

THE SETTLEMENT ARCHAEOLOGY OF SINGER-MOYE, A LARGE 14TH-
CENTURY TOWN IN THE CHATTAHOOCHEE VALLEY

by

STEFAN PATRICK BRANNAN

(Under the Direction of STEPHEN A. KOWALEWSKI)

ABSTRACT

This research characterizes processes that result in the emergence and continued maintenance of large settlements in the southeastern United States ca. AD 1100-1500. The primary study area is Singer-Moye, a large settlement containing eight mounds and two plazas, located in the lower Chattahoochee River valley in southwestern Georgia, and occupied during the late Precontact period (ca. AD 1100-1500). Most studies of settlements with monumental and public architecture dating to this period interpret these locations as the central place of a chiefdom or administratively centralized regional polity. However, intrasite historic settlement patterns at most of these sites are not well understood. To address this problem, I systematically surveyed 61 hectares at Singer-Moye. I created a local chronological framework using relative and absolute dating techniques. I compared historic changes in settlement size and the pace and timing of monumental and public constructions to other similar settlements in the region. I found that Singer-Moye remained relatively small between ca. AD 1100-1300, never exceeding six hectares and marked by the construction of a single mound. Between ca. AD 1300-1400, Singer-Moye experienced a rapid population increase as indicated by an expansion

of the settlement footprint to at least 29.2 hectares. Coincident with this expansion was a massive monumental and public architecture construction program, including the layout of two plazas, between four and seven mounds, and the demarcation of interior settlement space. After AD 1400, the Singer-Moye settlement decreased to less than ten hectares, and only a single large mound was in use before the site was abandoned ca. AD 1500. I argue that the rapid changes in the settlement footprint occurred from cycles of population aggregation and dispersal, and that the construction and modification of the built environment represented the manifestations of community level decision making aimed at reducing scalar stress and increasing positive social interactions. More generally, I propose that in addition to political centralization, long-term aggregation and regional functional and/or ritual specialization played an important role in the emergence and persistence of large settlements.

INDEX WORDS: Middle Range Societies, Settlement Archaeology, Systematic Survey, Lower Chattahoochee River Valley, Singer-Moye, Mississippian, Southeastern Archaeology,

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DEDICATION

For Jen. You inspire me.

In memory of Dr. William Chester Brannan (1942-2005)

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I. AN INTRODUCTION TO SINGER-MOYE AND THEORETICAL PERSPECTIVES

In the past, I have referred to the site of Singer-Moye as the unknown prehistoric gem of the lower Chattahoochee River valley (LCRV) because of its remote location, limited archaeological excavations, and lack of greater research visibility due to the results of the work appearing in only a few publications, mostly smaller regional journals (Brannan 2012). It is one of the most impressive archaeological sites in the southeastern United States (Figure 1.1). The number and size of the mounds and other elements are impressive, as is the overall state of preservation. It is no surprise that the Columbus Museum sponsored several decades of excavation, though almost all their efforts concentrated on the partial excavation of several mounds. The most prominent features of the built environment are the remains of five platform and three dome-shaped mounds arranged around two plazas, which together constitute the site core. The largest (Mound A), rises between 10-14 meters from the surrounding terrace upon which it sits, and is the fourth largest mound in Georgia. Moving north, one travels between several smaller mounds (B, C, and E) placed around two open spaces, divided by Mound F in the center, before arriving at Mound D at the northernmost point of the central area. Moving southwest of Mound A, one encounters the enigmatic Mound G directly adjacent to the large ramp. Originally, Mound H was almost directly east of Mound A, but repeated plowing and erosion has erased it from sight.

Based on earlier studies, researchers concluded that the mounds at Singer-Moye were constructed between ca. AD 1100-1450, it went through cycles of occupation and abandonment, and it functioned as the central place of a chiefdom or polity (Blitz and Lorenz 2006; Schnell and Wright 1993). Unfortunately, few non-mound residential areas were subjected to scientific inquiry, the local history of the settlement was unknown, and researchers suggested an arbitrary settlement size of approximately 14 ha based on the size of the upland plateau that the site was situated upon.

Although the Columbus Museum engaged in numerous archaeological research projects in the LCRV after it was founded in 1953, by the early 2000s its mission changed to emphasize public outreach and education. As part of this transition, the University of Georgia (UGA) acquired ownership of Singer-Moye from the Columbus Museum in 2008, including the mound and plaza complex on 44 acres (17.8 ha). In 2011, the Moye family generously donated an additional 102 acres (41.3 ha) of adjacent property to UGA. This property represented an excellent opportunity to employ a settlement archaeology approach (Trigger 1967) to explore the spatial and temporal connections between settlement size, monumental architecture, and public space.

Settlement Size Patterns in the Southeastern United States

The major impetus for my research can be summed up from a simple question asked by one of my grant reviewers, are large archaeological sites merely small sites writ large, or are there aspects, other than size alone, that occur regularly when sites are large but are rare when they are small?

To begin to answer the question about quantitative and qualitative size differences, I searched for settlements in the Deep South that were temporally

contemporaneous to Singer-Moye, had monumental architecture, and represented a wide range of settlement sizes. Unfortunately, the brief treatment given to Singer-Moye that I outlined above is not unique for sites in the southeastern United States and I discovered that many other towns are described in much the same way. When my initial sweep proved to be an insufficient comparative collection, I expanded my geographic and temporal coverage to include a wider geographical and temporal sample. In total, I compiled ordinal and interval data using spatial and categorical classifications from 70 sites in the southeastern United States that were occupied between 3500 BC and AD 1700, to compare the organization of sites with residential areas, monumental architecture, plazas, and earthworks and palisades (Figure 1.2; Table 1.1a, 1.1b).

I selected these data because they are the most often reported and mapped data from settlements. Changes in these elements signals possible societal shifts or reconfigurations. Shifts in settlement size mark changes in population, whether through endogamous growth, rapid aggregation, or dispersal and even total abandonment. The construction, modification, and abandonment of the monumental built environment is tied to the enactment, repurposing, and rejection of institutions and practices represented by those monuments. Plazas represent public space used regularly by locals as well as more sporadically by members of the greater region when they travel to those places. The construction and repurposing of plaza space marks shifts in the need for public space in the face of other societal concerns. Earthwork and palisade construction indicates a need to partition space, whether it is in the form of providing protection from those that are outsiders to the settlement, or clearly delineating restricted space within a settlement when such divisions are necessary.

Broadly speaking, the data show some interesting patterns at the univariate level of analysis when extreme outliers are removed (Figure 1.3). The distribution of sites by size (Figure 1.3: top) shows a multi-modal distribution with one mode near approximately 4-5 ha, a second mode around 20 ha, a potential third mode at 45 ha, and then several more occurrences at larger intervals. The distribution by number of mounds is also multi-modal (Figure 1.3: second row, left). Most sites only had a single mound. A second mode is at 7 mounds. A third potential mode is around 18 mounds, with three singular instances of more than 20 mounds. The distribution by mound area is not multimodal (Figure 1.3: second row, right). Thirty-nine have less than 0.5 ha of the settlement taken up by mounds, with a continually decreasing frequency as mound area increases. Most sites have a single plaza (Figure 1.3: third row, left). Five sites have two plazas and only one has four. The size of plaza space has a similar distribution (Figure 1.3: third row, right). Most sites have a small amount of plaza space, and site frequency decreases as plaza spaces increases to 2.6 ha. Two sites represent possible outliers, one at 4.0 ha and one at 4.5 ha. Just over half of the sites have a palisade, and the methods used at many of the other sites are not meant to locate palisades (Figure 1.3: bottom row, left). Over half of the sites in the data set have not been systematically surveyed, and the other half were either fully or partially surveyed (Figure 1.3: bottom row, right).

Based on the potential multimodal nature of the site size data, I outlined several descriptive categories. These categories were not meant to serve as normative identifiers, but as preliminary comparative examples using grouped data. I identified five non-overlapping categories, small (0.52 to 10.4 ha), medium (16 to 24.3 ha), large (42 to 75 ha), extra-large (129.5 to 163 ha), and Cahokia (800 ha). Based on those categories, I

calculated the minimum, maximum, and range of other attributes within those size classes, using site size as the independent variable, and used medians and IQRs to minimize the effect of outliers (Table 1.2; Figure 1.4). Of the four dependent categories, only the number of plazas was not discriminatory. The other categories were discriminate from each other based on quartiles with only a minor amount of overlap. I did not incorporate palisades or earthworks into a multimodal analysis.

Several sites had issues that required them to be treated as extreme outliers or potentially erroneous. I elected to place Cahokia in a unique category because it is an extreme outlier in all cases and represents a qualitatively different type of settlement than anything else in the Eastern Woodlands of the United States (Pauketat 2007). Though I combined Fort Center and Pack into the extra-large category, they should be considered outliers as well, until more 100+ ha sites are identified. I removed Moundville and Winterville from analyses dealing with plaza area. Moundville's plaza, at 46 ha, encompasses hundreds of houses and it should not all be considered public space (See Davis et al. 2015). Winterville is another special case because it was classified as a vacant ceremonial center without local residential areas by Brain (1989), and thus the entire remaining 17 ha area was classified as plaza space. Recent research by the University of Southern Mississippi has found midden deposits in non-mound contexts (Kowalski 2009), calling into question the size of the plaza reported by Brain.

Despite a rich exploration of the various aspects of monumentality at numerous locations across the southeastern United States in the literature, I was struck by the lack of published large scale systematic surveys at many of the sites that I consulted when constructing my comparative dataset. Most small settlements on Table 1.1 have had some

degree of systematic survey conducted, but few of the larger ones have been completely surveyed. Half (35) of the settlements have no reference to a systematic survey of any kind though one may have been conducted, 7 had a portion surveyed systematically, and 28 were systematically surveyed, though this number includes either traditional excavation-based survey methods and/or shallow geophysical survey. Unfortunately, the lack of fine-grained chronological and spatial data makes it impossible to evaluate how or if site size changed through time, and to connect monuments, plazas, and other aspects of the built environment to site size.

There have been only a few attempts at quantifying settlement sizes in a comparative manner in the southeastern United States except in search of administrative centralization (e.g. Anderson 1999; Holley 1999; Payne 1994). The heavy reliance on the socio-political aspects of administration, centralization, and hierarchy, that is, the rise and persistence of the chiefdom, as the primary explanation for site size, has been critiqued as normative and reductionist (Feinman and Neitzel 1984; Gronenborn 2006; Pauketat 2007; Yoffee 1993). Those types of explanations have fallen out of favor for middle range societies (*sensu* Hegmon 2010; Parkinson 2002) other than the ones occupied in the southeastern United States during the late Precontact (i.e. Mississippian) period, between ca. AD 930-1500 (Anderson and Sassaman 2012).

Objectives and Research Questions

In my own case, I choose to follow the advice of Brown (2006:198), who suggested that the time honored inclination in archaeology to seek evidence of hierarchical control behind every monumental construction, a coercive power behind every large pile of rock or earth, and an economic pull behind every instance of

accumulated goods, limits the ability to construct narratives about the past and excludes legitimate discussions about alternative lines of thought; I wanted to reconceptualize the discussion from one comparing degrees of political centralization to one involving differences in settlement size. I wanted to identify other valid explanations for variations in site size for settlements in the southeastern United States that took into account settlement histories and at the same time did not start with the assumption that they were politically created entities (e.g. Anderson 1994, 1999; Beck 2003; Blitz and Lorenz 2006; Hally 1993, 1996, 2006; Holley 1999; King 2003; Knight and Steponaitis 1998; Pauketat and Emerson 1997; Payne 1994; Peebles and Kus 1977; Scarry 1996).

Top down approaches can be useful, especially as idealized comparative devices, but their uncritical use has led to the significant masking of variability in the anthropological record. Archaeologists are increasingly turning away from generalizing approaches and embracing conceptual frameworks based on history and practice, variability in the exercise of agency and power, and the role of ritual and symbolism, as well as traditional concerns with production, consumption, and the ecological dimensions of geopolitical change (e.g., Alt 2010; Beck 2013; Cobb 2003, 2014; Pauketat 2007, 2013; Pauketat and Alt 2005; Pluckhahn 2010). These contemporary approaches acknowledge that socio-cultural change is produced in practice by individuals as they navigate the historically contingent settings of everyday life.

The notions of agency and practice (Bourdieu 1977; Giddens 1979; 1984) are relevant to what occurred at sites such as Singer-Moye. Agency and practice are not abstract, they allow for a discussion about ancient societies, made up of individuals and households as they go about their daily subsistence and social activities. The accumulated

results of these actions can be seen in the archaeological record as individuals and household agents react to their natural environment within a social one (Wilkinson et al. 2013:4). At a second analytical level, practice is what people did and how abstract structures and norms of culture were translated into decisions on the ground. (Johnson 2007: 142, 150). Those decisions result in aggregate patterns at the level of the society, which create the illusion that society itself has done something (Beekman 2005: 54).

My approach to identifying the aggregate patterns at Singer-Moye is firmly rooted in a settlement archaeology framework, defined by Bruce Trigger (1967:151) as the study of social relationships using archaeological data, with the goal of understanding both the synchronic, or structural, and diachronic, or developmental, aspects of these relationships. Under this framework, I have posed several questions to explore the aggregate patterns that are represented at Singer-Moye and the greater region.

- 1. What is the size of the settlement at Singer-Moye?**
- 2. What is the settlement chronology? If there are changes in settlement size, were changes slow or rapid? When did they occur in the occupational sequence?**
- 3. How are changes in settlement size connected to the use of monuments, plazas, and/or palisades?**
- 4. How does Singer-Moye compare to other regional sites?**
- 5. At the regional level, what factors contributed to the creation and continuing use of Singer-Moye?**

I address these research questions through the results of a systematic archaeological survey of 61 ha at Singer-Moye and a new and finer-scale chronology.

Connecting the spatial and temporal axes at Singer-Moye means settlement size and subsequent size shifts can be identified from the distribution of diagnostic artifacts, as well as exploring different processes that could lead to similarly sized archaeological sites. Webb and Frankel (2004: 125, 133) outline different scenarios that could lead to similar settlement sizes, though only the first one results from changes in settlement size through time (Figure 1.5). Other scenarios posit that maximal site size does not necessarily correlate to maximal settlement size. The four scenarios are:

1. *Gradual exponential growth and/or decline* (Figure 1.5a). Webb and Frankel (2004) suggest that in a relatively stable or neutral environment, a settlement may increase in population, density, and size from its inception to abandonment, or alternatively, achieve a point of stability before experiencing a gradual or abrupt decrease in size prior to abandonment. In this case, the maximum spread of the settlement would best represent the maximum extent of habitation.
2. In contrast to the first scenario, a site may represent a *shifting settlement* across an area (Figure 1.5b). In this case the maximum extent of the site would represent a horizontal accumulation of asynchronous habitation areas and would not represent the absolute settlement size at any point in time.
3. *Punctuated or sequential* settlements (Figure 1.5c) represent the habitation, abandonment, and re-habitation of a site. This scenario would create a pattern of partially overlapping habitation areas based on the location of individual settlements, based on whether particular places were reoccupied through time.

4. The *clustering* or *dispersion* of contemporary households (Figure 1.5d) in spatially discrete locations could result in a site with a large areal extent, even though the settlement was not laid out as a contiguous array of buildings.

As the independent variable in the study, site size is important to ascertain before other comparisons can be made. Intrasite analysis is necessary to identify the specific life histories of sites and identify organization changes within communities (Birch 2013:7). Most archaeological models dealing with settlement growth and changes in organizational complexity treat population increases based on mechanical, or internal growth, and assume that populations increase mechanically over time through natural, though variable, growth rates. (e.g., Bandy 2008; Carniero 1970; Johnson 1978). In this way, scalar stress increases gradually through time, contingent upon population growth. As societal and communication stress increases, various social, political, material, and economic mechanisms are gradually developed, bringing about organizational changes. If the stress cannot be managed through existing mechanisms of social and political organization, then a settlement either experiences fission into more, smaller social units (Bandy 2004; Carniero 1987), suprahousehold organizations will be developed to reduce the numbers of decision-making units, or leadership hierarchies will rise to coordinate community functions and arbitrate disputes (Carniero 1970; Johnson 1982). In the southeastern United States, the most prominent manifestations of suprahousehold organizations and other mechanisms to alleviate stress are the types of monumental and public architecture that are incorporated into the settlement (Pauketat et al. 2002).

However, sequences of sociopolitical development and population growth can also proceed in a nonlinear fashion, that is, they grow at a rate faster than internal growth can account for (e.g., Blanton et al. 1993; Flannery 1999; Warrick 2008). Numerous settlements have been documented from nonlinear patterns of growth due to fission, fusion, and cycling (e.g., Anderson 1994, 1996; Bandy 2004; Birch 2013; Blitz 1999; Parkinson 2002; Peterson and Drennan 2012). Those communities that were built quickly had to rapidly enact mechanisms to ensure success.

The expectation is that if population growth was slow and steady through time, then changes in settlement size would follow a constant, mechanistic growth rate, and the construction sequence of monuments and plazas would be similarly spread out. If population growth was due to large-scale nonlinear growth, then changes in settlement size would be rapid and the construction sequence of monuments and plazas would be concurrent. Conversely, if the settlement pattern more closely resembles one of the other three scenarios posited by Webb and Frankel (2004), suggesting static population sizes, then the relationship would be between specific occupational loci and monumental architecture. Two scenarios would account for this relationship, either mounds were associated with specific residences and community groups, or they were set apart from any specific residential cluster, potentially as a community construction.

In terms of settlement size, while I did not know how large Singer-Moye was when I started my dissertation, I was aware that it could be bigger than almost all other contemporary sites in the LCRV. I wanted to compare Singer-Moye to its brothers and sisters in the region, namely the ten other sites that contained monumental architecture, that were contemporaneous, and that exhibited similar material culture-related practices.

The purpose was to see how local historical practices were exhibited in other settlement histories, and how changes in settlement patterns at Singer-Moye were reflected in the wider region, both at sites with and without monumental architecture.

In addition to site-specific histories, I was also interested in identifying human agency and practice at the community level to explore reasons behind potential differences in settlement size. Most relevant explanations fall under one or more broad categories. Adaptationist explanations suggest that local population size was due to specific environmental or behavioral factors, which followed a general trend of increasing complexity and size through time (e.g. Caldwell 1958; Milner 1998). Political economy or cult of personality explanations posit that people relocated to settlements due to the attractive force of individuals or groups who may have controlled the manufacture or movement of items or ideology important for social reproduction (e.g. Blitz 2010; Peregrine 1992). Cooperation and collective action theory suggests that the pooling of populations increased agricultural productivity and promoted security from environmental or social processes, which promoted increases in settlement size (e.g. Carballo 2013; Netting 1993; Stone 1996). Ritualistic explanations propose that at places where the growth and size of large towns could not be explained only through other economic or political means, these settlements may have served as communal or ceremonial centers for the ritual needs of associated kin groups through elaborate ritual apparatus (e.g. Pauketat 2013; Yoffee et al. 1999).

I choose to operationalize this using site size determinants and corresponding evidence as proposed by Duffy (2015). Duffy (2015) suggests six determinants of settlement systems that account for site size hierarchy in middle range societies (Figure

1.6) (Duffy 2015:87-89; Flannery 2009:91-130). They are: 1. Seasonal occupation, 2. Long-term aggregation and dispersal, 3. Fission through growth, 4. Differences in productive catchment, 5. Regional functional specialization, and 6. Regional political hierarchy. Three of these - seasonal occupation, long-term aggregation and dispersal, and fission through growth, are yearly, multi-year, or generational processes yielding archaeological palimpsests. The remaining three - differences in productive catchment, regional functional specialization, and regional political hierarchy - can occur in situations where different sized sites exist at the same time in a region. Following Duffy (2015), I set out to identify which determinants, as a reflection of human decision making and practice, were embodied at Singer-Moye throughout its settlement history.

Layout of Dissertation

In the chapters the follow, I present the archaeological record that represents the rich aggregate patterns resulting from the decision making of the people, households, and community(ies) at Singer-Moye that go into answering my research objectives (Table 1.3). This chapter outlined my research questions and theoretical perspective. Chapter 2 contains the environmental, temporal, cultural, and historical context of the site. Chapter 3 provides the chronological framework through an analysis of ceramic diagnostic attributes and associated radiocarbon dates. Chapter 4 details the results of my systematic shovel test survey of a 61-ha contiguous area connected to the central mound-and-plaza complex and details how I arrived at site size estimates. In Chapter 5 I discuss the built environment in the form of eight mounds anchoring the central site core through a discussion on their size, orientation, and function. Chapter 6 explores the public space at Singer-Moye, concentrating on the two plazas outlined in the shovel test survey and

discussing the shallow geophysical survey results employed on them. Chapter 7 synthesizes the historical progression of the Singer-Moye community based on the results from prior chapters and connects it to the broader region. Chapter 8 summarizes the findings of my research and future research directions. Appendix A contains spatial information for the investigations discussed in this text, primarily relevant to Chapters 3, 4, 5, and 6. Appendix B is comprised of all artifactual information, also referenced in Chapters 3, 4, 5, and 6. The results from my itemset mining analysis can be found in Appendix C, of importance for Chapter 3. Appendix D contains the basic code from the Oxcal models discussed in Chapter 3 and 7.

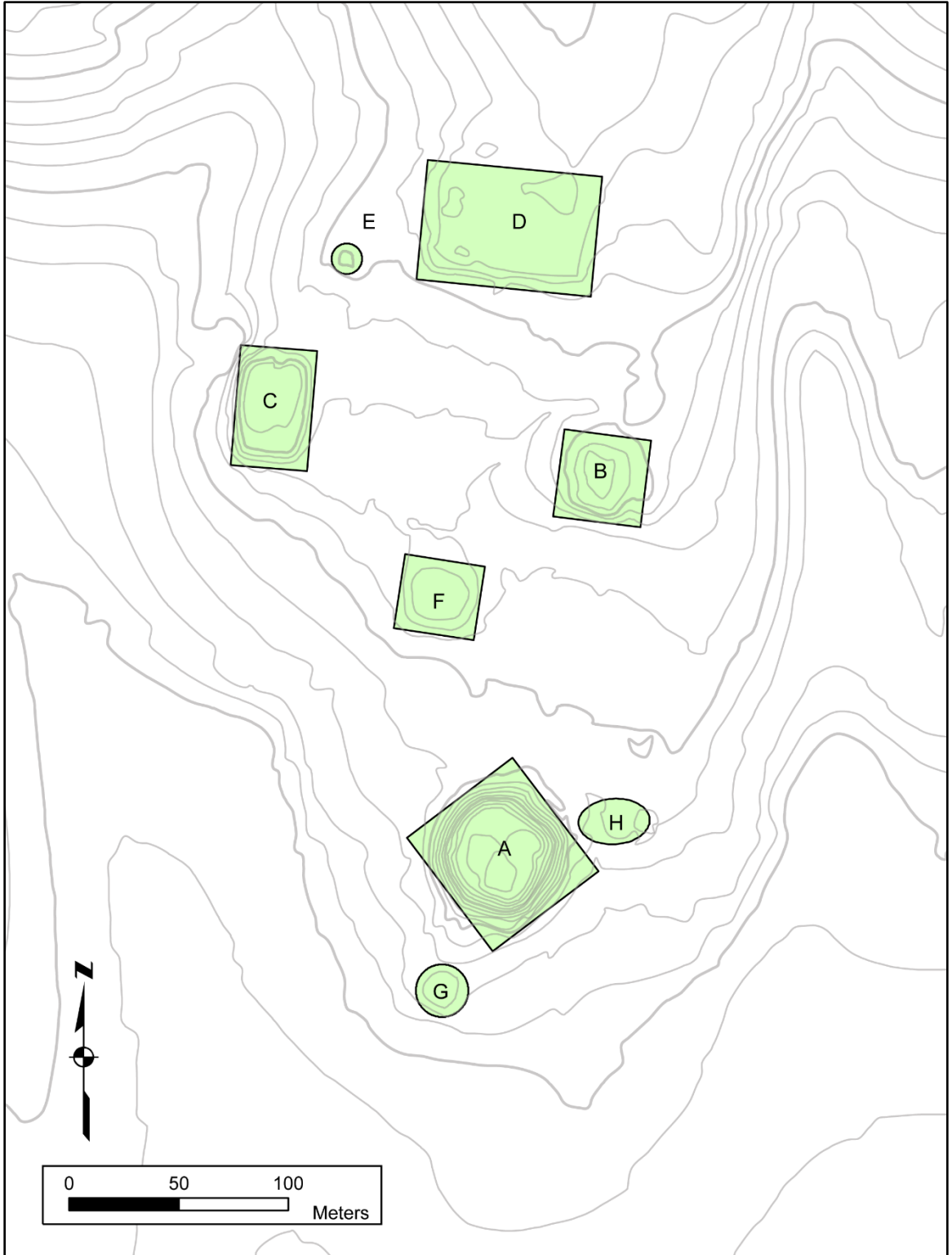


Figure 1.1. Map of Singer-Moye

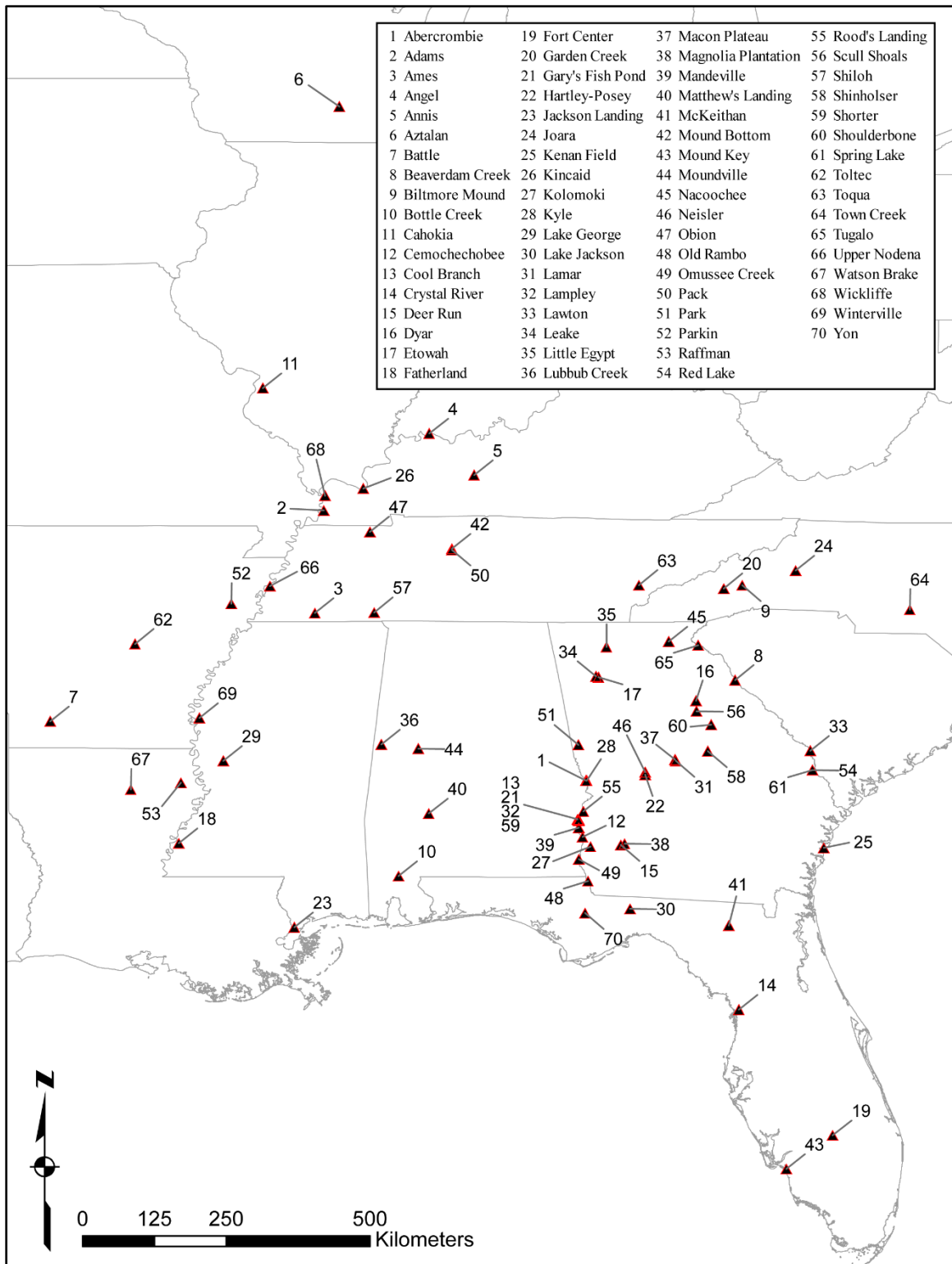


Figure 1.2. Sites used in settlement size analysis

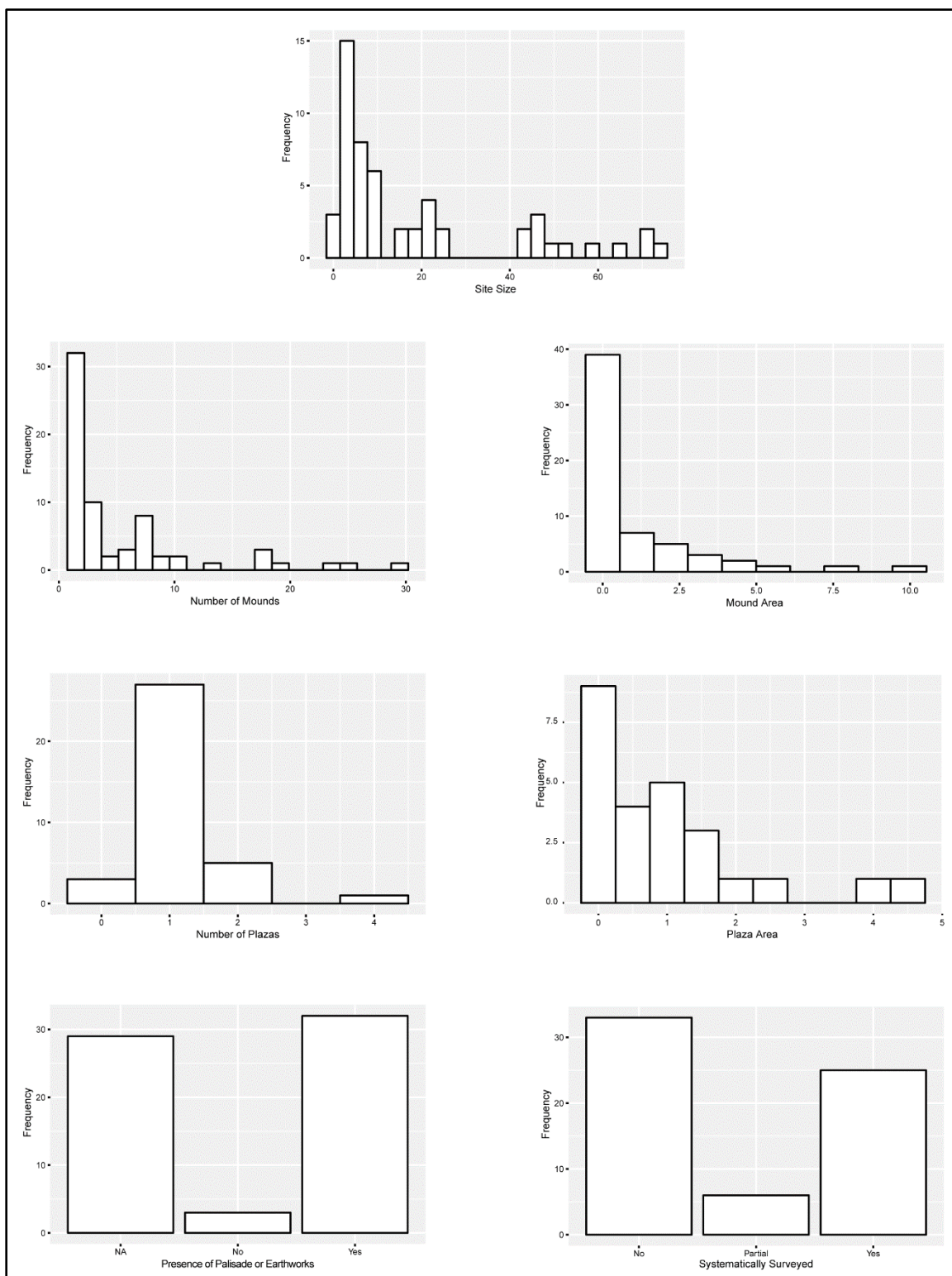


Figure 1.3. Univariate results from comparative sites

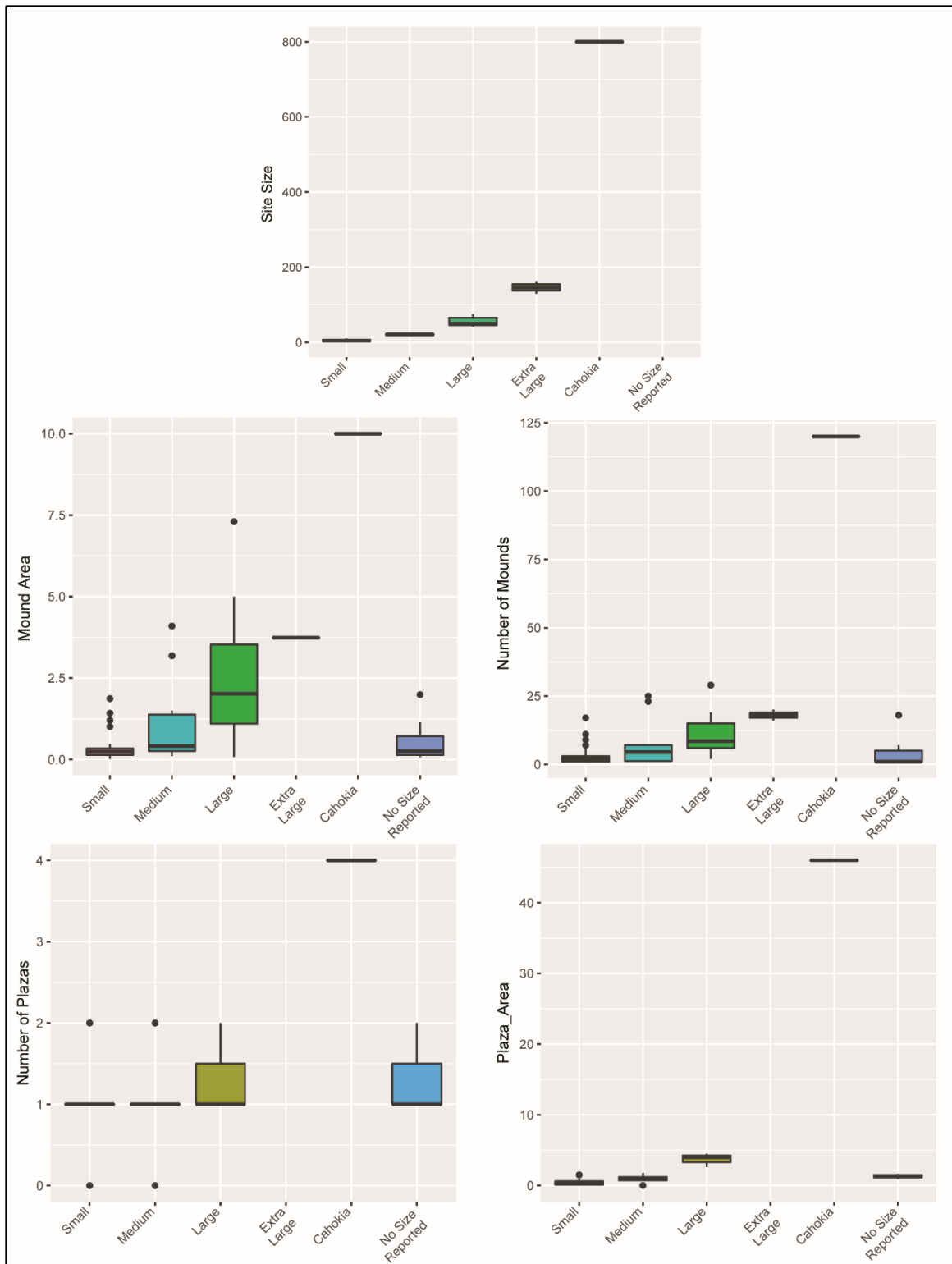


Figure 1.4. Distribution of variables from comparative sites

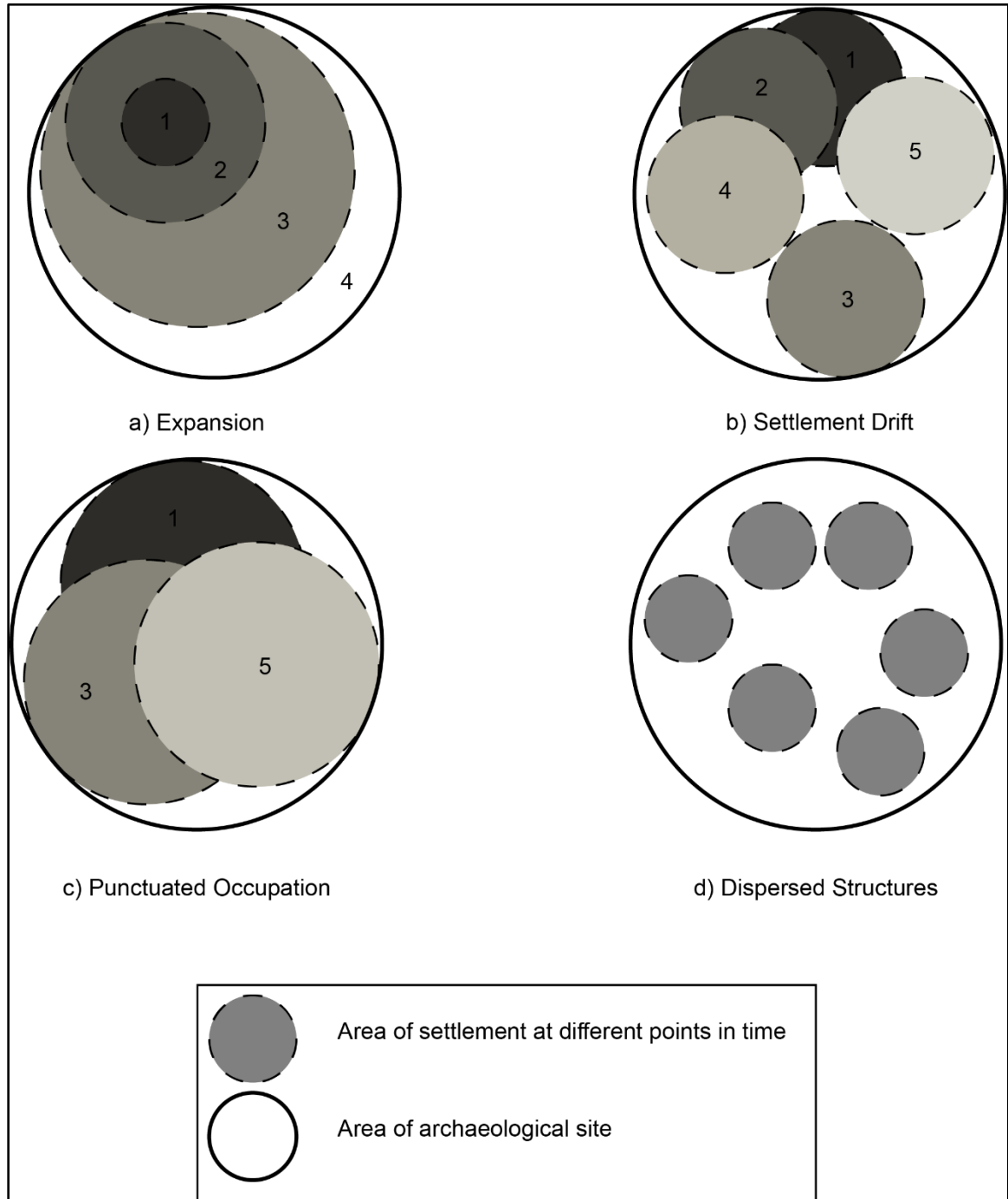


Figure 1.5. Four possible settlement configurations

(adapted from Webb and Frankel 2004)

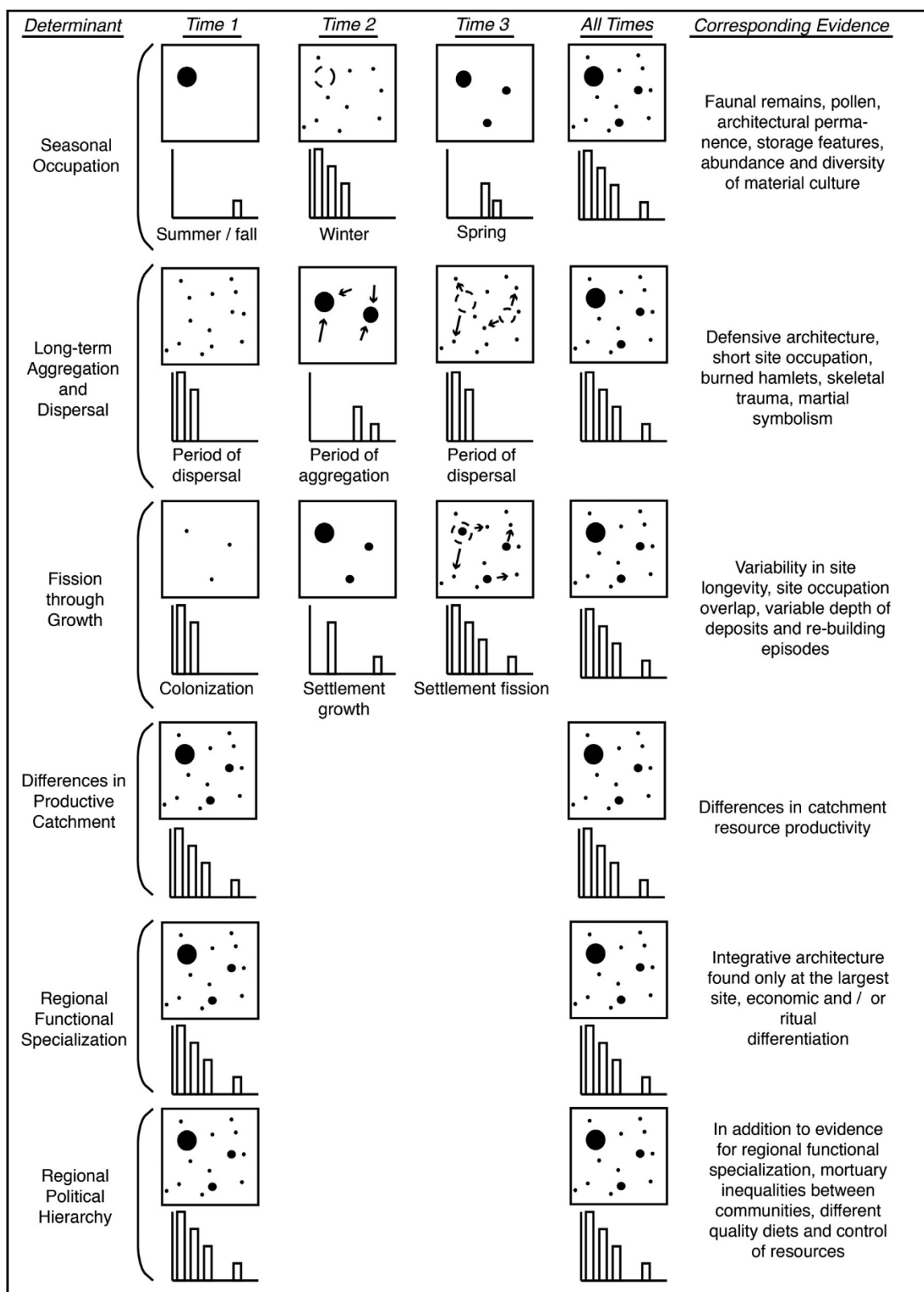


Figure 1.6. Six determinants of site size hierarchy (Duffy 2015: Figure 2)

Table 1.1a. Comparison of Sites in the Eastern Woodlands

Site	Occupational Span	Site Size	Number of Mounds	Mound Area	Plazas	Plaza Area	Palisade, Ditch, Earthwork	Systematic Survey
Abercrombie	1200-1300	NA	1	0.28	NA	NA	NA	No
Adams	1100-1500	7.3	7	1.20	2	0.50	NA	No
Ames	1100-1300	3.0	4	0.37	1	0.70	Yes	Partial
Angel	1100-1450	47.0	11	4.50	NA	NA	Yes	No
Annis	1100-1450	NA	1	0.08	NA	NA	Yes	No
Aztalan	1100-1250	10.4	4	0.46	1	1.50	Yes	Yes
Battle	1200-1680	NA	1	0.18	NA	NA	NA	No
Beaverdam Creek	1200-1250	1.5	1	0.16	NA	NA	NA	Yes
Biltmore Mound	300-600	10.0	1	0.28	NA	NA	NA	Yes
Bottle Creek	1250-1550	NA	18	1.99	1	1.32	NA	No
Cahokia	1050-1275	800.0	120	10.00	4	46.00	Yes	No
Cemochechobee	1200-1300	46.0	3	0.24	NA	NA	NA	No
Cool Branch	1100-1200	4.9	1	0.03	NA	NA	Yes	No
Crystal River	300 BC - 600	6.9	6	1.42	1	0.50	NA	Yes
Deer Run	1350-1600	5.0	17	0.31	1	0.26	NA	Yes
Dyar	1100-1600	2.2	1	0.18	1	0.12	No	Yes
Etowah	1000-1550	21.0	6	1.00	1	1.00	Yes	No
Fatherland	1200-1730	NA	3	0.26	2	0.96	No	No
Fort Center	500 BC - 1700	129.5	16	3.74	NA	NA	Yes	Partial
Garden Creek	200-800	5.8	3	0.34	NA	NA	No	No
Gary's Fish Pond	1400-1450	8.0	1	0.07	NA	NA	Yes	No
Hartley-Posey	1100-1550	NA	1	0.10	NA	NA	NA	Partial
Jackson Landing	400-700	24.3	1	0.35	NA	NA	Yes	Yes
Joara	1400-1600	4.5	1	0.38	NA	NA	Yes	Yes
Kenan Field	1000-1540	60.0	2	0.08	1	NA	Yes	Yes
Kincaid	1050-1400	70.0	19	2.70	2	NA	NA	No
Kolomoki	350-750	48.7	9	7.30	2	4.00	Yes	Yes
Kyle	900-1300	2.7	1	NA	NA	NA	NA	No
Lake George	800-1500	22.0	25	3.18	2	1.81	Yes	No
Lake Jackson	1000-1500	24.0	7	1.50	1	NA	NA	Partial

Table 1.1a. Comparison of Sites in the Eastern Woodlands

Site	Occupational Span	Site Size	Number of Mounds	Mound Area	Plazas	Plaza Area	Palisade, Ditch, Earthwork	Systematic Survey
Lamar	1350-1600	9.2	2	0.32	0	0.00	Yes	Yes
Lampley	1450-1550	1.3	1	0.03	NA	NA	NA	No
Lawton	1250-1350	1.3	2	0.09	1	0.09	Yes	Yes
Leake	300 BC - AD 650	45.0	3	1.09	NA	NA	Yes	Partial
Little Egypt	1400-1600	2.8	3	0.34	1	NA	NA	No
Lubbub Creek	1000-1650	23.0	1	0.16	1	NA	Yes	Yes
Macon Plateau	950-1150	70.0	8	1.70	NA	NA	Yes	No
Magnolia Plantation	1100-1200	4.2	3	0.22	NA	NA	NA	Yes
Mandeville	1100-1200	16.2	1	0.10	NA	NA	NA	No
Matthew's Landing	1450-1600	0.8	2	0.24	1	NA	NA	Yes
McKeithan	200-750	19.0	3	0.44	1	NA	NA	Yes
Mound Bottom	1000-1300	43.0	14	2.34	1	2.60	Yes	Yes
Mound Key	400-1670	51.0	7	1.10	NA	NA	Yes	Partial
Moundville	1000-1450	75.0	29	5.00	1	23.00	Yes	Partial
Nacoochee	1350-1600	4.0	1	0.18	0	0.00	NA	Yes
Neisler	1100-1550	9.0	1	0.05	NA	NA	NA	No
Obion	1050-1300	NA	7	1.14	1	1.65	Yes	No
Old Rambo	1200-1500	4.1	1	0.02	NA	NA	NA	No
Omussee Creek	1300-1550	9.0	1	NA	NA	NA	NA	No
Pack	1000-1300	163.0	20	NA	NA	NA	Yes	No
Park	1550-?	0.5	1	0.19	NA	NA	Yes	No
Parkin	1350-1650	7.0	7	NA	1	NA	Yes	No
Raffman	700-1200	3.3	9	1.87	1	0.99	NA	No
Red Lake	1250-1350	3.8	3	0.15	1	0.08	NA	Yes
Rood's Landing	1100-1600	64.0	8	1.17	1	NA	Yes	No
Scull Shoals	1250-1650	4.8	2	0.25	NA	NA	NA	Yes
Shiloh	1000-1450	22.0	7	0.39	1	0.96	Yes	No
Shinholser	1300-1650	16.0	2	0.23	0	0.00	NA	Yes
Shorter	1450-1550	4.7	1	0.33	NA	NA	NA	No
Shoulderbone	1250-1450	4.4	3	0.47	NA	NA	Yes	Yes
Spring Lake	1250-1350	2.2	1	0.03	NA	NA	NA	Yes
Toltec	600-1050	42.0	18	3.20	1	4.50	Yes	Yes
Toqua	1250-1600	3.9	2	0.27	1	0.22	Yes	Yes
Town Creek	1150-1400	2.3	1	0.08	1	0.86	Yes	No
Tugalo	1000-1600	2.0	1	0.25	NA	NA	Yes	Yes
Upper Nodena	1400-1600	6.3	3	NA	1	0.14	Yes	Yes
Watson Brake	3500 BC - 3000 BC	6.0	11	1.01	NA	NA	Yes	Partial
Wickliffe	1100-1350	2.5	9	0.14	1	0.25	Yes	No

Table 1.1a. Comparison of Sites in the Eastern Woodlands

Site	Occupational Span	Site Size	Number of Mounds	Mound Area	Plazas	Plaza Area	Palisade, Ditch, Earthwork	Systematic Survey
Winterville	1200-1450	20.0	23	4.10	1	17.50	NA	No
Yon	1200-1700	8.0	1	0.18	NA	NA	NA	Yes

Table 1.1b. References for Sites in Table 1.1a

Site	Reference
Abercrombie	Blitz and Lorenz 2006
Adams	Lewis 1986; Stout and Lewis 1998
Ames	Guidry 2013; Mickelson and Goddard 2011; Mickelson personal communication in Cobb and Butler 2016
Angel	Black 1967
Annis	Hammerstedt 2005
Aztalan	Birmingham and Goldstein 2005
Battle	McKinnon 2013
Beaverdam Creek	Rudolph and Hally 1985
Biltmore Mound	Kimball et al 2010
Bottle Creek	Brown 2003
Cahokia	Pauketat 2004
Cemochobee	Schnell et al. 1981
Cool Branch	Blitz and Lorenz 2006
Crystal River	Pluckhahn and Thompson 2009; Thompson and Pluckhahn 2010
Deer Run	Blanton et al. 2011
Dyar	Smith 1994
Etowah	King 2003
Fatherland	Neitzel 1983
Fort Center	Sears 1982; Thompson and Pluckhahn 2012
Garden Creek	Wright 2014a, 2014b
Gary's Fish Pond	Georgia Archaeological Site File
Hartley-Posey	Worth 1988
Jackson Landing	Boudreaux 2011
Joara	Beck et al. 2006
Kenan Field	Crook 1978
Kincaid	Cole et al. 1951
Kolomoki	Pluckhahn 2003
Kyle	Georgia Archaeological Site File
Lake George	Williams and Brain 1983
Lake Jackson	Payne 1994
Lamar	Williams 1999
Lampley	Alabama State Site File
Lawton	Wood 2009; King personal communication in Cobb and Butler 2016

Table 1.1b. References for Sites in Table 1.1a

Site	Reference
Leake	Keith 2013
Little Egypt	Hally 1980
Lubbub Creek	Blitz 1993
Macon Plateau	Hally and Williams 1994
Magnolia Plantation	Chamblee 2006
Mandeville	Keller and Williams 1962
Matthew's Landing	Regnier 2014
McKeithan	Milanich et al. 1997
Mound Bottom	Moore et al. 2016; O'Brien and Kuttruff 2012
Mound Key	Thompson et al 2016; Torrence et al 1994
Moundville	Knight and Steponaitis 1998
Nacoochee	Williams 2004
Neisler	Worth 1988
Obion	Garland 1992
Old Rambo	Georgia Archaeological Site File
Omussee Creek	Alabama State Site File n.d.
Pack	Moore et al 2016
Park	Hally and Oertel 1977
Parkin	Morse, P. 1990
Raffman	Kidder 2004
Red Lake	King personal communication in Cobb and Butler 2016; Wood 2009
Rood's Landing	Caldwell 1955; Knight and Mistovich 1984
Scull Shoals	Williams 1992
Shiloh	Anderson et al. 2013
Shinholser	Williams 1990
Shorter	Alabama State Site File
Shoulderbone	Williams 1990
Spring Lake	Wood 2009
Toltec	Rolingson 2012
Toqua	Polhemus 1987
Town Creek	Boudreaux 2007; Coe 1995
Tugalo	Williams 2008
Upper Nodena	Mainfort et al. 2007; Mainfort (ed) 2010
Watson Brake	Saunders et al. 2005
Wickliffe	Wesler 2001
Winterville	Brain 1989
Yon	Du Vernay 2011

Table 1.2. Breakdown of Variables Used in Site Comparisons

Variable	Group Category	n	median	1st Q	3rd Q	IQR	min	max	range
Site Size	Small	38	4.28	2.56	6.75	4.191	0.52	10.4	9.88
	Medium	10	21.5	19.25	22.75	3.5	16	24.3	8.3
	Large	12	49.85	45.75	65.5	19.75	42	75	33
	Extra Large	2	146.25	137.86	154.63	16.75	129.5	163	33.5
	Cahokia	1	800	-	-	0	800	800	0
	No Size Reported	0	-	-	-	-	-	-	-
Number of Mounds	Small	38	2	1	3	2	1	17	16
	Medium	10	4.5	1.25	7	5.75	1	25	24
	Large	12	8.5	6	15	9	2	29	27
	Extra Large	2	18	17	19	2	16	20	4
	Cahokia	1	120	-	-	0	120	120	0
	No Size Reported	7	1	1	5	4	1	18	17
Mound Area	Small	34	0.242	0.14	0.34	0.197	0.018	1.869	1.85
	Medium	10	0.414	0.26	1.38	1.113	0.104	4.095	3.991
	Large	12	2.02	1.1	3.52	2.427	0.08	7.3	7.22
	Extra Large	1	3.74	-	-	0	3.74	3.74	0
	Cahokia	1	10	-	-	0	10	10	0
	No Size Reported	7	0.257	0.14	0.71	0.571	0.079	1.991	1.912
Number of Plazas	Small	18	1	1	1	0	0	2	2
	Medium	8	1	1	1	0	0	2	2
	Large	7	1	1	1.5	0.5	1	2	1
	Extra Large	0	-	-	-	-	-	-	-
	Cahokia	1	4	-	-	0	4	4	0
	No Size Reported	3	1	1	1.5	0.5	1	2	1
Plaza Area	Small	15	0.25	0.1	0.6	0.497	0	1.5	1.5
	Medium	4	0.982	0.96	1.81	0.479	0	1.81	1.81
	Large	3	4	3.3	4.25	0.95	2.6	4.5	1.9
	Extra Large	0	-	-	-	-	-	-	-
	Cahokia	1	46	-	-	0	46	46	0
	No Size Reported	3	1.323	1.14	1.49	0.344	0.958	1.647	0.689

Table 1.3. Connecting Research Questions to Data by Chapter

Research Area	Related Questions	Relevant Dissertation Chapters
1	What is the size of the settlement at Singer-Moye?	Chapter 2; Chapter 4
2	What is the settlement chronology	Chapter 3; Chapter 7
	If there are changes in settlement size, were changes slow or rapid and when did they occur in the occupational sequence?	Chapter 3; Chapter 5; Chapter 6
	How are changes in settlement size connected to the use of monuments and plazas?	Chapter 3; Chapter 5; Chapter 6
3	At the regional level, what factors contributed to the creation and continuing use of Singer-Moye? How does Singer-Moye compare to other similar regional settlements?	Chapter 2; Chapter 6; Chapter 7

II. THE ENVIRONMENTAL, HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL CONTEXT OF SINGER-MOYE

In this chapter, I discuss the environment, history, culture, and archaeology of Singer-Moye. I begin with a physical description, followed by an overview of its environmental and ecological context using general data where appropriate and site-specific data when available. I touch on the history of excavations and their initial findings. I conclude with an overview of the broader temporal and cultural context of the lower Chattahoochee River valley as it pertains to the time period between AD 1100-1500. This chapter pertains, in part, to answering questions about the size of the settlement. It also addresses regional environmental factors that contributed to the creation, use, and size of the site.

Environmental Setting

Singer-Moye's environmental setting centers on the lower Chattahoochee River valley and its surrounding watershed. The headwaters of the Chattahoochee River begin in the Blue Ridge Mountains of northern Georgia. The river flows roughly south-southwest to the confluence of the Chattahoochee and Flint Rivers at Lake Seminole. The lower Chattahoochee River valley starts at the Fall Line at Columbus Georgia and continues for approximately 190 km south where the Chattahoochee River joins the Flint River to form the Apalachicola.

Singer-Moye is located between the lower Chattahoochee and Flint Rivers on an upland terrace abutting the north side of Pataula Creek, approximately 45 km from its

confluence with the Chattahoochee River (Figure 2.1), and 15 km south of the town of Lumpkin, in Stewart County, Georgia. It is bisected by several springs and wetland areas that empty into Pataula Creek. The site grades gradually downslope from the highest elevation of 116 MASL at the northern end until it abuts Pataula Creek to the south at approximately 93 MASL (Figure 2.2).

A comprehensive reconstruction of the paleoenvironment has not yet been conducted either regionally in the lower Chattahoochee River valley or locally at Singer-Moye. At the broadest scale, macro-regional paleoenvironmental reconstructions of the southeastern United States suggest that modern climatic conditions were established by 5000 BP (Alvarez Zarikian et al. 2005; Delcourt and Delcourt 1985, Delcourt and Delcourt 1987). The macroregional environment buffered climate changes better than regions further north, only resulting in changes in the relative abundance of resources based on variations in temperature and precipitation instead of the wholesale replacement of one resource with a different one suited to a different climate regime (Little 2003: 25).

Ecoregion

Singer-Moye is on an ecotone at the eastern boundary of the Southern Hilly Gulf Coastal Plain, a subsection of the Southeastern Plains (Figure 2.3) (Griffith et al. 2001). The Southern Hilly Gulf Coastal Plain is a heterogeneous region that stretches from the Chattahoochee River watershed into Mississippi. In general, it is characterized by dissected irregular plains and gently rolling low hills with broad tops. It developed over diverse bands of sand, clay, and marl formations and as a result has a mix of clayey, loamy, and sandy soils. Streams have a low to moderate gradient and are mostly sandy bottomed. The natural vegetation is mostly oak-hickory-pine forest, but to the south it

transitions into southern mixed forest. The modern land use and cover consist of mostly mixed forest and pine plantations; some small areas of pasture and fields of corn, peanuts, rye, soybeans, and wheat (Wiken et al. 2011).

The edge of the Coastal Plain Red Uplands ecoregion is approximately 5 km southeast of Singer-Moye along a gradational boundary (Griffith et al. 2001). It is a mostly flat to gently rolling karst landscape containing sinkholes, springs, and fewer streams. Many flat-bottomed depressions are scattered throughout the region. Soils are typically clayey sand. Streams are mostly low gradient with some modern gradient sandy bottoms. The natural vegetation is mostly southern mixed forest, including longleaf pine, red oaks, and hickories. Wetter, poorly drained depressions contain blackgum, sweetgum, water oak, and a few pines and cypress. The limesink ponds and marshes act as biological oases in the mostly agricultural landscape. The modern land-use and cover consist of croplands and pastures, typically peanuts, pecans, and cotton, with some mixed forest mostly near streams (Wiken et al. 2011).

