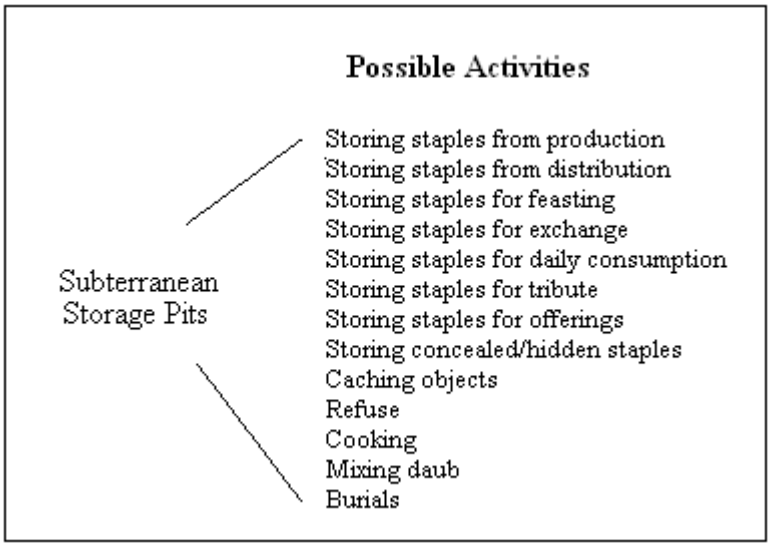


Figure 3.2: Example of Activities Possibly Associated with Subterranean Storage

The study of space and activity areas is also affected by formation processes. For example, abandoned storage pits often become desirable as indirect repositories for refuse material (Dickens 1985:42). Although storage pit contents cannot be used as direct evidence of surplus, their contents may be useful for delineating domestic space (Kent 1999). Kent (1999) distinguishes between two types of areas: trash and non-trash. In many cases trash is a special activity. Pits reserved for trash should contain evidence of redundancy, meaning evidence of repeated disposal of specific materials. In contrast, pits in non-trash areas are associated with multiple activities, therefore, should contain a diversity of items. Thus, storage pits associated with daily consumption should contain a wider array of refuse than pits associated with special activities.

In conclusion, this methodology was largely inspired by two scholars in particular Smyth (1991) and Margomenou (2005). Smyth's work centers on an ethnoarchaeological investigation

of storage practices of the contemporary Maya from the Puuc region of Yucatan. Margomenou's research examines variability in storage practices as it relates to the emergence of institutionalized inequality in central Northern Greece during the late Bronze Age and early Iron Age. In this study I attempt to recontextualize their work and the research of previously mentioned scholars in an effort to interpret the social and political environment of a Mississippian village based on the material evidence of domestic storage practices.

General Expectations

The scheme I use to organize subterranean features considers three sources of variability: pit structure, contents, and distribution. By scheme, I mean a "loose" methodological framework employed to organize measurable and observable evidence into meaningful groups.

Variability in Structure

Variability in subterranean pit structure may be interpreted in many ways. For example, decisions regarding depth and volume are made during preliminary stages of pit construction. According to this perspective, storage choices are manifestations of cognitive notions regarding expected duration of surplus, kinds of staples to be stored, and ultimately the size of the group intended for consumption (Margomenou 2005:84). For instance, clay lining was used to prevent moisture from the surrounding soil from leaking into pits (Reynolds 1974:128). This practice had to be executed precisely in order for these pits to function properly.

Through an examination of variability within pit structure, it is also possible to draw several indirect inferences based on multiple lines of evidence. Beyond cognitive strategies regarding pit construction and standardization, variability in storage pit shape may also reflect inequality in status and wealth. Are there also variations in pit volume? If so, can variations in pit sizes be somehow related to differences of wealth among residential groups?

Variability in Pit Contents

It is not possible to relate contents directly to storage, but it may be possible to use pit contents as a means of interpreting domestic use of space. As previously mentioned, pits in areas reserved for refuse should contain evidence of redundancy, while pits in areas in which multiple activities occurred should contain an array of cultural material. From analyzing pit contents, it may also be possible to determine if storage pits were abandoned, in use, or disuse.

In some cases, it may also be possible to infer additional pit uses based on an analysis of contents. Do some pits contain evidence of particular activities? Do some pits contain a particular class of items? These pits may be associated with special activities such as lithic production or feasting.

Variability in Distribution

As previously mentioned, subterranean storage pits can also be studied according to their distribution in space. Activities are orchestrated in a system in which practices in one setting can affect practices in another (Rapoport 1990:18; Smyth 1991). I argue that it is possible to propose ideal patterns in storage. Presented below is a short description of three ideal distribution patterns. These are not stages or mutually exclusive categories.

Pattern 1 – Associated with households: Storage pits are dispersed individually. Staples are stored according to household units.

Pattern 2 – Central: Surplus is located in a central area. Surplus is collective. Access to storage is either shared or limited.

Pattern 3 – Marginal: Subterranean storage practices take place in specialized activity areas.

A number of indirect inferences may be drawn from these patterns regarding social complexity. These can be seen in Table 3.2. For instance, pits may reflect differences in household consumption and/or activities associated with conspicuous consumption, such as feasting. Furthermore, distributions of storage pits may also be used to examine social inequality. This may be determined by evidence of unequal access. Finally, it may be possible to examine distributions of storage pits in relation to household units.

Table 3.2: Subterranean Storage Inferences

Measurable Dimensions	**Direct Inferences**	**Indirect Inferences**
Variability in Subterranean Pit Structures	Storage Technology, Size of Storage	Type of Storage, Specialization, Surplus, Status, Wealth
Variability in Pit Contents	Storage Technology, Duration of Storage (Use vs. Disuse), Range of Storage	Specialization, Redistribution
Distribution of Storage Pits	Storage Areas, Activities Associated with Storage, Distribution of Storage Facilities	Social Inequality, Organization of Consumption, Decision making groups, Definition of Household unit

Three Step Approach to Data Analysis

In the first step of my analysis, I look for measurable differences in the initial classification system. This part of my research mainly focuses on variables associated with pit structure: length, width, depth, area, and volume. Using SPSS version 16.0, I conduct a one-way ANOVA to determine which variables are best suited to account for variation within and between these functional types. Variables with high F-scores are then tested in a series of linear regressions and graphed in scatterplots. Through these scatterplots, I identify outliers and look

for clustering among groups. I also enter the variables length, width, depth, artifact count, ceramic count, and ceramic weight into a factor analysis to reduce the dimensionality of my data. Through factor analysis, I ultimately look for variables or a combination of factors that can best account for variation between individuals in the subterranean pit sample. When measurable differences are not readily apparent, I discuss observable differences among groups.

The second stage of my data analysis examines trash deposits in the subterranean pits for evidence of variation in refuse practices. In this stage I attempt to separate pits that were originally intended for refuse from pits later converted into trash receptacles. In this analysis, I also use diversity of refuse as a means of interpreting domestic use of space. By diversity, I mean categories of artifacts in each subterranean pit. I also graph the relationship between artifact count and number of artifact categories in a scatterplot to look for outliers and groups of features based on their refuse content. These results are then mapped using ArcGIS to show distributions in refuse deposits across the site.

In the final stage of my analysis, I specifically focus on potential subterranean storage pits. Using fixed and semi-fixed features and the results from my trash analysis results, I compare potential subterranean storage pits from four activity areas across the site. These activity areas are tested for variations in depth and volume, which are then graphed in mean plots.

Conclusion

In conclusion, feature classification systems are affected by multiple factors before and after excavation. Features pass through a series of formational processes related to use, abandonment, and post-abandonment (LaMotta & Schiffer 1999; Schiffer 1977; 1987; Wilson

2008:7). Table 3.3 summarizes some of these processes that can alter the manner in which features are classified.

Table 3.3: Formation Processes and Feature Classification

Factors that Affect Feature Classification
1. Intended and unintended uses
2. Site formation processes
3. Method of excavation
4. Preconceived notions regarding space

Overall, this methodology is intended to account for variability within subterranean features at Riverfront Village, specifically those previously classified as "miscellaneous pits." In this study, I examine variations in pit structure, content, and distribution to delineate activity areas. The purpose of this methodological approach is to interpret the role of subterranean storage from the perspective of a small Mississippian village.

4. DATA ANALYSIS

The objective of this analysis is to move away from a classification system based on function to a scheme open to a variety of interpretations. In this chapter I approach the Riverfront data from both a nomothetic and an idiographic perspective. From an empirical standpoint, I look for quantifiable variations in subterranean pit features. Using SPSS version 16.0, I conduct several statistical tests and procedures to analyze the data for measurable differences. For example, are smudge pits different from hearth features in terms of length, width, and depth? Do possible storage pits contain more or less artifacts than hearths? In this analysis I also look for observable patterns, especially in instances where statistical results are ambiguous. These observations range from profile shape to visible associations with other subterranean features across the site. In this analysis I test several quantifiable hypotheses, but also seek to address a range of research topics. For instance, how are different groups of subterranean pits constructed? How did these features influence domestic use of space? Alternatively, how were they influenced by domestic use of space?

Through a combination of empirical and interpretive approaches, I construct a comprehensive scheme capable of understanding subterranean pit features from a practice based perspective. I still entertain the notion that subterranean pit features can be classified into meaningful groups and I suggest a new typology for such structures. Of course, the scheme I use for this data analysis still leaves room for interpretation. Deciphering the intended and/or unintended purpose of some of these features may never be possible.

As previously mentioned in Chapter 3, during excavation a number of measurements were collected from each subterranean pit feature including: length, width, and depth. In the first section of this chapter, I examine the original classification system. Are these types statistically

relevant? Also, if these original groups have differences that are quantifiable, can I use such differences to identify features that may have been misclassified during excavation and preliminary analysis?

Beginning in the second half of this chapter, I specifically look at bell and basin-shaped features that have not been classified as posts, burials, hearths, or smudge pits. This "type" of subterranean pit contains features that *may* have been related to storage at one time or another. Through statistical procedures, I will examine the contents of these features. Specifically, I look for evidence of intentional trash deposits. By "intentional," I mean pits that were originally intended for refuse, as well as pits later converted into refuse receptacles. In this section I also attempt to use diversity of refuse as a means of interpreting domestic use of space.

In the last section of this chapter, I mainly concentrate on potential subterranean storage pit features. Based on the trash analysis from the previous section and visible observations related to use of space, I selectively sample groups of pits from different activity areas that could have been used for storage. In particular, this stage of analysis focuses on two structural variables, depth and volume. Ultimately it is the goal of this section to identify variations in the practice of subterranean storage from a spatial perspective.

