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TEMPER, MOUNDS, AND PALISADES:
THE WALFORD SITE (22SU501) OF SUNFLOWER COUNTY, MISSISSIPPI

A Thesis
presented in partial fulfillment of requirements for
the degree of Master of Arts
in the Department of Sociology and
Anthropology
The University of Mississippi

Kimberly Nicole Harrison

May 2015

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ABSTRACT

The Walford site is a multicomponent site with Archaic, Woodland and Mississippian components located in the northern Yazoo Basin of Mississippi. The site has been recorded by several surveys, and was subjected to salvage excavations from 2003-2007. This excavation confirmed multiple components identified in previous surveys, and added a wider chronological range and occupation area. Current excavations also identified a palisade that appeared to have been built before all of the adjacent Mississippian structures, as well as one of the mounds. Using stratigraphy, GIS, and ceramic analysis, the date of this palisade was determined to be Late Woodland or Early Mississippian.

DEDICATION

For my grandparents

ACKNOWLEDGMENTS

I would like to thank the University of Mississippi and the Department of Sociology and Anthropology for the opportunity to work and study in the region. My advisor Dr. Jay K Johnson has offered immeasurable amounts of information, patience, and assistance, for which I am very grateful. Thank you to my committee, Drs. Maureen Meyers and Matthew Murray, for offering their support and knowledge to this process.

I would like to thank Mr. Paul Gladden for all his help, and his stewardship of Walford. The Mississippi Department of Archives and History, John Connaway, and all the volunteers who helped excavated this site deserve a huge thank you for all of their efforts to preserve and protect the archaeological record in Mississippi.

I cannot begin to list the friends that have discussed, edited, argued, and generally supported me during this time. Caitlin Stewart, Travis Cureton, Andrew and Lindsey Abernathy, Kris Holsen, Jennifer Picard, Barbara McClendon, and Kalin Garvens, have offered help, a place to stay, and so many valuable insights to this thesis. Thanks to Lauren Jenkins and Sam Stoop for lending a hand with my analysis.

My parents, grandparents, and family have been an unflagging source of support through this endeavor, and I would like to thank them for all of the love and encouragement that they have provided my entire life. Thank you.

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CHAPTER 1

INTRODUCTION

In early July 2002, Natural Resources Conservation Service (NRCS) District Conservationist Kerry Sims received a phone call depressingly common in rural Mississippi. An archaeological site in a local farm field was about to be mechanically leveled, stripping off several inches of plow zone and possibly removing several earthen mounds. The landowner, Paul Gladden, explained his situation. His land currently contained two prehistoric mounds, and he wanted to do the right thing. Anyone the state wanted to send out to look at the site would be welcome; they only had to finish work before fall 2003, or spring 2004 at the latest.

State archaeology officials quickly began recruiting resources, contacting other state organizations, including universities and the State Historic Preservation Office (SHPO), the Mississippi Department of Archives and History (MDAH). Cliff Jenkins, David Abbott, John Connaway from MDAH, Jessica Crawford from the Archaeological Conservancy, as well as Kerry Sims of NRCS, headed out to meet Mr. Gladden and discuss options for the site.

As it turned out, Mr. Gladden's mounds and fields made up the Walford site (22SU501), one of the major mound sites along the Sunflower River in the Yazoo Basin. The Yazoo Basin is a rich agricultural river basin in the western half of the state of Mississippi (Figure 1). This area is nearly synonymous with the Mississippi Delta floodplain in northwest Mississippi, and forms a portion of the Lower Mississippi Alluvial Valley (Figure 2).

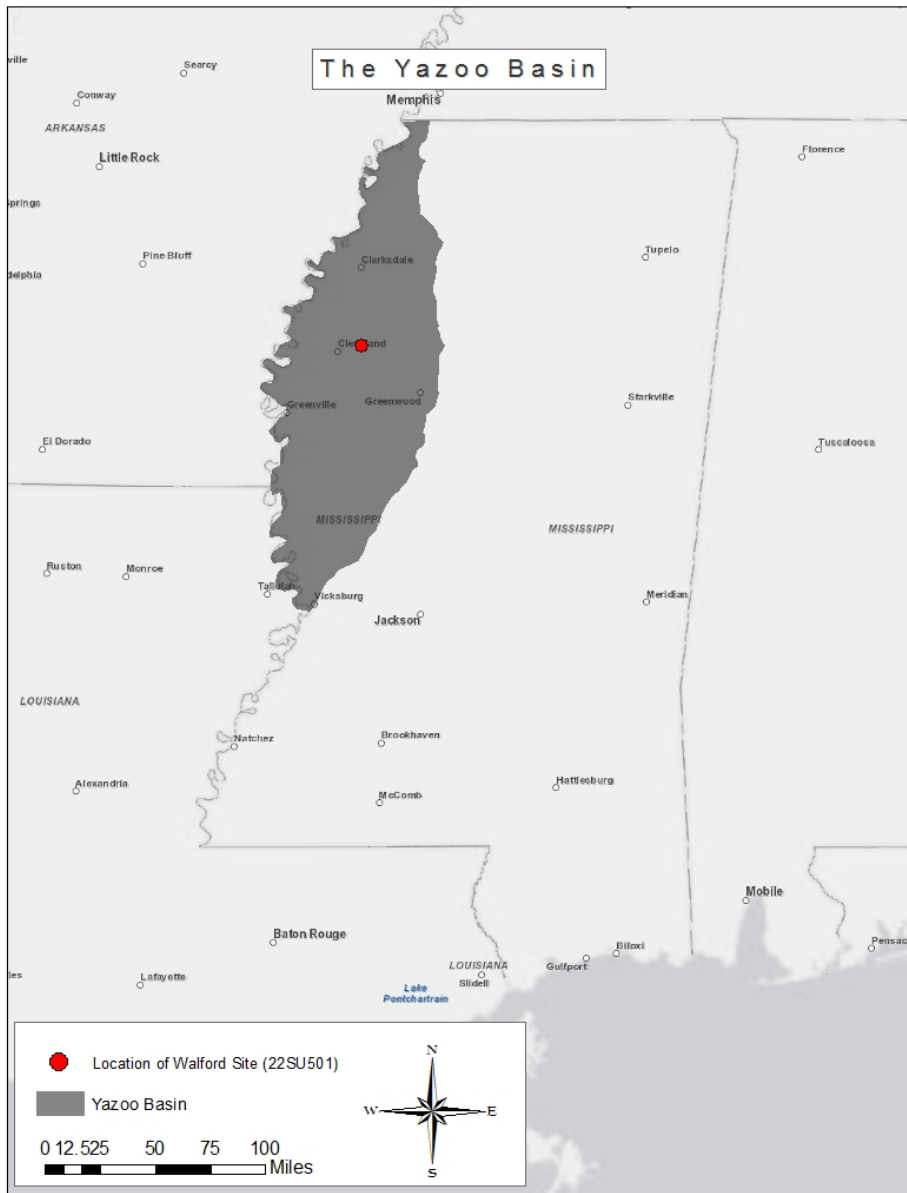


Figure 1. The Yazoo Basin of Mississippi, USA

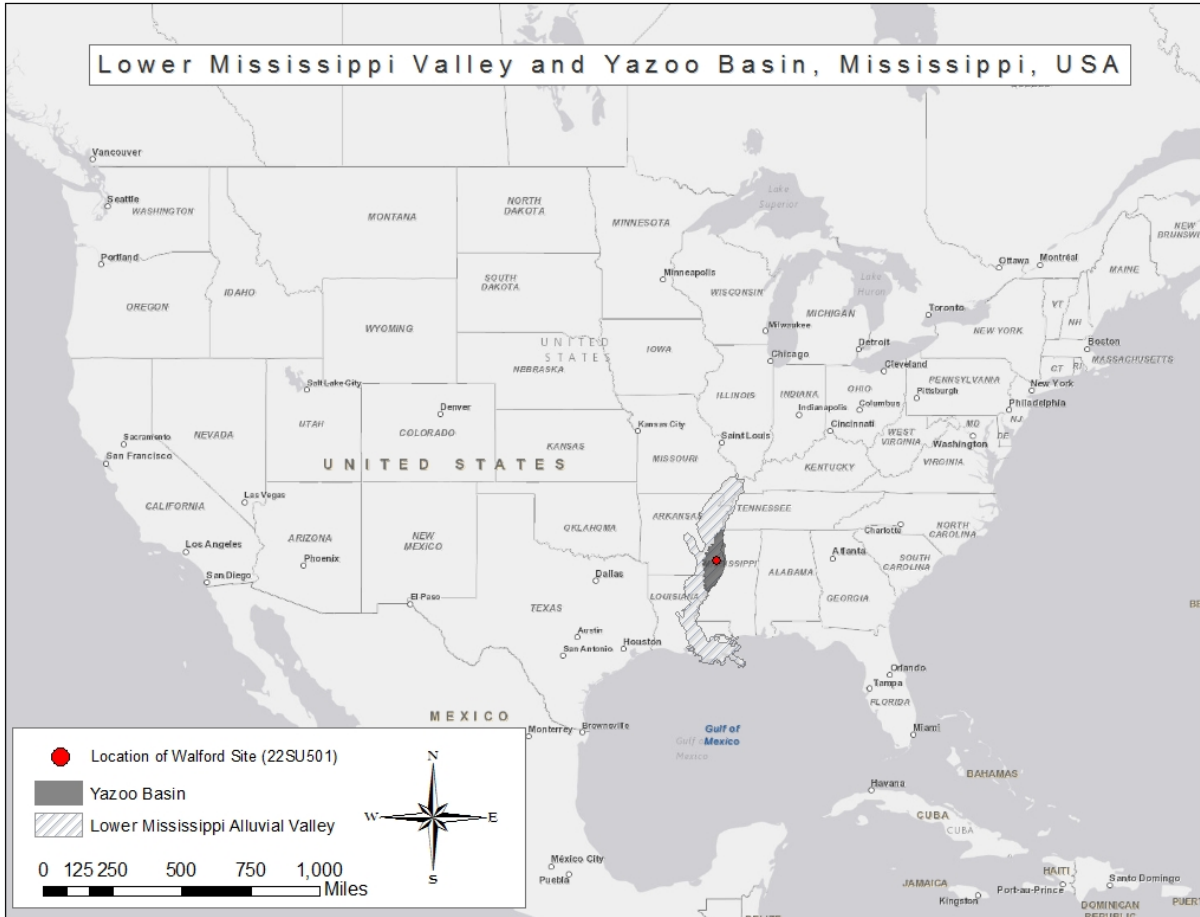


Figure 2. The Lower Mississippi Valley and Yazoo Basin, Mississippi, USA

Walford is reported in various region-wide surveys including Phillips, Ford, and Griffin’s *Survey of the Lower Mississippi River Valley* (1951) and Panamerican Consultants’ report on mound sites in the Sunflower River drainage (Chapman et al. 2004); however, neither of these reports included a subsurface examination of the site.

Mr. Gladden was not interested in selling his land to the Archaeological Conservancy, which would leave the site undisturbed. This is usually the first and best method of site conservation. Financially, the price of the land outweighed long-term excavation costs and the loss of cultural resources. Archaeology in Mississippi is financially limited; time and personnel costs limit the number and extent of state projects. Without the option of state

ownership, the Walford site was to be the focus of several small-scale excavations over a period of several months and years through the efforts of volunteers, archaeologists, and enthusiasts kind enough to donate their time and expertise, under the direction of state archaeologist John Connaway. The site would join a list of at least three other major sites excavated during this time by John Connaway, each site facing a similar crisis.

As a result, Walford was excavated on weekends and holidays, with a short deadline and a shorter budget. Features were identified using shovel skimming across large areas, and excavated in entire sections without levels. There have been no reports or post-excavation analyses of the site, and this thesis compiles the piecemeal records of all available salvage operations. These salvage operations continued from 2003 to 2007, with the results shown in Figure 3 (below). They identified 3 mounds, a palisade, 19 wall trench structures, and over 200 pits and postmolds.

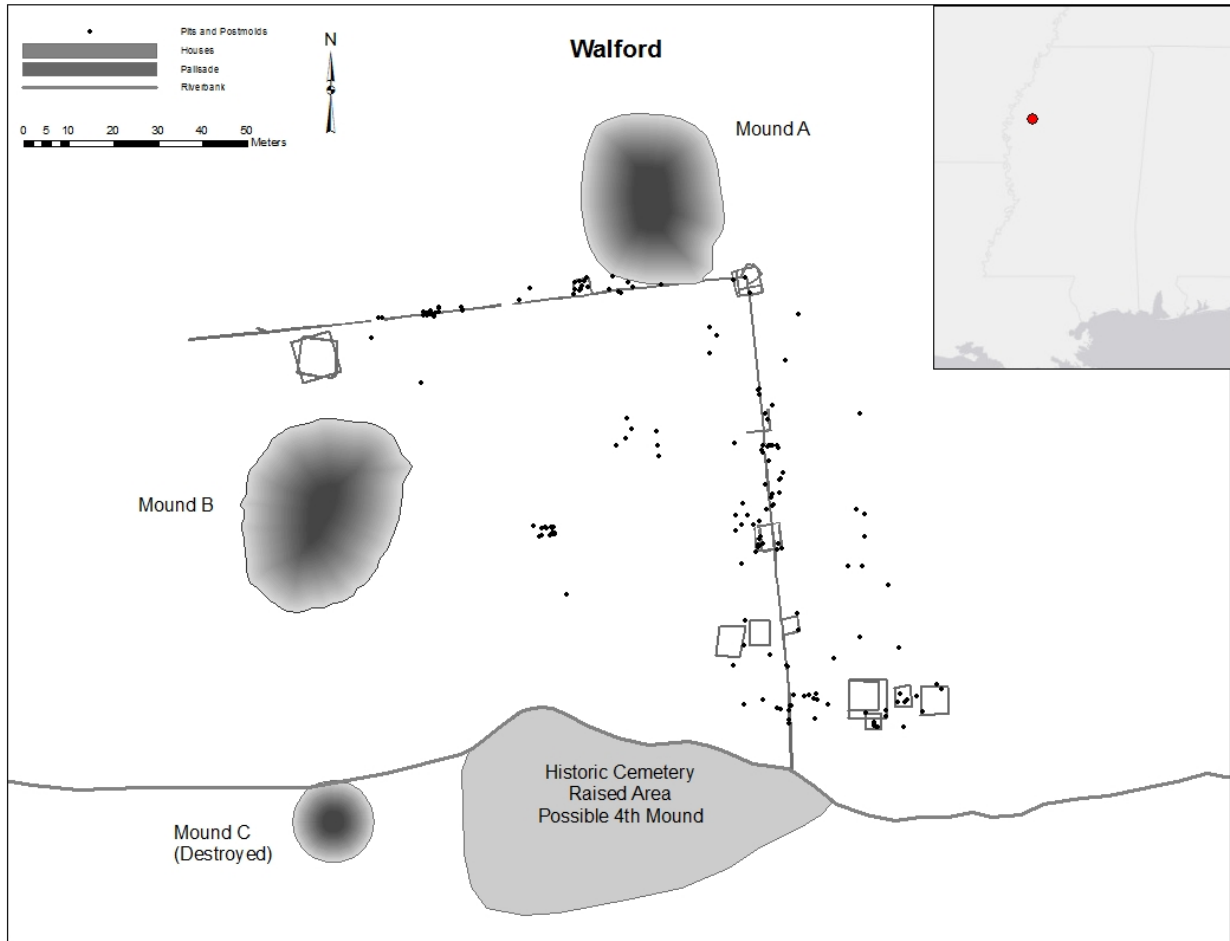


Figure 3. Map of Walford Site, Post-Salvage Operations

This study of the Walford site (22SU501) uses records from salvage operations to construct a map of prehistoric occupations, and form a chronology of the palisade based on ceramic and GIS analyses.

The palisade is a major focus of this thesis for two reasons. Although they are a regular feature of Mississippian settlement in some parts of the Southeast, palisades are rare in the northern Yazoo Basin. There are currently only two known within the Basin, the Carson Mounds sequence of palisade and the Austin site palisade (Connaway 2014;personal communication). The Walford palisade is bracketed temporally by known occupations from Woodland and Mississippian periods, but the exact occurrence is unknown. During

excavation, the possibility was raised of a Woodland origin of the palisade.

Artifacts recovered from the site confirm the state site file cultural affiliations of Woodland and possibly Archaic components, with undifferentiated Mississippian and historic elements. One of the possible four Mississippian period platform mounds sits atop a portion of Walford's palisade. This establishes a stratified relationship between the superimposing mound and the palisade, and is the first indication of an early palisade.

The second indication of a pre-Mississippian palisade is found in the intersection of the palisade with Mississippian wall-trench structures. There are a large number of architectural features at the site, including the wall trench structures and the flat-topped mounds, which, given their high concentrations, likely date to the Mississippian period based on architectural grammar (Kidder 1998:147). Each of these wall-trench structures that intersect the palisade at Walford post-date the defensive structure.

The third argument comes from ceramics. The majority of ceramics at Walford date to the Woodland period. These Woodland ceramics fill every feature at the site, even those that share Mississippian artifacts. The artifact collection used for this analysis originated from MDAH fieldwork and contained mainly ceramics along with varying amounts of faunal bones and lithic debris. This thesis uses these ceramics to construct a general temporal framework for Walford and help date pit features. The palisade is dated on the basis of the intersection between dated pits and the palisade.

This thesis is presented in seven chapters. Chapter 2 reviews the available research material for the region, focusing on prehistory with a special emphasis on ceramic chronology, architecture, and palisades. The ceramic literature particularly includes an overview of a the relevant regional ceramic typologies established in 1951 based on the Lower Mississippi

Survey by Philip Phillips, James A. Ford, and James B. Griffin, along with the continued work of Philip Phillips in the Yazoo Basin (1970).

Chapter 3 of this thesis details the history of research at the Walford site. The data recovered during two previous surveys by Phillips, Ford and Griffin (1951) and Panamerican Consultants (Chapman et al 2004). The data will also include material from the salvage excavation, including initial geographical information, topography, locality, and initial excavation features provide the setting for site analysis.

Chapter 4 presents a discussion the methods used for ceramic analysis for Walford material, as well as geophysical and digital data methods. Ceramic collections currently curated by MDAH were classified using regional typologies for analysis. This chapter details the descriptive analysis method utilized in order to ensure replicable typology conclusions.

Chapter 5 outlines research results from current and previous ceramic collections. This chapter is divided into recovered ceramic types, their distribution, and chronological position in order to develop a chronology for the occupation of the site.

Site and palisade analyses are detailed in Chapter 6 along with a theorized site plan of occupation. Analysis will focus on pit features that intersect the palisade to establish a site chronology. The timeline resulting from this analysis will provide the basis for the temporal assignation of features across the site.

Chapter 7 presents the research conclusions. The relatively small scale of the excavations limit these conclusions; however, making this material available for public use remains the ultimate goal of this thesis.

CHAPTER 2

LITERATURE REVIEW

This thesis will build on a substantial amount of previous archaeological research in the Yazoo Basin and the Southeast (Lewis and Stout 1998, Anderson and Mainfort 2002, Kidder 2002, Dye 2012, Payne 1994, Connaway 2015, King and Meyers 2002, Brain 1978, Hally 1986). Though there is ample evidence of prehistoric cultures in the Lower Mississippi Valley from the Archaic to terminal Mississippian periods, there are still relatively unknown gaps in the literature of the area. Though ceramics have been sorted into a typology since the 1970s, and architectural feature analyses in the region have been trained on Mississippian period structures (Lewis and Stout 1998), the transition between the Woodland and Mississippian periods is only moderately understood. The Walford site has substantial occupations from both of these periods, as well as visibly distinct occupation areas, making it an excellent location to examine the transition from the Woodland to Mississippian periods.

The relevant literature to the salvage excavation at Walford includes ceramic analysis as well as the identifying characteristics of Woodland and Mississippian architecture for chronological comparison. Palisades and other defensive structures will be analyzed within the context of the Mississippian world and variations within the Yazoo Basin. Cultural milestones, such as shifts in ceramic technology and changes in the architectural practices that would affect the development of site features, will be considered in order to explain the distribution

and occurrence of features at Walford. The occurrence and distribution of various site features throughout the Southeast, particularly palisade walls, will be examined in order to document the importance and distinctive aspects of Walford's features. Finally, previous research efforts by archaeologists in the Yazoo Basin and at important sites throughout the Woodland and Mississippian worlds will be examined.

2.1 The Woodland Period

Research on the Woodland period of the southeastern United States covers a wide time range and is usually broken into Early, Middle, and Late periods. The Woodland period in the region generally dates from 1200 B.C. to A.D. 900, and continued the trend toward sedentary societies that would characterize later Mississippian development (Anderson and Mainfort 2002:1).

Kidder (2002) offers a comprehensive look at the Lower Mississippi Valley, from the emergence of Woodland culture to the Mississippian period transition. Chronological indicators such as Baytown phase pottery types, including decorative styles of "incising, stamping, punctation, cord marking, brushing, filming, and polychrome painting" were used throughout the Baytown period in the Lower Mississippi Valley (Kidder 2002:92). These variations were specialized by region, while "Baytown potters in the Yazoo Basin and in southeast Arkansas used cord marking and brushing extensively; punctation and pinching were also common [and] rectilinear incising and red filming were used extensively" (Kidder 2002:80).

The delineation of Woodland settlements and their characteristics depend on the improved precision of dating in Woodland sites compared to earlier Archaic sites, and has led to the definition of various pottery types, lithic point types, and the recognition of an increase

in the organization of economies and political structures (Anderson and Mainfort 2002:4). The identification of specific ceramic and lithic types is essential to archaeological investigations distinguishing early or later occupations based on known chronologies of ceramic types and projectile points.

Woodland Architecture

When searching for transitional phase sites, it is vital to identify features that conform to known architectural sequences from each period. Previous research has differentiated between structures and monuments that are temporal discrete versus permanent constructions that span many cultures and occupations. Mounds and large earthen structures are prone to longevity, while wooden buildings and degradable cultural material exhibit more stylistic and discrete trends.

Mounds

Woodland mounds, in various sizes and shapes, are found throughout the Southeast and Midwest. Although mounds were also built during the previous Archaic period, especially in the South, Woodland mound usage differed from their predecessors and from region to region.

The use of mounds in ceremonies dates back to the Middle Archaic period, but it is during the Woodland period that mounds became a predominant feature of sites as groups became increasingly sedentary (Anderson and Mainfort 2002:3). The Late Woodland period especially marks a change in mound use. Early groups used mound centers as ceremonial spots visited only by seasonal migrants. During later times, mounds became the focus of permanent villages, status markers of the elite, and mortuary symbols.

Though mounds exist in the Southeast during the Archaic, such as Poverty Point, mound

building in the Southeast was largely limited to Woodland and Mississippian societies. Kidder (2002:81) notes that “in the northern Yazoo Basin and in southeast Arkansas, Baytown sites are abundant, but [Baytown] mound construction was rare... [instead] sites in the southern Yazoo Basin exhibit a circular or semicircular pattern of discrete freshwater shell middens.” Therefore, the positive identification of Woodland mounds at sites such as Walford would be extremely unusual.

Defensive Structures

Recent excavations at Walford identified a wooden wall-trench palisade enclosing a large area of the site. Literature on Woodland defensive structures would leave a narrow window for the construction of this type of defensive wall. Dye (2012:12-13) states that Woodland enclosures differed greatly from the wooden palisades of later Mississippian communities.

Early and Middle Woodland styles preferred earthen barriers, as Dye (2012:7) states that “earthen enclosures appear as early as the Middle Archaic in the Lower Mississippi Valley.” Specifically, enclosures arising throughout the Archaic and Woodland seemed to lack any defensive characteristics, instead serving as ritual centers. Some archaeologists argue that moats would often accompany earthen walls out of convenience, as the construction of one would create the material for the other (Payne 1994:219-220). The early earthen structures are considered for both their symbolic as well as defensive uses. The primary use is often unclear, compared to the defensive advantage of bastioned palisades in the Mississippian Period. Earthen structures often had more longevity than their wooden counterparts, and many of these structures are still seen in the modern landscape. The defense of sites increased through the entire Late Woodland period, and sites during this time occupied defensive locations with

earthen fortifications and moats, eventually evolving to wooden fortifications by terminal Late Woodland.

Structures

There are several types of structures utilized by Woodland populations with sufficient archaeological footprint to be identified within archaeological sites. Domestic, political, and ceremonial structures in the Woodland era primarily consisted of single-post architecture and flexed-pole construction. Small diameter poles were set into the ground in a circular configuration, then flexed together and secured for a rounded or pointed roof. Some Woodland period structures can be identified by this single-post construction, though this method is not limited to Woodland sites.

These structures are also difficult to isolate in areas of mixed or recurrent occupation. Post diameter can be used to differentiate some types of architecture, as flexed structures use small diameter posts. Larger, more robust posts are found in rigid structures. With the use of spatial analysis and post diameter, dense areas of single-post architecture may be unraveled into their various components. These Woodland structures are useful for recognizing features at Walford, although the temporal ubiquity of these structures through Woodland and Mississippian periods does not help researchers delineate their temporal affiliation.