Hydrology

Singer-Moye is in the Southeastern Coastal Plain aquifer system (Miller 1991) between the Clairborne and Clayton aquifers (McFadden and Perriello 1983). Both aquifers are recharged through rainfall. Singer-Moye is near several water sources that are active all year. The closest major source of water is Pataula Creek. Its headwaters are approximately 15 km upstream from Singer-Moye. It is classified as a “blackwater” or “nonalluvial” stream because it originates in the Coastal Plain. Blackwater streams are clear of major sediment and stained the color of tea due to tannins leached out of streamside vegetation, which imparts a bitter taste to the water (Edwards et al. 2013:

351). Pataula Creek has meter-high steep banks alternating with stretches of floodplain swamps. The high banks confine the water except during major floods and the absence of suspended sediments impedes the construction of natural levees. Several additional unnamed springs and poorly-drained low-lying areas originate to the north of the site or in its boundaries and drain into Pataula Creek.

The nearest Pataula Creek stream gage is located 25 km south of Singer-Moye, near Georgetown, GA. Figure 2.4 show an analysis of stream flow from 2008 to 2013. The minimum average monthly streamflow was 126.14 cubic feet per second in July and the maximum was 574.12 cubic feet per second in December. The minimum amount of water recorded was 61.2 cubic feet per second in June, a sign of drought-like conditions. The maximum amount was 1,300 cubic feet per second in December, likely corresponding to a flood-like event. In general, the span of time from December through April had more available water and May through November had less available water but in no case was Pataula Creek ever completely dry (U.S. Geological Survey 2014).

Geology

The Coastal Plain is the youngest of Georgia's geologic provinces and is composed of sedimentary rock layers ranging in age from the Late Cretaceous to the present Holocene sediments of the coast (Frazier 2017). Singer-Moye is located on the Providence Sand formation (Lawton et al. 1976). Lawton et al. (1976) mapped four additional formations spanning multiple geological epochs within a 5-km radius (Figure 2.5; Table 2.1). These formations act primarily as the parent material for the generation of sediments, soils, and are the matrix surrounding clay and lithic resources.

Locally, clays were used for pottery making, house manufacturing and maintenance, as ground surfacing agent, and platform mound construction. In regard to pottery manufacturing, prehistoric potters had access to two types of clay, either sedimentary clays from Coastal Plain beds or alluvial clays from flood plains and terraces (Steponaitis et al. 1996: 561). Based on my macroscopic analysis, potters used several types of clay, but it is unknown which types were locally available versus imported varieties.

Lithic materials were also recovered from Singer-Moye. Three of the geological formations near Singer-Moye also served as local chert sources (Goad 1979). A macroscopic examination of the recovered lithic artifacts shows that the chert used came from sources that match Goad's chert types. They range widely in color and texture, may include fossils or calcareous material, and can be either dull or glossy (Table 2.1). Most of the lithic debris consisted of late stage debitage and finished tools, suggesting that available chert sources may have been nearby where the initial manufacturing process occurred.

Soils

Several soil types are found in the ancient settlement. They include Cowarts loamy sand (CoC), Faceville sandy loam (FeB), Nankin-Cowarts complex (NcD, NcF), Orangeburg loamy sand (OeA, OeB), and Kinston and Bibb soil (KBA) (Soil Survey Staff 2017) (Figure 2.6). Except for Kinston and Bibb soils, these share similar characteristics: they are well drained, located in interfluvial areas, not prone to flooding, 40 to 80 in above the water table, and are classified as prime farmland (United States Department of Agriculture, Natural Resources Conservation Service 2017). Kinston and

Bibb soil is the only type that was not used for prehistoric occupation. In contrast, it is poorly drained, located in floodplains, frequently flooded, 0 to 12 in above the water table, and not considered prime farmland (United States Department of Agriculture, Natural Resources Conservation Service 2017).

Climate

The climate at Singer-Moye is classified as humid subtropical (Cfa) by the Köppen climate classification system (Peel et al. 2007). Winters are cool and short with periodic cold spells which moderate in 1 to 2 days. Summers are hot and humid. Using climatological data from the Lumpkin climate station, located 10 km north of Singer-Moye, in Lumpkin, Georgia, I reconstructed aspects of the climate using data from 1948 to 2008 (Menne et al. 2012a; Menne et al. 2012b). Annual precipitation averaged 121.5 cm and was spread evenly throughout the year (6.0-14.0 cm each month) (Figure 2.7). October was the month of least rainfall and July had the most rainfall. Measurable snowfalls were very rare with a less than 7.0 percent probability each year. It snowed only four times over the period between December and February and snowfall amounts were between 0.05 and 0.5 cm. In winter, the minimum average monthly temperature was 35.5 degrees F in January. In summer, the average maximum daily temperature was 91.3 degrees F in July. The first winter freeze typically occurred in early November and the last freeze typically occurred in mid-March. The frost-free season ranged from 190 to 235 days.

Human-Induced Modification of the Landscape

Through time, the activities of the prehistoric residents would have affected the natural landscape, especially as those practicing an agricultural economy. They would

have cleared forests for settlement, fields, and firewood. These activities would have created an anthropogenic mosaic across the landscape that provided expanded habitat for deer and a range of other animals, especially along forest edges and openings. Residents may have also encouraged the growth of wild plants and cultigens, including both maize and other crops of the eastern agricultural complex in garden plots located near domestic structures and larger field systems located in the floodplain (Scarry and Scarry 2007).

Historic period activities would have had similar effects. There is no evidence of Historic Creeks settling at Singer-Moye prior to removal. The first formal land survey of the region in 1827 for the land lottery divided up the valley into 202.5-acre squares but did not make note of Singer-Moye. The central mound and plaza complex was divided into lots 82 and 83 (Figure 2.8).

There is no record of the original lot winners settling on their respective parcels and lot 83 had at least one additional owner, a local businessman named William West. Both lots were acquired by the early-1900s by two prominent local families. The Singer family purchased Lot 82 and the Moye family obtained Lot 83 in the second half of the 1920s. As was typical of the region, both families used the land for agriculture. The aerial photographs from 1937 through 1953 show that in the Singer-Moye survey area, Lot 82 was under cultivation and minimally terraced, whereas Lot 83 was fallow but had been logged or cultivated prior to 1937 (Figure 2.9). Most of the mounds were not under cultivation apart from Mounds D and H.

The land use patterns previously discussed are supported by other pieces of evidence. A site map drawn by Schnell (1956) identified cotton and corn fields next to the mounds. Chase's (1956) report contained two photographs of an unknown family

(Figure 2.10) standing in the south plaza after it had been recently plowed. Smith's (1956) description of the site indicates that the mounds were not cultivated.

In an interview prior to the donation of additional acreage in Lots 78 and 83 to the University of Georgia, Mr. Matthew "Mac" Moye, stated that the property had been in the family for several generations and had not been cultivated since the late 1940's (Applied Environmental Services 2011: 14-15). The aerial photographs indicate that the cultivation he references occurred in the southwestern portion of the survey area (Figure 2.9b-c). By 1962, both lots were fallow and no longer under cultivation (Figure 2.9d). Currently the land is in several different stages of successional forest cover after various timbering events between the 1980s and the late 2000s. Regrowth has followed natural successional patterns, no intentional replanting or silviculture occurred after harvest.

The Columbus Museum began archaeological research at Singer-Moye in 1967 and acquired portions of both lots from the Singer and Moye families in the second half of the 1960s. From 1967 to 2002, the Columbus Museum undertook excavations at several distinct locations. The results of their investigations are detailed later in this chapter, but the impact of their excavations is relevant because of the effect on the landscape.

In total, the known Columbus Museum excavations cover approximately 1,509 m² of Singer-Moye. The Columbus Museum excavated five discrete excavations blocks labeled XU-A through XU-E, and an additional area called Mound H (Figure 2.11). XU-A corresponds to the excavation of the center of Mound E, a ten-foot wide trench into the north flank of Mound C, and a five-to-ten-foot-wide trench connecting Mounds C and E. XU-B refers to their excavations on the flank and summit of Mound D. XU-C's exact

location is unknown but was an exploratory 5 foot square block placed to the northwest of Mound A in the village\plaza area. XU-D corresponds to the location of the Mound A summit excavations. XU-E refers to a long trench placed at the northeast base of Mound A. Mound H consists of the complete excavation of a slight rise located east of Mound A.

Unfortunately, due to the changing mission of the Columbus Museum and lack of funds during its period of site management, none of the excavations were backfilled. This has resulted in the degradation of intact archaeological deposits adjacent to and presumably below the open areas. All the previous units have been disturbed from tree growth and wild animals. The areas most affected are large vertical excavation units, especially when coupled with large horizontal exposures, including XU-A, XU-C, and the Mound H block. The walls of each are continuing to slough off and slump into the floor. Less affected are units with large, shallow horizontal exposures, such as XU-B and XU-D.

The open excavation blocks have also had a small effect on the local environment. Increased water retention and the routing of water through open excavations into specific areas has resulted in greater numbers of water tolerant plants, especially around XU-A. Subsurface effects include an increase in laminar lenses in the soil, an indication of greater fluctuations in the water table.

Apart from the excavations listed above, the Columbus Museum logged the mound and plaza complex during the 1980s inducing unknown erosional effects. The western and southern portions of the survey area were logged in the late 2000s by the landowners, prior to UGA acquiring the property in 2011. In total, UGA owns almost 60 ha of property for the purpose of archaeological and ecological research.

Temporal and Cultural Context

In this section, I review relevant regional cultural and temporal contexts, incorporating social and cultural manifestations involving pottery styles, subsistence practices, and settlement configurations. I elected to use the term “late Precontact period” to refer to the period of time that encompasses the temporal and pan-regional cultural setting from ca. AD 1000-1500 to avoid some long-standing culture-historical baggage with some of the other well-known designations. Other publications have referred to approximately the same span of time as the late Prehistoric period, the Mississippi period, or the Mississippian period. Despite the abundance of sites dating to this period, the LCRV is better known for other temporal periods of occupation, specifically the impressive Woodland period occupations at Kolomoki (Pluckhahn 2003) and the Lower Creeks of the Creek Confederacy (Ethridge 2003; Knight 1994; Worth 2001).

Most modern research in the LCRV resulted from various cultural resource management surveys relating to dam and reservoir construction, waterway erosion, Section 106 or 110 compliance, road projects, pipeline construction, and other cultural resource management projects. Many of these projects provided preliminary data used to define the geographic extent and material culture of the region (e.g. Hurt 1975; Huscher 1959; Keller et al. 1962; Knight and Mistovich 1984). Not surprisingly, the sites with earthen mounds garnered the most attention from avocational and professional archaeologists. No major excavations have been conducted on late prehistoric mounds or at other sites in the valley since those at Cemochechobee in the late 1970s (Schnell et al. 1981), excepting the results of this dissertation. Regional trends specific to sites without

monumental architecture are virtually unknown apart from locational data and an inventory of artifacts representing temporal and cultural constructs.

The high diversity of floral and faunal resources available to late Precontact period groups was astounding and the LCRV was a land of plenty. The biotic community was a mix of vegetation and fauna typically found further north in the Piedmont and mountain areas in proximity to the expected southern mixed hardwood forest and fauna of the Coastal Plain (Schnell and Wright 1993; Schnell et al. 1981; Wharton 1978).

Numerous floral resources have been recovered from archaeological contexts. Detwiler (2000) identified maize (both cob fragments and kernels), persimmon, beans, sunflower, acorn, hickory, maypop, blackberry or raspberry, morning glory, mallow, chenopod, and maygrass from a large ash deposit found on the floor of Structure 2 at Mound H, representative of the types of plant materials used at Singer-Moye during the 1300s (Detwiler 2000; Russell and Gordy 2012). Dunn (1981) identified hickory nuts and acorns, maize (both cob fragments and kernels), persimmon, passionflower, chenopod, and greenbrier from mound contexts at Cemochechobee. Neuman (1961) recovered two maize cobs from Omussee Creek. Huscher (1962) recovered maize at Gary's Fish Pond from a number of small pits just outside of the mound margin. Caldwell (1955) found charred acorns, maize, and *Stewartia malachondendron*, a member of the Theaceae family, at Rood's Landing.

The inhabitants of LCRV used a variety of vertebrate and invertebrate species, based on data from Singer-Moye (Table 2.2) and Cemochechobee (Table 2.3). A few species may have been intrusive into the midden post-deposition, but most were locally available and exploited. Many of the animals identified were also used for subsistence in

the Central Mississippi Valley, including white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), fish (Osteichthyes), wild turkey (*Meleagris gallopavo*), beaver (*Castor canadensis*), Virginia opossum (*Didelphis virginiana*), rabbits (*Sylvilagus* spp.), snapping turtle (Chelydridae), squirrels (*Sciurus* spp.), and black bear (*Ursus americanus*). Catalogs of faunal material from other sites in the LCRV are not as comprehensive. Neumann (1961) reported mammal bone, turtle carapace, and mussel shells from Omussee Creek. Caldwell (1955) referenced finding “some animal bones” and mussel shells from Rood’s Landing.

Previous Archaeological Research at Singer-Moye

The history of research can be divided into three categories: early references to Singer-Moye without further explanation, site-specific overviews and syntheses, and site-specific excavations. Table 2.4 is a general guideline of relevant research history conducted at and relating to Singer-Moye. Previous excavations at Singer-Moye spanned half a century and complete summaries based on unpublished maps, field notes, and personal communications have been published elsewhere (Blitz and Lorenz 2006: Appendix A; Russell and Gordy 2012).

Initial Small or Incidental References to Singer-Moye

The first known published account of Singer-Moye came from Isabel Patterson in her brief description of the excavations at the Bull Creek site. In her closing remarks, she mentioned the Singer mounds near Lumpkin, Georgia, as being one of the many sites belonging to the “Lamar Village” horizon first identified by A.R. Kelly from his work at and around Macon Plateau (Patterson 1950: 40). It is unknown how she arrived at that

conclusion. Other correspondence between Kelly and Patterson does not mention Singer-Moye (Ledbetter 1995).

Singer-Moye was referenced twice in the Columbus Museum issue of *Early Georgia*, published in 1955. David Chase described three sites he tested near Columbus and included a map of several additional sites. He did not mention Singer-Moye in the text, but his map does show Singer-Moye's location on Pataula Creek (Chase 1955: Figure 1). As far as I know, Chase's map is the first representation of Singer-Moye in its regional context. Joseph Caldwell (1955: 46) compared Rood's Landing, the other large contemporaneous mound center in the LCRV, to Singer-Moye and first suggested that similarities in general layout and cultural context existed between the two.

Other published and unpublished passing references to Singer-Moye may exist that are no longer available or are unknown to me. They are probably few based on the relatively small amount of archaeological research in the valley prior to the mid-1950s (See Knight and Mistovich 1984 for an overview).

Local Overviews and Early Site Syntheses

By the time large-scale archaeological research commenced as part of the reservoir salvage projects of the late 1950s and early 1960s, several people had mapped Singer-Moye and secured surface collections even though Singer-Moye was not in danger of inundation. Robert Smith and Frank Schnell, Jr. visited Singer-Moye independently in 1956. Smith and Schnell had worked with Caldwell at Rood's Landing. Huscher also visited Singer-Moye as part of the Smithsonian River Basin Surveys in 1958.

Smith's unpublished manuscript contains a detailed description and map of Singer-Moye. Smith's map is an accurate portrayal of the local landscape, including the size and orientation of the mounds (Figure 2.12). He described its location about four hundred yards away from Pataula Creek on a central plateau and identified seven of the platform and dome-shaped mounds (Smith 1956: 3-4). His drawings of each are accurate. Smith commented that only Mound D appeared to have been plowed in historic times, but much of the non-mounded area was under cultivation. Numerous artifacts were found in and around the mounds, and he illustrated a few artifacts, including a bird effigy head, a Fort Walton incised sherd, a rim with a notched applique strip, and a few stone tools (Smith 1956: Figure 7). He also drew repeated comparisons between Singer-Moye and Rood's Landing.

Frank Schnell, Jr. may be the most well-known archaeologist associated with the LCRV. Prior to his long career as the archaeologist of the Columbus Museum, he had worked on several University of Georgia projects in the valley under the direction of A.R. Kelly. In regards to Singer-Moye, a note and map from Schnell exist in Kelly's personal correspondence describing his two attempts to locate Singer-Moye in July of 1956 (Schnell 1956). He included an accurate set of directions to Singer-Moye and his basic description matches the layout of the southern half of the site (Figure 2.13). Schnell reported finding two mounds, a few sherds in a nearby cotton field, and "paint" rocks, probably hematite, magnetite, or limonite. He described the larger mound as approximately 40 feet high, roughly circular, conical in shape and steep sided, with a ramp. Based on the rough sketch map that he included, the larger mound is probably Mound A, though the tree cover and two ramps may have disguised that fact that it was a

platform mound instead of conical. He did not study the second mound closely but stated that it was about twenty to twenty-five feet high. The smaller mound is possibly Mound B because it is the only one that approaches Schnell's height estimate and location on the map. His map indicates that the land adjacent to the mounds were either fields growing cotton and corn, in tree cover, or swampland. I do not know why Schnell mentioned only two of the eight mounds since he had to travel within viewing distance of at least three other mounds to get to Mound A.

David Chase also conducted a site visit in 1956 (Chase 1956; Gordy personal communication, In Wood and Williams 2008: 157). He described Singer-Moye as "About seven miles south of the town of Lumpin(sic), ... and on the north bank of the Pataula(sic) Creek drainage system, [with] five mounds including one large four-sided temple type mound" (Chase 1956: 1). He stated that no scientific exploration of Singer-Moye had occurred by this point but that two or three surface hunting parties had entered the area over the past two years. He is referring to Smith and either Joseph Mahan - who was the head archaeologists at the Columbus Museum before Schnell - Harold Huscher, Frank Schnell, Jr., or some other unknown person.

Chase illustrated several pottery specimens from surface collections in his manuscript. He included the bird effigy, notched applique rim, and zone punctated sherd illustrated by Smith, which is why I believe he is referencing Smith as one of the people who had visited Singer-Moye. Pictures included in his description show two wooded mounds from the middle of the south plaza (Figure 2.10), which are similar to same mounds that Schnell described and may be another person specifically referenced as having visited the site.

Based on the illustrated artifacts and presumably other, unidentified specimens, he compiled the first known material culture trait list from Singer-Moye. He outlined 12 material culture traits found at both Singer-Moye and Rood's Landing (Chase 1956: 2-3). His list included types of incising, lip notching, stamping, beaded/noded rims, handles, rim adornos, and clay or stone discs. He placed each category into an early or late chronological position and estimated their commonality at each site. He identified a strong cultural connection between the inhabitants of both places during earlier occupational spans but noted that Singer-Moye contained fewer artifacts related to latter periods (Chase 1956: 2-3). Chase (personal communication, in McMichael and Keller 1960: 213) intimated that Singer-Moye contained valuable information about the cultural context of the valley but that any possible interpretations were hampered by the lack of published data, ironically echoing his unpublished 1956 manuscript.

Several other people are reported to have been to Singer-Moye in the late 1950s and early 1960s, but their purpose or results are not as well known. Harold Huscher of the Smithsonian Institution visited Singer-Moye in 1959 and secured surface collections (Huscher 1959). Wood and Williams (2008: 157) suggest that Clemens deBaillou also secured a small surface collection in 1961, based on a small bag of pottery at the University of Georgia Laboratory of Archaeology. The artifacts may have come from Singer-Moye. However, there is no mention of DeBaillou visiting Singer-Moye in his field notes (On file at the UGA Laboratory of Archaeology). DeBaillou was working on several sites adjacent to the Chattahoochee River in 1961, including 9SW12 in Stewart County. It may be that this bag suffered a transcription error.

Singer-Moye was not officially revisited in a research capacity until 1967. From 1958 to 1963, a large amount of preliminary survey and subsequent salvage archaeology was conducted elsewhere in the region, in anticipation of the construction of the Oliver Basin, the Columbia Reservoir, and the Walter F. George Lake (detailed in Knight and Mistovich 1984: 24-31). Archaeologists concentrated on the sites slated to be impacted or destroyed, resulting in an unprecedented quantity of archaeological work in those areas at the expense of other locations such as Singer-Moye (Knight and Mistovich 1984: 25). Since Singer-Moye was to be unaffected by reservoir construction, other sites prioritized. After the salvage work was complete, several prominent figures left the valley to pursue work elsewhere. Harold Huscher left the Smithsonian River Basin Surveys in 1965 and David Chase relocated to central Alabama (Knight and Mistovich 1984: 29, 32). It was not until 1966, when Frank Schnell, Jr, returned to the Columbus Museum from graduate studies at the University of Georgia, that archaeological work at Singer-Moye commenced. The results of these investigations are referenced in Chapter 5 and detailed in Blitz and Lorenz (2006).

Post-Excavation Site Syntheses

In 1979, Jim Knight published a local ceramic sequence for Singer-Moye from contexts that had been excavated to that point. He sought to identify temporal trends in temper groups and ceramic types (Knight 1979: 138), discussed further in Chapter 3. Knight seriated the excavations into a rough chronological order, excluding Mound H because it had not yet been excavated. The ceramic assemblages between excavation units were distinct enough that Knight could place each location into an appropriate

sequence. His sequence from earliest to latest was Mound C, Mound E, Mound A summit, Mound A base, and Mound D (Knight 1979: Figure 3; Schnell et al. 1981: 239).

Regionally, Blitz and Lorenz (2006) used both radiocarbon dates and ceramic seriation to construct their mound stage regional chronology of the lower Chattahoochee River valley. They relied on artifact collections and radiocarbon dates from mound contexts without incorporating non-mound data. Their chronology consisted of a series of seven 50-to-100-year time periods used to identify mound use or abandonment.

Their regional chronology was a step forward with the addition of numerous radiocarbon dates from several sites in the valley, but problematic as well. The chronology is based on data from only mound contexts at 12 sites. Several of their periods are differentiated only by changes in the frequencies of the same ceramics through time. Most of their periods are assigned an absolute date range with only a few radiocarbon dates, and in some cases without any absolute dates at all. Regardless of any issues, their new chronology was the foundation for their updated regional synthesis, anchored in ideas of community groups undergoing major fusion and fission events at mound centers in the valley (Blitz 1999; Blitz and Lorenz 2006).

Singer-Moye was one such site they incorporated into their regional synthesis. They combined Knight's relative local ceramic sequence, the excavations at Mound H, extant radiocarbon dates, and secured radiocarbon dates from new contexts when necessary. They posited that Mound C was used between AD 1100-1200, the structures connected to Mounds E and H were built and abandoned between AD 1300-1400, and that the summits on Mounds A and D were occupied between AD 1400-1450 (Blitz and Lorenz 2006: 39-40). They theorized that Singer-Moye may have been abandoned

between AD 1200-1300 based on the lack of evidence for mound occupation, but several mounds were completely or partially untested at the time of publication and remain so today (Blitz and Lorenz 2006: 40).

Recent Mapping Activities at Singer-Moye

In 2006 and 2007, Wood and Williams (2008) directed mapping efforts of the 6-ha core area at Singer-Moye. Their purpose was to update previously published maps using modern surveying equipment and create a detailed contour map of the extant natural and cultural features (Wood and Williams 2008: 160).

Their results (Figure 2.14) reinterpreted the size, orientation, and relationships of the mounds, excavations, and surrounding topography (Wood and Williams 2008: 160). They mapped the topography and calculated new dimensions for each mound, identified the greater spatial extent between the mounds, reoriented them, and corrected the spatial relationship between Mound A and H, (Wood and Williams 2008: 160-172). Though it was necessary to establish a new grid orientation in 2015, Wood and Williams' data served as the foundation for all spatial analyses conducted on-site.

Summary

In this chapter, I contextualized Singer-Moye and its environment, culture, history, and archaeology. I described the environmental and ecological context of Singer-Moye, summarized previous archaeological investigations and anthropological conclusions, and outlined broader temporal and cultural contexts.

The environmental record for Singer-Moye indicates that it was a place well suited for Precontact habitation, especially for people who were sedentary and practicing agriculture. These practices undoubtedly modified the landscape, but were not

catastrophic, and may have even influenced environmental diversification. Other environmental markers indicate that a wide range of environmental resources were available and used by the inhabitants.

Early historical land-use was also minimal impact, resulting in little landscape modification beyond shallow cultivation and land clearance. There are no known instances of significant landscape modification involving the reshaping of the landscape, nor were mounds intentionally removed to facilitate agricultural activities. In some areas, especially to the south and west of the survey area, there may have been deep furrowing as part of mid to late 20th century timbering activities. Apart from that possibility, I believe that the subsurface deposits at Singer-Moye are by and large intact and that they represent the differential activities that occurred here throughout its occupational history.

The previous archaeological research was limited in scope, concentrating on monumental architecture. The data recovered are relevant to discussions dealing with local and regional factors that contributed to the creation and continuing use of Singer-Moye and its role in the greater region.

In the next chapter, I outline how I constructed a new chronology for Singer-Moye through controlled sampling for temporally sensitive artifacts and how they articulate with the absolute dates from several contexts.

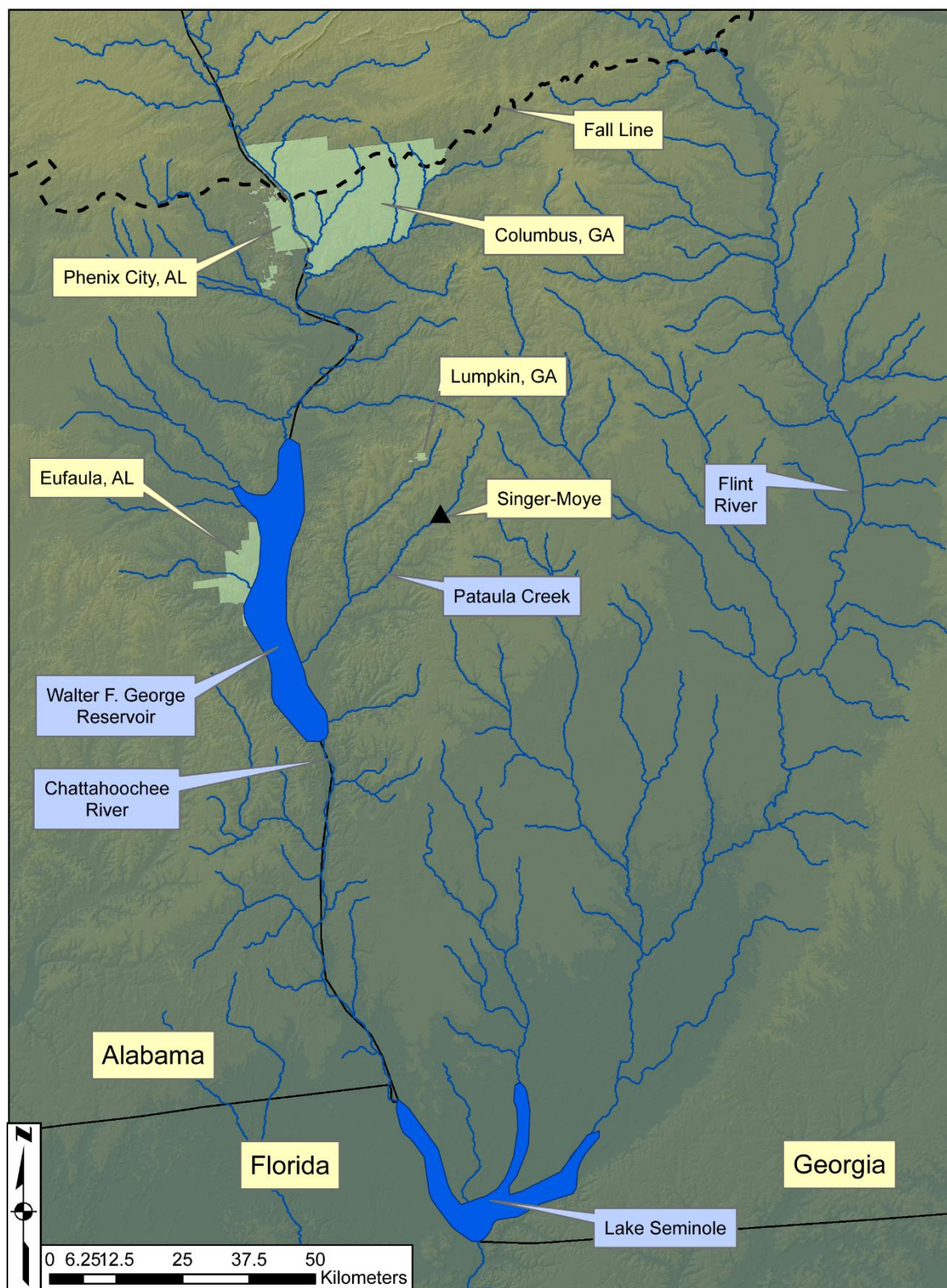


Figure 2.1. The lower Chattahoochee River valley

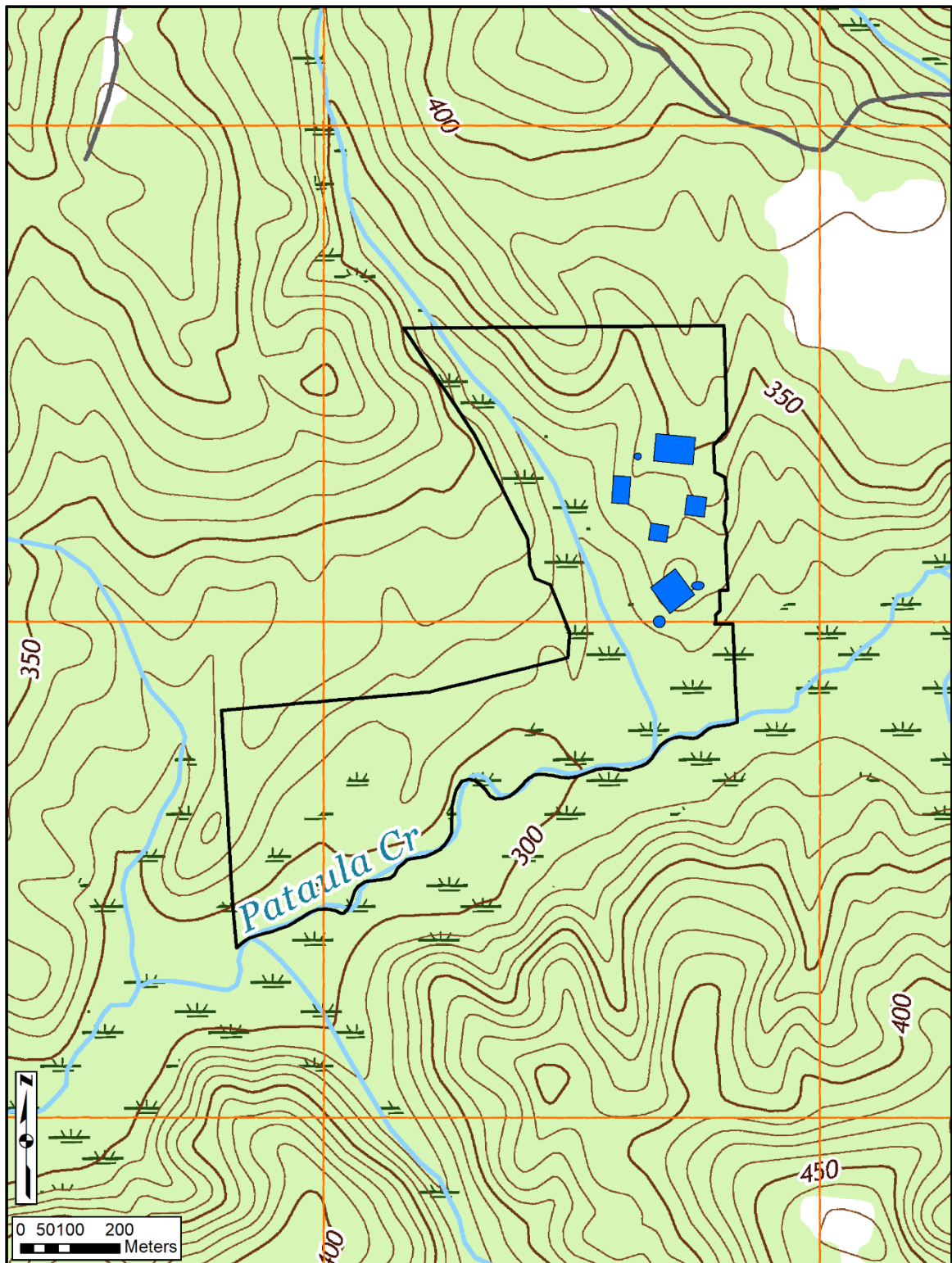


Figure 2.2. The Singer-Moye settlement area and current survey boundary

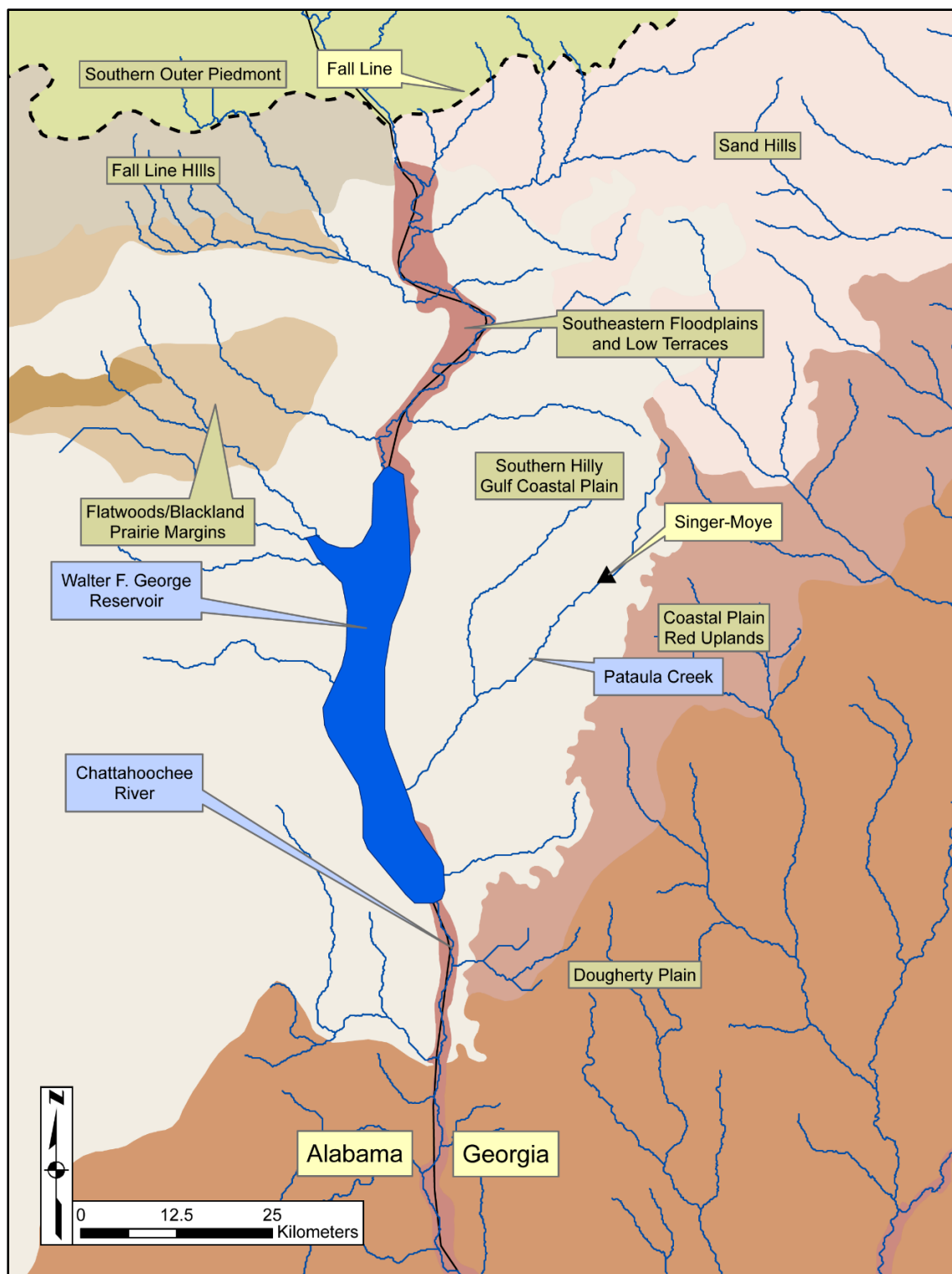


Figure 2.3. Ecoregions of the lower Chattahoochee River valley (following Griffith et al. 2001)

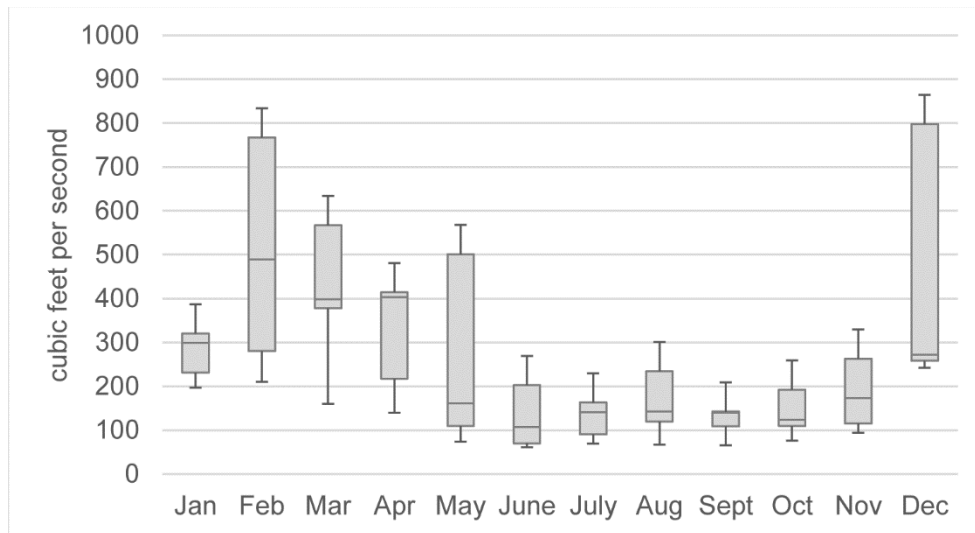


Figure 2.4. Streamflow at Georgetown, Georgia

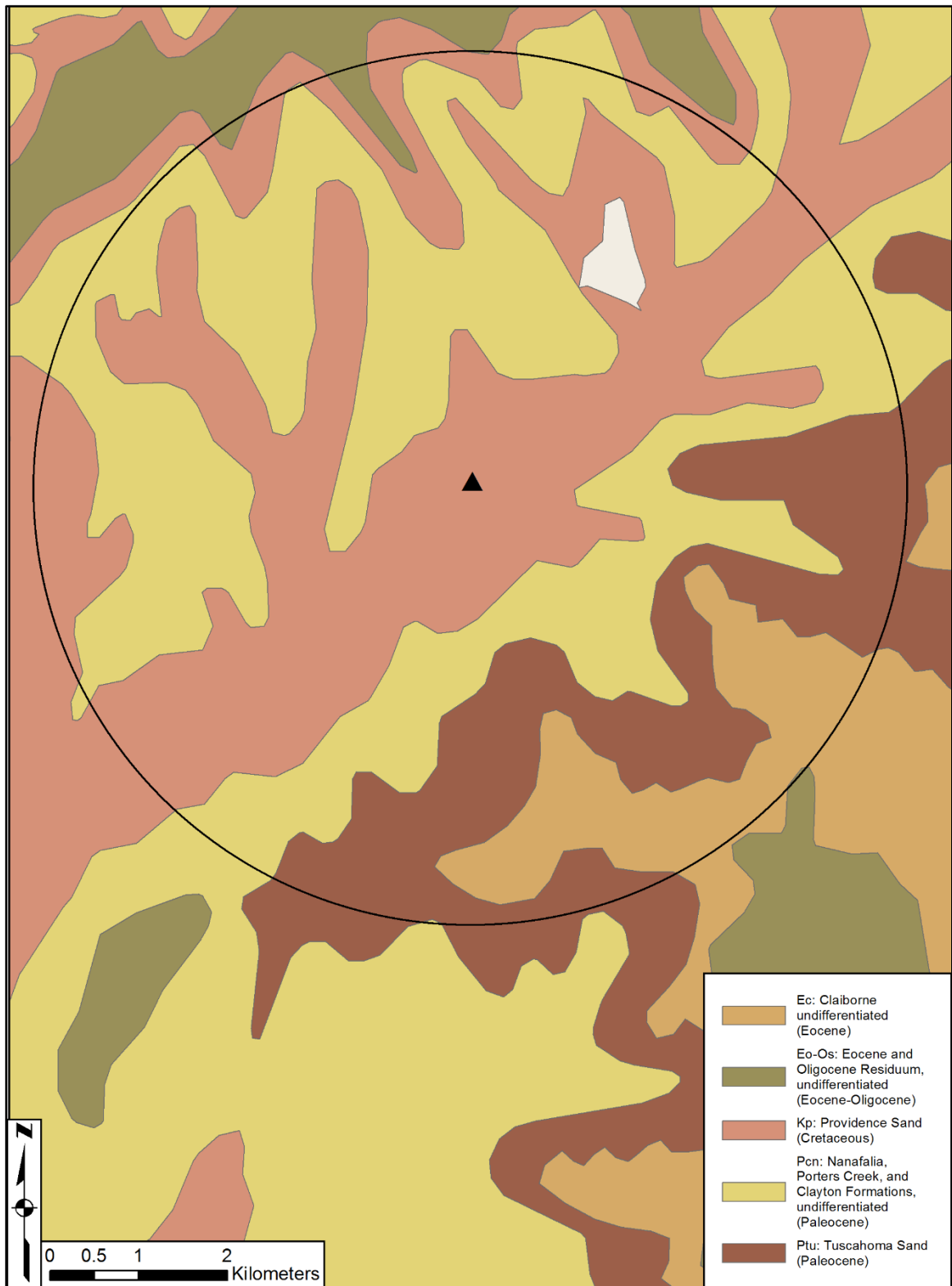


Figure 2.5. Geological formations at Singer-Moye

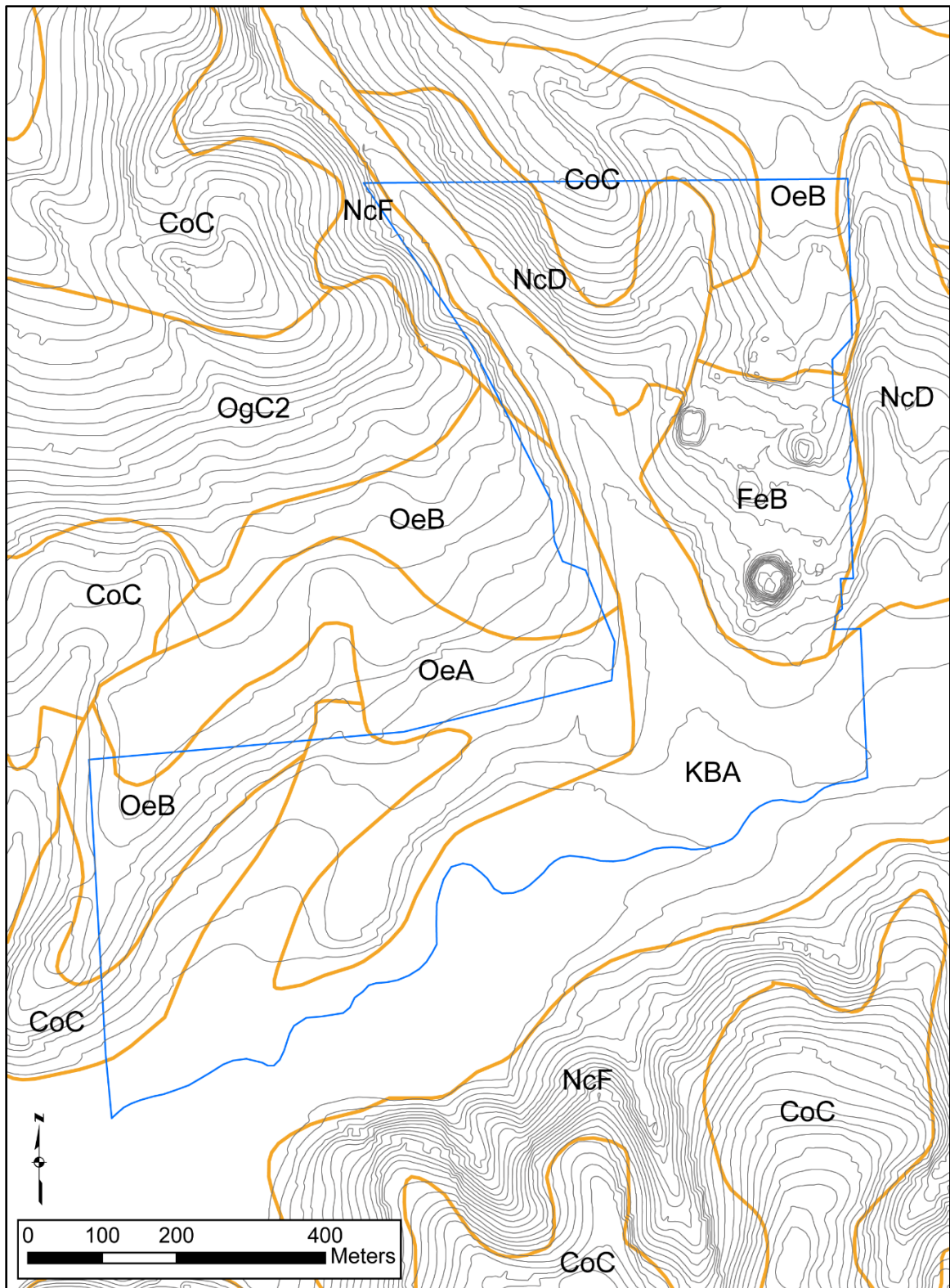


Figure 2.6. Soils at Singer-Moye

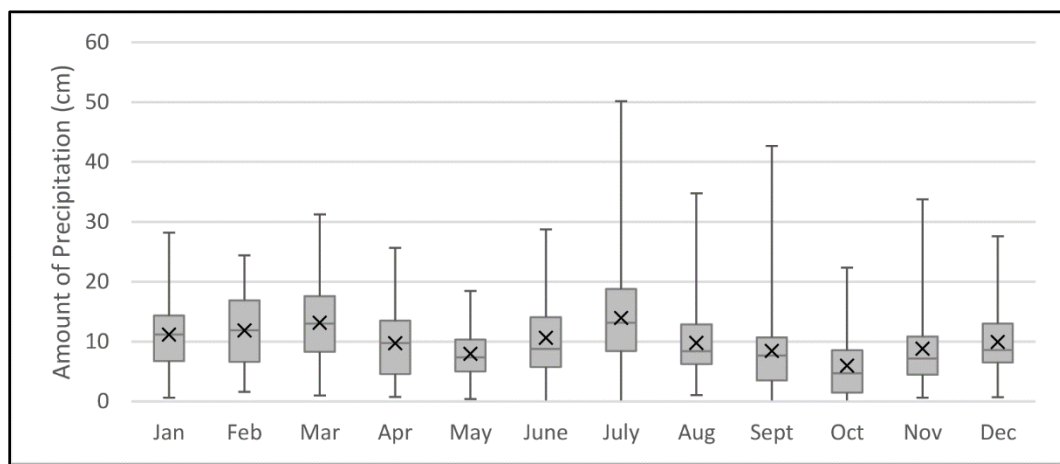


Figure 2.7. Annual precipitation near Lumpkin, Georgia, between 1948 and 2008



Figure 2.8. Original Stewart county plat map showing the location of Singer-Moye and current survey boundary

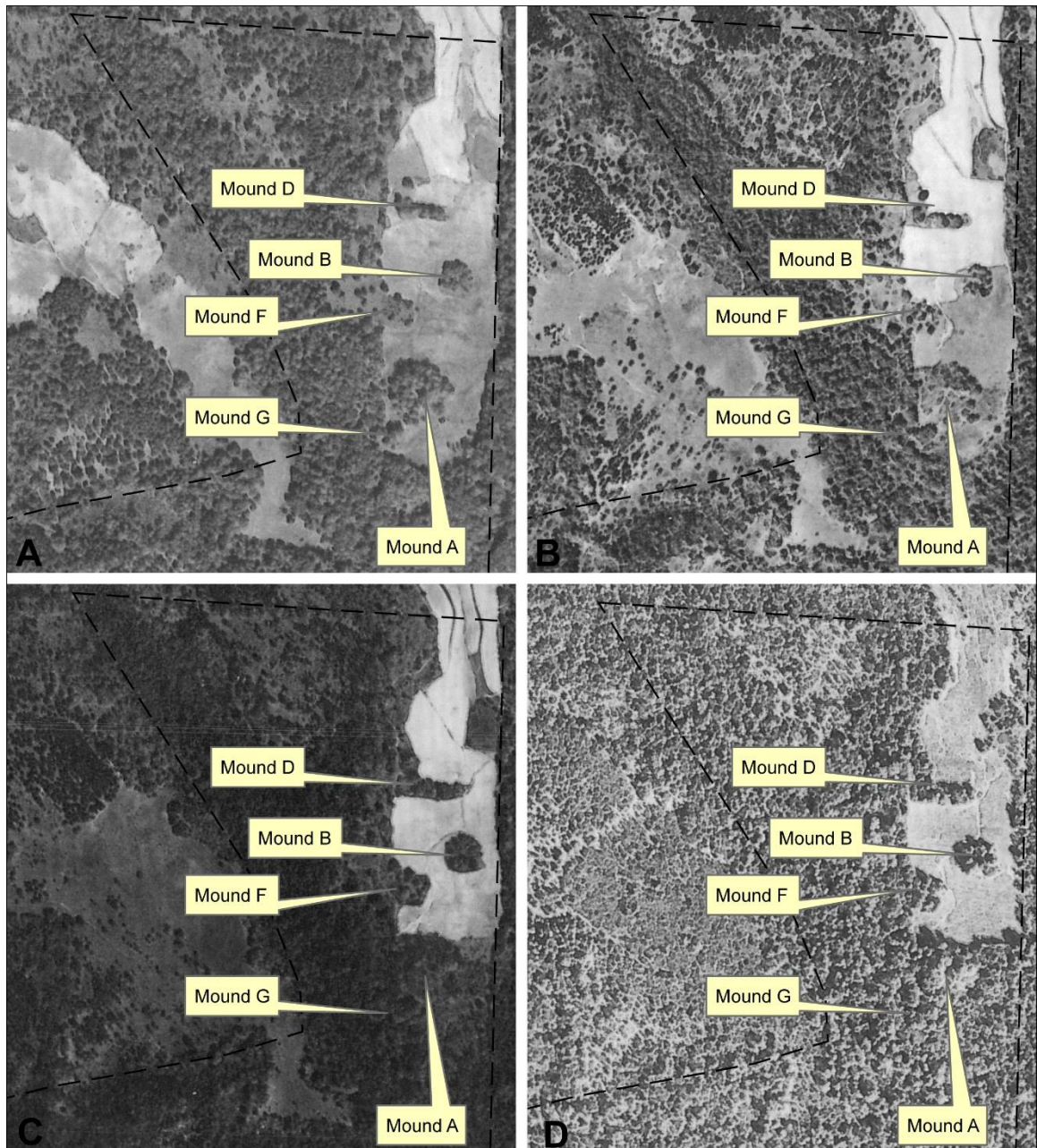


Figure 2.9. Aerial photography of the central mound and plaza complex.