Stage 1: Investigating Pit Variability

1a: Testing Original Classification System

The following section of my analysis grew out of a concern that some burials may have been misidentified as miscellaneous pits during excavation because they were eroded. During the first part of my data analysis, I examine several variables to determine if measurable differences exist between pits in terms of structure and content. Originally, I hoped that these variables could be used to identify features more accurately, particularly features considered "miscellaneous," or

misclassified in the field. Table 4.1 provides a count of each subterranean pit feature type according to the original classification system.

Table 4.1: Summary of Types

Type	Frequency	Percent
Burial	17	9.7
Hearth	7	4.0
Other	135	77.1
Smudge	16	9.1
Total	175	100.0

First I examined variables related to pit structure: length, width, depth, and diameter (for pits with a round planview). The purpose of this step was to determine if the four existing types of subterranean pits (burial, hearth, smudge, and other) were statistically significant. Using SPSS, I began my analysis by calculating the descriptive statistics of each variable. In summary, all of variables and their derivatives (area and volume) exhibited a great deal of variation. The descriptive statistics for these variables are listed below in Table 4.2.

Next, I conducted a one sample t-test to assess the distribution of each variable. According to these results, all of these variables were normally distributed ($n=175$, $p<.05$). After this t-test, I conducted two correlational analyses. Two analyses were necessary to avoid confounding variables. Unsurprisingly length, width, and depth were positively correlated, as were depth and area.

Table 4.2: Descriptive Statistics

	N	Range	Min	Max	Mean	Std. Error	S.D.	Variance
Length	160	267.00	23.00	290.00	102.65	3.61	45.60	2079.50
Width	160	200.00	15.00	215.00	75.21	2.82	35.64	1270.06
Depth	175	143.00	2.00	145.00	34.90	1.67	22.04	485.61
Diameter	15	23.00	15.00	38.00	25.27	1.63	6.31	39.78
AreaCM2	175	40962.11	111.50	41073.61	6241.25	466.74	6174.39	38123147.04
VolumeL	175	3396.40	1.00	3397.40	271.65	32.29	427.13	182437.65

During the next stage of my analysis, I conducted a one-way ANOVA. This statistical procedure was used to examine the strength of each variable. The ANOVA results are listed below in Table 4.4. Depth and Area yielded the strongest F-test results (n=175, p<.05). Next, I conducted a linear regression to determine if depth could be used to predict area. The results of this linear regression are included below in Table 4.3. As shown, depth is a statistically significant predictor of area.

Table 4.3: ANOVA(b), Depth and Area

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	575904192.608	1	575904192.608	44.076	.000
	Residual	2155928072.408	165	13066230.742		
	Total	2731832265.016	166			

Table 4.4: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Length	Between Groups	16140.273	3	5380.091	2.669	.050
	Within Groups	314500.13	156	2016.026		
	Total	330640.40	159			
Width	Between Groups	3668.516	3	1222.839	.962	.412
	Within Groups	198271.678	156	1270.972		
	Total	201940.194	159			
Depth	Between Groups	10960.441	3	3653.480	8.496	.000
	Within Groups	73534.908	171	430.029		
	Total	84495.349	174			
AreaCM2	Between Groups	645744096	3	215248032	6.147	.001
	Within Groups	5987683488	171	35015692.9		
	Total	6633427585	174			
VolumeL	Between Groups	1312030.14	3	437343.380	2.457	.065
	Within Groups	30432120.4	171	177965.616		
	Total	31744150.5	174			
	Total	174.000	174			

Next, I generated a scatterplot of depth versus area. Nine outliers skewed the graph. Four of these features were large pits containing burials. Feature 1591 appears to be a trash pit that was later converted into a burial. The purpose of the three remaining large burial pits is unknown. Another one of these outliers was a large hearth located in the upper portion of the central excavation zone. Two additional outliers were in close proximity to a smudge pit and may have been used for making daub. Of the remaining pits, one appears to be a large trash pit, and the other a feature that has been disturbed. Removing these outliers did not significantly affect the scatterplot results.

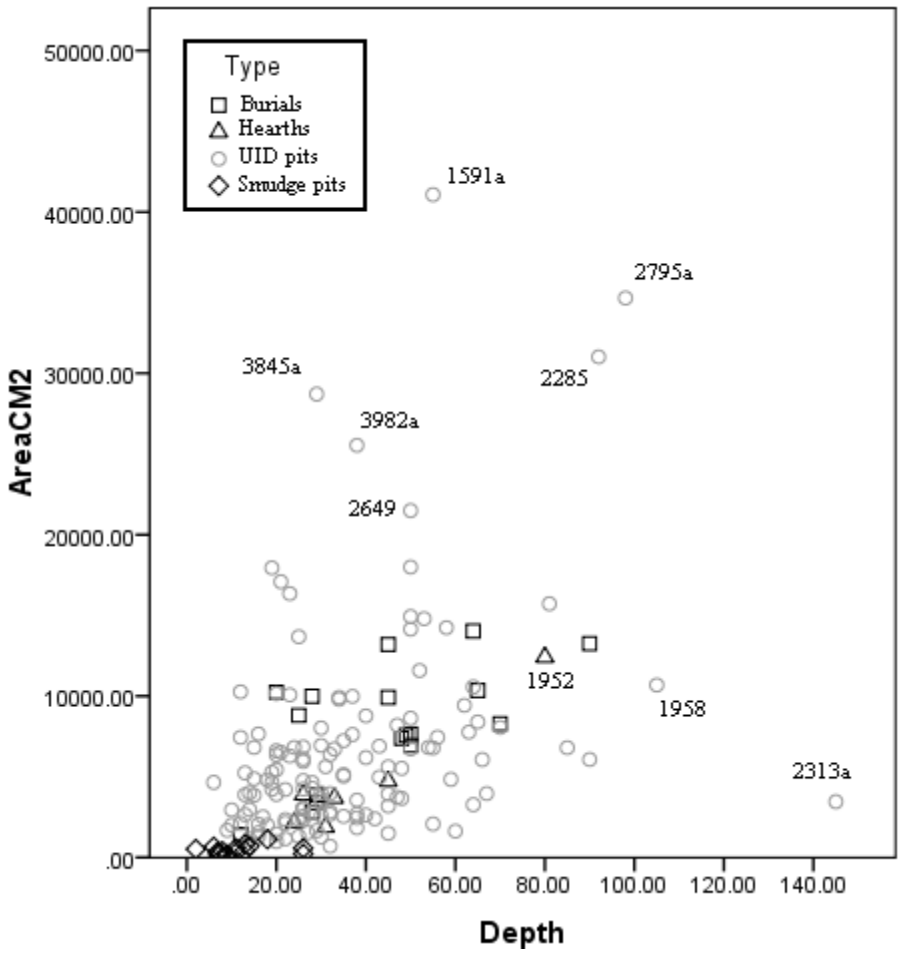


Figure 4.1: Scatterplot of Depth and Area, Numbers indicate outliers

As shown in Figure 4.1, smudge pits, hearths, and burials are highly discernable from one another in terms of depth and area. In contrast, possible storage pits span the entire range of variation. In subsequent tests, I examined relationships between several variables in pit contents including: artifact count, artifact classes, ceramic count, and ceramic weight. These analyses produced similar results.

In the next section of this chapter I specifically compare and contrast burials versus possible storage pits. One of the purposes of this analysis was to determine if there were measurable or observable differences between these two groups; criteria that could be used for identifying burials other than the presence or absence of human bone.

1b: Eroded Burials vs. Possible Storage Pits

During the first stage of my analysis of burials (n=17) versus possible storage pits (n=127), I graphed length and width in a scatterplot with type as the grouping variable. As shown in Figure 4.2, burials and possible storage pits were comparable on the basis of length and width.

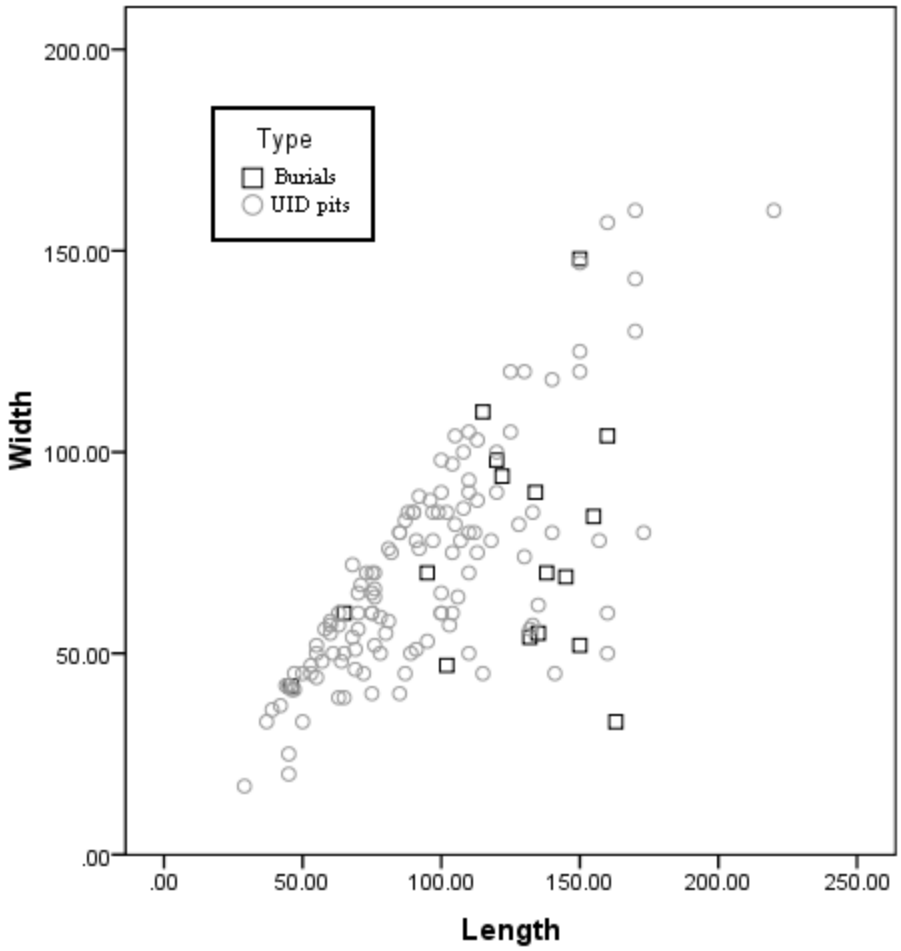


Figure 4.2: Scatterplot of Length and Width

I also graphed depth and area in a scatterplot and conducted a factor analysis with variables related to pit structure and content, but these statistical analyses yielded similar results. In summary, these statistical tests did not detect measurable differences between burials and possible storage pits.