Woodland Ceramics

Time and agricultural process are some of largest proponents of archaeological site destruction, and often destroy surface monuments and subsurface features. In these instances, artifacts recovered in excavations are key to recognizing early or minimal cultural

occupations. Cultural indicators such as ceramics are one such example, providing markers within a known area for certain groups. Phillips' 1970 survey of the Yazoo Basin in Mississippi emphasizes the importance of small regional variations in ceramics. However, phase designations vary widely from region to region. For the Lower Mississippi Valley region of the Southeast, periods and phases have fluid identities and temporal placements based on general similar localities. Within this study area, Woodland periods include Tchula, Marksville, Baytown, and Coles Creek periods, shown in Figure 4 (below). The Late Woodland phases are usually especially distinct in the archaeological record, often anticipating Mississippian characteristics.

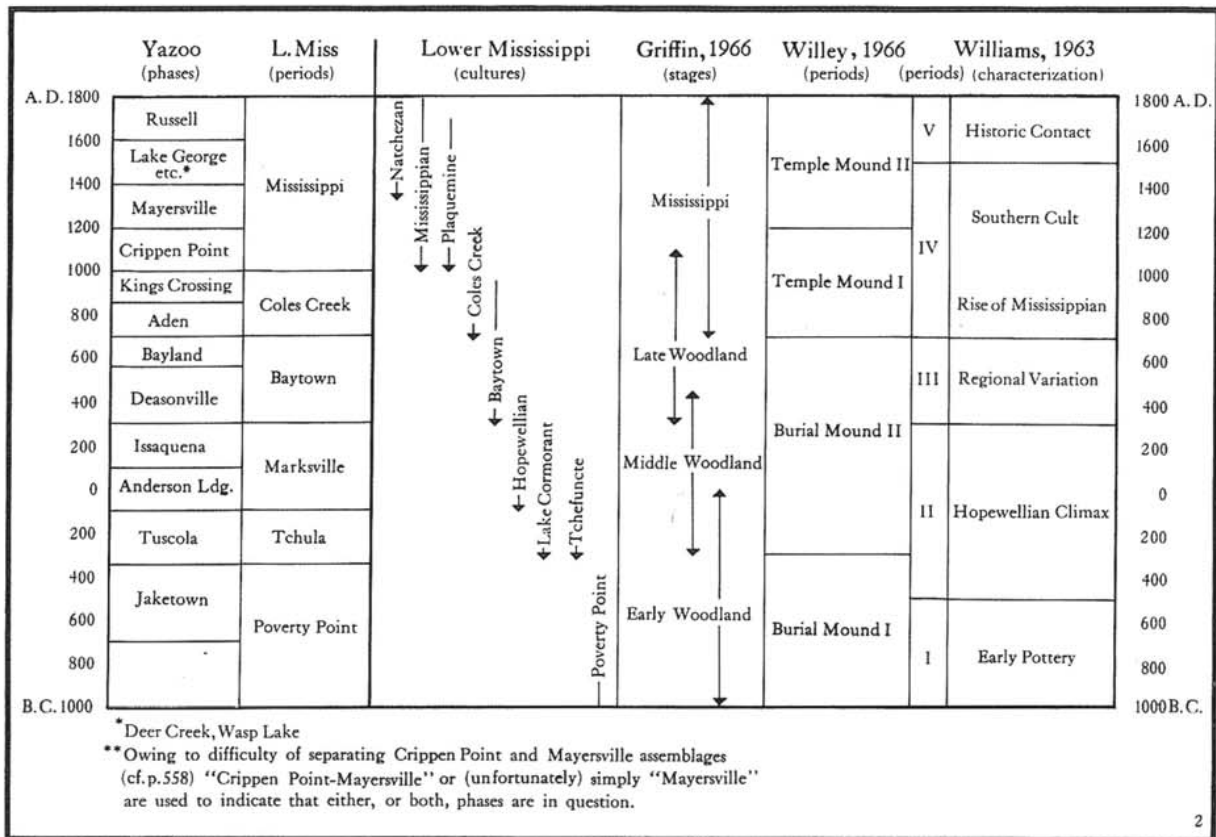


Figure 4. "Cultural and chronological nomenclature" (Phillips 1970 Vol I:Figure 2)

Phillips (1951) *Archaeological Survey in the Lower Yazoo Basin, Mississippi, 1949-*

1955 outlines many phases. For this study, phases discussed will be limited to the northern Yazoo Basin region. However, as Phillips (1970 Vol II:864) readily admits, his phase definitions for the northern Yazoo Basin are provisional since there is “even less recent activity to report in the northern Yazoo Basin than in any other region covered by the LMS.”

The Jaketown Phase represents the transition from Archaic to Woodland in the Yazoo Basin sequence, and includes Poverty Point culture (700-300 B.C). Phillips’ (1970:10) most notable comment about this phase concerns the appearance of Poverty Point objects, or clay balls used to regulate the temperature of prehistoric ovens. At least one such object was mentioned in the excavation notes at Walford. This could constitute the earliest component at Walford.

Tchula phases in the northern Yazoo Basin are named but not elaborated in Phillips (1970). Tuscola phase is briefly discussed, dating from 300 B.C. to 100 B.C. Diagnostic ceramics for the Tchula Period include: “high proportions of Withers Fabric- Impressed, Baytown Plain, and Mulberry Creek Cord-marked” (Phillips et al 1951:432). Some fiber-tempered ware was also noted. Decorated types are listed as “Crowder and Twin Lakes Punctated, Cormorant Cord Impressed, Jaketown Simple Stamped, Tammany Pinched, Indian Bay Stamped, and Larto Red Filmed” (Phillips et al 1951:432). This northern Tchula area, “from Hannibal, Missouri, south to about Greenville, Mississippi, and east to the Appalachians” (Phillips et al 1951:432), is especially notable for the high occurrence of sand tempered and fabric impressed ware. The fabric-impressed ware emphasized by Phillips, Ford, and Griffin (1951:432) for this northern area are the complete reverse of the northern and Ohio Valley pottery, described as “plain and cord-marked with only small proportions of fabric-impressed types.” Neither does the assemblage resemble southern Tchula survey areas, with

their preponderance of decorated types and an absence of cord-impressed wares (1951:432).

The Middle Woodland Porter Bayou phase, 100 B.C.-100 A.D., includes: a majority of Mulberry Creek Cord-Marked, Marksville Incised and Stamped, Churupa Punctated, Indian Bay Stamped, and Larto Red Filmed types, with a distinctive lack of Wither's Fabric Impressed. Although most of these types are present, this phase predates the major occupations at Walford.

Phillips, Ford, and Griffin (1951:442) outline a Middle Woodland phase known as Deasonville, as the time when "cord-marked pottery reaches its maximum popularity and distribution in the Lower Mississippi." While this phase is theorized to originate in the northern Mississippi hills, the only conclusive data offered by Phillips et al (1951:442) was that this phase was "submerged" by the dominance of smooth ware during the late Baytown period.

The Coahoma phase is defined by Phillips (1970) based on northern Yazoo Basin material, follows Middle Woodland Porter Bayou phase. This late phase begins at about A.D. 100 and is the main material indicator of Baytown culture in the Upper Sunflower drainage (Phillips 1970 Vol II:905). In Phillips' formulation, it is replaced by the Peabody phase around A.D. 700. The minority ceramic types for Coahoma include: Withers Fabric Marked, Larto Red, Oxbow Incised (Alligator Incised *v.* *Oxbow*), Mazique Incised (Alligator Incised *v.* *Alligator*), Indian Bay Stamped, French Fork Incised, Woodville Zoned Red, Chevalier Stamped, and Yates Net Impressed (Phillips 1970 Vol II:906). The majority types are Baytown Plain and Mulberry Creek Cord- marked. Only about half of the secondary types were observed in ceramic collections from Walford.

The 700 – 1000 A.D. Coles Creek 'Peabody phase' is sometimes termed 'Coahoma II'

by Phillips (1970 Vol II:917). It is defined based on small amounts of Coles Creek incised types as well as an increase in the proportion of Baytown Plain over Mulberry Creek Cordmarked sherds. However, Phillips argues that this percentage change is rarely observed, as both types exist in Coahoma and Peabody, and most sites contain both phases. Moreover, Coles Creek Incised types are relatively rare in the northern Yazoo Basin.

This Coles Creek phase represents the latest Woodland phase before the transition to Mississippian culture. This transition is known as Emergent Mississippian in the American Bottom and the sites that share cultural similarities to Cahokia. In the Lower Mississippi Valley, the transition is marked by the occurrence of shell temper, and its complete submergence of other temper types. Mississippian period societies also demonstrated large variations in agriculture, architecture, and defensive structures.

2.2 The Mississippian Transformation

Mississippian culture is described as “societies organized as chiefdoms that practiced maize agriculture in riverine bottoms, constructed monumental architecture through mobilized labor, constructed wall trenched houses, and produced elaborate pottery usually tempered with shell” (King and Meyers 2002:113). The Mississippian culture is found throughout the Southeast from about A.D. 900 to 1500. Early dates for Mississippian culture vary considerably from region to region. Philip Phillips (1970) set the dates for the Yazoo Basin at A.D. 1200-1700 based on the analysis of ceramics and other materials. The most prominent markers of Mississippian culture are the platform mound structures that played a significant role in Mississippian life and the planned communities surrounding them. These communities ranged from extraordinarily large sites with thousands of residents, such as Cahokia, to small

farmsteads.

This broad definition encompasses each unique and distinct region across the Southeast and Midwest, connected by spreading technological advancements. Even this definition of Mississippian is subject to controversy, as Pauketat (2007) argues that chiefdoms are a false construct. Beck (2003) contradicts, supporting the idea of chiefdom variation, explaining variety through size-levels and cultural traditions of inheritance. Cobb (2003) also argues about the complexity of chiefdoms as a factor in their diversity, using sites and landscapes to determine the levels of labor, ritual, and feasting to determine the power held by different chiefdoms. In archaeological research, chiefdoms continue as a descriptive term, and as Beck (2003) shows, the term is often adjusted and qualified to reflect regional differences.

The ranking of societies can be visualized by the dispersal of communities around every large site. A region may not have a large center such as Cahokia, but still maintain several sizable population centers. These large sites are found in each region; simple chiefdoms spread evenly throughout the landscape (Brain 1978:340). Brain (1978:340) notes that mound centers within regions of the Lower Mississippi Valley were 80 kilometers apart, with secondary centers “situated with considerable spatial regularity” in between. Other regions studied for density by site clusters and vacant areas have produced varying numbers of territory size (Lansdell 2009). Regional studies in Georgia indicated chiefdom areas from 11km to 29km, and rarely exceeding 29km except for administration areas, which could cover 35-45km (Hally 1986). These areas contained smaller, less complex mound sites with single or very few mounds and have surrounding hamlets and villages. In her analysis of major mound centers, Payne provides a much different perspective.

Although the distance between sites ranges from 20 km to 475 km, the average distance is 235 km, the median distance is 220 km, and 41 % of the values lie between 195 and 240 km. ...Based on data from the Fort Walton area, John Scarry has speculated that a distance of about 200 km is the limit of the indirect influence of a capital... (Payne 1994:120)

The extent of these capitals may vary greatly depending on the region. While the Lower Mississippi Valley contains some of the densest occupations of prehistoric groups, their regional centers also seem more compressed, giving rise to sites such as Lake George and Winterville with their close proximity to each other. The Mississippi floodplain is also the location of four of the largest known mound centers: Cahokia, St. Louis, East St. Louis, and Winterville (Payne 1994:87). These facts only emphasize the importance of the Mississippi River Valley to Mississippian and other prehistoric cultures.

Many Mississippian sites are found in the floodplains of major rivers, on natural levees and bluffs common to the Mississippi River Valley. Such locations provided natural advantages for defense, agriculture, fishing, and hunting, as well as access to a variety of fruit- and nut-bearing vegetation (Dye and Cox 1990:8). Along with these subsistence advantages came trade routes and geographical dominance (Lansdell 2009).

Habitation zones were expanded, additional mounds were built, and in very large sites, a hierarchy of space would form delineating some mounds and ritual areas. Defense and social aggrandizement would lead to palisades and walls, a more complex social and religious hierarchy would build more mounds, and increases in population would establish larger habitation areas on the sites of once small hamlets.

Mississippian Architecture

Mississippian sites feature several types of domestic, political, and religious

architecture. Earthen structures dominate major Mississippian sites, with earthen mounds serving as both areas for houses of political figures and temple structures. Earthen architecture is also seen in defensive structures such as the embankments and ditches of Woodland architecture. Such structures are still present in Mississippian villages, though wooden palisades have usurped earthen walls as primary defensive structures. Wooden structures have also evolved since the Woodland era, becoming more rigid with wall-trench building styles. Lack of structures are also important when considering the architecture of a site, as a central plaza is essential to nearly every aspect of Mississippian life.

Mounds

Platform mounds in Mississippian times often supported either ritual or residential structures. On sites with multiple mounds, each mound may support a different type of structure. Residences on platform mounds frequently belonged to chiefs or other important figures, which is supported by ethnographic accounts from European settlers (Payne 1994). On sites with several mounds, often of varying sizes, smaller mounds may support structures for domestic or storage uses (Cobb 2003:66).

Conical mounds are a separate type of mound seen in Mississippian sites, usually containing a number of burials. These mounds are often smaller, and can contain a number of burials of varying strata and origin. Like platform mounds, conical mounds were subject to reuse by later groups. Though predominantly used for burials, conical mounds were not the exclusive provenience of burials. Houses and platform mounds could can burials, especially of elites or individuals with access to exotic goods (Cobb 2003:66,73). These burials often indicated the importance of the mound as a main mound or temple mound (Payne 1994:194-195).

For most sites in the Southeast, mound construction was limited to only a single mound. In Payne's (1994:73) sample of 132 sites across the Southeast, 47.1% of the mound sites contained just one mound. The study also found that the mean number of mounds was 3.2, while the median was two (Payne 1994:80). These numbers show the cultural emphasis on small mound centers in the Mississippian world, but do not indicate the average population that would inhabit these centers, even with a calculated median occupation area of 8.2 hectares (Payne 1994:90-92). Basing population on number of mounds is problematic due to site duration. Mounds may have been added over a long period of time, using a significantly smaller population than that required for large-scale building projects of several mounds. Beahm (2013:4) notes that the life cycle of the Mississippian mound sites in the Southeast seem limited to 50-150 years, changing from residential and administrative centers to ritual and civic centers, some eventually ending as mortuary sites or residential resettlements.

Another significant element of mounds is their intentional location within the landscape. Archaeologists have observed a trend of site orientation to cardinal directions, specifically north-south or east-west. Payne's study subjected these trends to statistical inquiry along with other possible environmental factors for site orientation. The study found that sites were less likely to be oriented to compass points, but rather to the water bodies associated with the mound sites (Payne 1994:145). Major waterways in the Southeast tend toward cardinal directions, falsely emphasizing the alignment of archaeological sites. This may also have been a convenient coincidence for these cultures. The sun is known to have played an important role in Mississippian religion, and this may have been reflected in the usual eastern orientation of the main mound.

A typical main mound at a Mississippian site is the tallest mound, oriented to the east,

and situated on the western edge of a central plaza. Main mound heights, according to Payne, “range from 0.5 m to 30 m. The mean height of main mounds is 4.8 m while the median height is 4.0 m. ...Main mound heights of 50% of the sites fall between 2.4 m and 6.1 m” (Payne 1994:97). This is about 1 meter higher than the 3 meter average height of all mounds (1994:97).

Payne outlines several ways to recognize a main mound at a multi-mound site.

After size, a main mound can be statistically predicted based on its location within the site. Northern and western positions are most common, the north more frequent than the west, while southern and southeastern locations occur the least (Payne 1994:170). “Chi square significance indicates the main mound was usually placed on the north side and nearer a main water body than other mounds at site” (Payne 1994:171). This varies somewhat from other studies of mound precincts, as:

Nelson Reed, in his 1973 survey of Mississippian mounds, noted that principal mounds were frequently placed to the west of their plazas (77.9% of his sample of 131 lay in a generally westerly direction; 28.2% of the sample lay due west). Other researchers have repeated this assertion (e.g., Phillips et al. [1951:316, 330] for sites in the Lower Mississippi Valley; Price and Price [1990:160] for sites in southeast Missouri). (Payne 1994:167)

Plazas

The orientation of the plaza is also a key aspect of mound precincts but they are not as visible on the landscape as earthen structures. Some have been recognized by a low rise of accumulated sweepings at the plaza boundary, evidence of an area continuously maintained and swept free of debris. However, these important areas are often found through large-scale excavation. Once found, plazas inform archaeologists on public areas, probable mound orientation, and many other aspects of Mississippian village life.

Plazas are one of the most ubiquitous types of architecture seen in the Mississippian world. Sites from the largest mound centers to small villages have plazas (Wilson 2005, Payne 1994:210). Of the 91 mound centers examined by Payne, 73.7% have some version of an enclosed central space (plaza) (1994:131).

Prehistoric plazas served all the functions of any modern town square. It was a social area for everyday activities, a gathering place for festivals and religious ceremonies, and the stage for public events. These included "...first fruits festivals and black drink ceremonies), ritual athletic contests (especially the chunky game), dances, entertainment of visitors, and governmental activity" (Payne 1994:208). This central location of the plaza to the lives of Mississippian peoples also would bring it to the center of their living spaces.

Many plazas are demarcated by the ring of mounds surrounding them, creating an enclosed central space. However, a central area at a multi-mound site is not always the default location for a plaza. Large scale excavations that reveal structures are required to positively identify plazas, as it is only the lack of structures that defines a plaza. This "negative evidence" rarely lends itself to archaeological data beyond notions of site arrangement (Payne 1994:209).

Structures

Structures at Mississippian sites cover a wide range of uses and activities. These activities create distinct styles and components that delineate structures such as domestic housing, chiefly housing, temples, communal houses, and defensive structures. While structures will share basic similarities of building material and style based on their environment, simple variations of style, structure location within the site, and size are enough to separate the structural components of a Mississippian site.

Building materials for structures were most likely based on the wood types available, but there does appear to be a preference for certain materials based on building style.

The favorite material for building the frame of a house was pine. Hickory, cedar, locust, and sassafras woods are also mentioned. Houses north of the present Georgia-Florida state line were often plastered with mixtures of clay and grass or clay and Spanish moss. Houses south of this area were, according to Biedma, “covered with palm leaves and with grass” (Swanton 1979:408; Bourne 1922:10). Houses that were plastered had lathings of cane or of oak or hickory branches. Roofing materials included grass thatch (sometimes with a cane layer underneath), pine, cypress, or cedar bark, and palmetto leaves (Payne 1994:154).

Hardwoods larger than young saplings would be more difficult to manipulate for flexed housing than softwoods, and the resinous nature of pine and cedar would rebuff insect infestations that would hasten decay (Lacquement 2007:16). Cane-backed plaster would also decrease the flammability of these buildings, a key feature for defensive structures that were subject to fire arrows. These materials and methods are present in official and domestic architecture, with no remarkable material differences between a chief’s house and a commoner’s apart from size and location.

Most evidence would place the chief’s house atop the main mound, the most prominent and powerful location at the site (Payne 1994:176). This structure was larger than domestic houses, with the floor area from 10.0m² to 825.0m², with an average of 71.9m² (Payne 1994:156, 177). Domestic structures have an average area of 35.2m², about half that of the mound structure (Payne 1994:156, 177). Ethnographic accounts of all of these buildings describe them with woven mats along the walls and painted decoration on the exterior (Payne 1994:178).

Temples are often difficult to identify in the archaeological record outside of complex chiefdoms with formal mound and ceremonial site arrangement. On multi-mound sites the

temple would often occupy the next greatest mound, or be situated near the main mound, and of a similar size to the chief's house (Payne 1994:188-190). Constructions, such as interior site palisades, that would limit access to small interior areas can often indicate a temple space. The bones of previous chiefs and ancestors may be found in temples along with "religious paraphernalia," figurines, effigies, copper plates, shell beads, etc (Payne 1994:188, 193-194). If such artifacts remained, they would be strong indicators of a temple building.

Other domestic structures at a site may be grouped in specific areas of the site, whether through chance or design. Wilson (2005:124) uses *in situ* repair and rebuilding of domestic architecture as proof of formal spatial arrangement "in relation to shared work spaces, storage facilities and paths." Multiple rebuilding episodes in a dense structural area may indicate such a formal residential quarter. If such spaces existed at a fortified site, the structures should appear clearly grouped and encompassed by the fortifications.

Palisades and Defensive Structures

The accumulation of goods and populations would require strong deterrents for neighboring groups, to protect people and goods from war and raiding. These defenses came with the evolution of defensive architecture. Wooden palisades, bastions, and moats formed complex and strategic fortifications that could withstand major onslaughts of violence.

Wooden palisades became the most common form of defensive architecture during the Mississippian era. These walls were made of solid timbers, sunk deep into the ground and layered in mud plaster. Loopholes for bowmen were left at intervals along the wall, along with protruding bastions with radii overlapping half the range of the prehistoric bow and arrow.

Major mound complexes may have built palisades for the power and authority

conveyed by such architecture, however “a wooden wall with bastions, an adjoining moat, and an associated embankment, are clearly defensive structures, despite its possible ancillary iconographic, political, social, and symbolic associations” (Dye 2012:10-11). It is unclear if all palisades included such features. Other palisades built to house sacred spaces would require essentially the privacy of a standing wall curtain. These temple area fortifications could not solely be built with community residents in mind, however, as “sacred structures such as ancestor shrines were especially targeted for attack, desecration, and destruction by Mississippian militias” (Dye 2012:9).

Some large sites may have had several types of palisade walls for both interior community planning and exterior defense. “The majority of Mississippian towns typically had only one functional palisade at a time, although numerous non-defensive fences might be present, demarcating charnel houses, council lodges, courtyards, elite compounds, kitchen gardens, restricted plazas, or other mundane and sacred spaces” (Dye 2012:16).

Dye (2012:16) goes on to discuss the pervasiveness of single palisade remains at most fortified settlements, and the need and duration of such limited defenses. It would seem unlikely that any other defenses would have been erected without leaving evidence, barring any massive ground disturbance or prehistoric activity extending far beyond theorized (or excavated) habitation zones.

Allan (1984:2b) states “From the depth of the post holes and trenches and from ethnographic accounts of Southeastern Indian palisades from the early European contact period, walls are presumed to have been between 12 to 15 feet high.” The depth of a post can be a fairly accurate determinate of height, as the length of the pole would have to be significantly offset to provide structural stability.

Allan (1984:6) discusses post height in the excavation of the Moundville palisade: “in excavation areas [of Moundville] where there has not been severe erosion, the wall trenches exceed a depth of one meter. From post stains within the trenches, the average post diameter is determined to be about 20-25 centimeters.” These diameters are more difficult to determine archaeologically, as some palisades were removed rather than burned, leaving no evidence other than the trench. Daub, cane, and other plastering materials in trench fill would indicate the presence of the plastering feature on the palisade wall. These and other features would appear with more intricate palisade architecture. Bastions were one form of palisade architecture that clearly separated symbolic walls of sacred spaces from defensive structures. While a wall could be used as both a shield and curtain, bastions offer a clear defensive advantage to those within the walls.

Bastions were palisade features protruding from the palisade exterior. They contained “elevated floors that supported archers and other individuals. These elevated floors consisted of two levels of beams lying perpendicular to one another” (Krus 2011:230). Bastions were placed in such a way as to accommodate prehistoric weaponry. For Moundville, this meant an average spacing of 35-40 meters apart, which Allan states to be “close to the maximum recorded distance between bastions on Mississippian stockade but is still within the effective range of the aboriginal bow and arrow” (1984:6). By necessity, bastions would have had to be spaced close enough for their weapon ranges to overlap with those of neighboring towers to be effective defensive structures. Of all the excavated Moundville bastions, only one lacked interior supports for the raised archer platforms (Allan 1984:6).

“Most bastions are circular, rectangular, or square, allowing flanking fire to be directed on any attackers who might approach the palisade wall or other appurtenances such

as gates or towers” (Dye 2012:11-12). Bastions at Cahokia evolved from the original round bastions to square and rectangular in later rebuilding episodes. It was not until the second rebuilding episode that rectangular bastions appeared that did not include the back wall (Krus 2011:228-229).

Krus states that these open-gorge style bastions “are found throughout the Midwest and Southeast, whereas closed-gorge bastions (circular, square, and rectangular) are not as widespread (2011:241). In historic European fortifications, the purpose of these back gorges was to form a second line of defense should attackers gain the walls of the bastion, rather than allowing such success access to the entire ramparts.

The crossfire position of bastions also allowed them to defend the weakest area of a palisade, the gates. Gateways may have been set strategically for defense, but there is no archaeological evidence for elaborate gateways or a sense of ceremony. Rather, as Lewis and Stout (1998:236) point out, “given the absence of beasts of burden other than humans...gates tend to be no wider than the space needed to permit two persons to pass abreast.” These bastions and gateways would limit admittance to the mounds and plazas.

Ditches, earthworks, and walls were other forms of defensive architecture that were part of a planned settlement. Expansion required removal, relocation, or reconsideration of these such major structures. Palisades that were left in place may only protect or delineate essential structures in expanded sites, while other activities were moved outside the walls. Any expansion of a community that required a palisade would relocate the palisade to encompass a larger area. Evidence of a palisade being removed in the event of community expansion may include layers of midden coating the palisade’s former location. The depth of any accumulated midden layers may indicate the length of occupation within any given area, especially within

the boundaries of a palisade. If the inhabitants of a site removed a palisade and then failed to rebuild it, it would indicate some change in situation for that community. The implications of such an event, particularly in concert with other regional trends, could help define the timeline of the culture.