SINGER MOUNDS



MOUND "B" looking North



TEMPLE MOUND "A" Looking South

Figure 2.10. Unknown family located on the south plaza and shot of Mound A

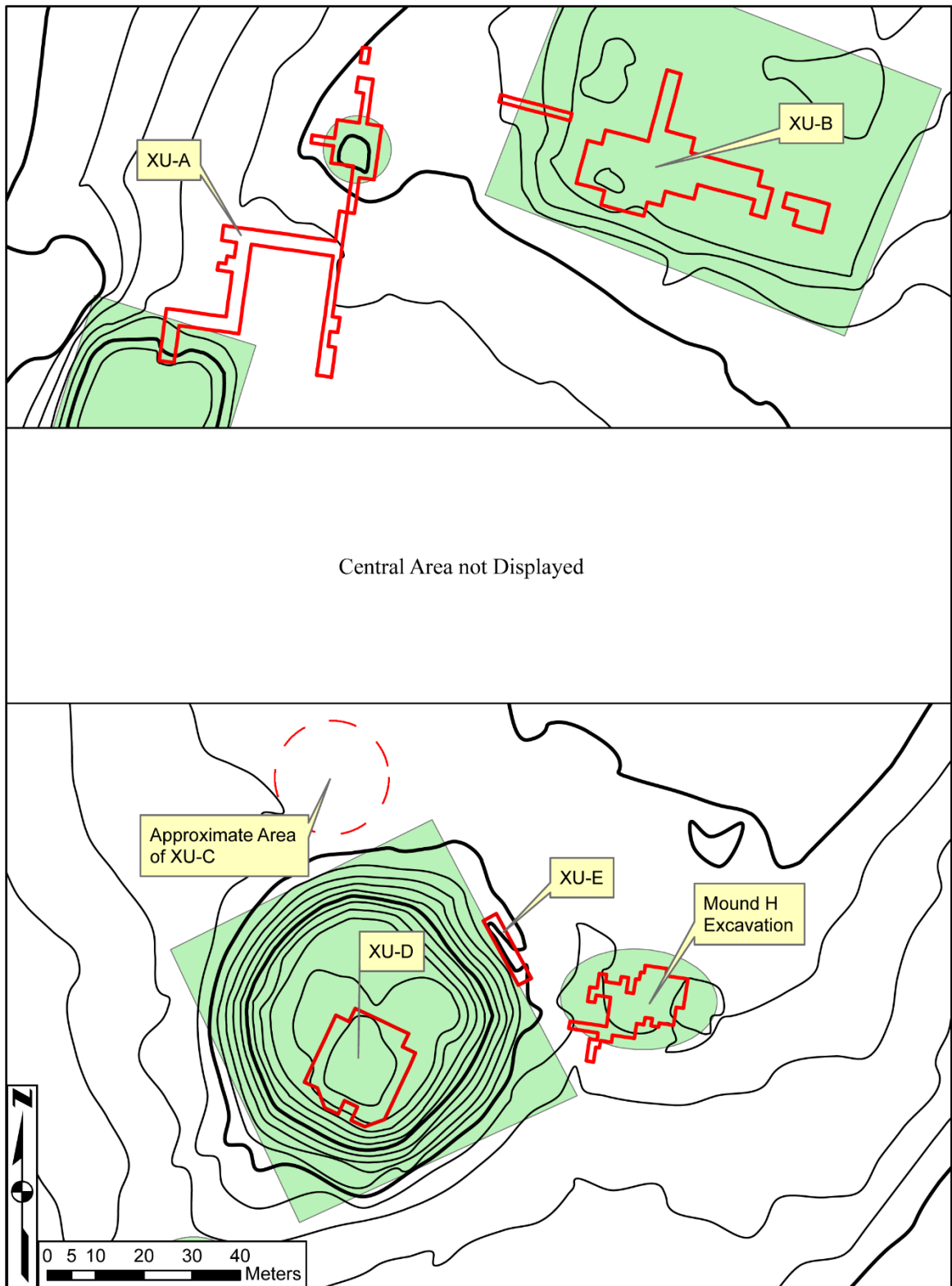


Figure 2.11. Columbus Museum excavation locations

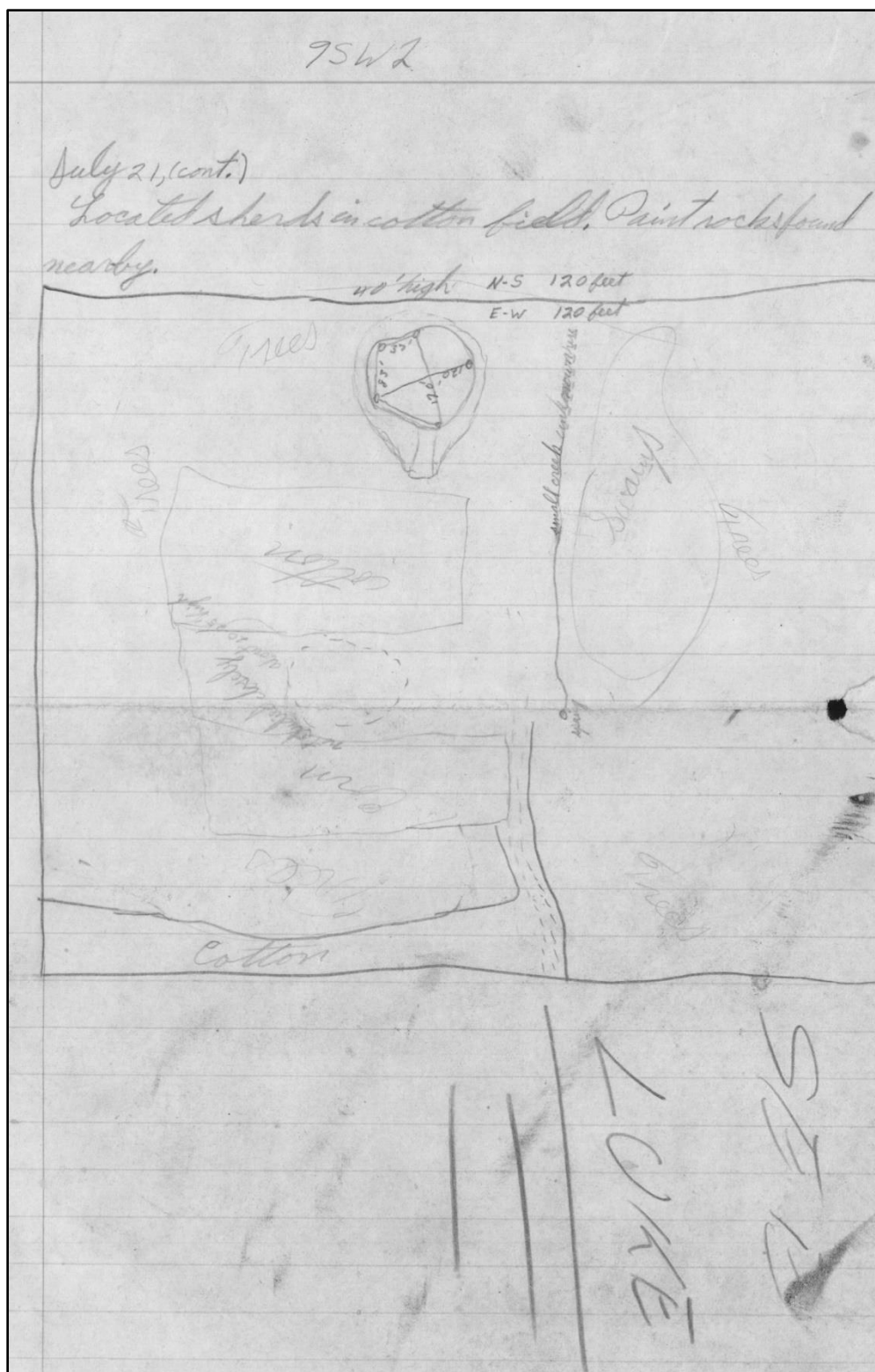


Figure 2.13. Frank Schnell's map of Singer-Moye (from Schnell 1956)

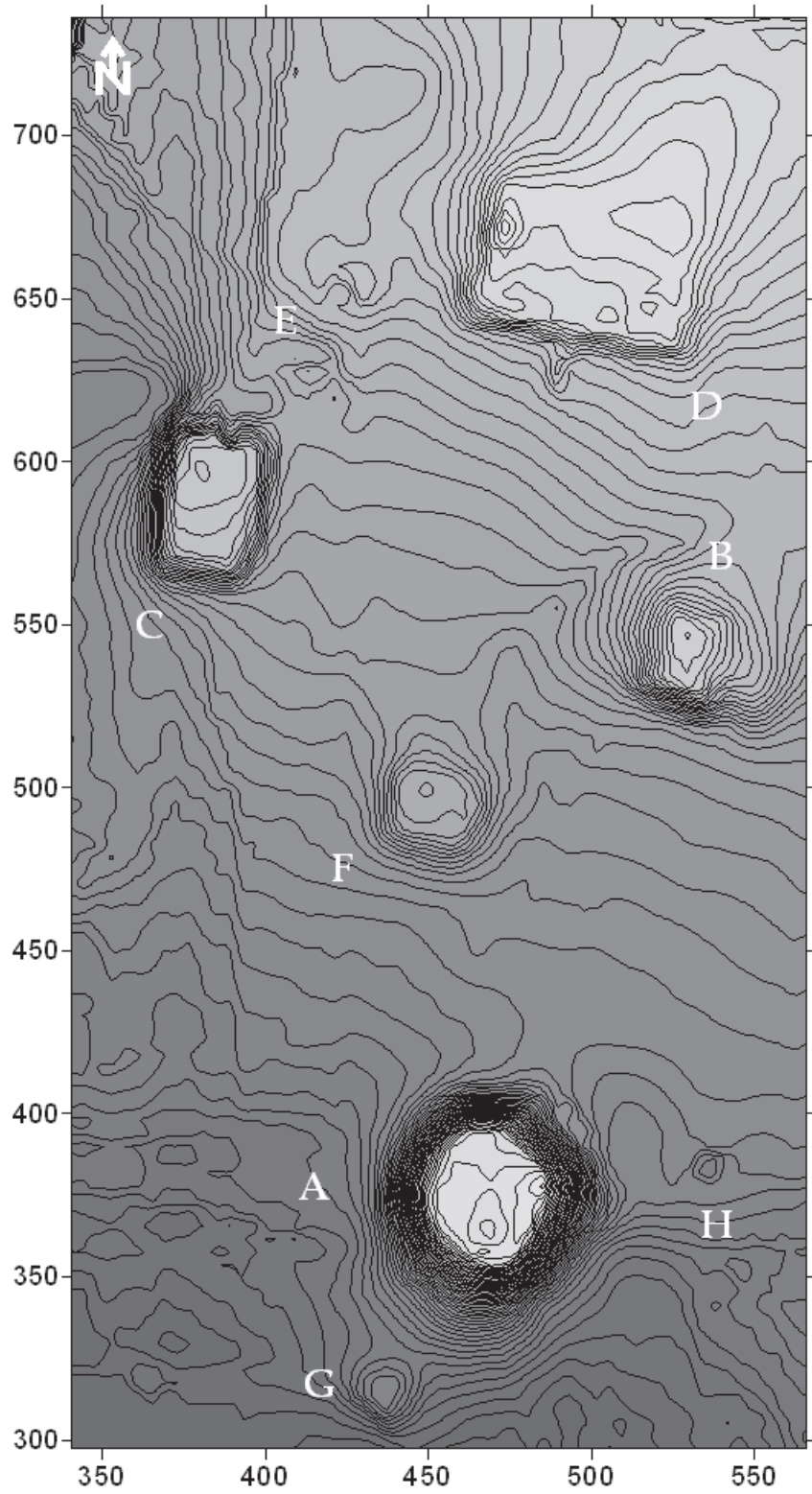


Figure 2.14. Wood and Williams (2008) topographic map

Table 2.1. Description of Geological Formations and Chert Characteristics
(adapted from Lawton et al. 1976 and Goad 1979: Table V)

Geology				Chert Characteristics			
Stage	Formation Name	Primary Rock Type	Secondary Rock type	Color	Inclusion	Luster	Texture
5-6	Eocene and Oligocene Residuum, undifferentiated	Sand		White, translucent, red, yellow, brown, brown or tan banding	Fossiliferous	Dull	Porous or dense, vitreous, brittle
8	Claiborne undifferentiated	Sandstone	Clay or mud, carbonate	Red, yellow, cream, blue, mottling and striping	Calcareous material	Dull	Compact, vitreous, brittle
9	Tuscahoma Sand	Sand					
9-10	Nanafalia, Porters Creek, and Clayton Formations, undifferentiated	Clay or mud	Sand	Yellow, brown, heavily patinated white		Glossy	Brittle
12	Providence Sand	Sand					

Table 2.2. Faunal Catalog from Singer-Moye

Common Name	Taxonomic Name
American beaver	<i>Castor canadensis</i>
American black bear	<i>Ursus americanus</i>
American bullfrog	<i>Lithobates catesbeianus</i>
Bivalves	<i>Bivalvia</i>
Box and pond turtles	Emydidae
Cottontail rabbit	<i>Sylvilagus</i> sp.
Eastern mud turtle	<i>Kinosternon subrurum</i>
Fish	Osteichthyes
Fox squirrel	<i>Sciurus niger</i>
Freshwater mussels	<i>Unionidae</i>
Molluscs	<i>Mollusca</i>
Mud and musk turtles	Kinosternidae
Opossum	<i>Didelphis virginiana</i>
Passenger pigeon	<i>Ectopistes migratorius</i>
Raccoon	<i>Procyon lotor</i>
Red fox	<i>Vulpes vulpes</i>
Southeastern pocket gopher	<i>Geomys pinetis</i>
Squirrel	<i>Sciurus</i> spp.
Terrestrial snails	<i>Polygyridae</i>
Turtles	Testudines
Venus clam	<i>Chione</i> sp.
White-tailed deer	<i>Odocoileus virginianus</i>

Table 2.3. Faunal Catalog from Cemochechobee
(Data from Schnell et al. 1981: Appendix 4)

Common Name	Taxonomic Name
Bobcat	<i>Lynx rufus</i>
Catfish	<i>Ictalurus</i> sp.
Cottontail rabbit	<i>Sylvilagus</i> sp.
Dog/wolf	<i>Canis</i> sp.
Fox squirrel	<i>Sciurus niger</i>
Great horned owl	<i>Bubo Virginianus</i>
Grey squirrel	<i>Sciurus carolinensis</i>
Mountain lion	<i>Felis concolor</i>
Nonpoisonous snake	Colubridae
Opossum	<i>Didelphis virginiana</i>
Passenger pigeon	<i>Ectopistes migratorius</i>
Squirrel	<i>Sciurus</i> spp.
Turkey	<i>Meleagris gallopavo</i>
Turtles	<i>Tustudines</i>
UID rodent	Rodentia
White-tailed deer	<i>Odocoileus virginianus</i>
Striped skunk	<i>Mephitis mephitis</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
American beaver	<i>Castor canadensis</i>

Table 2.4. Overview of Archaeological Research Related to Singer-Moye

1950	Isabel Patterson (1950) publishes a short account of the Bull Creek excavations. In it, she mentions the Singer mounds near Lumpkin, Georgia.
1955	David Chase (1955) publishes the first regional map locating Singer-Moye on Pataula Creek. Joseph Caldwell (1955) publishes the results from his excavation at Rood's Landing.
1956	David Chase (1956), Frank Schnell, Jr. (1956), and Robert Smith (1956) independently visit Singer-Moye and write up a description. Sears (1956) publishes his ceramic chronology of Kolomoki, entrenching the "Kolomoki problem".
1967	Singer-Moye is donated to the Columbus Museum of Arts and Crafts (Now the Columbus Museum). Frank Schnell, Jr. (1968) begins excavations on Mound E.
1968	Frank Schnell, Jr. and R. Don Gordy continue excavations at Singer-Moye, expanding their excavations to include Mound C and E.
1969	R. Don Gordy continues excavations at Singer-Moye, concentrating on Mound C and D.
1970	R. Don Gordy starts excavating Mound A. Continues until 1972.
1979	Jim Knight (1979) publishes the first ceramic sequence from the Singer-Moye excavations.
1981	Schnell et al. (1981) publish their excavation results from Cemochechobee.
1991	Excavations begin at Mound H and continue until 2001 (Russell and Gordy 2012).
1992	Sears (1992) retracts his Kolomoki chronology first suggested in 1956, resolving the "Kolomoki problem" which clarified the ceramic sequence in the valley.
1993	Frank Schnell and Newell Wright, Jr. publish their overview of Mississippi period archaeology of the Georgia Coastal Plain, including their revised ceramic chronology of the valley. Singer-Moye is used as the type site for the Singer phase based on excavations from Mound A.
1999	John Blitz (1999) presents the Fission-Fusion model, using data from the region.
2002	The Columbus Museum terminates all excavations at Singer-Moye. John Blitz and Karl Lorenz (2002) discuss the analogy versus homology debate as it relates to the region.
2006	John Blitz and Karl Lorenz publish <i>The Chattahoochee Chiefdoms</i> . They present an updated regional chronology and an overview of all excavations at Singer-Moye.
2008	Singer-Moye is acquired by the Georgia Museum of Natural History at the University of Georgia. Mark Williams and Jared Wood publish a revised site map (Wood and Williams 2008).

III. CHRONOLOGY

There are three main objectives to this chapter. First, I describe how I approached the creation of a new ceramic chronological sequence using a modified attribute\modal analysis. Second, I outline the site-specific ceramic trends having chronological significance. Third, I connect the relative ceramic chronology to absolute radiocarbon dates and use those data to model the occupational sequence.

Constructing a Relative Ceramic Chronological Sequence

One of the major goals of my research was to reconstruct the settlement history of Singer-Moye. While trying to understand its occupational history, I turned to existing regional chronologies as a guideline. Several researchers have interpreted the LCRV chronological and cultural sequences using ceramics as a relative marker and, in some cases, backing up chronological positions with radiocarbon dates (Table 3.1). They were useful as heuristic device in that they captured general regional trends, but it was apparent that not everyone agreed with how the sequence should have been divided or by what criteria. For my purposes at the site level of analysis, I found them too generalized because they were grounded in formal typological classifications that masked variability.

I began the process of refining the local chronological sequence by consulting the ceramic sequence and seriation by Knight (1979), based on contexts excavated through 1972 by the Columbus Museum. Knight's chronology identified three general

chronological trends and represented the only substantive prior attempt to quantify diagnostic artifact change at the local scale.

Knight began his analysis with the only stratigraphic record he had access to, a 3.05 by 24.4-m trench between Mound C and E. The trench exhibited only the first of the three trends he identified for his sequence, a decrease in shell tempering and increase in sand and grit tempering (Knight 1979: Table 1). Knight employed this shift in temper to order the occupational sequence of all contexts excavated by 1972. His sequence was Mound C, Mound E, Mound A, trench excavations, and Mound D (Knight 1979: Figure 2). Based on the ordering of all components, he then derived the frequency of the ceramic traits he deemed relevant, from which he derived the two additional general trends (Knight 1979: Figure 3). Knight's second trend was that the frequency of incised arcades on jars decreased through time, though the vessel form was still present (Knight 1979: Table 4). His third trend was the appearance of complicated stamped, zone punctated, bold incised, and pinched and noded fillets at or just below the lip of vessel rims late in his seriated contexts, that Knight identified as a distinct final phase, dating to sometime after AD 1300 (Knight 1979: 149).

I wanted to build on Knight's findings using new data. There were also several issues with the extant collections recovered by the Columbus Museum between 1967-2005. Most of the excavators were untrained workers recruited locally or through the Youth Corps of America. Each person only worked for a few weeks before being replaced, limiting any benefits gained through experience. The Columbus Museum artifact recovery strategy was to collect artifacts that were seen during excavation. Few proveniences were systematically screened. Several decades later, several proveniences

are now missing or mislabeled, especially from the Mound A excavations where fully half of the proveniences are affected.

To circumvent these issues, I excavated three 2 m x 2 m units in the ring-shaped midden area surrounding the central mound-and-plaza complex (Figure 3.1; See also Chapter 4). These unit excavations served two purposes. First, I wanted artifacts to be in stratigraphic context to preserve their depositional order and relative superposition to each other. Second, because most artifacts are non-chronological by nature, the units guaranteed a large enough collection so that my chronology would be based on a robust and representative sample. Each unit was systematically excavated by arbitrary 10-cm levels within a stratigraphic level or by natural levels when a stratigraphic change was identified during excavation. Every unit was dry screened through 0.25-in hardware cloth.

In total, we recovered over 54,508 g (n=12,268) of pottery from the three units. However, fewer than 350 sherds, or approximately 2.5% of the assemblage, could be assigned to one of the standard type-variety classification schemes. I conducted an analytical classification of all sherds in the Singer-Moye ceramic assemblage that I excavated from the three test units, as well as the Mound D assemblage excavated by the Columbus Museum, concentrating on attributes and modes (Rouse 1960: 313-315). Modes are attributes or combinations of attributes that co-occur and have interest to the observer and potential to change through time.

I decided against reanalyzing the Mound A and E assemblages because of significant concerns with their proveniences. I also did not revisit the Mound H assemblage because it represented a less precise representation of ceramics. Those three

assemblages had been analyzed by Blitz and Lorenz (2006) and existed in a comparable format to my own data.

Datasets

I derived three overlapping datasets from the assemblage using 16 possible categories of quantitative and qualitative attributes on each sherd (Table 3.2). I described each sherd based on the criteria contained in Table 3.3. The first dataset compared the total of ceramics exhibiting known temper types. Sand/grit tempered sherds comprised 77.9 percent of the assemblage by weight (42,447.8 g) and shell tempered pottery was 14.5 percent (7,920.6 g) of the assemblage. Residual sherds made up the remaining 7.6 percent (4,139.6 g). I assembled this dataset because temper is an important temporal marker in the LCRV and capturing the proportion of sand/grit and shell tempered pottery provided a rough baseline for stratigraphic changes. I decided against trying to sort plain body sherds into distinct categories based on vague and subjective criteria, such as quartz grain size or scale by which shell had been crushed, in favor of concentrating on aspects of the assemblage conducive to future replicability.

I derived the second dataset from all sherds that exhibited at least one of the following surface modifications: incising, stamping, and punctating. This dataset contained 982 sherds weighing 2,329.6 g. I assembled this dataset because it encompasses many of the primary types of attributes used by archaeologists in the Southeastern United States. It also provided a basis for comparison between sites and chronological placements at regional and macroregional levels.

I built the third dataset from all sherds with the following specific rim characteristics: rim shape, rim orientation, lip form, and weighed at least 4.0 g. There

were 461 members in this dataset, weighing 5,775.7 g. Some of the attributes in this population are used to classify pottery in the Southeastern United States, especially specific rim modifications such as pinching and appliques. I also quantified rim data because ceramics from Singer-Moye are overwhelmingly plain and the third dataset expanded the range of possible diagnostic artifacts and was a means to assess if vessel forms changed through time.

These datasets are overlapping in the sense that an individual sherd was always a member of the first dataset and was also a member of the second and third dataset depending on the relevant criteria. For example, a plain body sherd was only a member of the first dataset, but a rim sherd that also had incising on it would have been included as a member of all three datasets.

I elected to quantify each dataset by weight instead of count for all datasets. Weight is a better variable to use in this case because it is resistant to differential breakage patterns (Chase 1985; Solheim 1960), allowing for the unbiased comparison of ceramic proportions between assemblages (Orton and Hughes 2013: 206-207).

For the second and third data set, I employed a method called itemset mining to classify all attributes and modes in the assemblage as two separate but complementary populations. Itemset mining is a method used to discover interesting relations between variables in large databases (Hahsler et al. 2005). In this case, each sherd contains a subset of the variables used (Table 3.2; Table 3.3). The data are arranged in a binary incidence matrix, with each sherd existing as a separate row on the matrix and each quantitative variable a separate column. An algorithm analyzes every sherd and assigns each one into a specific grouping of variables, called itemsets.

Unlike factor analysis or principle component analysis, which are statistical techniques used to reduce the number of variables under study, itemset mining is like cluster analysis because it preserves potential modal variation by grouping observations instead of variables. For example, Figure 3.2 represents an idealized itemset lattice where each letter represents a particular variable and each number a specific itemset. An artifact that only exhibited variable “A” would be assigned to itemset 1. An artifact containing variables “A” and “B” would be assigned to itemset 1, 2, and 4. Any artifact with all three variables would be assigned to every itemset. However, in this analysis, I was interested in the maximal itemset, defined as the one with the most variables, that best encompassed the attributes on the artifact. In this case, artifacts with variable “A” would be assigned to itemset 1. Artifacts with variables “A” and “B” would be assigned to itemset 4. Artifacts with all three variables would be assigned to itemset 7.

I used the R software environment (R Core Team 2015) to conduct itemset mining through the arules package (Hahsler et al. 2005). I employed the Eclat algorithm (Borgelt 2012) within arules to generate the total number of possible itemsets and to assign each sherd to the most relevant one.

I visually compared the sherds grouped in each assigned itemset based on sketches I made during classification to confirm similarity between the members assigned to specific groups. Itemset mining is an automated grouping method that only works with the attributes assigned by the person. The total collection of valid itemsets represent the maximal number of attributes exhibited by the sherds assigned to it. Any two sherds with the exact same set of attributes belong to the same itemset and no sherd is assigned to

more than one itemset in a dataset. Every itemset with at least one member is a different mode.

Through the course of analysis, I found sherds that had an incorrect attribute assigned to it, meaning that it had been grouped inappropriately. For sherds that did not match, whether through esoteric characteristics or attribute misidentification, I reclassified them into their appropriate itemsets when possible. In some cases, attributes were not as clear as I had first thought, so I removed all problematic or inconclusive sherds and itemsets from further analysis.

Two itemsets with similar attributes are more related than those with few similarities, depending on the particular attribute(s) in question. For example, the difference between whether a collared rim sherd has a rounded or flattened lip is less substantial than if a rim sherd has a handle or not. The former differentiates between two ways of finishing the lip on a jar, a stylistic variation. The latter can indicate whether the sherd originated from a jar or a bowl, a distinction based on function.

I divided each excavation unit into similarly sized analytical units (AU) based on Harris' Laws of Archaeological Stratigraphy (Harris 1989). Each excavation unit contained between eight and thirteen AUs, represented in Figures 3-3a, 3-3b, and 3-3c and schematized in Figure 3.4. I collapsed smaller levels into neighboring ones occupying the same stratigraphic position but separated transitions from younger to older strata as unit depth increased. In some cases, changes in stratigraphy were not identified clearly during excavation resulting in the combination of adjacent stratigraphic sequences or stratigraphic transitions into a single AU.

Harris matrices preserve the spatial relationship between the artifacts and allowed me to clarify how attributes varied based on the depositional history. My intent was to identify horizontal boundaries in each unit that maximized the difference in ceramic modes between adjacent segments. To that end, I placed the temper, decoration, and rim datasets into the analytical unit matrix.

I grouped the valid itemsets into supersets, using *a priori* knowledge about vessel characteristics and the grouping of similar attributes belonging to only one superset (Appendix A). When possible, I used supersets present in all three excavation units. I calculated the proportion of each superset by analytical unit to facilitate inter- and intra-unit comparison. I divided each excavation unit into several horizontal boundaries to maximize differences between adjacent segments of the ceramic sequence, relying on attributes that were relatively common in the collection and easily recognizable on sherds.

For example, Table 3.4 shows the distribution of attributes in Unit 4 for all sherds that are incised on the interior with their assigned itemsets. All sherds had one of six attributes present. All were sand/grit tempered (Itemset 25, 147-150, 152). Half also had mica added to the temper (25, 147, 149). Five of six groups exhibited multiple incised lines in a rectilinear pattern (147-150, 152) and one had a single line (25). Three groups were burnished (25, 147, 148), two were smoothed (149, 150), and one had no additional surface modification (152). The vertical patterning showed that no itemsets were present in AU 1-2, burnishing only occurred in AU 3-4, and smoothing occurred in AU 4-6.

Results of Ceramic Artifact Analysis

The results of each unit seriation by dataset are contained on Tables 3-5a, 3-5b, and 3-5c (Appendix B contains the raw data and Appendix C has the results of the itemset mining). In general, I identified ten different modes with temporal significance. They are: 1) shell tempered jars and bowls; 2) incised arcades on collared jars (Figure 3.6); 3) rectilinear incising on the interior rim of shallow bowls and plates (Figure 3.5: except Row 1 and Row 4, bottom right); 4) rectilinear and curvilinear incising on the exterior of bowls (Figure 3.5: Row 1; Figure 3.7); 5) appliques just below the lip of bowls (Figure 3.9: Row 1-3); 6) pinched fillets on the necks of jars (Figure 3.9: Row 5-6); 7) check and complicated stamping (Figure 3.8); 8) punctations on the exterior of bowls (Figure 3.10: Row 1-3); 9) individual nodes placed on the exterior of jars (Figure 3.10: Row 5-6); 11) curvilinear incising on the interior rim of shallow bowls and plates (Figure 3.5: Row 4, bottom right).

I identified four shifts in attribute/mode composition that I have called Time Frames based on a comparison of the units (Table 3.6). Time Frame I is characterized by incised arcades on the shoulders of collared jars. Time Frame II is associated with the addition of rectilinear and curvilinear incising on the exterior of bowls and the initial appearance of rectilinear incising on the interior of shallow flaring-rim bowls and plates. Time Frame III is demarcated by the use of appliques added just below the lips of bowls; pinched fillets on jar necks; the addition of check, linear, and other complicated stamping designs; and the inclusion of punctations and zoned punctations other than those associated with arcades. Time Frame IV coincides with the first appearance of curvilinear incising on the interior of shallow flaring-rim bowls and plates coupled with the distinct

minority of rectilinear designs in the same area, and arcades on jar shoulders disappear. In all cases, the proportion of sand/grit to shell tempered pottery decreases through time, an indication that the identified attributes contain temporal significance.

Two of the Time Frames may potentially be divided further, though in both cases they represent minor shifts in attribute/mode makeup instead of the larger changes described earlier. I subdivided Time Frame III into IIIa, detailed above, and IIIb, which differs from IIIa by the almost complete disappearance of shell tempered pottery (1.6-2.1% of the total assemblage) and the addition of individual nodes around jar exteriors. Time Frame IV is also divided into a IVa, discussed above, and IVb, which differs from the former only in that punctations and zoned punctations disappear. The subdivisions of Time III and IV are provisional. They may be related to chronology or represent sub-settlement practice-based differences that occurred at a finer resolution than my data collection methods could account for, but additional contexts with ceramics and datable material are needed.

At least two Time Frames are present in each excavation unit (Figure 3.11). Excavation Unit 4 contains Time Frame I, II, and III(a). Excavation Unit 5 contains Time Frame II, III(a and b) and IV(a). Excavation Unit 6 contains Time Frame I and III(a). The uneven expression of ceramics modes from each unit suggests that there is no single monolithic ceramic shift. The only time in which there is a uniform concordance between all three units coincides with Time III.

Characterizing Ceramics from Additional Contexts

I tabulated the frequency of diagnostic attributes from excavations conducted by the Columbus Museum or a small sample from Mound F using either published

descriptions of types that have ceramic analogs to the modes and motifs that I used, or a new analysis conducted by myself (Table 3.7). The purpose was to situate the previous contexts into one of the Time Frames I identified from the unit excavations, using Dataset 1 (temper) and Dataset 2 (surface decorations). The results by dataset are described below.

Mound A Summit. The Mound A summit ceramic assemblage is characterized by a low percentage of shell tempered pottery (n=36; 2.7%), no zone punctated sherds, and almost no incised arcades (n=1; 1.2%). Other attributes are well represented.

Mound A Base. This context is similar to the Mound A Summit with one important exception, zone punctated sherds are well represented in the assemblage (n=32; 17.7%).

Blitz and Lorenz (2006: 169) state that the assemblage from the Mound A Base was the result of midden dumped from the summit and should be considered contextually the same. If so, then it must derive from summit activities other than those associated with the sample excavated by the Columbus Museum, due to the disparity between zone punctated pottery in the base assemblage but none found from the summit. Instead of combining the Mound A summit and flank collections into a single analytical unit as has been done previously, I have chosen to keep them separate based on the importance of zone punctated pottery as a chronological marker. In both cases, each assemblage dates to Time Frame IV.

Mound C. The high percentage of shell tempering (40%, n=181), the predominance of incised arcades (18.6%, n=8), and the absence of most other diagnostic attributes indicate that Mound C dates to early in the occupational sequence. A single

interior incised sherd (2.3%) indicates that at least one stage of Mound C was constructed or in use later in the occupational sequence, during Time Frame II.

Mound D. The low frequency of shell tempering (1.8%; n=57), prevalence of individual nodes (10%, n=10), low number of arcades (2.0%, n=2), but presence of all other diagnostic markers places the context in the latter half of the occupational sequence, during Time Frame III.

Mound E. The low frequency of shell tempering (3.4%, n=14) but prevalence of all other diagnostic attributes, especially individual nodes (25%, n=6) also positions this context in the latter half of the occupational sequence, during Time Frame III.

Mound F. The sample from Mound F is small, but provisionally can be situated sometime in the middle of the occupational sequence, during Time Frame III, due to the shell tempered sherds (7.2%, n=3) and the diagnostic marker of a single applique.

Mound H. The sample from Mound H is characterized by a greater than 6.2 percent frequency of shell tempering (7.2%; n=233), and the prevalence of almost all other diagnostic markers in the assemblage, excepting pinched rims, situating the assemblage in the middle part of the occupational sequence, during Time Frame III. The high frequency of arcades (33.3%, n=13), and stamping (20.5%, n=8) are quite diagnostic of the earlier portion of the middle phase, though nodes (10.3%, n=4) are problematic. There are cases where individual nodes from handles become detached and mimic those that are from the shoulder and diagnostic, and the high number of arcaded sherds is suggestive that several handled jars are present, the major source of mischaracterized nodes.

In sum, I oriented the other contexts to my Time Frames (Figure 3.11). The midden underneath Mound C dates to Time Frame I. All the construction stages at Mound C date to Time Frame II. Mound F and H date to Time Frame III(a). Mound D and E date to Time Frame III(b). The base of Mound A dates to Time Frame IV(a). The structure on top of Mound A, assigned to Time Frame IV(b), is the only Columbus Museum collection that does not have a current correlate to a non-mound location, assuming that particular subdivision of the Time Frame is meaningful. Because my sequence relies on the presence/absence of diagnostic attributes instead of their relative frequencies, the fact that the Columbus Museum excavations were tabulated by count did not impede my ability to include them. Except where specified, the mound dates come from their final construction stage. Earlier construction stages for almost all of the mounds could conceivably date to an earlier Time Frame than the one assigned, if the monument had numerous stages built over a long period of time. Targeted excavations and additional radiocarbon dates are necessary to identify the complete construction sequence of each monument.

Absolute Dating of Time Frames from Additional Contexts

Ten radiocarbon dates were also available from legacy and recent excavations (Table 3.8). My intent was to use the radiocarbon dates to provide absolute date ranges for each context based on the assumption that the contexts directly associated with dates represent occupational horizons within the broader Time Frames. I would have preferred to use radiocarbon dates taken directly from the same contexts that I used for the local chronology construction, but that was not an option.

I used radiocarbon dates from structures at Mound A, E, and H, the midden beneath Mound C, a context that contains a radiocarbon date situated between Time Frame I and II, and a pit feature from Mound D (Figure 3.11). In total, I had access to radiocarbon assays that corresponded to Time Frame I, II, III (a and b), and IV(b). There are no radiocarbon samples from contexts containing Time Frame IV(a) ceramics. The radiocarbon dates vary in quality, but I attempted to have at least two dates per dated context to facilitate age span overlap.

All six of the legacy dates were run on burnt wood and have error ranges between 30 and 80 years. The four recent dates came from bone, a seed, and charcoal. The first two materials are resistant to the uncertainty present from dates derived from burnt wood and also represent dates taken from the earliest and final periods of occupation. The error ranges for these four dates have less variation, between 20 and 30 years. I choose not to use a charcoal outlier model since several contexts only had burnt wood samples, but the other samples were from contexts that could constrain the model.

I calibrated the ten dates and modeled them using Oxcal (Bronk Ramsey 2009; Reimer et al. 2013) (See Appendix D for the raw code). I placed the dates in a contiguous sequence mirroring the order indicated by my ceramic chronology. I wanted to plot the potential length for each Time Frame based on the available contexts and identify temporal transitions from one Time Frame to the next. The small number of samples from dated contexts and the lack of samples from undated Time Frames creates broad time spans. Numerous dates from a context increase the confidence that the date range is accurately represented. Absolute dates should be considered tentative at this point. Additional radiocarbon dates will allow for further refinement.

My radiocarbon analysis provides absolute date spans for contexts from three Time Frames at 95.4 percent probability, assuming that the radiocarbon dates represent contemporaneous occupations as indicated from the ceramic seriations (Figure 3.12 and Table 3.9). The Time Frame I context dates to between ca. AD 1170-1250; the Time Frame II context dates to between ca. AD 1210-1270; the Time Frame III(a) contexts date to between ca. AD 1270-1380; the Time Frame III(b) contexts date to between ca. AD 1280-1390; and the Time Frame IV(b) context dates to between ca. AD 1450-1460, though this may be erroneous due to the unknown nature of wood sample that was used. I opted against employing a charcoal outlier model at this time but expect that other dates from the same context will resolve the issue in the future. Based on this model, Singer-Moye was occupied for between 230 and 540 years.

Discussion

I identified specific ceramic trends from new excavations that have chronological significance and re-oriented several of the previous excavations into this new chronology. In general, my findings do not contradict earlier chronologies, but expand the number of chronological markers.

Ceramic changes at Singer-Moye are characterized by the periodic introduction and replacement over an extended period of time of new forms and attributes alongside existing ones. I did not see sharp differentiations in the appearance and disappearance of attributes and modes that occur with the wholesale replacement of manufacturing techniques and cultural preferences brought about by a lengthy period of abandonment and subsequent reoccupation. I did not employ the relative frequencies of pottery modes and attributes to create the chronological sequence because of the low frequency of

diagnostic artifacts in the sample. Some pottery traits did resemble a traditional “battleship” curve associated with an increase in frequency followed by a similar decrease, but the diversity of decorative techniques meant that the maximum frequency of a given pottery mode or style was not necessary when defining the time frames. In the same vein, rarely did specific marker types play a significant role in defining a time frame since most of the pottery traits spanned more than one. Instead, I determined the dividing lines between time frames based on the introduction of new modes, maximizing the differences between adjacent segments. The process I employed to divide the units into time frames was similar to that used by Steponaitis (2009) and Knight (2010) for their ceramic chronology at Moundville.

The initial Time Frame (I) is dominated by modes that correspond to utilitarian vessels. This sequence also contains modes that are similar to those found west, in Alabama, and unlike vessels either to the north or south of the valley. The trajectory from Time Frame II through Time Frame III(b) is best described as an increase in modal diversity, specifically vessels with decoration that may have served either as some function such as indicating the contents of the vessel or who it or the contents to belonged to, or as signaling to those using the vessel or others who were watching, in the practice or performative sense. Time Frame II has an increase in the types of incising, both on the exterior and interior of the vessel. Time Frame III(a) marks the initial appearance of vessels that resemble those found north and south of the valley, especially stamped and zone punctated designs. Time Frame IV(a and b) begins a decrease in ceramic diversity and represents a point in which some of the long-standing modes disappear or become a distinct minority. Both categories were part of the suite of designs that first appeared in

Time Frame I and II, suggesting that either the people or practices connected to these designs were no longer as dominant and had been replaced by other, more recently introduced ones. Time Frame IV(b) is differentiated from IV(a) by the disappearance of zoned punctated designs.

Overall this analysis confirms the general chronological order established by previous researchers at Singer-Moye, though it does modify the order of monumental use. The earliest identified occupations are still the pre-mound midden under Mound C. Not surprisingly, Mound C postdates its pre-mound midden. Mound F and the structure at Mound H are next, followed by Mound D and the structure at Mound E. Finally, the base of Mound A is followed by the structure on the summit of Mound A (Figure 3.11).

Singer-Moye could have been occupied for as few as 230 years or as many as 540 years based on the modeled results from the radiocarbon dates. Based on the modelling of intervals between radiocarbon dates and the lack of clearly defined breaks in ceramic modes there are no obvious periods of abandonment. This runs counter to the assumption that late Precontact mound centers were used only for 50-100 years before being abandoned and populations relocated elsewhere (Anderson 1994; Blitz 1999; Hally 1993, 1996, 2006). The most likely period of abandonment, if there was one, might be between Time Frame III and IV, due to the decrease in ceramic modes and the contraction back to Mound A as the only major monument in use (discussed in Chapter 4).

Summary

In this chapter, I described the methods and results used to construction a new ceramic chronology. I used itemset mining to create a modal classification of the artifact assemblage from three excavation units in the large residential midden ring near Mounds

A and H. The key attributes that I concentrated on were not derived from formal types and varieties, but from a non-hierarchical combination of decoration and vessel shape. From three excavations, I identified four distinct Time Frames, two of which I provisionally subdivided further. The subdivisions are not set in stone and may change as more contexts are excavated. I also re-classified other contexts to make them compatible with the chronology presented here. I modelled all available radiocarbon dates from these other contexts using the Time Frames as phase markers, anchoring the Time Frames with absolute dates. I determined that Singer-Moye was occupied for between 230 and 540 years, most likely between ca. AD 1150-1500 based on agreement with the ceramic seriation.

In the next chapter, I present the results of my non-mound shovel test survey, identify specific settlement areas, and discuss how changes in settlement size correlate with changes in the central precinct.

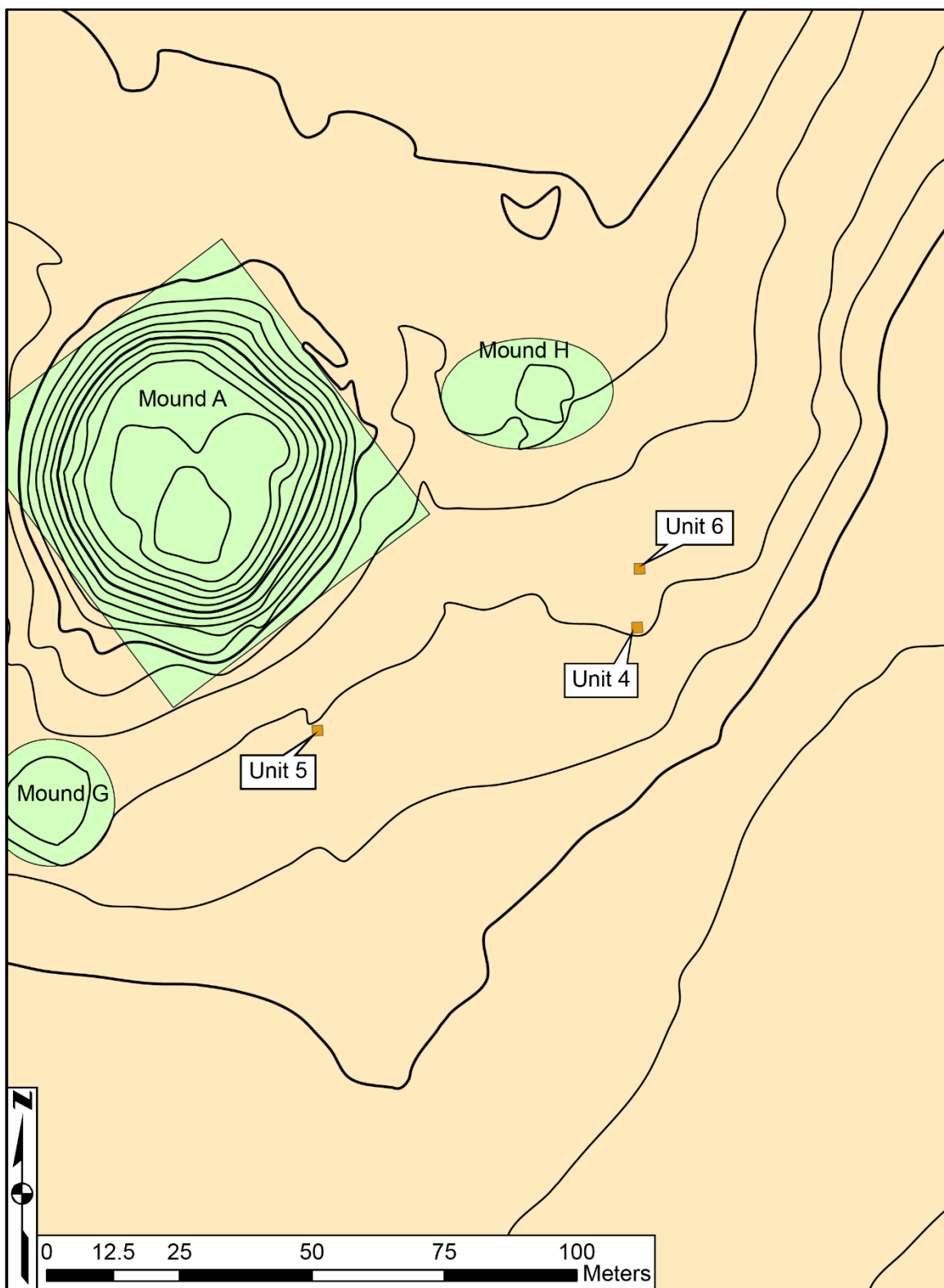


Figure 3.1. Location of units discussed in text

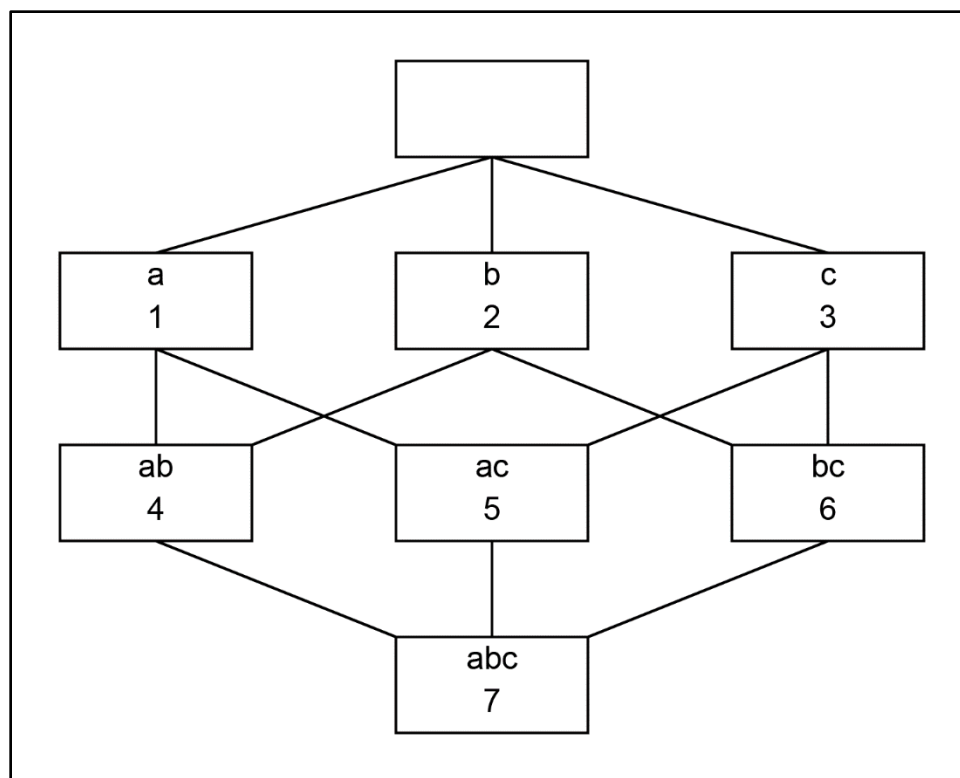


Figure 3.2. Idealized itemset matrix

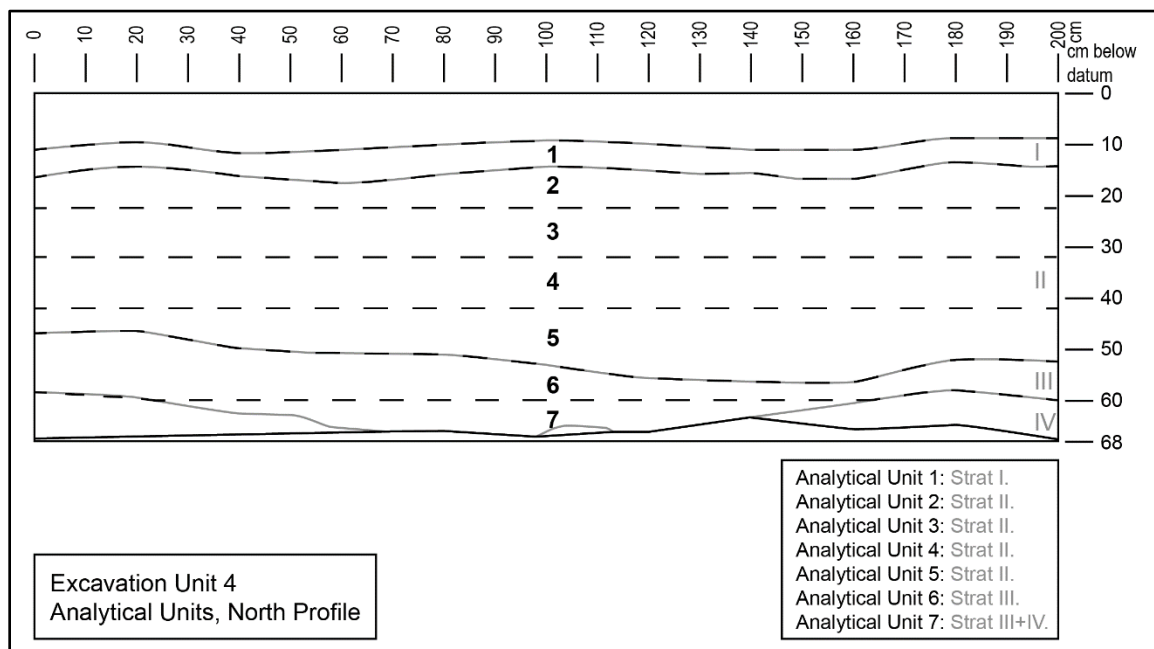


Figure 3.3a. Excavation Unit 4 profile divided by analytical unit

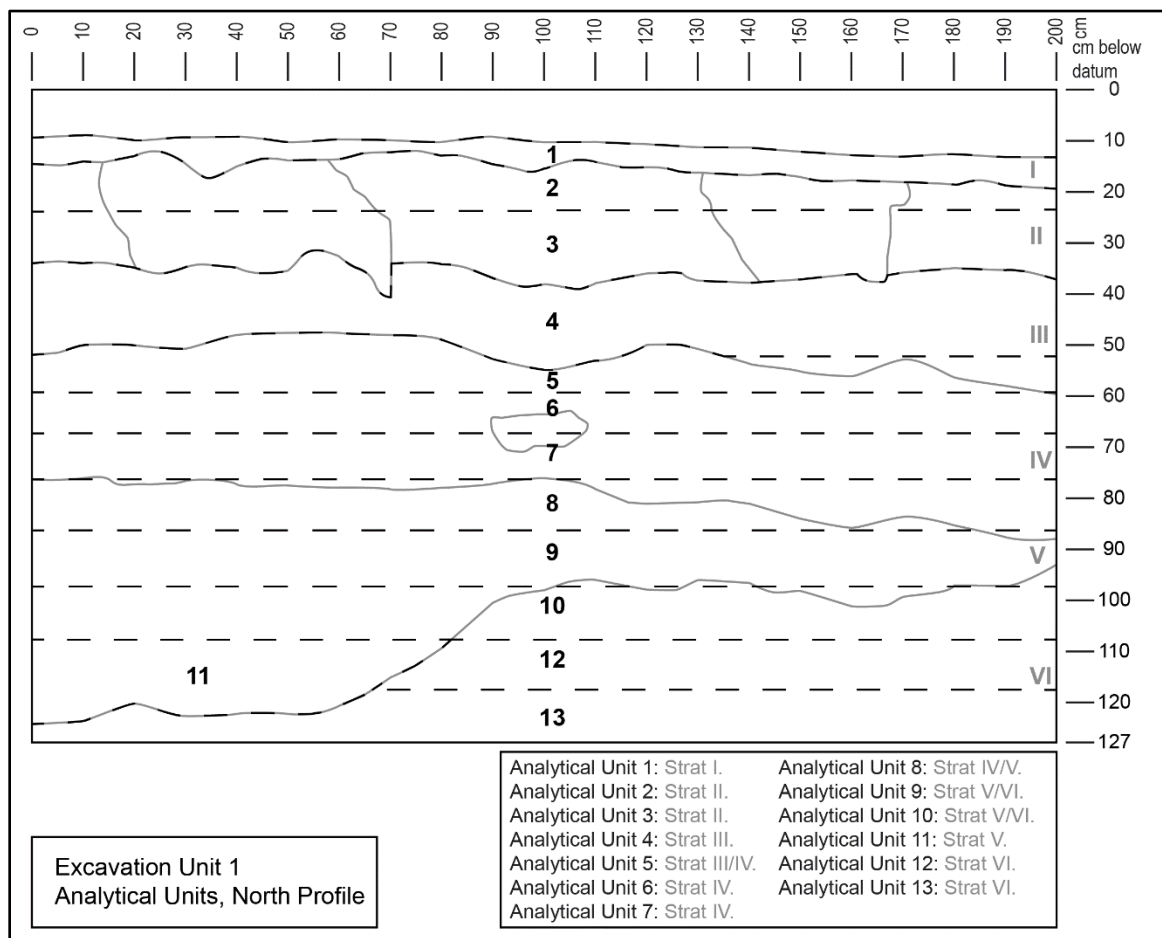


Figure 3.3b. Excavation Unit 5 divided by analytical unit

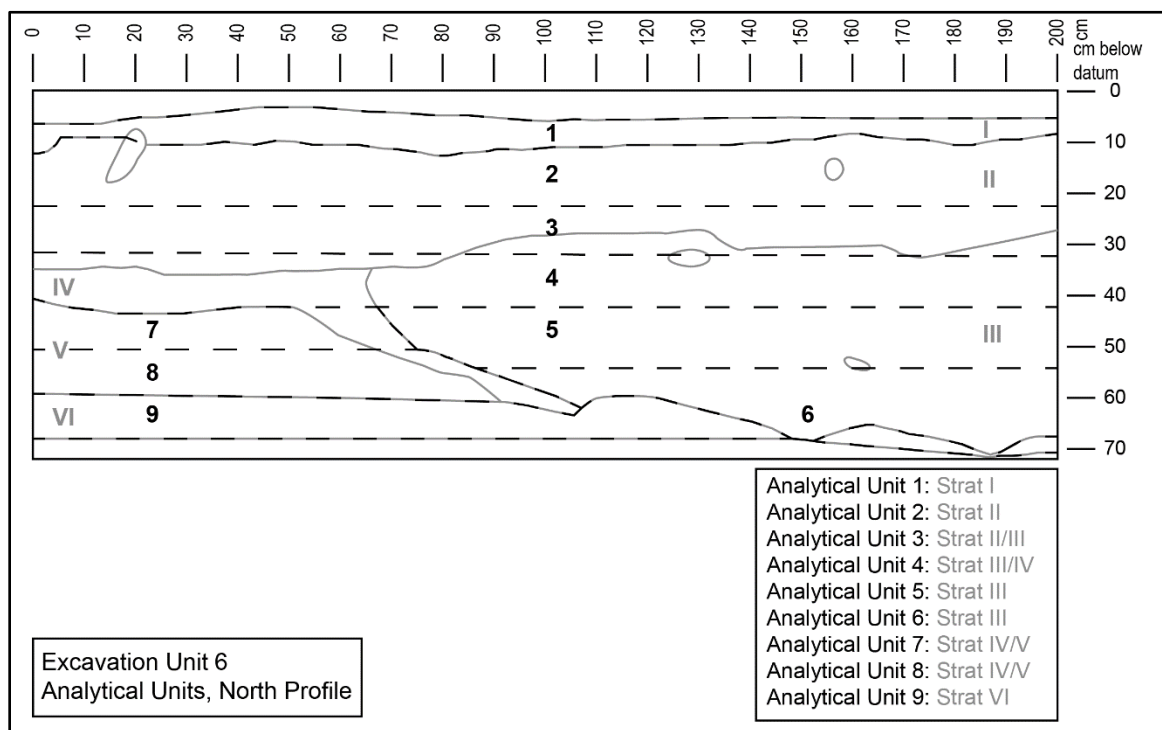


Figure 3.3c. Excavation Unit 5 profile divided by analytical unit

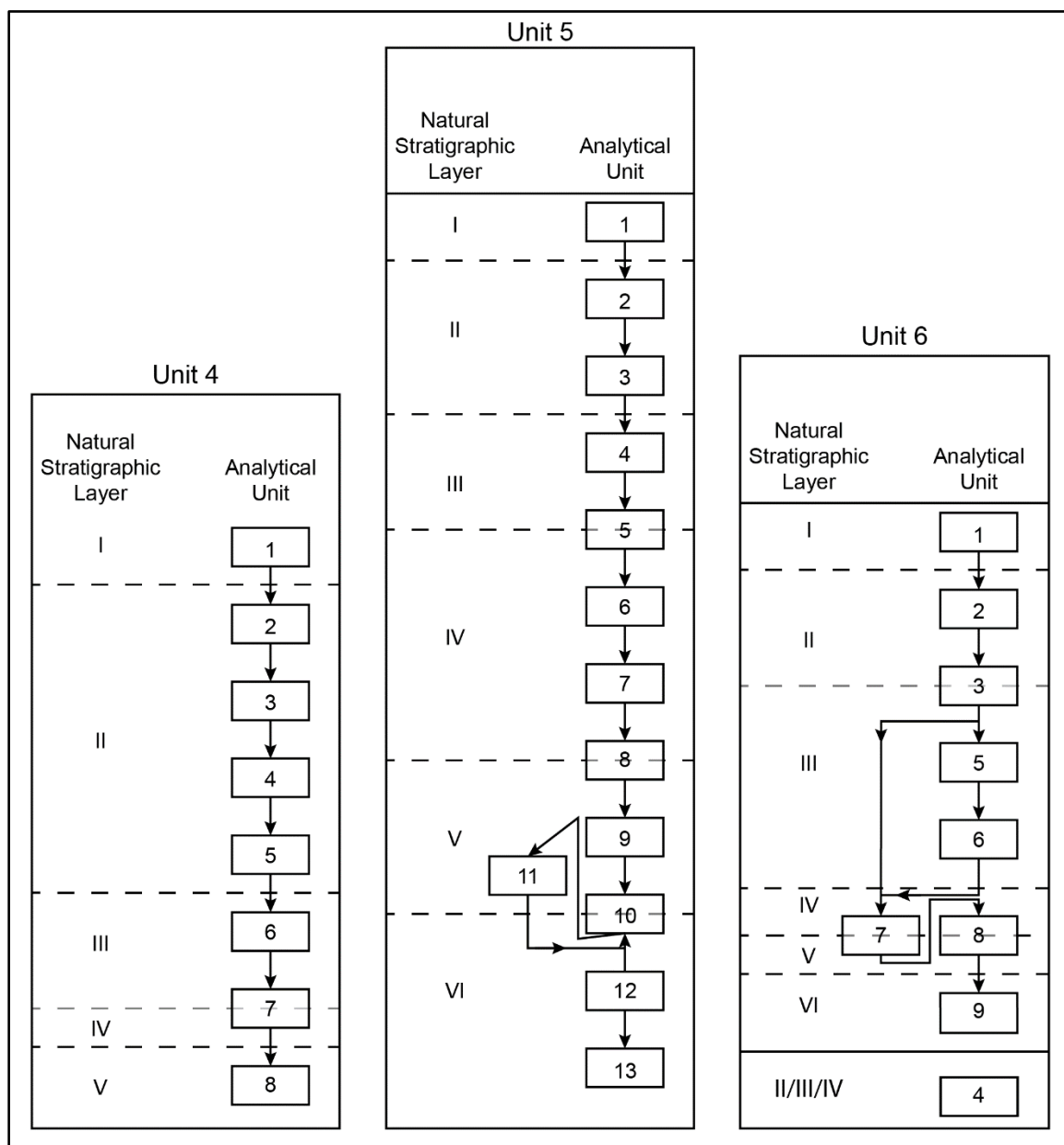


Figure 3.4. Excavation Unit Harris Matrices



Figure 3.5. Incised modes and attributes: (Row 1) Cross hatched incising,
 (Row 2) Rectilinear chevron incising on rim interiors,
 (Row 3 and Row 4, bottom left) Rectilinear straight incising on rim interiors,
 (Row 4, bottom right) curvilinear incising and punctation on rim interior.



Figure 3.6. Incised arcades on jar exteriors: (Row 1) Unembellished arcades, (Row 2 and 3) Eyelash arcades, (Row 4) Punctated arcades



Figure 3.7. Incised modes and attributes on vessel exteriors: (Row 1-3) Curvilinear incising, (Row 4-5) Rectilinear incising, (Row 6-7) composite designs.



Figure 3.8. Various stamped modes: (Row 1-2) Check stamped, (Row 3-4) Curvilinear complicated stamped, (Row 5) Rectilinear and linear complicated stamped



Figure 3.9. Appliques and pinched rims: (Row 1-3) Appliques, (Row 5-6) Pinched rims.



Figure 3.10. Zoned punctated, punctated, and individual node modes and attributes: (Row 1-3) Zoned punctations, (Row 4) Punctations, (Row 5-6) Individual nodes

Local Phase Designation	Analytical Units			Other Excavated Contexts
	Excavation Unit 4	Excavation Unit 5	Excavation Unit 6	
IV		1		Mound A Top IVb
		2 3	1	Mound A Base IVa
III	1 2 3 4 5	4 5 6 7	2 3 4 5 6	Mound D IIIb Mound E Mound H IIIa Mound F
II	6	8 9 10 11		Mound C
I	7	12 13	7 8 9	Pre-Mound C

Figure 3.11. Schematic of analytical units and other excavated contexts by Time Frame. Analytical units in red did not contribute to Time Frame designations.

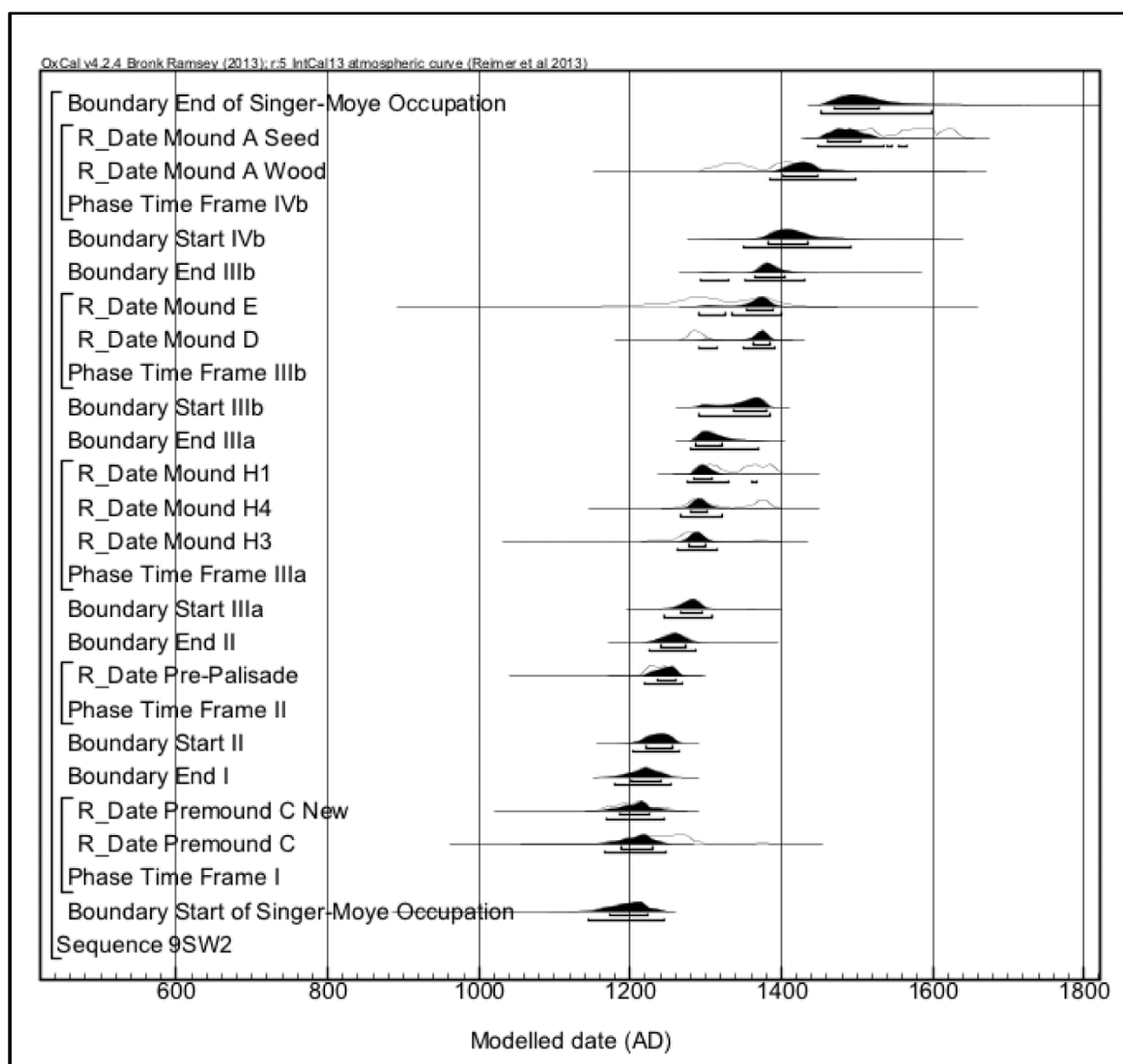


Figure 3.12. Singer-Moye radiocarbon model results using Time Frames as Phases

Table 3-1. Proposed Regional Chronologies for the Lower Chattahoochee River Valley
(All Dates AD)

	Jenkins (1978)	Knight and Mistovich (1984)	Schnell and Wright (1993)	Blitz and Lorenz (2006)
1550	Ocmulgee Fields I/ Abercrombie	Bull Creek	Stewart	Stewart
1500	Rood's Creek III/ Bull Creek		Bull Creek	Bull Creek
1450				Singer
1400				
1350			Singer	Rood III
1300		Rood		
1250	Rood's Creek II		Rood	Rood II
1200				
1150	Rood's Creek I		Standley/ Cat Cave	Rood I
1100				
1000				
950				
900			Late Weeden Island - Cat Cave Complex (?)	

Table 3-2. Attributes Used in Ceramic Analysis

Dataset	Data Category	Data Type
1,2,3	Tempering Agent	Qualitative
1,2,3	Weight	Quantitative
2,3	Additive, Arcades, Incising, Punctuation, Stamping, Surface Treatment	Qualitative
3	Presence of Everted Rims, Handles, Lip Form, Lip Modes, Presence of Collars, Rim Modes, Shape, Rim Orientation	Qualitative

Table 3-3. Description of Ceramic Characteristics Used in Study.