These results were possibly inconclusive because the burial population sample is small, considerably less than the “miscellaneous” pit sample. The burial population sample consisted of 17 individuals: 13 adults and 4 infants. I removed the infant burials from the total burial population sample, but statistical differences between burials and possible storage pits were still not discernable. Another reason that burials and storage pits are similar in terms of length and width may have been that most of the bodies were placed in a flexed position, rather than an extended position, which would have required a longer pit. Faced with the absence of measurable differences between burials and possible storage pits, I decided to look for observable differences between the two groups.

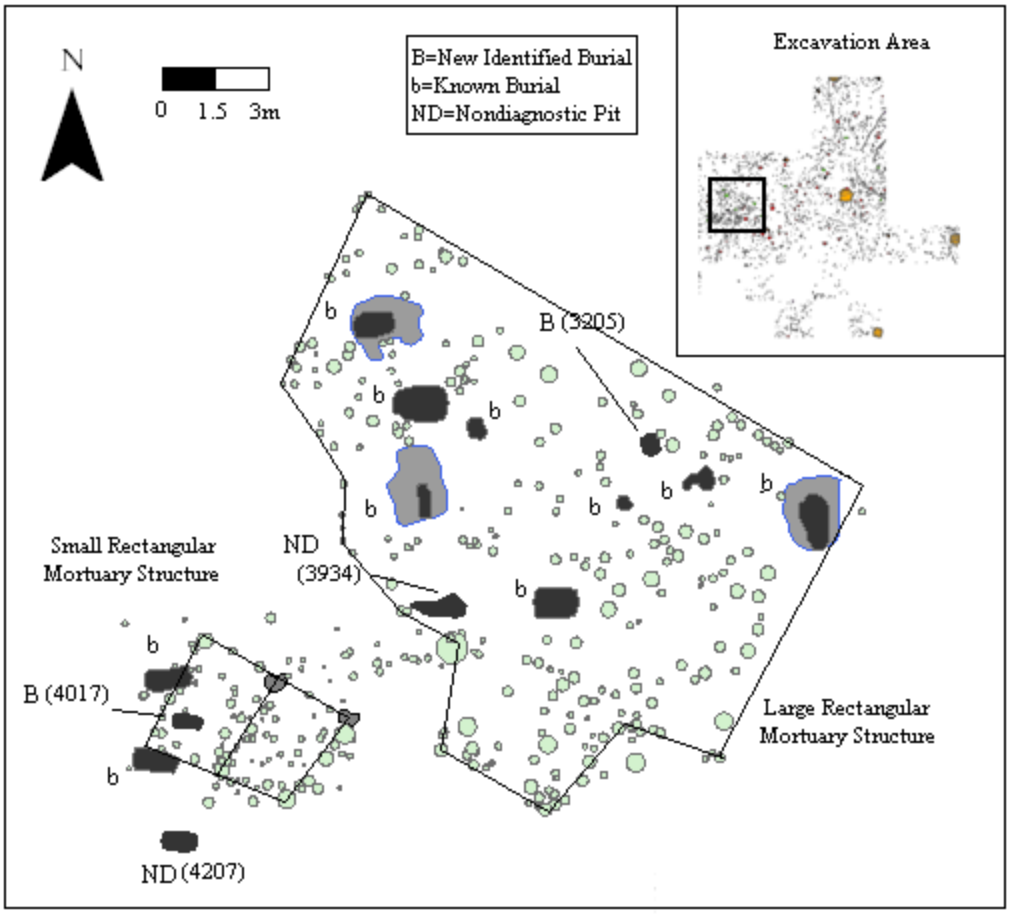
Focusing only on burials, I identified four observable patterns in burial construction. The first type (n=6) consists of what I interpret as intentional adult burials. These pits were rectangular, exhibiting a high length to width ratio in comparison with the other burials. Type 1 burials also appeared to be intentionally oriented. Two of these pits were oriented north-south, while other four were situated east-west. The second type of burial (n=4) also contained adult burials of a north-south or east-west orientation. In contrast to the previous type, these were placed in pits (the same pits labeled outliers in the previous section). The third type of burial (n=4) contained infants. These pits exhibited a small length to width ratio, and were comparably shallower than the rest of the burial population. The forth type of burial (n=2) contained adults, but also displayed a small length to width ratio. These pits appeared to resemble potential storage pits more than the other burials. These features also included faunal remains and charcoal, suggesting that at one point or another they may have served a non-mortuary purpose. One adult burial was unclassifiable. Though it was identified as an adult, in terms of observable characteristics it appeared to be an infant burial.

Referring back at the possible storage pits, I identified two pits closely matching the burial descriptions previously mentioned. Feature 4017 is most likely an eroded Type 1 burial. It is oriented east-west, rectangular in profile, and in direct association with two known adult burials. Feature 3205 is most likely an eroded Type 3 burial. Similar to the other infant burials, it exhibits a small length to width ratio and is in direct association with several known graves, including the cluster of infants.

Seven additional pits were also selected as potential burials based on their length to width ratio and orientation. Of these, three features were subsequently eliminated as potential burials after examining their contents. These pits contained artifact counts outside the range of known burial artifact counts. As a result, I determined that the four remaining features (4207, 2748, 3934, and 2124) were non-diagnostic. I removed them from the potential storage pit population because they exhibited characteristics associated with both burials and storage pits.

Due to the existence of Type 4 burials, identifying graves based on quantifiable data may not be possible. Type 4 burials suggest that individuals were sometimes buried in pits originally intended for other purposes, possibly even storage. In this case, presence or absence of human bone is still the strongest indicator of mortuary occurrences.

Through this analysis, I also observed that 10 of the 17 burials were located in the western region of the excavation area in two square post structures, which are illustrated in Figure 4.1. These structures do not appear to be associated with subterranean storage. Burials are, however, associated with other household clusters containing subterranean storage pits.



Map 4.1: Structures Associated with Multiple Burials

After reviewing the excavation forms for a second time, I also removed 12 additional pits from the possible storage pit sample. One of these pits was a misidentified hearth. Like the other hearth features, it was cone-shaped in profile and contained evidence of burning including charcoal. Four of these features were directly associated with small hearths and either functioned as shelves or ash pits. They contained refuse, but this was probably the result of site formation processes. Three additional features were removed from the potential storage pit sample because they appear to be burnt posts.

The four remaining features were pits with a large post placed in the middle. Two of these features were particularly interesting because they contained remnants of fish bone and

were associated with the smaller rectangular burial structure described above. The rarity of these post-pit features may suggest that burials contained within the smaller rectangular structure were individuals of some significance. One of the burial features associated with this structure was quite elaborate, containing 165 artifacts including 32 black beads.

As a result of this first stage of analysis, 109 pits were left as potential storage pits.

Stage 2: Examining Pit Contents

During the next stage of my analysis, I attempted to look at trash receptacles as an intended and an unintended practice. Though some of these pits obviously contained trash, were they originally intended to serve a refuse purpose? Also, would it be possible to use these trash deposits as a means of understanding domestic use of space? In order to answer these questions, I explored several variables including: artifact count, artifact classes, ceramic count, ceramic weight, and volume. Combining these variables, I sought to understand the nature and diversity of contents within each potential storage pit feature.

Trash Analysis

First, I identified several empty basin shaped features (n=25) across the site and removed them from the sample population. Though I do not discount them as potential storage pits, some of these features may have been misidentified post molds. I also removed five bell-shaped pits (n=5) from this analysis; these features contained considerable amounts of trash and are reintroduced in the following section. The remaining potential storage pits (n=79) were graphed in a series of scatterplots.

The first relationship in artifact contents that I explored was artifact count versus artifact classes. Artifact classes were based on the artifact categories Brockington and Associates used to catalog artifacts from Riverfront Village. I counted these categories rather than creating new

ones in order to develop a method for delineating sites that could be easily applied to future CRM research. I investigated the relationship between artifact classes and artifact count in order to explore trash from the perspective of diversity (see Chapter 3). Seven outliers were identified. Three of these pit features contained historic artifacts, while the remaining four pits did not. Two of these outliers (feature 2254 and 860a) also contained whole turtle shell; the only pits excavated containing this artifact classification.

Of the remaining subterranean pit features in the sample (n=72), two groups emerged. The first group consisted of pits containing moderate amounts of diverse refuse (n=11). This group may represent intentional refuse. However, the original intention of these pits remains unknown. The second group (n=62) consists of features with less diverse refuse. Some of these pits might contain incidental refuse accumulated through site formation processes. The scatterplot of artifact count versus artifact classes is shown in Figure 4.3.

Pits with historic artifacts (n=8) were also indistinguishable from pits without historic artifacts (n=64) on the basis of artifact count and artifact classes. An ANOVA test confirmed that pits containing historic artifacts and pits devoid of historic artifacts were indiscernible in terms of volume and artifact count. A scatterplot of artifact count versus ceramic count yielded similar results. One outlier in the scatterplot of artifact count versus ceramic count did occur. Feature 2045 contained significantly more lithics than ceramics. Evidence of high heat and heat treated quartz suggest this feature may have been used to heat treat lithic material.