Geographical Extent of Mississippian Fortifications

It is difficult to say much about the frequency and distribution of palisades throughout the Southeast. This is a direct result of a fundamental sampling problem. Palisades are generally only discovered through extensive excavation. The partial excavation of known sites and the demolition of others limit what little information that is contained in Payne's excellent 1994 study. Previous studies, such as Phillips, Ford, and Griffin's (1951) survey of the Lower Mississippi Valley "assumed that the sites were fortified towns, based on the concentration of refuse within the area surrounded by the ditch" (Mitchem 2010:1-2). However, Phillips and his coauthors only conducted excavation at one of these sites, and in an interior portion at that, "so they found no direct evidence of palisades in the region" (Mitchem 2010:1-2).

Regionally, Payne concludes that "more than one-third of Mississippian mound centers were fortified," however "because so few sites have been thoroughly examined in the field for fortifications, this estimate is undoubtedly conservative; an estimate of at least 50% would probably not be unreasonable" (Payne 1994:215). This analysis included all sizes of mound sites, and each size category contained defensive works (earthen and palisade). However, it was more common at the largest sites.

At least two possibilities exist to account for this pattern. First, better data may exist for larger sites, perhaps the result of more archaeological investigation than at smaller sites. Second, larger sites may be more likely to be fortified than are smaller sites. Even if this second is true, it is important to remember that fortifications occurred at mound centers of all sizes including the very smallest (Payne 1994:216).

Payne's analysis did not detail extent of data available. Her work is based on a sample of 132 sites, but it is not clear if this is from availability or other factors. Certainly, 132 sites would not necessarily be representative of the entire Southeast. However, with the data available, Payne concludes that "palisades have been discovered at 18 of the 132 sites and may have existed at 2 others ...This accounts for 15.2% of the total sample, a lower proportion than for sites which have earthworks (25.8%)" (Payne 1994:220). Palisades were only lacking at medium-sized sites, though Payne herself attributes this to the small sample size (Payne 1994:221).

The distribution of sites in Payne's study was equally even. "Sites with palisades are equally common in central parts of the Mississippian world and in peripheral areas. In both cases, 15.2% of the sites in the area have palisades, exactly the same proportion as for all sites. These figures suggest that sites throughout the Mississippian world are equally likely to be palisaded" (Payne 1994:220-221).

In the Yazoo Basin of Mississippi, Payne's sample of sites with palisades includes Winterville. Recent work in the northern Yazoo Basin identified palisades at the sites of Austin and Carson Mounds. Austin contained two palisades with bastions, 40 wall trench houses, and a large number of human remains (Perash et al 2012:2). The Carson Mounds site is one of the most impressive in the region, and still under excavation. Within 1 acre alone of excavated material, 33 structures, 360+ pits, 3 stockades, 65 burial pits (ca. 250 people), 3 partial dogs, and 4972 posts were recovered (Connaway 2014:personal communication). The addition of other fortified settlements within the Yazoo Basin will further research on the area's status as cultural hotbed or backwater periphery.

Mississippian ceramics

When considering the ceramic tradition of Mississippian era cultures within Mississippi, Phillips' (1970) study continues to offer the most comprehensive typology of ceramics within the Yazoo Basin. For the current study, only the Hushpuckena-Oliver phase contains similar percentages of types to the Walford site.

Although John Belmont was able to refine the Hushpuckena-Oliver Phases as two separate sequential phases in his analysis of the material from the Peabody excavations at the Oliver site, this distinction was based largely on whole vessels from grave lots and, as Belmont stated, could not be made using the LMS test pit and surface collections from other sites in the region (Phillips 1970 Vol II:941). For this reason, Phillips collapsed the phases back together when looking at the region as a whole. Dates for this phase have been problematic, as they have been defined and redefined since their inception (Brown 2008:381). Generally, this period dates to the Middle Mississippian.

The collapsed phase is distinguished by vast majorities of Mississippi Plain over Bell Plain types, "as much as a hundred to one on some sites" (Phillips 1970 Vol II:941). Other distinctions include Barton Incised over Parkin Punctated, a predominance of Old Town Red and a scarcity of Wall Engraved, and the presence of other incised types such as Leland, Winterville, and Wallace (Phillips 1970 Vol II:942). The most distinctive feature of this ceramic phase however, is described by Phillips as "featureless," with high "frequencies of 'unclassified shell-tempered incised and punctated'" (Phillips 1970 Vol II:942).

This typology offered by Phillips (1970) and Phillips et al (1951) is not reflected in the expanded typologies of the surrounding regions. Instead of the abrupt shift to shell temper theorized by Phillips et al in the Yazoo Basin and Lower Mississippi Valley, regions such as

Tennessee, Alabama, and the American Bottom have found that transitional Woodland and Mississippian sites continue grog-tempered traditions well into the Early Mississippian period (Kelly et al 1984, Kelly 1990). However, until such a time as the ceramic typology for Mississippi is revised, research is limited to the data available.

2.3 Summary

These described attributes will be used to identify and interpret excavation data from the Walford site. GIS will be used to be used to evaluate site features such as mounds, wall trench structures, and postmolds. Bastions and palisades will have an ethnographic context for range, defensible area, infrequency, and habitation areas. The growth and movement of these features over time will be measured over the available area.

Following the analysis of 2003-2007 salvage excavation ceramic data and its synthesis with previous collections, the percentages and types found at Walford will be used to define the chronology based on the temporal phases outlined in this chapter. Particularly, these investigations will look at the Woodland Coahoma phase and the Mississippian Hushpuckena-Oliver phase.

The Coahoma phase is the obvious choice for Walford Woodland occupations. Large percentages of Baytown Plain and Mulberry Creek Cordmarked super types are observed, while Withers Fabric Impressed and Yates Net Impressed are the only noticeable absentees from the Walford collection. The other minor types of Larto Red and Alligator Incised are definitively known to be in the collection, and even the Marksville Stamped *v* *Troyville* of the Walford analysis is nearly identical to the Indian Bay Stamped of the Coahoma definition.

The Hushpuckena-Oliver phase is also easily assigned to the Walford assemblage on the basis of the preponderance of Mississippi Plain over Bell Plain. Indeed, very few of the types

described by Phillips were recovered from Walford. Bell Plain is missing, and Barton Incised is not present at all. This last may eventually be identified from indeterminate sherds, but even then, the total of all incised sherds recovered from Walford form less than 2% of the ceramic collection.

CHAPTER 3

WALFORD SITE HISTORY

Archaeological research at Walford began with a November 1940 visit by Philip Phillips and his coauthors, and end with excavations conducted by the Mississippi Department of Archives and History (MDAH) prior to land leveling occurred at the site in 2004. John Connaway and Cliff Jenkins from MDAH coordinated a salvage operation aimed at recording as much as possible at the site prior to its destruction. As a result of these efforts, several pit features and house structures were recorded as well as a palisade.

Walford is located in the central portion of the Yazoo Basin, along the northern bank of the Big Sunflower River. The Sunflower River drains the western portion of the Yazoo Basin, and meanders for more than 100 miles through Sunflower County (USDA 1952:2) These river basins form part of the Lower Mississippi River Valley, as seen in Figure 5 (below).

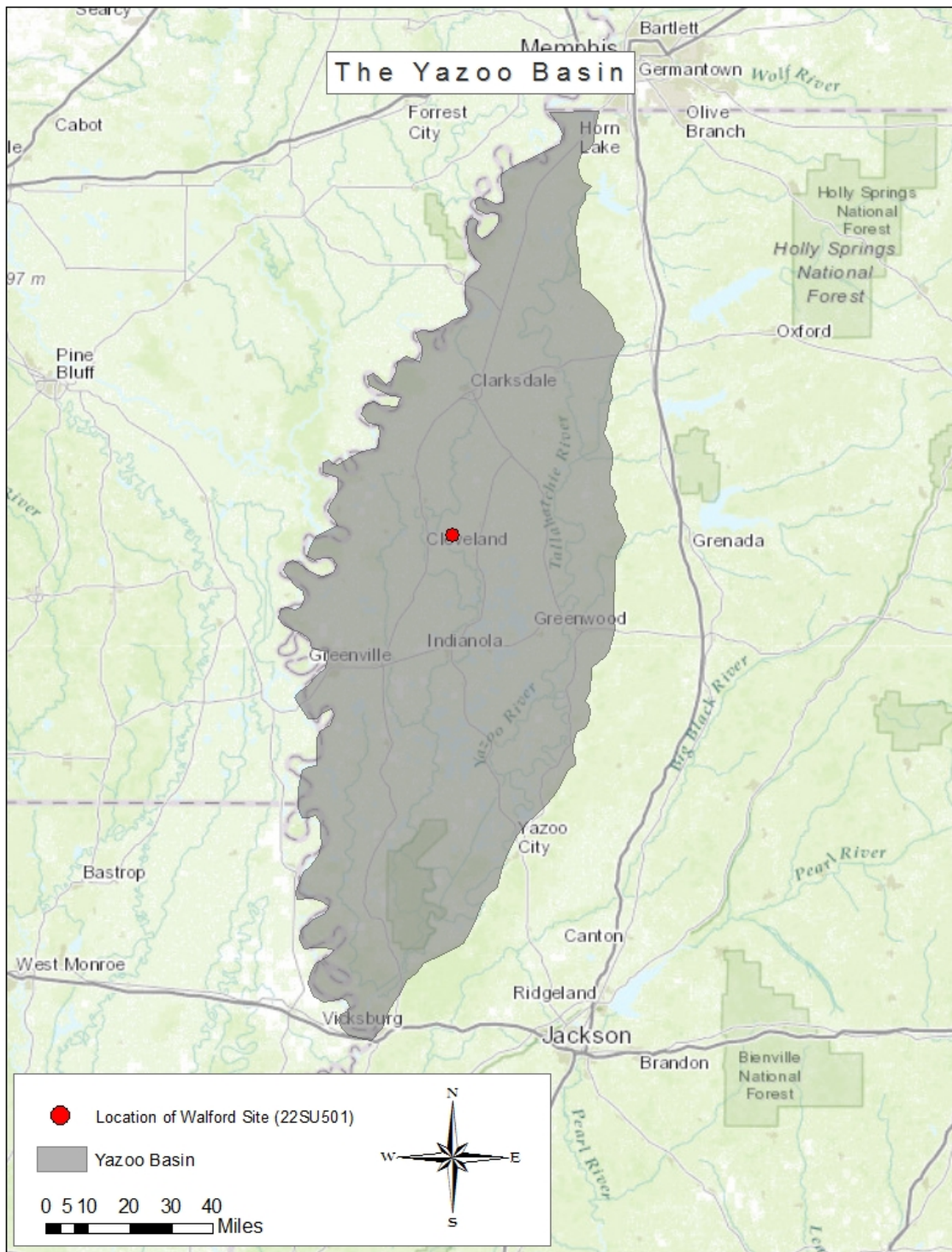


Figure 5. Location of Walford within Yazoo Basin

Prior to the late nineteenth century, the land across Mississippi was thickly forested. With modern agricultural practices came the mass clearing of the forests for open fields. Although the environment has changed dramatically over the centuries, many site locations still maintain the agricultural advantage that gave rise to the first settlements. Modern farming techniques such as sheet irrigation and land leveling destroy many archaeological sites and features, leaving little information about their inhabitants.

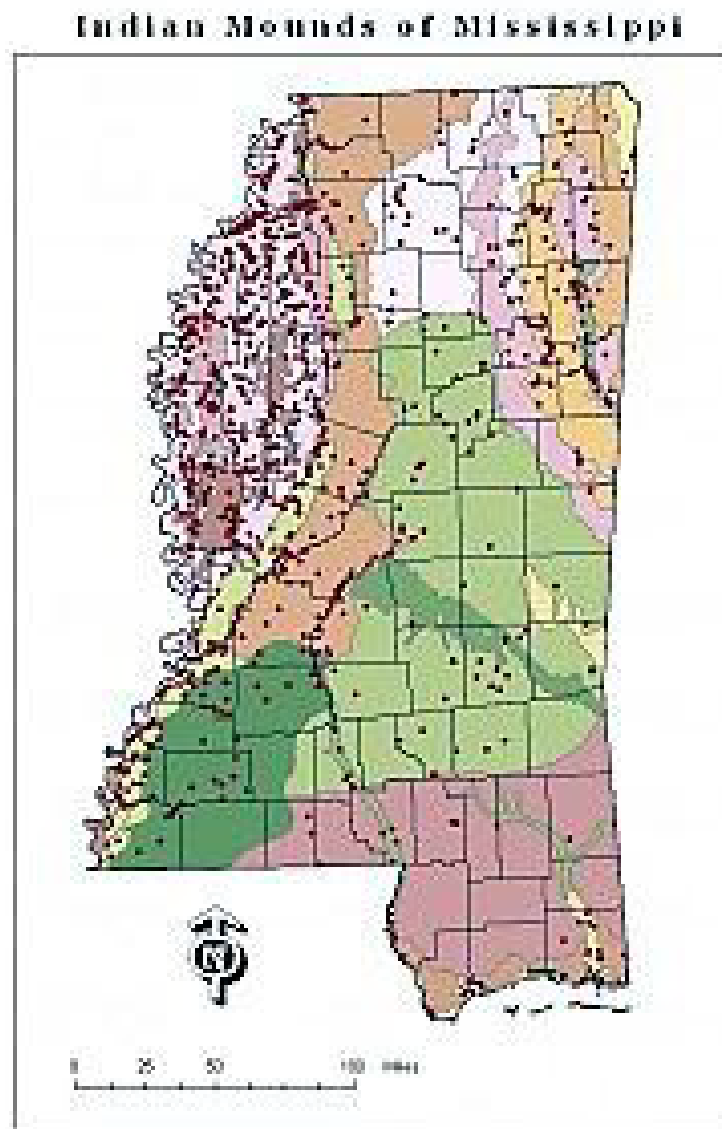


Figure 6. Mound Sites in Mississippi (MDAH <http://mdah.state.ms.us/new/preserve/archaeology>. Accessed 2/12/2014)

Figure 6 demonstrates how the rich soils and terrain have fostered societies for thousands of years. This area is home to one of the densest collections of mound sites in the Southeast. Mississippi is composed of large swaths of land well suited to agriculture, formed from the floodplains of the various large rivers. Years of sediment accumulation have left deep rich soil in the river basins, including what is now called the Yazoo Basin (Figure 4). The flooding of the rivers and the new and abandoned meander belts have formed a landscape of high sandy point bars and backwater marshes. While the sandy points leave well drained areas above some annual flood levels, the backwater areas consist predominantly of thick clays with poor drainage and mixed environments for farming. Silty areas well-suited for crops can quickly merge with marshy areas too wet to support most cultivated crops (USDA 1952:17-18).

Pre-Contact records describe dense forests across Mississippi. “The region was a frontier of Native American settlements in an area that has been characterized as an untamed, Edenic wilderness” as well as a “watery wilderness” (Mehta et al 2012:1). The Yazoo Basin experiences a warm temperate climate and high annual rainfall that caused frequent flooding events before the construction of modern dams and levees (USDA 1952:13-17).

The wildlife available to prehistoric people were numerous and varied. Deer were prevalent, and their remains are found often in prehistoric middens. Squirrels, rabbits, opossums, raccoons, otter, and other small mammals are common as well. Large predators included bears, wolves, foxes, bobcats, and cougars (USDA 1952). The numerous rivers have long attracted game and migratory birds, as well as providing excellent fishing resources. The remains of many of these food sources are found at Walford and other sites.

The combinations of good soils, agricultural opportunities, hunting and fishing

resources, and river access made life in prehistoric Yazoo Basin feasible and prosperous, leading to its distinction as one of the densest collections of archaeological sites in the prehistoric Southeast. The land remains a bountiful habitat, and the natural advantages for prehistoric people continue to serve modern populations. Archaeologists are now struggling to save and record many of the sites in this area.

3.1 Previous Research

The earliest record of Walford comes from a site map in the Peabody Museum records. This early map is cited as originating from "Smith 1911:Sheet 4" (Figure 7) in the report by the Army Corps of Engineers. This map also labels the Walford property as the Bony Parker Place, with the Sunflower Plantation to the east and the Powell Place across the river to the south. Some way down the river on the same northern/eastern bank, there is a property labeled on the map as W.S. Campbell, which may indicate some ties with the Campbells buried in the historic cemetery on Walford's riverbank. Subsequent maps have labeled Mounds A and B "Indian Mounds." This includes the 1966 Merigold 7.5' and the 1968 Mound Bayou 15' quads, though the label was not included on the 1939 Mound Bayou 15' quad.

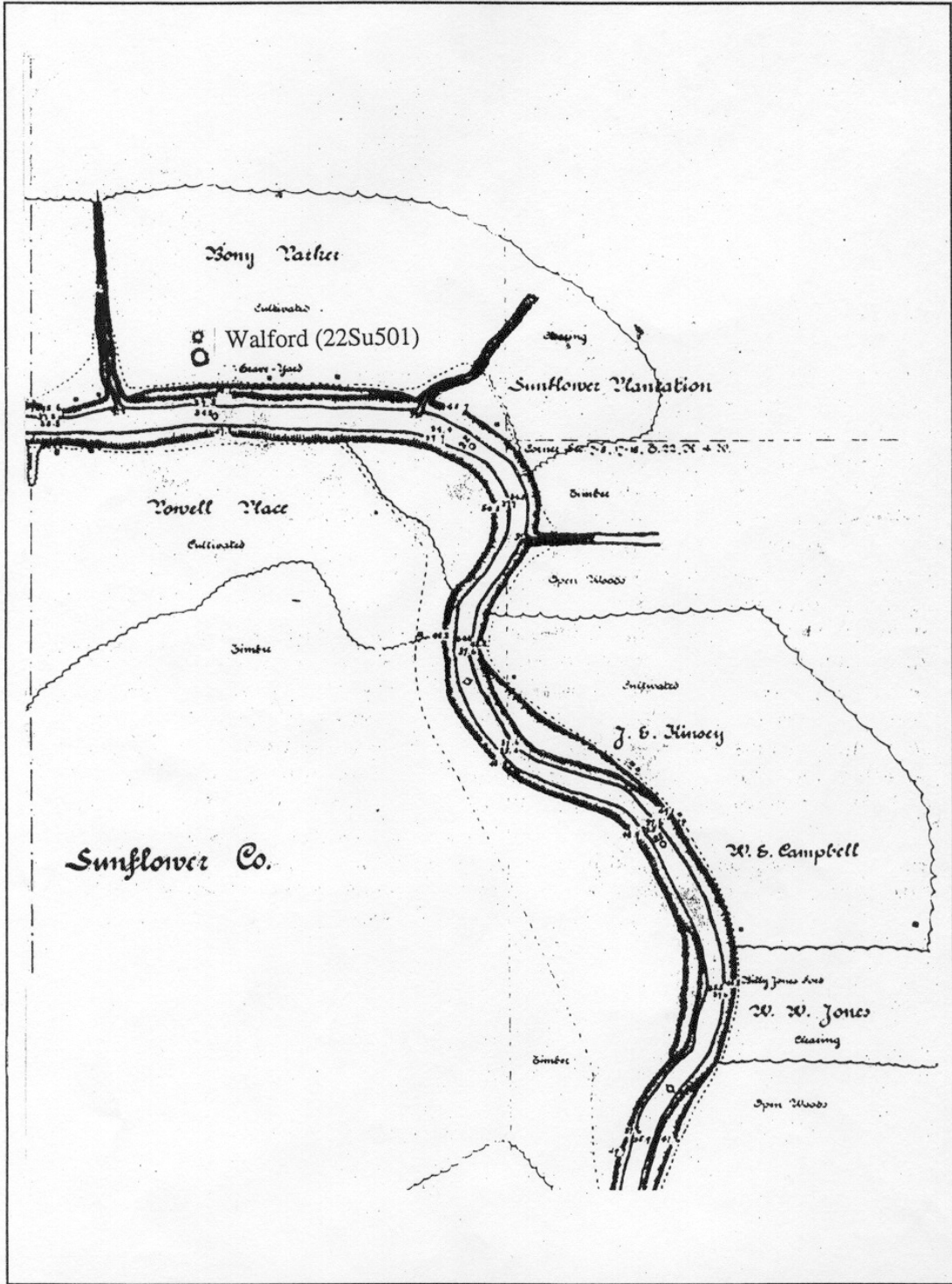


Figure 7. Corps of Engineers Map of Smith 1911 (Connaway 2014: personal communication)

The earliest information on Walford originates from the Peabody Museum's survey, which compiled a brief but informative summation in the *Survey of the Lower Mississippi Valley*. Walford is included under 'Small Ceremonial Centers' and is assigned the second site number in area 17-N, and is described as having been occupied for a short range of time. It is listed as having a plaza 400 feet long and oriented to the east. Two mounds are listed, with the first being 10 feet tall of an unknown type, and a second that is possibly rectangular. No other remarks of daub or refuse are recorded (Phillips, et al. 1951:320). An early chart in Phillips, et al., describes Walford as a "large village site with large and small mounds" (1951:55). This description would place Mound B, the central of the three mounds identified in this thesis, on the west end of the plaza as perhaps the principal mound of its time, based on Payne's (1994:97) analysis on central mound size and orientation.

Phillips' 1940 site form was updated by Brain in 1967. In the 1990s, the Army Corps of Engineers commissioned Panamerican Consultants to perform a survey of the Big Sunflower drainage. Documentary evidence for this report included the aforementioned Smith 1911 map and the more recent 2004 report on mound sites (Connaway 2014:personal communication). As of the Panamerican report in 2004 (Chapman et al 2004:375), the site was determined potentially eligible for listing on the National Register of Historic Places. The components for the site were listed as possible Late Archaic/Gulf Formational, possible Deasonville/Coahoma, undifferentiated Mississippian, and twentieth-century historic. Panamerican Consultants reinforced these conclusions, along with the National Registry eligibility. The plaza area and site limits were the major outcomes of these surveys, delineating a large area between the mounds (Figure 8).

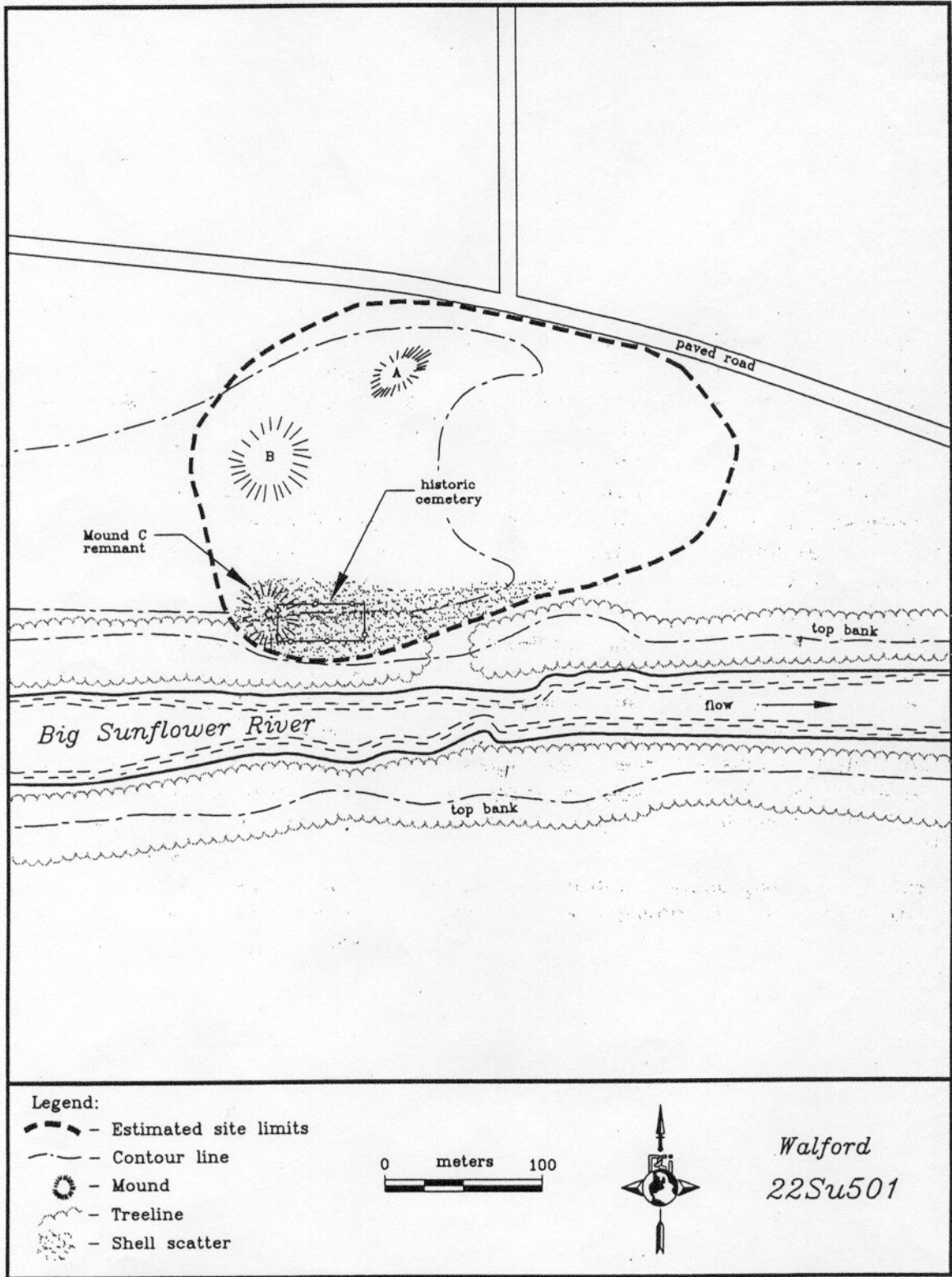


Figure 8. Previously Recorded Site Limits at Walford (Connaway 2014: personal communication)

These previous investigations at Walford produced two surface collections: LMS in 1951 and by the Panamerican survey published in 2004. One artifact tally sheet for the LMS surface collections exists, but results from Panamerican/COE collections are only available on compact disc along with a copy of the report. While the report was acquired for this study, the compact disc was not.