General Characteristics	Temper	Almost all sherds fell into one of two primary temper types, either sand/grit or shell. If a sherd exhibited both temper types, I elected to place it in the shell category due to the intentionality of adding shell to a clay paste prior to firing, whereas sand/grit particles may have been incidental. I noted two secondary temper types when present, mica and clay/grog. A few fibered tempered sherds were recovered, but not subject to additional analysis.
	Weight	Weight was recorded to 0.1 grams. All plain body sherds were placed in a single category and weighed according to the primary temper. All potentially diagnostic sherds were weighed individually.
Vessel Surface Modifications	Stamping Designs	<i>Check stamping.</i> This design consists of a grill of raised lands that intersect to form squares, rectangles, rhomboids, or triangles.
		<i>Complicated stamping – curvilinear.</i> Use of a decorated, carved paddle to produce curvilinear design elements.
		<i>Complicated stamping – rectilinear.</i> Use of a decorated, carved paddle to produce rectilinear design elements.
		<i>Simple/linear stamped.</i> Use of a decorated paddle, rocker, or cylinder creating a uniform linear design.
	Incising Designs	<i>Arcades.</i> Incised arch-shaped semicircles were placed end-to-end to encircle the upper portion of exterior vessel surfaces at the shoulder. Incising was either perpendicular to the vessel or at an angle. When possible, secondary designs were noted. Unembellished arcades did not have any secondary design elements. Eyelash arcades denoted when a series of incisions radiated above the arcades. Punctated arcades consisted of punctations above an incised arcade.
		<i>Curvilinear – body.</i> single or multiple curved incised lines in complicated or simple designs. Vessel interior or exterior was differentiated.
		<i>Rectilinear – body.</i> single or multiple linear incised lines in complicated or simple designs. Vessel interior or exterior was differentiated.
	Punctations	One or more rows of small punctations, produced by a sharp instrument, appeared anywhere on the vessel. The angle of punctuation was noted as either perpendicular to the vessel wall or angled sharply from 90 degrees. Punctations often appeared with other types of surface treatments, usually in curvilinear and rectilinear zoned incised and punctated patterns.
	Appliques	Appliques are intentionally created strips of clay placed just below the lip of a vessel and running parallel to it. Several variations were classified when encountered. Plain appliques had no additional modification. Notched appliques were cut or indented with large tools, created a notch. Pinched appliques were pinched with the fingers. Ticked appliques were identified by the incision of tiny notches or grooves. Scalloped appliques occurred when long shallow scoops of clay were removed from the strip.
	Surface Treatments	<i>Brushed.</i> Grass or some other pliant material is wiped over the surface, leaving distinct parallel scoring across the vessel.
		<i>Burnished.</i> A high polished surface is created by rubbing a hard object over the surface to give it a luster.
		<i>Filmed.</i> A wash is placed on the surface of the vessel to create a color other than the vessel paste. Usually red, brown, or black.
		<i>Smoothed.</i> A technique usually done with a soft, yielding tool such as cloth, leather, grass or the potters hand to eliminate imperfections and even out the surface.
	Handles	<i>Closed-loop.</i> A handle that had at least two points of contact with the body of the vessel and were approximately the same width and thickness at the midpoint.

Table 3-3. Description of Ceramic Characteristics Used in Study.

		<i>Closed-strap</i> . A handle that had at least two points of contact with the body of the vessel and were wider than they were thick at the midpoint.
		Closed handles were further classified by one of several modes. <i>Double top node</i> . Two nodes placed on the handle top. <i>Incised</i> . Lines incised on the handle. <i>Top node</i> . A single node placed on the handle top. <i>Top and mid node</i> . One node placed on the handle top and one node placed on the middle of the handle. <i>Top double ridge</i> . Two keel-like modeled ridges on the handle top. <i>Top tri-ridge</i> . Three keel-like modeled ridges on the handle top.
		Open handles were further classified by one of several categories. <i>Effigy heads and tails</i> . Otherwise known as “rim riders.” They are widespread bowl appendages or adornos found on the top of bowls. <i>Horizontal lug</i> . Round, oval, or triangular tabs that project at a right angle or curve slightly downward from bowl rims. <i>Vertical lug</i> . small vestigial handles placed on the exterior rim, mimicking closed handle forms but fused to the vessel body.
Rim Attributes	Rim Orientation	<i>Straight</i> . Upon orienting the rim to a horizontal plane, the rim of the vessel is within 10 degrees of perpendicular to that plane
		<i>Inleaned</i> . The rim of the vessel exceeds 10 degrees towards the center point of the vessel
		<i>Outleaned</i> . The rim of the vessel exceeds 10 degrees away from the center point of the
	Rim Shape	<i>Straight</i> . The rim is neither incurvate nor excurve.
		<i>Flaring</i> . The rim is excurve.
		<i>Rounded</i> . The rim is incurvate.
		<i>Everted</i> . The rim makes a sharp break along a horizontal plane, approaching or exceeding a 90 degree turn.
	Rim Modes	<i>Folded/Thickened</i> . The vessel rim is folded over onto itself, creating a thicker lip when compared to the body of the vessel.
		<i>Noded</i> . Individual nodes are attached to the body of the vessel at or just below the lip.
		<i>Pinched below rim</i> . The vessel body is pinched along a parallel line just below the lip. Pinched below rim varies from appliques in that the later involves an additional strip of clay added to the vessel, whereas the former uses either an unmodified exterior vessel wall of the interface between a folded/thickened rim and the unmodified body.
		<i>Thinned</i> . The rim is intentionally thinned towards the lip of the vessel.
		<i>Wedged</i> . The rim is intentionally formed into a triangular shape, with one point of the triangle facing outward.
	Lip Form	<i>Flattened</i> . Lip is flattened at a perpendicular angle to the vessel wall, giving it the appearance of being squared off.
		<i>Beveled</i> . Lip is flattened at an acute angle to the vessel wall.
		<i>Chamfered</i> . Lip is partially flattened or rounded at more than one angle.
		<i>Rounded</i> . Lip is rounded.
	Lip Mode	<i>Plain</i> . Lip is unmodified.
		<i>Notched</i> . Lip is cut or indented with large tools, created a notch.
		<i>Ticked</i> . Tiny notches or grooves are incised on the lip.
		<i>Scalloped</i> . Large scoops of clay are removed from the lip, resulting in rounded indentations.
		<i>Incised</i> . Incisions on the lip, usually running parallel on the top, which are not covered by other categories.

Table 3-3. Description of Ceramic Characteristics Used in Study.

	Specialized Lip Measurements	<i>Lip width.</i> The width of the lip (in mm) was recorded at the point where the lip transitions to the body of the vessel, measured perpendicular to the body.
		<i>Collar height.</i> Some vessels have a sharp break in vessel form between the lip and the body of the vessel, creating a clear profile. Collar height is the measurement from the lip to the inside point of inflection, in mm. Collar height measurements also served to indicate whether a collar was present or not. Unfortunately, I did not delineate between direct collars, vessels with a clear and abrupt change in direction, and indirect collars, vessels that have a more gradual transition. I suspect that there is a shift in frequency from direct to indirect collars through time.
		<i>Rim circumference.</i> I used a circumference chart to calculate the rim circumference of all rims that represented at least 5% of the vessel lip.

Table 3-4. Itemset Matrix Distribution in Unit 4 by Weight of all Sherds that are Incised on the Interior of the Vessel.

Itemset	25	147	148	149	150	152	Incidence Percent
Attributes							
Sand/Grit Tempering	X	X	X	X	X	X	100
Mica Additive	X	X		X			50
Rectilinear Incising - Multiple Interior Lines		X	X	X	X	X	83.3
Rectilinear Incising - Single Interior Line	X						16.7
Burnished Surface Treatment	X	X	X				50
Smoothed Surface Treatment				X	X		33.3

Analytical Unit							Total
1	-	-	-	-	-	-	0
2	-	-	-	-	-	-	0
3	-	6.2	18	-	-	-	24.2
4	5.4	18.7	-	-	7.9	8	40
5	-	-	-	-	6.3	-	6.3
6	-	-	-	9.7	11.7	-	21.4
7	-	-	-	-	-	16.2	16.2
8	-	-	-	-	-	-	0
Total	5.4	24.9	18	9.7	25.9	24.2	108.1

Table 3.5a. Battleship Curve Seriation of Modes and Attributes in Unit 4 by Dataset

Time Frame	A U	Temper	Surface Treatment										Vessel Forms					
		Sand Shell	Rectilinear Incising Interior	Shell Tempered Arcades	Sand Tempered Arcades	Punctations	Check Stamped	Curvilinear Incised Exterior	Rectilinear Incised Exterior	Unidentified Incising Exterior	Complicated Stamped	Storage Jars	Outleaned Serving Ware	Restricted Serving Ware	Hemispherical Serving Ware	Other Burnished Vessels	Appliques	
III	1																	
	2																	
	3																	
	4																	
	5																	
II	6																	
I	7																	

Table 3.5b. Battleship Curve Seriation of Modes and Attributes in Unit 5 by Dataset

Time Frame	AU	Temper	Surface Treatment											Vessel Forms						
		Sand Shell	Shell Tempered Arcades	Rectilinear Incised Interior	Rectilinear Incised Exterior	Sand Tempered Arcades	Unidentified Exterior Incising	Curvilinear Incised Exterior	Check Stamped	Zoned Punctated	Rectilinear Complicated Stamped	Curvilinear Complicated Stamped	Curvilinear Incised Interior	Storage Jars	Hemispherical Serving Vessels	Outleaned Serving Vessels	Other Burnished Vessels	Restricted Serving Vessels	Applique Vessels	Noded Bowls
IV	1																			
	2																			
	3																			
III	4																			
	5																			
	6																			
	7																			
II	8																			
	9																			
	10																			
	11																			

Table 3.5c. Battleship Curve Seriation of Modes and Attributes in Unit 6 by Dataset

Time Frame	A U	Temper	Surface Treatment												Vessel Forms					
		Sand Shell	Sand Tempered Arcades Shell Tempered Arcades Rectilinear Incised Exterior Check Stamped Rectilinear Incising Interior Rectilinear Complicated Stamped Curvilinear Incised Exterior Zoned Punctations Curvilinear Complicated Stamped Unidentified Incising Exterior Punctations												Storage Jars Hemispherical Serving Ware Outleaved Serving Ware Restricted Serving Ware Applied Vessels Other Burnished Vessels Noded Bowls					
III	1																			
	2																			
	3																			
	4																			
	5																			
	6																			
I	7																			
	8																			
	9																			

Table 3.6. List of Chronological Markers using Results from Itemset Mining.

Time Frame Designation	Characteristics	Subdesignation	Characteristics
I	•>40% Shell Tempered Pottery •Arcades on Jar Shoulders Appear		
II	•22.8-37.3% Shell Tempered Pottery •Rectilinear Incising on the Rim Interior of Bowls First Appear •Rectilinear and Curvilinear Incising on Bowl Exterior First Appear		
III(a)	•6.2-27.7% Shell Temp. Pottery •Appliques around Neck of Bowls First Appear •Pinching around Neck of Jars First Appear •Stamping First Appear (Check, Complicated) •Zoned Punctations First Appear	III(b)	•1.6-2.1% Shell Tempered Pottery •Individual Nodes on Exterior of Jars Appear
IV(a)	•1.1% Shell Tempered Pottery •Curvilinear Incising on Bowl Interior First Appear •Arcades on Jar Shoulders Disappear •Rectilinear Incising on Bowl Interior Distinct Minority	IV(b)	•Zoned Punctations Disappear

Table 3.7. Distribution of Diagnostic Ceramic Attributes and Modes from other Excavations

Context	Shell Tempered		Sand/Grit Tempered		Total	Zone Punctuation		Stamped (All Varieties)		Appliques (All Varieties)		Pinched Rims		Nodes		Interior Incised		Exterior Incised		Arcades		Total	Time Frame
	n	%	n	%		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
A																							
Summit ^a	36	2.7	1311	97.3	1347	0	0.0	11	12.8	28	32.6	10	11.6	17	19.8	7	8.1	12	14.0	1	1.2	86	IV(b)
A Base ^a	14	0.8	1672	99.2	1686	32	17.7	12	6.6	34	18.8	26	14.4	65	35.9	8	4.4	3	1.7	1	0.6	181	IV(a)
C ^a	181	40.0	271	60.0	452	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.3	34	79.1	8	18.6	43	II
D ^b	57	1.8	3151	98.2	3208	16	16.0	5	5.0	18	18.0	17	17.0	10	10.0	15	15.0	17	17.0	2	2.0	100	III(b)
E ^a	14	3.4	396	96.6	410	2	8.3	6	25.0	3	12.5	4	16.7	6	25.0	1	4.2	1	4.2	1	4.2	24	III(b)
F ^b	3	7.1	39	92.9	42	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	2	III(a)
H ^a	233	7.2	3022	92.8	3255	1	2.6	8	20.5	5	12.8	0	0.0	4	10.3	5	12.8	3	7.7	13	33.3	39	III(a)

^aData from Blitz and Lorenz 2006; Appendix B.

^bData from Brannan and Bigman 2014.

Table 3.8. Radiocarbon Samples Used in Analysis.

Lab ID	Sample ID	Material	Context	Specific Context	Oxcal name	Date	Error	Reference
UGAMS-21638	9SW2_2015_71-5	grass seed	Mound A	Mound A, structure 1, XUD	Mound A Seed	340	20	Birch n.d.
UGA-357	N/A	wood	Mound A	Mound A, structure 1, charred roof timber	Mound A Wood	550	60	Blitz and Lorenz 2006
Beta-182150	N/A	wood	Mound H	Mound H West, Structure 1	Mound H1	630	30	Russell and Gordy 2012
UGA-356	N/A	wood	Mound E	Pit in floor of Mound E structure	Mound E	680	80	Blitz and Lorenz 2006
Beta-182151	N/A	wood	Mound H	Mound H West, Structure 4	Mound H4	680	40	Russell and Gordy 2012
UGAMS-21637	9SW2_2015_D-F5	crem.bone	Mound D	Mound D, Feature 5, ash pit	Mound D	690	30	Birch n.d.
Beta-154049	N/A	wood	Mound H	Structure 2H, central hearth (F-21)	Mound H3	720	40	Blitz and Lorenz 2006
Beta-153709	N/A	wood	Pre-mound C	pre-mound C midden	Premound C	770	60	Blitz and Lorenz 2006
UGAMS-21636	9SW2_2015_1313	charcoal	XU5, Window	XU5, Window, 109cmbd	Pre-Palisade	800	20	Birch n.d.
UGAMS-21639	9SW2_2015_196	burnt bone	Pre-mound C	pre-mound C midden	Pre-mound C New	840	20	Birch n.d.

Table 3.9. Singer-Moye Radiocarbon Date Model based on Proposed Time Units

Name	Unmodelled (BC/AD)			Modelled (BC/AD)			Indices Amodel 83.8 Aoverall 88.9	
	from	to	%	from	to	%	A	C
Span Singer-Moye				230	540	95.4		97.1
Boundary End of Singer-Moye Occupation				1450	1700	95.4		96.6
Interval Time Frame IVb				40	360	95.4		98.3
R_Date Mound A Seed	1470	1640	95.4	1450	1600	95.4	81.8	98.8
R_Date Mound A Wood	1290	1450	95.4	1310	1460	95.4	100.7	99.7
Phase Time Frame IVb								
Boundary Between IIIb and IVb				1280	1440	95.4		98.4
Interval Time Frame IIIb				0	120	95.4		98.3
R_Date Mound E	1190	1430	95.4	1280	1400	95.4	118.9	98.6
R_Date Mound D	1260	1390	95.4	1280	1390	95.4	63.6	99.1
Phase Time Frame IIIb								
Boundary Between IIIa and IIIb				1280	1380	95.4		98.7
Interval Duration of Time Frame IIIa				0	130	95.4		98.8
R_Date Mound H1	1280	1400	95.4	1270	1380	95.4	81.9	99.3
R_Date Mound H4	1260	1400	95.4	1260	1380	95.4	119.6	99.7
R_Date Mound H3	1220	1390	95.4	1250	1380	95.4	116.8	99.7
Phase Time Frame IIIa								
Boundary Between II and IIIa				1220	1310	95.4		99.4
Interval Time Frame II				0	100	95.4		99.5
R_Date Pre-Palisade	1210	1270	95.4	1210	1270	95.4	101.1	99.7
Phase Time Frame II								
Boundary Between I and II				1190	1270	95.4		99.6
Interval Time Frame I				0	120	95.4		99
R_Date Premound C New	1160	1250	95.4	1170	1250	95.4	101.6	98.9
R_Date Premound C	1050	1390	95.4	1160	1260	95.4	94.3	99
Phase Time Frame I								
Boundary Start of Singer-Moye Occupation				1110	1260	95.4		96
Sequence 9SW2								

IV. DELINEATING THE SINGER-MOYE SETTLEMENT

The previous investigations of mound contexts (described briefly in Chapter 2 and 3) provided an initial characterization of the local ceramic chronology and a rudimentary understanding of summit activities. However, non-mound contexts are important for reconstructing settlement histories and prior to my involvement, the Singer-Moye dataset was limited to several unprovenienced surface collections. Previous investigators believed that the site boundaries did not extend much beyond the terrace containing the central mound and plaza complex, totaling approximately 14 ha (Blitz and Lorenz 2006; Schnell and Wright 1993). These assumptions were based on non-systematic walkovers of adjacent landforms looking for surface scatters.

The initial aim of my research was to conduct a reconnaissance of the site core area and surrounding landforms. I accomplished this through a systematic sampling program on land owned by UGA as well as on a second parcel that Plum Creek LLC. gave permission to survey, between the southern edge of the property line and Pataula Creek. I was guided by several specific research questions. First, what was the total site size? Second, could I identify specific settlement areas using the distributions and types of recovered artifacts? Third, how did settlement size change through time?

Sampling Methods

The sampling program at Singer-Moye consisted of the excavation of 30-cm diameter shovel tests at predefined intervals, additional shovel tests located in areas of

interest, and surface collections where applicable. The soil from all shovel tests was screened through 0.25-in mesh. The survey grid extends 1,000 m east-west and over 800 m north-south in a reverse L pattern, bordering Pataula Creek to the south and private property boundaries in all other directions (See Appendix A for spatial information and Appendix B for artifact information).

Two survey strategies were employed based on the proximity to the site core. Within the mound and plaza complex, I established a metric grid system laid out from an arbitrarily placed datum designed N500 E500, located in the north end of the south plaza to the east of Mound F and southwest of Mound B. The grid was oriented 2 degrees east of north to account for magnetic declination and avoid disturbing existing datums. The grid coordinates increased to the north and east and decreased to the south and west. The grid extended 50 m past the exterior side of each mound except when limited by property boundaries. I placed grid stakes at 20-m intervals and all local measurements were triangulated from them with measuring tapes. The interval between shovel tests never exceeded 20 m in this core area. I placed additional shovel tests at areas of interest not tested by the 20-m interval, including small mounds, changes in vegetation, and various shallow geophysical anomalies (See Chapter 6). Every shovel test location was recorded by a total station using the grid coordinates. In total, this portion of the survey encompassed 14 ha.

The second strategy consisted of a 30-m interval shovel test survey over the remaining survey area, using a grid pattern with the grid axes identified with transect and shovel test designations. The grid anchor was in the northeast corner of the property and designed Transect (T) 10 Shovel Test Pit (STP) 10 to allow for numbering all transects

and shovel tests sequentially. Transect numbers increased to the west and shovel test pit numbers increased to the south. The grid extended over the land that I had permission to survey. In areas of good visibility, shovel tests were positioned using compass and pacing\stride. In poor visibility, GPS units were used. Additional shovel tests were placed in areas of interest and their locations identified either by measurement from the closest transect\shovel test point or GPS. All positive shovel tests and surface finds were plotted with GPS. Artifacts were bagged by location. In total, this portion of the survey covered 47 ha.

Results

Over the course of two field seasons, I collected a total of 846 shovel test samples (Figure 4.1). Of these, slightly more than 50% (N=434) were positive, producing at least one artifact (Table 4.1). On average, there was 22.6 artifacts per positive shovel test, with a median of 8 artifacts per test. Each positive shovel test contained between 1 and 228 artifacts.

There are clear spatial discontinuities in the distribution of artifacts in that they cluster based on their status as having been positive or negative. Qualitatively speaking, this is not surprising, assuming artifact deposition is a result of human activities concentrated in specific areas as opposed to random artifact dispersal. To explore the distribution of artifacts quantitatively, I created a series of kernel smoothing with barrier interpolations using the ArcGIS 10.4 geostatistical analyst tool. Kernel smoothing interpolation with barriers is a moving window predictor that uses the shortest distance between points so that points on either side of a barrier are connected, but points separated by barriers are not connected. I created barriers by placing a 30 m buffer

around every positive shovel test, joining all buffers into a single polygon, and simplifying it to remove the jitteriness introduced from the various joins. I used the barrier to separate the clusters of positive shovel tests and mitigate the effects that distant points can sometimes have on interpolated data. I also treated the mounds as localized barriers because I did not shovel test in their footprint and did not want the interpolation to use nearest neighbors across the narrow space of the mound when other point neighbors were better candidates for calculations. I processed each data set in the same way for the three most numerous data sets: all artifacts, all ceramics, and all lithics. I used the polynomial5 kernel function, prediction output surface type, polynomial order of 1, ridge of 50, bandwidth of 50, and symbolized the data as contour lines based on a geometric algorithm.

The results indicate that the current settlement size totals 29.2 ha, based on the area encompassed by the 0.9 interpolated artifact count contour line (Figure 4.2). Artifact distributions from multiple positive shovel tests cluster in five areas. The five areas include a 12.8 ha oval centered on the eight extant mounds, a 3.1 ha area to the northwest that is on a long toe slope, an 8.9 ha linear artifact distribution on a different upland terrace from the first area that parallels Pataula Creek, a 2.5 ha area to the northwest on another north-south oriented terrace separated from the third area by a large poorly drained expanse, and a 0.7 ha area that is to the far southwest of the survey area, on the same terrace as the previous area. Nine additional isolated loci totaling 1.2 ha are scattered throughout the survey area. They represent isolated positive shovel tests, seven of which contained sparse numbers of recovered artifacts but two along the northwest survey boundary that had a high artifact density.

Artifact density was variable in the samples, suggesting that prehistoric occupants deposited dense refuse in some areas, used other areas more sporadically, and cleaned some locations surrounded by dense deposits for specific purposes. The heaviest artifact density is located in a U-shaped ring encompassing the mounds and between mound locations in Area 1, highlighted in red. Other high-density locations include the southernmost portion of Area 1 and the northeast and south-central locations in Area 3, demarcated in orange. Area 2, 4, and 5 all have low to moderate artifact densities, outlined in greens and yellows.

To characterize these different areas further, I used the distribution of pottery and lithic artifacts. In total, I recovered 9,033 sherds from 398 positive shovel tests, with an average of 22.8 sherds and a median of 8 sherds per test (Table 4.1). The spatial distribution of ceramics mirrors that of all artifacts in Area 1 and 2 but diverges from it in Areas 3-5 (Figure 4.3). In Area 1, ceramics are most dense in the U-shaped area and in the south, with low ceramic densities interior to the U-shape and surrounding Mound D. Area 2 only has a light to moderate density of ceramics across almost the whole occupied surface. Area 3 has a high density of ceramics to the northeast, and two moderate density loci in the center section of it, surrounded by a lower density spread. An isolated low-density pocket is also present to the far southwest of Area 3. In Area 4, low to moderate ceramic density is in the north of it, with two additional isolated low-density pockets. Finally, Area 5 contains only a small low-density pocket.

I also recovered 717 lithic artifacts from 214 shovel tests, with an average of 3.5 lithics and a median of 2 lithics per test (Table 4.1, Figure 4.4). The spatial distribution is similar between lithics and ceramics, but the density suggests that areas with substantial

amounts of pottery have fewer lithic artifacts, and vice versa. The highest density of lithics are at some distance from the central site core on the area south of the mounds and on adjacent landforms to the southwest. At the site core, lithics are restricted to the same areas as the heaviest ceramic concentrations and are almost absent where ceramics are also less dense.

This pattern may be related to differential use of these areas and subsequent dumping activities, where lithic raw materials were located, or may be chronological. Lithic scatters at some distance from ceramic concentrations may represent the partitioning of space in areas that are not as densely occupied, meaning that discrete areas might have been set aside some distance from habitation areas for the express purpose of lithic manufacturing and maintenance. At the same time, the densest lithic concentrations are nearest Pataula Creek where chert nodules would be easier to find. Conversely, at the site core, the comingling of lithic and ceramic materials may represent either the inability to partition space as easily as further afield, or that artifact patterns may be due to refuse dumping from nearby habitation areas that necessitated regular cleaning. The two areas between the mounds are almost devoid of lithics and ceramics, suggesting that the spaces may have been swept of artifacts or at least were kept clean, classic signs that these locations served as plazas.

If the initial processing of lithic materials or the complete manufacturing process for finished tools occurred near where raw materials were recovered, then the heaviest concentrations would be along Pataula Creek, assuming that Pataula Creek contained suitable chert in cobble form. A final possibility is that the heaviest lithic concentrations are not derived from Late Precontact period activities, and instead are from a primarily

aceramic Archaic period occupation near Pataula Creek that is connected to the later Precontact period deposits through horizontal space, but unconnected in time. These possibilities require excavations with better vertical control to determine which is a better explanation. As such, I am reporting the distribution of lithics due to their importance in determining the total site area, but interpretations about what that distribution may mean requires additional data that is currently unavailable.

One of biggest outcomes of the survey is that the site limits extend far beyond the core area, making it far bigger than expected. In fact, I was unable to establish the full extent of the site. Within the 61-ha survey area, the documented settlement area approaches 30 ha. This makes Singer-Moye one of the larger systematically surveyed prehistoric sites in the United States, and larger than almost all the known prehistoric sites in Georgia, behind Kolomoki at 48.7 ha (Pluckhahn 2003) and Macon Plateau at approximately 70 ha (Hally and Williams 1994).

Characterizing Settlement Areas

My shovel test survey provided an initial characterization of the spatial distribution of components. In general, my results confirm that Singer-Moye was occupied primarily during the late Precontact period (ca. AD 1150-1500). All diagnostic ceramics are consistent with late Precontact period types except for a few fiber tempered sherds and steatite vessel fragments recovered from Area 3, indicative of a small Late Archaic occupation.

Table 4.2 documents ceramic totals by count for the pooled assemblages in each settlement area. Overall, 93.5 percent of all sherds were sand/grit tempered, and 6.5 percent were shell tempered, with between 93 and 98 percent of each area consisting of

sand/grit tempered sherds, excepting Area 5 due to sample size. Collared jars were the most abundant category of artifact at 31.4 percent of the diagnostic ceramic assemblage and are only found during the late Precontact period. Exterior incised vessels were the second-most prominent type, at 13.5 percent. Other categories varied between 1.0 percent and 7.7 percent.

My shovel test survey also provided me with sufficient data to make additional inferences about the nature of settlement practices and the period of occupation by aggregating the sample data together from my five settlement areas. Following Pluckhahn (2003: 110-111), I used two basic measurements to characterize the settlement areas: artifact density and ubiquity. Artifact density is a measurement of the mean number of artifacts per collection point. In this case, I calculated the density of ceramics in an area by dividing the total number of recovered sherds by the number of shovel tests that contained at least one sherd.

Artifact density will be higher in areas that the inhabitants utilized intensively. However, in some cases there will be a high density of a certain type of artifact but only in a select portion of the settlement area, which would give a false impression of the intensity of settlement if that were the only metric used to characterize each area. A second metric, ubiquity, quantifies the relationship between the number of shovel tests containing a specific type of artifact and the total number of shovel tests in each area. For ubiquity measurements, I divided the number of shovel tests with at least one ceramic sherd in that category by the total number of shovel tests.

Artifact density and ubiquity together provide a good measure of the intensity of settlement (Pluckhahn 2003: 111). Areas with high artifact density and ubiquity can be

interpreted as places of permanent habitation (Neusius et al. 1998). Areas with high density but low ubiquity were settled intensively, but for shorter intervals or by fewer numbers of people. Conversely, low density but high ubiquity occurs in areas occupied repeatedly but for brief intervals, due to successive occupations not always being placed in the exact same spot (Kozarek 1997). Finally, areas that are low in density and ubiquity were not settled intensively but may have been utilized for other purposes.

Table 4.3 shows ceramic density and ubiquity values for each area. The areas easiest to characterize are those that fall at the extremes of density and ubiquity. Area 1 is the most dense and ubiquitous of all areas. Area 3 is also dense and relatively ubiquitous. I interpret both as areas of permanent, long-term habitation. Area 2 has a low density but high ubiquity. I interpret this location as having been occupied for a relatively brief period of time but repeatedly. Area 4 has a low density but a medium ubiquity, and Area 5 has low density and ubiquity. I interpret both of these areas as places that were not settled intensively but may have been used for purposes other than only habitation. However, Areas 2 and 4 appear to be peripheral segments of a larger occupation on adjacent, unsurveyed land and their characterizations may change when additional testing occurs in those areas, especially if both areas represent the edges of more permanent and/or denser occupations.

Dating Settlement Areas

Based on the local ceramic chronology, I placed each of the five areas into at least one of four Time Frames (see Chapter 3). I treated each area as a single analytical entity because data from shovel tests are, by nature, coarse grained and the amount of relevant

diagnostic material is still small for almost all areas. My dating of settlement areas is tentative and may change after additional excavations.

Table 4.4 documents the proportion of diagnostic types among the pooled assemblages for each settlement area. In general, shell tempered pottery is found in every area, and collared jars are present in all but Area 5, reinforcing my conclusion that there was a widespread late Precontact period component present based on results from Chapter 3. Factors special to each area require that I discuss them individually.

Areas 4 and 5 are difficult to date with the recovered ceramics. Area 4 contains low quantities of shell tempered pottery and Area 5 has almost no pottery at all. Without other markers, I can only provisionally suggest that Area 4 likely dates to Time Frame III due to the ratio of shell to sand/grit tempered pottery and that Area 5 may represent a similar period of occupation based on its proximity to Area 4.

Area 2 also has a low ratio of shell to sand/grit tempered pottery, indicating that it was settled later in the occupational history. No other dateable material was recovered, so I also suspect it dates to Time Frame III.

I have also assigned Area 3 to Time Frame III because of the small amount of shell tempered pottery, sherds with incising both on the interior of the rim and exterior of the vessel, noded rims, lip notching, and sand/grit tempered collared jars. A single zone-punctated sherd, identified from a surface collection but not included in the STP calculations is consistent with the assignation.

Area 1 is more heterogenous than the other four areas. It represents a palimpsest of occupation through time and space. The plazas are the most difficult to assign to specific time frames. The North Plaza contains a somewhat higher percentage of shell

tempered pottery, though it is limited in distribution. Conversely, a zone punctated sherd is evidence for a later period of occupation. I believe that there may have been limited residential occupation in the North Plaza during Time Frame I and/or II, since there are pockets of shell tempered ceramics in high percentages in specific shovel tests. Based on the lack of diagnostic ceramics and low ceramic ubiquity in general, I believe it was converted into plaza space in Time Frame III and kept clean until Singer-Moye was abandoned. The South Plaza was occupied more densely than the North Plaza during Time Frame I and/or II, based on the increased presence and ubiquity of shell tempered pottery. It, too, was used as public space during Time Frame III, and kept clean until abandonment. The U-shaped midden ring is the easiest to date because of the variety of diagnostic artifacts. The density and ubiquity of shell tempered pottery indicates some portions of the residential space were in use during time Frame I and II. I suspect that the entire ring was heavily occupied during Time Frame III based on curvilinear complicated stamped, zone punctated, and other indirect collared vessel modes. At least some parts of the ring continued to be occupied through Time Frame IV.

The northern portion of Area 1, north of Mound B and adjacent to Mounds D and E are also difficult to date solely on ceramics, due to their low density. Knight's sample from the 1967-1968 trench, between Mounds C and E, indicated occupation during Time Frame III, though it was in a higher density area than that under discussion. The lack of diagnostic ceramics may be due to short duration occupation, a dispersed settlement pattern, the vagaries of shovel test survey, or a combination of listed reasons. The final area was the southern portion south of Mounds A and H. It was occupied during Time Frame III based on the diversity of relevant ceramics, including incised and varieties of

lip modified vessels. It is likely to have been inhabited during Time Frame IV as well due to its proximity to Mound A. I found several zone punctated and complicated stamped ceramics on the surface.

Discussion

To recap, I identified prehistoric occupation over 29.2 ha in the survey area in five areas. These areas varied in density and ubiquity, indicating that they were used for several purposes including as open plaza space, dense residential occupation over long periods of time, and less dense periods of settlement as one moves away from the central mound and plaza complex. The site was at its greatest extent during Time Frame III, between ca. AD 1300-1400. My results extended the known site size by more than half from its previous estimated extent of approximately 14 ha. Undoubtedly, the site extends beyond the 61-ha survey area in all directions except south to Pataula Creek. I do not know if there are contemporary occupations south of Pataula Creek.

In the central site core, identified as Area 1, the Singer-Moye settlement plan is a classic example of a late Precontact period mound-and-plaza complex. The North Plaza is circumscribed by five mounds and the South Plaza by four. I discuss their chronological placement in more detail in Chapter 7. Surrounding the plazas to the south and west is a U-shaped ring of midden, characterized by the dense, diverse, and ubiquitous presence of artifacts. The proportions and locations of diagnostic ceramic types indicate that the initial settlement during Time Frame I was not continuous throughout Area 1, likely confined to specific loci. It continued to see use during Time Frame II. The use of Area 1 expanded during Time Frame III, and the southern portion remained occupied during Time Frame IV. Dense occupation also extended south of Mounds A and H. Although

not occupied for as long, it was another area of permanent habitation during Time Frame III and IV. It is still unknown if this part of Area 1 is an extension of the U-shaped midden, but a comparison of artifact density and diversity between the two areas shows a great enough difference to suspect that each space was used differently. To the north of the plaza is a section of Area 1 that has little evidence for intensive habitation during any phase, despite encompassing several mounds.

Turning now to the adjacent landforms, the best proof for habitation at a distance from Pataula Creek came from Area 2. I encountered a widespread scatter of artifacts across about 50 percent of the upland plateau, likely deposited during Time Frame III and representing the periphery of a larger residential area further to the north.

Moving southwest from the central mound and plaza complex along Pataula Creek, I located three additional settlement concentrations to the southwest of Area 1, also likely residential areas. Area 3 contains the second highest density of artifacts, behind Area 1. It was used during Time Frame III, and portions of it may date to Time Frame IV. Areas 4 and 5 consist of a diffuse and less dense artifact assemblage at some distance from the site core. Both were also likely used during Time Frame III. However, in the cases of all three areas, unit excavations are necessary to better delineate the settlement history of each place. These locations do confirm generally to previous speculations concerning the placement of the village but remained unconfirmed until my survey.

I suspect that additional village deposits will be found in all directions from the current survey boundary, though it appears that plazas and mounds are constrained only in Area 1. Several areas that are currently separate may end up connecting into larger,

unified occupational areas that may exhibit greater density than what is represented in the current periphery of the survey area. Areas 3 and 4 likely represent the southern edge of a larger residential area inhabiting a large and flat section north of the survey boundary. The isolated shovel tests along the northwestern boundary may also link up to this larger location. Area 4 also undoubtedly extends to the south and west, towards another prominent rise just north of Pataula Creek. If so, that means that the 29.2 ha of occupation is a low-end estimate for total site size.

Returning to the site size categories discussed in Chapter 1, at 29.2 ha in total size Singer-Moye falls between the medium and large group categories at both the quartile and the min-max measurements at its greatest extent. Because clearly defined site boundaries have not been located to the northwest and west, additional survey coverage will increase the total village size and I suspect that once Singer-Moye is fully demarcated, it will be close to, if not comfortably contained within the large size group category. However, excepting the period of its greatest extent during Time Frame III, I believe that the settlement size did not exceed 6 ha, based on the chronological shifts in settlement size, placing it firmly in the small category during other periods of occupation.

Summary

My results indicate that the Singer-Moye settlement changed in size through time. The early phases of occupation (Time Frame I and II) was quite small, only found in Area 1. Singer-Moye increased to its greatest extent during Time Frame III, covering at least 29.2 ha in known size. By Time Frame IV, Singer-Moye contracted to a small, more compact arrangement centered on the central site core in Area 1 and possibly an adjacent

landform, part of Area 3. Only Mound A and nearby residential spaces continued to be used until the settlement was finally abandoned.

In the next chapter, I characterize the five platform and three dome shaped mounds in the central site core, incorporating previous results from the Columbus Museum excavations and new research conducted after 2012, concentrating on their size, function, and role in the site's settlement history.

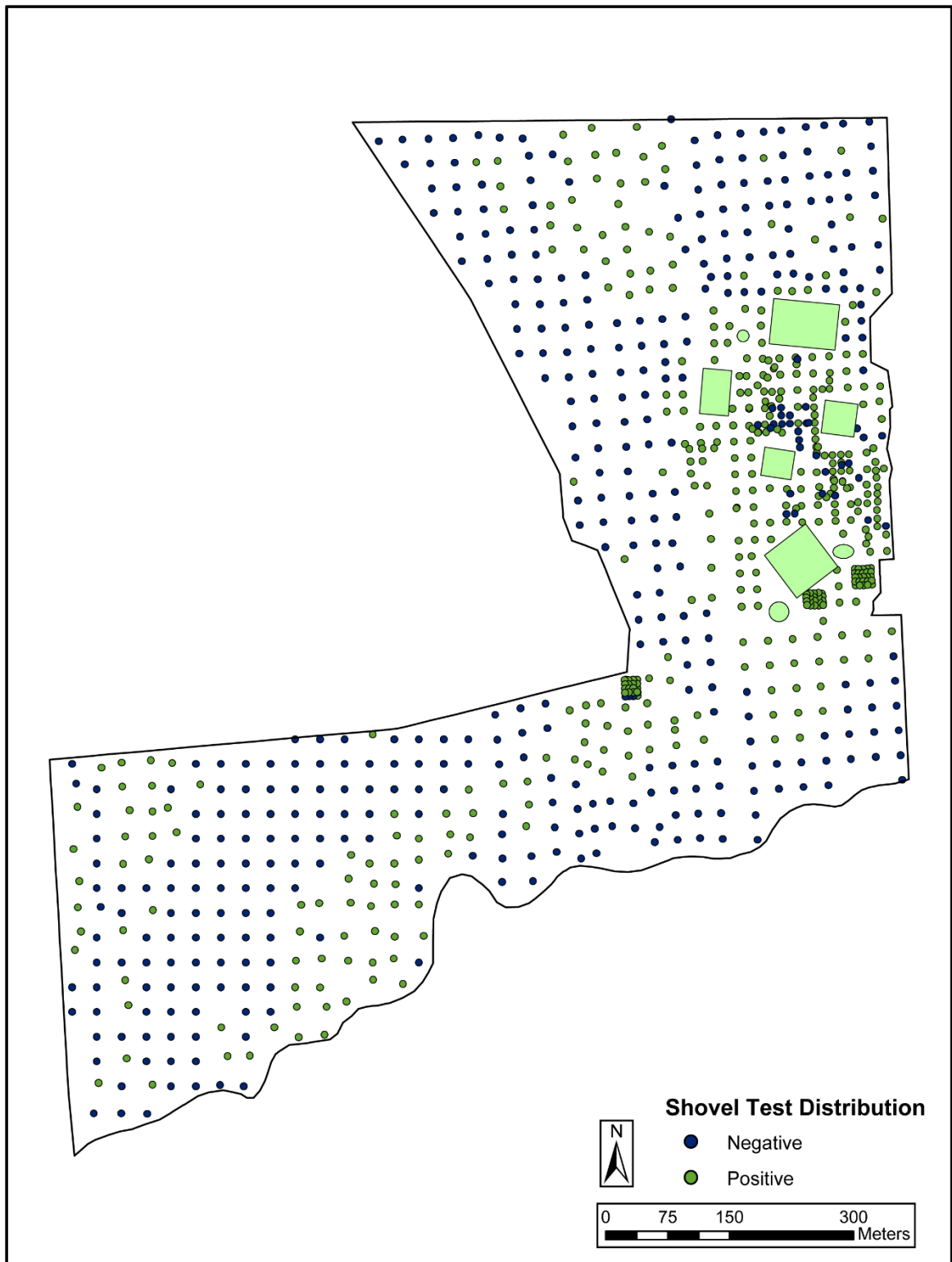


Figure 4.1. Shovel test locations

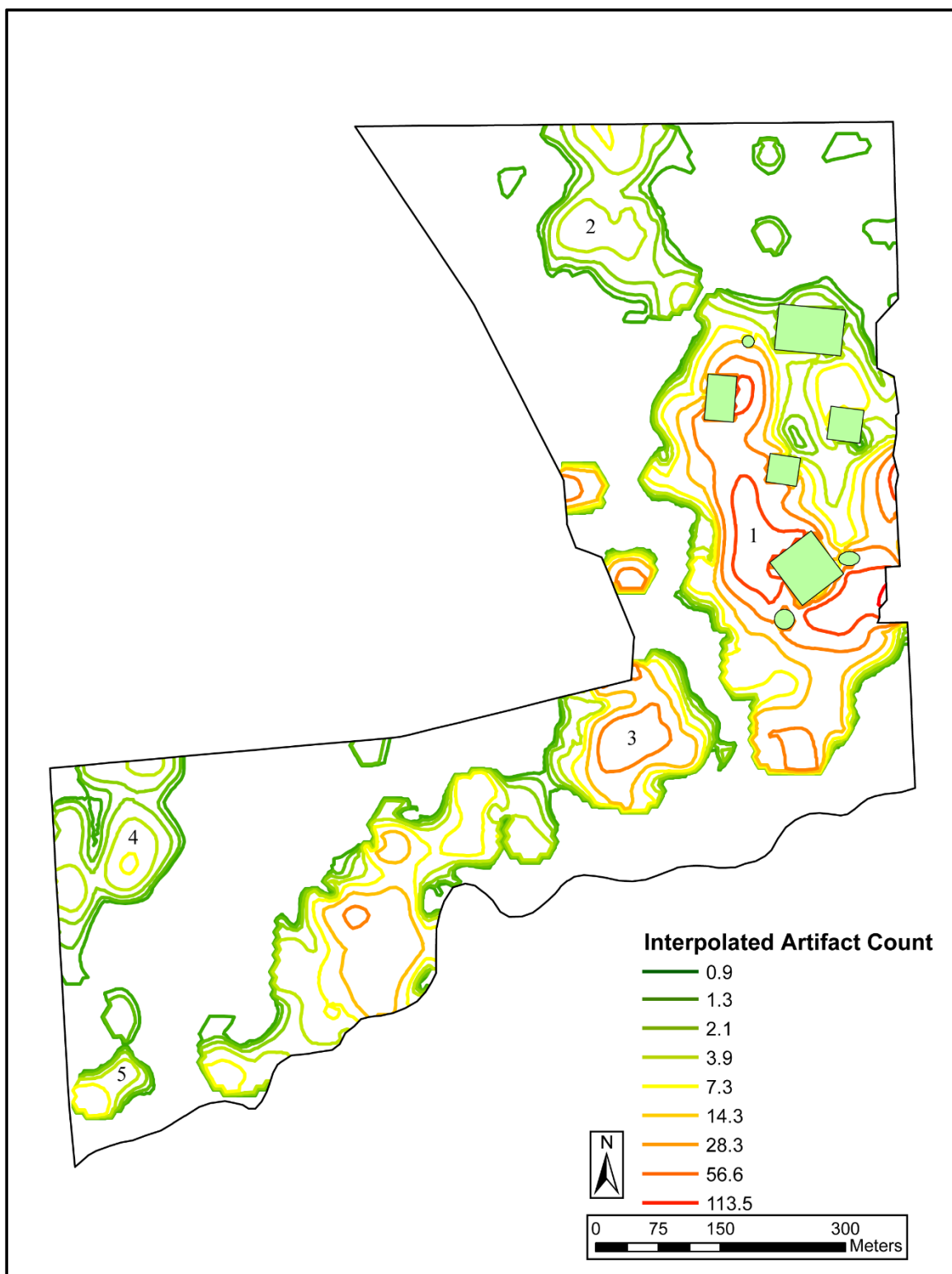


Figure 4.2. Interpolated artifact density derived from all recovered artifacts

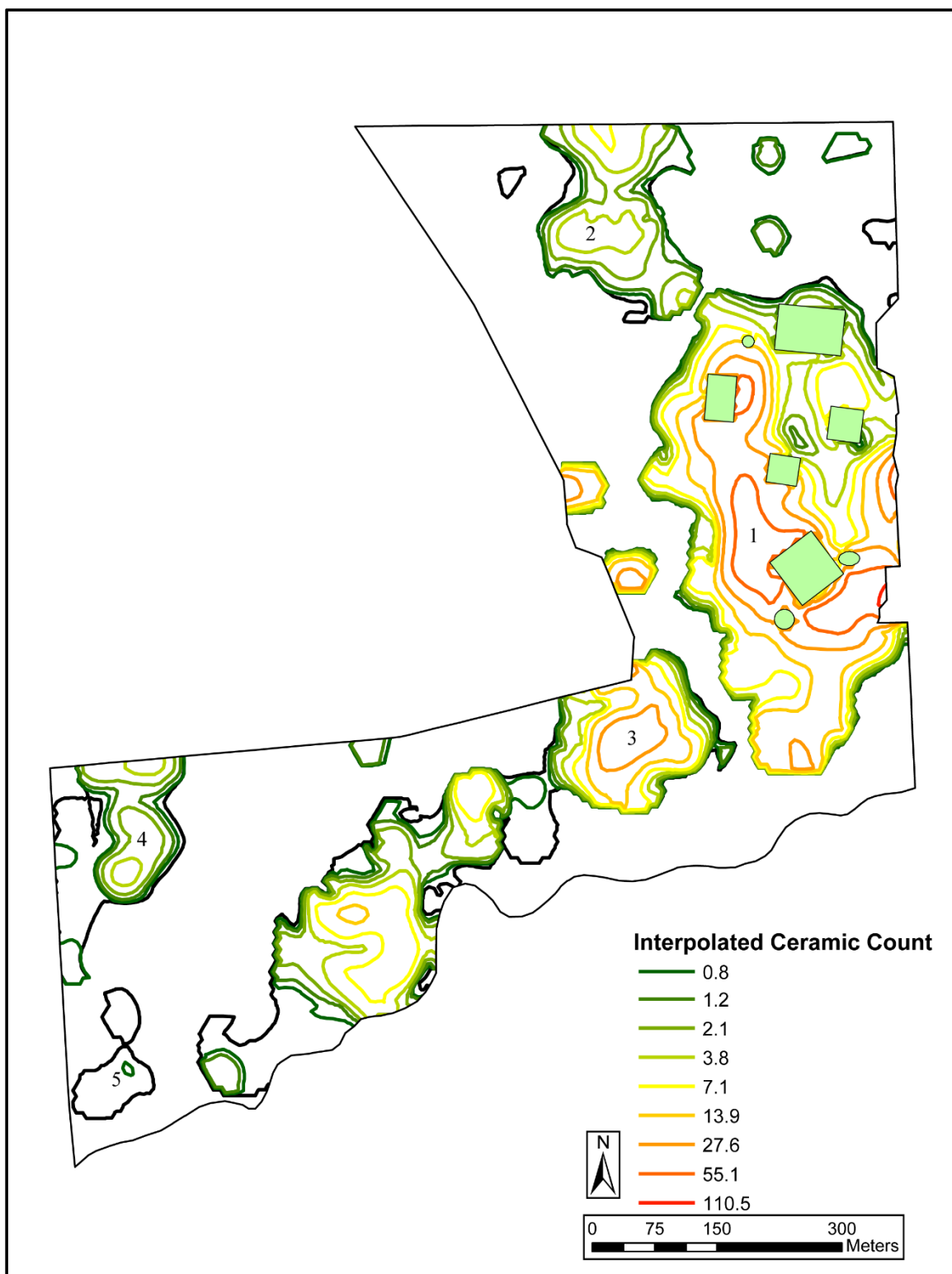


Figure 4.3. Interpolated ceramic density. Total occupational extent outlined in black.

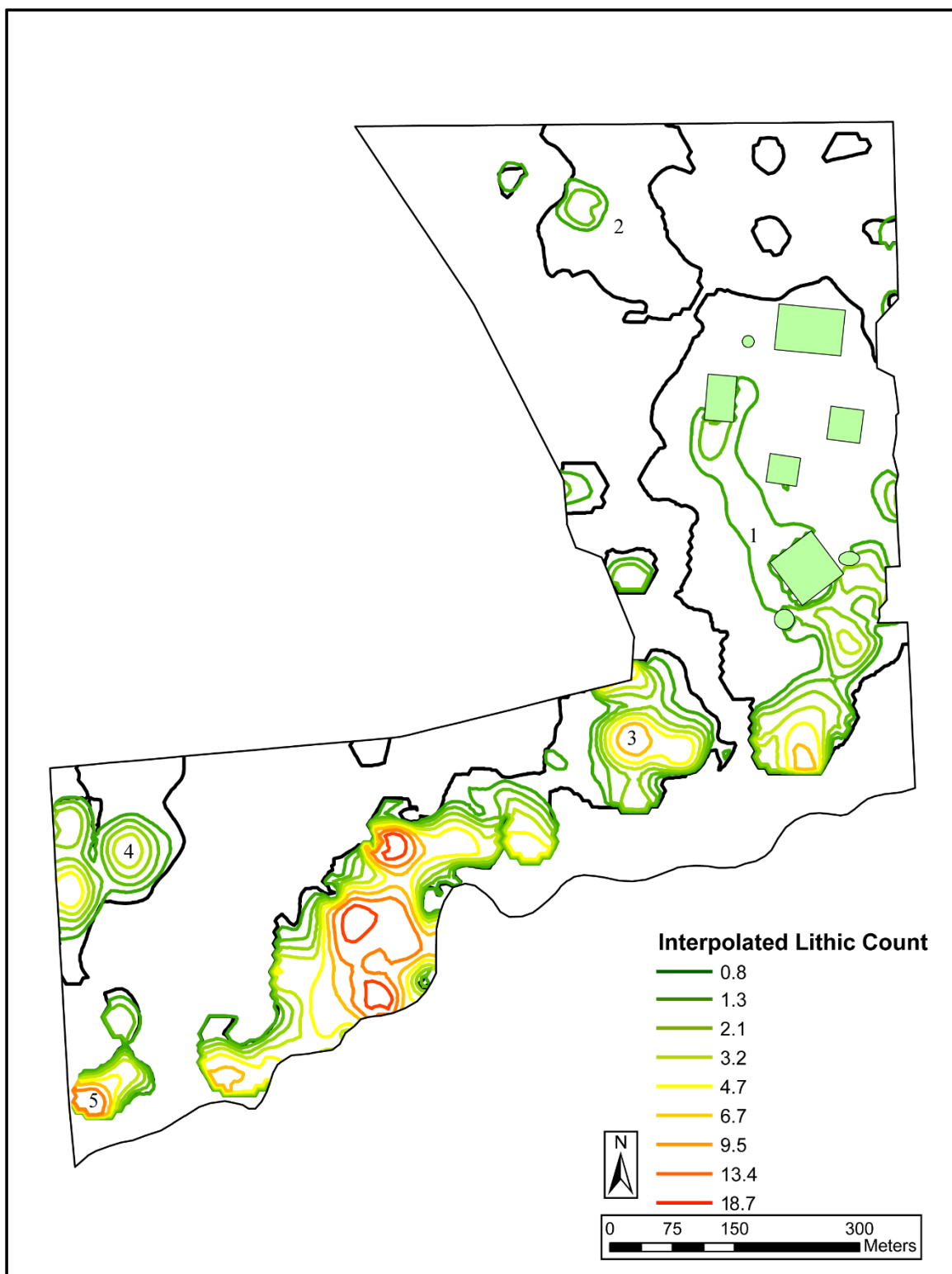


Figure 4.4. Interpolated lithic density. Total occupational extent outlined in black.

Table 4.1. Summary Statistics for Artifacts used in Interpolation.

Category	n	mean	sd	median	min	max	range
All Artifacts	434	22.6	32.6	8	1	228	227
All Ceramics	398	22.8	32.6	8	1	222	221
All Lithics	214	3.5	4.0	2	1	26	25
Sand Temper	391	21.4	30.3	8	1	202	201
Shell Temper	189	3.7	3.7	2	1	19	18
Limestone Temper	1	1.0	NA	1	1	1	0
Fiber Temper	4	1.0	0	1	1	1	0

Table 4.2. Ceramic Totals by Count by Settlement Area.

	Area 1	Area 2	Area 3	Area 4	Area 5	Total	
						N	%
Sand Tempered	7265	81	954	37	2	8339	93.5%
Shell Tempered	562	4	13	2	2	583	6.5%
Total	7827	85	967	39	4	8922	100.0%
Collared Jars (Direct Collar, Handle, Arcade)	51	3	10	1	0	65	32.3%
Incised on Interior or Rim	9	0	2	0	0	11	5.5%
Zoned Punctate	4	0	0	0	0	4	2.0%
Exterior Incised (Curvilinear and Rectilinear)	24	0	4	0	0	28	13.9%
Exterior Incised Parallel to Lip (Not Collared Jars or Rectilinear Designs)	13	0	3	0	0	16	8.0%
Applique Below Rim	1	0	1	0	0	2	1.0%
Complicated Stamped	5	0	0	0	0	5	2.5%
Pinched Below Lip	2	0	0	0	0	2	1.0%
Other Lip Modified (Ticked, Notched, Scalloped)	5	0	3	2	0	10	5.0%
Check Stamped	1	0	0	0	0	1	0.5%
Plain (Rims, no other attributes)	39	3	10	1	0	53	26.4%
Pipe Bowl	2	0	0	0	0	2	1.0%
Sherd Disc	1	0	1	0	0	2	1.0%
Total	157	6	34	4	0	201	100.0%

Table 4.3. Density and Ubiquity Measurements by Area.

Area	Total Ceramic Count	Total Positive STPS	Total STPS	Density	Ubiquity
1	7828	262	312	29.9	83.9
2	85	26	30	3.3	86.6
3	971	80	117	12.1	68.4
4	39	13	25	3	52.0
5	2	1	7	2	14.3

V. CHARACTERIZING THE BUILT ENVIRONMENT: MOUND INVESTIGATIONS AND RESULTS

In this chapter, I describe the form and function of every mound located in Area 1 using research conducted by the Columbus Museum and my dissertation research from 2012 to 2015. The Columbus Museum conducted excavations on Mounds A, C, D, E, and H. I facilitated non-invasive shallow geophysical surveys on Mounds A, C, D, and F. I collected ceramics from a tree fall on Mound F that had penetrated into the final summit. Mounds B and G have not been investigated and their function and chronological placement is unknown.

Archaeological Investigations of Singer-Moye's Monuments

The first of several subsurface investigations at Singer-Moye commenced in November of 1967 (Figure 5.1: top). Frank Schnell, Jr. and Don Gordy bisected Mound E with a 5-ft (1.524 meter) wide trench that extended north-south beyond Mound E for 220 ft (~67 meter) and a second 5-ft wide trench into the west flank of Mound D. In July of 1968, Gordy and Schnell expanded the block to encompass to center of Mound E, eventually excavating more than 60 percent of the mound (labeled XU-A). They also excavated a north-south trench into the flank of Mound C.

Mound E

Blitz and Lorenz (2006: 162-165) provide an in-depth description of the structure found beneath Mound E, based on the 1967-68 excavations and a short revisit in 2002. Within the 14-m diameter dome-shaped Mound E was the remains of an 8 m x 8 m

structure, built on a 3 cm to 4 cm thick prepared clay floor (Figure 5.2). The walls were constructed using single set posts and white clay daub around the perimeter of the clay floor. Red clay was piled against the exterior of the walls to a height of 70 to 80 cm. Four large interior support posts supported a roof, and several other interior posts and features served unknown functions. The structure underneath Mound E was either earthen-embanked may have been an earth lodge of some type, though evidence for the latter interpretation is inconclusive at best. When the structure was abandoned, the wall posts were removed. Additional earth was piled up in the interior up to the level of the exterior berms. The resulting low dome shaped mound was undisturbed by subsequent settlement activities, resulting in the well-preserved nature of the structure and mound.

Mound C

The trench into Mound C penetrated the flank to the edge of the summit. Unfortunately, the profile drawing is missing from the archives. Based on photographs, Blitz and Lorenz (2006: 159-162) identified at least five and possibly six separate strata in the three-meter high east profile the Mound C trench (Figure 5.3). The Mound C sequence contained a premound occupation surface (A), followed by an initial white clay flat-topped platform mound (B), which was subsequently covered by a red clay-and-sand mound fill (C). A white clay horizontal apron extended Mound C north (D) but did not increase the height of the mound. At least one clay-and-sand stage (E) covered the mound, and potentially two (F).

In 2015, I assisted in a magnetometer survey of the Mound C summit to identify cultural features (Figure 5.4). We found only scattered anomalies on the summit, excepting a linear arrangement of possible pit or post features on the southeastern side.

Birch et al. (2015) suggested that Mound C may have functioned as a public space or viewing platform. There were no clear indications of structures on the summit or a fence around the summit edge, both architectural elements traditionally used to restrict access.

Mound D

In 1969, Schnell and Gordy began investigating the Mound D summit, building upon their 1967 trench into the west flank (Figure 5.1: top). They excavated three discontinuous blocks (labeled XU-B), totaling 5,650 ft². The trench penetrated to a depth of approximately 10 ft near the mound summit, tapering to less than 0.8 ft at the western trench boundary. The summit excavations extended below the plow zone, approximately 1 ft below the surface.

The Mound D profile trench was a stark contrast to that of Mound C (Figure 5.5). Instead of finding mound stages in the form of fill, the excavators encountered an uninterrupted natural soil horizon next to the summit (Area D), extending over 10 ft in depth. The excavators found one or two possible apron additions in the western half of the trench (Area B, C). Blitz and Lorenz (2006: 162) contend that Mound D was constructed from a natural terrace formation that was further modified by cutting and filling episodes on the summit to create a rectangular platform. My shallow geophysical survey results agree with that conclusion but identify at least two distinct building episodes on the summit not identified from the flank excavations (Brannan and Bigman 2014).

Excavators found a considerable amount of pottery and other artifacts on the surface of Mound D, as well as several scattered post molds. The most distinctive features identified were a series of seven large fire basins set 5.5 m to 6.3 m apart from

each other in a straight line paralleling the long axis of Mound D (Figure 5.6). Blitz and Lorenz (2006: 162) suggest that the fire basins were not enclosed by structures and that their purpose was enigmatic. Like Mound C, there does not appear to be any attempts to restrict access to the summit, though undoubtedly some special activities occurred there based on the large fire basins. It may be that the summit served as a stage to elevate specific activities so that the participants could be observed from the adjoining plaza (Birch et al. 2015).

Mound A

Schnell and Gordy shifted their attention to Mound A in 1970 (Figure 5.1: bottom). They noticed a slight rise in topography in the southern area of the summit, similar to a clay cap over a structure on Mound A that had been excavated by Caldwell (1955) at Rood's Landing. They explored a roughly rectangular area measuring 3,800 ft² over the Mound A clay cap (XU-D). Underneath the 0.5 ft to 3.3 ft cap they found the remains of a burned wattle-and-daub building. Figure 5.7 is an updated outline of the summit block based on a reconstruction from their field notes, updating Blitz and Lorenz' (2006: Figure A.4) diagram.

Unfortunately, the field notes pertaining to this structure are incomplete. Roughly half of the artifact assemblage is missing, presumably lost during excavation or storage. Blitz and Lorenz (2006: 158-159) reconstructed a partial description based on information from the extant records. I relied heavily on their description as my attempts at reconstructing the research history of Mound A using field notes has met with only limited success.

The structure was square and measured approximately 12 m x 12 m (Figure 5.8). The size of the structure necessitated eight central roof supports and the walls were constructed by using single-set posts. Schnell and Gordy encountered large, intact timbers from the structure, presumably left in place after the structure was capped by prehistoric inhabitants. The artifact assemblage consisted of a diverse assortment of utilitarian pottery fragments, faunal material, mica sheets, groundstone objects, smoking pipes, botanical material, copper fragments, and a polychrome human effigy bottle.

In 2015, Birch et al. (2015) conducted a magnetometer and GPR survey of the Mound A summit to identify if there were additional structures or features that had not yet been excavated (Figure 5.9). The gradiometer data revealed two additional structures with clearly defined walls and partitions, both of which appear to have been burnt. Blitz and Lorenz (2006: 159) interpreted the excavated structure as an elite residence. A rampart of earth around the eastern and southern summit edge served to restrict access or sight to the mound summit. Two ramps funneled access to the summit, one descending northeast towards the south plaza and the second descending to the southwest, an access path from the exterior of the complex. The addition of two additional structures on the summit, and the previously undiscussed berm of earth around the summit perimeter used to restrict access or sight, indicate that the summit may have served as an elite precinct, or as a temple or mortuary complex, similar to other mound-top configurations in the southeastern United States (e.g. Caldwell 1955; King et al. 2011; Neitzel 1983).

Mound H

Excavation ceased until 1991, when a small teacher's staff development course excavated several units into a slight rise east of Mound A (Figure 5.1: bottom). Over the

next eleven years, Don Gordy and Margaret Russell expanded these initial units into block measuring 2,175 ft², revealing a complex assortment of architecture and stratigraphy (Russell and Gordy 2012: 127-129). Russell and Gordy detailed finding the partial and complete remains of four structures, a palisade, a possible platform mound surface, several partial wall trenches, and other features (Russell and Gordy 2012: 129-153).