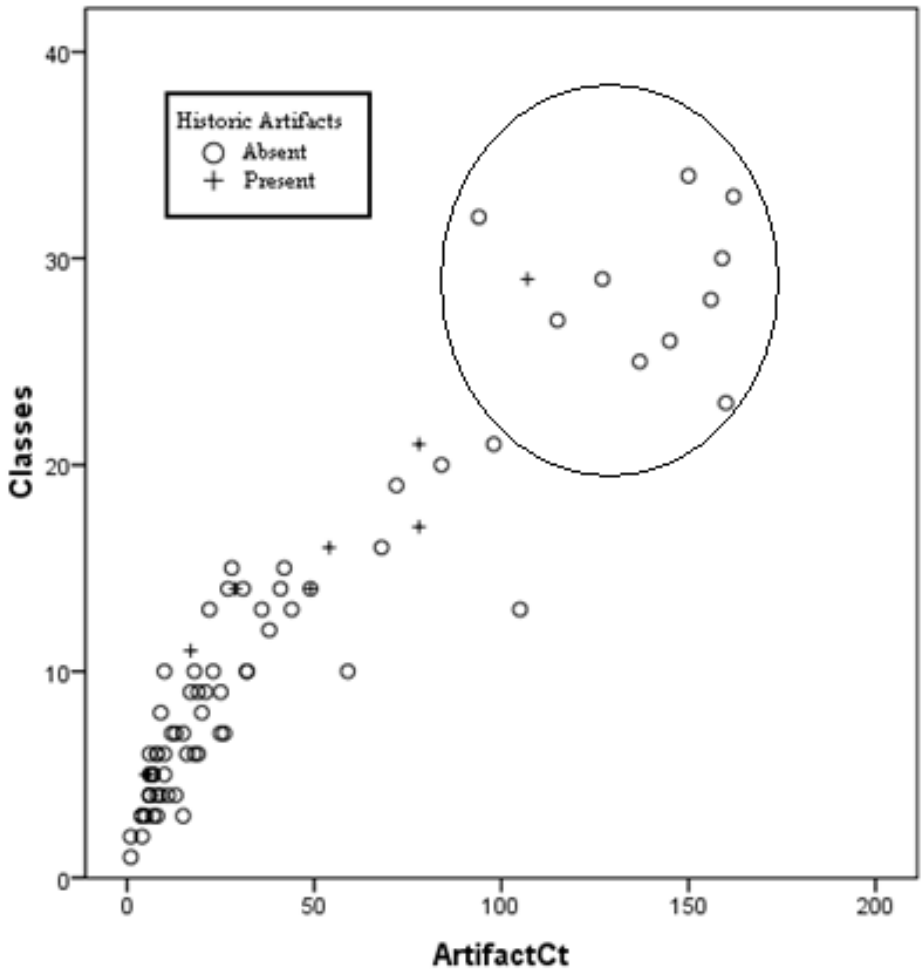


Figure 4.3: Scatterplot of Artifact Count and Artifact Classes

In a final scatterplot, I attempted to investigate another aspect of diversity of contents through examining the relationship between ceramic count and ceramic weight. One outlier appeared. Feature 1848, contains a number of large curvilinear complicated stamped sherds. So far this feature provides the strongest evidence for subterranean storage because it is deep and completely lined with clay.

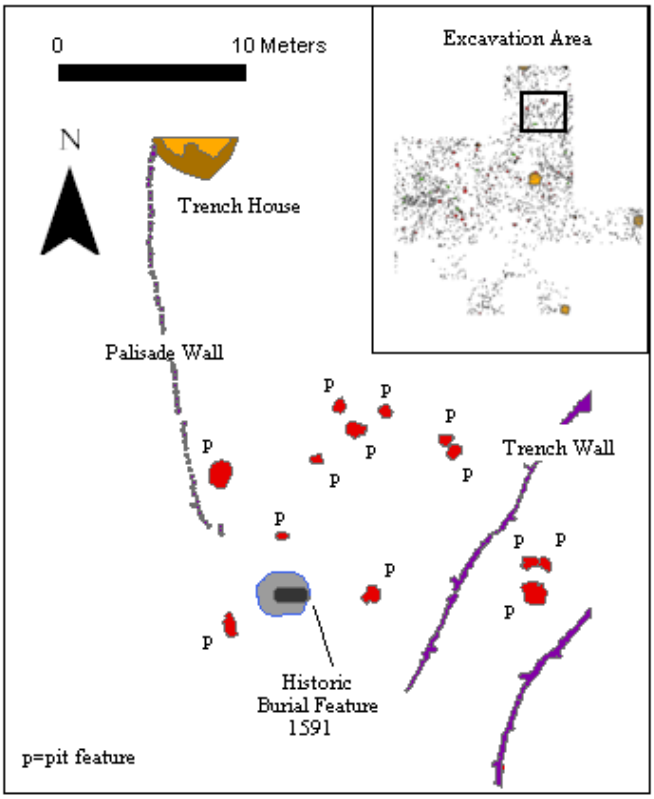
Six additional pits were removed from the sample population after conducting a factor analysis that included several variables: artifact count, artifact classes, ceramic count, ceramic

weight, and volume. All six of these pits contained significant amounts of ceramic material, possibly indicative of small pot bursts.

After joining my SPSS data with an ArcGIS map of the site, I was able to examine these variables from a spatial perspective. Specifically, I looked at diversity (number of artifact classes and artifact count divided by artifact classes) of trash across the site as a potential method for understanding the use of domestic space. These results, however, were not as insightful as I had hoped. Pits containing moderate refuse were scattered across the site rather than concentrated in a particular region of the excavation area. Despite these findings, artifact count was useful for identifying portions of the excavation area containing moderate to large amounts of refuse. For instance, pits containing large amounts of refuse were located in the central portion of the excavation area between the post structures associated with mortuary activity and the main trench house structure. Patterning in these subterranean pits suggests that they may have been part of a large household cluster. Heavy refuse disposal also occurred around the large hearth, Feature 1952.

During my examination of artifact count, I also identified a group of small shallow pit features located outside the palisade walls containing minor amounts of refuse. These pits (n=13) were dropped from the potential storage pit population. They are illustrated in Map 4.2. A color-coded map of the excavation area is included in Appendix A.

In the next section of this chapter, I selectively sample pits from different areas of the site to look for activity areas that may have been associated with subterranean storage.



Map 4.2: Pits outside Palisade Walls Removed from Possible Storage Pit Sample

Stage 3: Exploring Distribution of Storage Pits

Originally I intended to compare potential subterranean storage pits according to individual household units; however, I eventually realized that interpreting the majority of these structures accurately with the naked eye would be impossible. Instead, I decided to examine subterranean storage from an activity area perspective. With an ArcGIS map of the excavation area and the previous trash analyses, I focused on four regions of the site containing features that may have been used for various storage purposes. In the following subsection, I describe each of these patterns in greater detail.

Plausible Storage Pit Activity Areas

Activity Area 1 contains 13 potential storage pits possibly situated along the walls of both large and small post house structures. Unfortunately due to the shear density of posts, I was

unable to positively identify these structures. In this area, burials also occur in conjunction with storage pit features. In contrast, this association between burials and storage pits does not occur in the large rectangular mortuary structure less than 3 meters to the west.

Activity Area 2: the second group of storage pits (n=17), is located in the center of the excavation area between Activity Area 1 and Activity Area 3. This activity area contains subterranean pits organized into long bands. Based on the mirroring of subterranean pits, it is possible that Activity Area 2 contained more than one household unit. Activity Area 2 and Activity Area 1 are separated by a series of small post walls.

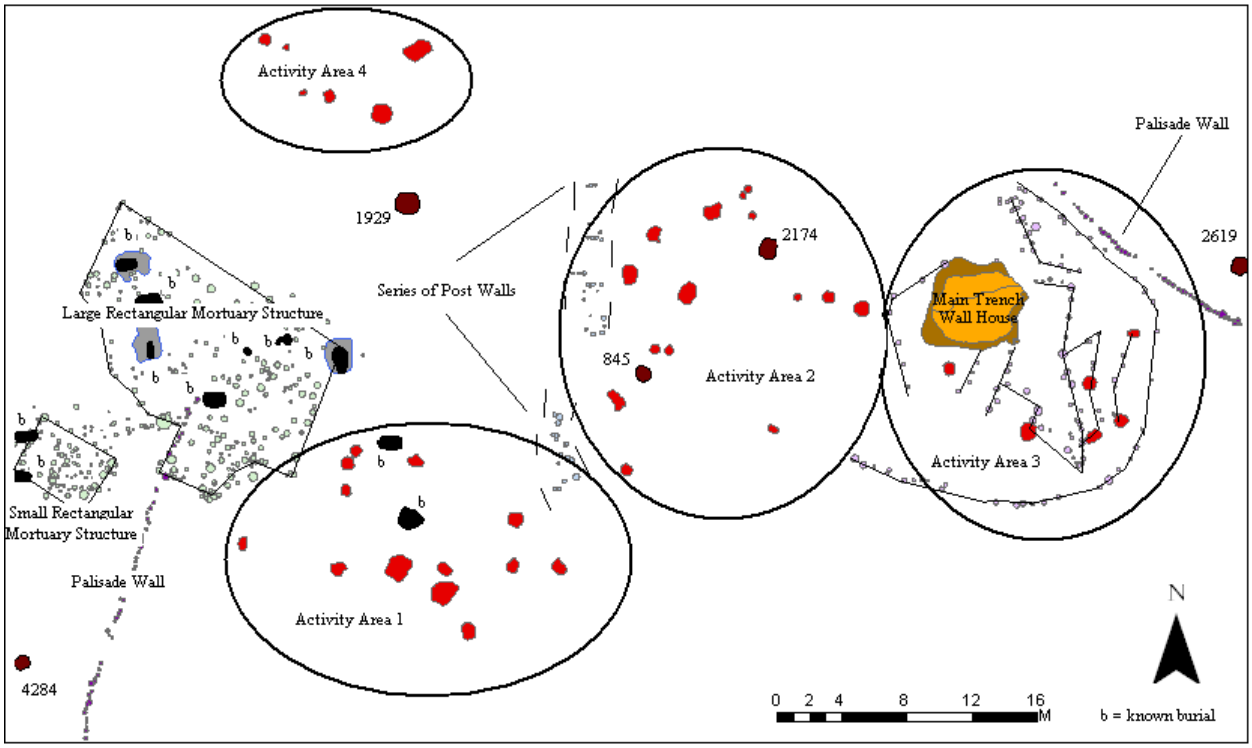
Activity Area 3 contains a group of storage pits (n=6) associated with a post house structure connected to the main trench wall house, or sweatlodge. This activity area is separated from Activity Area 2 by a wall that appears to encircle the post wall house connected to the sweatlodge.

A fourth group of subterranean pits (n=6) is located in a marginal region of the site. This activity area (Activity Area 4) also contains Feature 1848, a feature mentioned in the trash analysis section as a clay-lined storage pit.

In addition to these activity areas, I propose a fifth group of subterranean storage pits involving bell-shaped subterranean storage pits (n=3). Two bell-shaped features are included in Activity Area 2 because they are clustered together with other basin-shaped storage pits; therefore the fifth group of pits only contains three of the five bell-shaped features. Two of these bell-shaped pits are located on opposite sides of the site, yet are similar in that they are located outside the palisade walls. The third bell-shaped feature does not appear to be associated with any of the activity areas previously mentioned (Feature 1929). Instead, it is situated between

Activity Areas 1, 2, and 4. Like Feature 4284, one of the marginal bell-shaped pits located outside the palisade walls, it appears to be located in the center of a small round post structure.