The surface collection from the LMS survey will be detailed in comparison with the excavated collection. The LMS collection was significant, with almost 900 sherds collected across the site surface. These ceramics had nearly equal representations of Woodland and Mississippian components, with Mulberry Creek Cord-Marked outnumbering Baytown Plain and extremely small amounts of Bell Plain. These ratios will be critical to the temporal phases at Walford. LMS also recorded areas of concentrations, with Mound B exhibiting heavy scatters of Baytown material, and largely Middle Mississippian materials near the riverbank.

3.2 Excavations

The first excavations at the Walford site began in 2003 as part of a mound preservation project by MDAH. Walford's owner Paul Gladden contacted the NRCS in Cleveland, Mississippi about the appropriate steps and procedures for preservation of the mounds during laser-guided land leveling. In the interest of preservation, Gladden contacted the Conservancy well in advance of any destructive activities.

The first visit to Walford by Cliff Jenkins, John Connaway, and Archaeological Conservancy Regional Director Jessica Crawford occurred on November 1, 2002. Excavations at the site began the next autumn, in October and November of 2003. From 2003 to 2007, excavations, geophysical survey, and monitoring were performed when possible with the

permission of the landowner. The land leveling of the site actually aided investigations, bringing features closer to the surface and exposing many more in the process. The plowzone extended four to six inches below surface, and many of the features appeared at very shallow depths.

The Walford site takes up a relatively small amount of land, measuring 1230 x 820 ft. The three known mounds are labeled A through C from north to south, with Mound C on the bank of the Sunflower River. This bank forms a natural levee as the base for much of the site which continues onto a sandy point bar to the north. The LMS 1940 site form also noted that another mound may have existed in the wide raised area of land with dense shell midden along the levee containing the cemetery.

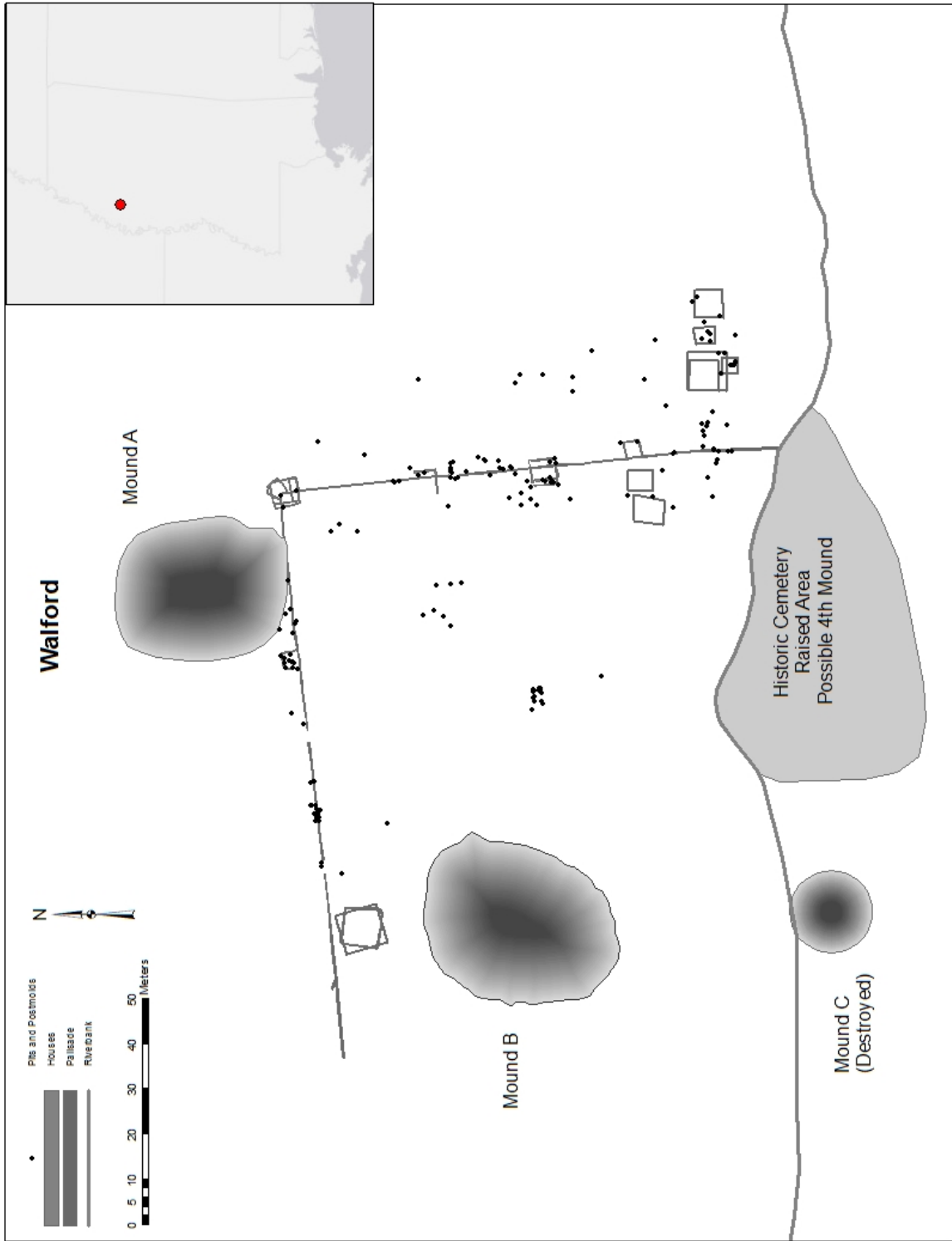


Figure 9. Excavated Extent of the Walford Site

Mound A is recorded in excavation notes (Connaway 2014:personal communication) as 130ft x 100ft, and 8ft high. Mound A's southern edge rests atop the eastern end of the north palisade wall (Figure 9). Mound B has a 120ft diameter and is 10ft high. This mound is completely enclosed by the palisade wall.

None of these mounds have been subjected to archaeological excavations. Some dismantling and disturbance of the mounds has occurred through the years, as one landowner was described as "gravel prospecting" with a backhoe into Mound B (Connaway, personal communication; LMS site file http://rla.unc.edu/archives/lms1/LMS_sitenames.html:accessed1/5/2015) that left a vertical profile in the side of the mound. A rough sketch map from excavation notes lists an adult human phalanx recovered "in back dirt from trench work" around Mound A on Dec 13, 2003. No more information could be determined however, and the possible human remains were not located within the collection.

Mound C borders the river, and appears to have been partially destroyed when the site was recorded in 1940. A map from the site card lists it as "1/2 md, 60' dia., 2' high" (Connaway 2014:personal communication). This mound is tentatively labeled conical in this study, and is of unknown origin (Figure 9). The mound has been completely destroyed and is currently indistinguishable from any other raised features along the riverbank.

A historic cemetery rests near the east corner of the excavation, and contains burials from the late nineteenth century (Figure 10). Copious amounts of cultural shell midden litter the Mound C site and riverbank, along with sherds and other artifacts washing out of the slope along the river.

The Peabody Museum site card for Walford labels this distinct area as "slightly elevated—

possibly former md. spread out” (http://rla.unc.edu/archives/lms1/LMS_sitenames.html). This presents the possibility of a fourth mound at the site.

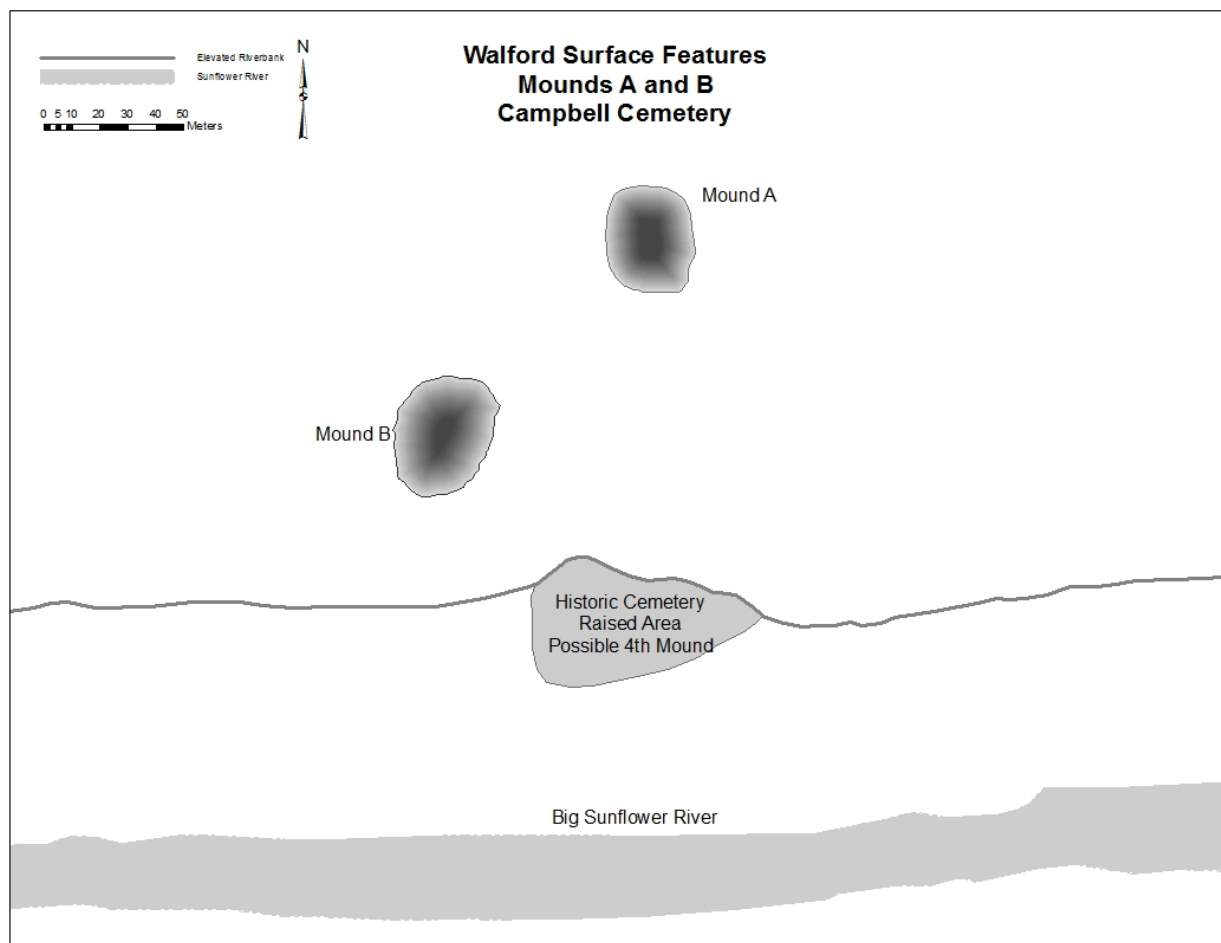


Figure 10. Campbell Cemetery and and Pre-Excavation Surface Features

Features uncovered during the recent fieldwork at the site included a palisade wall with bastions, postholes, wall trenches, seven houses, and pits. Although houses were identified, only a small amount of daub and evidence of burned floors were noticed in comparison to other sites in the area. This may be the result of previous land leveling disturbing the site. It is also possible that agricultural activities have destroyed other features.

3.3 Chronology

Certain markers point to Walford as a Mississippian site. Flat-topped mounds, while predominantly of Mississippian origin, have been constructed since the Archaic period. Assuming that the majority of palisades are Mississippian, the presence of the palisade wall beneath Mound A, and existing prior to it, would conclusively date Mound A as Mississippian. The locations of both are typical of a Mississippian settlement.

The extensive Mississippian occupation seen through habitation does not coincide seamlessly with the area enclosed by the palisade. There may be several reasons for this shift. Mississippian groups could have arrived to reoccupy an area, and defended a small space that later expanded. This would presumably have left evidence of Mississippian occupation contemporaneous or preceding the palisade. Early occupations could have had perpetually limited populations, and built the palisade before a significant Mississippian expansion. The need for a protected space could have arisen at any point in an occupation and required the zoning of defended space. Without knowing the western extent of the palisade, it is difficult to know what emphasis to place on the mound group perimeter. What can be concluded is that some area to the west was the focus of early groups, and for some unknown reason, when all or additional mounds were built, they were formed on the most eastern extent of this area and formed an east-facing perimeter. These theories will be examined after a conclusive analysis of the palisade.

CHAPTER 4

METHODS

4.1 GIS

The GIS model that was built for the Walford site was a compilation of feature sketches, site maps, government imagery, quad maps, and remote sensing data from geophysical and Total Station surveys. Overview maps of the Walford region were downloaded from Mississippi Automated Resource Information System (MARIS) and USGS, along with site files from the Mississippi Department of Archives and History. General topographic, aerial, LIDAR, historic and other maps are available from these and other sources, and offer an abundance of data regarding land use, terrain, and nearly every other type of information available from the last eighty years. Historic photos provided evidence of the two standing mounds at Walford. The state of destruction and low height of any other mounds may have prevented their identification in historic records other than archaeological survey maps. For this reason, research will be limited to previous archaeological surveys.

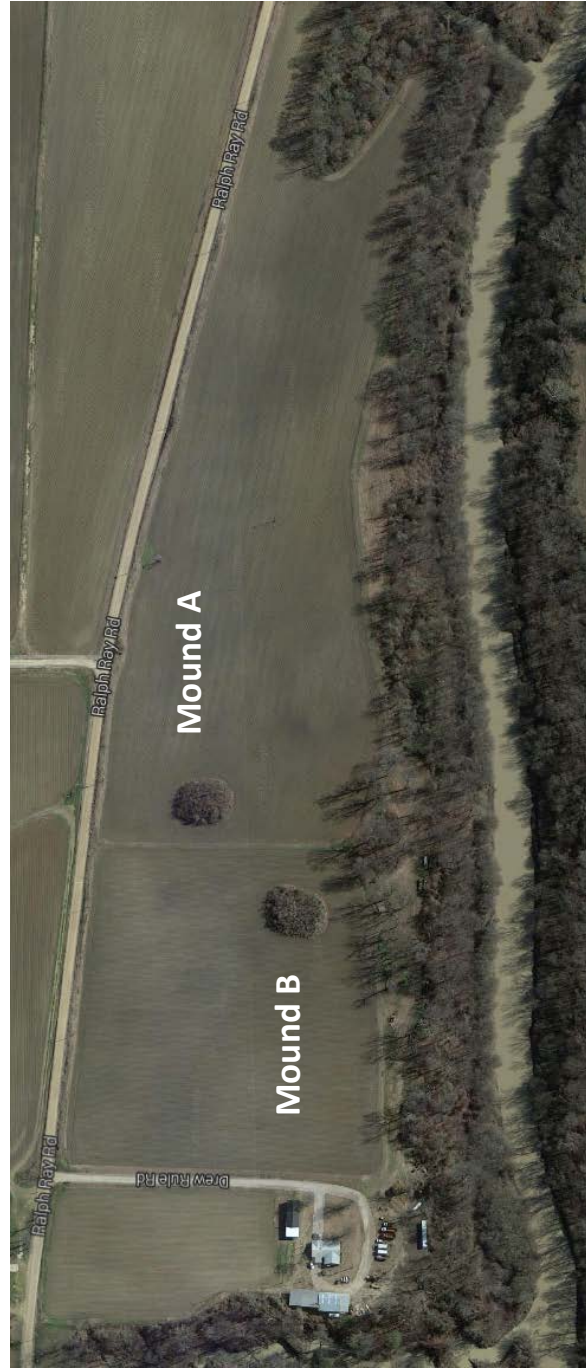


Figure 11. Aerial photograph of Walford

(Google Maps, 2014 Digital Globe, USDA Farm Service Agency, Map data, accessed 10/14/2014)

A contour map derived from a total station survey done by Bryan Haley displays an excellent map of Walford's terrain in 1/4m detail (Figure 12). The surveys were conducted during the monitoring of the land leveling, following archaeological excavations. The features shown on this map were recorded with a Total Station, but were not otherwise recorded or excavated.

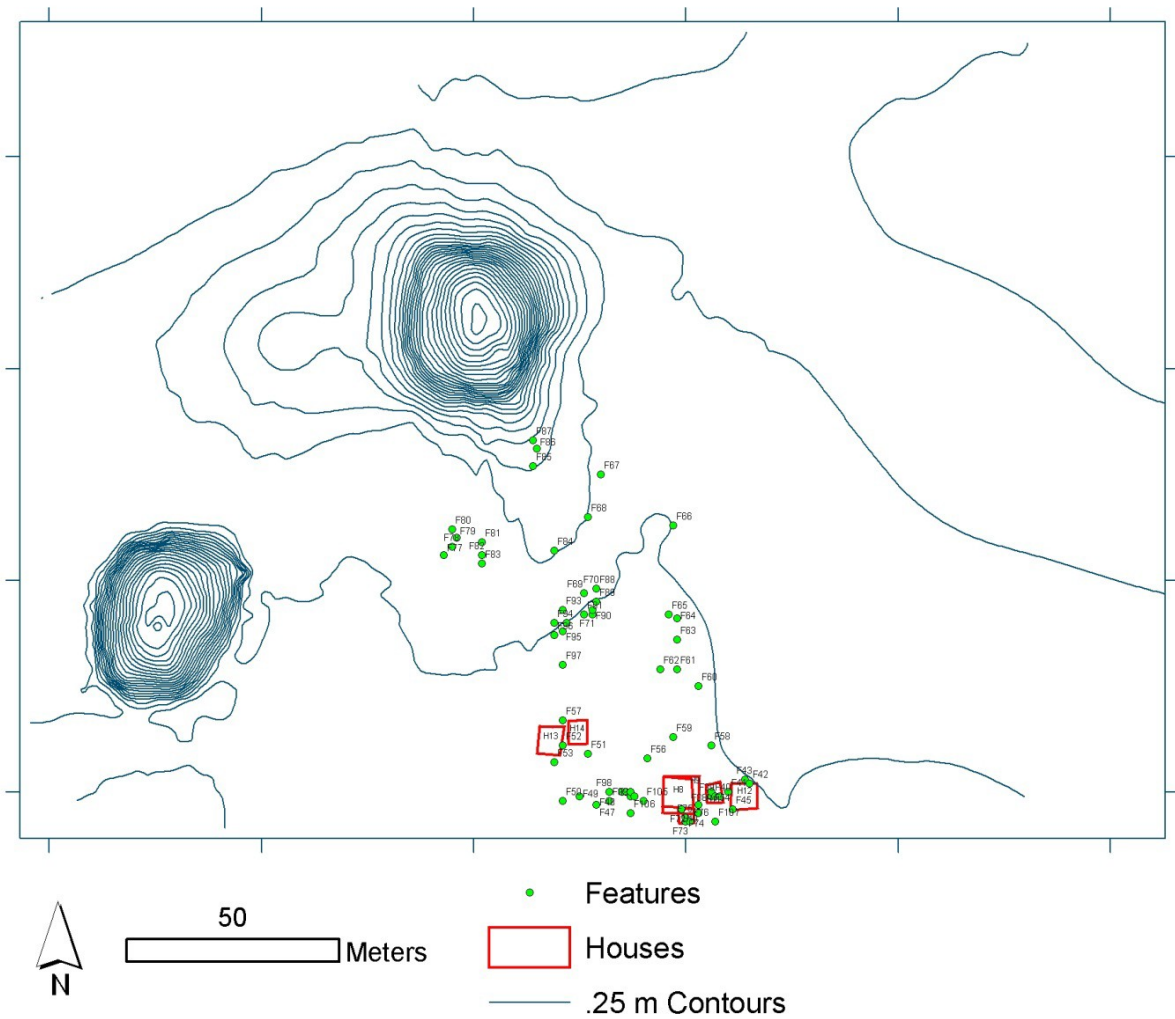


Figure 12. Haley 2004 Contour Map of Walford with Total Station Data

As part of the salvage excavation, Haley conducted a remote sensing survey of a 40m by 80m area of the site using magnetic gradiometry, magnetic susceptibility, and conductivity (electromagnetic) techniques. These methods detected magnetic variability in soils, including relatively small variations. Soils magnetically realigned by activity such as fire in hearths or burned structures, along with ditches, pits, and fill, create dipolar and monopolar anomalies in gradiometer images that form distinct patterns. Figure 13(below) shows a portion of this data from an unknown 40m by 80m area. Other photocopied pages from excavation notes show an even larger area surveyed using a gradiometer that included most of the site area delineated by previous surveys. The original plan for this data was for the identification of shallow subsurface features that could be easily identified and excavated. With enough ground-truth results of this digital data, the wider survey results could have been used to identify shallow subsurface anomalies that were beyond excavation limits, but were destroyed during land leveling.

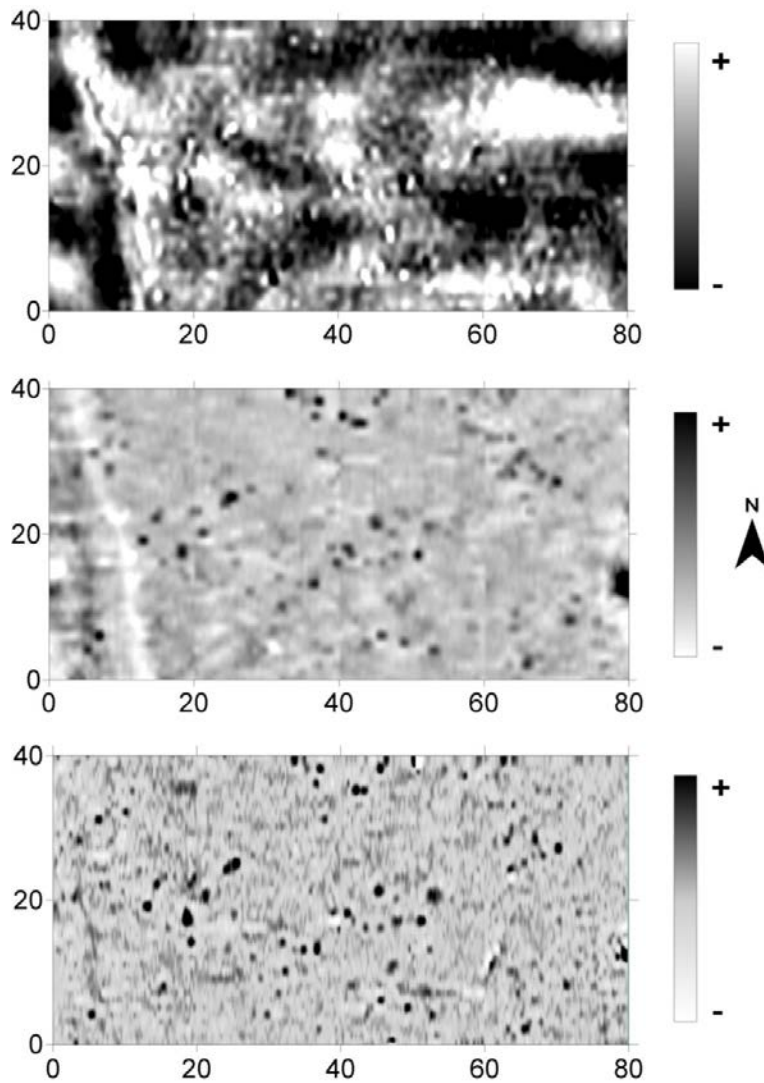


Figure 13. Electrical Conductivity, Gradiometer, and Magnetic Susceptibility

For this analysis, the resulting images were imported into ESRI ArcMap and georeferenced. Many issues were encountered during this process. Because of the nature of the excavation and the time between excavation and analysis, the surveyed areas were no longer associated with a fixed datum. Manual manipulation attempted to orient the geophysical data with recorded features; however, the information available was too vague to place the data with any certainty. Below is a map of the assumed location of the geophysical survey, based on the data.

Larger areas of gradiometer surveys, from a 100m x 200m and most of the area between the mounds, were known to have been performed the following year. This data was not recovered digitally, but only on paper photocopies from excavation notes. These paper records were of too poor quality to analyze.

The foundation for the GIS maps at Walford remained the site sketch and excavation records. Site sketch maps serve as invaluable analog resources in the digital age. Provided with a permanent datum, a standard sketch map can be used to recreate the location and shape of any given feature at an excavation. All features at the site were recorded using a single datum. Using the GPS coordinates of the datum and X, Y coordinates of each feature, the site map could be georeferenced and related to satellite and digital elevation images. The combination of fine details from excavation, and large overview of landscape data provide a more comprehensive picture of how the site related to its setting. However, even these records have faults, as they are prone to human error. The site sketch shown below is one such example, where feature alignment has been skewed to depict Houses 8-14 as a single line, rather than the offset data recorded digitally. The position of House 4 was also problematic during this analysis, as site sketches placed it north of House 5, while detailed plot maps placed it even with Houses 13 and 14. The discrepancies were resolved by deferring to the plotted maps.