Of interest was the eastern half of their excavation block, where they found Structure 2, a 9 m x 9 m wattle and daub earthen embanked structure located on the eastern side of the survey block (Figure 5.10) (Blitz and Lorenz 2006: 165-169; Russell and Gordy 2012: 137-141). Structure 2 was constructed similarly to the structure found under Mound E. It was constructed of single set posts surrounding four central support posts and a central hearth area. The central posts were put into place with large slide trenches. The wall trench entrance was to the southwest side of the structure, and it was divided by several internal partitions. Located in the center of the structure was a large hearth area and a second large ash pit was found in the northwest corner. When it was abandoned, the inhabitants dismantled it by removing the wall posts before it was covered by a layer of earth.

Superimposed over Structure 2 was Structure 3, a smaller structure measuring 7.6 m x 7.6 m. There is some minor disagreement about whether Structure 3 was an earthen embanked structure like Structure 2 and the structure under Mound E, or located on a mound summit such as the one on Mound A. Blitz and Lorenz (2006: 169) describe Structure 3 as being superimposed on top of Structure 2, oriented the same way, and differentiated from Structure 2 by a thin earth fill. They suggest that Structure 3 was also

earthen embanked, and when it was abandoned, the wall posts were removed and covered by more earth fill, resulting in a low rise that did not see further prehistoric occupation. Conversely, Russell and Gordy (2012: 144) argue that Structure 3 sat on the final summit stage of a low platform mound, perhaps a result of filling in Structure 2. The internal support posts consisted of two to three posts at each location, representing either periodic replacement or extra reinforcement of the roof. They state that the structure decayed in place, and that there was no evidence for an earthen embankment for Structure 3. Russell and Gordy believe that the final summit eroded or was plowed down, destroying the floor of Structure 3. It is difficult to reconcile both accounts, but the fact that both structures are immediately superimposed and aligned in the same way suggests that Structure 3 was constructed soon after Structure 2 was dismantled.

Mound F

A GPR survey conducted in 2012 identified at least two construction stages and several linear and rectilinear anomalies along the northern and southern edges of the mound (Brannan and Bigman 2014: Figure 7). A magnetometer survey in 2015 (Figure 5.11) identified rectilinear and curvilinear anomalies along the southern edge and several additional possible singular features across the summit surface (Birch et al: 2015). We have tentatively identified these features as possible residential or special-purpose structures located along the edges of Mound F facing adjacent plazas.

Mound B and G

Neither mound has been investigated to date and little is known about either. Mound B is a platform mound, so any activities related to it probably occurred on the summit. Mound G is a dome-shaped mound, perhaps a cap over one or more structures.

Mound Dimensions

Wood and Williams (2008) mapped much of Area 1 with a total station, including the dimensions of the eight known mounds. I contributed several thousand more points over much of the same area, including additional mapping of several of the monuments. My subsequent mapping activities are consistent with their published dimensions, with two exceptions. Mound H is amorphous due to much of it having been plowed down prior to any mapping activities and Wood and Williams were unable to measure it. I calculated the size of the area based on excavation descriptions provided by Russell and Gordy (2012) and my own field observations. Wood and Williams also described Mound A as difficult to measure due to its size, but estimated that it was 75 to 80 meters on a side based on partial measurements of the summit, north, and west flanks. They stated that the east and south flanks needed to be mapped. I collected measurement data in 2012 for the east and south flanks and as a result, I found Mound A to be closer to 65 m on a side. The inclusion of either or both ramps increases the measurement to between 80 and 85 meters along that particular axis but using those measurements does not accurately convey the total area encompassed in Mound A's footprint.

In total, the monuments at Singer-Moye encompass 1.43 ha (Table 5.1). Two mounds were responsible for over 60 percent of the total mound area. Mound D was the largest mound at 0.44 ha and Mound A followed closely at 0.42 ha. The three other platform mounds were larger than 0.1 ha, including Mound C (0.19 ha) Mound B (0.16 ha), and Mound F (0.13 ha). The three smallest mounds were all circular or ovoid in shape, and measured 0.02 ha (Mound E), 0.03 ha (Mound H), and 0.05 ha (Mound G).

Discussion

The new mound summit information discussed in this chapter provide the basis for a discussion of their functions, based on a four-part classification scheme developed by Lindauer and Blitz (1997). Elite or chiefly precincts are identified by one or more structures on the largest mound at a site, fine wares and exotic goods, and restricted access and visibility using a fence or screen either at the base or the summit of the mound. Mounds used as temples or mortuary and ancestor shrines are usually found on secondary mounds that are smaller in size. Mounds that had non-residential structures on their summits served as the location for group meeting places such as sweat lodges and council lodges. Finally, mounds served communal functions as ceremonial stages for public viewing and ritual performances. Such mounds lack structures on the summit and are open to view from surrounding areas.

Thus, Mound A may have served as either an elite or chiefly precinct, or as a group meeting place. Because Mound A is the tallest mound, it has often been assumed to be evidence of a chiefly residence (Blitz and Lorenz 2006). More recent research (Birch et al. 2015) found two additional structures on the surface, modifying their interpretation of summit activities. The earthen berm around the edges also served to restrict visual and physical access to the summit. The Columbus Museum excavations recovered special purpose items in the largest structure, but these items have been subsequently found in non-mound contexts as well. The largest structure (144 m²) is bigger than is typical of residential habitations (~25 m²) and is likely to have served a special purpose (Steere 2017). The smaller two structures may have been residences for people living on the summit, but their specific function is unknown until they are excavated. The large

structure on the summit dates to Time Frame IV(b) based on radiocarbon dates and the ceramic assemblage. The other possible structures remain undated.

Mound C probably served as a stage for public viewing. No structures have been found on the summit and its height did not preclude people from below from viewing what occurred there. The premound midden area dates to Time Frame I and based on the ceramic assemblage recovered from the three stages of Mound C, it was constructed during Time Frame II.

Mound D also likely served as a stage for public viewing or performance. No structural remains were identified by the Columbus Museum excavations. The relatively low height and the broad summit would have provided ample room to participate in activities on the mound as well as allow for people to have visual access. The broadly spaced fire pits across the summit suggests that such an activity occurred at least once and may have been a regular occurrence. Additionally, the paucity of residential debris surrounding the mound indicates that it was set aside as special purpose space. Based on radiocarbon dates and the ceramic assemblage, the summit of Mound D dates to Time Frame III(b).

Mound E may have served as a group meeting place. The structure is larger than is typical of residences and is in an area with very little residential debris around it. The care by which the inhabitants dismantled it before covering it with a dome of earth points towards the want to make sure that the activities or people associated with the structure lived on in the built environment even after it was no longer in use. Based on radiocarbon dates and the ceramic assemblage, the structure dates to Time Frame III(b).

Mound F is more problematic due to a lack of confirmation about shallow geophysical anomalies. It is not a large mound but does potentially have several structures on its summit. Access to the summit does not appear to be restricted through the use of a berm, but possible structures along the southern and northern summit edges instead of in the center does suggest that these buildings may have served as a means to partially restrict some access from specific directions. Those structures may be residences, or possibly special purpose structures such as ancestor shrines or temples. It may be that the buildings closest to their respective plazas represented the interests of the people who were associated with each plaza. If such a division existed, Mound F may have also served as a fulcrum that tied the larger community together around a central point. The summit of Mound F dates to Time Frame III(a or b) based on the ceramic assemblage.

Mound H is like Mound E in that the structure is larger than is typical of a residential house and probably served as a group meeting space. The rebuilding episode indicates that the activities were long lived enough to warrant a second structure. The careful deconstruction of the structure after it was abandoned, followed by the capping of the space, also suggests that the activities and people associated with the structure were meant to be memorialized. It may be that Mound H was an initial act of emplacement that was abandoned when a more permanent form, such as one of the nearby platform mounds, was built. Based on radiocarbon dates and the ceramic assemblage, both structures were in use during Time Frame III(a).

Overall, the evidence suggests that only during Time Frame III are there known multiple mounds in use, serving different functions in the community. Earlier Time

Frames appear to have only limited monuments in use, and those seem to function as open-air platforms or stages. Time Frame IV may represent the consolidation of mound function to a single point, the top of Mound A, though the functions of the other structures on the summit will require additional testing.

It is difficult to ascertain how many mounds were in use and how much area they encompassed, but some realistic approximations are possible. The caveat is that excepting Mound C, no other platform mounds have been tested deeper than their final summit. Regardless, I discuss plausible estimates based on available evidence. During Time Frame I, there are no known mounds that were in use. It is possible that the initial stage(s) of Mound A was constructed during this time period based on nearby village deposits also dating to this time period, but if so it was likely to be no larger than 25 to 50 percent (0.11 to 0.21 ha) of its final size, roughly equivalent in size to Mound C. During Time Frame II, Mound C was constructed and encompassed 0.19 ha. If Mound A also dates to this time period, then it would be between 0.11 and 0.21 ha, based on the reasoning for Time Frame I. During Time Frame III, Mounds D, E, F, and H were also constructed. These four mounds equal 0.62 ha. Mound A might have also been built, since it is part of the plan for the central mound and plaza complex, so it would likely be somewhere between 50 and 100 percent (0.21 to 0.42 ha) of its final size. For the same reason, Mound B was likely in use, adding another 0.16 ha in size. Mound C may have also been important for the settlement since it was ostensibly part of the north plaza mound group, adding another 0.19 ha. By Time Frame IV, only the final stage of Mound A was in use, at 0.42 ha in size.

If the above reasoning holds true, then there would have been between 0 and 1 mounds totaling 0.0 to 0.22 ha were in use during Time Frame I. During Time Frame II, between 1 and 2 mounds totaling 0.19 to 0.4 ha were in use. For Time Frame III, between 4 and 7 mounds were in use, totaling 0.99 to 1.39 ha in area. Only the final stage of Mound A seems to have been in use during Time Frame IV, totaling 0.42 ha.

Using only the variable of mound count discussed in Chapter 1 to discuss site size expectations by Time Frame indicates that Singer-Moye represents more than one category. Singer-Moye falls into the small size category during Time Frame I, either the small or medium size category for Time Frame II, the medium or large size category for Time Frame III, and the small size category for Time Frame IV.

A similar comparison by mound area indicates that during Time Frame I, Singer-Moye could be classified as a small site. By Time Frame II, Singer-Moye could have been either a small or a medium site. During Time Frame III, Singer-Moye was either a medium or a large site. By Time Frame IV, Singer-Moye could only be considered a medium sized site.

Obviously, the lack of precision comes from the role of Mound A throughout Singer-Moye's settlement history. Although large mounds may have been constructed over a large period of time, recent estimates by Schilling (2015) for Monks Mound at Cahokia, the largest mound in the eastern United States, indicate that it was built in two rapid efforts spanning fewer than twenty years. If a similar level of effort were put into Mound A at Singer-Moye, it could have been built rapidly during Time Frame III or IV, reducing the size category for both to the smaller of the two estimates.

Summary

My results indicate that the number of monuments constructed and in use at Singer-Moye changed through time. My dissertation did not clarify if a mound was constructed in the current footprint of Mound A during Time Frame I, though if so it probably measured no more than .22 ha in size. Time Frame II was when the first known monument was constructed in Mound C, a 0.19 ha platform mound. Time Frame III saw an aggressive building regimen enacted, where between 4 and 7 mounds, serving multiple functions, were constructed with a settlement footprint totaling between 0.99 and 1.39 ha. The final period of occupation during Time Frame IV saw the abandonment and scaling back of monumental construction, concentrated at Mound A, and encompassing 0.44 ha of the settlement.

In the next chapter, I outline the results from the plaza and near plaza investigations. I employed shallow geophysical survey methods, targeted excavations, and reintroduce portions of my shovel test survey to discuss how public space was incorporated into the settlement.

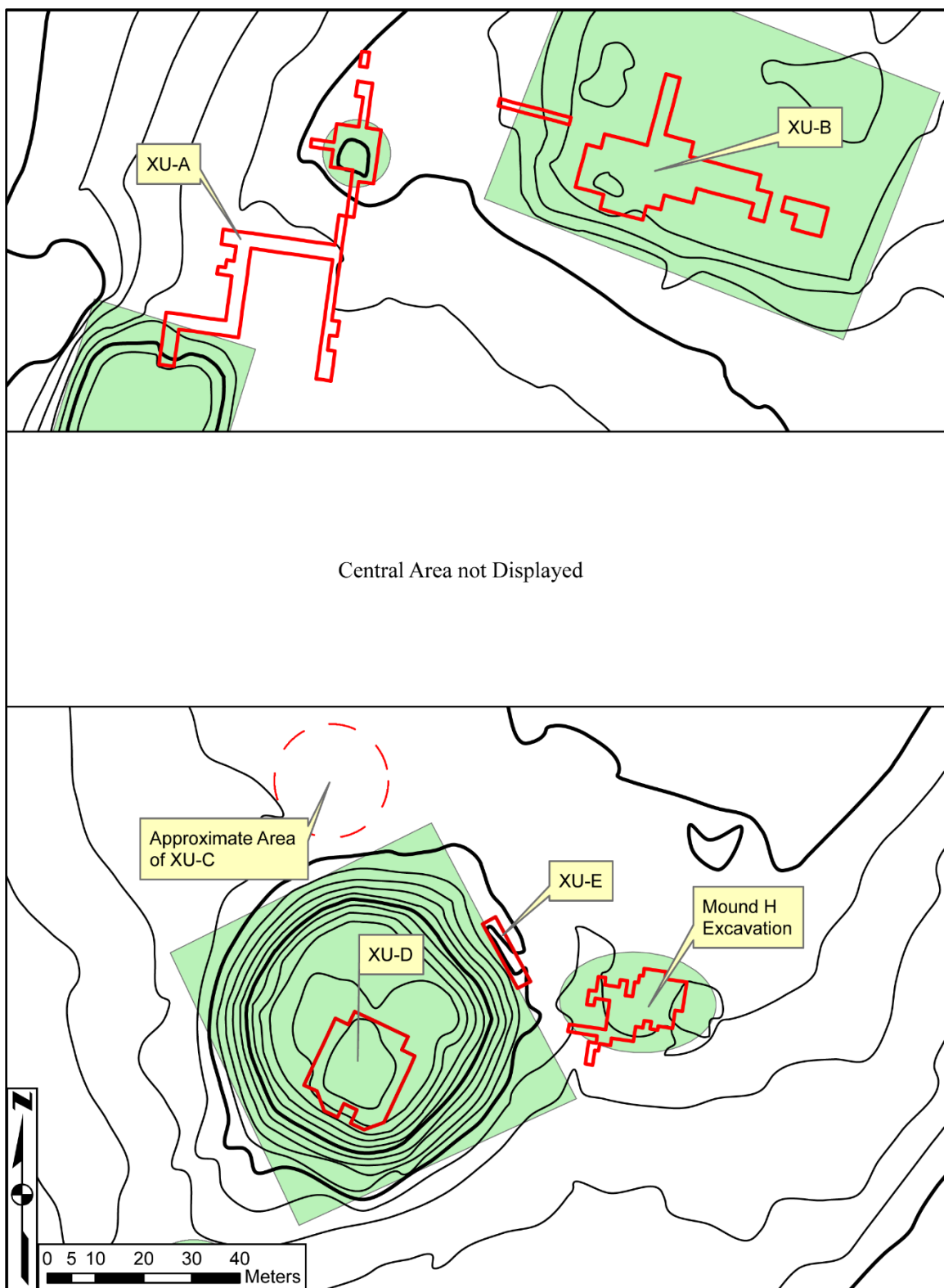


Figure 5.1. Columbus Museum excavation locations

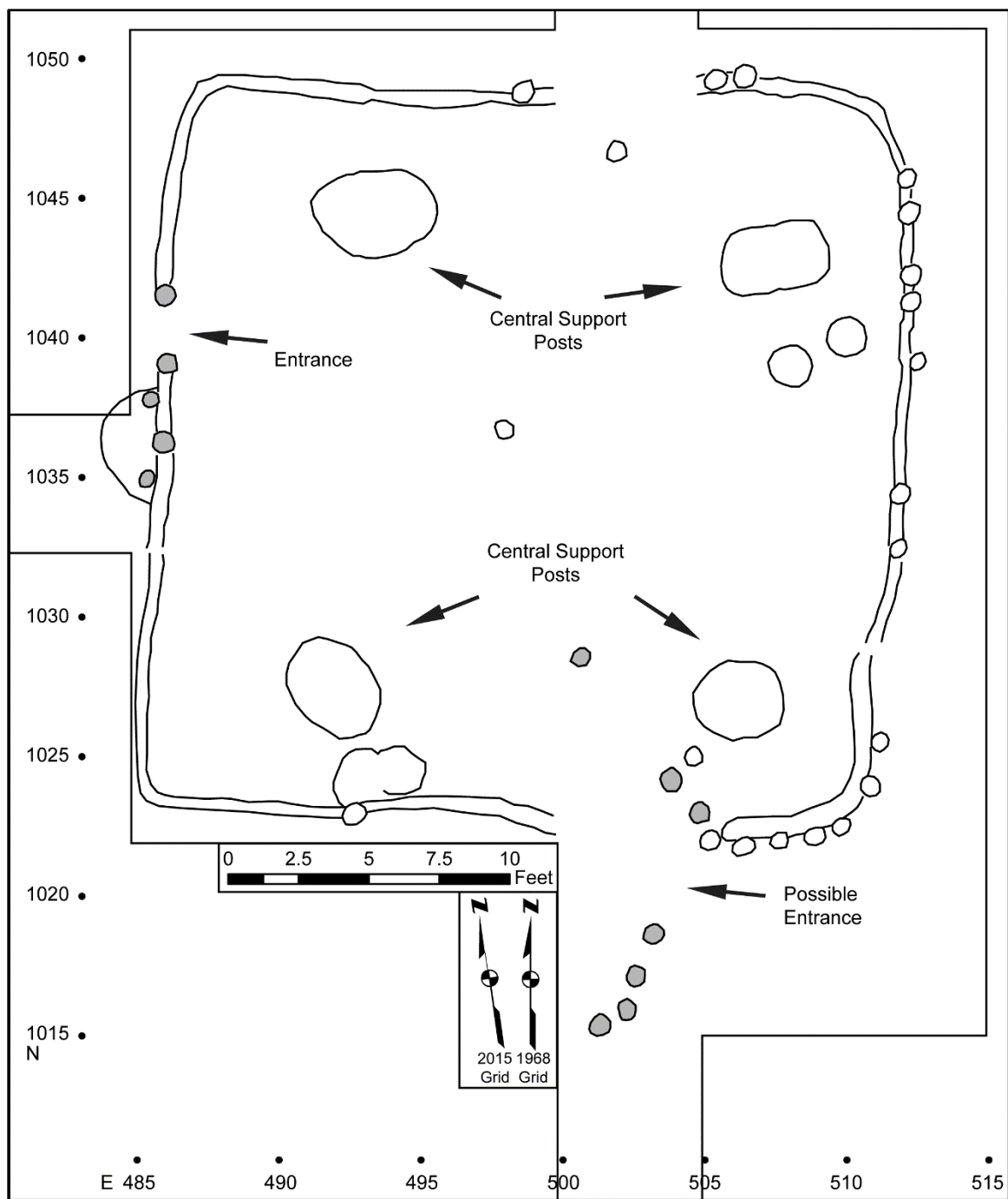


Figure 5.2. Plan view of structure beneath Mound E



Figure 5.3. Stratigraphic sequence of Mound C

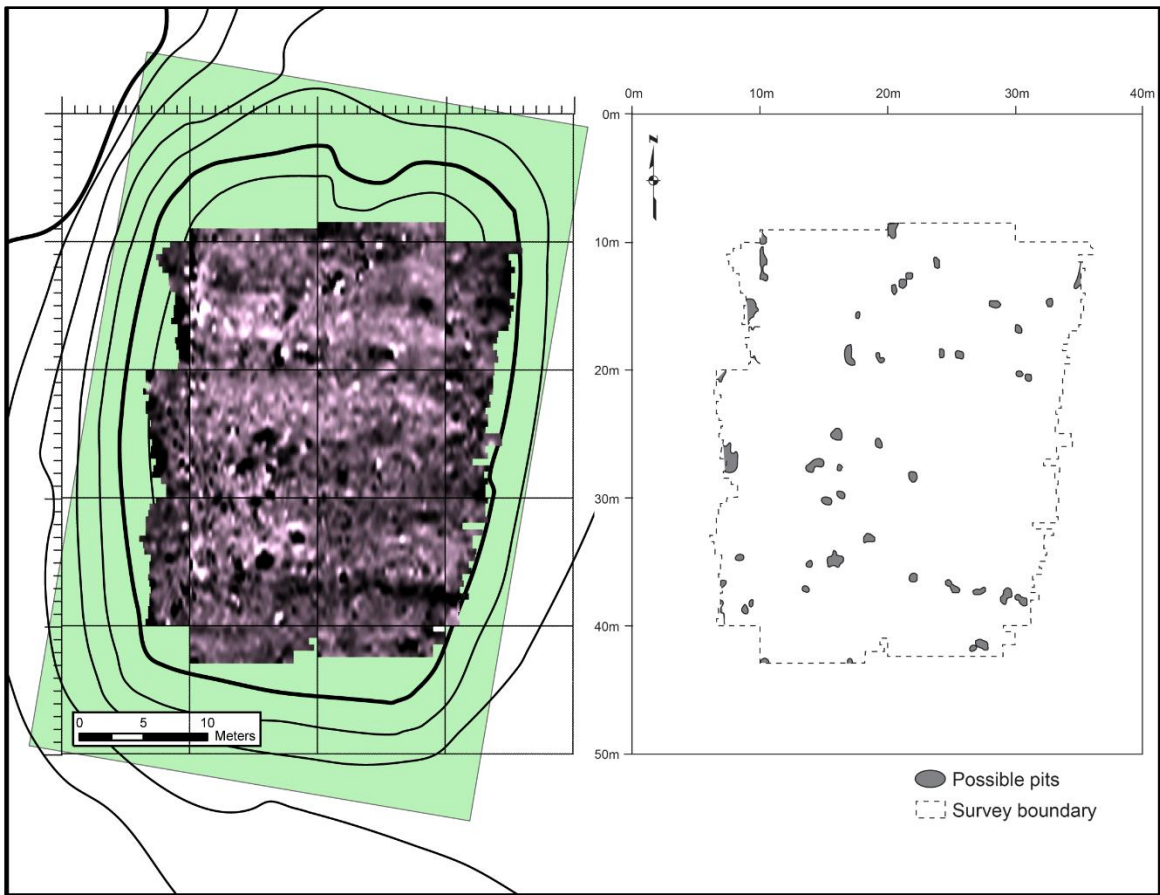


Figure 5.4. Mound C summit magnetometer results and interpretations

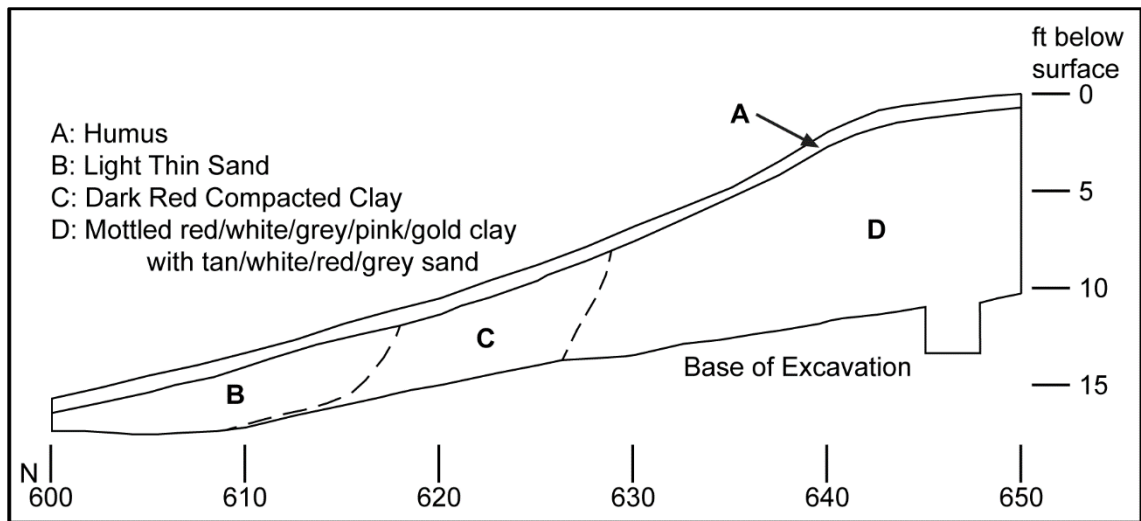


Figure 5.5. Profile of west flank of Mound D

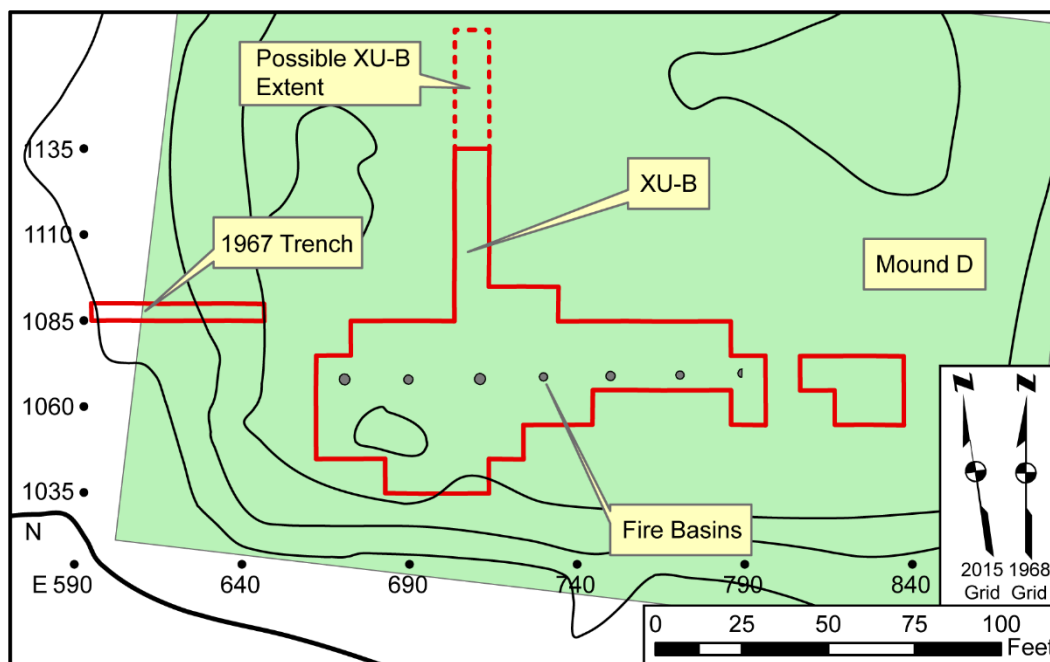


Figure 5.6. Plan view of the Mound D summit

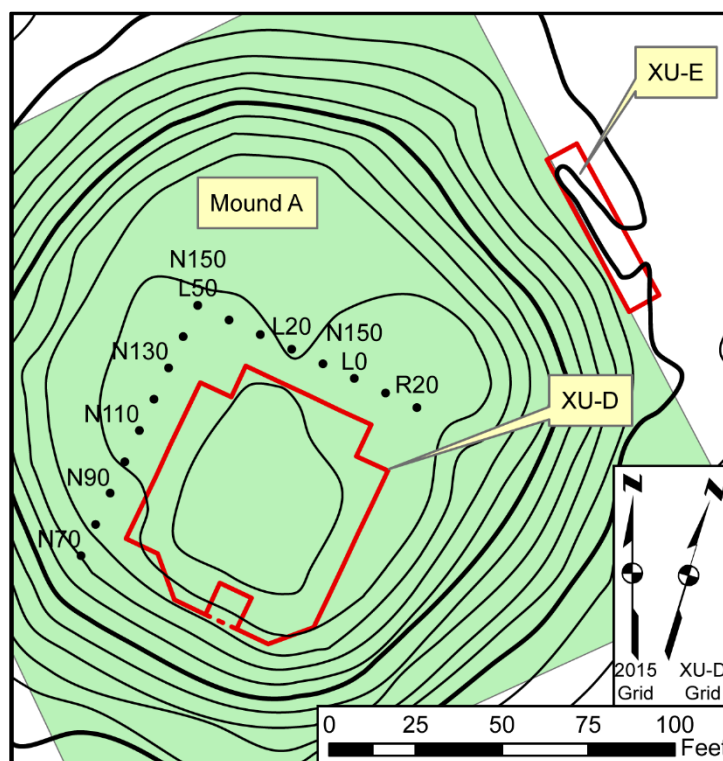


Figure 5.7. Plan view of the Mound A summit

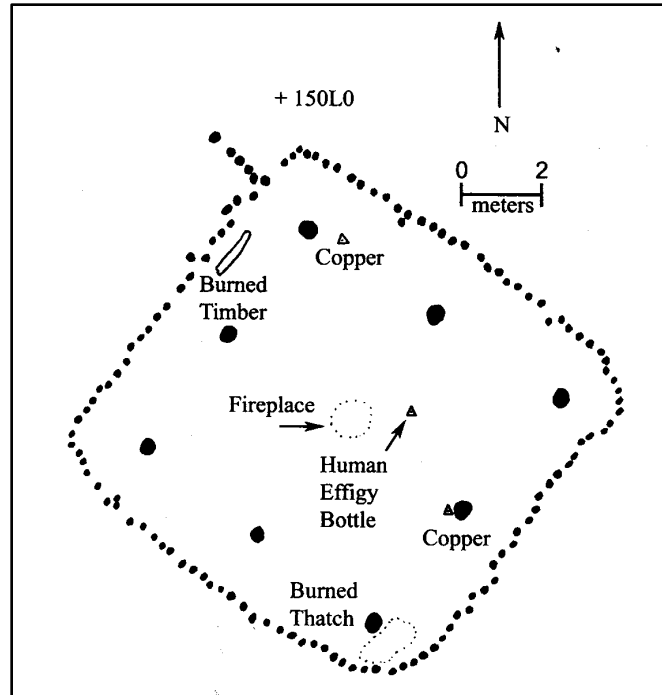


Figure 5.8. Architectural layout of the large special purpose structure on the Mound A summit
(From Blitz and Lorenz 2006: Figure 3.6)

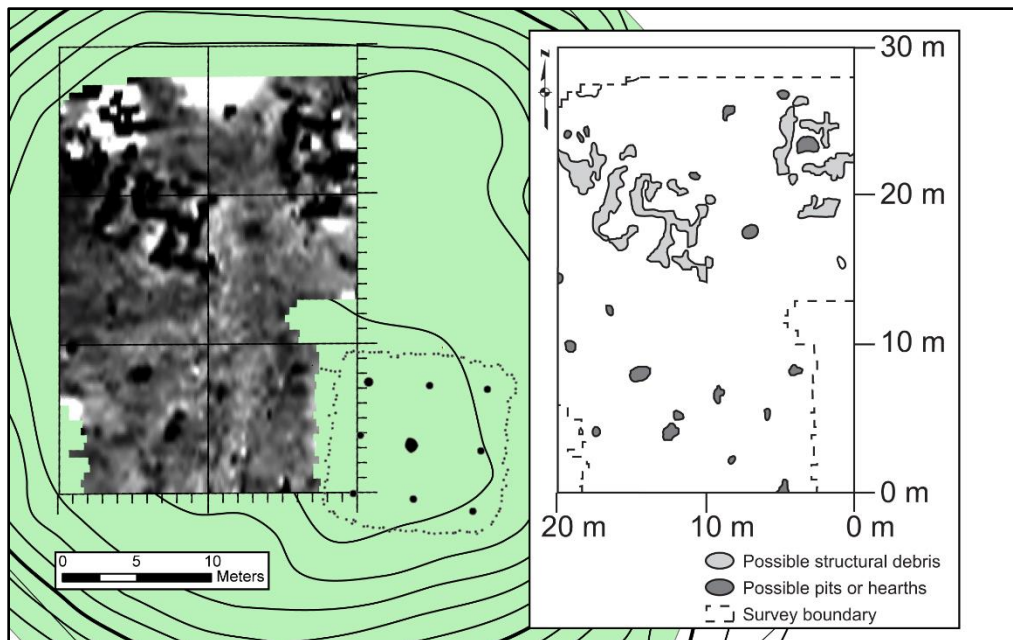


Figure 5.9. Magnetometer results and interpretation of the Mound A summit

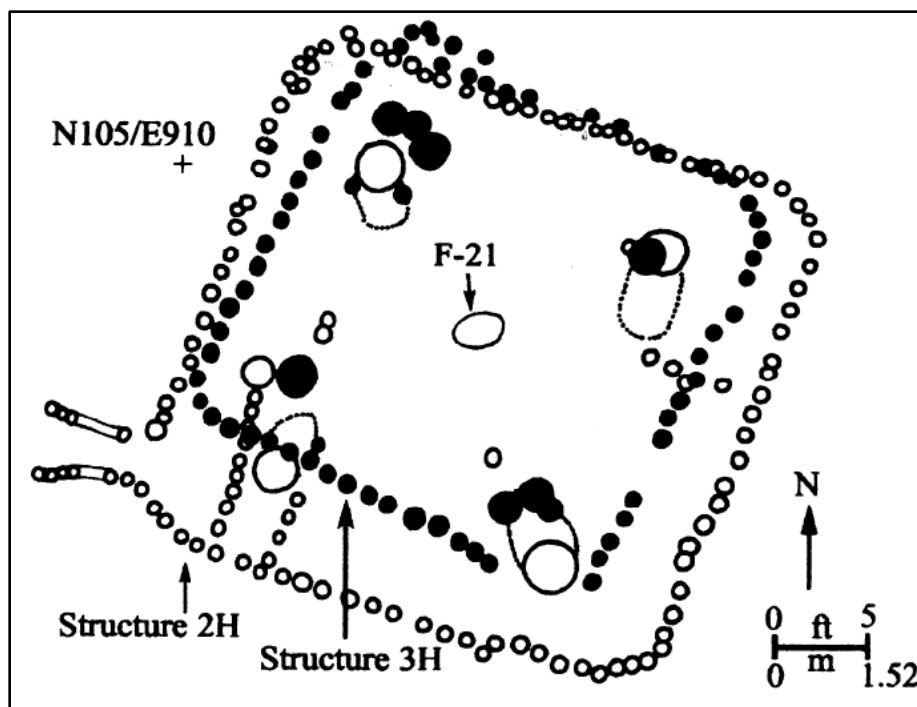


Figure 5.10. Structures 2 and 3 at the Mound H excavation area
(from Blitz and Lorenz 2006: Figure A.20)

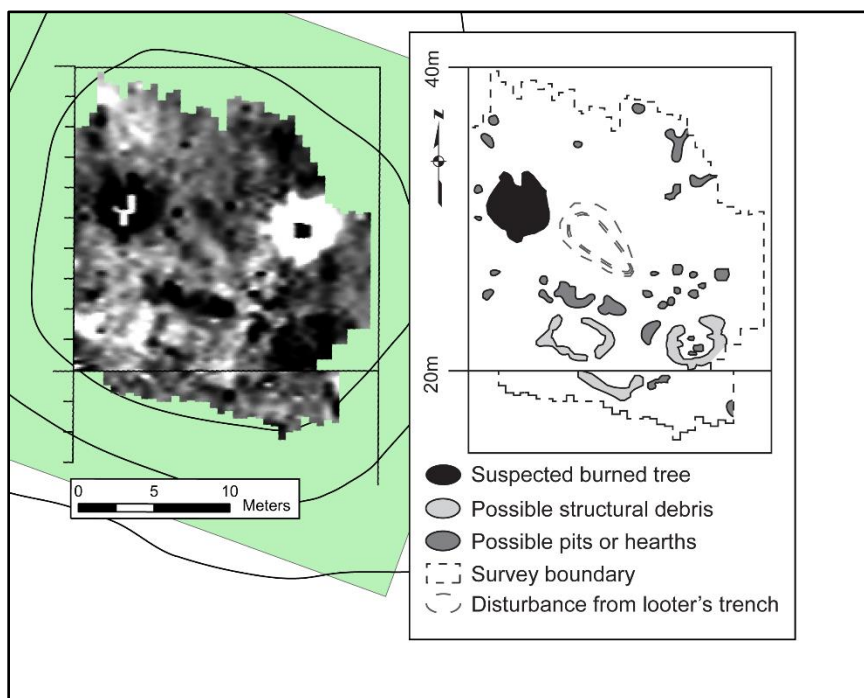


Figure 5.11. Magnetometer results and interpretations of the Mound F summit

Table 5-1. Monumental Architecture Measurements in Meters

Mound	Length	Width	Diameter	Area (m ²)	Area (ha)
A	65	65		4,225	0.4225
B	40	40		1,600	0.16
C	55	35		1,925	0.1925
D	80	55		4,400	0.44
E			14	154	0.0154
F	37	34		1,258	0.1258
G			24	452	0.0452
H			24 x 17	334	0.0334
Total				14,349	1.4349

VI. CHARACTERIZING THE BUILT ENVIRONMENT: PLAZA INVESTIGATIONS AND RESULTS

In this chapter, I discuss the results from the shallow geophysical surveys in plaza areas. I employed shallow geophysical survey methods to define the plazas edges more clearly, determine how large they were, and if there were anthropogenic anomalies present. My goal was to extrapolate the sizes of both plazas using data presented in this chapter, coupled with the distribution and density of artifacts, discussed in Chapter 4.

Methods

I incorporated two shallow geophysical survey methods on select portions of the North and South Plaza (Figure 6.1). I employed electromagnetic conductivity (EM) and magnetometry as complementary methods. I overlapped both methods in the South Plaza but only have results from EM in the North Plaza. In total, I surveyed 1.875 ha (18,750 m²) at Singer-Moye.

For the EM survey, I employed a Geophysical Survey Systems, Inc. GEM-300 multi-frequency electromagnetic profiler to survey the plazas. I surveyed both plazas in several 20 m blocks in a parallel zigzag line at 1-m intervals. I covered 1.7 ha (17,350 m²) in two large blocks of approximately equal size. The GEM-300 measures in-phase and quadrature-phase terrain conductivity. It measures relative conductivity at particular points, allowing for the construction of an interpolated surface showing areas of high and low conductivity, when compared to a grid average. Areas of high conductivity can indicate buried prehistoric cultural features that trap water, such as pits and posts. Areas

of low conductivity may also correspond to buried features such as walls and foundations, often historic period markers. The GEM-300 collects multiple frequencies, in this case medium (8010 Hz) and high (15030 Hz) frequency readings. Variations in frequency correspond to two different depth readings from the same location. All EM data were processed in Surfer and resulting raster images imported into ArcGIS.

In 2015, Brannan and Birch (2015) conducted a magnetometer survey over 0.8 ha (8,260 m²) of the South Plaza to determine if buried cultural features, such as pits or structures, could be identified. Brannan and Birch employed a Bartington Grad 601 Single Axis fluxgate gradiometer in 20 m x 20 m grids using transects spaced at 0.25 m. The Grad 601 measures changes in the local magnetic field due to magnetically charged anomalies that modify an otherwise neutral magnetic background. Cultural features can have a subtle, but noticeable effect on local magnetic field strength, especially if the effect was related to prehistoric burning practices or earthmoving activities. Data were processed in Terrasurveyor and resulting rasters were imported into ArcGIS.

Results

Based on the EM survey of the North Plaza, I identified nine anomalies or anomaly clusters (Table 6.1, Figure 6.2). The anomalies are present at both 15030 Hz and 8010 Hz in both the in phase and quadrature readings. Anomalies 1, 2, and 7 measure between 164.9 and 235.6 m² each and represent areas where numerous small anomalies appear to be clustered, but do not resolve themselves into a particular pattern. If cultural in origin, they may represent clusters of pits that have retained more water than the surrounding soils. Anomalies 3 and 5 are rectangular and are represented by a dense layer of higher conductivity readings when compared to the surrounding area. They measure

approximately 89 m², larger than expected if they were singular residential structures, though they could be several structures closely packed or represent partially superimposed rebuilding episodes. They might also be hard packed areas that retain more water, such as exterior dirt floors or activity areas. Anomaly 4 is a 69 m² oval concentration of high conductivity readings. It may also represent a smaller hard packed surface, or even the interior of a slightly larger than normal residential structure. Anomaly 6 is a long, linear slightly more concentrated area that extends east off the survey area. The orientation and shape of this anomaly makes it impossible to determine what purpose it may have served, if cultural. Anomaly 8 is oval and measures approximately 175.9 m². Unlike other similarly shaped anomalies it was less conductive in the middle. If cultural, it may be a circular structure or collection of pits surrounding a central open space. Anomaly 9 is a long, linear feature consistent with the modern road.

The EM survey results of the South Plaza were less busy than the north plaza. I identified eight anomalies, most were present in both frequencies as well as readings (Table 6.2, Figure 6.3). Anomaly 1 measured approximately 19.6 m² in size but is much smaller in reality because it is the central site datum made from rebar. Rebar is highly conductive and had a significant effect on local readings. Anomaly 2 is a long, linear feature covering approximately 305 m². It corresponds to the modern road. Anomaly 3 is a rectangular feature measuring 33.2 m². Its shape and size are consistent with a prehistoric structure. Anomalies 4 and 8 are circular or oval and measure between 33.2 and 69 m². They are like Anomaly 8 in the North Plaza because they do not have strong readings in the center. If cultural, they may also be circular structures or a collection of pits surrounding a central open space. Anomaly 5 is a 31 m² long arc of singular

conductive readings. It may be cultural, but its configuration or purpose is unknown. Anomaly 6 is an amorphous halo measuring 114 m² of slightly different conductive readings. It may fall into the same category as Anomaly 4 and be a circular or rectangular structure with a slightly harder floor, retaining more moisture. Anomaly 7 is a 158 m² rectangular area containing uniform high conductive readings. On the ground, this location corresponds to a local wetland area, with higher moisture content than the surrounding spots.

Based on the results of the magnetometer survey, numerous magnetic anomalies were identified (Figure 6.4), but few clearly identified features were found. Several large magnetic anomalies are related to the following modern site practices: metal site datums that have been set in and around the South Plaza (A); modern burn piles full of metal from Columbus Museum related land clearance activities (B); a concentration of wire from a disassembled fence (C); a linear barbed wire fence line (D); and a previously undiscovered excavation unit north of Mound A, possibly one excavated by the Columbus Museum (E). Several other anomalies may be of a Precontact cultural origin but would have to be excavated. They include dark circular monopoles that have been identified elsewhere as hearths or circular pits (e.g. Davis et al. 2015; Walker 2009). A few rectangular anomalies may be structures (F), because they are dark circular monopoles, identified elsewhere as hearths or circular pits, surrounded by a larger halo (e.g. Davis et al. 2015; Walker 2009). Several other singular anomalies may be of a Precontact cultural origin, would have to be tested to confirm their provenience, but are not structural in form. A large linear feature to the north of Mounds A and H has been confirmed through excavation to be a large prehistoric fence or palisade (Birch and

Brannan 2015; Kilgore et al. 2015), probably used to divide the plaza space from the surrounding residential area (G).

Discussion

I layered the results of each individual method and the site contour map to determine if particular anomalies corresponding to natural changes in the topography (Figure 6.5). The anomaly clusters in the center (EM Anomaly 4) and to the north (EM Anomalies 1 and 2) are uninterpretable with the current data but are likely not cultural in origin. The road is clearly identified (EM Anomaly 9). An erosional gully shows up as a long, linear anomaly that originates on the east wall and continues south towards the South Plaza (EM Anomaly 6). The rectangular anomalies (EM Anomaly 3 and 4) may be prehistoric structures. Two oval EM anomalies (EM Anomalies 7 and 8) are not interpretable based on these data and may be either cultural or natural.

In the South Plaza, concordance also exists between the EM and magnetometer datasets and known physical features of the landscape. The road is obvious (EM Anomaly 2). A large burn pile in the center of the plaza was picked up by both methods (Mag Anomaly B, EM Anomaly 4). The central datum (Mag Anomaly A, EM Anomaly 1) was also clear. A small rectangular anomaly identified in the EM data (EM Anomaly 3) also has a circular monopole in the magnetometer data, suggestive of a small structure or house. The singular EM anomaly in the south (EM Anomaly 8) is situated between two breaks in the modern metal fence (Mag Anomaly D), so is likely a signature of disturbance. EM Anomaly 6 is still uninterpretable.

A comparison of shallow geophysical anomalies to artifact densities generated in Chapter 3 shows that the potential cultural features are in areas with a low to medium

artifact counts (Figure 6.6). Almost all features are in areas with densities of at least 1.3 but less than 14.3 artifacts per shovel test. If these were houses that had been generating adjacent midden to the same degree to houses in the dense midden ring surrounding the plazas, then there would be localized artifact counts closer to between 56.6 and 113.5 artifacts per test. Instead, either the activities that occurred in conjunction with these spaces did not generate significant amounts of midden, any accumulated midden was dumped elsewhere, or the structures were not in use when the plazas existed. I suspect that if they are houses, they predate the plazas. Any accumulated midden would have been removed when the space was transformed but their footprint could still be detectable by shallow geophysics.

The results signify that the surveyed areas, ostensibly identified as plazas, may contain the trace remnants of structures or other cultural features, but the density of anomalies is low. A high density would have indicated that residential occupations were encroaching into the public space, or that the area was transformed from one type of use to another (e.g. Davis et al. 2015). That is not to discount the transition of these spaces from residential to public uses, as has been identified at other similar sites with long settlement histories (e.g. Davis 2015; Polhemus 1987). Unfortunately, we do not know where these possible houses fall in the settlement sequence, but I suspect that they correspond to occupation during either Time Frame I or II. They may have been abandoned when the space was transformed into public space during Time Frame III.

Based on an analysis of the shallow geophysics, coupled with the artifact density distributions, I estimated plaza sizes using a conservative approach. I incorporated all space that is central to the seven mounds that make up the central site core and interior to

the 28.3 count line. These spaces correspond to expectations for plaza spaces.

Monumental architecture fronts them on multiple sides, they show a marked decrease in the number of artifacts when compared to adjacent locations and contain scant evidence for intensive use as anything other than public space. Based on those variables, I estimate that there is approximately 1.6 ha of plaza space, combining the North and South Plaza. Based on the reasoning about the possible dates for the cultural features in the North Plaza, I do not think a sizeable plaza existed prior to Time Frame III, though smaller courtyard plazas were likely present elsewhere. A finer grained resolution of plaza spaces would require one or more of the following: an intensive coring project, shorter interval shovel testing, and additional shallow geophysical survey techniques.

A comparison of the plaza size based on the site size categories discussed in Chapter 1 shows that greatest extent plaza size at Singer-Moye is in the range expected for medium sized sites (at 1.6 ha) and smaller than those at large sites (2.6 ha). Similarly, the number of plazas (2) falls into expectations for small, medium, and large sites. Unfortunately, plaza size is an underreported attribute. Between medium and large sites, only seven other sites had comparable data, and in some cases actual plaza sizes were likely smaller than those estimated, biasing expectations. If true, then size class estimates would decrease, and plaza space might be more similar to large sites than medium ones, at least during Time Frame III. Plaza space dating to Time Frame I or II may have also existed, but I feel comfortable in assuming that it would fall in a small size category, between 0 and 1.5 ha. Time Frame IV may have also seen the incorporation of the South Plaza, but even at its greatest extent it would not have exceeded 1 ha.

Summary

In this chapter, I discussed the use and results of two shallow geophysical survey methods employed in the study of the plazas. I identified several possible prehistoric anomalies. These findings suggest that at one point in the settlement history there may have been some special purpose structures in the plazas which were not apparent in the artifact density data. Another possibility is that the use of these spaces changed through time, originally serving as residential space that was converted to communal or public space, or vice versa. In general, the geophysical results support my initial identification of plaza spaces from Chapter 4 based on the small number of potential prehistoric anomalies and the lack of large-scale construction.

In the next chapter, I reconstruct the settlement history of Singer-Moye and situate it in time and space with other similar settlements in the lower Chattahoochee River valley.

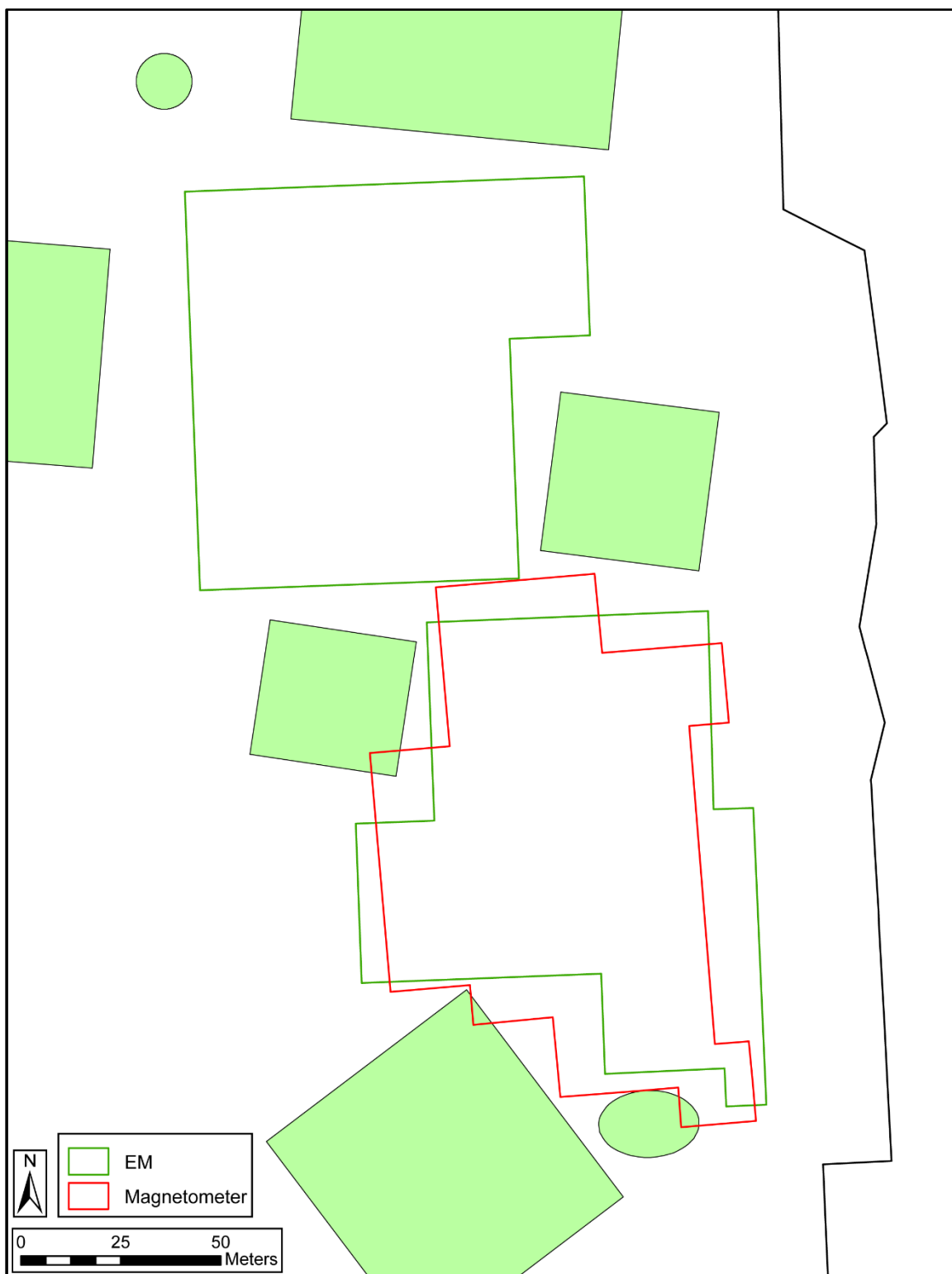


Figure 6.1. Shallow geophysical survey grids

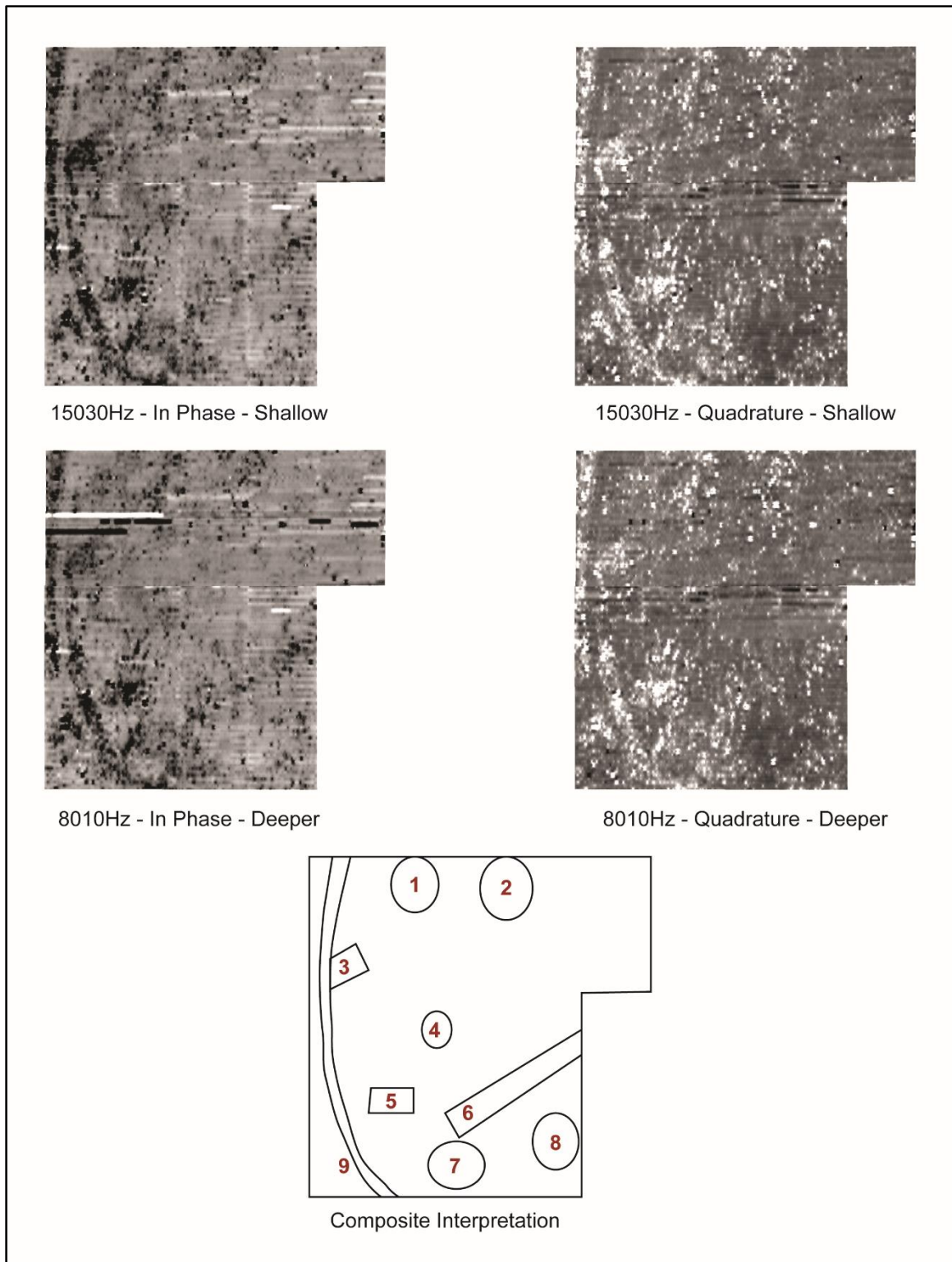


Figure 6.2. EM data results and interpretations, North Plaza

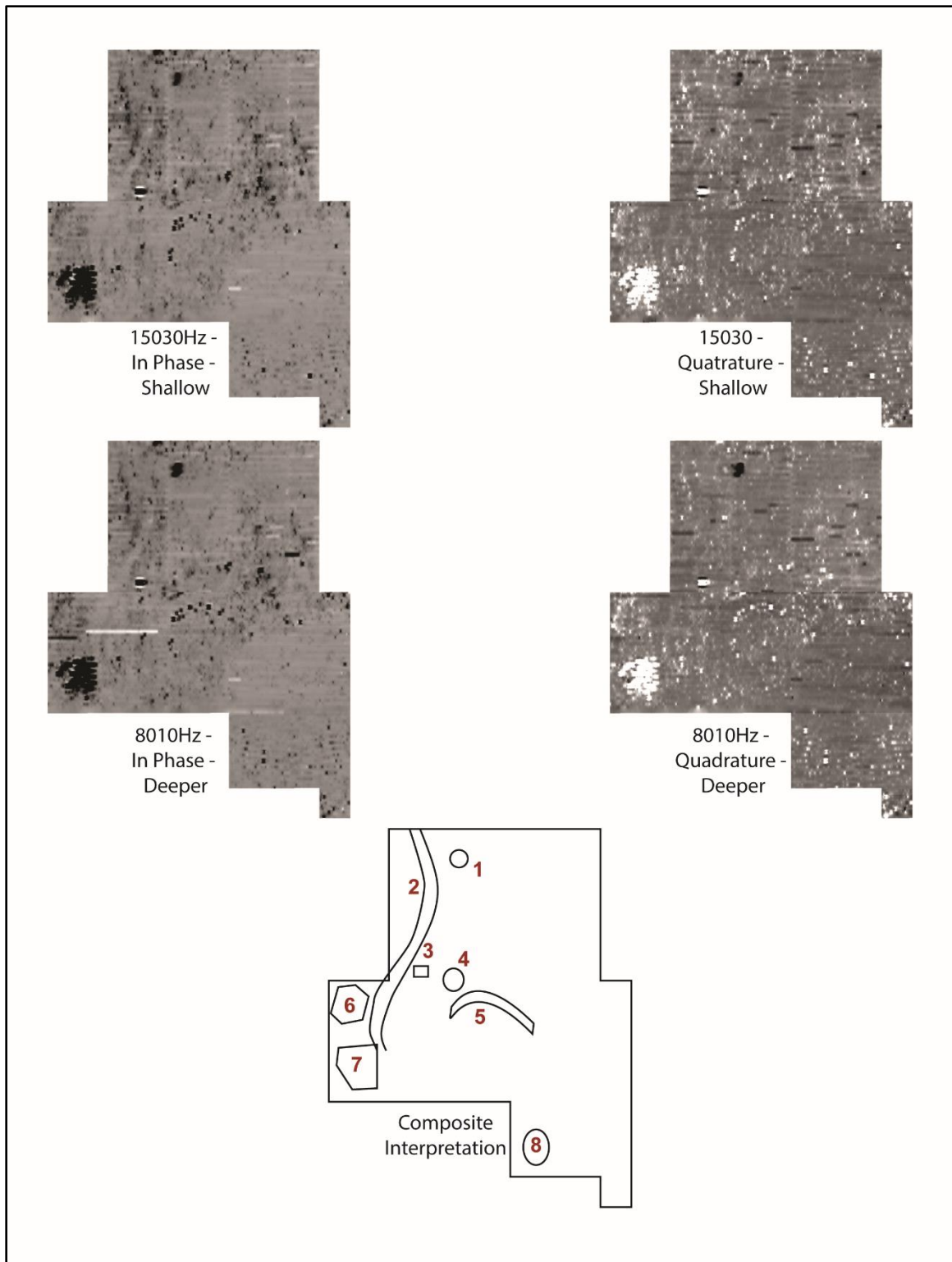


Figure 6.3. EM data results and interpretations, South Plaza

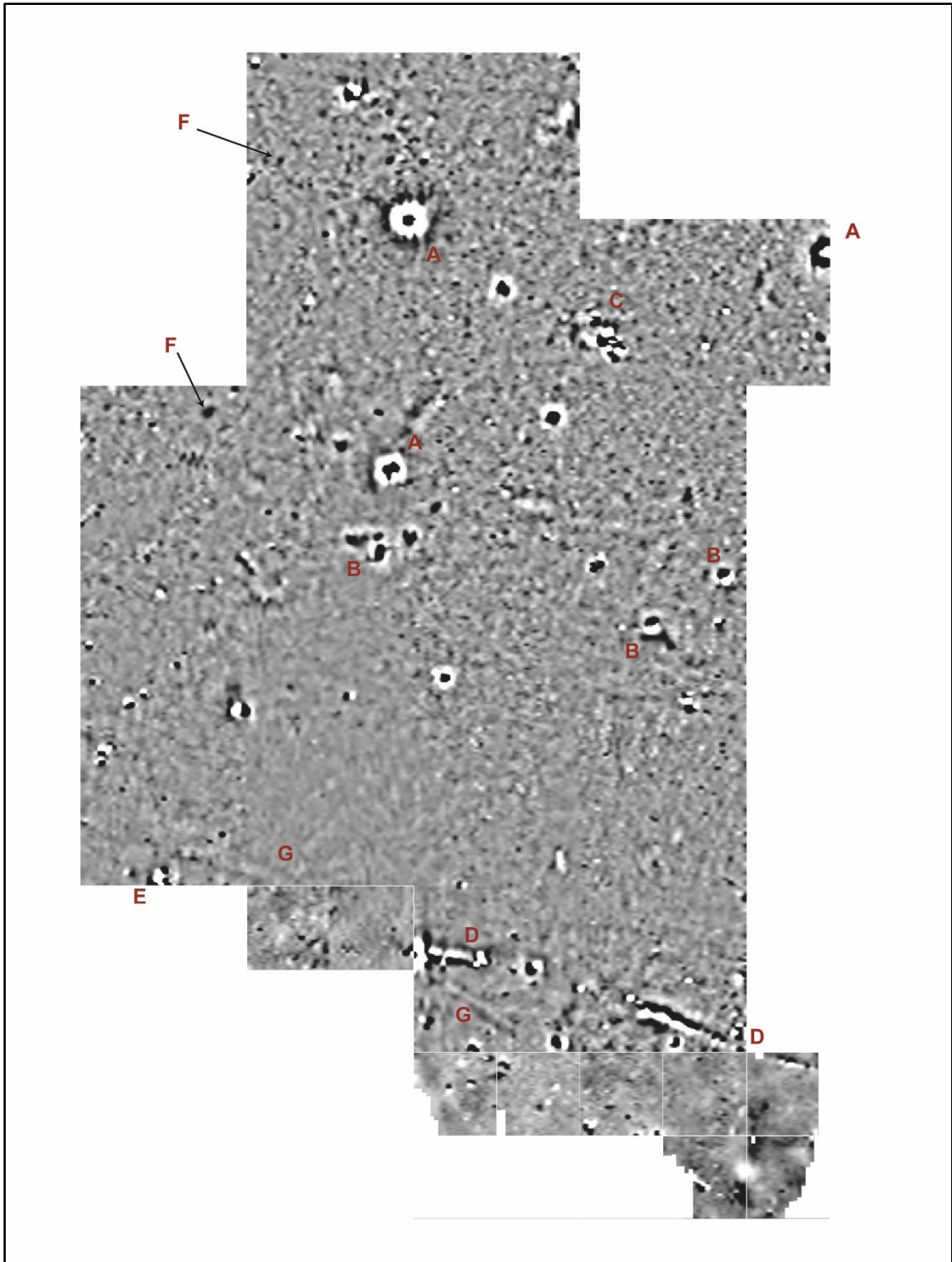


Figure 6.4. Magnetometer data results and interpretation, South Plaza

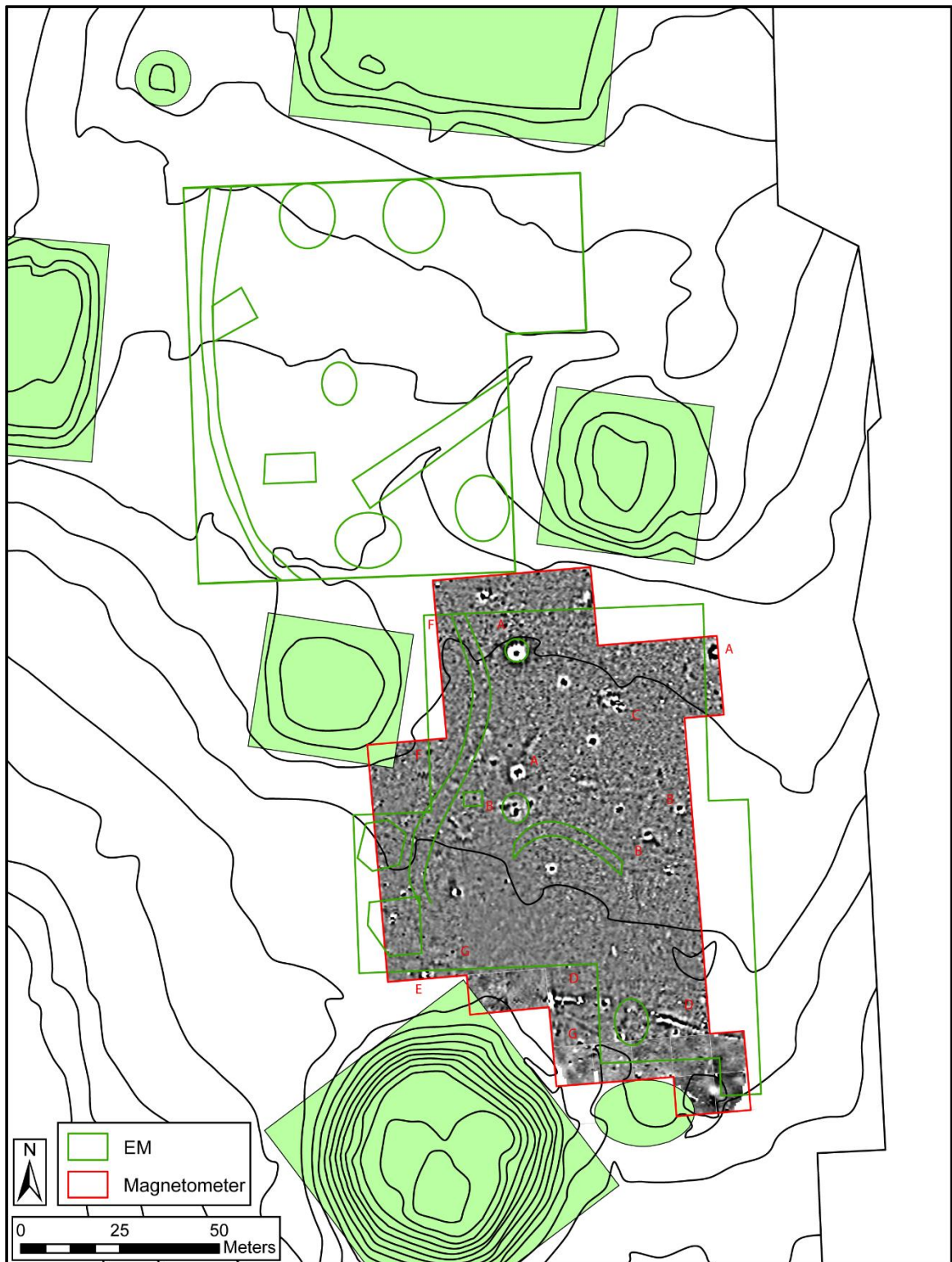


Figure 6.5. Comparison of shallow geophysical survey anomalies to topographic features