All of these storage patterns are illustrated in Map 4.3.



Map 4.3: Activity Areas, Bell-shaped pits are labeled

Comparing Activity Areas

During the first stage of my activity area analysis, I conducted a one-way ANOVA to determine if any of the variables from the previous sections significantly accounted for variation between and within these four patterns of subterranean storage, as well as the fifth subterranean storage group. According to the ANOVA results, depth and volume were statistically significant ($n=45$, $p<.05$). See Table 4.5.

Table 4.5: ANOVA, depth and volume

		Sum of Squares	df	Mean Square	F	Sig.
Depth_cm	Between Groups	7653.672	4	1913.418	6.627	.000
	Within Groups	11548.906	40	288.723		
	Total	19202.578	44			
volume_l	Between Groups	1057819.837	4	264454.959	6.044	.001
	Within Groups	1750242.071	40	43756.052		
	Total	2808061.908	44			

Depth as an Indicator of Size

The first variable I further examined was depth. Could depth be used as an index of difference between activity areas? To begin this analysis, I created a mean plot to compare the mean depth of storage pits from each group. This graph is illustrated in Figure 4.4.

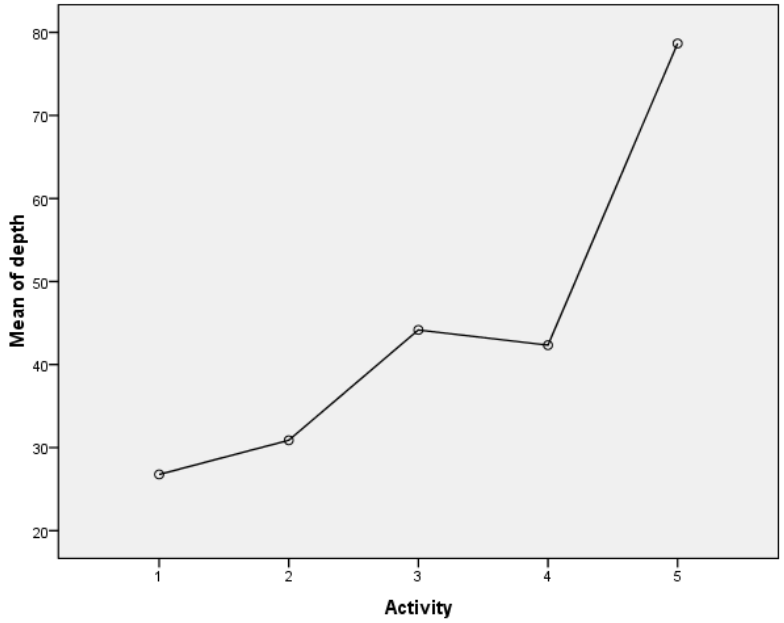


Figure 4.4: Mean plot of Depth

In summary, Activity Area 2 exhibits a slightly larger mean depth than Activity Area 1. The mean depth for Activity Area 1 is 26.77cm (n=13), while the mean depth for Activity Area 2 is 30.88cm (n=17). Also worth noting, Activity Area 2 displays the highest standard deviation

containing pits ranging from 9cm to 85cm in depth. In comparison, Activity Area 3 (n=6) has a larger mean depth of 44.17cm. Though the mean depth of Activity Area 4 is slightly smaller (n=6, $\bar{X}$=42.33) than Activity Area 3, like Activity Area 2 it displays a high standard deviation with pits ranging from 20 to 67cm in depth. Finally, the isolated bell-shaped pits (Activity Area 5) are significantly deeper than the rest of the subterranean pit sample population (n=3, $\bar{X}$=78.67). These descriptive statistics are available in Table 4.6.

Table 4.6: Descriptive Statistics for Depth

depth								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower	Upper	Min	Max
1	13	26.77	11.417	3.167	19.87	33.67	13	48
2	17	30.88	**21.313**	5.169	19.92	41.84	**9**	**85**
3	6	44.17	10.420	4.254	33.23	55.10	28	59
4	6	42.33	**19.253**	7.860	22.13	62.54	20	67
5	3	**78.67**	12.662	7.311	47.21	110.12	65	90
Total	45	36.18	20.891	3.114	29.90	42.45	9	90

Volume as an Indicator of Size

Next, I created a mean plot for volume (n=45). This graph is illustrated in Figure 4.5. According to its results, pits in Activity Areas 1, 2, 3, and 4 gradually increase in volume. The mean volume for Activity Area 1 is 166.83L, while the mean volume for Activity Area 2 is 183.27L. In comparison, Activity Area 3 contains pits that are 235.1L in volume. Again, pits in Activity Area 4 (n=6, $\bar{X}$=312.12L) exhibit a high standard deviation ranging in size from 19.6L to 826L.

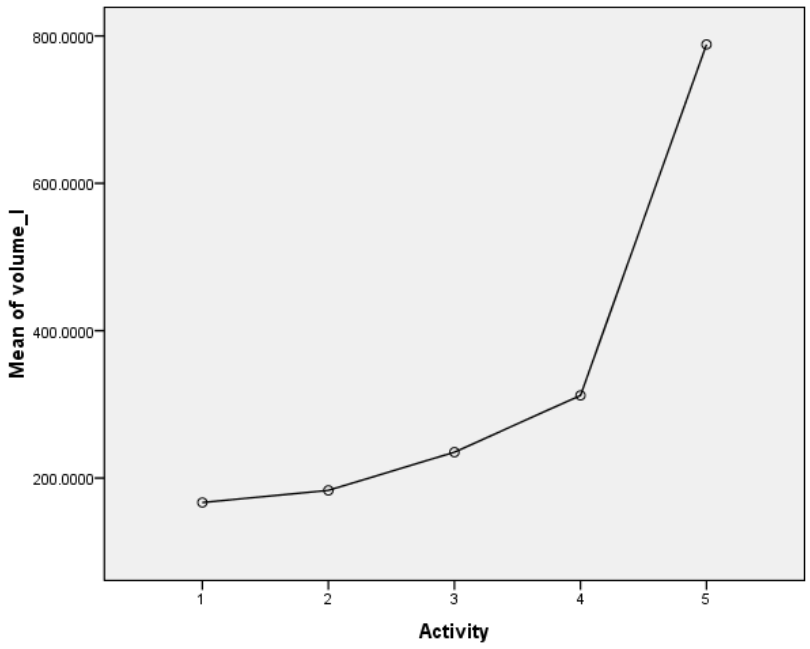


Figure 4.5: Mean plot of Volume

Once more, the fifth group of isolated bell-shaped pits is on average larger than the rest of the subterranean storage pit groups (n=3, $\bar{x}$=788.50L). These descriptive statistics are available in Table 4.7.

Table: 4.7: Descriptive Statistics for Volume

volume_l								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower	Upper	Min	Max
1	13	1.668308E2	98.7539905	2.7389429E1	107.154330	226.507208	50.5000	376.1000
2	17	1.832706E2	205.3310247	4.9800088E1	77.699117	288.842060	15.1000	676.2000
3	6	2.351000E2	106.8996165	4.3641586E1	122.915733	347.284267	102.4000	385.3000
4	6	3.121167E2	**331.2597978**	1.3523625E2	-35.519171	659.752505	**19.6000**	**826.0000**
5	3	**7.885000E2**	420.0224280	2.4250006E2	-254.89355	1831.893553	545.7000	1.2735E3
Total	45	2.429600E2	252.6253923	3.7659170E1	167.062930	318.857070	15.1000	1.2735E3

Conclusion

Subterranean pits are considerably diverse. Based on the measurable variables tested in this analysis, subterranean storage pits often fall within the same range as hearths, smudge pits, and burials based on pit structure and content. Due to the variability of subterranean pit features, classifying pits into meaningful groups sometimes requires describing observable patterns. Once observable criteria are established, then it is possible to look for measurable and quantifiable differences.

One of the main issues I faced in this analysis was that several of the pit features were seemingly used for multiple purposes during their life cycle, whether these were originally constructed for these purposes or not. For example, pre-existing pits potentially used for storage were sometimes converted into burials. I also found that many of the potential storage pits at Riverfront were later converted into trash receptacles.

From an activity area perspective, I was able to examine several patterns of subterranean storage. These results will be discussed in further detail in the next chapter.

5. RIVERFRONT VILLAGE AND THE PRACTICE OF STORAGE

In this thesis I examined variability within the practice of subterranean storage and its relation to social complexity from the perspective of a small Mississippian village community located in the Savannah River Valley region. Over the last few decades, southeastern archaeology has been pervaded by Neo-evolutionary concepts and theories. Decades of research focused on hierarchical processes within regional Mississippian polities. Large-scale sites were characterized as complex, while small-scale sites were deemed simple. These models glorified large-scale regional political centers, yet gave little attention to individual entities in small-scale Mississippian towns and villages. In contrast, this thesis was an attempt to understand complexity from a bottom-up perspective. What inequalities were present within a small village community that could then be used to interpret regional sociopolitical formations?

I situated my research within a theoretical discussion on Neo-evolutionary theories and concepts related to Mississippian chiefdoms. I argued that Neo-evolutionary theories and concepts are still embedded within southeastern archaeological research. Pre-existing assumptions associated with terms such as “Mississippian” and “chiefdom” directly affect our interpretation of indigenous Native American groups.

Then, I turned to a discussion on complexity in Mississippian societies. As I pointed out, complexity in southeastern archaeology is a “fuzzy” concept. In the past, discussion in Mississippian social complexity focused on hierarchical analyses relying on population size and regional scale as proxies. Recent research in social complexity has focused on the legitimization of chiefly power and authority. Though it is important to understand strategies that were used by individuals or subgroups to improve their positions within society, it is also important to understand the regional and historic particularities of social complexity (Wilson 2008).

Contemporary research in social complexity should examine the role of individual, group, and regional entities in constructing reality. I proposed that an examination of subterranean storage practices could be used to interpret social complexity from the perspective of a small Mississippian village community.