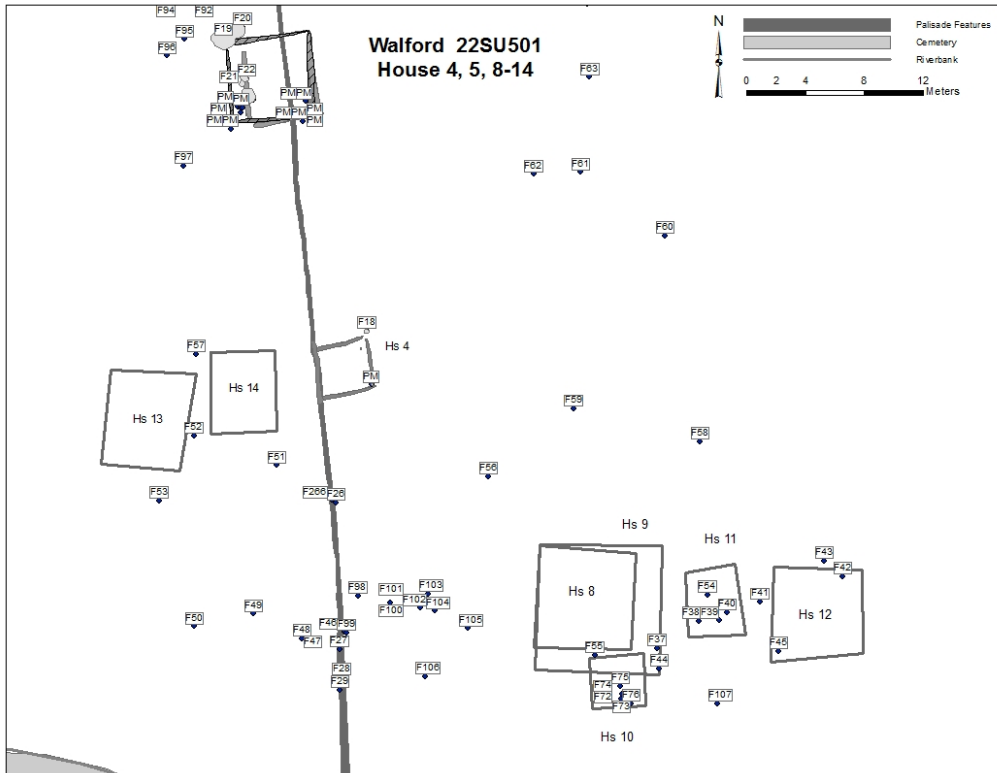
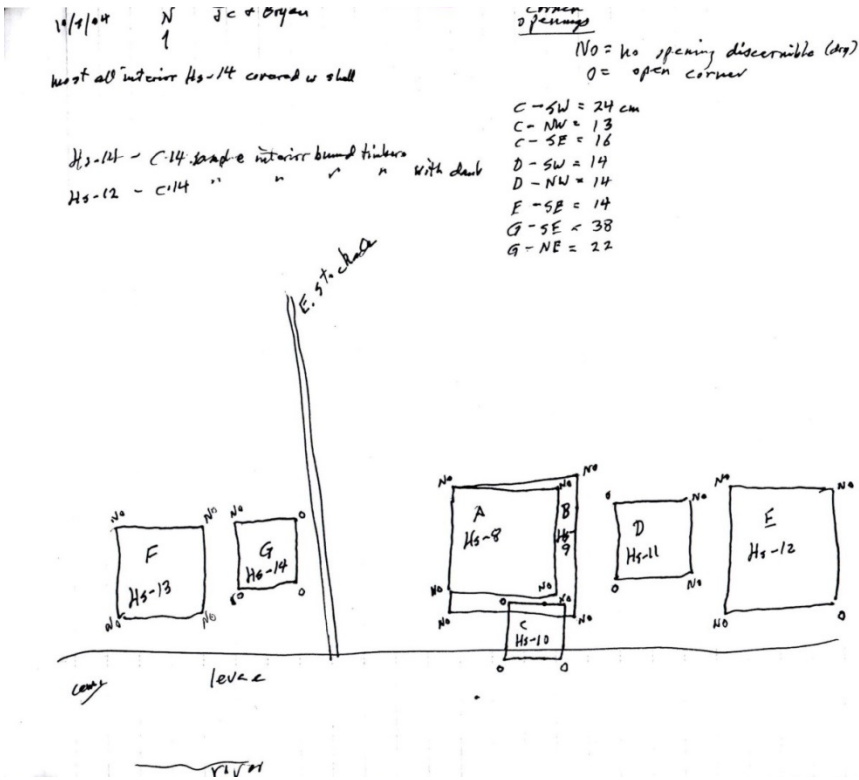


Figure 14. Site Sketch of Houses 8-14 vs GIS Maps

Feature Analysis

The GIS portion of the Walford analysis focused on spatial patterns, untangling intersecting features from excavation in order to create maps of temporally distinct occupation of the site. These chronological stages were based on intersection and ceramic artifacts. The analysis of the spatial distribution of ceramics is challenging since most archaeological debris is composed of trash deposited in refuse pits away from the areas of human occupation. Refuse areas may overlap with other occupation areas when temporally separate occupations are not spatially distinct. Without abrupt abandonment or intentional placement (e.g. burial goods), most cultural debris is likely to have been removed from its area of manufacture or use to some degree.

As with all archaeological analyses, these factors do not prohibit spatial analysis as long as their limitations are taken into account. Like most archaeological sites, Walford is not pristine, and a large percentage of its ceramic collection originated from surface collections churned up by agricultural processes. It is also common among ceramics collected during these surveys to find small numbers of complete or easily identified vessels. Using dates from types is still possible in such cases, but only on a general level.

4.2 Ceramics

The Walford artifact collection from MDAH excavations were curated at MDAH headquarters in Jackson, Mississippi and the Clarksdale office. The archaeologist and collections manager, Patricia Miller-Beech, at MDAH allowed access to the collection, and offered invaluable assistance. The collection required processing, re-bagging, and analysis for this thesis.

Due to time constraints and the primary focus of this thesis, not all components of the collection were analyzed. Lithics, faunal remains, and shell artifacts were only catalogued. In an effort to maintain the original integrity of the collection, artifacts were sorted into separate bags based on types. These bags were placed back in the original bags with all identifying information. Simple curation methods were applied such as replacing degraded bags and relabeling them with all the original information. This analysis added a separate bag number to the corner of the artifact bags for ease of reference. Several of the recorded pit features are not represented in the collection. Whether this was because the features lacked artifacts, were not excavated, or the material has been lost cannot be determined. Some bags that were not analyzed in the initial analysis were later recovered and analyzed by John Connaway. All of available material from the excavation was included in this current collection.

Ceramic Analysis

The ceramic analysis primarily focused on cataloguing certain features for each sherd, and establishing a system for statistical and spatial analysis. The method used to record all-important characteristics of each ceramic artifact was developed with the assistance of University of Mississippi graduate student Travis Cureton.

All of the types used in the analysis were based on Philip Phillips 1970 *Archaeological Survey in the Lower Yazoo Basin, Mississippi, 1949-1955*, with reference to Phillips, Ford, and Griffin's 1951 *Archaeological Survey in the Lower Mississippi Alluvial Valley, 1940-1947*. The analysis included all sherds larger than the size of a U.S. quarter dollar to ensure that major ceramic types, such as Baytown Plain, would not be overrepresented due to limited surface area for decorative identification. Sherds were not weighed due to lack of resources at

the time of analysis.

During the analysis, individual sherds were assigned a five or six digit code that described the sherd's unique characteristics. According to this method "the resulting ceramic code is able to describe any sherd in the assemblage according to type, variety, vessel region, and surface treatment with one number" (Cureton 2011:1). This way each ceramic could be quickly identified by surface treatment and the subsequent type (and possible variety), while also compiling lists on numbers of rims, bases, body sherds, and ceramic variations for later verification. Such a code is simple while extremely descriptive. The code allows any future study of the collection to be conducted without necessarily needing to reanalyze the ceramic in question. Along with the recording of these codes, dimension (and, when possible, vessel diameters) were recorded for each sherd, making sherds individually identifiable.

Figure 15 shows a chart with all of the elements represented by the code in the Walford ceramics study. Following this chart, Figures 16, show all the elements of a Marksville Stamped *v. Troyville*, along with the represented sherd. The ceramic is a rim, with stamped surface treatment and a temper containing small grog inclusions.

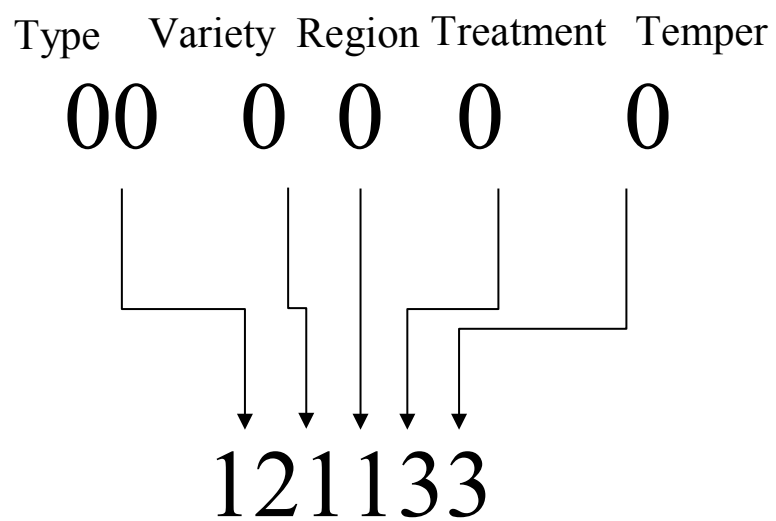


Figure 15. Code system for ceramic analysis



Figure 16. Marksville Stamped v. Troyville Sherd

Table 1 below outlines all the various types, varieties, vessel zones, decorative types, and tempers described by the code system.

Table 1. Sherd Codes for the Walford Site 22SU501

Code	Type	Variety	Code	Region	Code	Treatment	Code	Temper
10000	Baytown Plain	<i>Unspecified</i>	100	Rim	10	Cordmarked	0	None
11000	Baytown Plain		200	Body	20	Punctated	1	Clay
12000	Baytown Plain	<i>Reed</i>	300	Base	30	Incised	2	Sand
20000	Bell Plain				40	Smoothed	3	Inclusions
30000	Coles Creek Incised				50	Eroded	4	large incl
40000	Larto Red				60	Impressed	5	Shell
50000	Mulberry Creek Cord Marked	<i>Unspecified</i>			70	Notched	6	Sand/fiber
51000	Mulberry Creek Cord Marked	<i>Edwards</i>			80	Painted		
52000	Mulberry Creek Cord Marked	<i>Porter Bayou</i>			90	Slipped		
53000	Mulberry Creek Cord Marked	<i>Smith Creek</i>						
60000	Nodena Red and White							
70000	Parkin Punctated							
80000	Mississippi Plain							
90000	Old Town Red							
100000	Hollyknowe Ridge Pinched							
110000	Marksville Incised							
121000	Marksville Stamped	<i>Troyville</i>						
130000	Evansville Punctated	<i>Braxton</i>						
131000	Evansville Punctated							
140000	Alligator Incised							

While the last characteristic of “temper” may seem self-explanatory based on type, it exists mainly for those sherds that remained *var. Unspecified* (not assigned a variety), and for any possible future reconsideration of types. The temper codes used in this study are incomplete, as grog or stone inclusions were generalized to large or small characteristics due to a lack of a lit microscope. Some specific variations are based on temper of “large, angular inclusions” that were easily differentiated, and simply labeled as temper type four. Shell was also generalized, as the small amount of Mississippian material did not have any fine shell temper consisting only of shell less than 2-4mm. Most shell tempered plain ware contained pulverized shell with larger pieces liberally intermixed. These coarse plain sherds were all categorized as Mississippi Plain.

Record sheets were used to keep sherd codes with their corresponding feature code. This feature code kept counts of sherds per feature as well as their assigned descriptive sherd codes. Feature codes were simple feature-herd correlations such as 12-001, 12 indicating the archaeological feature, 001 the sherd. This feature code was also used to record sherd measurements. Photo logs and artifact sketches were also examined for the analysis.

Rim shapes, handles, vessel types and other ceramic characteristics were noted along with the ceramic analysis. Sherds were most commonly restricted to plain or cord-marked types, with appliques, handles, and other features being extremely rare or singular. This analysis method will be demonstrated in Chapter 5 along with the typological results.

CHAPTER 5

CERAMIC ANALYSIS

Introduction

For this thesis, the analyzed ceramics came from the MDAH excavation collection. This collection included 1,571 ceramics, 217 animal bones, one Poverty Point object, and 23 lithic artifacts, including two projectile points. Non-ceramic artifacts were noted and tallied, but were not considered in this analysis. This chapter includes a discussion of represented ceramic types, surface collections and subsurface contrasts, and finally a whole-site analysis of feature chronology.

Temper types recorded in this analysis included clay, sand, grit, grog, shell, and a porous/fibrous combination that led to the occurrence of extremely lightweight Woodland sherds. Grit and grog tempered combinations were also present though uncommon.

Body sherds included all sherds not identifiable as rims or bases, and included many shoulder sherds. A total of 254 rims were identified in the analysis, four of which included handles. Twenty-seven bases occurred in the collection with a wide variety of forms including flat, round, six-sided, and footed. Bases were not entirely identifiable, especially for some types such as Baytown Plain, where commonly rounded bases formed homogeneous thickness and features across the entirety of the vessel. This led to the unavoidable inclusion of many round base sherds as body sherds.

Thirteen ceramic types were identified. This included seven Woodland types and six Mississippian types. Eight sherds were indeterminate, six of which were classified indeterminate incised and two indeterminate punctated. These types and their quantities are outlined in Table 2 below.

Table 2. Results of Ceramic Analysis

Period	Type	Count	Percent of Period	Percentage of Total	
Woodland Types	Alligator Incised	6	0.42%	0.38%	
	Baytown Plain	567	40.04%	36.09%	
	Coles Creek Incised	2	0.14%	0.13%	
	Evansville Punctated	5	0.35%	0.32%	
	Hollyknowe Ridge Pinched	1	0.07%	0.06%	
	Larto Red	12	0.85%	0.76%	
	Marksville Incised	5	0.35%	0.32%	
	Marksville Stamped	1	0.07%	0.06%	
	Mulberry Creek Cord-Marked	817	57.70%	52.01%	
	Total		1416		90.13%
	Mississippian Types	Mississippi Plain	144	97.96%	9.17%
		Mound Place Incised	1	0.68%	0.06%
Nodena Red and White		1	0.68%	0.06%	
Old Town Red		1	0.68%	0.06%	
Total			147		9.36%
Indeterminate Types	Incised	6	75%	0.38%	
	Punctated	2	25%	0.13%	
	Total	8		0.51%	
Grand Total		1571		100%	

The large variety of Woodland ceramic types in this analysis suggest a long Woodland occupation at Walford, particularly during the Middle and Late Woodland period, followed after a possible break by a Middle to Late Mississippian occupation. Figure 17 demonstrates the timeline displayed by the represented types.



Figure 17. Chronological Relationship of Identified Types

5.1 Types

The most common ceramic types recovered from Walford included Baytown Plain, Mulberry Creek Cord-Marked, and Mississippi Plain. A large majority of the decorated sherds date to the Woodland period, such as Larto Red Filmed. Other types were also encountered at Walford in varying quantities.

Phillips (1970 Vol I:47) differentiates Baytown Plain varieties by temper. These varieties included McKelvey, Coles Creek, Troyville, Marksville, Haynes Bluff, Addis, and Fatherland Plain. The identification of variety was also based on specific vessel and rim forms. Phillips (1970) describes the wide time span and area occurrence of Baytown Plain and calls it a ceramic super-type. This super-type was supposed to stand until “such a time as technological studies can provide criteria of paste and manufacture that will enable sorting without reference to modes of vessel shape, rim treatment, and so on,” (Phillips 1970 Vol I:48) but Phillips despairs of that in 1970 “because it appears that characteristics of paste in ‘clay-tempered’ pottery are more environmentally than culturally determined” (1970 Vol I:48).

Shell tempered sherds fall into two major supertypes based on temper size. Mississippian Plain includes all coarse shell-tempered types and Bell Plain was reserved for fine shell temper. Bell Plain is often burnished. Phillips defines varieties for these types but, as with Baytown Plain, these varieties were not used in this analysis.

5.2 Woodland Ceramic Types

Alligator Incised

Six Alligator Incised type sherds were present, two rim sherds and four body sherds. These sherds closely resembled illustrations from Phillips' Alligator Incised *v. Oxbow* (1970 Vol I:39). Thin incised lines appeared to have been randomly applied across the exterior surface, some lines connecting and some not. This fulfilled Phillips' description as a "disorganized" decoration (1970 Vol I:39). Vessel forms were inconclusive for all but one rim sherd from a small diameter jar, found in a general surface bag near the riverbank.

This type dates to the Middle Baytown period, and was found in many areas of the site. Proveniences included all areas of general surface collection, and one body sherd recovered from the excavation of the east half of Feature 25. Feature 25 was a pit located in the western gap of the northern palisade.

Baytown Plain

The 567 Baytown Plain sherds encountered at Walford included varieties *Reed* and *unspecified*, possibly *Sataria* or *Thomas*. The *Reed* variety would cover all Baytown Plain within the Deasonville component, with some occurrence before and after this period. This coarse variety was sorted predominately by extreme crudeness, along with a hard and bumpy surface. The temper was made up any manner of rough inclusions, primarily grog.

Baytown Plain was a predominant type in this study, with 101 rims, 447 body sherds, and 19 bases. Baytown Plain was second in incidence only to Mulberry Creek Cord-Marked sherds, with both types accounting for over ninety percent of the MDAH Walford collection. Much of the Baytown Plain encountered in this study remains *var. Unspecified* due to the trouble of differentiating many of the Baytown Plain varieties (Phillips 1970:48). Many of the

varieties that do include specific ceramic characteristics are restricted to very limited geographical areas outside of the Yazoo Basin. Options for Baytown Plain varieties for this study included four varieties. *V. Fidler* was examined for its characteristics of clay temper, and vessels of bowls or jars with restricted mouths. *V. Reed* is described as the crudest of crude pottery: “coarse, thick paste with large angular inclusions that look like ground up sherds but are probably the result of careless preparation....crude bumpy surface, amorphous thickened rims, irregularly trimmed straps, wavy lips” (Phillips 1970 Vol I:53). *V. Sataria* was considered based on wall thinness and beveled interior rims. Due to Phillips (1970 Vol I:47-57) repeated emphasis on the difficulty, or very near impossibility, of sorting Baytown Plain varieties, much of Walford’s Baytown Plain sherds have remained *v. Unspecified*. Bowls were the most common recognized vessel for this type, with some jars and beakers also identified.

Baytown Plain exists across a large portion of Woodland culture, though for this study it has been assigned more specifically to Middle and Late Woodland eras. Baytown Plain was the second most common type encountered at Walford after Mulberry Creek Cord-Marked. The ubiquitous nature of plainware during the Late Woodland in the Yazoo Basin makes it unsurprising to find this type in nearly every feature.

Coles Creek Incised

Two sherds from this collection were identified as Coles Creek Incised. One rim sherd was identified as Coles Creek Incised *v. Blakely*. This rim showed five horizontal lines at regular spaced intervals on a possibly “polished” surface. The opening of the vessel was slightly constricted with a shallow angle inversion of the rim. This Late Woodland sherd was recovered as part of the surface collection.

The other rim sherd came from Feature 13, intruding on the palisade within the House

2 complex. This large sherd originated from a shallow bowl, with three thin, wavy, wide spaced horizontal line at varying distances from one another. This sherd exhibits thin .5cm walls with possible polish, and a thin, tapering rounded lip.

Evansville Punctated

The five body sherds of Evansville Punctated were divided between *v. Evansville* and *v. Braxton*. The one sherd identified as *v. Evansville* showed vertically oriented punctations that were widely spaced. Four *v. Braxton* sherds clearly displayed the linear cuneiform markings described by Phillips (1970 Vol I:79).

Phillips dates Evansville Punctated to the Late Marksville and Early Baytown Periods. These sherds were particularly concentrated in Pits 19 and 20, two apparently Mississippian pits intrusive into the northeast corner of House 5. House 5 was a square, wall trench structure built upon the east wall of the stockade.

Hollyknowe Ridge Pinched

One Hollyknowe Ridge Pinched rim sherd was encountered during this analysis. It exhibited the described pinched ridges all the way to the lip at a right oblique angle.

Phillips (1970 Vol I:89) considers Hollyknowe to be a Baytown type. This sherd was assigned a clear provenience in Feature 14.

Larto Red Filmed

Larto Red included 12 sherds, three rims, eight body sherds, and one base. Larto Red is a Woodland period type with clay and sand temper covered with red film. It was not possible to assign any of the Larto from Walford to a specific variety.

Larto Red occurs during the Baytown Period (Phillips 1970 Vol I:99). At Walford, the type was well represented across the landscape. This included many surface areas, Feature 1A,

Feature 19, Feature 25, and House 6 trench fill.

Marksville Incised

Marksville Incised sherds were characterized by curvilinear incisions made by a round or “u-shaped” implement (Phillips 1970 Vol I:111). These five sherds included three rim sherds and two body sherds. Two varieties of Marksville Incised sherds were found in the collection. Marksville Incised *v. Marksville* described one rim sherd exhibiting only curvilinear lines. Marksville Incised *v. Yokena* described one rim sherd with one horizontal line below the rim and a gap below.

The remaining three sherds formed an inconclusive combination of straight and curvilinear lines that remain *v. Unspecified*.

As the name may denote, this type dates to the Middle to Late Marksville Period. The three rim sherds found originated from general surface or unlabeled artifact bags, while the only known provenience was from Feature 19.

Marksville Stamped

Only one stamped sherd was encountered during analysis. The parallel incised lines on this rim contained the distinctive rocker stamping of Marksville Stamped *v. Troyville*. The sherd consisted of Baytown Plain-style tempering and a rounded rim lip. Marksville Stamped *v. Troyville* occurs in the Middle to Late Marksville period (Phillips 1970 Vol I:127).

Mulberry Creek Cord-Marked

As a super-type, Mulberry Creek Cord-Marked had a ubiquitous presence in the Baytown Period. A total of 817 sherds were recovered: 120 rims, 692 body sherds, and five bases, including one six-sided base. The occurrence and prominence of Mulberry Creek Cord-Marked (MCCM) was attributed to methods of ceramic manufacturing. Paddle-formed pots

and vessels retained the distinctive and often haphazard markings of the cord-wrapped paddles across the exterior surface. Many plain or otherwise decorated vessels were formed through paddling and were subsequently smoothed over.

Cord-marking as a decorative effect was identified in this study as MCCM *v. Smith Creek*. This variety usually identified on the basis of rims, where precise placement is easily identified. MCCM *v. Smith Creek* contained 21 sherds, with 16 rim and five body sherds.

MCCM *v. Edwards* applied to MCCM sherds that exhibited Baytown Plain *v. Reed*-style rough temper of large angular inclusions. This temper was also present in MCCM *v. Porter Bayou* sherds, though in this study the emphasis on a sand temper defined this variety. MCCM *v. Edwards* sherds accounted for 345 of the 794 MCCM sherds, 39 of which were rims, 305 body sherds, and 1 base. MCCM *v. Porter Bayou* accounted for 44 sherds, 2 of which were rims and 42 body sherds.

5.3 Mississippian Ceramic Types

Bell Plain

Bell Plain is conspicuously absent from this assemblage. However, as a type, it is not well represented in the 1940, LMS surface collection, accounting for only 3.2% of a relatively large collection of shell tempered ceramics. It may be present in the small sample of shell tempered sherds from the MDAH excavations without the defining burnish, or the absence is a result of sampling bias.

Mississippi Plain

In this assemblage, Mississippi Plain included all shell tempered plain sherds without burnish. This included 144 total sherds: 18 rims, 124 body sherds, and two bases. This study

did not assign varieties, as all varieties of Mississippi Plain outlined by Phillips that can be sorted are limited geographically to areas outside of the Yazoo Basin. The probable variety for the Walford collection would be *v. Yazoo*, simply since it is the only available type for the region. This variety still lacks any other definable features. This non-distinctive type dates throughout the Mississippian period.

Mound Place Incised

The Mound Place Incised sherd was a rim that displayed common Mound Place characteristics, with a slightly everted or straight rim, a beveled rim interior, and three incised horizontal decorative lines. This sherd originated from surface collections, and dates to the Late Mississippian period.

Nodena Red and White

The red and white slipped decoration present on this single sherd divided it evenly into halves. This small sherd only barely fulfilled the size requirements for this analysis. The sherd had all of the characteristics of Nodena Red and White, but the limited sample size did not comfortably lend itself to a specific variety. This sherd represented the latest date in the collection, Terminal Mississippi and Contact periods. The location of this sherd is in question, as the artifact bag was merely labeled “West end of Stockade trench.” It is unclear whether this was from the surface, trench fill, or a midden associated with the trench. Also, a conclusive west end of the stockade was never found. It may have originated from the gap on the north wall, and been assumed a termination at the time of excavation.