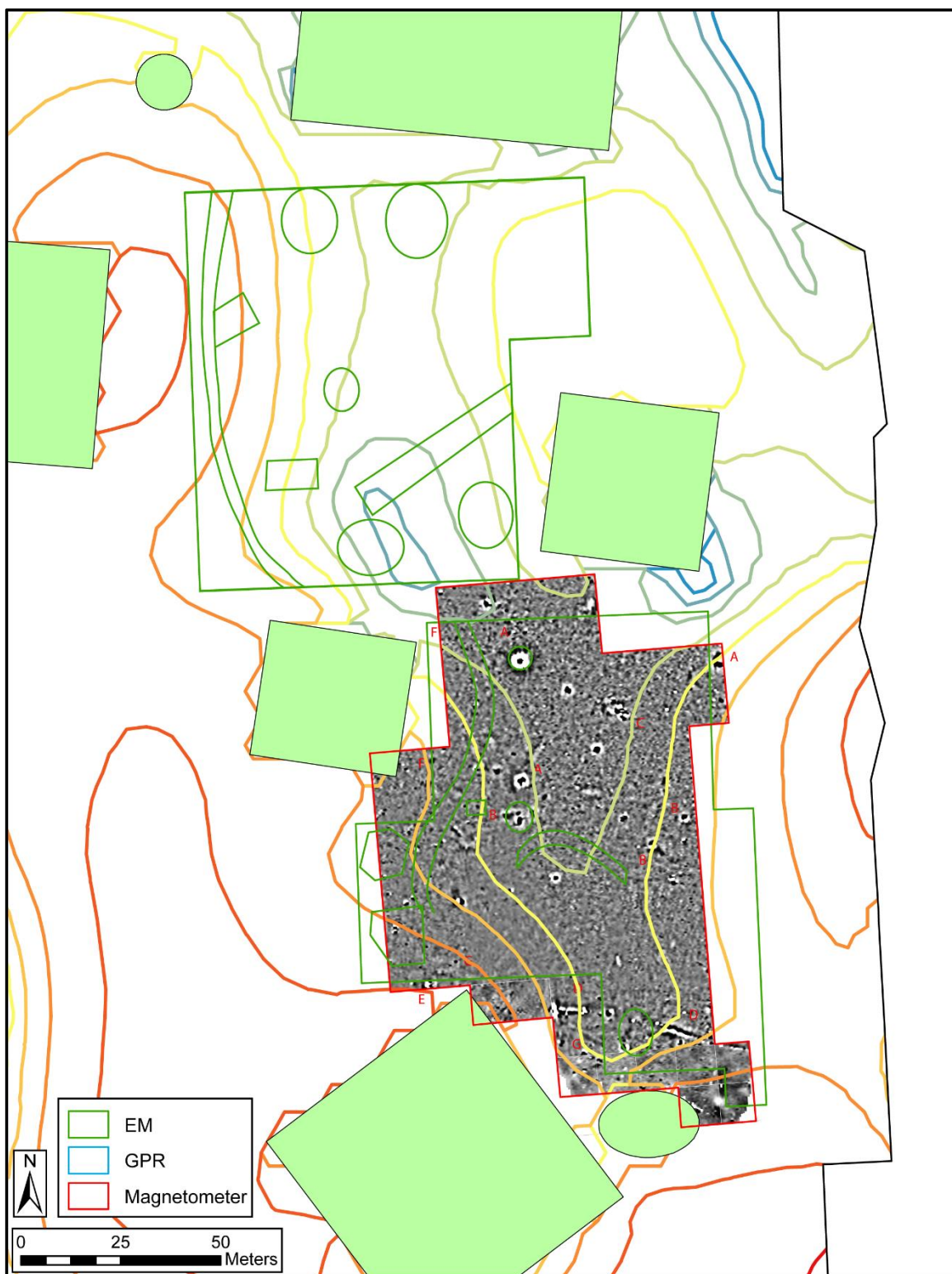


Figure 6.6. Comparison of shallow geophysical survey anomalies to artifact densities

Table 6-1. EM Anomalies in North Plaza

Anomaly	Shape	Length (m)	Width (m)	Area (m ²)
1	Oval	15	14	164.9
2	Oval	20	15	235.6
3	Rectangular	13	8.2	89
4	Oval	11	8	69
5	Rectangular	13.4	7.4	89
6	Linear	45	9	335
7	Oval	17	13	173.6
8	Oval	16	14	175.9
9	Linear	104	6.5	354

Table 6-2. EM Anomalies in South Plaza

Anomaly	Shape	Length (m)	Width (m)	Area (m ²)
1	Circular	5	5	19.6
2	Linear	78	5	305
3	Rectangular	4.5	3.4	33.2
4	Circular	6.5	6.5	33.2
5	Arc	-	-	31
6	Amorphous	12	10	114
7	Rectangular	14.2	13.8	158
8	Oval	11	8	69

VII. THE HISTORICAL TRAJECTORY OF SINGER-MOYE IN ITS REGIONAL CONTEXT

The previous chapters of this dissertation have dealt with questions pertaining to what, where, and when at the local settlement scale. This chapter connects the local and regional level with two specific questions, how are the settlement changes at Singer-Moye connected to the broader region, and why did those changes occur? In this chapter, I explore the settlement history of Singer-Moye, using my refined site chronology (Chapter 3), to discuss the articulation of public spaces (Chapter 6), monumental architecture (Chapter 5), and residential size (Chapter 4), using the results from the preceding chapters dealing with each specific aspect of the community.

Methods

Except for some of the previous excavations, detailed in Chapters 2 and 5, the bulk of the data used to discuss Singer-Moye in this chapter is based on my research conducted between 2012 and 2015. I also collected comparative data from other sites with monumental construction and public spaces that also shared social and cultural patterns and were occupied at the same time as Singer-Moye. Unfortunately, few other settlements with measurable attributes have received the same amount of concentrated research as Singer-Moye. Blitz and Lorenz' (2006) analysis and interpretation for many of the other mound centers in the valley concentrated on the record recovered from mound contexts. I have supplemented their work with other published records including non-mound settlement contexts when possible (e.g. Caldwell 1955; DeJarnette 1975;

Huscher 1959, Keller et al. 1962, Knight and Mistovich 1984; Newell 1959, 1961; Schnell et al. 1981), as well as unpublished field notes, maps, and documents available at the University of Georgia's Laboratory of Archaeology and Georgia Archaeological Site File (GASF) and from the Alabama Archaeological Site File (AASF). The absence of detailed settlement histories for many other similar communities in the LCRV necessitates a coarse analysis of the synchronic relationships and diachronic patterns that connected them to Singer-Moye.

I tabulated a wide set of data to facilitate comparisons between Singer-Moye and other mound centers. I recorded the number of mounds. For the two other multi-mound settlements, I used the area of the mounds and plaza reported from published accounts. I recorded the site size of village components that were directly adjacent to one or more mounds. I determined if nearby, but spatially discrete, sites were contemporary. If so, and they were less than 500 m from site boundaries calculated above, I tabulated their area as part of an associated village area. I tabulated mound construction dates as suggested by Blitz and Lorenz (2006), included additional radiocarbon dates, and ceramic modes and motifs when possible. I assigned each recorded provenience to one or more Time Frames corresponding to those I used at Singer-Moye. I also categorized each mound site based on the site size criteria outlined in Chapter 1.

In addition to the mound centers, I incorporated the distribution of other contemporaneous sites using site records available from the AASF and GASF. Most sites used in this chapter were identified during mandated cultural resource management surveys and reflect opportunistic discoveries in areas of potential modern use. Few of these sites have been excavated in detail, and even fewer are published (but see Chase

1955; DeJarnette 1975; Patterson 1950; Mistovich and Knight 1986 for examples).

Information about these sites vary. In most cases, only locational data and culture-historical assignments based on specific traits is contained in the site file data.

I parsed out three groups of sites from the site file data by connecting the diagnostic artifacts to the Time Frames derived for Singer-Moye (See Chapter 3). A fourth site group contains two distinct components not connected by material remains to Singer-Moye. Sites are classified in the site files data by culture-historical phase (e.g. Rood, Bull Creek, Fort Walton), period (Early Mississippian, Late Woodland), or general span of time (e.g. General Woodland, General Mississippian). Most phases are based on diagnostic artifacts, usually ceramics, and I relied on those data to assign sites to a temporal framework. I removed all sites that did not have at least a phase level classification from further analysis.

At the regional level, very little of the LCRV has been systematically surveyed, complicating the issue of identifying patterns in regional datasets. Two areas in the LCRV do approximate full-coverage regional survey, Fort Benning and the Walter F. George reservoir (outlined in black on Figure 7.1). Fort Benning, located in the north of the area near the Fall Line, covers almost 74,000 ha and incorporates both riverine and upland environments. Walter F. George, located in the central portion of the river valley, consists of the area impounded by reservoir construction in the 1950s and is a 14,000 ha sample of near-river occupation. The opportunistically collected settlement pattern data in the rest of the LCRV resembles that found in Fort Benning and Walter F. George in terms of location and time period, and I suggest that both locations can serve as analogs until the whole region is surveyed.

Settlement History Reconstruction

In total, I identified 330 sites occupied just prior or contemporary with Singer-Moye (Figure 7.1, Table 7.1). One grouping contains 144 sites that were occupied prior to or coeval with the initial settlement of Singer-Moye, between ca. AD 700/1000-1200/1300, but were not ceramically similar. Between ca. AD 1100-1300 (i.e. Time Frame I/II), 38 sites were occupied. Between ca. AD 1300-1400 (i.e. Time Frame III), 19 sites were occupied. Between ca. AD 1400-1500 (i.e. Time Frame IV), 142 sites were occupied.

Of the approximately 190 sites that are contemporaneous to Singer-Moye, less than five percent had monumental construction as part of its settlement history. Ten sites had at least one mound constructed and in use during the time Singer-Moye was also occupied (Figure 7.2). Seven sites were the location of only a single mound, Cool Branch (e), Gary's Fish Pond (i), Lampley (d), Mandeville (j), Omussee Creek (h), Purcell's Landing (g), and Shorter (c). Three sites had multiple mounds, Cemochechobee (f) had three mounds and Rood's Landing (b) and Singer-Moye (a) each had eight. The findings for the mound centers are tabulated in Table 7.2.

My evaluation of the chronological sequence of mound sites in the LCRV is summarized in Table 7.3. I have identified contexts from four sites dating to Time Frame I (ca. AD 1100-1200): the submound burial pit and mound contexts at Cool Branch, the midden beneath Rood's Landing, the final mound stage at Mandeville, and the submound occupational surface at Omussee Creek. Time Frame II (ca. AD 1200-1300) contexts are as follows: the mound at Cool Branch, the early stages of Mound A and Mound B at Cemochechobee, the final mound stage at Mandeville, and possibly below the mound at

Omussee Creek. I have classified components from five sites as Time Frame III (ca. AD 1300-1400): the mound and aggregated village contexts at Cool Branch, the latter mound stages at Cemochechobee, mound and non-mound contexts at Gary's Fish Pond, several mounds at Rood's Landing, and several mound stages at Omussee Creek. Contexts dating to Time Frame IV (ca AD 1400-1500) include the mound at Gary's Fish Pond, Mound A at Rood's Landing, all contexts at Shorter, all contexts at Lampley, and the final mound stage at Omussee Creek.

Radiocarbon Dating Results from Regional Sites

Unfortunately, the ability to assign absolute dates to occupations is problematic. Twenty radiocarbon dates are available from four mound sites in addition to Singer-Moye (Table 6.4): Cool Branch (n=2), Cemochechobee (n=14), Gary's Fish Pond (n=2), and Rood's Landing (n=2). Most samples are from wood charcoal, resulting in dates that appear older than their contexts. Many dates were collected in the 1970s and 1980s, contributing to wider error ranges. Most intra-site contexts have only a single radiocarbon date. Five settlements have no associated radiocarbon dates at all.

I used OxCal v4.2 to carry out a chronological modeling for the four sites with radiocarbon dates (See Appendix D for the code). I calibrated all dates using the probability method in OxCal (Bronk Ramsey 2009; Reimer et al. 2013) and rounded all radiocarbon distributions to the nearest 5 years. I set AD 1100 and 1500 as hard boundaries and removed all dates that either did not fall into or indicated a possible date spanning the entire date range (Table 6.5). I modeled a simple sequence for the three sites with two dates since rough stratigraphic contexts were available for them. I also modeled the Mound B construction sequence for Cemochechobee as a simple sequence from

oldest to newest contexts based on the excavation records, combining the multiple dates from Stage IV and VI into discrete phases. The radiocarbon sequence for Cemochechobee was problematic, and I elected to discard problematic dates with low agreement values in favor of a stronger single sequence. Until non-charcoal-based radiocarbon dates are available, there is a certain looseness in the Cemochechobee model. Additional dates from all sites would be desirable.

The results of the model from the four sites are compatible with my findings from Singer-Moye (Table 7.6). Cool Branch was occupied between AD 1145 and AD 1295. Gary's Fish Pond was occupied between AD 1285 and AD 1455. Rood's Landing is problematic because the sample from Stage A2 of Mound A dates later than the sample from the overlying Stage A1. Either the A1 date is too early, the A2 date is too late, or they are stratigraphically unconnected. I suspect that the A2 date may be intrusive and that the A1 date may be too early due to the old wood effect. Neither issue can be resolved with the current samples. The occupational sequence for Cemochechobee is divided into three distinct spans of time. The first two stages of Mound B were constructed between AD 1125 and 1240. Stage IV was constructed between AD 1175 and 1265. Stage VI was constructed after Stage IV, sometime between AD 1260 and 1370.

Regional Settlement Size Discussion

Mound and village components for each single-mound site ranged between 1.3 and 16.2 ha. When combined with associated village areas, site areas increased to between 5.3 and 27 ha. Four sites were in places that had also been occupied during the Woodland period (ca. AD 350-1000), and two of them incorporated mounds originally constructed between AD 1 and 750. Blitz and Lorenz (2006) indicate that the sites were

occupied between 100 and 150 years, some between AD 1100-1200 and others between AD 1300-1550. My estimates suggest that the periods of occupation were probably broader than that, between approximately 100 and 300 years.

For settlements with multiple mounds, central core settlement areas ranged between 0.25 and 6 ha. The inclusions of greater village areas increased sizes to between 29.2 and an estimated 64 ha. No archaeological evidence recovered to date indicates a substantial Woodland period settlement at any of the three locations, nor had any mounds been repurposed and incorporated from older periods of occupation.

Blitz and Lorenz (2006) contend that multi-mound centers were occupied for 100 to 250 years. However, based on my reanalysis of radiocarbon dates and regional analysis, I believe that the villages were occupied for 200 to 350 years. Each was established between AD 1100-1200 and abandoned as a major place of settlement sometime between AD 1300 and 1450. Rood's Landing was occupied for a brief time in the 1500s, but not as a major focal point of settlement aggregation.

Chronological Discussions and Interpretations

Initial Occupation and the Early Settlement at Singer-Moye (AD 1100-1300). The first phase of occupation at Singer-Moye, beginning at approximately AD 1150, consisted of at least three loci in the site core (Figure 7.3). One locus is located under and near Mound C. The second is located approximately 300 m to the south, encompassing the area to the south of Mound A and H. Several wall-trench structures and early-phase stratigraphic deposits were found here. The third locus is just north of Mound B, based on a localized concentration of early-phase ceramics.

One platform mound, Mound C, was constructed over one of the early loci, placing its construction sometime after Singer-Moye's initial settlement. The ceramics recovered from the mound indicate that the incipient stages were still constructed during an early phase of the site's settlement history, but not during the initial settlement. The only other mound that may have potentially been in use during this early phase of occupation is Mound A (Blitz and Lorenz 2006). The size of Mound A (14 m in height, with a base covering approximately 3900 m²) suggests a great deal of labor investment, possibly from an early date, though only the terminal stage of this mound has been investigated.

Between ca. AD 1100 and 1200, people settled in an uninhabited section of the LCRV at a small number of sites, not exceeding 38 known locations. The suite of behaviors associated with these initial settlements, including mound construction, a few large settlement plans, agriculture, and pottery modes, has no encompassing antecedents in the LCRV. Some combinations of the above practices, excluding the pottery modes, have been noted from other contexts dating between AD 1 and 750. The rapid appearance of these settlements without previous local antecedents is suggestive of a site unit intrusion rather than local reorganization and independent innovation (Blitz and Lorenz 2002, 2006; Pauketat 2007). All scholars agree that the evidence points to the migration of populations from the west by AD 1100, introducing agricultural economies, and a suite of material, ideological, and socio-settlement patterns common to Mississippian societies found west of the region (Blitz and Lorenz 2002, 2006; Knight 2010; Regnier 2014). Ceramic motifs resembling those produced by inhabitants of Moundville-related polities in west-central Alabama also suggest that these populations came from the west, although

the relationship of the local inhabitants to Moundville itself remains unclear, as does the degree of interaction with a ‘homeland’ (Jenkins 2009; Knight 2010; Regnier 2014).

The initial occupation of Singer-Moye, between AD 1100-1300, coincided with the appearance of similar communities in other parts of the region (Figure 7.4). Four known communities erected platform mounds or repurposed abandoned mounds along the LCRV (Blitz and Lorenz 2006: 33-59). They were spaced between 16 and 36 km apart, close enough for regular interaction but perhaps far enough apart to avoid the effects of social or environmental circumscription. At least one, Cool Branch (Figure 6.5), was surrounded by a bastioned palisade, possibly suggesting a concern for collective defense, though the town expanded beyond the palisade footprint. Rood’s Landing was settled at the same time, but the excavations that contain contemporaneous artifacts are derived from sub-mound midden contexts. An in-depth reconstruction of Rood’s Landing’s settlement history is necessary before I can determine if it experienced a major aggregation event prior to AD 1300. Village areas at Cemochechobee, discussed in more detail below, likely were occupied, but mound construction did not begin until the 1200s. None of these mound sites were likely more than 6 ha in area when first established, the size estimated for Singer-Moye (Brannan and Birch 2017), though several grew larger than that by AD 1300. Settlement patterns suggest multiple household clusters in close proximity as opposed to large settlement aggregations.

The first major population aggregation event happened in the 1200s at Cemochechobee, located south of Singer-Moye on the Chattahoochee River (Blitz and Lorenz 2006; Schnell et al. 1981). Cemochechobee was the first multi-mound settlement in the valley. It had two platform mounds constructed between AD 1200-1350 over large

pre-mound structures, and a third separate burial mound (Blitz and Lorenz 2006: 40-42; Schnell et al. 1981). Between 25 and 46 ha of village surrounded the monumental site core, an order of magnitude larger than other contemporary settlements. Schnell et al. (1981) believe the village areas may have been occupied for longer than the mounds. However, the village may not have been occupied continuously, and the small amount of midden accumulation may be the result of widely dispersed households.

Less is known about contemporary sites without monumental architecture due to the incomplete nature of survey coverage and reporting. Thirty-eight are known in the central valley, some were in areas near a possible border, where their locations were in areas also inhabited by other local groups (Figure 7.5). Almost all sites are adjacent to the Chattahoochee River except for an upland cluster northeast of Singer-Moye. The Fort Benning area only has sites near the river.

Aggregation and Reorganization at Singer-Moye (AD 1300-1400): Between ca. AD 1300-1400, sweeping changes in settlement occurred at Singer-Moye (Figure 7.6). The settlement footprint beyond the site core expanded considerably, indicating a large influx of new community members. People occupied adjacent landforms to the west and northwest, evidenced by a uniform distribution of artifacts on at least 29.2 ha of well-drained areas in the current survey area. Based on my survey findings, this occupation likely extends further to the west and northwest. The community's footprint may also extend east along the adjacent landform and south across Pataula Creek.

Ceramic diversity increased during this phase, suggesting at increased connections between regions. Ceramic modes connected to the early component and similar to those found across Central and West Alabama continue to be used. Additional

modes associated with populations in northwest Florida and interior Georgia, identified as Fort Walton and Lamar, also appear. In particular, well-known rectilinear and curvilinear complicated stamped, zone punctated, and incised designs were added to the already present rectilinear incising and arcade motifs. Various rim appliques and pinched fillets are also present in the sample for the first time. Other types of material culture, including copper (Brannan 2012), a fragment of a spidershell gorget (Russell and Gordy 2012), saltwater marine shell (Little 2013), several different pipe styles (e.g. Blanton 2015), and non-local lithic material, also hint at increased connections between regions.

Based on ceramic seriation and radiocarbon dates, I believe the growth of the settlement at Singer-Moye happened in two stages. The first involved a reconfiguration of the central site core. A large rectangular structure later buried beneath the dome-shaped cap of Mound H was constructed, a large area north of Mounds A and H was leveled and turned into the South Plaza, and another platform mound, Mound F, was placed on the northern edge of it. A dense residential midden ring encircled the South Plaza, connecting the mounds.

Likely, the plaza was the first planned addition to the growing town (e.g. Dalan 1997; Holley et al. 1993; Stout and Lewis 1999). Singer-Moye's South Plaza was constructed from the infilling of much of the southern edge of the upland plateau to achieve a level surface. Our excavations and GPR survey suggest this involved the incorporation of as much as 1.2 m of fill in the area just north of Mound A to match the natural elevation on the northern side of the plaza (Blank et al. 2015; Brannan and Bigman 2012).

The continued occupation of the area south of the South Plaza from the early phase of the site's history onwards suggests that people who lived here may have been associated with the earliest or first-come residents of the site. Lineages with longer-lived ties to settlements may have achieved elevated status. In the context of population relocation in the U.S. Southwest, local resources, rights, and decision-making were controlled by relatively stable groups, rather than by the community as a whole (Shachner 2012:24). It is possible that the same process may have played out at Singer-Moye, whereby the groups that first-occupied the site and associated territory retained the balance of political influence.

The remains of one interior palisade were discovered in the 1990s (Russell and Gordy 2012), and we identified a second one in 2015 (Kilgore et al. 2015; Luthman et al. 2016). Both lack bastions and do not seem to have served a defensive function. Ceramic seriation and radiocarbon dates suggest that the palisades were constructed ca. early AD 1300s, coincident with the reconfiguration of the site core. I believe it served to demarcate space within the community, perhaps setting aside or screening space around Mounds A and H from public access. It is possible that this whole area may have served as a sacred or elite precinct, or at least access to it was restricted.

Mound A's enduring place as a focus of the built environment is clear. It dominates the upland plateau on which the site core was constructed and anchors the south plaza. Mound B, which fronts both plazas, was constructed either during the first or the second stage of the site's reconfiguration. The act of mound construction is often cited as an example of communal activity through labor mobilization, setting aside ritual space that furthers the interests of social units (Kidder 2004; Knight 2010: 4-5; Lindauer

and Blitz 1997). The summit activities of the platform mounds and activities in the large special-purpose structures were likely dynamic and multipurpose (e.g. Pauketat 2007: 97), used by individual leaders and their lineages (Hally 1996; Holley 1999), kin groups (Knight 1986), or clans and sodalities that cross-cut kin groups (Byers 2006).

The second stage of settlement reconfiguration involved an expansion of the original site core. The North Plaza was added. A large natural rise on the north side was leveled and turned into a platform mound—Mound D. The summit of Mound D is enigmatic; excavators identified uniformly-spaced ash-filled pits oriented to the long axis of the mound. Another large rectangular structure abutting the North Plaza, later capped beneath Mound E, also dates to this period. The midden ring extended to Mound E but did not completely circle the central mound and plaza complex.

These building programs, including the expansion and definition of a town plan, are suggestive of place-making, socio-political consolidation, and community-building ca. AD 1300-1400. The reconfiguration of the site core at Singer-Moye may have been undertaken as a large-scale labor project ca. AD 1350 as part of negotiations between incoming residents and extant populations (see for example Dalan 1997). The settings for such negotiations may have also involved collective rites at which feasts, religious ceremonies, mound construction, and other integrative practices may have occurred (Pauketat and Alt 2005).

Kowalewski (2013: 213-214) stated that the construction of large projects pertaining to the built environment is not necessarily directed by the actions of specific people or groups but carried out by the hidden hand of multiple actions in which the final conceptualization of that object being built is beyond that of any of the participants. In

other words, no singular entity, whether a person or a group, was doing the directing or redirecting, but that the results came about from the purposeful actions of many people, some having unforeseen consequences unpredictable by any of the participants (Kowalewski 2013: 213-214). Thus, while particular mounds may have been co-opted after construction by groups for specific purposes, the communally related practices of collective groups facilitated the construction of these monuments and drove the institutions and practices that made use of the spaces (e.g. Blanton and Fargher 2008; Carballo 2013; Stanish and Haley 2005).

The consolidation of people at particular places is also reflected in the regional site distribution (Figure 7.7). All evidence points to a regional population aggregation together with incorporation of populations from further afield, especially at Rood's Landing and Singer-Moye. The active use of single mounds shifted to Gary's Fish Pond Omussee Creek, though people may have continued to occupy the attached village areas and mound at Cool Branch. Cemochechobee was also occupied during the early part of the AD 1300s but does not continue to be the focal point of monumental construction.

Singer-Moye experienced rapid aggregation and community change at the same time that the multi-mound center of Rood's Landing rose to. Rood's Landing rivaled Singer-Moye in complexity of monumental architecture, size of the central precinct, and probably in overall settlement size (Caldwell 1955; Knight and Mistovich 1984) even though it is located only 30 km away from Singer-Moye.

As I have argued elsewhere (Brannan and Birch 2014, 2017), the settlement growth and changes in complexity in the built environment at Singer-Moye and Rood's Landing are likely due to peer-polity interaction between the two communities, as

opposed to warfare or conflict, as has been argued for some other regions. Both sites developed in a similar fashion at about the same pace, and have similar mound and plaza configurations (Figure 7.8). Both are located centrally in the valley, within 1-2 day's travel from the other. At least in the case of Singer-Moye, the settlement was spread out over several landforms and would have been difficult to protect with a palisade. There is a double ditch surrounding the site core at Rood's Landing (Caldwell 1955), but the village extends at least 700 m beyond it to the northeast (Knight and Mistovich 1984), which suggests that the ditches served to demarcate space within the community.

The number of sites with components dating to this time period decrease from 38 to 19 (Figure 7.7). Most of the sites are concentrated along the Chattahoochee River, in the Walter F. George area and to the north. Only a single site occurs south of the Walter F. George area. No upland sites were located at Fort Benning, but the upland drainage between Benning and Singer-Moye was lightly occupied, indicating that at least some people were using upland locations. Several sites are clustered at the Fall Line north of the Benning area. They may represent an expansion to the north. The decrease in the number of sites dating to this phase of occupation reflects the similar processes of aggregation occurring at Singer-Moye and Roods Landing.

Settlement Contraction and Population Dispersal (AD 1400-1500): After AD 1400, the era of large settlements was over. Similarly sized aggregation events did not re-occur anywhere in the LCRV. A shift in settlement patterns occurred at both Singer-Moye and regionally, evidenced by the reorientation of interregional interaction, decrease in polity size, and the shift to a dispersed settlement pattern. Mound centers were shorter lived, and the scale of construction is smaller than in the AD 1200s and 1300s. The

timing of this settlement pattern shift reflects panregional trends towards smaller but more numerous sites, as evidenced across the Southeastern United States (e.g. Anderson 1994; Beck 2013; King 2003; Knight and Steponaitis 1998; Meeks and Anderson 2013).

The final phase of occupation at Singer-Moye included a contraction in the total settlement size and a decrease in the number of mounds in use (Figure 7.9). The specific settlement footprint is tentative but wholly contained within the boundaries of the earlier settlement. Only Mound A exhibits evidence of utilization. Although it is possible that Mound D was also occupied, historic plowing on its summit precludes our ability to determine a late occupation. Off-mound residential locations were restricted to the central site core, concentrated on the southern edge of the upland plateau near Pataula Creek and Mound A.

Only a few other mound centers were occupied at this same time (Figure 7.10). A single mound may have been in use at Gary's Fish Pond. Mounds were built or repurposed at two additional communities in the Walter F. George area near Gary's Fish Pond, at sites named Shorter and Lampley. A final stage was also added to the platform mound at Omussee Creek in the southern part of the valley. In all cases, these were small single mound settlements similar to those constructed during the initial occupation of the LCRV ca. AD 1100. Whether the new single mound centers represent long-standing social segments that periodically relocated, as argued by Blitz (1999; Blitz and Lorenz 2006), or new populations moving into the region from elsewhere is still unresolved.

Large local populations no longer occupied the multi-mound centers that had been central to the community in prior generations. Blitz and Lorenz (2006) argue that Rood's Landing was not inhabited at this time. Ceramic assemblages from Rood's Landing and

Singer-Moye resemble each other superficially, but additional radiocarbon dates from Rood's Landing are necessary to resolve their contemporaneity. It may be that these once large settlements became vacant ceremonial centers serving a dispersed population, with only a few local inhabitants serving as caretakers, similar to that suggested for Moundville (Knight and Steponaitis 1998).

At least 142 sites were occupied throughout the valley (Figure 7.10). People dispersed into the region from the previously occupied large central places, such as Singer-Moye. The greatest site concentration was along the Chattahoochee River. Unlike the previous two occupational phases, groups were no longer concentrated in the Walter F. George area. Numerous components were in upland settings, both in the Fort Benning area and further south, but site frequency tapered off south of Singer-Moye.

Site Size Comparisons and Discussion

Returning to the comparison between sites in the region based on measurable attributes, I assigned each mounded settlement that was contemporaneous to Singer-Moye to its appropriate category based on site size and the IQR range of mound count, mound area, and plaza area (Table 7.7). Based on site size alone, five settlements fell into the small category, one was medium, two were medium to large, and one was large in size. The number of mounds and mound area criteria generally agreed with that of the site size. Small sized settlements also reflected small sized mound count and area, with two exceptions. Mandeville, a medium sized site, had variables that were consistent with small settlements. Cemochechobee, a medium or large sized settlement depending on the source, was consistent with small sized settlements based on mound area. Unfortunately,

plaza data are lacking for all other sites except Singer-Moye, and its size fell between expectations for either medium or large sites.

Most sites reflect agreement with a particular site size category across the discriminating criteria. Two sites that diverge somewhat from the expected plan warrant further discussion. Mandeville is problematic because it is a medium sized site, but it was a reoccupation of an older settlement. The boundaries between the Woodland and Late Precontact period occupations were not well defined beyond the assignment of one mound to the Woodland period while the second mound saw multiple periods of use. I suspect that the Late Precontact period settlement size was smaller than 16.2 ha, placing it in the small size category. If so, it would then be similar to other single mound centers in the valley. Unfortunately, the two occupations cannot be differentiated further with additional research at this time because Mandeville is under the Walter F. George lake.

The other divergent site is Cemochechobee. Despite its settlement extent placing it in either the medium or large category, depending on the source, the mound area is quite small, resembling other small sized settlements. Both platform mounds had repeated construction episodes, potentially an indication of societal or institutional instability. If the institutions or practices associated with the mounds were sufficient for dealing with societal stress, then they would not have needed to be reorganized numerous times in the 100-year period of occupation. Another possibility is that mound stage construction itself was a means to alleviate scalar stress in the society, and that it was employed at Cemochechobee because it had worked at smaller sites elsewhere. What did not happen, at least in comparison to Rood's Landing and Singer-Moye, was the large-scale diversification and construction of mounds as well as incorporating public space

into the settlement design. Cemochechobee, being the earliest of the big settlements in the region, may represent the first experiments in keeping large-scale aggregated groups of people together in one place. Obviously, it was not successful in the long-term, and the two subsequent attempts at Rood's Landing and Singer-Moye appear to have taken a different route than that used at Cemochechobee. Despite those changes, neither lasted much longer than 100 years either as a large settlement. The lessons learned in the LCRV seem to indicate that large-scale aggregation was unstable, though smaller scale communities were more stable, as was the overall region. This regional stability may have been possible only after close ties were forged between the segmented societal groups at the large settlements, and those ties continued to exist even after the various groups no longer co-habited.

Summary

My findings have interesting implications on the structure and historical trajectory of Singer-Moye. It is the only large settlement in the LCRV and only one of a few in the southeastern United States to have been systematically surveyed. That survey revealed extensive village components that clarify that cycle of aggregation and dispersal that contributed to the growth of Singer-Moye and how this cycle of aggregation and dispersal relates to the site's construction sequence.

My construction sequence – the initial settlement of Singer-Moye and building of Mound C, creation of the south plaza and connected mounds, followed by the addition of the north plaza and mounds, culminating in the final summit structure on Mound A – differs from previously published accounts by reordering of the chronology of the Mound E and H structures, the construction of Mound D, and the summit of Mound A.

Previously, the Mound E and H structures had been considered contemporary structures, followed by Mounds A and D. This created a narrative in which the entire central mound and plaza complex was created when Mounds E and H were built. The use of the whole core continued with the construction and occupation of the summits of both Mounds A and D before the site was abandoned.

My chronology, based on a reanalysis of radiocarbon dates and ceramic seriation, agrees with other accounts that identify Mound C as the first mound built. It differs by placing the next major construction event in the southern half of the central core and encompassing only the South Plaza. The second major event involves an expansion into the North Plaza, with the construction at Mound E and the use of the Mound D summit. After that, a subsequent contraction back to the southern half of the central core was followed by eventual site abandonment.

Based on the analysis of regional patterns, my research suggests the pattern of site use of possibly driven by fluctuations in settlement size and the long-term cycle of aggregation followed by dispersion. The forces behind the initial drive to aggregate might be traced to Cemochechobee, which undoubtedly began the cycle first. Singer-Moye's growth continued as it contended with Rood's Landing, in many ways the mirror of Singer-Moye.

In the next section, I return to the overarching research questions that guided me during my work at Singer-Moye and answer them using the data discussed in the current and preceding chapters.

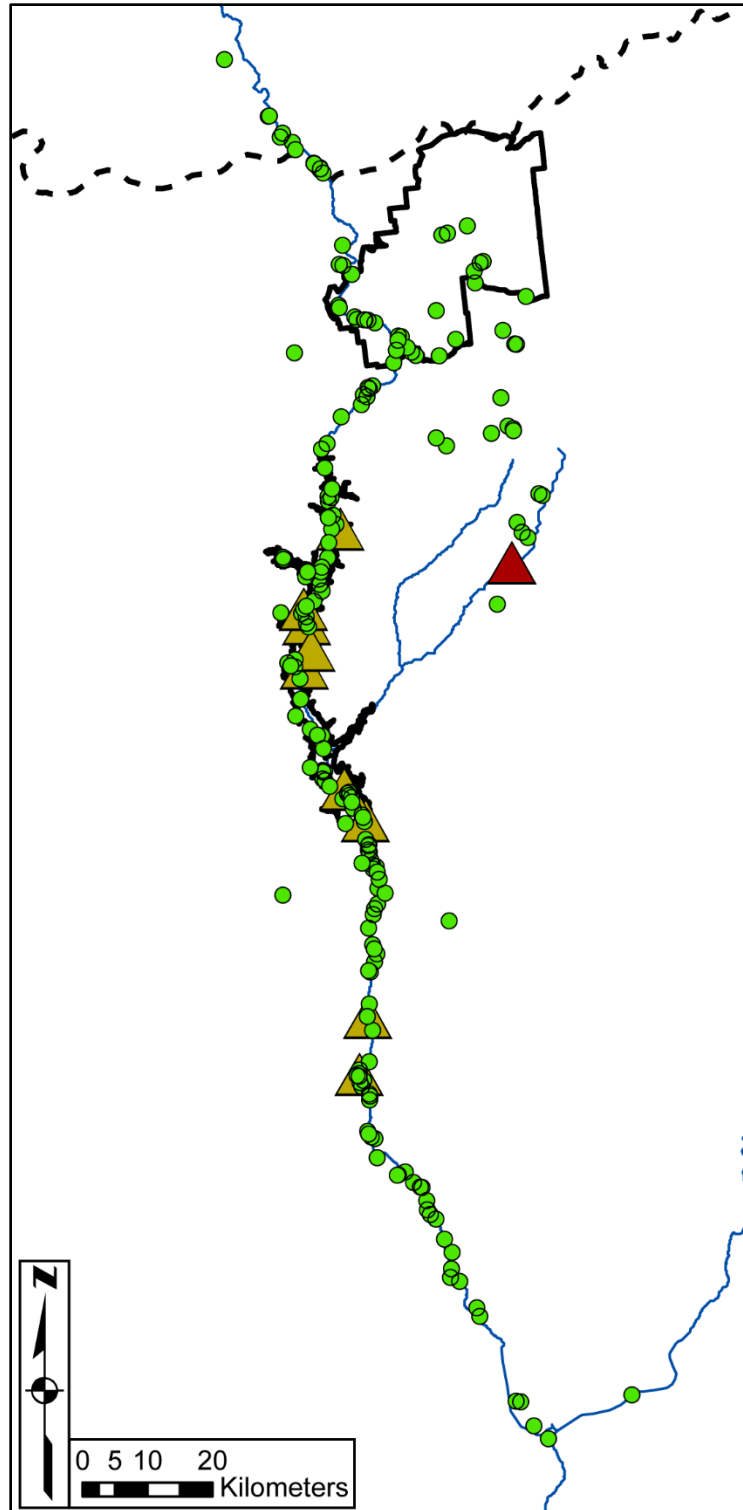


Figure 7.1. Site locations in the lower Chattahoochee River valley discussed in text

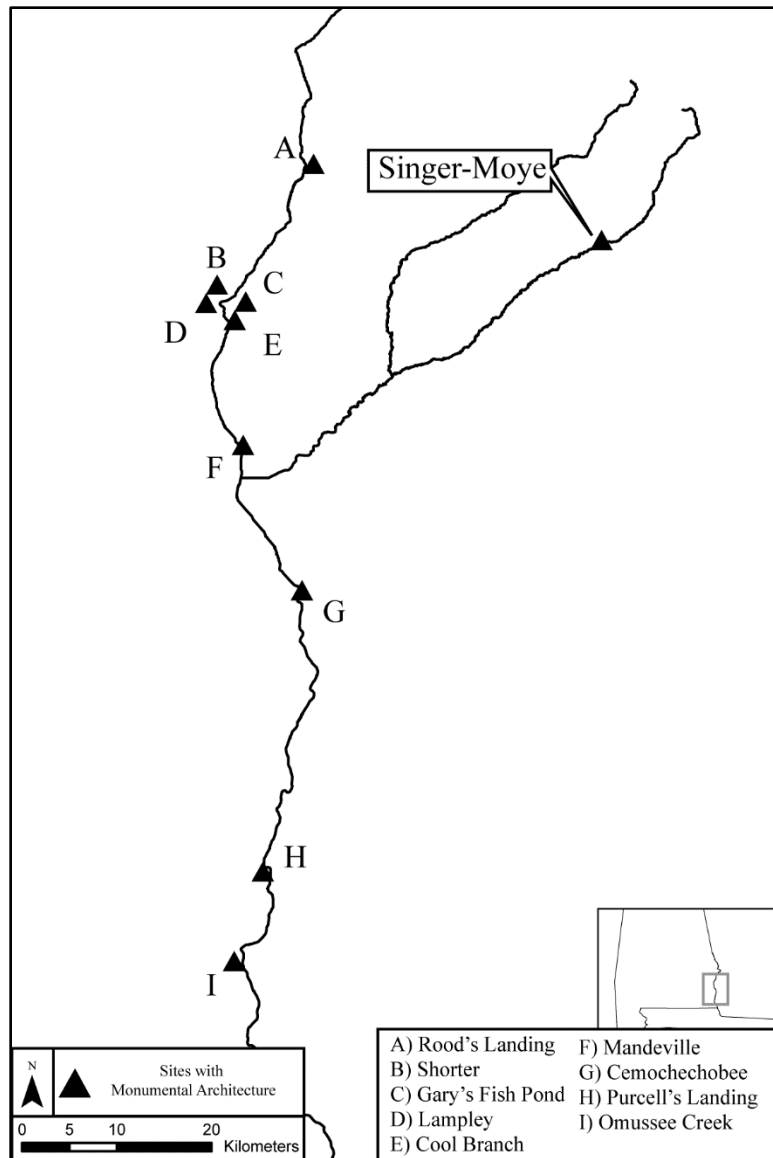


Figure 7.2. Locations of comparative sites discussed in text.

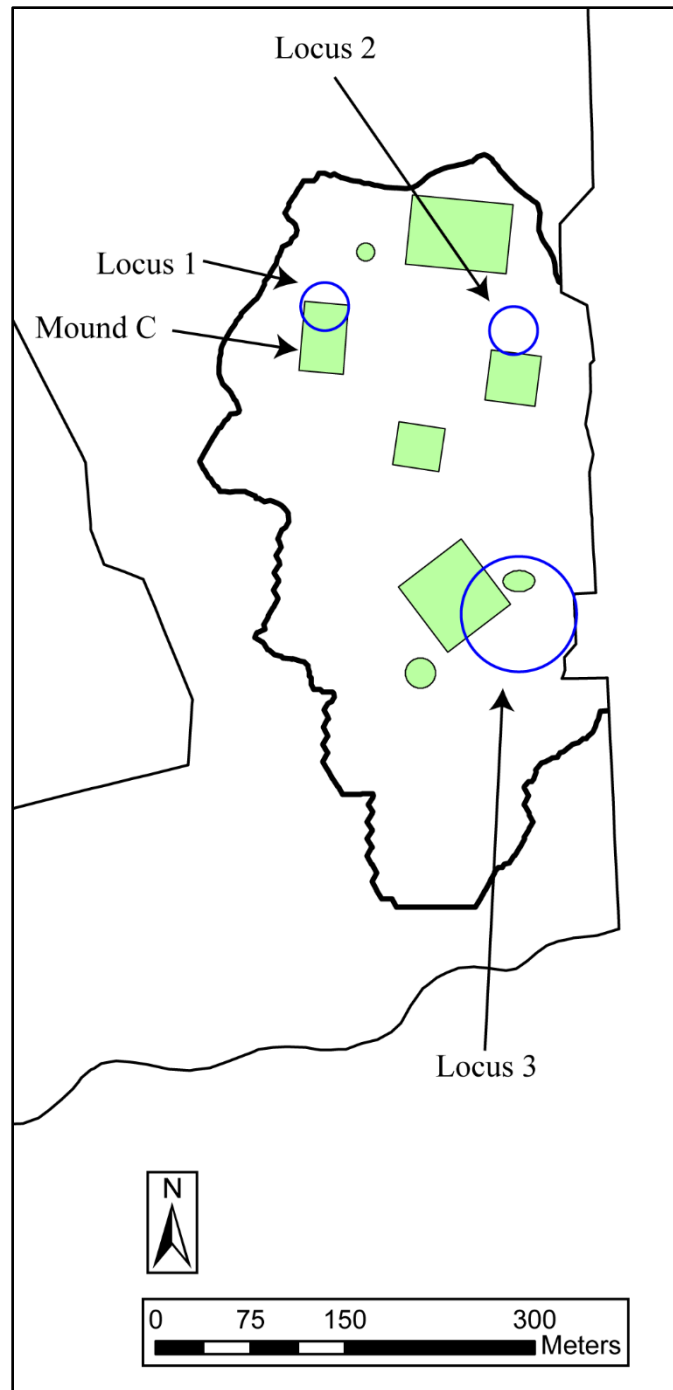


Figure 7.3. Singer-Moye settlement ca. AD 1100-1300

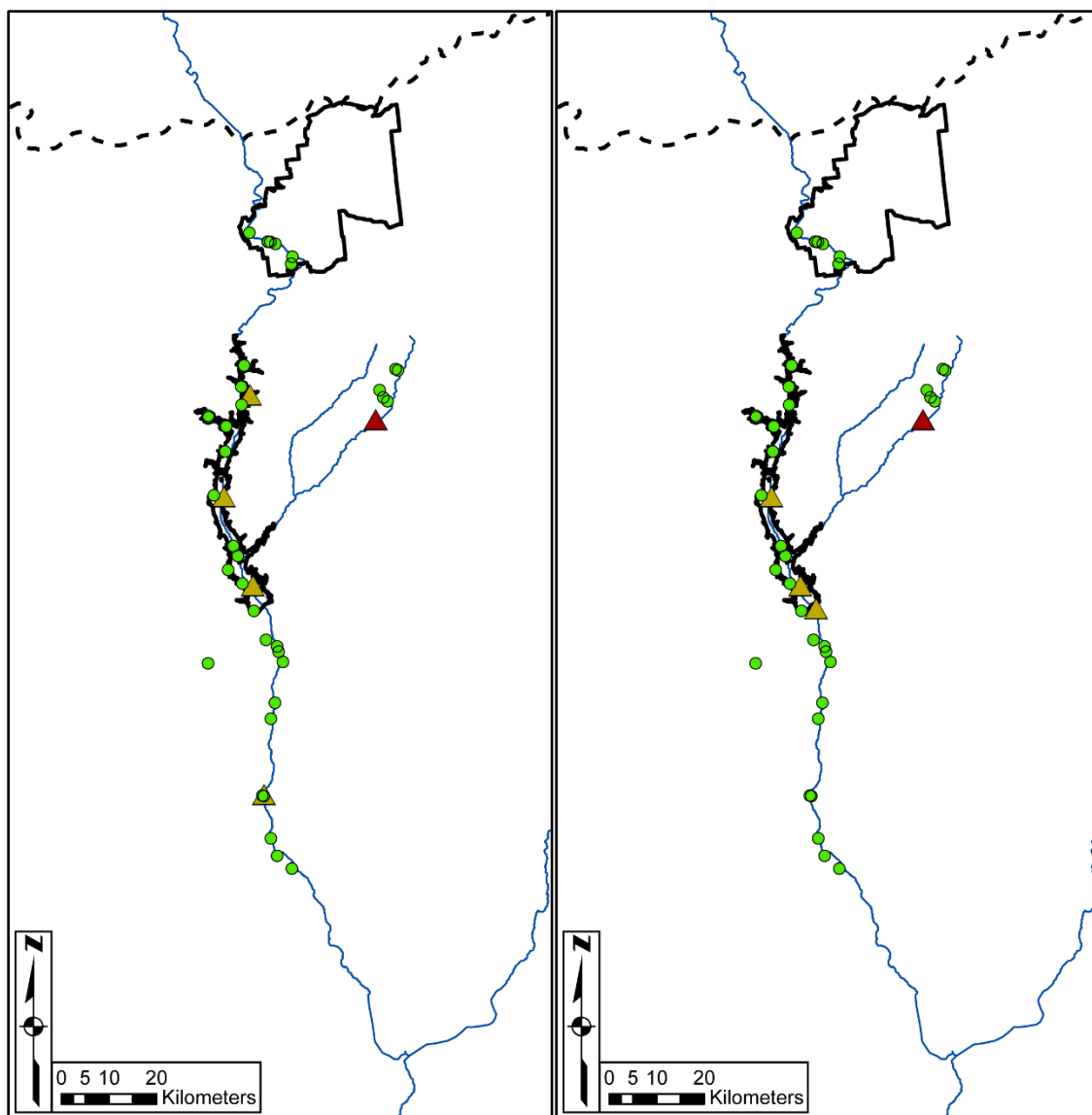


Figure 7.4. Regional settlement pattern ca. AD 1100-1200 (l) and ca. AD 1200-1300 (r)

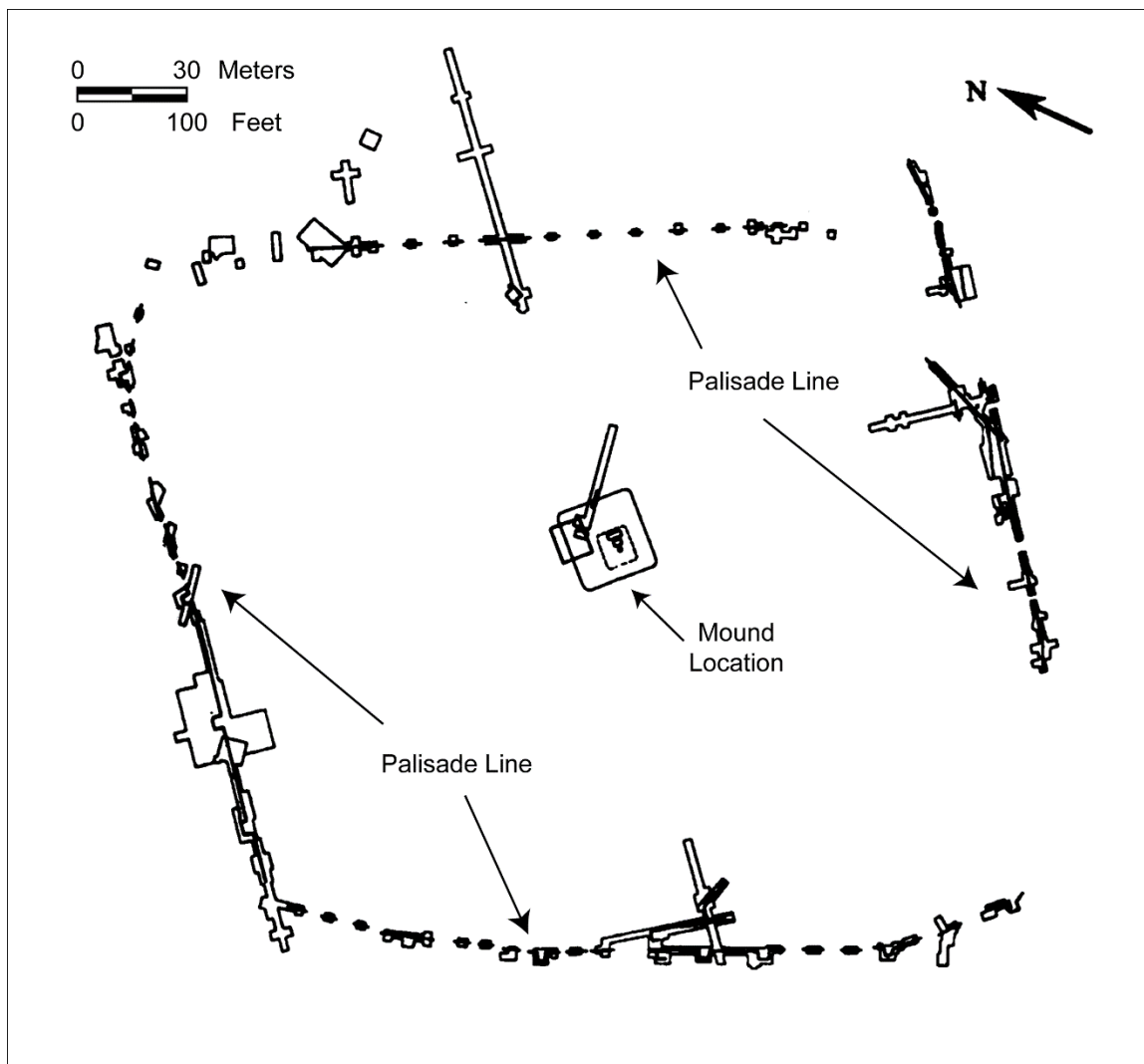


Figure 7.5. Cool Branch site plan (adapted from Blitz and Lorenz 2006: Figure 3.15)