Furthermore, I addressed social and political factors related to storage and surplus. Storage may be viewed as a technology, but also as a practice. Storage facilities carried meaning beyond their utilitarian purposes (Margomenou 2005). I also pointed out that the relationship between storage and surplus is complex and should be investigated. Finally, I discussed the utility of spatial analyses in examining social complexity. This approach was based on the premise that social inequalities are often reflected in the physical landscape. Ultimately, I proposed an approach to the study of social complexity through an analysis of subterranean storage pit structure, content, and distribution.

Subterranean features at Riverfront Village provided the data for this investigation. In this thesis I focused on features that may have been associated with subterranean storage practices at one point or another. The analytical scheme I presented looked for measurable and observable variations within pit structure, content, and distribution. Through this approach, I attempted to organize subterranean pit features into more “meaningful” groups. In the following sections of this chapter, I compile the results of this analysis and discuss some of their implications.

Variability in Subterranean Pit Structures

Foremost, I was able to examine subterranean storage pits at Riverfront from a technological perspective. One of the aspects of subterranean storage I found particularly interesting was the relationship between possible storage pits and the clay sublayer. Based on my

analysis, I was able to observe that the majority of subterranean pits were deep, in most cases deep enough to rest in the clay stratum below the buried paleosol. The bell-shaped pit features were exceptionally deep extending well into the clay sublayer. Similar to storage pit technology found within household clusters at Formative sites in the Oaxaca Valley, clay may have been used to inhibit insect growth through lack of oxygen (Winter 1976:27). Thus, utilizing the clay sublayer may have preserved surplus for extended periods of time. This hypothesis is further supported by Feature 1848, the abandoned storage pit intentionally lined with clay.

Referring back to my theoretical discussion (see Chapter 2), I also questioned if storage pit size could be used as an indicator of surplus. The problem remains that subterranean pits were obviously employed for other purposes than storing staples. Variations in subterranean storage features also imply that the practice of subterranean storage involved activities beyond storing surplus in prevention of crop rise and shortfall. Thus, the assumption that subterranean pit size may be used to estimate surplus is still problematic.

Likewise, could subterranean pit size be used as an indicator of wealth? In previous research, household size was employed to as a proxy for estimating wealth (Kramer 1982; Netting 1982; Wilk 1983). According to this approach, larger households have more access to resources, thus display greater demands for normal and excess surplus (Haller 1970:475). In highly stratified societies wealth differentiations persist across generations; as do other aspects of rank (Netting 1982:652). However, in pre-state societies in which social inequalities are based on kinship, hierarchical and heterarchical differences are not so readily apparent.

In summary, I argue that it is necessary to understand the life cycle of individual household clusters before drawing conclusions based on house size and pit volume. Storage pit volume and household size require contextualization within additional evidence from the

archaeological record. Are these household clusters and pits contemporaneous or used in sequence? After this question has been answered, then it may then be possible to use pit volume and household size as indicators of rank, or possibly even indicators of "wealth."

Variability in Pit Contents

During this investigation I did not find any compelling evidence of caching. By cache, I imply hoards of valuable objects. It is possible that this may indicate that subterranean storage was not an overt strategy of resistance, at least not during Riverfront Village's final occupation or abandonment. Though some individuals may have used subterranean storage pits to temporarily conceal items, if participation in tributary practices were required, individuals may not have resisted.

Wesson (1999) claims that acts of resistance occurred within Mississippian sociopolitical networks. I argue that this concept of "resistance" is normative. Alternatively, the lack of evidence for caches may imply that Riverfront Village maintained, rather than relinquished, a high degree of local autonomy.

Distributions of Pits

During my analysis of Riverfront Village, I also identified evidence of all three idealized storage patterns discussed in Chapter 3: storage among households (Activity Areas 1 and 2) centralized storage (Activity Area 3), and marginal storage (Activity Area 3 and isolated bell-shaped pits). In this section, I discuss some of the implications of these storage patterns.

Pattern 1: Storage Associated with Individual Household Units

Activity Areas 1 and 2 appear to contain subterranean storage pits associated with separate household clusters, yet the relationship between these activity areas is still somewhat unclear. A single household may occupy multiple structures (Wilson 2008:6). Therefore, do

household clusters in Activity Area 1 represent distinct household groups from Activity Area 2? Foremost, what were the household demographics at Riverfront? How did kinship affect household organization? Burials associated with distinct household clusters may indicate that individuals were associated with separate household groups.

Furthermore, examining activity areas is not a full proof method for defining use of space. Activities are not exclusive. Human behavior also does not occur in a vacuum. Instead, it is necessary to separate internal and external activities in order to distinguish one household from another. This objective may be accomplished through a close examination of material culture frequencies.

Pattern 2: Centralized Storage

The second pattern of storage concerns Activity Area 3, the storage pits associated with the main trench wall structure, or "sweatlodge." During my data analysis, I proposed that these storage pits may represent centralized storage. If these sweatlodges were used for exclusive activities, meaning that some individuals were allowed to participate while others were not, access to these pits may have been controlled.

Unfortunately, the association between Activity Area 3 and the two domestic Activity Areas, 1 and 2, is unclear. Though Activity Area 2 is located in closer proximity to the trench wall house than Activity Area 1, understanding the role of the main trench wall house and its associated storage requires an examination of the life history of the structure. Additional evidence from the material culture is needed to link the main trench wall house to Activity Area 2.

Thus, access to storage pits associated with the main trench house is to a certain extent uncertain. Stored surplus in these pits may have accumulated through distribution with

individuals from both Activity Areas contributing. It is also possible that the domestic group or groups in Activity Area 2 contributed more surplus because they had larger subterranean storage facilities than Activity Area 1. In conclusion, storage patterns are not adequate for interpreting household groups. Additional investigation is also needed to interpret the significance of the trench wall structures before their relationship to the rest of the site can be understood.

Pattern 3: Marginal Storage

The third pattern of storage concerns marginal storage (Activity Area 4). Though these storage pits are technically "marginal," it is still possible that access to this area was controlled. I argue that the assumption that marginal storage is communal is a faulty conjecture. Instead, it is possible that individuals from one domestic group "borrowed" or shared space from other domestic groups.

Marginal pits may have also been used to define inside versus outside space. The palisade wall may have separated internal from external activities. Therefore, pits outside the palisade wall may have been associated with eternal practices, while pits inside the walls were used for internal domestic activities.

Burials

Subterranean storage took place amidst a system of other activities. Although subterranean storage was not prevalent in the large and small square structures containing intentional burials, subterranean storage did occur in conjunction with burials and hearths in Activity Areas 1 and 2. I argue that burials and trash deposits in subterranean storage pits indicate that most subterranean storage pits were intentionally reoriented during their life cycle. This evidence may also represent a cognitive decision to terminate the use of a pit as a functional repository for storage (Hendon 2000:44). Hendon (2000) also points out that storage spaces used

for burials may have carried with them symbolic meaning beyond their utilitarian purposes. Rather storage pits are not necessarily “ritual” or “utilitarian,” but can be both.

Overall, the strongest indications of status at Riverfront Village may come from mortuary analysis. What distinguishes individuals buried in the mortuary structures sans subterranean storage from individuals buried in household clusters among subterranean storage? Age was not a determining factor in burial location. Therefore, how are other social constructs such as gender and kinship related to cognitive decisions regarding burial placement?

Future Research

Tom Whitley examined pit contents based on ceramic type frequencies, but did not find any correlations between the subterranean pits and ceramic type. Thus, pits cannot be organized into meaningful groups based on ceramic type alone. I propose an investigation involving multiple artifact categories, or combinations of artifact classes. I also suggest that faunal and pollen analysis would be extremely useful in delineating domestic use of space at Riverfront. These analyses could provide valuable information on the seasonality of household structures and pits.

In conclusion, I argue that subterranean storage is a good index for examining social complexity when contextualized with supplementary archaeological research. Establishing contemporaneity was obviously the most significant impediment for this research of subterranean storage at Riverfront Village. Subterranean storage analysis may, therefore, benefit from a historical approach similar to Wesson’s (1999), involving both multiple sites as well as the inclusion of multiple lines of evidence from these sites.

EPILOGUE

This thesis was a product of information collected during a CRM investigation conducted by Brockington and Associates. While Riverfront Village was being excavated, I worked for Brockington and Associates in the lab. This allowed me to gain familiarity with the cultural material prior to developing my thesis research. Soon as the artifacts from Riverfront were cataloged, work immediately began on preparing the collection for curation. If I had not worked for Brockington and Associates during this time, this research would not have been possible. Hence, I was able to take a CRM project and turn it into an in-depth study on the practice of subterranean storage. I was also able to examine social complexity from the perspective of a small Mississippian village community; a viewpoint previously overlooked in southeastern archaeology.

This project also grew out of a desire to reform subterranean feature analysis in cultural resource management. Through this thesis, I argued against functional and typological classification systems. Instead, I advocated for theoretically informed approaches and classification schemes open to variation in the archaeological record. Therefore, subterranean pit features should be classified into “meaningful” groups according to measurable and observable patterns. I believe that cultural resource management results would significantly improve from investigations and interpretations based on practice theory.

Cultural resource management is also an excellent resource for approaching the archaeological record from an agency perspective. I argue that Neo-evolutionary concepts should be set aside. Describing social, political, and economic phenomena requires interpreting what you find, not what previous models tell you to find. I also want to encourage southeastern archaeologists to not be afraid of being too descriptive. “Qualitative” should not be a dirty word

in cultural resource management. Though quantitative data is necessary for testing measurable variations in the archaeological record, sometimes I believe that the best descriptions of the archaeological record come from what you see and interpreting what your findings possibly mean. Archaeology obviously requires the scientific method for sampling and testing purposes, but it is also important to keep in mind that archaeology is a subfield of anthropology; a discipline that ultimately seeks to understand the human condition across time and space.

I also believe that the future of Mississippian archaeology rests in household archaeology. Especially in the examination of small-scale sites, it is necessary to define domestic groups. Understanding the archaeological record from a spatial perspective also helps to organize archaeological occurrences. Finally, Mississippian archaeology needs to continue to approach social complexity from a heterarchical perspective. The emergence of social inequality was a product of horizontal relationships. Social inequality was not a product of large-scale hierarchical processes only.

Despite the limitations of CRM, from time and budget restraints to issues concerning the definition of “significance,” CRM investigations save archaeological resources that would otherwise be destroyed. As a consequence of these investigations, a wide range of archaeological sites are identified. In order to adequately describe the amount of variation on Pre-Columbian North America, it is necessary to examine cultural material accumulated through CRM investigations.