Old Town Red

Although two red slipped Mississippian sherds were encountered during the study, only one was given the assignation of Old Town Red. It is not uncommon for similarly

decorated sherds to be classified as different types simply from lacking the correct colors or applique; e.g., an Old Town Red may originate from a Nodena Red and White vessel, but the sherd exhibits only the area with red film. Similar context or refit is the only way to exclude such possibilities. The two shell tempered red slipped sherds are very similar and exhibited a thickness of 0.60 cm, though one sherd was red and one displayed both white and red decoration. This left one sherd with the classification of Old Town Red, and the other as Nodena Red and White. This Mississippian era body sherd originated from the surface near the riverbank.

5.4 Indeterminate Sherds

Indeterminate Incised

The only indeterminate rim sherd appeared simple, with a slightly inverted form. Unknown incising of a smooth instrument composed only two lines on the exterior of the sherd, with large lines nearly 1 cm wide. The incising lines are wide, deep, and clean with a left oblique angle vertically across the sherd. The sherd was of probable Woodland origin, with small grog temper inclusions. This sherd originated from the surface collection.

One grog and two sand tempered sherds from Feature 1A make up part of the indeterminate incised. Their placement as body sherds, with an unknown rim association, was the determining factor behind their Indeterminate status. All three were of probable Woodland origin, with light, thin incising. Two sherds have trailing horizontal lines that do not quite meet at the ends, instead overlapping above or below. The third sherd has two wide set parallel lines. Coles Creek Incised, Alligator Incised, and Marksville Incised types were all considered for these sherds, with no definitive conclusion. All three sherds came from Mississippian pit

Feature 1A located just east of Mound B. This indecision also applies to the fifth Indeterminate sherd from Feature 1, with a single well defined line across a body sherd and a light porous temper.

The last indeterminate incised sherd originated from a pit near a gap in the northern palisade wall. The small size of the sherd made positive identification doubtful, with a single well defined line running across the surface of the sherd, and two parallel lines extending from one side of the former line at a perpendicular angle. The closest association of this decoration to accepted types would be Winterville Incised, though this sherd's temper of small grit inclusions did not fulfill other necessary characteristics. Marksville Incised was also discounted from the lack of geometric or decorative patterns. The pattern on this sherd is a closed continuation of the line between the set of parallel lines, unlike Marksville.

Indeterminate Punctated

The indeterminate punctated body and rim sherds defied classification in any of the accepted types. The body sherd was a rough eroded sherd with large angular inclusions, the surface punctations were made with the same small implement, though with no particular order or decorative pattern. Punctations were triangular, though with angle incisions, rather than a solid triangular stamp, such Parkin Punctated *v.* *Transylvania* or Beldeau Incised punctations. The marks resemble tiny teepees or hooves across the surface in an extreme haphazard manner, almost running over each other or far apart. This sherd was found in midden from the second section of the north stockade wall.

The single rim sherd had unidentified punctuation similar to the "jagged comma" (Phillips 1970 Vol I:42) of Avoyelles Punctated *v.* *Dupree*. The rim did not have any accompanying incising however, and may have been partially smoothed. The temper of the

rim contained large grog inclusions, while the rim form most likely indicated a medium bowl with a slight interior thickening. This rim came from the general surface collection.

5.5 Quantitative Analysis

The general surface collection makes up 32% of the ceramics from Walford. Ten of the 13 types present originated from surface bags, as well as both indeterminate types. Some types were recovered exclusively from the surface, including Marksville Stamped, Old Town Red, and indeterminate punctated.

Fourteen of 111 bags from the MDAH collection were from various areas of the surface. The majority of Mississippian sherds recovered from the surface were Mississippi Plain sherds, with only two exceptions. Of these 14 surface collection artifact bags, four were labeled "General Surface." One of these bags contained only large pieces of daub. The remaining three bags contained 49 ceramics. General Surface four large bags, one of which contained only large pieces of daub.

Other bags from the surface collection were labeled according to area. One bag was notated "Surface north of S land." The specified area was unclear. Three others were closely related in that they originated near the river: "Surface near S end of East Stockade (Palisade)," "N bank of midden E of cemetery," and "S banks of midden E of cemetery," respectively. This area covers a 40-meter radius from the abandoned excavation of the south end of the east palisade, almost immediately coinciding with the raised area of midden and levee. Another bag may also have originated from this area, labeled "Surface from pits around houses," though this would encompass a larger area, and it was unclear which house group was intended. One bag contained artifacts from "Surface, next to irrigation well, S. side of site."

The final bag with known provenience from the surface collection was from “base of the S mound,” referring to Mound B as the most southerly standing mound at the time of excavation.

One other bag was also included in this discussion of surface collection, though marginally. This bag was unlabeled, and therefore without provenience, though the large quantity of sherds may indicate a large collection area. These bags are shown in Tables 3.1 and 3.2 (below).

Table 3.1 MDAH Surface Ceramics

	General Surface	Surface	General Surface	Surface north of S land	Surface near S end of East Stockade	Base of S mound	Surface from pits around houses
Baytown Plain	11	11	1			2	6
MCCM	3		1				18
MCCM v. Edwards	3	1	1				
MCCM v. Porter Bayou	2	1					2
MCCM v. Smith Creek	1	1					
Larto Red			1			3	
Marksville Incised							1
Marksville Incised v Marksville							1
Marksville Incised v. Yokena			1				
Marksville Stamped v. Troyville				1			
Alligator Incised			1			1	1
Coles Creek Incised						1	
MS Plain	5	3				2	2
Old Town Red							
Mound Place Incised							
Undetermined Incised					1		
Undetermined Punctated	1						
	26	17	6	1	1	9	31

Table 3.2 MDAH Surface Ceramics (continued)

	(Unlabeled)	Potter Deposit #2 (PZ)	PZ along N stockade section 2	Area N of stockade gap w/ pit (PZ)	N bank of midden E of cemetery	S banks of midden E of cemetery	Surface, next to irrigation well, S. side of site	Totals
	58	10	6	3	74	12	10	204
Baytown Plain	19	2	2	4	64	8		121
MCCM	12		2	1	16	4	18	58
MCCM v. Edwards	11							16
MCCM v. Porter Bayou				1	1			4
MCCM v. Smith Creek	3							7
Larto Red								1
Marksville Incised								1
Marksville Incised v Marksville								1
Marksville Incised v. Yokena								1
Marksville Stamped v. Troyville					1		1	5
Alligator Incised								1
Coles Creek Incised	19			2	20	15	7	75
MS Plain					1			1
Old Town Red							1	1
Mound Place Incised				1				2
Undetermined Incised			1					2
Undetermined Punctated	122	12	11	12	177	40	36	501

It is interesting to compare the MDAH surface collection with the much earlier, LMS surface collection (Table 4, see below). There are many differences. Large percentages of Baytown Plain and MCCM were still present, however Larto and Old Town Red were the only other types that are common to both assemblages. The current collection lacked LMS types such as Parkin Punctated, Parkin Incised, or Stokes Bayou Incised.

The greatest difference between the two surface collections is evident in the proportional representation of the Mississippian types. While Neeley's Ferry Plain (Mississippi Plain) makes up nearly 44% of the LMS collection it constitutes only 15% of the MDAH surface collection. Bell Plain makes up 3.2% of the shell tempered sherds from the LMS collection but is missing entirely from the MDAH collection. In fact, more than half (50.5%) of the LMS collection dates to the Mississippian period while slightly more than 15 % of the MDAH collection is made up of shell tempered ceramics. Also interesting, the MDAH surface collection has a different ratio of Baytown Plain and MCCM, with slightly more Baytown than cord-marked. This may reflect some element of a Mississippian occupation, with the continuity of grog-tempered plain ware.

Table 4. Comparative Surface Collections

Type	LMS #	LMS %	MDAH #	MDAH %
Alligator Incised			5	1.00%
Marksville Incised			3	0.60%
Marksville Stamped			1	0.20%
Larto Red Filmed	3	0.30%	7	1.40%
Baytown Plain	150	17.16%	204	40.72%
Mulberry Creek Cordmarked	280	32.04%	199	39.72%
Coles Creek Incised			1	0.20%
Unclass G.T. Inc. & Punct.			4	0.80%
Subtotal	433	49.54%	414	84.64%
Neeley's Ferry/Mississippi Plain	390	44.62%	75	14.97%
Bell Plain	14	1.60%		
Parkin Punctated	3	0.34%		
Parkin Incised	17	1.95%		
Mound Place Incised			1	0.20%
Stokes Bayou Incised	1	0.11%		
Old Town Red	4	0.46%	1	0.20%
Nodena Red and White				
Unclass S.T. Inc. & Punct.	12	1.37%		
Subtotal	441	50.46%	77	15.37%
Total	874	100.00%	501	100.01%

The differences between these two collections might simply have something to do with sampling bias. However, when the nature of the two samples are considered, another possible explanation is evident. The LMS collection is a traditional surface collection, gathered from the surface of a cultivated field. A large portion of the MDAH “surface” collection was made after the site had been partially land leveled to ease shovel skimming efforts. This removed 10-15cm of plowzone and, presumably, most of the uppermost Mississippian deposit. The remainder of the MDAH collection comes from excavated features, most of which, as will be discussed in the following chapter, appear to have been filled with Woodland material.

Conclusion

The contrast between the LMS and MDAH collections from Walford is likely a result of the contrast between surface and below ground ceramic totals. Land leveling at the site exposed a predominantly Woodland component, while surface collections contained evidence of an extensive Mississippian occupation. Simple laws of stratigraphy could account for much of the disagreement, as older deposits were slowly buried by time, deposition, refuse, and human occupation. It is therefore vital to consider both samples in reconstructing the occupational history of the site

Prehistoric occupation of Walford appears long and possibly continuous. Ceramic chronology commenced a few markers dating to the Marksville period, extending through a major Baytown occupation, includes some evidence for Coles Creek influence and concludes with a major Mississippian occupation. Super-types of both Mississippian and Woodland eras dominated the collection, and defied exact dates, with well-represented types in each period. The distribution of these ceramics in context with archaeological features will be examined in the next chapter.

CHAPTER 6

SITE FEATURE ANALYSIS

Excavation notes from Walford provide a picture of the site features and boundaries that goes beyond ceramic analysis. The date ranges of feature ceramics and stratigraphy were used to sketch a timeline based on site-wide features. The main focus of this will be the chronological placement of the palisade, a feature that covers much of the site and intersects many temporally diverse features.

Features for analysis were divided into categories based on type of feature and information available. The primary source of chronological data is the small number of excavated pits, only a few dozen from nearly 200 pits and postmolds at the site. Data available for the unexcavated pits is limited to radii and coordinates recorded using the total station. Post features were scattered across the site and some were excavated much the like pits, with some few containing artifacts. Many postmolds were not identified until after survey. Most are included in the original 154 features as well as the 42 listed postmolds.

House structures identified during excavations referred exclusively to wall trench structure. No Woodland structures were identified *in situ*, or within the course of this analysis. This does not presume that no Woodland single-post structures were present, only that they were beyond the scope of examination. In this study, bastions numbered as houses are included in the palisade analysis.

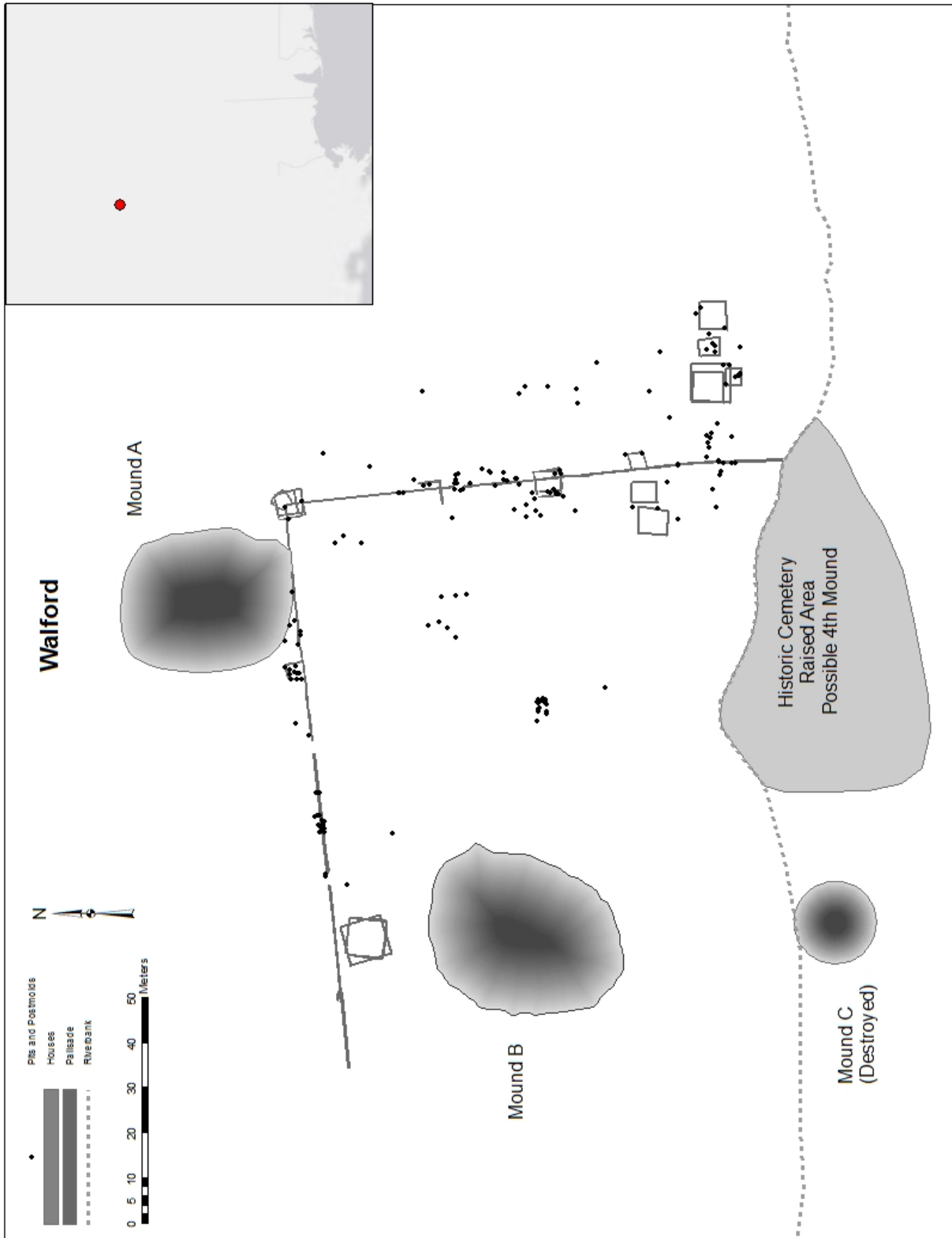


Figure 18. All Recorded Pits and Postmolds

6.1 Structures

Wall trench structures were considered separately from pits and post molds in this analysis. The placement and construction of these structures created a sense of space at the site. Some areas exhibited continual reoccupation or vacancy. Excluding the palisade, eighteen wall trench structures occurred in various groupings across the site. Three of these structures were bastions, and were analyzed with the palisade. Of the remaining fifteen, six structures superimpose other structure and appear to have been rebuilding episodes.

Habitation zones and total standing structures at occupation identified separately from reconstructed and superimposing structures for analysis of cultural occupations. These structures were classified as early or late features in the same way that pit features were characterized. The sequence for these structures was constructed using available material from excavations and architectural styles. All of the structures given a “House” designation during excavations were of wall-trench construction and likely of Mississippian origin. These “Houses” encompass both freestanding structures and palisade bastions, as the two types of structures were not differentiated during excavations.

Freestanding Structures

Superimposing the palisade northeast corner was a tangle of structures labeled House 2a-d. The designation of House 2a was set aside for the corner bastion associated with the palisade. House 2b was a complete 4-walled structure built directly atop the area of the palisade corner and bastion, with House 2d in the same general location. House 2c is the partial remains of a structure offset from House 2b, though only one east-west wall trench is associated with this structure.

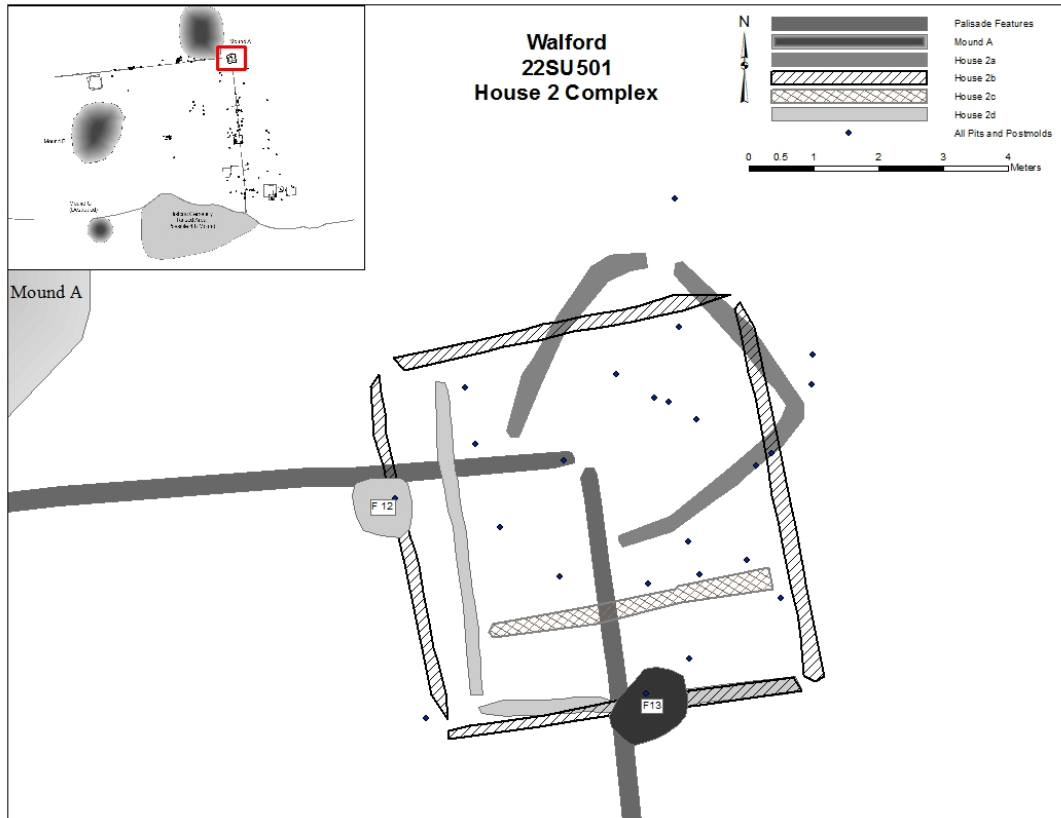


Figure 19. House 2 Complex

The relationship of these structures in the House 2 complex with the nearby Mound A is open to speculation. Each of the two existing mounds is located near a single freestanding structure, House 2 and the soon to be discussed House 7. These structures were each rebuilt at least once. The land leveling survey indicates that these were the only structures in this area of the site. However, the next nearest structure would not lie too distant: the partial remains of House 3 overlaid the east wall of the palisade 25 meters south of the House 2 complex, between the northeast palisade corner and the east palisade gap. House 3 was also a post-palisade construction, though with no conclusive temporal associations other than Mississippian.

Houses 5a and 5b constitute a wall trench structure with a rebuilding episode straddling the east palisade wall, north of the bastion and south of the gap in the palisade. One slightly intruding wall that ran east-west through the west wall of 5a the interior complete wall labeled

5b may have belonged to a different structure that was not delineated. The other wall sections labeled 5b branched off the south and east walls of 5a. These were probably evidence of a rebuilding episode for House 5a.

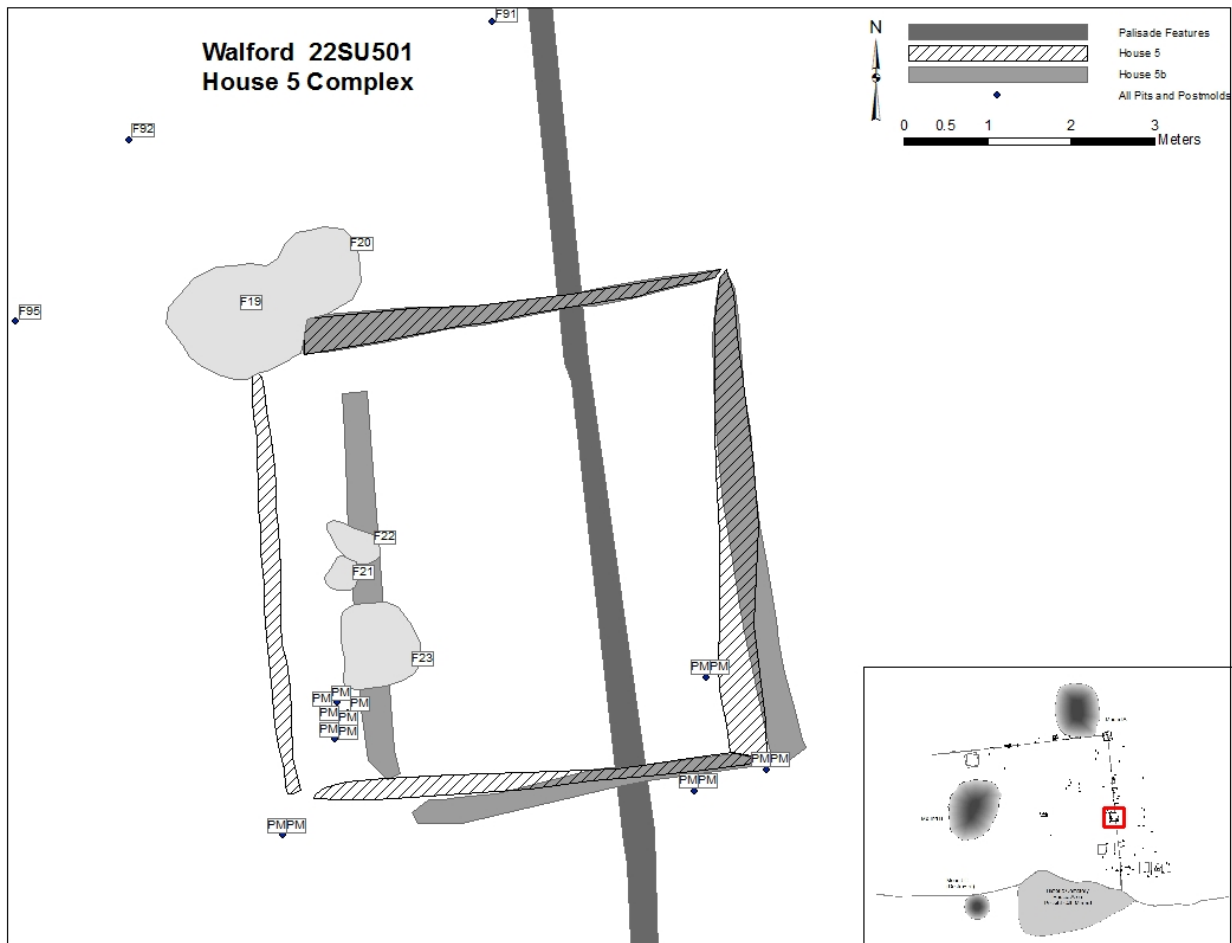


Figure 20. House 5 Complex

House 6 was a rather large structure located on the northwest corner of excavations between Mound B and the palisade. One of only two houses found in this area, House 6 was built upon the structure designated House 7. Given the similar size and only slightly offset location, it is likely that House 6 was a rebuilding of House 7. With signature wall trench construction and Mississippi Plain sherds in the trench fill material, Houses 6 and 7 were determined to be of Mississippian origin.