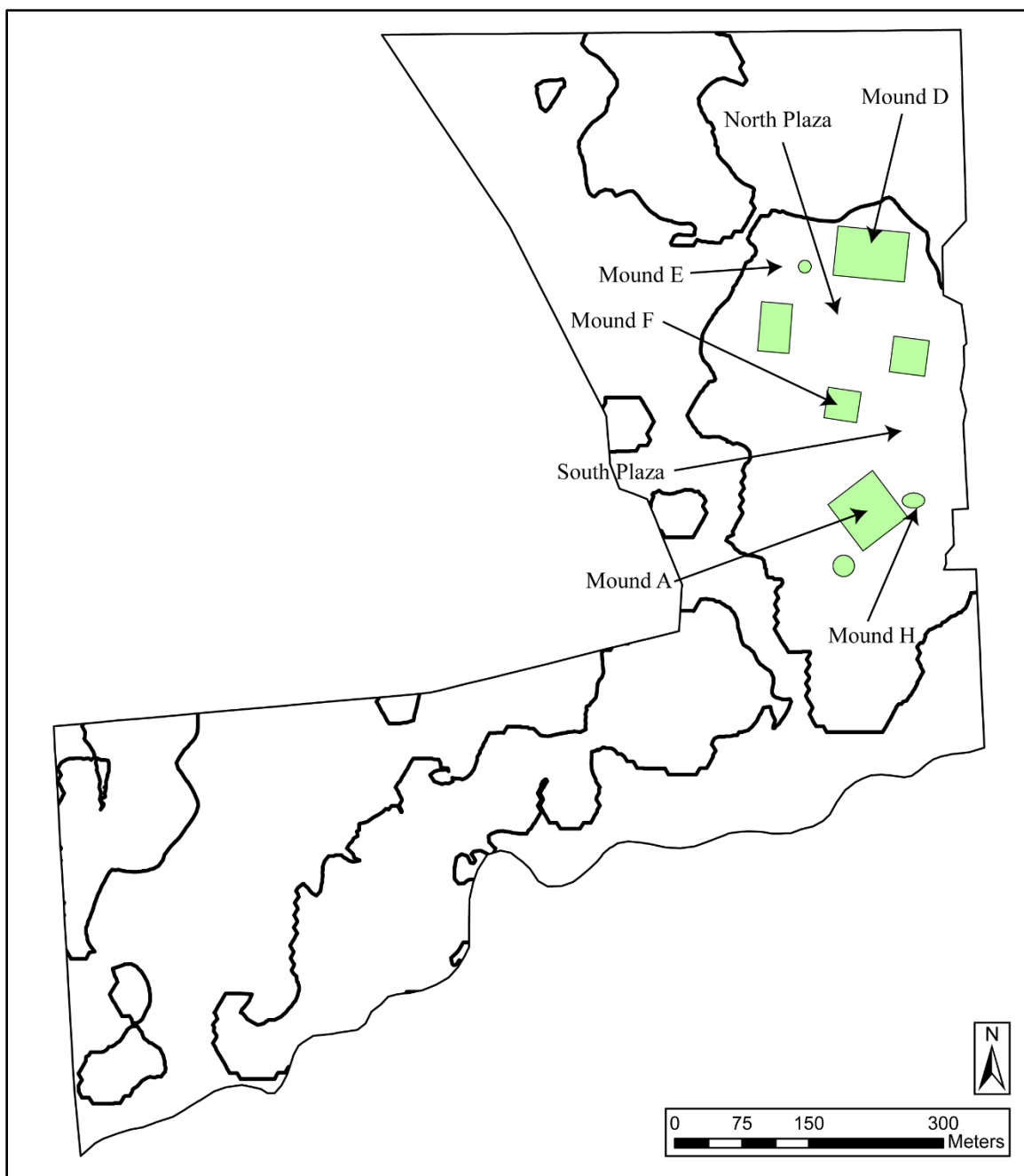


Figure 7.6. Singer-Moye settlement plan, ca. AD 1300-1400

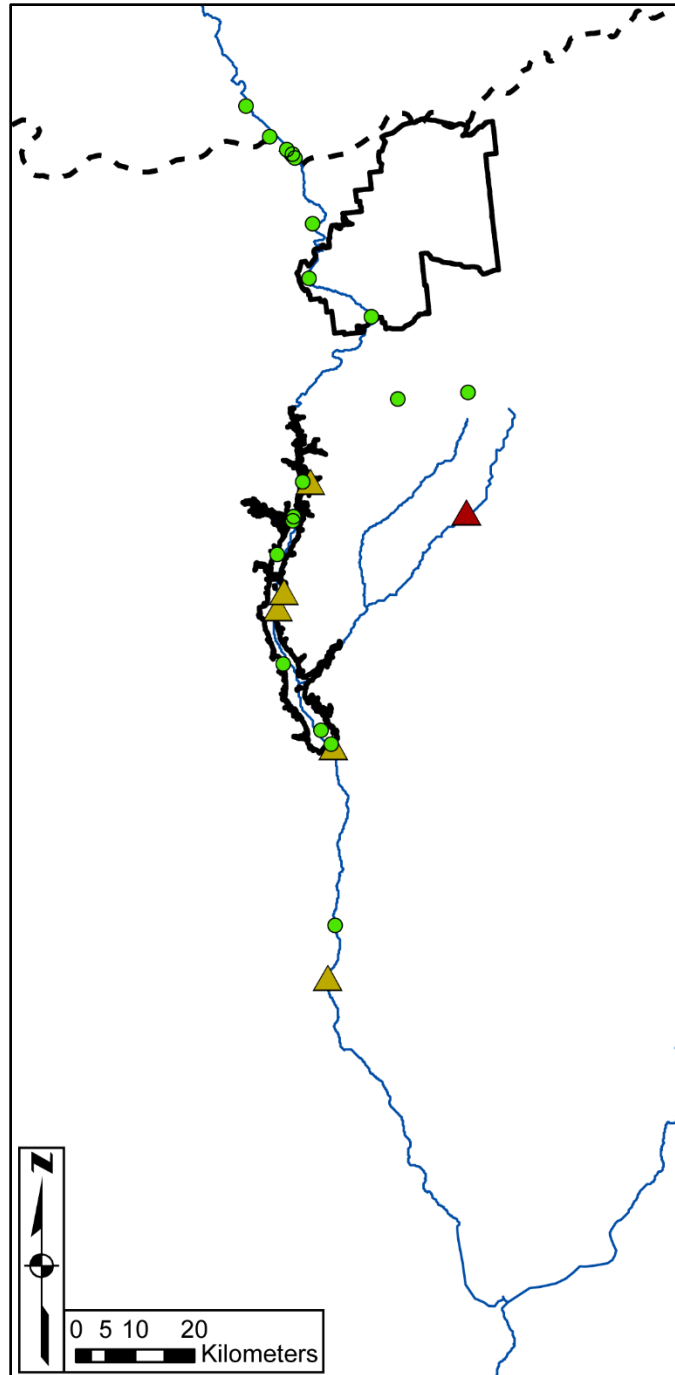


Figure 7.7. Regional settlement pattern ca. AD 1300-1400



Figure 7.8. The central site cores of Singer-Moye (l) and Rood's Landing (r)

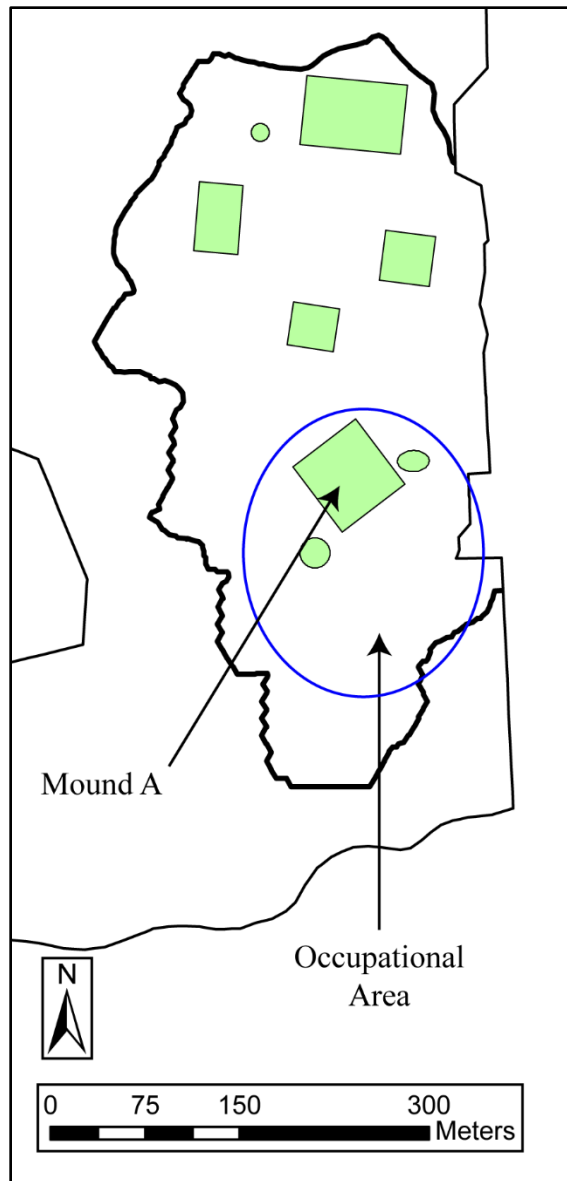


Figure 7.9 Singer-Moye settlement footprint ca. AD 1400-1500

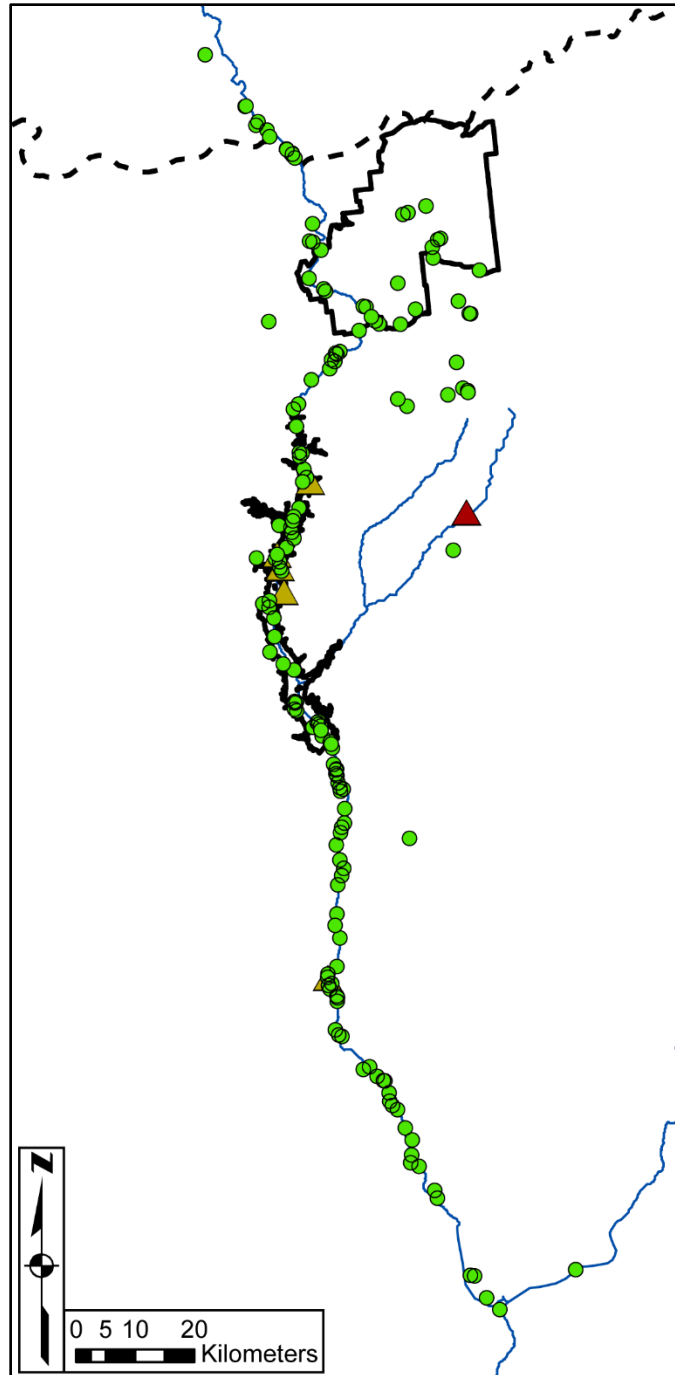


Figure 7.10. Regional settlement pattern ca AD 1400-1500

Table 7.1. Summary Information about Sites, Associated Monumental Architecture Construction, and Culture-Historical Typology in the LCRV.

Component	Singer-Moye Time Frame	Number of Sites	Known Mound Construction Location	Associated Culture-History Taxa
1	N/A	144	Abercrombie; Kyle	Averett; Wakulla-Weeden Island
2	I/II	38	Cemochechobee; Cool Branch; Purcell's Landing; Rood's Landing (?); Singer-Moye	Cat Cave; Rood-Single Component
3	III	19	Gary's Fish Pond; Rood's Landing; Singer-Moye	Rood Associated with: Bull Creek; Etowah; Fort Walton; Lamar
4	IV	142	Gary's Fish Pond(?); Lampley; Omussee Creek; Rood's Landing; Shorter; Singer-Moye	Bull Creek; Fort Walton; Lamar

Table 7.2. Summary Information about Mound Centers Discussed in Text.

Site Name	State Site #	Associated Sites	Mounds (n=)	Site Size (ha)	Site Chronology	Village Dates	Mound Dates ^a	References
Rood's Landing	9SW1	None recorded	8	6 (mound and plaza complex); 60+ greater village area	Assumed to be only late Precontact	1100-1600	1100-1200; 1300-1400; 1550-1600	Caldwell 1955; Knight and Mistovich 1984
Singer-Moye	9SW2	None recorded	8	6 (mound and plaza complex); 29.2+ greater village area	Assumed to be only late Precontact	1100-1500	1100-1200; 1300-1450	Blitz and Lorenz 2006
Cemochechobee	9CY62	9CY44, 9CY45, 9CY46, 9CY50	3	0.243 (mound complex); ~20 (Huscher 1959) or 61 (greater village area, Schnell et al. 1981)	Assumed to be only late Precontact	900-1400	1200-1300	Huscher 1959; Schnell et al. 1981
Shorter	1BR15	1BR35; 1BR37	1	4.7 (mound and village); ~23 (associated village)	Middle Woodland Mound Reoccupied	1-300; 350-750; 750-1200; 1450+	1450-1550	Blitz and Lorenz 2006; DeJarnette 1975; Huscher 1959
Lampley	1BR14	1BR61	1	1.3 (mound and village); ~5.3 (associated village)	Assumed to be only late Precontact	1450-1550	1450-1550	Blitz and Lorenz 2006; DeJarnette 1975; Huscher 1959

Table 7.2. Summary Information about Mound Centers Discussed in Text.

Site Name	State Site #	Associated Sites	Mounds (n=)	Site Size (ha)	Site Chronology	Village Dates	Mound Dates ^a	References
Gary's Fish Pond	9QU1	9QU3 (Not included)	1	~8 (mound and village)	Assumed to be only late Precontact	1100-1450	1400-1450	Blitz and Lorenz 2006; GASF n.d.; Huscher 1959
Cool Branch	9QU5	9QU20	1	4.85 (palisaded village area); ~9(mound and village); 18 (associated village)	Multicomponent	1-500; 1100-1300	1100-1200	Blitz and Lorenz 2006; GASF n.d.; Huscher 1959
Mandeville	9CY1	9CY2	1	16.2 (Mound and village); ~27 (associated village)	Middle Woodland Mound Reoccupied; associated village occupied from Archaic to historic	350-750; 1100-1400	1100-1200	Blitz and Lorenz 2006; GASF n.d.; Huscher 1959; Keller et al. 1962
Omussee Creek	1HO1/3/27/101	HO2/HO3	1	8.9 (Mound and village); 18.6 (associated village)	Multicomponent	750-1200; 1300-1550	1300-1550	ASSF n.d.; Blitz and Lorenz 2006; Neuman 1961
Purcell's Landing	1HE3	None recorded	1	64	Multicomponent village	?	1100-1200	ASSF n.d.; Blitz and Lorenz 2006; Neuman 1959

^aBlitz and Lorenz 2006

Table 7.3. Summary of Diagnostic Ceramic Attributes from other Mound Centers in the LCRV

Site	Context	Shell Tempered		Sand/Crit Tempered		Total		Zone Punctuation		Stamped (All Varieties)		Appliques (All Varieties)		Pinched Rims		Nodes		Interior Incised		Ext. Inc		Arcades		Total	Time Frame
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
9QU5 - Cool Branch ^d	pre mound feature 47	587	48.7	619	51.3	1206		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	5.4	35	94.6	37	I
	burial pit	1924	67.1	943	32.9	2867		4	3.7	1	0.9	0	0.0	0	0.0	0	0.0	5	4.6	2	1.9	96	88.9	108	I-III
	mound																								
non-mound contexts -	palisade	261	14.1	1592	85.9	1853		55	48.2	0	0.0	0	0.0	0	0.0	0	0.0	3	2.6	0	0.0	56	49.1	114	III
9CY62 - Cemochechobee ^b	pre mound A	121	14.9	690	85.1	811		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	12	10.5	41	36.0	61	53.5	114	II
	mound AI	N/R	N/R	N/R	N/R	N/R		N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		II(?)
	mound AII	23	14.9	208	90.0	231		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	34	81.0	8	19.0	42	II
	mound AIII	3	5.4	53	94.6	56		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	2	25.0	6	75.0	8	II-III
	pre mound B	630	6.2	9471	93.8	10101		8	1.4	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	53	9.6	242	43.8	249	45.1	552	III
	mound BI	31	2.1	1461	97.9	1492		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	12	8.5	92	65.2	37	26.2	141	II-III
	mound BII	28	2.7	1020	97.3	1048		2	5.3	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	2	5.3	0	0.0	34	89.5	38	III
	mound BIII	N/R	N/R	N/R	N/R	N/R		N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		III(?)
	mound BIV	4	1.1	370	98.9	374		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	0	0.0	2	100.0	2	III
	mound BV	16	6.0	250	94.0	266		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	1	50.0	1	50.0	2	III
	mound BVI	53	8.0	606	92.0	659		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	2	7.7	15	57.7	9	34.6	26	III
	mound AIV	N/R	N/R	N/R	N/R	N/R		N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		III(?)
	mound AV	70	20.8	267	79.2	337		9	15.3	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	34	57.6	16	27.1	59	III
	mound BVII	16	6.0	250	94.0	266		0	0.0	0	0.0	N/R	N/R	N/R	N/R	N/R	N/R	0	0.0	5	100.0	0	0.0	5	III
	mound BVIII	N/R	N/R	N/R	N/R	N/R		N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		III(?)

Table 7.3. Summary of Diagnostic Ceramic Attributes from other Mound Centers in the LCRV

Site	Context	Shell Tempered		Sand/Crit Tempered		Total		Zone Punctuation		Stamped (All Varieties)		Appliques (All Varieties)		Pinched Rims		Nodes		Interior Incised		Ext. Inc		Arcades		Total	Time Frame
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
9QU1 - Gary's Fish Pond ^a	mound BIX/X	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		III(?)
	pre mound surface	171	15.2	953	84.8			2	3.1	0	0.0	4	6.2	0	0.0	4	6.2	3	4.6	6	9.2	46	70.8	65	III
	pre mound midden	48	3.4	1369	96.6			17	16.7	9	8.8	12	11.8	6	5.9	13	12.7	5	4.9	9	8.8	31	30.4	102	III
	mound 1	8	0.2	3949	99.8			51	20.1	10	3.9	74	29.1	20	7.9	30	11.8	29	11.4	13	5.1	27	10.6	254	III-IV
	mound 2	10	0.3	3746	99.7			99	27.3	25	6.9	127	35.1	24	6.6	64	17.7	4	1.1	10	2.8	9	2.5	362	III-IV
	mound 3	14	0.2	5792	99.8			156	26.1	65	10.9	178	29.8	72	12.0	95	15.9	10	1.7	12	2.0	10	1.7	598	III-IV
9SW1 - Rood's Landing ^a	mound A1 - center structure	N/R		N/R				14	23.7	13	22.0	11	18.6	9	15.3	6	10.2	1	1.7	5	8.5	0	0.0	59	IV
	mound A1 - structure 2	N/R		N/R				90	17.2	294	56.1	35	6.7	40	7.6	11	2.1	3	0.6	49	9.4	2	0.4	524	IV
	mound A1 - structure 3	N/R		N/R				17	15.3	61	55.0	8	7.2	14	12.6	3	2.7	1	0.9	6	5.4	1	0.9	111	IV
	mound A2	4	3.9	98	96.1	102		0	0.0	1	25.0	0	0.0	0	0.0	1	25.0	1	25.0	0	0.0	1	25.0	4	III-IV
	mound B1	18	4.1	424	95.9	442		8	20.5	11	28.2	5	12.8	4	10.3	3	7.7	0	0.0	7	17.9	1	2.6	39	III
	mound B2	2	1.4	141	98.6	143		4	16.0	1	4.0	7	28.0	2	8.0	3	12.0	1	4.0	6	24.0	1	4.0	25	III
	midden beneath mound D	40	63.5	23	36.5	63		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0	3	I
	mound E	0	0.0	78	100.0	78		0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2	IV
9SW1 - Rood's Landing ^a	mound F	5	5.2	91	94.8	96		0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	III
	mound G	0	0.0	35	100.0	35		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	1	IV
	mound H	5	2.9	165	97.1	170		2	20.0	0	0.0	2	20.0	2	20.0	1	10.0	1	10.0	1	10.0	1	10.0	10	III

Table 7.3. Summary of Diagnostic Ceramic Attributes from other Mound Centers in the LCRV

Site	Context	Shell Tempered		Sand/Critl Tempered		Total		Zone Punctuation		Stamped (All Varieties)		Appliques (All Varieties)		Pinched Rims		Nodes		Interior Incised		Ext. Inc		Arcades		Total	Time Frame
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
1BR15 - Shorter ^a	final mound stage	6	1.8	334	98.2	340		36	54.5	14	21.2	8	12.1	3	4.5	0	0.0	0	0.0	5	7.6	0	0.0	66	IV
1BR14 - Lampley ^a		3	0.3	882	99.7	885		26	42.6	13	21.3	9	14.8	6	9.8	0	0.0	0	0.0	7	11.5	0	0.0	61	IV
9CY1 - Mandeville ^a	mound A final stage	451	42.5	609	57.5	1060		3	6.4	0	0.0	0	0.0	0	0.0	0	0.0	3	6.4	0	0.0	41	87.2	47	I-II
1HO1/27/101 - Omussee Creek ^a	pre-mound	104	41.1	149	58.9	253		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	1	50.0	2	I-II (?)
	mound 1	118	29.1	288	70.9	406		5	7.8	0	0.0	6	9.4	0	0.0	6	9.4	11	17.2	15	23.4	21	32.8	64	III
	mound 3	17	2.3	722	97.7	739		88	48.1	2	1.1	15	8.2	39	21.3	26	14.2	4	2.2	6	3.3	3	1.6	183	III
	mound 4	12	1.7	688	98.3	700		60	53.1	1	0.9	6	5.3	30	26.5	7	6.2	3	2.7	6	5.3	0	0.0	113	IV

^aBlitz and Lorenz 2006: Appendix A and Appendix B; ^bSchnell et al. 1981: Table 4.10, 4.12, 4.14, 4.16, 4.18, 4.20

Table 7.4. Radiocarbon Dates and Contexts
(adapted from Blitz and Lorenz 2006: Table 4.1)

Site	Sample Number	Context	RCYear	Uncertainty	Material
QU5 - Cool Branch	Beta-130241	pre mound feature 47 burial pit	850	50	Wood
	SI-261	pre mound feature 47 burial pit	660	280	Wood
	Beta-130242	mound	770	50	Wood
	SI-260	non-mound village context - palisade	1610	140	Wood
9CY62 - Cemochechobee	UGA-1847	pre mound A	400	60	Wood
	UGA-2000	pre mound B	1050	60	Wood
	UGA-2041	pre mound B	970	60	Wood
	UGA-1942	pre mound B	750	60	Wood
	UGA-1946	pre mound B	630	120	Wood
	UGA-1707	mound stage AI	940	60	Wood
	UGA-1995	mound stage AII	960	60	Wood
	UGA-1996	mound stage AIII	1100	60	Wood
	UGA-1939	mound stage BI	790	60	Wood
	UGA-1944	mound stage BII	1000	70	Wood
	UGA-1945	mound stage BIV	900	60	Wood
	UGA-1998	mound stage BIV	960	80	Wood
	UGA-2001	mound stage BIV	870	90	Wood
	UGA-1997	mound stage BIV	1240	95	Wood
	UGA-1941	mound stage BVI	760	60	Wood
	UGA-1849	mound stage BVI	720	70	Wood
	UGA-1848	mound stage BVI	520	60	Wood
	UGA-1948	mound stage BVII	1020	60	Wood
9QU1 - Gary's Fish Pond	Beta-154048	pre mound surface	620	40	Nut
	Beta-154047	mound stage 3	160	40	Corn
	SI-262	pre mound	1240	120	Nut
	SI-263	mound - not differentiated	530	120	Wood
	Beta-2270	mound A1 - Center Structure	690	60	Wood
9SW1 - Rood's Landing	Beta-2271	mound A2	260	70	Plant

Table 7.5. Unmodeled Radiocarbon Dates from Table 6-4
(Shaded Dates Not Included in Modelling)

Contexts	Unmodelled (BC/AD)					
	from	to	%	from	to	%
Cool Branch						
R_Date pre mound feature 47 burial pit	1150	1260	68.2	1040	1270	95.4
R_Date pre mound feature 47 burial pit	1020	1620	68.2	725	...	95.4
R_Date mound	1215	1280	68.2	1160	1300	95.4
R_Date non-mound contexts - palisade	255	595	68.2	85	665	95.4
Cemochechobee						
R_Date pre mound A	1435	1625	68.2	1425	1640	95.4
R_Date pre mound B	895	1030	68.2	775	1155	95.4
R_Date pre mound B	1015	1155	68.2	970	1215	95.4
R_Date pre mound B	1215	1295	68.2	1155	1390	95.4
R_Date pre mound B	1270	1425	68.2	1050	1620	95.4
R_Date mound AI	1030	1155	68.2	995	1220	95.4
R_Date mound AII	1020	1155	68.2	980	1215	95.4
R_Date mound AIII	885	1015	68.2	770	1025	95.4
R_Date mound BI	1185	1280	68.2	1045	1380	95.5
R_Date mound BII	975	1155	68.2	890	1205	95.4
R_Date mound BIV	1040	1205	68.2	1020	1250	95.4
R_Date mound BIV	995	1165	68.2	895	1250	95.4
R_Date mound BIV	1045	1250	68.2	995	1285	95.4
R_Date mound BIV	680	880	68.2	640	990	95.4
R_Date mound BVI	1210	1290	68.2	1055	1390	95.4
R_Date mound BVI	1220	1385	68.2	1165	1400	95.4
R_Date mound BVI	1320	1445	68.2	1295	1470	95.4
R_Date mound BVII	905	1150	68.2	890	1160	95.4
Gary's Fish Pond						
R_Date pre mound surface	1295	1395	68.2	1285	1405	95.4
R_Date mound 3	1665	...	68.2	1660	...	95.4
R_Date pre mound	660	895	68.2	590	1025	95.4
R_Date mound - not differentiated	1285	1470	68.2	1260	1645	95.4
Rood's Landing						
R_Date mound A1 - Center Structure	1260	1390	68.2	1220	1400	95.4
R_Date mound A2	1495	...	68.2	1450	...	95.3

Table 7.6. Calibrated and Modelled Dates for Four Settlements

	Unmodelled (BC/AD)			Modelled (BC/AD)		
	from	to	%	from	to	%
Cool Branch						
pre mound feature 47 burial pit	1040	1270	95.4	1145	1270	95.4
mound	1160	1300	95.4	1180	1295	95.4
Gary's Fish Pond						
pre mound surface	1285	1405	95.4	1285	1405	95.4
mound	1265	1640	95.4	1300	1455	95.4
Rood's Landing						
A2	1450	...	95.3	1310	1440	95.4
mound A1 - Center Structure	1225	1400	95.4	1330	1440	95.4
Cemochechobee						
BI	1045	1380	95.5	1125	1235	95.4
BII	890	1205	95.4	1135	1240	95.4
Phase BIV						
BIVa	1020	1250	95.4	1175	1265	95.4
BIVb	895	1250	95.4	1170	1265	95.4
BIVc	995	1285	95.4	1170	1265	95.4
Phase BVI						
BVIa	1055	1390	95.4	1225	1380	95.4
BVIb	1165	1400	95.4	1225	1385	95.4
BVIc	1295	1470	95.4	1260	1370	95.4

Table 7.7. Site Size Comparison of Mound Centers Discussed in Text

Site Name	State Site #	Site Size (ha)	Possible Site Size Group Category	Number of Mounds	Possible Number of Mounds Site Size Category	Mound Area (ha)	Possible Mound Area Site Size Category	Plaza Area (ha)	Possible Plaza Area Site Size Category
Rood's Landing	9SW1	6 (mound and plaza complex); 60+ greater village area	Large	8	Large	1.17	Medium or Large		
Singer-Moye	9SW2	6 (mound and plaza complex); 31+ greater village area	Probably Large	8	Large	1.43	Large	1.6	Medium
Cemochechobee	9CY62	0.243 (mound complex); ~20 (Huscher 1959) or 46 (greater village area, Schnell et al. 1981)	Medium or Large	3	Small or Medium	0.24	Small		
Shorter	1BR15	4.7 (mound and village); ~23 (associated village)	Small	1	Small	0.33	Small or Medium		
Lampley	1BR14	1.3 (mound and village); ~5.3 (associated village)	Small	1	Small	0.03	Small		

Table 7.7. Site Size Comparison of Mound Centers Discussed in Text

Site Name	State Site #	Site Size (ha)	Possible Site Size Group Category	Number of Mounds	Possible Number of Mounds Site Size Category	Mound Area (ha)	Possible Mound Area Site Size Category	Plaza Area (ha)	Possible Plaza Area Site Size Category
Gary's Fish Pond	9QU1	~8 (mound and village)	Slightly Larger than Small	1	Small	0.07	Small		
Cool Branch	9QU5	4.85 (palisaded village area); ~9 (mound and village); 18 (associated village)	Small	1	Small	0.03	Small		
Mandeville	9CY1	16.2 (Mound and village); ~27 (associated village)	Between Small and Medium	1	Small	0.1	Small		
Omusee Creek	1HO1/3/27/101	8.9 (Mound and village); 18.6 (associated village)	Small	1	Small	0.14	Small		
Purcell's Landing	1HE3	64	Unknown	1	Small				

VIII. THE ROLE OF LARGE SETTLEMENTS

In the prior chapters, I presented the data showing that Singer-Moye was an important center in the lower Chattahoochee River valley during the late Precontact period (AD 1100-1500). It was originally settled around AD 1150 by a small number of people who moved there from an unknown location. By AD 1300, the first formal monumental structure had been constructed, though the total settlement probably remained small. During the 1300s, a demographic surge occurred, coupled with ambitious building projects for both public plaza space and connected mounds. The public center expanded at least once during this time, as evidenced by a second plaza and surrounding monumental architecture. Singer-Moye was occupied until sometime during the 1500s, when it was ultimately abandoned.

Here, I summarize the main conclusions drawn in the previous chapters about what the settlement at Singer-Moye looked like during its occupational history. I outline the processes I have identified for why Singer-Moye became a big settlement, and I speak to the role that Singer-Moye played in the region. Then, I discuss the need to systemically survey large settlements.

The History of Singer-Moye

I began by discussing the environmental, temporal, cultural, and historical context of the site (Chapter 2). Singer-Moye was settled primarily between ca AD 1150-1500. Its inhabitants were part of a larger social and cultural group that inhabited the lower

Chattahoochee River valley. This group exhibited practices including varied sedentary settlement sizes, an increased reliance on agriculture for subsistence practices, monumental construction, partitioning of public and private space, distinct ceramic manufacturing and decorative techniques, and participating in macroregional networks.

Despite the fact that Singer-Moye is located in an atypical location for a settlement of its size, at some distance from a large river, the environment was well-suited for supporting a sedentary population because it was located at an ecotone. People used a wide range of local resources: lithics for tools, shell for subsistence and ceramics manufacturing, animals for food and hides, clay for pottery and house construction and maintenance, and plants for food, fuel, and building construction. The inhabitants of Singer-Moye grew at least two domesticated crops, as maize (*Zea Mays*) and beans (*Phaseolus spp.*) were recovered from contexts dating to the early AD 1300s.

I revised the Singer-Moye chronology (Chapter 3) through a new analysis of diagnostic ceramics from three non-mound contexts. I employed an attribute analysis to identify ceramic modes that changed through time. I found ten modes with temporal significance. These modes divided the local chronology into four distinct time frames, with the further preliminary subdivision of two of these frames. In general, ceramic diversity increases through time until Time Frame IV, the point where several long-standing ceramic traditions disappear from the archaeological record.

Based on my revised ceramic chronology, I ordered the ceramic assemblages derived from several of the mounds, structures, and other contexts into a chronological order using correlates between the modes in my sequence and those published elsewhere.

For the most part, my findings did not drastically reorder the accepted occupational sequence of any particular location but did refine when they were in use.

Several radiocarbon dates were accessible from previous excavations, and in some cases, new dates were acquired from these contexts. Three of the four Time Frames contexts had radiocarbon dates, and a radiocarbon sample consistent with Time Frame II was also used. I created a model in Oxcal, placing the respective dates for each context in a contiguous sequence based on their Time Frame assignation.

Modeling contexts from Time Frames indicates that Singer-Moye may have been occupied for as few as 230 years, or for as long as 540 years. The Time Frame I context dates to between ca. AD 1170-1250; the Time Frame II context dates to between ca. AD 1210-1270; the Time Frame III(a) contexts date to between ca. AD 1270-1380; the Time Frame III(b) contexts date to between ca. AD 1280-1390; and the Time Frame IV(b) context dates to between ca. AD 1450-1460, though this final context is possibly in error and dates to a later time span. The only obvious period of abandonment, if one exists, would be between Time Frame III and IV.

Chapter 4 detailed the results of my systematic shovel test survey over a 61-ha contiguous area connected to the central mound-and-plaza complex. One of the biggest outcomes of the survey was the discovery that the site limits extend beyond the core area, covering almost 30 ha as of 2013. This makes Singer-Moye one of the larger systematically surveyed prehistoric sites in the United States. The overall settlement dated to between ca. AD 1100-1500, notwithstanding a small Late Archaic component.

I identified five areas of occupation based on the distribution and density of artifacts from my shovel test survey. The central site core was the most heavily occupied

and consisted of a heterogeneous landscape consistent with residential, plaza, and monumental areas. Other locations with artifacts were likely residential neighborhoods. Though slightly more than half of the surveyed area did not have any artifacts, it may have been used for other purposes such as agriculture.

Each area with diagnostic artifacts was evaluated using the chronology I outlined in Chapter 3. The initial settlement at Singer-Moye, during Time Frame I, was small. Conclusive evidence came from certain locations in the central site core, but the settlement measured less than 6 ha. The palimpsest of long-term occupation, coupled with the nature of shovel test survey data, made it difficult to identify clearly any locations associated with Time Frame II, so I suspect that it did not exceed the size of Time Frame I. In contrast, every area contained diagnostic ceramics associated with Time Frame III, marking an eight-fold expansion in settlement size, to 29.2 ha. Time Frame IV marks a significant decrease in settlement, probably only totally a few hectares at most, and is only definitive around the southern part of the central site core near Mound A.

In Chapter 5, I discussed the monumental built environment at Singer-Moye, concentrating on the eight mounds anchoring the central site core and their potential functions. In Chapter 6, I also discussed the identification and creation of two plazas, measuring approximately 1.6 ha. Seven of the eight mounds fronted the plazas, and the eighth is located adjacent to the central mound-and-plaza complex, to the south.

I proposed a construction sequence for the mounds and plazas by using radiocarbon dates and ceramics. Although the first known major building episode involved the erection of Mound C, the major reconfiguration of the settlement occurred with the construction of the large plazas. The South Plaza was constructed first and

consisted of major infilling of the natural topography to level off the surface. Mound A, F, H, and possibly B were built to face the South Plaza. The North Plaza was then constructed north of Mound F. Mound B, D, E, and F front the North Plaza. Mound C was not added to when the North Plaza was constructed. Mound C is set far enough back so that it is not obvious if the plaza initially extended to its flank but was subsequently repurposed as a residential area. Finally, buildings were constructed on the terminal stage of Mound A just prior to site abandonment.

All five flat-topped mounds were constructed to elevate the summit activities above the original ground surface, but the use of each varied. Mound A and F had multiple summit structures. Mound C appears devoid of features penetrating the mound, indicating that the summit was used as an open platform, not as the foundation for a superstructure rising above the summit surface. The Mound D summit contained a long linear series of fire pits across the long axis, facing the adjacent plaza. Mound B is likely a platform mound as well, but its summit has yet to be tested. When the mounds were not in use, the inhabitants left them in place as markers instead of converting those areas to some other, unknown purpose.

Three of the mounds were dome-shaped. Mounds E and H were built to cover the remains of large structures placed on the ground surface. The mounds were formed by heaping dirt over the footprint of the structure after each had been disassembled and was no longer in use. Mound G is the only mound unconnected to either plaza. Unfortunately, nothing more is known about Mound G other than its location and size.

Chapter 7 explored the historical sequence of the Singer-Moye community and connected it to larger regional trends, including a comparison of other similar sites to the

settlement size expectations outlined in Chapter 1. Singer-Moye began as a small settlement during the middle part of the 1100s. I assume that several household groups travelled to the area from places unknown, probably from the Chattahoochee River area. They settled on an upland terrace near Pataula Creek on land that had only seen ephemeral occupation over the past several thousand years. The settlement does not seem to have grown during the 1100s and 1200s. The only major modification to the built environment was the construction of a large flat-topped mound (Mound C).

The founding of Singer-Moye, ca. AD 1100-1200 coincided with the initial settlement of numerous other locations in the valley. By AD 1300, at least 44 other sites had been occupied over this two hundred-year time, mostly along the Chattahoochee River. A few early locations contained exterior palisades, but defensive fortifications seem to have fallen out of favor. Between four and six other sites had some evidence for monumental architecture in the form of mound construction over the two-hundred year time period. Only a single site, Cemochechobee, was the centerpiece of population aggregation. The Cemochechobee village footprint exceeded all prior settlements in size and was centered around three mounds before it was abandoned ca. AD 1300.

During the 1300s, Singer-Moye grew from a small hamlet to a large village through repeated population aggregation events. New residential areas, large public spaces, and monumental constructions were added. Major construction projects included the public space of the South Plaza and surrounding mounds. At least one major expansion of the central mound-and-plaza complex occurred with the construction of the North Plaza as well as the surrounding monuments. The final configuration of the

settlement made it one of the largest and most complex in both the lower Chattahoochee River valley, and in the southeastern United States.

During the 1300s, regional populations aggregated at two similarly sized towns in the central portion of the valley, Singer-Moye and Rood's Landing. Both towns exceeded 29 ha and had similarly sized and configured plaza-and-mound centers. The configurations were different from Cemochechobee in the degree of monumental architecture and the setting aside of public space. The fact that Rood's Landing and Singer-Moye share many similarities in settlement plan may indicate that peer-polity interaction was driving the aggregation and construction. The number of sites dating to this time period in the region decreased to 19 known locations, also signaling that the aggregations occurred from existing groups in the region, not from an intrusive population.

After AD 1400, the Singer-Moye settlement constricted to a shadow of its former self. Local populations dispersed, abandoning upland plateaus adjacent to the site core. Only the southern area of the site core near Mound A was occupied, perhaps by a small caretaker population. During this period, it may have transitioned from a thriving settlement to a vacant monument, visited by people in the region but no longer a locus of interaction. By ca. AD 1500, Singer-Moye was abandoned completely.

Between ca. AD 1400-1500, Singer-Moye and Rood's Landing were no longer the large, thriving towns that they had been in the previous century. Populations dispersed across the landscape, based on the increase of sites and the small settlement at Singer-Moye. No large settlements similar in size to Singer-Moye or Rood's Landing at their greatest extent existed in the prehistoric LCRV after AD 1450. Regional groups

stayed dispersed until after the arrival of the Europeans, when local groups and recent migrants from other regional areas reorganized into the Creek Confederacy.

The Historical Trajectory of Large Settlements

I wanted to return to the original question that encapsulated my interest in Singer-Moye and other large settlements. Are large archaeological sites merely small sites writ large, or are there aspects, other than size alone, that occur regularly when sites are large but are rare when they are small?

It is indisputable that most settlements remained small, that is, they never surpassed, at most, a few ha in size and a few hundred people. A summary of my findings from compiled settlement data in Chapter 1 (Table 1.1) indicated that slightly more than 60 percent of the sites in my sample were less than 10 ha in size. Another 16 percent measured between 16 and 24.3 ha, and 19 percent were between 42 and 75 ha. Only three percent were between 129.5 and 163 ha, and Cahokia was a singular example at 800 ha. Based on these divisions, the other quantified measurements of monument count, monument size, and plaza size also showed that they were discrete or only slightly overlapping when compared at a population level, and that the increase in settlement size was mirrored by increases in other attributes. They were not normative categories, however, and discrepancies outside of expected values are worth exploring.

Not all settlements conform to one size category and Singer-Moye is a good example of that. It was small during the AD 1100s and 1200s in the sense that it likely never exceeded specific population thresholds, it did not exceed 6 ha, and likely only a single mound was constructed during that time period. During the 1300s, its size did set it apart from other contemporaneous sites in the region when it became either a large

autonomous village or regional polity. This regional settlement pattern, a small number of large settlements surrounded by constellations of smaller ones, is well-established in many parts of the southeastern United States (Cobb and Butler 2016; Holley 1999; Payne 1994).

Settlements that are larger than the small size category do exist as far back as the Archaic period at places like Watson Brake (Saunders et al. 2005) and Poverty Point (Kidder et al. 2008). They increase in frequency during Hopewell times as central points and regional expressions of social and ritual activities (e.g., Carr and Case 2005; Pluckhahn 2003). During the latter part of the first millennium, they became regionally differentiated in function (Rees 2012) before becoming widespread during the late Precontact period when they served as focal points for sedentary populations in numerous local and regional contexts (Anderson and Sassman 2012).

Large settlements can serve multiple roles at the local and regional scale, though only settlement-specific histories can reconstruct those roles through time and to what extent they may have been multiscalar. These places were an important aspect of larger ritual, social, economic, and political networks. They were central hubs in the region, existed as persistent places on the landscape, and provided opportunities not only for locals but also people from the greater region and beyond.

Singer-Moye did play a significant role as a hub of supra-local ritual and community events. Singer-Moye was one of only a few places in the LCRV that had the infrastructure constructed allowing for the concentration of large populations at monuments built for communal or ritual activities. Large plazas, in addition to being used for local community events, were also designed to host activities meant to reach

sizeable audiences drawn from the greater region (e.g. Davis 2015). These activities were intermittent, based on spectacle, and were meant to direct the attention of a visiting audience originating from surrounding hamlets, villages, and other mound centers towards people of political or religious import who were orchestrating an event that contributed to the regional integration of a population, an event that could not have occurred at places with smaller public spaces (Cobb and Butler 2016).

Large settlements and polities are not inherently stable, and the propensity for instability has been noted in Neolithic, Chalcolithic, and Bronze Age Europe as well as the late Precontact North America (Anderson 1994; Griffin 2011). The decline of all communities or polities regardless of size and complexity should best be seen as the end of one cycle and the beginning of another (Chase-Dunn et al. 2007). Although the emphasis has been on political cycling, other cycles involving the centralization and dispersal of populations and ritual places played an important role.

Large settlements do not seem to last long in the Southeastern United States, at least during the late Precontact period. Singer-Moye encompassed over 20 ha of space for no more than 100 years. Other large settlements also appear to have a life cycle of no more than 100 years at a time. However, small settlements have a wider span of occupation. Some were occupied for only a brief time, others for hundreds of years. Most large settlements went through some variation of a small-large-small size. Very few seem to have come into existence as fully formed large settlements.

The Need for Systematic Survey

Based on my survey results, the settlement at Singer-Moye most closely fits Webb and Frankel's (2004) *Gradual exponential growth and/or decline* site size and population model, though I would qualify it by stating that what Singer-Moye experienced was, at times, sudden growth and decline. Singer-Moye matches the model because it expanded from its original footprint, probably several times, until it reached a maximal size. There may have been a period of fluctuation or gradual decrease in total occupied area before an abrupt decrease in size prior to abandonment. The community or communities at Singer-Moye had to contend with the stresses and benefits that occur from changes in population size. The challenges of keeping communities together through various population shifts is reflected in the construction of both the monumental and public architecture. Both served to mitigate scalar stresses and amplify positive social interactions. The settlement growth and decline pattern identified at Singer-Moye is not the only pattern I expect to see when other locations are eventually tested.

Unfortunately, large sites with extensive subsurface archaeological records in the forested southeastern United States are not often tested systematically, leading to what is referred to as the boundary issue. The site/settlement/component/landscape boundaries are not clearly defined or are unknown. At best, limited sampling occurs in search of specific contexts such as individual households or to explore monumental architecture. Those data are important for some site interpretations but missing are data connecting the individual and settlement level scales. The timing of the ebb and flow of large sites is as important as the small community, the individual household, and the ritual structure.

While I did employ shallow geophysical survey techniques to characterize the plazas and some mound summits, Singer-Moye is a prime example of an environment where those techniques cannot be used across the whole site. With the exception of the plaza space, the rest is covered by successional growth ranging in age from one to over 50 years. The absence of a well-manicured landscape makes it impossible to effectively conduct shallow geophysical survey on parcels larger than a single grid, and that can happen only after it is cleared by hand.

A shovel test survey is the only reliable method for identifying settlement boundaries in less than perfect conditions. Much like what Webb and Frankel (2004: 134-135) found at the Cypriot settlement of Marki, the surface debris at Singer-Moye bore little to no direct relationship to sub-surface architecture or remains because of the ongoing processes of pedogenesis in woodland environments. The multiple chronological components would have remained obfuscated if only surface deposits had been used. In many cases, intact early components are buried underneath 0.5 to 1.5 m of anthropogenic deposits. Material culture remains from these deposits would be represented only minimally in plow zone deposits due to the shallow plowing depth used when the area was cultivated, rendering boundary identification impossible.

There needs to be a systematic survey conducted at every site. The clear identification of boundaries at the settlement and component level, connected to site-specific chronological information is the best way to understand the historical trajectory of settlements, both small and large. These investigations are meant to identify intra-settlement variation in the use of space (e.g. Hill 1970), delineate occupational histories (e.g. Blanton 1978), and provide comparative blueprints of contemporaneous

communities in a particular region as well as patterns involving cross-cultural diversity (e.g. Arnauld et al. 2012).

Human Agency and Practice at the Community Level in Regional Settlement Patterns

Based on the currently available information from Singer-Moye, I can address how each of the site size determinants as outlined by Duffy (2015) relate to the creation and maintenance of large settlements. The determinant that I can reject involves *seasonal occupation* by mobile groups coming together as a microband, based on my findings in Chapters 2 and 4. Singer-Moye was occupied by sedentary populations who lived there year-round. Some individuals and groups may have travelled there to stay for short periods of time before going elsewhere but the evidence does not support the idea that Singer-Moye existed only as a seasonal hub.

Duffy's (2015) related processes of *long-term aggregation and dispersal* as well as *fission through growth* do match the available evidence for demographic centralization, as discussed in Chapters 3, 4, and 7. The evidence comes from the centuries-long occupation at Singer-Moye, the unevenness in occupational span of most other regional sites, and the variable depth of deposits when comparing the central site core to areas further afield. Either whole communities or portions of formerly co-residential groups relocated while either abandoning locations elsewhere in the LCRV or leaving behind former co-residential groups. The rapidity by which the settlement expanding during the AD 1300s is directly related to these processes, as opposed to long-term endogamous growth. The subsequent decrease in settlement size in the AD 1400s

corresponded to fissioning at Singer-Moye as groups moved elsewhere in the valley, resulting in an increase in the number of sites across the LCRV.

Three lines of evidence suggest that population aggregation at Singer-Moye was not driven by *warfare*: the lack of skeletal signs of violence in the regional sample, the lack of defensive architecture at Singer-Moye, and the probable regular interactions between Singer-Moye and Rood's Landing when both were at their height of settlement. The best evidence for conflict, the skeletal record, is a non-existent dataset because we have not encountered any *in situ* burials and have no understanding of local mortuary practices. In the region, only two skeletal populations with a large sample size exist from contemporaneous sites. The first population was excavated at Cemochechobee and dates to just prior to the large settlement expansion at Singer-Moye. Of the 36 burials recovered from Cemochechobee, none of them had pathologies consistent with warfare (Schnell et al. 1981: 256-262). The second population, from the Bull Creek site near Columbus, dates to either the large expansion at Singer-Moye or soon after the Singer-Moye settlement shrunk near AD 1500. At Bull Creek, 50 skeletons were examined and none were reported to have conflict-related skeletal pathologies (Ledbetter 1996: 202-204).

Two additional threads of evidence indicate that warfare was not a primary driving force for aggregation, based on data from Chapters 6 and 7. First, defensive architecture such as palisades and ditches are non-existent in the region except during the initial occupation in the AD 1100s. There are a series of internal partitions at Singer-Moye but they were built to demarcate interior space, not as a defense around the settlement (Kilgore et al. 2015; Luthman et al. 2016). The only other site to rival Singer-

Moye in size, Rood's Landing, does have a series of ditches which may have circumscribed the settlement at some point, but the ditches have not been dated and the village components extend beyond the ditches. Second, both Rood's Landing and Singer-Moye are in the central part of the LCRV roughly 30 km from each other as the crow flies. It is difficult to reconcile the fact that Singer-Moye and Rood's Landing were major loci of demographic centralization at the same time but do not contain recognizable defensive elements if intra-regional warfare was the reason that aggregation occurred at both.

The extant botanical and faunal record for Singer-Moye does indicate that they incorporated a broad range of resources collected through hunting, gathering, fishing, and agricultural intensification, but I cannot determine if *differences in catchment resource productivity* existed between settlements using the available data, based on evidence presented in Chapters 2 and 7. The regular division of the landscape by several zero-order streams meant that abundant sources of water were available and that more land suitable for agriculture was available than if they only had Pataula Creek as their only source. The variety of resources used at Singer-Moye, coupled with scale of the settlement, is strong evidence that catchment productivity was not a limiting factor in this particular case, despite arguments made elsewhere that upland sites are limited by resource availability. Because it was located on the edge of a cultural frontier (Brannan and Birch 2017), environmental circumscription of any kind was probably not a factor. Overall, I suspect that the LCRV was a place with an abundant resource surplus, and that people living here were not having to contend with many of the social and cultural issues that arise from environments with scarce resources. One major benefit that the inhabitants of Singer-

Moye enjoyed was 360-degree access to surrounding resources, unlike people living in settlements near the Chattahoochee River who only had similar easy access to resources on their side of the river. Though they had broader floodplains for agricultural purposes, their broader catchment area was environmentally circumscribed by the natural barrier of the river.

Singer-Moye almost certainly served as a *place for specialized functions or activities*, as demonstrated in Chapters 5 and 6. The mountain of evidence all points to the fact that there were a multiplicity of activities and practices associated with the public spaces and monumental architecture at Singer-Moye. Both mounds and plazas were constructed and were important parts of the architectural grammar used by people in the late Precontact period (Stout and Lewis 1998; Pauketat 2007).

The construction of a plaza signified important changes in the local community as the creation of space for public and ritual space (See Cobb and Butler 2016 for an overview). Smaller settlements, such as Singer-Moye during the AD 1100s and 1200s, probably hosted frequently occurring local community events at small plazas. I have not found a plaza dating to this time yet, but it may have existed in the same place, though not necessarily as large as, as the north plaza. Only during the AD 1300s is there the creation of significant plaza space, a correlated increase in settlement size, and massive changes in the built environment signaling major social and political changes (Beck et al. 2007; e.g. Davis 2014).

Duffy's final determinant, *political centralization*, is problematic when looking at the evidence from Singer-Moye, primarily contained in Chapter 5. There are two schools of thought about the prevalence of political hierarchy in the southeastern United States.

The first one is the “mounds as chiefs” argument (Wesler 2006), in that each mound represents a particular lineage that had more power and authority than other lineages in a co-residential group of people and wielded a portion of it to force people to donate labor to the construction of monuments (e.g. Hally 1993; Lindauer and Blitz 1997; Wesler 2006). Members of this camp use mounds as *prima facie* evidence for political centralization. The second school is that mounds represent a wide range of possible uses and every one does not represent a specific instance of political hierarchy and control (Brown 2006; Knight 2010, O’Brien 2012). Not surprisingly, I fall into the second category.

The data from my research does not lend itself to discussing political centralization and hierarchy at the local level. I cannot rule out the possibility that political centralization and hierarchy existed, but neither can I identify clear examples of political centralization beyond the fact that Singer-Moye became a large settlement and that mounds were constructed there. Prestige-related items are not highly represented in the archaeological record anywhere at Singer-Moye. A singular example of a shell gorget was recovered from one of the structures under a dome-shaped mound (Russell and Gordy 2012). Based on what was reported from the large structure atop Mound A (Blitz and Lorenz 2006: 159), I found similar items in non-mound excavations, including copper, mica sheets, greenstone celt fragments, pottery disks, and smoking pipe fragments. Regionally, Blitz and Lorenz (2006: 116-118) identify a burnished type of beaker-bottle fine ware that they interpret as the materialization of an elite ideology. However, I found similar pottery across the site in non-mound residential contexts, though concentrated in the central site core. If this pottery represented a token exchanged

only between elites at mound centers, then those interactions were occurring at both mounds and non-mound locations.

So, what caused the rapid population aggregation at Singer-Moye, if not by the negative effects of warfare, political coercion, or circumscription? I suggest that people aggregated here because the advantages of social life and material gain far outweighed the costs (Kowalewski 2013: 209). For residents, living together facilitated social and material exchanges that were otherwise too difficult to enact (Kowalewski 2013: 213). They were investing in the community and showed it in part through the large-scale construction of plaza space and monumental architecture. These incredible modifications to the built environment came about through the intentional actions of many people as they contributed collectively to shape their society, even if there were unintended consequences down the line (Kowalewski 2013: 213-214).

Larger numbers of people lead to a larger number of social interactions and population aggregation can have both negative and positive consequences. Negative outcomes include scalar stress, which need to be overcome through societal and behavioral changes, driving organizational complexity for the community. One positive outcome of demographic growth and population aggregation is a phenomenon that Smith (n.d.) calls energized crowding. Energized crowding refers to the social effects of large numbers of social interactions that take place in settlements. Energized crowding drives community formation by facilitating regular social interactions. Energized crowding also brings out substantivist economic benefits, including access to shared and public facilities as well as shared knowledge. The former might include markets, plazas, and ritual spaces available to people who lived at Singer-Moye, but not easily accessible by those living

elsewhere. The later might include the exchange of geographical information about goods and people, incidences of warfare, or ritual and esoteric knowledge, allowing for local inhabitants to make decisions based on information not available to others.

The specific processes enacted at Singer-Moye as it grew from a small village to a large settlement reflect important societal dynamics involving multilineal pathways to organizational complexity (Blanton et al. 1993: 13-23; Blanton et al. 1996; Feinman 1995; 2011). The concept of energized crowding opens the door to considering other mechanisms that might have brought about changes in organization at Singer-Moye, such as horizontally organized sequential hierarchies (Johnson 1982), organizationally malleable heterarchies (Crumley 1995), and cooperation and collective action (Blanton and Fargher 2008; Carballo 2013).

There is a long-standing connection between Singer-Moye and Rood's Landing, one of the other major contemporaneous settlement in the LCRV, that extends beyond the patterns listed above. The comparative changes in size, sociocultural complexity, and duration of use between the two settlements occurred at about the same time, indicative of peer-polity interaction between them (Renfrew and Cherry 1986). Rood's Landing and Singer-Moye may have served as focal points in the landscape when they reached their largest size and, presumably, regional influence during the 1300s. The shared cultural practices among the inhabitants of the region do point to integration above the local level. However, the role of Singer-Moye and Rood's Landing as primary towns of separate chiefdoms or polities have not been established through the demarcation of clearly defined boundaries. Both also experienced a large demographic transition in the 1400s

when local populations moved elsewhere, and neither reached the same size or prominence again.

The peaks and valleys of demographic, ritual, and network centralization coincided in the LCRV, though such cycles may have been synched differently in other regions. When people first settled in the area, they were fairly dispersed across the landscape. Through time, individuals and groups were pulled to specific settlements, possibly due to ritual and public practices occurring there. Various integrative practices involving multiple groups helped to strengthen community bonds. For unknown reasons, demographic centralization weakened, perhaps due to some change in whatever centralizing forces had been in action. In some cases, people continued to live at settlements with mounds and plazas. Many more dispersed across the landscape, both into areas that had been inhabited prior to the peak of demographic centralization as well as into previously uninhabited upland areas, a settlement pattern identified elsewhere during this time (e.g. Kowalewski and Hatch 1991; Meeks and Anderson 2013). Ritual and public architectural also became less centralized, though by no means did groups become isolated from each other, nor was the LCRV isolated from other regions.

I suspect that the cycles mentioned here would have brought about new attempts at demographic, ritual, network, and political centralization built on the foundations fashioned during the AD 1300s, but for their interruption by the arrival of Europeans in the AD 1500s (Ethridge 2009). Even so, the sociocultural underpinnings created at places like Singer-Moye likely contributed to the resilience of native populations in the face of devastating social and cultural upheaval.

Concluding Thoughts and Future Directions

My reconstruction of the settlement history at Singer-Moye has been necessarily broad due to the scale and resolution of data available. Regardless, I am confident that I have captured the essence of the history of this community. I hope that my effort contributes to the continued interest in the archaeology of both Singer-Moye and the lower Chattahoochee River valley. I have endeavored to represent the work and energy expended by everyone who took part in the fieldwork and analysis of Singer-Moye and am grateful for all their contributions.

I would like to think that it will inspire new research at Singer-Moye, and elsewhere, as we attempt to understand more about the groups that we study. The perennial cry for more data is an often-heard refrain at the end of all dissertations, and mine is no different. Specific issues that still need to be resolved at the local level fall into five general realms. Further survey to resolve the boundary issue is critical to clarify both the settlement and component footprint. One important question that still remains is just how big is Singer-Moye? Locating and excavating a sufficient number of houses across the site to identify intra-settlement differences is also necessary and underrepresented in the available data. Were groups relatively egalitarian across the entire site, or are there clear differences in status based on the location, configuration, and contents of houses? A tighter understanding of the building sequence for the various mounds needs to be made. Were they built quickly? Do they represent many small construction episodes, or a few major additions? Were they serve the same function through time, or did summit activities change as new levels were added? A local paleo-environmental reconstruction would also inform us about the human-environment interface. Finally, more radiocarbon

dates from multiple contexts are critical to anchor settlement changes to a tight absolute chronology. In the region, other contemporaneous settlements need to be excavated using modern methods. Finally, more large settlements need to be systematically surveyed to clarify how demographic cycles connect to other cycles of ritual, public, and political life.