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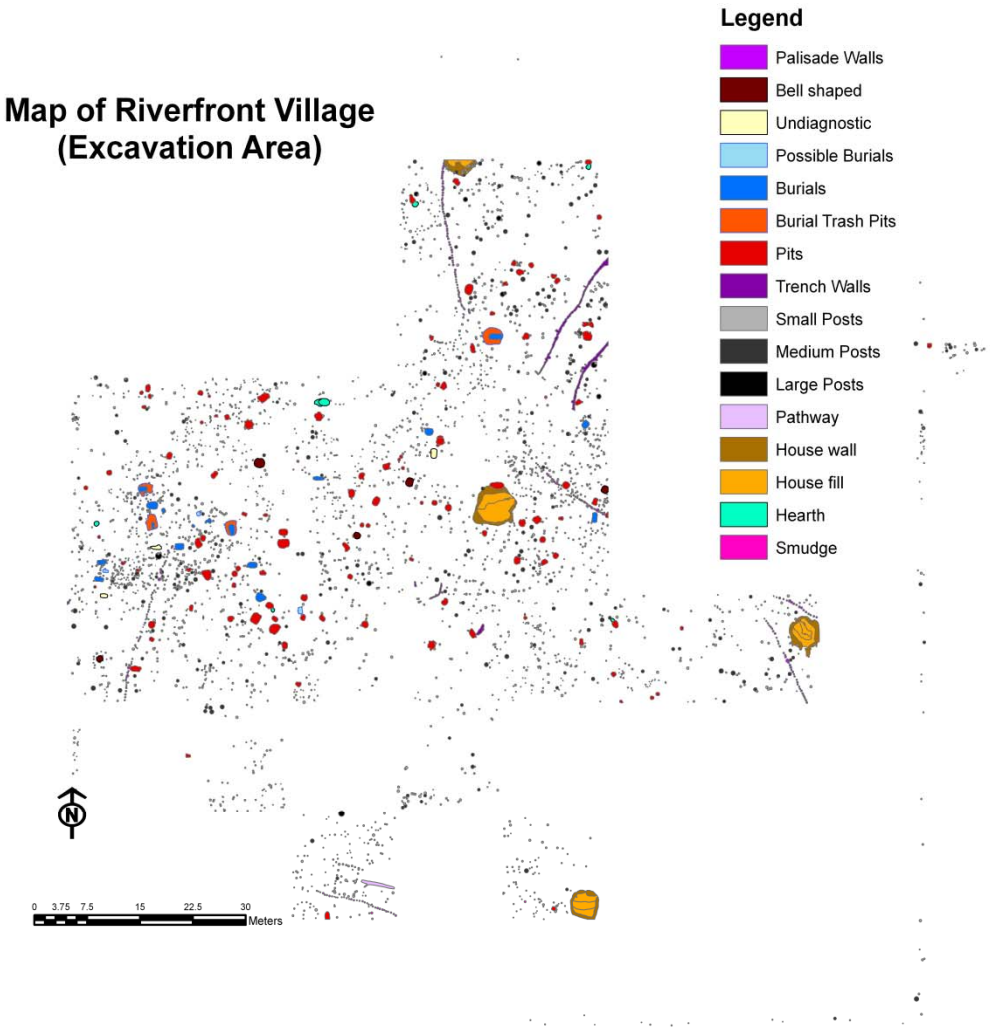
APPENDICES

APPENDIX A: MAP OF RIVERFRONT VILLAGE


Map of Riverfront Village
(Excavation Area)
Legend
Palisade Walls
Bell shaped
Undiagnostic
Possible Burials
Burials
Burial Trash Pits
Pits
Trench Walls
Small Posts
Medium Posts
Large Posts
Pathway
House wall
House fill
Hearth
Smudge
N
0 3.75 7.5 15 22.5 30
Meters

APPENDIX B: SPSS SUBTERRANEAN PIT DATA

SPSS SUBTERRANEAN PIT DATA

Feat. #	Type	Prof. Shape	Age	L	W	Diam.	Depth	AreaCM2	Vol_L	Classes	Ceramic Ct	Ceram. WT	Art. Ct	Hist.
3982b	1	4	1	120	98		49	7570.74	371	1	0	0	0	1
3974	1	4	1	160	104		64	14030.27	897.9	9	24	55.3	27	1
3964	1	3	2	65	60		28	2810.57	39.3	1	0	0	0	1
3903a	1	4	1	135	55		50	7650.17	382.5	24	130	718.2	143	2
3845b	1	4	1	102	47		29	3392.73	98.4	1				1
3826	1	1	2	134	90		20	10250.36	205	9	22	68.2	22	1
3707	1	4	1	132	54		48	7381.05	354.3	14	38	125.6	42	1
3381	1	1	1	150	148		45	13200.49	594	17	27	73.7	38	1
3338	1	4	1	145	69		45	9913.09	446.1	8	11	45.2	13	1
3284a	1	4	1	155	84		65	10349.53	672.7	1				1
3228	1	4	2	46	42		12	1433.34	17.2	1	0	0	0	1
3223	1	3	1	95	70		29	3876.25	112.4	14	20	61	29	1
2469	1	4	1	138	70		25	8804.39	220.1	13	15	136.6	21	1
2275a	1	4	1	115	110		70	8281.45	579.7	18	28	193.4	38	1
2072	1	4	2	122	94		28	9991.96	279.8	10	17	45.7	18	1
2064	1	4	1	163	33		50	6939.62	347	11	22	56	28	1
1591b	1	4	1	150	52		90	13250.37	463.8	2				2
3913	2	1		73	62		33	3683.55	121.6	0	0	0	0	1
3383a	2	1		55	50		24	2171.63	52.1	0	0	0	0	1
3109b	2	1		55	52		31	1885.03	58.4	0	0	0	0	1
1952b	2	1		160	90		80	12416.78	993.3					2
1952a	2	1		125	95		80	5338.56	427.1					2
1418	2	1		84	79		26	3892.45	101.2	0	0	0	0	1
1102a	2			90	90		45	4723.22	212.5	17	40	96.7	74	1
875a	3	3		118	78		50	8625.38	431.3	25	118	510.1	137	1
860a	3	1		130	120		12	10267.76	123.2	33	202	1145.1	284	1
847	3	4		60	57		13	2641.8	34.3	7	7	32.7	8	1
846	3	1		60	58		32	2668.05	85.4	27	208	910	236	1
845	3	2		100	90		85	6796.48	577.7	79	2341	17256.2	2469	1
805	3	3		130	74		12	7439.28	89.3	14	25	93.8	31	1
780	3	3		68	72		20	3902.32	78	2	1	10.7	1	1
720	3	1		69	51		40	2631.75	105.3	30	149	639.5	159	1
4472	3	1		63	60		35	2549.1	89.2	14	6	9.4	49	2
4344	3	1		160	60		34	9805.67	333.4	17	66	218	78	2
4334	3	3		72	45		64	3270.11	209.3	0	0	0	0	
4319a	3	3		108	100		56	7446.34	417	27	100	354.9	115	1

4284a	3	2		92	89		90	6070.1	546.3	23	134	791.1	160	1
4207	3	1		103	57		35	5036.79	176.3	18	37	121.7	45	1
4151	3	4		78	59		19	4231.5	80.4	2	1	1.3	1	1
4134a	3	1		99	85		32	6371.47	203.9	0	0	0	0	1
4109	3			104	75		26	5949.3	154.7	0	0	0	0	
4107	3			64	48		17	2515.29	42.8	0	0	0	0	
4103	3			63	39		26	2335.78	60.7	0	0	0	0	
4101	3			55	44		22	2133.57	46.9	0	0	0	0	
4064a	3	3		160	157		53	14792.87	784	33	140	841	162	1
4051	3	1		87	45		32	2827.71	90.5	0	0	0	0	1
4017	3	4		85	40		26	2982.63	77.5	5	4	6.6	5	1
3982a	3	1		220	188		38	25540.53	970.5	29	81	341	92	1
3934	3	1		157	78		33	6713.17	221.5	9	16	86	21	1
3919	3	1		58	56		26	2544.7	66.2	0	0	0	0	1
3902	3	1		44	42		20	1456.01	29.1	0	0	0	0	1
3845a	3	1		237	175		29	28713.76	832.7	13	30	194.3	33	1
3755	3	3		61	50		38	1834.17	69.7	10	13	31	18	1
3742	3	3		68	54		38	2449.02	93.1	9	14	35.3	17	1
3705	3	1		39	36		22	1154.27	25.4	1	0	0	0	1
3693	3			115	45		26	6119.84	159.1	0	0	0	0	1
3457a	3	1		102	85		21	6520.94	136.9	0	0	0	0	1
3411	3	1		97	78		31	5623.35	174.3	3	8	34.7	8	1
3389a	3	1		170	160		21	17088.34	358.9	20	57	519.1	84	1
3388	3	1		170	143		23	16351.85	376.1	0	0	0	0	1
3387	3	1		90	85		26	4764.85	123.9	0	0	0	0	1
3383b	3	1		113	103		63	7764.51	489.2	16	44	406.1	54	2
3367	3	4		89	50		13	3883.59	50.5	0	0	0	0	1
3355	3	3		70	60		45	3187.94	143.5	6	8	111.8	8	1
3346	3	1		81	76		43	4966.93	213.6	7	8	75.1	13	1
3343	3	1		71	67		48	3655.75	175.5	5	3	12	10	1
3335	3	1		95	53		18	4808.11	86.5	14	22	88.2	29	2
3323	3	1		170	130		19	17947.72	341	0	0	0	0	1
3321	3	1		128	82		34	9922.23	337.4	0	0	0	0	1
3307	3	1		65	39		55	2072.68	114	9	13	44.2	27	
3288	3	1		76	52		26	3029.9	78.8	4	13	20	13	1
3284b	3	1		220	160		50	17993.77	899.7	34	124	607.2	150	1
3242a	3	1		91	78		13	5240.55	68.1	15	19	101.1	28	1
3241a	3	5		141	45		20	10157.65	203.2	10	18	91.4	23	1
3205	3	3		63	57		28	2751.82	77.1	6	4	9.1	5	1
3189	3	1		57	48		16	1284.88	20.6	4	4	10.8	6	1
3162	3			53	47		18	1998.69	36	0	0	0	0	1