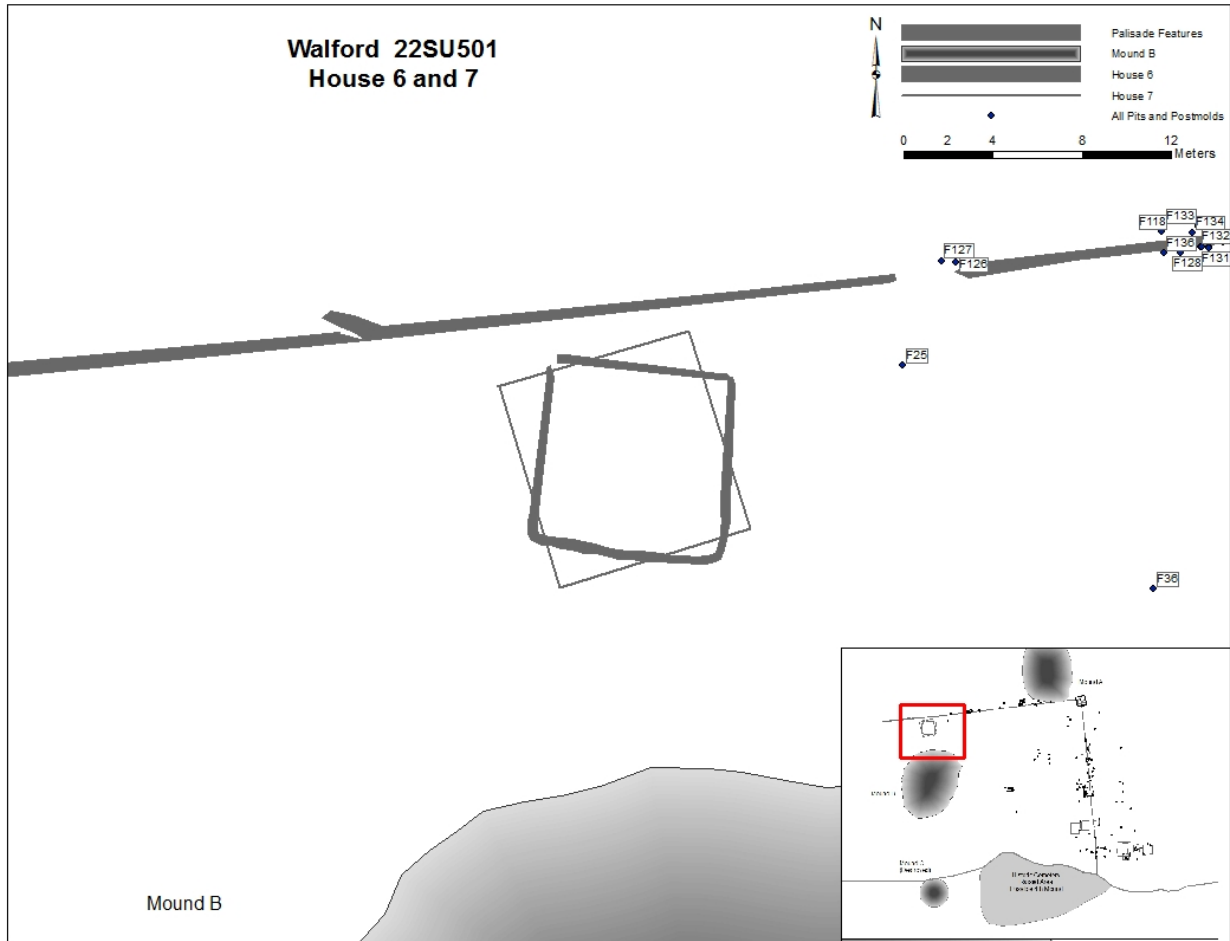


Figure 21. Houses 6 and 7

Houses 8-14 were scarcely detailed in excavation notes. These structures represent the strongest indication of a habitation area, concentrated in the southeast corner of the Walford excavation area. Of these, only Houses 12 and 14 possessed associated artifacts, including shell, daub, and charcoal. House 14 was a 5.5m x 4.5m structure with the northern two-thirds of the structure burned, containing charred timbers, charred thatch, and oxidized soil that may have been a floor. House 13 was a roughly 6.5m by 5.5m structure that did not exhibit any features within the interior. House 12 exhibited similar features to House 14, though it was a larger 7m x 7m structure with charred timbers and daub. Houses 10 and 11 were the smallest structures of the southeastern group. House 10 was recorded as 4m x 4m and House 11 was

slightly larger at 5m x 5m. Neither of these structures exhibited any features or burning.

House 9 was the largest structure of the southeastern group. It shared a similar geographic footprint as House 8, though may be a larger reconstruction. Unfortunately, House 9 was too desiccated and disturbed to identify interior features during monitoring. House 8 was a still sizable feature within House 9, using the same area as a western wall. House 8 was a 7m x 7m structure that, while also desiccated and disturbed, was identified as containing burned timbers.

The position of these structures on both sides of the palisade may indicate a post-palisade episode, occupying open ground after the palisade ceased to delineate space. However, it cannot be assumed that these structures existed concurrently, as at least one exhibited a rebuilding episode or superimposed structure.

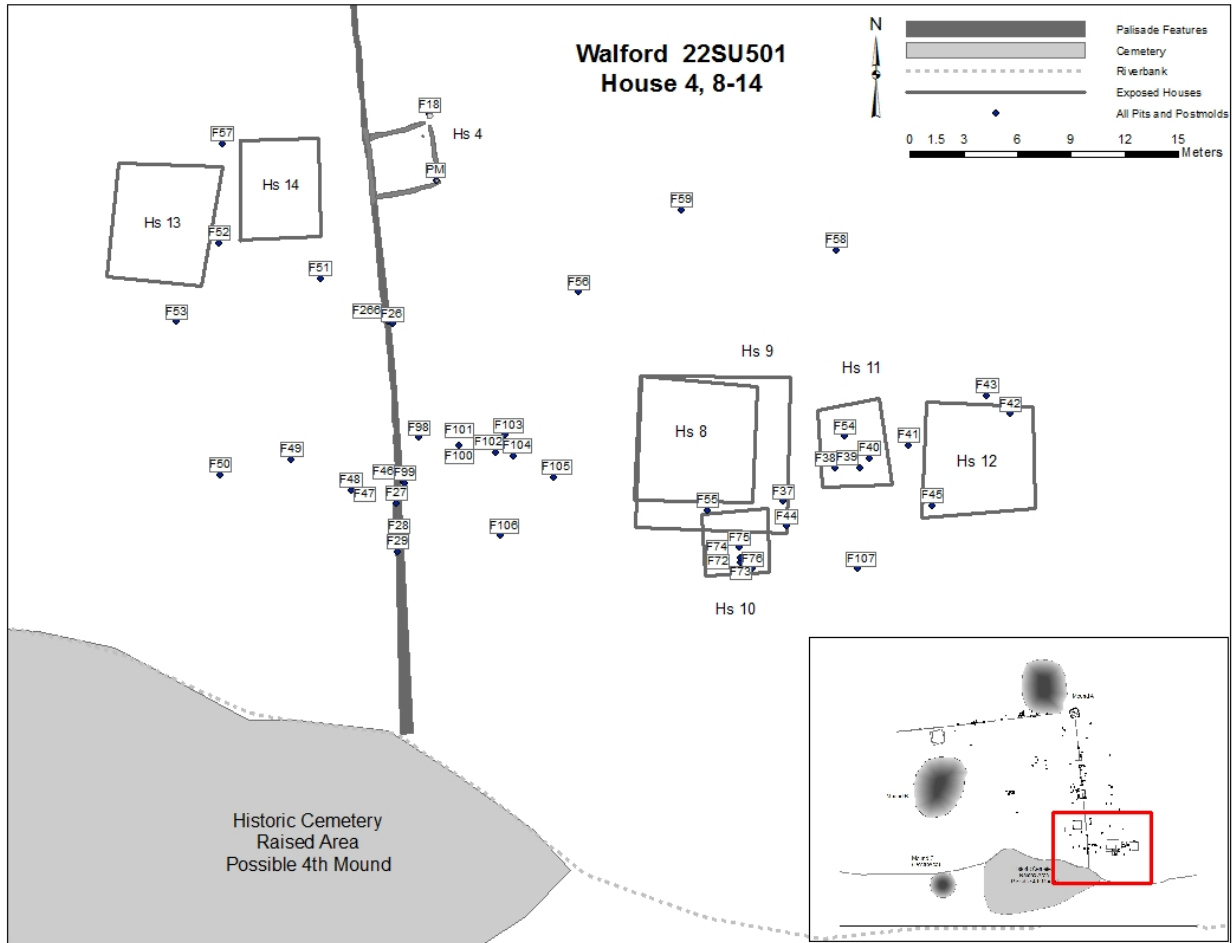


Figure 22. Southeastern Structures – Houses 4 and 8-14

Bastions

House 1 was a four-sided bastion outside the north side palisade, with the palisade as the southern wall. This bastion lay close to the northeast corner of the palisade, at the eastern third of the northern palisade

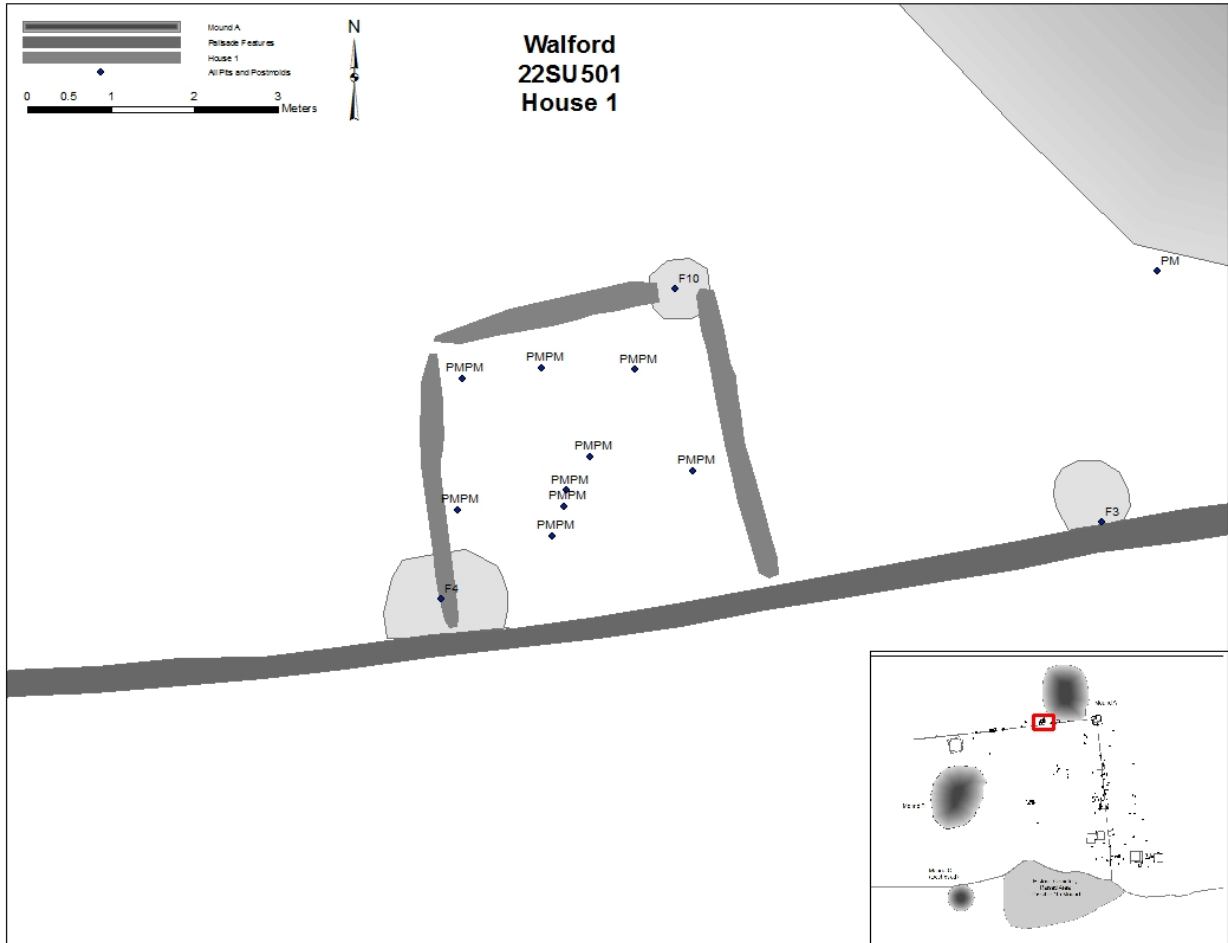


Figure 23. House 1 Bastion

The complex of structures labeled House 2(a-d) during excavations was detailed (Figure 19) above as predominately composed of freestanding, post-palisade structures. However, House 2a is the corner bastion of the north and east palisade. This bastion is unlike the other two in that it meets the palisade at an angle.

House 4 (Figure 24, below) is the second bastion found during the Walford excavation and occupies the east wall much like much like House 1 the north wall, with almost identical dimensions of 3.5m by 3.5m. The palisade composes the fourth wall, and the bastion is located near the end of the wall rather than near the center.

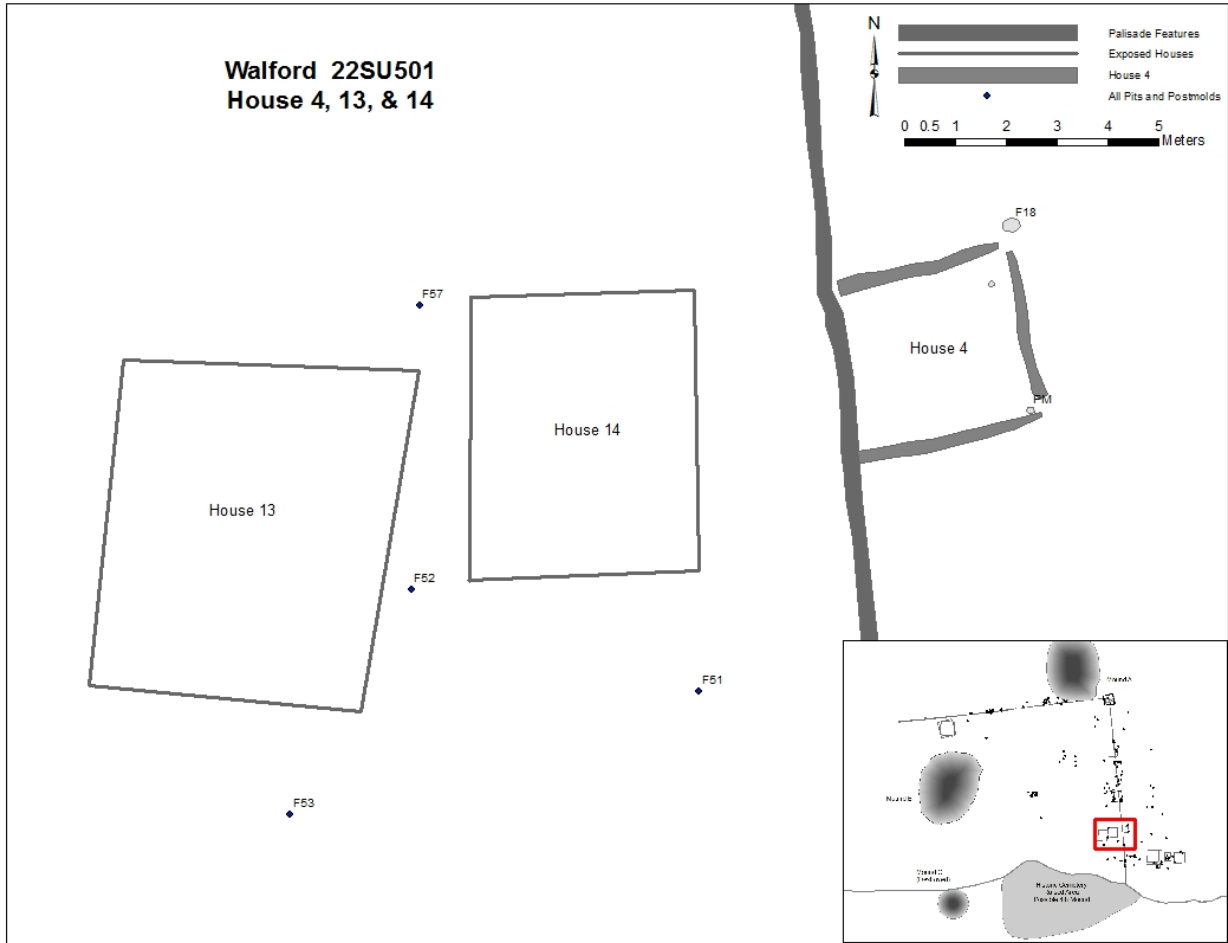


Figure 24. House 4, 13, and 14

This puts the bastions in relatively defensible positions for the palisade gaps, with the southernmost bastion about 36m south of the east wall gap, and the House 1 north bastion 13m east and 43m east from the two possible gaps in the north palisade. With no currently visible opening in the north wall between the House 1 and the House 2 bastions, it seems strange that the north bastion would be positioned so far east along the north wall. Typical defensive construction methods would predict that either a second north wall bastion, or the northwest corner, would not lie too far west of the end of excavation.

6.2 The Walford Palisade

Set at the midpoint of the Walford occupation, the palisade is ideally located to create a

timeline for the surrounding archaeological features. The relationship of excavated pits to the palisade wall can be used to form a rough chronology that is then refined based on available excavated material.

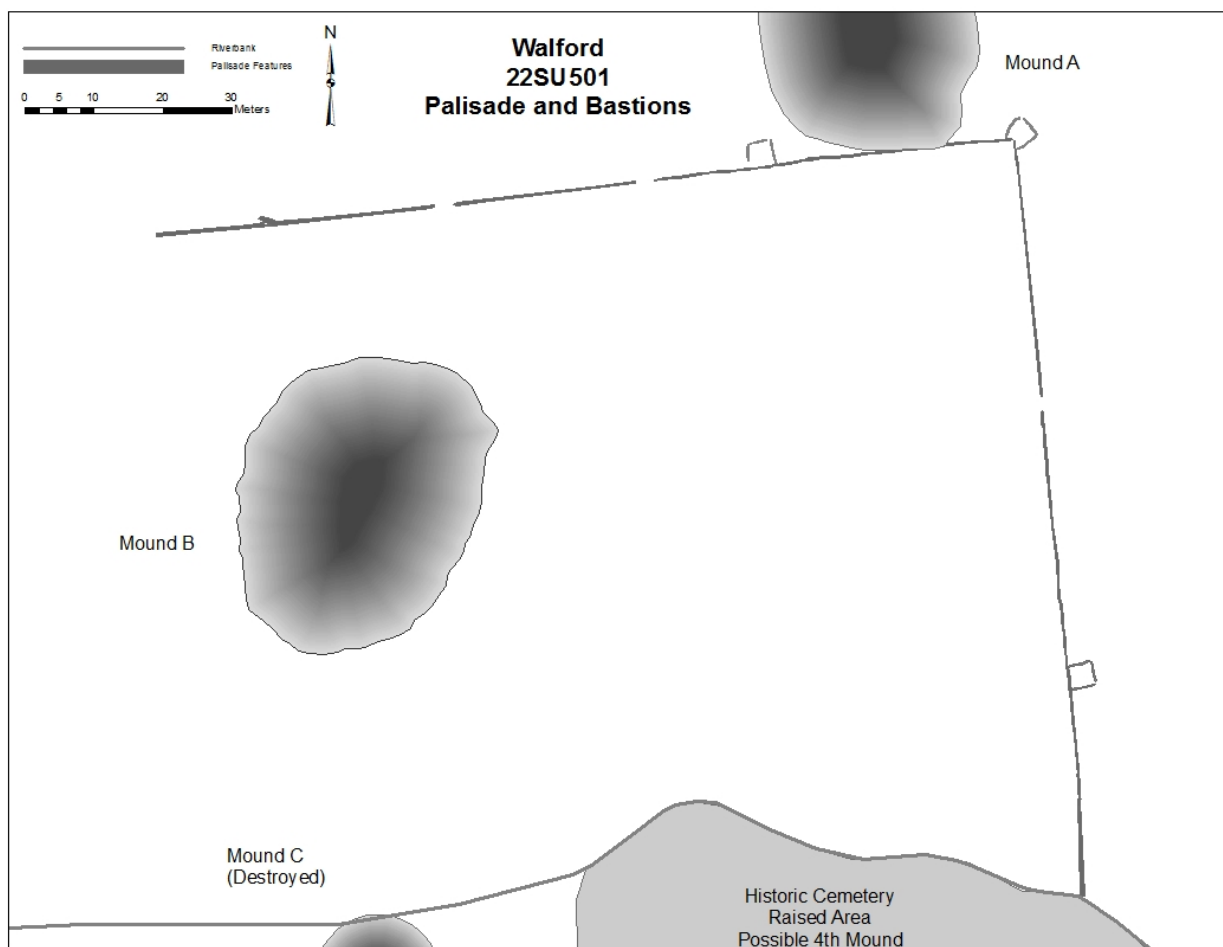


Figure 25. Walford Palisade

The evident growth of the Walford site after the palisade-building episode could be used as an indicator of increased population and adaptation to a sedentary life style in the area. Later occupations at Walford extend beyond the enclosure of the palisade, establishing structures outside the wall and overlying the wall itself. Whether a different palisade was utilized by any later occupations is unknown, as excavations did not encounter any rebuilding episode of the palisade or any evidence of a larger palisade outside the central mound area.

The current palisade may have been constructed to protect an initial frontier settlement population that was stabilized and expanded over a period of time.

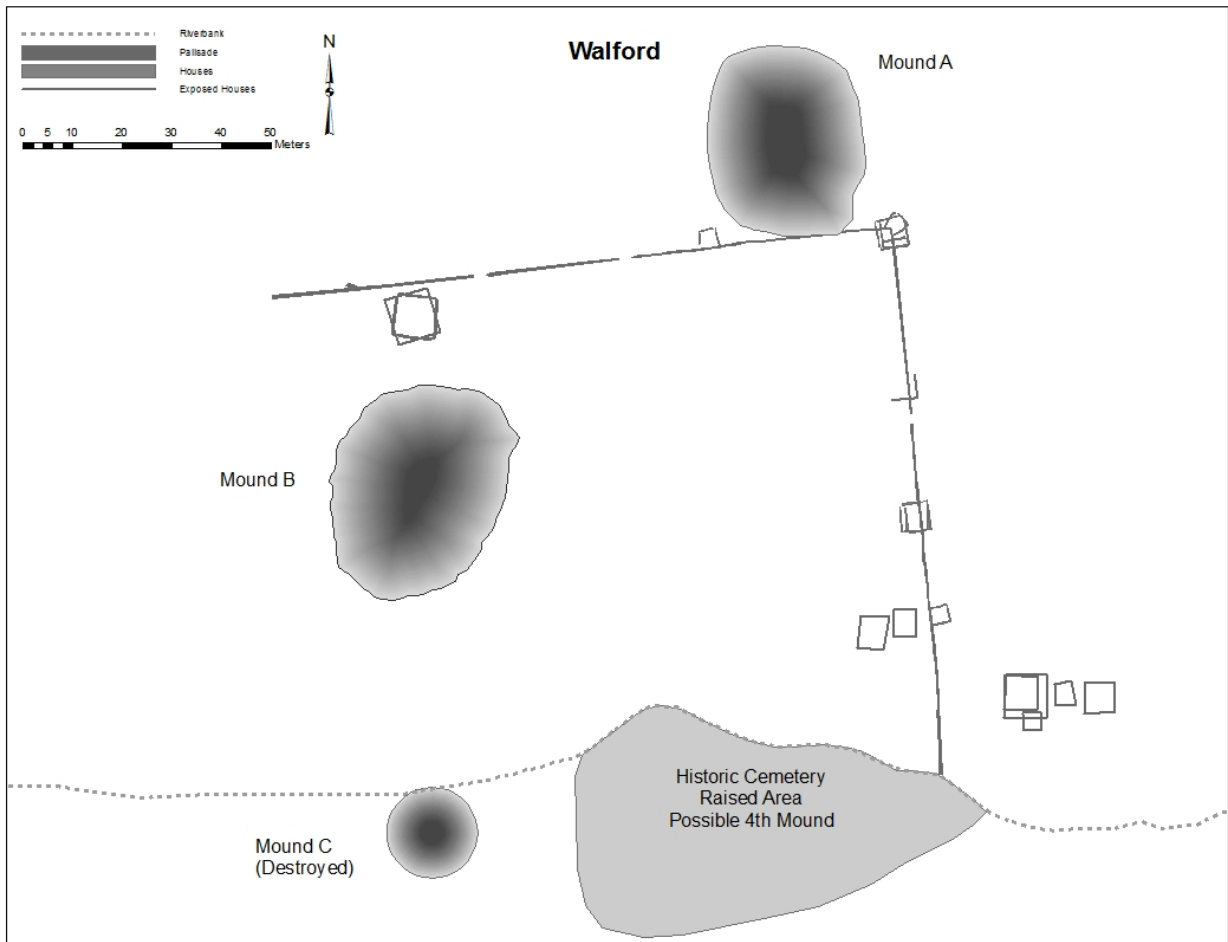


Figure 26. Walford Palisade and Wall-Trench Structures

The exact sequential assignment of the palisade may be better understood using the artifacts from adjacent features. Given the wide dates associated with ceramic material recovered from Walford and the extensive post-palisade habitation, the chronological position of the palisade may provide some information about its intended purpose.

Pit Features

After four years of excavations and monitoring, 216 pits and postmold features were recorded at Walford. Only limited numbers of these pits were excavated during salvage

operations, most were recorded during mechanized soil removal. Of these 216 features, 108 were postmolds, 99 were pits, and nine were unknown or small pit/large postmold. Thirty-one features were recorded as excavated, while many others were simply noted as “shell packed” (Connaway 2004).

The archived material from Walford included artifact assemblages from only 28 pits: Features 1, 3-7, 9-11, 13-16, 19-20, 25, 30-32, 34-36, 39, and 40. The locations of these features were reestablished using a combination of sketch maps, feature records, and digital data. Pits 26-29 did not have materials in the artifact collection; nevertheless, they were included in total site analysis using feature forms detailing the recovered artifacts.

Two of the pit assemblages included in the analysis contained surface materials only. Of these, Pit 34 included artifacts from the top layer of the feature. Pit 35 was likewise not excavated, the artifact bag was labeled “sherds from P-Z in pit (pit not dug).” Features 6, 39, 40, and House 12 artifacts were found in the MDAH archives in Clarksdale after this analysis had been concluded and were analyzed by John Connaway. Some artifact bags recovered at this time were unlabeled, had no provenience, and likewise were not included in this analysis.