3151	3			53	45		10	2001.52	20	0	0	0	0	1
3149	3	1		55	52		12	2103.95	25.2	2	4	7.9	4	1
3126	3	1		73	70		30	3630.07	108.9	8	16	29.9	20	1
3109a	3	1		107	78		24	6819.17	163.7	13	37	89	44	1
3081	3	1		91	51		22	4204.65	92.5	8	8	28.5	9	1
3041b	3	1		45	20		32	700.42	22.4	0	0	0	0	1
3041a	3	1		50	45		60	1629.31	97.8	6	8	20.2	10	1
2948a	3			75	65		45	3933.34	177	10	28	81.5	32	1
2831a	3	1		133	57		30	8021.11	240.6	4	11	20.4	11	1
2815	3	1		100	60		23	6292.76	144.7	6	11	19.5	16	1
2808a	3	1		140	118		23	10074.05	231.7	7	14	75.7	15	1
2795a	3	1		250	210		98	34667.85	3397	32	542	1775.9	561	1
2766a	3	1		100	98		43	6890.73	296.3	0	0	0	0	1
2752a	3	3		100	65		20	5439.08	108.8	0	0	0	0	1
2749a	3	1		90	85		19	4640.46	88.2	9	12	39.2	21	1
2748a	3	3		100	60		35	5139.68	179.9	4	11	37.9	12	1
2746a	3	1		97	85		20	6605.97	132.1	3	4	21.2	4	1
2718	3	1		65	50		22	2346.63	51.6	3	0	0	4	1
2700	3	1		46	41		29	1653.48	48	3	4	7.4	5	1
2699	3	3		76	64		26	4240.1	110.2	0	0	0	0	1
2688	3	1		96	88		54	6811.54	367.8	14	15	106.7	49	1
2675	3	1		81	58		28	4284.24	120	7	19	116.5	25	1
2649	3	1		204	150		50	21493.36	1075	3	0	0		1
2619	3	2		110	105		65	8395.75	545.7	36	307	1925	376	1
2599a	3	1		110	80		42	2390.59	100.4	13	14	54.6	22	1
2560a	3	1		113	88		47	8198.77	385.3	10	23	74.7	32	1
2541	3	1		104	97		37	7615.81	281.8	0	0	0	0	1
2520a	3			120	100		62	9426.15	584.4	7	6	15.2	26	1
2514	3	1		87	83		45	5613.7	252.6	29	119	813.4	310	1
2504a	3	1		110	70		48	5521.01	265	5	6	32.5	7	1
2498	3	1		82	75		59	4836.43	285.3	28	88	611.5	156	1
2483	3	1		69	46		38	2694.32	102.4	3	3	2.4	4	1
2418	3	3		106	64		66	6061.02	400	4	2	2.1	6	1
2320a	3	3		112	80		19	5283.78	100.4	29	92	373.5	107	2
2313b	3	3		29	17		45	1493.08	67.2	4	2	5.8	9	1
2313a	3	1		170	30		145	3453.03	500.7	12	15	83.8	21	1
2285	3	1		240	170		92	31014.79	2853	14	50	262.8	59	1
2254	3	1		105	104		70	8055.05	563.9	58	407	2395	618	2
2174	3	2		125	105		64	10566.04	676.2	29	127	635.2	127	1
2168	3	1		47	41		27	1541.56	41.6	5	6	30.4	7	1
2165a	3	1		42	37		14	1134.2	15.9	3	7	13.6	7	1

2164a	3	1		47	45		9	1681.77	15.1	5	5	14.4	7	
2159	3	1		160	50		50	14928.2	746.4	26	145	409.2	145	1
2126c	3	1		55	50		25	2340.45	58.5					
2126b	3	1		45	42		30	1267.56	38					
2126a	3	1		85	80		40	8776.09	351					
2124	3	1		133	85		37	9979.67	369.2	12	20	72	21	1
2105	3	1		113	75		55	6789.95	373.4	11	11	41.3	17	2
2101	3	1		60	55		30	2576.94	77.3	1	0	0	1	1
2045a	3	1		120	90		16	7655.56	122.5	13	12	45.3	105	1
2022	3	1		104	60		40	6186.67	247.5	12	20	92.1	38	1
1958a	3	1		128	126		105	10684.14	1122	68	409	1193.1	530	2
1929	3	2		150	120		81	15722.16	1274	72	870	5378.5	1041	1
1899	3	1		110	93		20	6360.29	127.2	6	4	11.8	6	1
1865	3			45	25		16	1534.04	24.5	0	0	0	0	1
1850	3	1		37	33		20	979.82	19.6	16	19	60	68	1
1848	3	1		76	66		67	3958.98	265.3	21	67	1937.6	98	1
1832a	3	1		50	33		25	1302.79	32.6	10	10	29	59	1
1825	3	1		76	70		32	3958.18	126.7	6	16	49.3	19	1
1809a	3	1		125	120		52	11586.86	602.5	32	81	519.6	94	1
1773a	3	4		173	80		58	14242.12	826	39	222	944.6	260	1
1678	3	1		78	50		26	3079.55	80.1	10	9	37.9	10	1
1623	3	1		150	147		50	14144.96	707.2	19	66	265.5	72	1
1597	3	1		70	56		10	2949.53	29.5	5	4	13.2	6	1
1591a	3	1		290	215		55	41073.61	2259	58	446	1890.7	655	2
1584	3	1		132	56		26	6844.26	178	21	71	275.7	78	2
1562	3	1		85	80		15	3855.75	57.8	4	3	6.9	6	1
1523	3	4		150	125		25	13674.69	341.9	24	98	344.1	103	2
1521	3	1		108	86		28	4641.68	130	6	16	34.5	18	1
1496	3	1		80	55		47	3728.01	175.2	7	8	18.2	12	1
1493	3	1		88	85		6	4652.64	27.9	5	3	8.3	5	2
1466a	3	4		105	82		30	6943.53	208.3	9	11	40.3	15	2
1431	3	1		110	90		15	6815.47	102.2	9	17	69.3	19	1
1430a	3	1		75	60		14	2964.9	41.5	5	5	27.7	6	2
1421	3	1		70	65		38	3555.75	135.1	14	34	155.1	41	1
1419	3	1		92	76		15	4880.33	73.2	3	15	122.9	15	1
1362	3	1		75	70		30	3993.48	119.8	9	14	158.5	25	1
1356a	3	1		135	62		14	3997.02	56	6	6	11.5	8	1
1169	3	1		75	40		16	2048.93	32.8	4	4	19.9	8	1
1137	3	1		75	60		30	3419.89	102.6	14	19	165.9	27	1
1102b	3	1		140	80		35	7236.82	253.3	13	25	66.2	36	1
1035	3	1		110	50		50	6730.17	336.5	15	34	131.7	42	1

747	4	5				24	13	438.25	5.7	2	0	0	0	1
737	4	1		23	15		9	188.05	1.7	0	0	0	0	1
4526	4					15	7	174.7	1.2	0	0	0	0	
4523	4	5				27	26	569.65	14.8	1	0	0	0	1
3978	4	1				30	14	703.28	9.8	1	0	0	0	1
3684	4	1				29	6	657.17	3.9	1	0	0	0	1
3592	4	1				20	11	312.14	3.4	1	0	0	0	1
2667	4	5				27	11	569.65	6.3	1	0	0	0	1
2325	4					24	9	111.5	1	0	0	0	0	1
2317	4	1				22	7	378.09	2.6	2	0	0	0	1
2206	4					38	18	1128.37	20.3	0	0	0	0	1
2096	4	1				20	7	312.14	2.2	3	0	0	1	2
2058	4	3				34	13	820.97	10.7	1	0	0	0	1
1842	4					17	26	224.94	5.8	0	0	0	0	1
1459	4	1				22	8	378.09	3	1	0	0	0	1
1448	4	1				30	2	520.47	1	1	0	0	0	1

APPENDIX C: EXAMPLE OF ARTIFACT CLASSES

Example of Artifact Classes (Feature 845)

baked clay
brushed body, coarse sand temper
burnished body, coarse sand temper
burnished body, fine/medium sand temper
burnished body, very coarse sand temper
burnished rim, coarse sand temper
burnished rim, fine/medium sand temper
C-14 sample
ceramic lug/handle
ceramic pipe bowl fragment
charcoal
check stamped body, coarse sand temper
check stamped body, fine/medium sand temper
check stamped rim, coarse sand temper
chert broken flake
Coastal Plain chert biface fragment
Coastal Plain chert flake fragment
residual sherd
Ridge and Valley chert projectile point
Ridge and Valley chert thinning flake
seed
separate reed punctate body, coarse sand temper
separate reed punctate body, fine/medium sand temper
separate reed punctate rim, fine/medium sand temper
smoky quartz biface fragment
smoky quartz broken flake
smoky quartz flake
smoky quartz flake fragment
Coastal Plain chert thinning flake
cob marked body, coarse sand temper
cob marked rim, coarse sand temper
cob marked rim, very coarse sand temper
cord marked rim, very coarse sand temper
crystal quartz flake fragment
curvilinear complicated stamped body, coarse sand temper
curvilinear complicated stamped body, very coarse sand temper
curvilinear complicated stamped rim, coarse sand temper
daub
faunal remains
fine incised body, fine/medium sand temper
folded rim, coarse sand temper
folded rim, fine/medium sand temper
heat treated chert projectile point base
smoky quartz shatter
translucent quartz broken flake
translucent quartz flake
translucent quartz flake fragment
translucent quartz shatter
unidentifiable complicated stamped body, coarse sand temper
unidentifiable complicated stamped body, fine/medium sand temper
unidentifiable decoration body, coarse sand temper
unidentifiable decoration body, fine/medium sand temper
unidentifiable decoration body, very coarse sand temper
heat treated chert projectile point tip
milky quartz flake
milky quartz flake fragment
milky quartz shatter
milky quartz utilized flake
non-cultural rock
nut
plain body, coarse sand temper
plain body, fine/medium sand temper
plain body, very coarse sand temper
plain rim, coarse sand temper
plain rim, fine/medium sand temper
plain rim, very coarse sand temper
random incised body, coarse sand temper
rectilinear complicated stamped body, coarse sand temper
rectilinear complicated stamped body, fine/medium sand temper
rectilinear complicated stamped body, very coarse sand temper
unidentifiable decoration rim, coarse sand temper
unidentifiable decoration rim, fine/medium sand temper
unidentifiable metal fragment
unidentified complicated stamped rim, coarse sand temper
unidentified stamped body, coarse sand temper
unidentified stamped body, fine/medium sand temper
unidentified stamped rim, coarse sand temper
worked bone