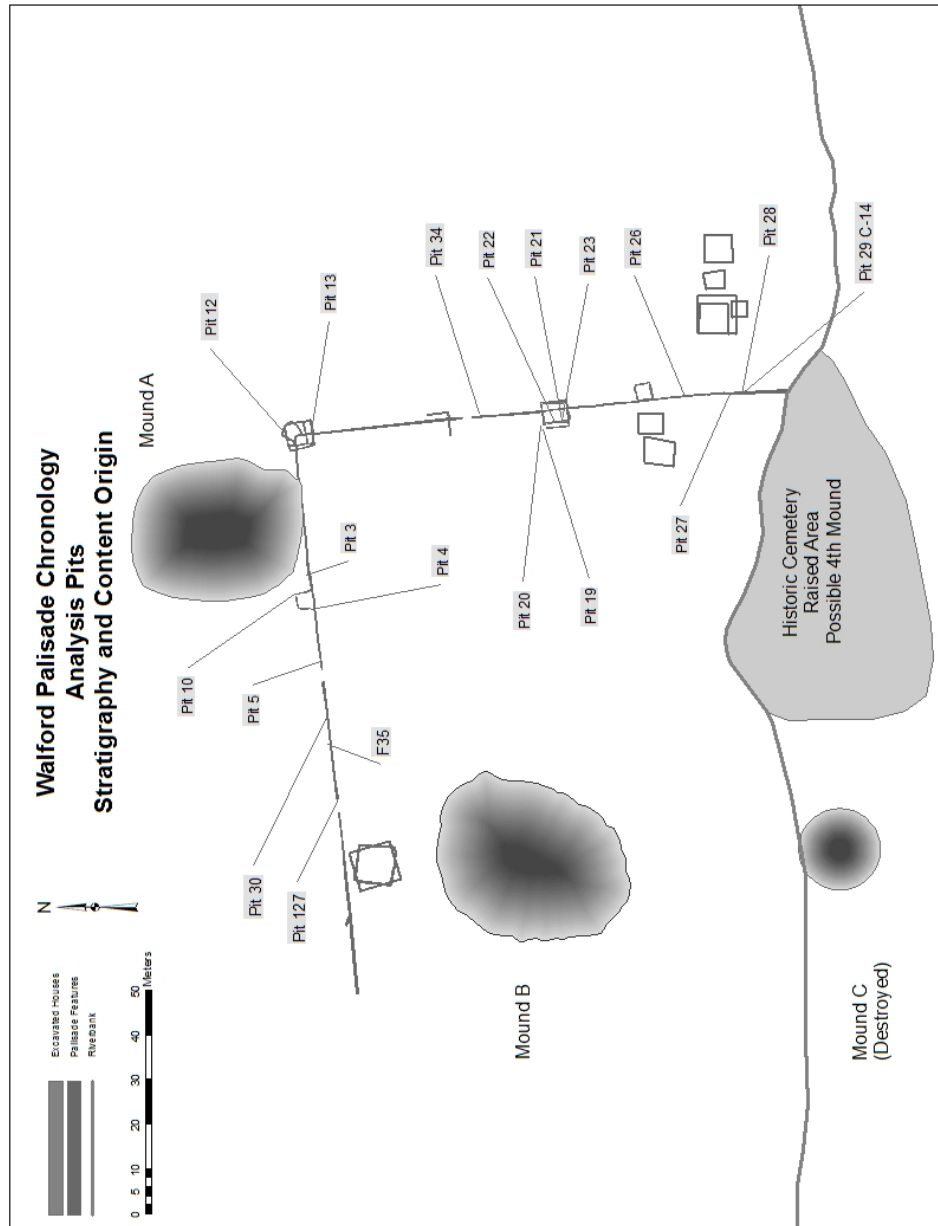


Figure 27. Analysis Pits

Pit Analysis

The chronological placement of the Walford palisade was based upon 19 intersecting pits, structures, and palisade trench fill (Figure 27, above; Table 5 and Figure 28, below). Of the 19 total pits intersecting the palisade, eight pits were not located in the archives and one pit had only charcoal. The 10 remaining pits available for ceramic analysis were well distributed

along the length of the palisade. The following analysis will also include 105 sherds (p. 98 this thesis, Table 6) excavated from the palisade and palisade plowzone that were found in the MDAH archives after the onset of this study.

Table 5. Pits Adjacent to Palisade

Pit Feature #	Diameter (cm)	Depth (cmbs)	Wood Ceramic #	Miss Ceramic #	Palisade Association
3	88 x 72	unknown	50	0	Previous
4	84 x 128	9-39cm	33	0	Previous
5	56 x 72	0-4.5cm	5	0	Previous
10	84 x 98	0-12cm	12	0	Previous
12	88 x 94	unknown	unknown	unknown	Intrusive
13	106 x 70	0-160cm	7	0	Intrusive
19	110x130	0-15cm	29	0	Merge w/ F-20, Intrusive on H-5a
20	105 x 80	0-52cm	51	0	Intrusive on H-5a
21	52x70	unknown	unknown	unknown	Intrusive on H-5b
22	96 x 44	unknown	unknown	unknown	Intrusive on H-5b
23	118 x 88	unknown	unknown	unknown	Intrusive on H-5b
26	66 x 66	0-128cm	unknown	unknown	Previous
27	97 x 95	0-20cm	present	unknown	Intrusive
28	62 x 62	0-16cm	present	unknown	Previous
29 (C-14)	63 x 70	5-38cm	0	0	Previous
30	112 x 106	unknown	56	0	Previous
34	40 x 80	unknown	4	0	Unclear
35	100 x 100	10-75cm	1	0	Previous
127	38 x 40	unknown	unknown	unknown	Intrusive
Total Ceramics			248	0	

Feature 3 was a pit of unknown depth lying under the palisade just east of the House 1 bastion. This feature contained 50 Woodland sherds: seven Baytown Plain and 43 MCCM.

Features 4 and 10 were pre-palisade pits lying under the west and north walls of bastion

House 1. Feature 4 was located at the southwest corner of the bastion, at the intersection of the north palisade and the west wall of the House 1 bastion. The pit was intersected by both palisade and bastion. Thirty-three Woodland sherds were recovered from Feature 4, six Baytown Plain and 27 Mulberry Creek Cord-Marked. Of the 12 sherds recovered in analysis from Feature 10, four were Baytown Plain and eight were Mulberry Creek Cord-Marked.

Feature 5 was located west of Feature 4 near a gap in the north palisade wall. This smaller pit preceded the palisade and contained only five Baytown Plain sherds. Excavation notes list this pit as containing three human incisors in the removed north half. These human remains were not recovered within the collection.

Two pits occupied the area within the House 2 complex, squarely intersecting multiple walls and structures. Unfortunately, Feature 12 was recorded as a large pit 1.5m deep with lots of rotted wood. Other than maps, no other record of the pit was found and no artifacts existed in the collection. Feature 13 also intersected the east wall of the palisade and the south wall of House 2b/d. Ceramics recovered from Feature 13 included seven sherds: three Baytown Plain, three Mulberry Creek Cord-Marked, and one Coles Creek Incised.

Features 19 and 20 did not directly intrude into the palisade, but were included in this analysis due to their association with House 5. House 5 intersected the palisade and Features 19 and 20 intersected House 5 in the northwest corner. These substantial pits comingled at depth, though on the surface F- 19 was determined to intrude on F-20. These pits contained a fair amount of ceramics, including the only Hollyknowe Ridge Pinched in the analyzed pits. It is unknown if the sherds were a part of the same vessel. Feature 19 contained 23 sherds: seven Baytown Plain, ten Mulberry Creek Cord-Marked, five Evansville Punctated, and one Marksville Incised. Feature 20 had a similar collection of 46 sherds: 11 Baytown Plain, 34

Mulberry Creek Cord-Marked, and one Hollyknowe Ridge Pinched.

Features 21, 22, 23, 26, 27, 28, and 127 were not found within the MDAH ceramic collection. These pits were recorded as X,Y data with dimensions and stratigraphy, but date and artifact composition is unknown.

Features 29 and 34 were widely spaced pits south of the gap on the east palisade. Feature 29 was bisected by the palisade wall near its southern termination, but contained only charcoal. Feature 34 lay north of Feature 29, just south and east of the east palisade gap. The west end of this pit lay under the wall, while the pit gave only four sherds to the collection: two Baytown Plain and two Mulberry Creek Cord-Marked.

West of the north palisade gap lay Features 30 and 35, respectively. Feature 30 was bisected by the palisade wall. This pit was packed with shell and 56 sherds: 19 Baytown Plain and 37 Mulberry Creek Cord-Marked. Feature 35 lay under and to the south of the palisade, containing only one Baytown Plain sherd.

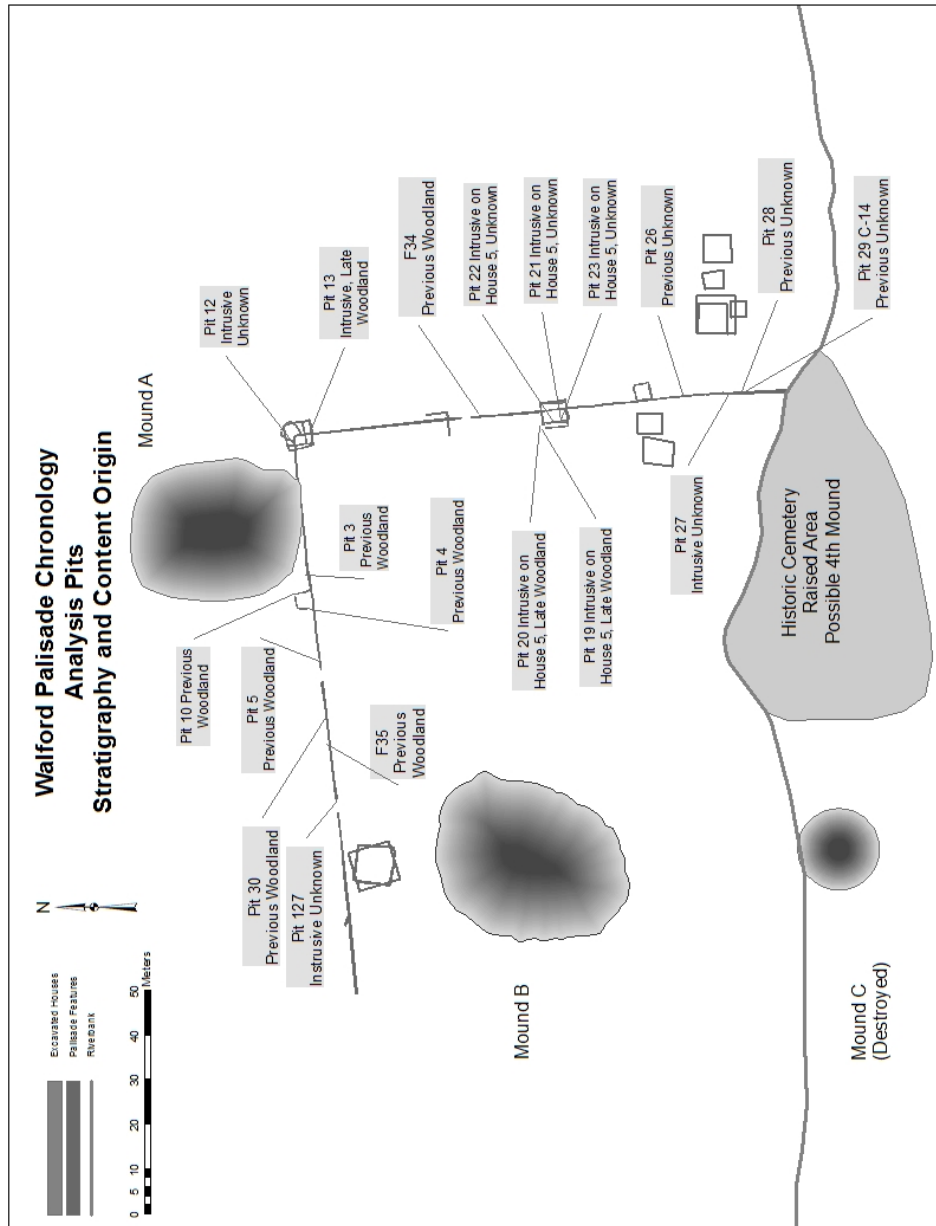


Figure 28. Analysis Pits Stratigraphy and Content Origin

Characteristics of Walford palisade

At the onset of this study, an early occurrence of a palisade at Walford seemed possible due to the preponderance of Woodland ceramics and the fact that Mound A, a presumably Mississippian period platform mound, was built over a section of the palisade. If the palisade

proved to be a Mississippian structure, it encompassed an area far smaller than the extents of the later Mississippian occupation. The palisade in this case may have been an initial and short-lived defense without any evident rebuilding, or continued as an enclosed space within a larger settlement.

A total of 248 sherds from analysis pits were examined for relative dating analysis, and none of the pits that were intersected by the palisade contained Mississippian material. This leaves several possibilities. The first, that the palisade was constructed during the Late Woodland occupation at Walford. This conclusion, while intriguing, is problematic based on the wall-trench architectural form, as well as the limited sample of intrusive ceramics. Features 19 and 20 were intrusive on Houses 5a and 5b. Feature 13 was an intrusive pit through most of the walls of the House 2 complex. This would put it later than even the Mississippian structures post-dating the palisade, and would be unlikely to date to the Late Woodland without a form of excavation error. It is more likely that these pits exhibit a form of redeposition, with the re-interment of Woodland artifacts unearthed during later occupations. It may also represent the still-theoretical presence of grog-temper style pottery in the Early Mississippian, as argued by King Steponaitis (1998:4) in the next chapter.

Palisade Fill

Several bags of materials were recovered later in this study after the pit analysis had been performed. These bags included 105 sherds from various areas associated with the palisade trench. These bags were labeled “P-Z at W end of Stockade trench,” “P-Z along N stockade section 2,” “North Stockade,” “W end of N Stockade trench, P-Z material,” “E end of N trench of Hs-1, feature fill,” and “Hs-4 P-Z.” Of these, only the “North Stockade [Palisade]” and the

“E end of N trench of Hs-1, feature fill” represent data from features that would most likely not incorporate surface finds or plow drag. Table 6 (below) shows the sherds recovered from each bag.

These bags indicate that while “P-Z along N stockade section 2” contained a Nodena Red and White sherd and bags “W end of N Stockade trench, P-Z material” and “Hs-4 P-Z” contained Mississippi Plain sherds, these Mississippian sherds originated only from the surface or plowzone provenience. The other bags, particularly the North Palisade and House 1 (bastion) feature fill contained only Woodland material. While this may be redeposition of old material during palisade construction, it does not refute the results of a possible Woodland palisade.

Table 6. Palisade Plowzone and Feature Fill

Feature	Baytown	MCCM	MCCM v Smith Cre	MCCM v Edwar	Larto	Nodena	MS Plain	Und Pund	Totals
P-2 at W end of Stockade trench		1				1			2
p-2 along N stockade section 2	6	4						1	11
North Stockade	12	17	1						30
W end of N Stockade trench, P-2 material	12	17		1	1		6		37
E end of N trench of Hs-1, feature fill	6	6							12
Hs-4 P-2	3	6					4		13
Totals	39	51	1	1	1	1	10	1	105

CHAPTER 7

CONCLUSIONS

This study of the Walford site (22Su501) reached three primary conclusions. First, the site layout proposed by previous surveys was partially confirmed but amended, particularly in terms of the identified plaza area. Second, the Woodland occupation at Walford was far more significant than previously reported, containing large percentages of cord-marked ware, with types from the earliest Marksville phase through the Coles Creek phase of terminal Woodland. Finally, the palisade is tentatively dated to the Late Woodland using a combination of ceramic typologies from adjacent pits, the intersection overlapping features, and the palisade feature fill.

The mechanical stripping at Walford proved extremely advantageous to salvage excavation efforts, as the stripping was thin enough to expose shallow subsurface features. Monitoring the stripped areas allowed for more feature documentation than would have been possible otherwise. More than half of the documented pit and postmolds features emerged during land level monitoring. However, this stripping removed the buffer of plow zone protecting shallow features, which were subsequently destroyed when plowing was resumed.

The earliest components at Walford are detailed by both the Panamerican survey as well as the LMS. While very little specifics are given about the site by Phillips and his

coauthors, the Panamerican survey of the Sunflower Drainage reported Late Archaic/Gulf Formational components along with Late Woodland and Mississippian occupations at Walford (Chapman et al 2004:200,249,300). Panamerican lists the Archaic/Gulf Formational component on the basis of lithics, with 14% exhibiting non-diagnostic assigned to this period (Chapman et al 2004:200). In the current study, the Archaic is limited to a few projectile points and a Poverty Point object. Unfortunately, the Panamerican report does not include detailed artifact counts for the site. While the LMS sherd counts are available online, Woodland ceramics account for slightly less than 50% of the site assemblage. Woodland ceramics make up 83% of the MDAH collection from the site.

The MDAH assemblage contains a handful of Middle Woodland Marksville sherds, both stamped and incised. The major Late Woodland occupation shows more variety, with numerous examples of Baytown Plain and MCCM super-types along with Evansville Punctated, Hollyknowe Ridge Pinched, Alligator Incised, Larto Red, and a very late chronological component of Coles Creek Incised.

The ceramic analysis of Woodland material served to reinforce the Walford site file data of a Deasonville/Coahoma component while adding some breadth to this chronological definition. The discovery of some Marksville pottery lends an earlier Middle Woodland component of possible Porter Bayou origin, though it does not seem to encompass the fabric-impressed wares of the Tchula phases. On the other hand, the addition of Coles Creek may extend the Walford occupation further into the Late Woodland. These Woodland occupations at Walford were defined solely on the basis of ceramics as the GIS analysis of the excavation data failed to delineate any specific Woodland structures. The gradual removal of more recent occupations would make an interesting site study, as more artifacts are stripped away and

collected, the bias begins to favor older occupations.

This bias is evident at Walford. Despite the variety of Mississippian structures identified during the excavations, the Mississippian occupation is poorly represented in the MDAH ceramic assemblage. Mississippian ceramics make up less than 10% of the MDAH collection, compared to over 50% of the LMS collection.

The palisade analysis suggests a Late Woodland construction date for the palisade. All of the analysis pits intersecting the palisade contained exclusively Woodland sherds. The large majority of the ceramics from the pits intersecting the palisade were Baytown Plain sherds, a singularly unhelpful element of the Woodland occupation given the broad chronological distribution of this type. All other Mississippian structures, such as wall trench houses and Mound A, superimpose the palisade walls, further enforcing a Woodland origin for the palisade. Sampling and excavation problems make a concrete association with the palisade limited, as the nature of the salvage excavation leaves much information unknown about the site. The possibilities of redeposition and ceramic type longevity should also be considered, as has been demonstrated in western Alabama and the American Bottom.

Perhaps the most useful model for understanding the timing and structure of the palisade at Walford is found at the major southeastern site of Moundville in western Alabama. As one of the largest Mississippian sites in the Southeast, Moundville has undergone intensive excavation and analysis. Previous reports have outlined a detailed chronology of occupation, ritual use, and abandonment at the site that could provide insights to the life history of other Mississippian sites.

Moundville occupied a wide terraced bluff and boasted around 20 mounds. This entire area was defended by a palisade with enough longevity to require six palisade rebuilding

episodes, both in situ and slightly offset from the original location (Knight and Steponaitis 1998:4). Bastions were a key feature for these palisades, and were placed “30-40 meters apart, were 4 meters wide and 7 meters deep, incorporating square towers” (Knight and Steponaitis 1998:4). These are remarkably similar to Walford’s bastions, which measured 3.5m x 3.5m and were placed 36m apart (p. 75, this thesis). However, these fortifications were identified conclusively as Early Mississippian, though some ceramic issues were noted similar to problems at Walford.

In the Yazoo Basin, Phillips (1970) defines the ceramic phases with an abrupt shift from grog tempered Woodland types to shell tempered Mississippian types, which marks the beginning of the Mississippian period. However, at Moundville, “it is now reasonably well established that [terminal Woodland] series pottery continued to be made and used at Moundville during the succeeding early Moundville I phase” and that “some grog-tempered pottery identical to that of the local [terminal Woodland] phase was still being made” (Knight and Steponaitis 1998:12). It may be that some of the Baytown Plain sherds from the pits that were intersected by the palisade at Walford were actually made during the Mississippian period.

An initial Mississippian period date for the palisade at Walford would tie in closely with the sequence of events at Moundville, where the palisade was established during the initial Mississippian occupation and abandoned during the Middle Mississippian. Here the two chronologies diverge, as Walford continues as a residential center with an unknown date of termination. Meanwhile, Moundville proceeds through several phases of ritual use and eventually ends as a necropolis. During the early rise of Moundville, the pressures or situations were such to require many reiterations of the palisade for the settlement, while Walford has

only the single evident need for the defensive structure. This may indicate some lack of emphasis on Walford as a regional center, as populations persisted there, but no burials, trade goods, or intensification of use was observed at the site.

The definition of Walford as a regional or ceremonial center based on its palisade would be easier if it could be compared to similar sites in the region. However, the other known palisades in the northern Yazoo Basin, the Carson Mounds site and the Austin site, are significantly different or not directly relevant. The Austin site contained a bastioned palisade similar to Walford, the fortifications at the site have not been subjected to formal analyses. The most that is known from both sites is that both were occupied during the Late Woodland and Early Mississippian (Connaway personal communication). The Carson Mounds palisades differ from Walford in that they lack bastions, enclose an area whose primary function appears to have been mortuary, and date to the Late Mississippian period (Connaway 2015:19).

Instead of looking for parallels through the palisade, ceramics may offer a better form of comparison. The continuity of grog-tempered ceramics at Moundville is parallel to many other well established ceramics typologies across the Southeast. In Eastern Tennessee, Woodland ceramics from Martin Farms and other sites in the lower Little Tennessee River Valley were tempered with limestone and sand rather than the grit and grog of the Deep South (Schroedl, Boyd, and Davis 1990:180). However, these Woodland ceramic tempers were used well into the Mississippian I (A.D. 900-A.D.1000) and Mississippian II (A.D. 1000-A.D.1300) at Martin Farm at rates of 50-60% and 8-17% respectively (Schroedl, Boyd, and Davis 1990:185). Though decreasing over time, the continuity of Woodland tempering is conclusive.

This continuity was also seen in the American Bottom, in sites near and associated with Cahokia. In this area of "Emergent Mississippian" culture, grit and grog temper "continue as

the dominant tempering material” within one branch of the Early Mississippian tradition (Kelly 1990:128). The other branch of Early Mississippian tradition in the American Bottom, “exhibit[s] a major shift to limestone temper,” while “farther south in the Ozark and Mississippi Valley areas of southeast Missouri and northeast Arkansas, a parallel shift to another carbonate, shell tempering, is taking place as early as A.D. 800” (Kelly 1990:128).

Given this broad scale Early Mississippian precedent for Woodland tempering to continue in other parts of the eastern United States, the ceramic typology of the Lower Mississippi Valley and the Yazoo Basin may require revision in future research.

Despite all of these factors of Woodland/Mississippian continuity, a Woodland origin would be a singular event in the Lower Mississippi Valley and the Yazoo Basin, and most likely throughout the Southeast. Given the wall-trench construction, accepted architectural literature would place it as an Early to Middle Mississippian construction. The most commonly accepted scenario of Mississippian colonization in archaeological literature begins with the fortification of a small habitation area for new Mississippian groups. As these settlements grow, the initial palisade falls into disuse or is expanded to encompass a larger habitation. The ceramic analysis aside, the palisade at Walford could have fit this scenario. Given the habitation areas outside of the palisade area, this thesis can only speculate three scenarios for the palisade: 1) that it was no longer required during some portion of Walford’s history, and the site expanded beyond its limits, 2) that it was rebuilt during a geographic shift or population growth of the site occupants, and that a larger version exists beyond the limits of the 2003-2007 excavation and land leveling, and 3) that the palisade was utilized by Late Woodland populations, and later groups shifted the geographic extent of the site to the east after the lifespan of the palisade.

The high densities of wall-trench and pit features within the ring of mounds is significant in its shift away from the fortified area central to Mound B. Wall trench structures are scattered over the central area, and leave little space for a formal plaza or communal area. At least one mound is known to be a later construction from the fortified Mound B area, highlighting this shift to the eastern half of the site. Given these two partial spheres of occupation, it would be impossible to completely define any Mississippian occupation without a full understanding of the area encompassed by the palisade or the mounds. Obviously, groups that occupied the fortified space felt that the area contained within its walls was worth defending or delineating. Later groups at least partially abandoned this area, choosing instead to focus on the east. Though not fully excavated, extensive burning and abandonment was observed in the southeastern group of houses, and may indicate some form of site-wide abandonment that was beyond the scope of this analysis.

Future research involving Walford would indicate a need for a new ceramic typology for Mississippi and the Lower Mississippi Valley that redefines the transition from Woodland to Mississippian Period. This research should also focus on the rise of fortified structures within the Yazoo Basin, to determine the viability of a Woodland origin for the Walford palisade. Further research at the Walford site may search for extended site boundaries to discover if any wider archaeological remains survived the land leveling, and to search for the site extents of both the Woodland and Mississippian occupations.

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