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APPENDIX A: EXCAVATION LOCATION INFORMATION

Key to Abbreviations:

T – Transect

STP – Shovel Test Pit

S – Strat

L - Level

D – Depth in cm

Loc - Location

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
646	T10/STP14 S:II D:12-28	3537492	710817.1
649	T10/STP17 S:I D:0-10	3537403	710809.2
647	T11/STP11 S:I D:0-20	3537574.1	710767.4
648	T11/STP14 S:II D:12-25	3537493.5	710777.6
1164	T12/STP31 S:I D:0-40	3536991.7	710827.9
650	T13/STP15 S:II D:10-60	3537466.5	710735.4
1163	T13/STP31 S:I D:0-20	3536989.6	710797.9
1166	T13/STP32 S:I D:0-35	3536959.6	710800.1
1171	T14/STP31 S:I D:0-55	3536987.4	710768
1162	T14/STP32 S:I D:0-20	3536957.5	710770.2
694	T15/STP11 S:V D:57-75	3537565.1	710673.2
693	T15/STP11 S:VI D:75-120	3537565.1	710673.2
695	T15/STP14 S:I D:0-12	3537485.4	710683
1161	T15/STP31 S:I D:0-20	3536985.2	710738.1
1179	T15/STP32 S:I D:0-20	3536955.3	710740.3
1180	T15/STP33 S:I D:0-75	3536925.4	710742.5
1181	T15/STP33 S:II D:25-60	3536925.4	710742.5
1175	T15/STP34 S:I/II D:0-110	3536895.5	710744.6
1176	T15/STP34 S:III D:110+	3536895.5	710744.6
1167	T16/STP31 S:I D:0-35	3536983	710708.2
1165	T16/STP32 S:I D:0-35	3536953.1	710710.4
1178	T16/STP33 S:I D:0-35	3536923.2	710712.5
1177	T16/STP33 S:II D:35+	3536923.2	710712.5
2407	T16/STP34 S:I	3536893.3	710714.7
2402	T16/STP34 S:II	3536893.3	710714.7
1184	T16/STP35 S:I D:0-35	3536863.4	710716.9
1183	T16/STP35 S:II D:35-45	3536863.4	710716.9
1182	T16/STP35 S:III D:45-115	3536863.4	710716.9

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
1172	T17/STP31 S:I D:0-35	3536980.9	710678.3
2405	T17/STP32 S:I	3536950.9	710680.4
1170	T17/STP33 S:I D:0-30	3536921	710682.6
1186	T17/STP34 S:I/II D:0-30	3536891.1	710684.8
1185	T17/STP34 S:III D:30-100	3536891.1	710684.8
1168	T17/STP35 S:I D:0-15	3536861.2	710687
1169	T17/STP35 S:II D:15-55	3536861.2	710687
1174	T18/STP31 S:I D:0-30	3536978.7	710648.3
1173	T18/STP31 S:II D:30-45	3536978.7	710648.3
2401	T18/STP32	3536948.8	710650.5
684	T19/STP10 S:II D:11-28	3537579.7	710549.5
712	T19/STP11 S:II D:5-28	3537551.7	710553.9
711	T19/STP12 S:II D:12-65	3537531.3	710552.6
713	T19/STP14 S:II D:11-31	3537470.2	710559.9
714	T19/STP15 S:II D:24-42	3537435.7	710562.7
715	T19/STP16 S:I D:0-22	3537408.2	710563
870	T19/STP24 S:II D:10-30	3537198.3	710599.2
1094	15M East/15M North of T19/STP24 S:I 0-15	3537214	710613.5
1093	15M North of T19/STP24 S:I 0-30	3537213.3	710598.5
1095	15M North/15M West of T19/STP24 S:I 0-35	3537212.8	710583.4
1098	15M South/15M West of T19/STP24 S:I 0-35	3537182.7	710584.9
1096	15M West of T19/STP24 S:I 0-30	3537197.7	710584.2
1097	15M West of T19/STP24 S:II 30-75	3537197.7	710584.2
1099	15M West of T19/STP25 S:I/II 0-50	3537168	710589.3
872	T19/STP25 S:I D:0-10	3537168.5	710604.4
873	T19/STP26 S:II D:10-20	3537134.8	710607.3
874	T19/STP27 S:II D:10-40	3537103.9	710608.9
876	T19/STP28 General Collection	3537069	710609.4
875	T19/STP28 S:II D:14-80	3537069	710609.4
877	T19/STP29 S:I D:0-20	3537032.8	710610.1
700	T20/STP09 S:I D:0-6	3537602.7	710519.3
701	T20/STP09 S:II D:6-27	3537602.7	710519.3
699	T20/STP10 S:I D:0-3	3537566.5	710527.2
702	T20/STP11 General Collection	3537536.2	710529.2
710	T20/STP14 S:II D:3-58	3537475.4	710534.4
706	T20/STP16 S:III D:41-105	3537428.9	710536
709	T20/STP17 S:II D:12-88	3537406	710535
707	T20/STP26 S:I D:0-15	3537184.5	710550.6
708	T20/STP26 S:II D:15-35	3537184.5	710550.6
809	T20/STP32 S:IV D:30-65	3537030	710585.8

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
816	T20/STP37 S:II D:5-41	3536890.5	710593.2
817	T20/STP37 S:III D:41-90	3536890.5	710593.2
810	T20/STP38 S:III D:75-115	3536860.9	710600.3
718	T21/STP10 S:I D:0-45	3537571.5	710494.1
719	T21/STP11 S:I D:0-30	3537534.6	710500.2
717	T21/STP12 S:I D:0-40	3537509.7	710496.9
716	T21/STP12 S:II D:40-100	3537509.7	710496.9
720	T21/STP13 S:II D:30-90	3537481.6	710505.6
721	T21/STP13 S:III D:90-110	3537481.6	710505.6
722	T21/STP14 S:I D:0-35	3537454.2	710507.5
725	T21/STP14 S:II D:25-75	3537454.2	710507.5
724	T21/STP15 S:I D:0-35	3537425.5	710511.9
723	T21/STP16 S:II/III D:70-80	3537399.2	710510.8
820	T21/STP31 S:I D:0-20	3536960.8	710557.5
818	T21/STP32 S:I D:0-20	3536932.3	710559.7
819	T21/STP32 S:II D:20-35	3536932.3	710559.7
821	T21/STP34 S:I D:0-28	3536884.5	710564.9
878	T21/STP34 S:I D:0-25 Supplemental	3536872.5	710565.7
879	T21/STP34 S:II D:25-68 Supplemental	3536872.5	710565.7
822	T21/STP34 S:II D:28-75	3536884.5	710564.9
880	T21/STP35 S:I D:0-40	3536853.6	710567.6
883	T21/STP35 S:I/II D:0-90 General Collection	3536853.6	710567.6
881	T21/STP35 S:II D:40-90	3536853.6	710567.6
882	T21/STP35 S:III D:90-115	3536853.6	710567.6
703	T22/STP09 S:I D:0-8	3537601.3	710465
704	T22/STP09 S:II D:8-39	3537601.3	710465
690	T22/STP10 S:I D:0-12	3537568.8	710468.9
691	T22/STP10 S:II D:12-45	3537568.8	710468.9
685	T22/STP11 S:II D:13-38	3537540.3	710470.8
686	T22/STP13 S:I D:0-15	3537472.2	710477.9
687	T22/STP13 S:II D:15-110	3537472.2	710477.9
705	T22/STP14 S:II D:15-50	3537440.2	710481.4
688	T22/STP15 S:II D:20-95	3537408.8	710484.9
803	T22/STP27 S:I D:0-123	3537079.3	710504.7
884	T22/STP32 S:I D:0-10	3536935.1	710534.6
885	T22/STP32 S:II D:10-30	3536935.1	710534.6
886	T22/STP32 S:III D:30-110	3536935.1	710534.6
888	T22/STP33 S:I D:0-10	3536905	710531.9
889	T22/STP33 S:II D:10-55	3536905	710531.9
887	T22/STP33 S:III D:55-120	3536905	710531.9
890	T22/STP34 S:I D:0-10	3536879.3	710532.9
891	T22/STP34 S:II D:10-60	3536879.3	710532.9
893	T22/STP35 S:III D:40-80	3536848.7	710535.2

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
697	T23/STP09 S:III D:20-110	3537593.6	710430.1
680	T23/STP10 S:II D:30-40	3537560.7	710435.9
696	T23/STP12 S:II D:10-120	3537514.3	710440.8
682	T23/STP13 S:II D:15-110	3537480.5	710447.1
698	T23/STP14 S:II D:20-127	3537454.4	710455.2
901	T23/STP32 S:I D:0-21	3536933.5	710505.8
902	T23/STP32 S:II D:21-42	3536933.5	710505.8
903	T23/STP32 S:III D:42-137	3536933.5	710505.8
895	T23/STP33 S:I D:0-12	3536899.9	710505.5
896	T23/STP33 S:II D:12-72	3536899.9	710505.5
904	T23/STP34 S:I D:0-3	3536871.2	710508.6
897	T23/STP34 S:II D:3-45	3536871.2	710508.6
905	T23/STP34 S:III D:45-80	3536871.2	710508.6
898	T23/STP35 S:I D:0-15	3536841.5	710509.7
899	T23/STP35 S:II D:15-65	3536841.5	710509.7
900	T23/STP35 S:III D:65-68	3536841.5	710509.7
906	T23/STP36 S:I D:0-7	3536816.3	710514.1
907	T23/STP36 S:II D:7-30	3536816.3	710514.1
908	T23/STP36 S:III D:30-60	3536816.3	710514.1
678	T24/STP12 S:II D:12-42	3537507.4	710414.7
692	T24/STP13 S:I D:0-53	3537483.7	710414.8
679	T24/STP14 S:III D:63-83	3537454.5	710417.2
808	T24/STP25 General Collection	3537173.2	710442.9
805	T24/STP25 S:I D:0-25	3537173.2	710442.9
806	T24/STP25 S:II D:25-50	3537173.2	710442.9
807	T24/STP25 S:III D:50-75	3537173.2	710442.9
909	T24/STP33 S:I D:0-6	3536905.1	710475.9
910	T24/STP34 S:I D:0-15	3536877.5	710483.5
911	T24/STP34 S:II D:15-101	3536877.5	710483.5
912	T24/STP35 S:I D:0-25	3536848.2	710479.7
913	T24/STP35 S:II D:25-110	3536848.2	710479.7
914	T24/STP36 S:II D:5-40	3536822.1	710478.2
915	T24/STP36 S:III D:40-100	3536822.1	710478.2
824	T25/STP09 S:I D:0-8	3537588.9	710381.3
916	T25/STP33 S:I D:0-4	3536902.8	710457.6
917	T25/STP33 S:II D:4-35	3536902.8	710457.6
918	T25/STP34 S:II D:0-11	3536880.7	710457.3
919	T25/STP34 S:II D:11-55	3536880.7	710457.3
920	T25/STP35 S:II D:8-70	3536857.6	710456.1
921	T25/STP36 S:II/III D:8-90	3536831	710460
813	T26/STP10 S:II D:20-100	3537561.6	710351.3
815	T26/STP11 S:II D:10-50	3537531.1	710354.4
812	T26/STP12 S:II D:8-80	3537503.1	710358.4
988	T26/STP33 S:II D:2-56	3536896.5	710437.8
983	T26/STP35 General Collection	3536837.2	710444.3
982	T26/STP35 S:II D:5-61	3536837.2	710444.3

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
804	T27/STP10 S:I D:0-28	3537559.9	710325
964	T27/STP35 S:II D:15-55	3536839	710409.8
969	T28/STP36 S:II/III D:8-60	3536810.3	710387.1
986	T28/STP37 S:I D:0-100	3536781.9	710388.9
987	T28/STP37 S:II D:100-140	3536781.9	710388.9
989	T28/STP38 S:II D:10-80	3536756.3	710385.8
984	T29/STP36 S:II D:3-13	3536807.6	710357.7
985	T29/STP36 S:III D:13-50	3536807.6	710357.7
2089	T30/STP36	3536800.4	710315.9
2077	T30/STP37	3536772.1	710321.1
2083	T30/STP38	3536742.3	710317.8
2086	T30/STP39	3536720.4	710320.8
2084	T31/STP37	3536771.4	710288.8
2092	T31/STP38	3536746.1	710293.8
2085	T31/STP39	3536722.6	710291.1
2080	T32/STP38	3536771.2	710255.6
2090	T32/STP39	3536715.8	710255.4
2082	T32/STP41	3536661.3	710255.7
2078	T32/STP42	3536623.2	710261.1
2079	T33/STP38	3536744.5	710228.4
2091	T33/STP40	3536685.5	710227.1
2075	T33/STP41	3536661.4	710226.1
2076	T33/STP42	3536622	710226.2
2088	T33/STP43	3536595.5	710225
2087	T33/STP44	3536565.3	710236.2
2378	T34/STP34	3536867.2	710199.7
2268	T34/STP40	3536686.6	710201.4
2269	T34/STP41	3536659.2	710197.5
2270	T34/STP42	3536629.1	710202
2271	T34/STP43	3536591.3	710199.6
2272	T34/STP44	3536570.2	710200.2
2279	T35/STP39	3536721	710173.2
2280	T35/STP40	3536692.6	710170.2
2281	T35/STP41	3536663.1	710172.7
2282	T35/STP42	3536622.9	710165.1
2283	T35/STP43	3536593.4	710169.6
2284	T35/STP45	3536544	710167.7
2273	T36/STP41	3536662.8	710134.8
2274	T36/STP42	3536662.8	710134.8
2275	T36/STP43	3536595.6	710137.9
2276	T36/STP44	3536560.6	710135.5
2277	T36/STP45	3536537.1	710143.7
2278	T36/STP46	3536503.7	710141.5
2285	T37/STP41	3536660.5	710112.6
2286	T37/STP42	3536628.6	710111.4
2287	T37/STP43	3536593.2	710106.9

Table A.1. Lot Numbers and Locations of Transects and Shovel Tests

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
2288	T37/STP44	3536593.2	710106.9
2289	T37/STP45	3536537.1	710107.6
2290	T37/STP46	3536500.8	710109.7
2291	T38/STP46	3536512.6	710080.2
2292	T39/STP47	3536478.5	710051
2293	T40/STP46	3536512.6	710016.2
2294	T40/STP47	3536478	710024
2379	T41/STP36	3536806.5	709990.7
2380	T42/STP35	3536832.4	709956.6
2381	T42/STP37	3536778.5	709951.5
2382	T42/STP38	3536748.7	709961.9
2383	T43/STP35	3536836.1	709931
2384	T43/STP36	3536804.9	709932.6
2385	T43/STP37	3536774.2	709932.9
2386	T43/STP38	3536743.9	709932.8
2387	T43/STP39	3536716	709928.3
2388	T43/STP41	3536654.5	709933.6
2389	T43/STP48	3536443.3	709932.9
2390	T44/STP35	3536832.9	709895.6
2391	T44/STP36	3536804.1	709896.4
2392	T44/STP37	3536775.6	709904.9
2393	T44/STP38	3536743.4	709900.2
2394	T44/STP39	3536710.5	709897.5
2395	T44/STP42	3536630.3	709897.7
2396	T44/STP44	3536569.7	709900.2
2397	T44/STP45	3536539.1	709903.5
2398	T44/STP47	3536474.8	709901.3
2400	T45/STP41 D:80	3536658.5	709870
2399	T45/STP43	3536591.2	709865.6
2360	T45/STP48	3536445.4	709867.4
2361	T46/STP36 D:30-40	3536807.7	709840.8
2362	T46/STP37 D:40-50	3536779.7	709842.3
2363	T46/STP39	3536728.4	709837.2
2364	T46/STP40	3536689.7	709844.2
2365	T46/STP41	3536657.8	709842.5
2366	T46/STP42	3536628.8	709846.1
2367	T46/STP43	3536606.2	709839

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
535	N299 E499 S:I D:0-2	3537004.8	710745.3
536	N299 E499 S:II D:2-42	3537004.8	710745.3
537	N299 E499 S:III D:42-72	3537004.8	710745.3
539	N299 E499 S:III D:42-72	3537004.8	710745.3
2051	N318 E485	3537023.4	710729.9
2042	N318 E490	3537023.6	710734.8
2038	N318 E495	3537023.7	710739.8
2041	N318 E500	3537023.8	710745.4
2043	N318.5 E480.5	3537024	710725.5
612	N319 E399 S:I D:0-6	3537022.1	710646
613	N319 E399 S:II D:6-20	3537022.1	710646
614	N319 E399 S:III D:20-43	3537022.1	710646
615	N319 E399 S:V D:57-69	3537022.1	710646
616	N319 E399 S:VI D:69-94	3537022.1	710646
617	N319 E399 S:VII D:94-132	3537022.1	710646
643	N319 E419 S:I D:0-5	3537023	710666
644	N319 E419 S:II D:5-10	3537023	710666
645	N319 E419 S:III D:10-20	3537023	710666
524	N319 E499 S:I D:0-10	3537025.8	710745.3
525	N319 E499 S:II D:10-25	3537025.8	710745.3
526	N319 E499 S:III D:25-49	3537025.8	710745.3
527	N319 E499 S:IV D:49-80	3537025.8	710745.3
520	N319.5 E480.5 S:I D:0-12	3537024.5	710725.5
521	N319.5 E480.5 S:II D:12-28	3537024.5	710725.5
522	N319.5 E480.5 S:III D:28-45	3537024.5	710725.5
1073	N320 E520 S:I D:0-14	3537027	710765.2
1074	N320 E520 S:II D:14-22	3537027	710765.2
1075	N320 E520 S:III D:22-38	3537027	710765.2
1076	N320 E520 S:IV D:38-54	3537027	710765.2
1077	N320 E520 S:V D:54-106	3537027	710765.2
1078	N320 E540 S:I D:0-24	3537027.8	710785.1
2045	N323 E480	3537028.5	710724.8
2040	N323 E485	3537028.6	710729.8
2049	N323 E490	3537029	710734.8
2056	N323 E495	3537028.7	710739.5
2054	N323 E500	3537028.9	710744.9
2044	N328 E480	3537033.1	710724.5
2058	N328 E485	3537033.6	710729.5
2057	N328 E490	3537033.6	710734.4
2055	N328 E495	3537033.8	710739.4
2048	N328 E500	3537033.9	710744.6
2046	N332.5 E480.5	3537036.9	710725.1
2052	N333 E485	3537038.1	710729.3

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
2053	N333 E490	3537038.4	710734.3
2039	N333 E495	3537038.6	710739.2
2050	N333 E500	3537037.9	710743.8
618	N339 E399 S:I D:0-19	3537042.1	710645.1
619	N339 E399 S:II D:19-35	3537042.1	710645.1
620	N339 E399 S:III D:35-55	3537042.1	710645.1
488	N339 E519 S:I D:0-11	3537047	710764.3
489	N339 E519 S:II D:11-34	3537047	710764.3
490	N339 E519 S:III D:34-72	3537047	710764.3
548	N339 E539 General Collection	3537047.8	710784.2
545	N339 E539 S:I D:0-9	3537047.8	710784.2
546	N339 E539 S:II D:9-25	3537047.8	710784.2
547	N339 E539 S:III D:25-42	3537047.8	710784.2
497	N339 E558 General Collection	3537048.6	710804.2
494	N339 E558 S:I D:0-15	3537048.6	710804.2
495	N339 E558 S:II D:15-64	3537048.6	710804.2
496	N339 E558 S:III D:64-68	3537048.6	710804.2
529	N340 E419 S:I D:0-17	3537042.9	710665.1
530	N340 E419 S:II D:17-45	3537042.9	710665.1
531	N340 E419 S:III D:45-75	3537042.9	710665.1
2019	N340 E545	3537047.7	710789.7
2012	N340 E550	3537048	710793.9
2013	N340 E555	3537048.1	710799
2001	N345 E540	3537052.5	710783.9
2010	N345 E545	3537052.5	710788.9
2005	N345 E550	3537052.9	710793.2
2002	N345 E555	3537053.1	710799
2017	N345 E560	3537053.3	710803.7
2006	N350 E540	3537057.5	710783.7
2018	N350 E545	3537057.5	710788.6
2014	N350 E550	3537057.9	710793.6
2003	N350 E555	3537057.9	710798.3
2008	N350 E560	3537058	710803.4
2009	N355 E540	3537062.5	710783.4
2007	N355 E545	3537062.7	710788.2
2004	N355 E550	3537062.8	710793.2
2011	N355 E555	3537063.6	710898.2
2022	N355 E560	3537064.1	710803.3
511	N358 E419 S:I D:0-5	3537062.9	710664.1
512	N358 E419 S:II D:5-25	3537062.9	710664.1
513	N358 E419 S:III D:25-50	3537062.9	710664.1
514	N358 E419 S:IV D:50-90	3537062.9	710664.1
601	N359 E401 S:II D:5-40	3537062.1	710644.2
602	N359 E401 S:III D:40-68	3537062.1	710644.2

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
519	N359 E539 General Collection	3537067.8	710783.3
504	N359 E539 S:I D:0-3	3537067.8	710783.3
505	N359 E539 S:II/III D:3-35	3537067.8	710783.3
506	N359 E539 S:IV D:35-65	3537067.8	710783.3
501	N359 E559 S:I D:0-5	3537068.6	710803.3
502	N359 E559 S:II D:5-30	3537068.6	710803.3
503	N359 E559 S:III D:30-50	3537068.6	710803.3
532	N360 E519 S:I D:0-7	3537066.8	710761.5
533	N360 E519 S:II D:7-30	3537066.8	710761.5
534	N360 E519 S:III D:30-55	3537066.8	710761.5
2015	N360 E545	3537067.6	710788.2
2020	N360 E550	3537067.7	710793.2
2016	N360 E555	3537067.9	710798.2
486	N379 E399 S:I D:0-28	3537082.1	710643.2
487	N379 E399 S:II D:28-41	3537082.1	710643.2
544	N379 E559 General Collection	3537088.6	710802.3
540	N379 E559 S:I D:0-11	3537088.6	710802.3
541	N379 E559 S:II D:11-19	3537088.6	710802.3
542	N379 E559 S:III D:19-29	3537088.6	710802.3
543	N379 E559 S:IV D:29-54	3537088.6	710802.3
492	N379 E579 S:I D:0-16	3537089.4	710822.3
493	N379 E579 S:II D:16-35	3537089.4	710822.3
598	N380 E416 S:II D:2-22	3537082.7	710658.2
599	N380 E416 S:III D:22-47	3537082.7	710658.2
600	N380 E416 S:IV D:47-83	3537082.7	710658.2
1139	N389 E554 S:II D:15-35	3537098.3	710796.9
549	N399 E400 S:I D:0-10	3537101.8	710642.5
550	N399 E400 S:II D:10-24	3537101.8	710642.5
551	N399 E400 S:III D:24-42	3537101.8	710642.5
552	N399 E400 S:IV D:42-57	3537101.8	710642.5
606	N399 E419 General Collection	3537102.7	710662.4
603	N399 E419 S:I D:0-20	3537102.7	710662.4
604	N399 E419 S:II D:20-35	3537102.7	710662.4
605	N399 E419 S:III D:35-55	3537102.7	710662.4
95	N399 E559 S:I D:0-6	3537107	710800.2
99	N399 E559 S:II D:6-25	3537107	710800.2
508	N399 E577 General Collection	3537109.4	710821.4
507	N399 E577 S:II D:10-28	3537109.4	710821.4
515	N401 E439 S:I D:0-15	3537103.5	710681.6
516	N401 E439 S:II D:15-25	3537103.5	710681.6
518	N401 E439 S:II D:15-25	3537103.5	710681.6
517	N401 E439 S:III D:25-35	3537103.5	710681.6

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
1140	N404 E527 S:II D:5-20	3537110.5	710768.9
1141	N407 E555 S:II D:10-20	3537115.2	710796.7
1124	N410 E570 S:I D:0-20	3537118.8	710811.1
499	N418.5 E439 S:II/III D:18-37	3537123.5	710680.8
500	N418.5 E439 S:IV/V D:37-97	3537123.5	710680.8
79	N419 E459 S:I D:0-10	3537124.3	710700.8
83	N419 E459 S:II D:10-70	3537124.3	710700.8
92	N419 E459 S:III D:70-85	3537124.3	710700.8
66	N419 E479 S:I D:0-18	3537124	710720.1
67	N419 E479 S:II D:18-30	3537124	710720.1
73	N419 E479 S:III D:30-68	3537124	710720.1
105	N419 E499 S:II D:5-25	3537124.7	710739.9
94	N419 E519 S:II D:5-18	3537125.5	710759.9
71	N419 E538 S:I D:0-17	3537126.5	710778.6
70	N419 E538 S:II D:17-65	3537126.5	710778.6
69	N419 E538 S:III D:65- 100	3537126.5	710778.6
1123	N420 E570 S:I D:0-25	3537128.7	710810.7
611	N421 E420 General Collection	3537122.6	710661.6
607	N421 E420 S:I D:0-7	3537122.6	710661.6
608	N421 E420 S:II D:7-22	3537122.6	710661.6
609	N421 E420 S:III D:22- 108	3537122.6	710661.6
610	N421 E420 S:IV D:108- 116	3537122.6	710661.6
100	N429 E519 General Collection	3537135.6	710759.4
102	N429 E519 S:II D:17-38	3537135.6	710759.4
1117	N430 E550 S:I D:0-35	3537137.5	710787.6
1122	N430 E570 S:I D:0-20	3537138.6	710810.3
1080	N436 E472 S:I D:0-16	3537140.8	710712.1
1081	N436 E472 S:II D:16-36	3537140.8	710712.1
309	N439 E399 General Collection	3537140.1	710639.9
305	N439 E399 S:I D:0-10	3537140.1	710639.9
306	N439 E399 S:II D:10-30	3537140.1	710639.9
307	N439 E399 S:III D:30-60	3537140.1	710639.9
308	N439 E399 S:IV D:60-85	3537140.1	710639.9
346	N439 E400 S:II D:6-24	3537141.6	7106340.8
397	N439 E400 S:III D:24-64	3537141.6	7106340.8
344	N439 E422 S:II D:3-8	3537142.5	710660.8
345	N439 E422 S:III D:8-57	3537142.5	710660.8
1083	N439 E459 S:II D:13-41	3537144.1	710700
68	N439 E479 S:II D:15-110	3537144	710719

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
89	N439 E499 S:I D:0-6	3537144.6	710738.8
106	N439 E499 S:II D:6-20	3537144.6	710738.8
107	N439 E499 S:III D:20-40	3537144.6	710738.8
90	N439 E519 General Collection	3537145.9	710759
93	N439 E519 S:I D:0-16	3537145.9	710759
104	N439 E519 S:II D:16-66	3537145.9	710759
144	N439 E529 S:I D:0-10	3537233.3	710676.2
96	N439 E539 S:II/III D:25-40	3537146.1	710778.8
76	N439 E559 S:I D:0-16	3537147.1	710798.8
85	N439 E559 S:II D:16-19	3537147.1	710798.8
77	N439 E559 S:III D:16-19	3537147.1	710798.8
1113	N440 E550 S:I D:0-23	3537148.5	710787.6
1121	N440 E570 S:I D:0-20	3537149.7	710811.3
997	N448.5 E509 General Collection	3537154.4	710748.7
995	N448.5 E509 S:II D:5-20	3537154.4	710748.7
996	N448.5 E509 S:III D:20-25	3537154.4	710748.7
1132	N450 E500 S:II D:16-34	3537156.1	710739.5
1116	N450 E560 S:I D:0-18	3537158.2	710799.4
1115	N450 E570 S:I D:0-20	3537158.6	710810.9
1142	N452 E515 S:II D:15-27	3537158.8	710754
317	N458 E420 S:I D:0-13	3537162.4	710659.8
318	N458 E420 S:II D:13-58	3537162.4	710659.8
393	N459 E399 S:I D:0-10	3537161.6	710639.8
394	N459 E399 S:II D:10-25	3537161.6	710639.8
395	N459 E399 S:III D:25-45	3537161.6	710639.8
396	N459 E399 S:IV D:45-95	3537161.6	710639.8
2410	N459 E461	3537164.1	710699.1
65	N459 E479 S:II D:12-40	3537164.1	710718.2
108	N459 E519 S:III D:29-48	3537165.8	710758.1
1086	N459 E532 S:II D:10-85	3537165.2	710773.9
87	N459 E539 S:II D:5-20	3537166.3	710777.6
97	N459 E539 S:III D:20-45	3537166.3	710777.6
78	N459 E539 S:IV D:45-55	3537166.3	710777.6
1114	N460 E570 S:I D:0-20	3537166.9	710811.2
2403	N461 E440 S:TI PLOWZONE	3537163.3	710679.1
2406	N461 E440 S:TII	3537163.3	710679.1
81	N461 E501 S:II D:75-85	3537166.7	710740.1
84	N461 E501 S:III D:85-100	3537166.7	710740.1
86	N461 E501 Surface Find	3537166.7	710740.1
1084	N461 E559 S:II D:10-25	3537169.6	710797.4
1131	N466 E530 S:II D:17-39	3537173.1	710768.4

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
1130	N467 E530 S:II D:15-40	3537173.9	710768.5
1143	N468 E520 S:I D:0-22	3537174.4	710758.3
149	N469 E519 S:II D:10-40	3537176.2	710757.5
1118	N470 E570 S:I D:0-23	3537178.2	710809.9
341	N479 E399 S:I D:0-6	3537181.7	710638.8
342	N479 E399 S:II D:6-19	3537181.7	710638.8
343	N479 E399 S:III D:19-54	3537181.7	710638.8
400	N479 E419 S:I 0-10	3537182.5	710658.8
401	N479 E419 S:II D:10-30	3537182.5	710658.8
402	N479 E419 S:III D:30-40	3537182.5	710658.8
403	N479 E419 S:IV D:40-67	3537182.5	710658.8
2411	N479 E479 S:II	3537185	710718.2
80	N479 E499 S:II D:4-14	3537184.6	710737
72	N479 E509 S:II D:10-28	3537184.9	710747.6
101	N479 E519 S:II D:5-67	3537185.5	710757.1
91	N479 E529 S:I D:0-5	3537185.9	710767
82	N479 E529 S:II D:5-30	3537185.9	710767
103	N479 E539 S:II D:4-32	3537186.4	710777.2
189	N479 E559 S:II D:3-30	3537188.3	710798.4
188	N479 E559 S:III D:30-43	3537188.3	710798.4
221	N479 E579 S:I D:0-15	3537189	710818.4
220	N479 E579 S:II D:15-20	3537189	710818.4
219	N479 E579 S:III D:20-30	3537189	710818.4
1119	N480 E570 S:I D:0-28	3537186.7	710808.6
146	N489 E519 S:II D:4-29	3537195.7	710757
161	N489 E529 S:I D:0-8	3537196.9	710767.4
162	N489 E529 S:II D:8-28	3537196.9	710767.4
1120	N490 E570 S:I D:0-22	3537197.3	710808.4
339	N499 E399 S:I D:0-10	3537201.7	710637.9
340	N499 E399 S:II D:10-30	3537201.7	710637.9
314	N499 E418 S:II D:12-32	3537202.5	710657.9
315	N499 E418 S:III D:32-47	3537202.5	710657.9
316	N499 E418 S:IV D:47-70	3537202.5	710657.9
75	N499 E509 S:II D:10-28	3537204.8	710746.9
74	N499 E509 S:III D:28-32	3537204.8	710746.9
31	N499 E519 S:II D:15-35	3537205.4	710756.4
98	N499 E529 S:I D:0-5	3537205.9	710766.8
88	N499 E529 S:II D:5-15	3537205.9	710766.8
30	N499 E539 S:II D:15-35	3537206.6	710776.4
214	N499 E560 S:II D:5-20	3537208.1	710797.7
215	N499 E560 S:III D:20-35	3537208.1	710797.7
38	N502 E500 S:I D:0-20	3537207.7	710737.3
1125	N505 E570 S:I D:0-20	3537213.9	710805.8
1079	N509 E499 S:II D:23-69 Pushpile	3537215.5	710736.9
1087	N510 E501 S:II D:15-40	3537215.6	710738.9

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
1088	N510 E501 S:III D:40-60	3537215.6	710738.9
337	N518 E399 S:I D:0-14	3537221.7	710636.9
338	N518 E399 S:II D:14-23	3537221.7	710636.9
444	N519 E341 S:I D:0-15	3537219.1	710577.5
445	N519 E341 S:II D:15-32	3537219.1	710577.5
407	N519 E379 S:I D:0-12	3537220.8	710616.9
408	N519 E379 S:II D:12-37	3537220.8	710616.9
409	N519 E379 S:III D:37-52	3537220.8	710616.9
410	N519 E379 S:IV D:52-75	3537220.8	710616.9
313	N519 E419 General Collection	3537222.5	710656.9
310	N519 E419 S:I D:0-14	3537222.5	710656.9
311	N519 E419 S:II/III D:14-49	3537222.5	710656.9
312	N519 E419 S:IV D:49-69	3537222.5	710656.9
34	N519 E499 S:II D:20-55	3537224.4	710735.7
422	N520 E361 S:I D:0-15	3537220	710597
423	N520 E361 S:II D:15-40	3537220	710597
424	N520 E361 S:III D:40-60	3537220	710597
145	N529 E429 S:II D:7-55	3537232.5	710665.8
160	N529 E459 S:II D:8-22	3537232.8	710695.4
152	N529 E499 S:I D:0-12	3537234.9	710735.3
1126	N530 E430 S:I D:0-26	3537233	710666.3
1127	N530 E430 S:II D:26-38	3537233	710666.3
1090	N533 E454 S:I D:0-15	3537236.9	710689.6
1133	N534.5 E423.5 S:I D:0-30	3537237.2	710659.4
415	N539 E379 General Collection	3537240.8	710616
411	N539 E379 S:I D:0-20	3537240.8	710616
412	N539 E379 S:II D:20-40	3537240.8	710616
413	N539 E379 S:III D:40-53	3537240.8	710616
414	N539 E379 S:IV D:53-78	3537240.8	710616
336	N539 E399 General Collection	3537241.6	710636
334	N539 E399 S:II D:13-45	3537241.6	710636
335	N539 E399 S:III D:45-85	3537241.6	710636
32	N539 E419 S:I D:0-20	3537240.9	710655.2
33	N539 E419 S:II D:20-60	3537240.9	710655.2
35	N539 E439 S:I D:0-8	3537242.2	710674.9
36	N539 E439 S:II D:8-45	3537242.2	710674.9
23	N539 E479 S:I D:0-15	3537243.9	710715
39	N539 E499 S:I/II D:0-50	3537244.3	710734.7
40	N539 E499 S:II D:18-50	3537244.3	710734.7
441	N541 E360 S:I D:1-15	3537240	710596
442	N541 E360 S:II D:15-45	3537240	710596
443	N541 E360 S:III D:45-75	3537240	710596

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
217	N542 E578 S:II D:4-10	3537249	710816.1
150	N549 E499 S:I D:0-11	3537253.8	710734.6
151	N549 E499 S:II D:11-25	3537253.8	710734.6
1091	N549.5 E444.5 S:I D:0-15	3537253.1	710680.1
41	N558 E499 S:I D:0-15	3537263.4	710734
42	N558 E499 S:II D:15-35	3537263.4	710734
429	N559 E339 S:II D:10-20	3537259.1	710576
430	N559 E339 S:III D:20-35	3537259.1	710576
333	N559 E399 General Collection	3537261.9	710635.3
330	N559 E399 S:I D:0-14	3537261.9	710635.3
331	N559 E399 S:II D:14-21	3537261.9	710635.3
332	N559 E399 S:III/IV D:21-71	3537261.9	710635.3
203	N559 E419 General Collection	3537261.5	710655.3
197	N559 E420 General Collection	3537262.7	710655.2
200	N559 E420 S:I D:0-20	3537261.5	710655.3
199	N559 E420 S:II D:20-37	3537261.5	710655.3
198	N559 E420 S:III D:37-60	3537261.5	710655.3
37	N559 E439 S:II D:25-35	3537262.3	710674.7
27	N559 E459 S:I D:0-4	3537262.9	710694.2
24	N559 E479 S:II D:10-23	3537263.9	710714.1
204	N559 E559 S:II D:2-20	3537266.6	710793.6
425	N561 E319.5 S:I/II D:0-25	3537258.4	710556
1092	N561 E447 S:I D:0-15	3537265	710682.1
191	N562 E578 S:I D:0-4	3537270.4	710813.3
192	N562 E578 S:II D:4-28	3537270.4	710813.3
193	N562 E578 S:III D:28-39	3537270.4	710813.3
1128	N567 E440 S:I D:0-32	3537270.2	710675
153	N569 E499 S:I D:0-4	3537275.3	710733.2
154	N569 E499 S:II D:4-18	3537275.3	710733.2
1089	N570 E459 S:I D:0-50	3537274.1	710691.8
431	N578 E339 S:II D:15-55	3537279.1	710575.3
218	N578 E559 S:II D:4-20	3537288.1	710794.6
428	N579 E319 General Collection	3537278.4	710555.3
426	N579 E319 S:II/III D:8-50	3537278.4	710555.3
427	N579 E319 S:V D:70-135	3537278.4	710555.3
1002	N579 E409 General Collection	3537281.3	710644.5
998	N579 E409 S:I D:0-28	3537281.3	710644.5
999	N579 E409 S:II D:28-48	3537281.3	710644.5
1000	N579 E409 S:III D:48-70	3537281.3	710644.5

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
1001	N579 E409 S:IV D:70-100	3537281.3	710644.5
211	N579 E419.5 General Collection	3537281.5	710654.2
209	N579 E419.5 S:II/III D:15-45	3537281.5	710654.2
210	N579 E419.5 S:IV/VI D:45-86	3537281.5	710654.2
173	N579 E439 S:II D:13-44	3537282.3	710673.9
190	N579 E449 General Collection	3537282.1	710683.5
148	N579 E449 S:III D:35-45	3537282.1	710683.5
147	N579 E449 S:IV D:45-110	3537282.1	710683.5
28	N579 E459 S:II D:20-20	3537282.6	710693.8
29	N579 E459 S:III D:50-50	3537282.6	710693.8
25	N579 E479 S:II D:13-21	3537283.8	710713.7
180	N579 E499 S:I D:0-8	3537284.4	710733.7
181	N579 E499 S:II D:8-17	3537284.4	710733.7
182	N579 E499 S:III D:17-31	3537284.4	710733.7
155	N579 E509 S:I D:0-10	3537285	710744.2
156	N579 E509 S:II D:10-14	3537285	710744.2
157	N579 E509 S:III D:14-21	3537285	710744.2
194	N579 E519 S:I D:0-4	3537285.7	710753
195	N579 E519 S:II D:4-17	3537285.7	710753
196	N579 E519 S:III D:17-32	3537285.7	710753
216	N579 E539 S:II D:17-17	3537287.3	710774.7
213	N579 E539 S:II/III D:3-17/17-25	3537287.3	710774.7
207	N580 E576 S:II D:2-12	3537288.8	710814.6
1135	N587 E432 S:II D:18-56	3537289.8	710665.7
158	N589 E519 S:II D:8-48	3537295.6	710752.7
159	N589 E519 S:III D:48-70	3537295.6	710752.7
1129	N596 E444 S:I D:0-30	3537299.3	710677.9
1003	N599 E409 S:I D:0-30	3537301.3	710643.9
1004	N599 E409 S:II D:30-110	3537301.3	710643.9
185	N599 E419 S:I D:0-15	3537301.4	710652.6
184	N599 E419 S:II/IV D:15-42	3537301.4	710652.6
183	N599 E419 S:V/VI D:42-68	3537301.4	710652.6
163	N599 E439 S:I D:0-25	3537302.4	710672.7
164	N599 E439 S:II D:25-45	3537302.4	710672.7
174	N599 E459 S:I D:0-15	3537302.9	710693
26	N599 E479 S:II D:10-38	3537304	710712.8
169	N599 E499 S:II D:6-	3537304.5	710733
170	N599 E519 S:I D:0-3	3537305.1	710753.3
171	N599 E519 S:II D:3-15	3537305.1	710753.3

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
172	N599 E519 S:III D:15-35	3537305.1	710753.3
1085	N601 E541 S:I D:0-10	3537307	710773.5
1136	N606 E452 S:II D:17-55	3537309.9	710685.6
1137	N608 E453 S:II D:19-35	3537312.1	710686.4
1138	N611 E479 S:II D:5-20	3537315.5	710712.6
1134	N617 E446 S:II D:35-60	3537320	710678.9
416	N619 E379 S:I D:0-15	3537320.7	710613.9
417	N619 E379 S:II D:15-31	3537320.7	710613.9
418	N619 E379 S:III D:31-62	3537320.7	710613.9
329	N619 E419 General Collection	3537322.5	710653
326	N619 E419 S:I D:0-11	3537322.5	710653
327	N619 E419 S:II/IV D:11-57	3537322.5	710653
328	N619 E419 S:V/VI D:57-133	3537322.5	710653
165	N619 E439 S:II D:12-27	3537322.2	710672.2
175	N619 E459 S:I D:0-15	3537322.7	710692.2
176	N619 E459 S:II D:15-47	3537322.7	710692.2
166	N619 E479 S:II D:5-15	3537323.9	710711.9
167	N619 E499 S:I D:0-10	3537324.1	710732.1
168	N619 E499 S:II D:10-25	3537324.1	710732.1
179	N619 E519 General Collection	3537325.1	710752.5
177	N619 E519 S:I D:0-14	3537325.1	710752.5
178	N619 E519 S:II D:14-36	3537325.1	710752.5
187	N619 E539 S:I D:0-5	3537327.1	710773.1
186	N619 E539 S:II D:7-18	3537327.1	710773.1
206	N619 E559 S:I D:0-7	3537327.9	710793
432	N620 E343 S:II D:20-60	3537319.1	710574
419	N639 E379 S:I D:0-5	3537340.8	710613.4
420	N639 E379 S:II D:5-30	3537340.8	710613.4
433	N639 E399 S:II D:18-134	3537341.3	710629.6
325	N639 E439 S:II D:6-34	3537341.7	710671.1
205	N639 E558	3537347.7	710792.4
201	N658 E540 S:II D:5-16	3537366.9	710771.7
439	N659 E379 S:II D:5-20	3537360.8	710612.9
440	N659 E379 S:III D:20-115	3537360.8	710612.9
437	N659 E399 S:III D:20-60	3537362	710631.6
438	N659 E399 S:IV D:60-125	3537362	710631.6
324	N659 E439 General Collection	3537362.3	710669.5
321	N659 E439 S:II D:10-32	3537362.3	710669.5
322	N659 E439 S:III D:32-60	3537362.3	710669.5

Table A.2. Lot Numbers and Locations of Grid STPs

Lot Number	Location Description	Northing (WGS 1984 UTM Zone 16N)	Easting (WGS 1984 UTM Zone 16N)
323	N659 E439 S:IV D:60-134	3537362.3	710669.5
434	N679 E379 S:II D:21-31	3537380.8	710612.4
435	N679 E379 S:III D:31-52	3537380.8	710612.4
436	N679 E379 S:IV D:52-72	3537380.8	710612.4
348	N679 E419 S:III D:30-60	3537382.8	710650.7
349	N679 E419 S:IV D:60-95	3537382.8	710650.7
347	N679 E439 S:IV D:60-95	3537380.4	710670
208	N679 E549 S:II D:10-87	3537387.3	710780.9
320	N699 E459 S:II D:12-35	3537404.3	710690
319	N699 E479 S:II D:13-43	3537403.9	710707.6
212	N699 E499 S:III D:3-31	3537405.6	710726.6
202	N717 E519 S:II D:7-60	3537423.2	710748.5
421	N719 E419 S:II D:17-70	3537422.8	710649.3
2028	N80 E100 (COUNTRY)	3536913.5	710520.4
2026	N85 E100 (COUNTRY)	3536918.5	710520.2
2021	N85 E85 (COUNTRY)	3536917.9	710505.2
2033	N85 E90 (COUNTRY)	3536918.1	710510.2
2368	N85 E95 (COUNTRY)	3536918.3	710515.2
2037	N85.5 E99.5 (COUNTRY)	3536919	710519.7
2025	N90 E100 (COUNTRY)	3536923.5	710520
2035	N90 E85 (COUNTRY)	3536922.9	710505
2034	N90 E90 (COUNTRY)	3536923.1	710510
2036	N90 E95 (COUNTRY)	3536923.3	710515
2024	N95 E100 (COUNTRY)	3536923.5	710520
2047	N95 E85 (COUNTRY)	3536927.9	710504.8
2027	N95 E90 (COUNTRY)	3536928.1	710509.8
2030	N95 E95 (COUNTRY)	3536928.3	710514.8
2023	N100 E100 (COUNTRY)	3536933.4	710519.6
2029	N100 E85 (COUNTRY)	3536932.9	710504.6
2031	N100 E90 (COUNTRY)	3536933.1	710509.6
2032	N100 E95 (COUNTRY)	3536933.3	710514.6

Table A.3. Lot Numbers for Excavation Units

Lot Number	Unit Number	Identified Strat	Level	Other Notes
2059	4	SI	1	
2060	4	SII	2	
2066	4	SII	3	
2069	4	SII	4	
2073	4	SII	5	
2072	4	SIII	6	
2071	4	SIII	7	
2098	4	SIV	8	
2061	5	SI	1	
2062	5	SII	2	
2063	5	SII	3	
2068	5	SII	4	
2064	5	SIII	5	
2067	5	SIII	6	
2106	5	SIII	7	
2074	5	SIII	8	
2070	5	SIII	9	
2094	5	SIII	10	
2093	5	SIII	11	
2105	5	SIV	12	
2204	5	SIV	13	
2104	5	SV	14	
2110	5	SIV	15	Loc D
2207	5	SIV	15	Loc D
2208	5	SIV	15	Loc P
2209	5	SIV	15	Loc B
2210	5	SIV	15	Loc A
2206	5	SV	16	
2096	5			General Collection
2211	5			Wall Scraping
2112	6	SI	1	
2116	6	SII	2	
2101	6	SII	3	
2099	6	SII	4	
2107	6	SII	5	
2109	6	SIII	6	
2111	6	SIII	7	
2108	6	SII/III	8	
2114	6	SIII	9	
2171	6	SIII	10	
2168	6			Profile Cleaning

APPENDIX B: ARTIFACT TABLES

Table B.1. Lithics from Transect/STP Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
646	Flake:Not-Utilized	CPC	1	1.6	Heat Treated
649	Flake:Not-Utilized	CPC	1	4.3	
650	Flake:Not-Utilized	CPC	1	2.5	Heat Treated
680	Flake:Not-Utilized	CPC	1	0.9	Heat Treated
696	Flake:Not-Utilized	CPC	4	1	
706	Flake:Not-Utilized	CPC	1	2.5	
715	Flake:Not-Utilized	Flint River Chert	1	1	
719	Flake:Not-Utilized	CPC	1	0.8	
720	Flake:Not-Utilized	CPC	1	1.4	
723	Flake:Not-Utilized	CPC	1	0.1	
725	Flake:Not-Utilized	Flint River Chert	1	0.3	
803	Flake:Not-Utilized	CPC	2	1.4	Heat Treated
805	Flake:Not-Utilized	CPC	1	0.1	Heat Treated
805	Flake:Not-Utilized	Flint River Chert	1	1.8	
810	Flake:Not-Utilized	CPC	1	0.4	
813	Core	CPC	1	52.5	
815	Flake:Not-Utilized	CPC	1	0.4	
816	Flake:Not-Utilized	Flint River Chert	1	1.1	
816	Flake:Not-Utilized	CPC	1	0.2	
870	Flake:Not-Utilized	CPC	1	0.3	
870	Flake:Not-Utilized	UID Metavolcanic	1	23.3	
876	Flake:Not-Utilized	CPC	1	0.3	
879	Flake:Not-Utilized	CPC	6	1.8	Heat Treated
880	Biface:Not-Hafted	CPC	1	2.8	Fragment
880	Flake:Not-Utilized	CPC	1	0.1	Heat Treated
881	Flake:Not-Utilized	CPC	4	3.4	Heat Treated
882	Flake:Not-Utilized	CPC	4	1.9	
883	Flake:Not-Utilized	CPC	5	4.1	Heat Treated
884	Flake:Not-Utilized	CPC	1	0.5	
886	Flake:Not-Utilized	CPC	3	2.9	
887	Flake:Not-Utilized	CPC	2	1.3	Heat Treated
890	Flake:Not-Utilized	CPC	1	0.2	
890	Flake:Not-Utilized	Quartz	1	0.2	
891	Flake:Not-Utilized	CPC	3	3.5	
893	Flake:Not-Utilized	CPC	2	11.8	
896	Flake:Not-Utilized	CPC	3	2.7	
897	Flake:Not-Utilized	CPC	10	6.6	Heat Treated
897	Flake:Not-Utilized	Chalcedony	1	0.3	
899	Flake:Not-Utilized	CPC	1	0.1	

Table B.1. Lithics from Transect/STP Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
900	Flake:Not-Utilized	CPC	2	0.8	
902	Flake:Not-Utilized	Flint River Chert	1	2	
903	Flake:Not-Utilized	CPC	7	7.6	
905	Core	CPC	1	31.5	
905	Flake:Not-Utilized	CPC	7	2.3	Heat Treated
906	Flake:Not-Utilized	CPC	1	0.2	Heat Treated
908	Flake:Not-Utilized	CPC	2	0.3	
911	Flake:Not-Utilized	CPC	4	0.7	Heat Treated
913	Flake:Not-Utilized	CPC	1	0.2	
915	Biface:Hafted	Chalcedony	1	1	fragment
919	Biface:Hafted	CPC	1	4.7	fragment
921	Flake:Not-Utilized	CPC	1	5.2	
964	Flake:Not-Utilized	CPC	1	4.7	
983	Flake:Not-Utilized	CPC	1	0.3	
985	Flake:Not-Utilized	CPC	2	0.3	
986	Flake:Not-Utilized	CPC	2	0.9	Heat Treated
987	Flake:Not-Utilized	CPC	1	0.7	
989	Flake:Not-Utilized	CPC	5	1.2	Heat Treated
1093	Flake:Not-Utilized	Flint River Chert	2	2	
1094	Flake:Not-Utilized	CPC	1	0.3	Heat Treated
1095	Flake:Not-Utilized	Flint River Chert	1	0.9	Heat Treated
1095	Core	CPC	1	8.5	
1162	Flake:Not-Utilized	CPC	2	1.7	Heat Treated
1163	Flake:Not-Utilized	CPC	1	2	
1169	Flake:Not-Utilized	CPC	1	0.4	
1169	Flake:Not-Utilized	Ridge and Valley Chert	1	1.2	
1169	Flake:Not-Utilized	Flint River Chert	1	0.3	
1171	Flake:Not-Utilized	CPC	7	13.7	
1172	Flake:Not-Utilized	CPC	1	2	
1175	Flake:Not-Utilized	Flint River Chert	3	0.8	
1176	Flake:Not-Utilized	CPC	1	0.2	
1177	Flake:Not-Utilized	CPC	3	1.9	Heat Treated
1179	Flake:Not-Utilized	Flint River Chert	1	0.7	Heat Treated
1180	Flake:Not-Utilized	Flint River Chert	1	0.6	
1180	Flake:Not-Utilized	CPC	1	0.8	
1182	Biface:Not-Hafted	CPC	1	7	
1182	Flake:Not-Utilized	CPC	5	5.8	
1183	Flake:Not-Utilized	CPC	1	0.4	
1184	Flake:Not-Utilized	CPC	3	1.6	
1185	Flake:Not-Utilized	CPC	3	0.6	
1186	Cobble/Hammstone	Quartz	1	625.2	Cobble/Hammerstone
2075	Flake:Not-Utilized	CPC	15	17	Heat Treated
2075	Biface:Hafted	CPC	1	1.1	Triangular PPK, Heat Treated
2076	Flake:Not-Utilized	CPC	18	15.3	

Table B.1. Lithics from Transect/STP Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
2078	Flake:Utilized	CPC	1	18.5	
2078	UID:Groundstone Tool	Feruginous Sandstone	1	93.1	Groundstone
2078	Flake:Not-Utilized	CPC	8	4.6	
2079	Flake:Utilized	CPC	1	7	
2079	Flake:Not-Utilized	CPC	18	4.7	Heat Treated
2079	UID:Groundstone Tool	Feruginous Sandstone	1	102.4	Groundstone
2080	Flake:Not-Utilized	CPC	6	0.6	
2082	Flake:Not-Utilized	CPC	1	0.2	
2083	Flake:Not-Utilized	Flint River Chert	3	0.3	
2083	Flake:Not-Utilized	Quartz	2	0.6	
2083	Flake:Not-Utilized	CPC	5	3.2	
2084	Flake:Not-Utilized	CPC	2	1	
2084	Flake:Not-Utilized	Quartz	2	0.4	
2085	Flake:Not-Utilized	Flint River Chert	1	2.1	
2085	Bowl:Sherd	Soapstone	1	4.1	Bowl fragment
2087	Flake:Not-Utilized	UID Metavolcanic	2	7.3	
2087	Flake:Not-Utilized	CPC	3	2.4	Heat Treated
2088	Flake:Not-Utilized	UID Metavolcanic	1	0.4	
2088	Flake:Not-Utilized	Quartzite	1	6	
2088	Flake:Not-Utilized	Flint River Chert	1	0.4	
2088	Flake:Not-Utilized	CPC	4	3.8	
2089	Flake:Not-Utilized	CPC	1	0.2	Heat Treated
2090	Flake:Not-Utilized	CPC	3	1.2	
2090	Flake:Not-Utilized	Flint River Chert	1	0.3	Heat Treated
2091	Flake:Not-Utilized	UID Metavolcanic	1	0.4	
2091	Flake:Not-Utilized	CPC	11	14.2	Heat Treated
2091	Flake:Not-Utilized	Flint River Chert	1	1.5	
2092	Flake:Not-Utilized	CPC	9	2.3	
2268	Flake:Not-Utilized	Flint River Chert	1	0.1	
2268	Flake:Not-Utilized	CPC	2	1.9	
2269	Flake:Not-Utilized	CPC	8	2.7	Heat Treated
2269	Flake:Not-Utilized	Flint River Chert	5	0.9	
2269	Flake:Not-Utilized	Ridge and Valley Chert	1	0.1	
2270	Flake:Not-Utilized	CPC	8	7.6	Heat Treated
2271	Flake:Not-Utilized	Flint River Chert	4	1.7	
2272	UID:Groundstone Tool	Feruginous Sandstone	1	40.2	Groundstone tool fragment. Polished
2272	Flake:Not-Utilized	CPC	6	1.9	
2272	Flake:Not-Utilized	Flint River Chert	2	1.5	
2272	Biface:Not-Hafted	CPC	1	357.2	Possible core also
2272	Flake:Not-Utilized	Flint River Chert	2	0.2	Heat Treated
2272	Flake:Not-Utilized	CPC	9	2.5	Heat Treated
2274	Flake:Not-Utilized	CPC	2	0.9	

Table B.1. Lithics from Transect/STP Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
2275	Flake:Not-Utilized	Quartz	1	0.2	
2275	Flake:Not-Utilized	Flint River Chert	1	0.1	
2275	Flake:Not-Utilized	CPC	2	0.1	
2276	Flake:Not-Utilized	CPC	6	2.7	Heat Treated
2277	Flake:Not-Utilized	CPC	8	8.5	Heat Treated
2277	Biface:Not-Hafted	CPC	1	2.9	Fragment
2278	Flake:Not-Utilized	CPC	3	3.4	
2279	UID:Groundstone Tool	Feruginous Sandstone	1	98.3	Groundstone fragment
2279	Flake:Not-Utilized	Flint River Chert	1	0.1	Heat Treated
2280	Flake:Not-Utilized	CPC	1	0.3	
2281	Flake:Not-Utilized	Ridge and Valley Chert	1	0.3	
2281	Flake:Not-Utilized	Flint River Chert	7	1.8	Heat Treated
2281	Flake:Not-Utilized	CPC	14	10.6	
2282	Flake:Not-Utilized	CPC	13	4.1	Heat Treated
2282	Flake:Not-Utilized	Flint River Chert	2	0.3	
2283	UID:Groundstone Tool	Feruginous Sandstone	1	117.1	Groundstone tool
2283	Flake:Not-Utilized	CPC	8	3.7	
2283	Flake:Not-Utilized	Flint River Chert	1	0.5	
2284	Flake:Not-Utilized	CPC	5	1.6	Heat Treated
2285	Flake:Not-Utilized	CPC	1	0.1	
2286	Flake:Not-Utilized	CPC	1	0.1	
2287	Flake:Not-Utilized	CPC	2	0.2	
2288	Flake:Not-Utilized	Flint River Chert	1	0.1	
2288	Flake:Not-Utilized	CPC	2	5.4	
2289	Flake:Not-Utilized	CPC	2	0.6	
2290	Biface:Hafted	CPC	1	3	Proximal fragment, stemmed.
2290	Flake:Not-Utilized	CPC	3	0.3	
2291	Flake:Not-Utilized	CPC	3	9.9	
2292	Biface:Hafted	CPC	1	6.2	Fragment, stemmed, Heat Treated
2292	Flake:Not-Utilized	CPC	4	0.4	
2293	Flake:Not-Utilized	CPC	1	0.1	
2294	Flake:Not-Utilized	Flint River Chert	1	0.1	
2294	Flake:Not-Utilized	CPC	6	1.6	Heat Treated
2360	Flake:Not-Utilized	UID metavolcanic	1	0.3	
2360	Flake:Not-Utilized	CPC	12	3.2	Heat Treated
2362	Flake:Not-Utilized	Flint River Chert	1	14	
2362	Biface:Not-Hafted	CPC	1	14.6	
2362	UID:Groundstone Tool	Feruginous Sandstone	1	7.3	Groundstone fragment. Neat
2363	Flake:Not-Utilized	Flint River Chert	2	1.1	
2364	Flake:Not-Utilized	Flint River Chert	5	2.7	
2364	Flake:Not-Utilized	CPC	2	0.1	
2365	Flake:Not-Utilized	CPC	2	6.3	Heat Treated

Table B.1. Lithics from Transect/STP Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
2382	Flake:Utilized	CPC	1	5.8	Uniface
2384	UID:Groundstone Tool	Feruginous Sandstone	1	2.9	Groundstone tool fragment
2385	Flake:Not-Utilized	CPC	1	0.3	
2386	Flake:Not-Utilized	CPC	1	6.2	
2387	Flake:Not-Utilized	CPC	1	0.1	
2387	Flake:Not-Utilized	Quartz	1	0.1	
2389	Flake:Not-Utilized	Flint River Chert	1	0.2	Heat Treated
2391	Flake:Not-Utilized	Flint River Chert	1	1.3	
2393	Flake:Not-Utilized	Flint River Chert	3	0.6	Heat Treated
2393	Flake:Not-Utilized	CPC	4	9.4	
2394	Flake:Not-Utilized	Unknown	1	1.1	
2394	Flake:Not-Utilized	Flint River Chert	1	0.1	Heat Treated
2394	Flake:Not-Utilized	CPC	1	0.2	
2395	Flake:Not-Utilized	CPC	1	0.1	
2397	Flake:Not-Utilized	CPC	1	0.9	
2397	Biface:Hafted	CPC	1	10.7	Stemmed, fragment
2398	Biface:Not-Hafted	CPC	1	3.1	Possible graver
2398	Flake:Not-Utilized	CPC	8	2.6	
2402	Flake:Not-Utilized	CPC	3	4	Heat Treated
2402	Biface:Hafted	CPC	1	8.2	Side Notched

Table B.2. Lithics from Gridded Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
38	Flake:Not-Utilized	CPC	1	0.1	Heat Treated
67	Flake:Not-Utilized	CPC	1	2.3	
78	UID	Chalcedony	1	0.4	UID
78	Flake:Not-Utilized	Flint River Chert	1	1	
83	Flake:Not-Utilized	CPC	2	15.2	
83	Flake:Not-Utilized	Flint River Chert	1	2.5	
99	Flake:Not-Utilized	CPC	2	0.5	Heat Treated
99	Flake:Not-Utilized	Flint River Chert	1	1.8	Heat Treated
99	Core	Flint River Chert	1	6.8	Core Tool
147	Flake:Not-Utilized	CPC	1	0.1	
156	Flake:Not-Utilized	CPC	1	1.1	
164	Flake:Not-Utilized	CPC	1	0.9	
181	Flake:Not-Utilized	CPC	1	5	
184	Flake:Not-Utilized	CPC	1	0.2	Heat Treated
189	Flake:Utilized	CPC	1	3.4	Heat Treated
190	Flake:Not-Utilized	CPC	1	1.3	
195	Flake:Not-Utilized	CPC	2	6	Heat Treated
199	Flake:Not-Utilized	CPC	2	1.5	
202	Flake:Not-Utilized	CPC	1	2.8	Heat Treated
209	Flake:Not-Utilized	CPC	1	0.2	Heat Treated
212	Biface:Not-Hafted	CPC	1	2.6	
216	Flake:Not-Utilized	CPC	1	0.4	
305	Flake:Not-Utilized	Flint River Chert	1	4.8	
307	Flake:Not-Utilized	CPC	1	1.6	
307	Flake:Not-Utilized	Flint River Chert	2	3.4	
315	Flake:Not-Utilized	Chalcedony	1	3.6	
318	Flake:Not-Utilized	CPC	1	1	Heat Treated
342	Flake:Not-Utilized	CPC	1	1.8	
342	Biface:Not-Hafted	CPC	1	3	
347	Flake:Not-Utilized	CPC	1	4	
394	Flake:Not-Utilized	CPC	1	1.5	
408	Flake:Not-Utilized	Flint River Chert	1	1.1	
409	Flake:Not-Utilized	CPC	1	6	
412	Biface:Hafted	CPC	1	18.4	Stemmed, Archaic, Heat Treated
414	Flake:Not-Utilized	CPC	2	0.8	
422	Flake:Not-Utilized	Flint River Chert	1	2.3	Heat Treated
423	Flake:Not-Utilized	CPC	1	1.5	
426	Flake:Not-Utilized	CPC	1	1.8	
433	Flake:Not-Utilized	CPC	1	0.4	
442	Flake:Not-Utilized	CPC	2	6.3	Heat Treated
490	Flake:Not-Utilized	CPC	1	2.3	
490	Flake:Not-Utilized	Unknown	1	1	
495	Flake:Not-Utilized	Flint River Chert	2	4.4	Heat Treated
495	Flake:Not-Utilized	CPC	1	4.2	Heat Treated
496	Flake:Not-Utilized	Flint River Chert	1	1.3	

Table B.2. Lithics from Gridded Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
497	Flake:Not-Utilized	CPC	1	1.2	
497	Flake:Utilized	UID: Metavolcanic	1	3.3	
500	Flake:Not-Utilized	CPC	1	4.1	Heat Treated
505	Flake:Not-Utilized	Flint River Chert	1	2.8	Heat Treated
505	Flake:Not-Utilized	CPC	2	3.9	
505	Flake:Not-Utilized	Ridge and Valley Chert	1	6	
519	Flake:Not-Utilized	CPC	1	0.3	
522	Biface:Hafted	Flint River Chert	1	0.6	Drill, Heat Treated
522	Core	Flint River Chert	1	6.5	
522	Flake:Not-Utilized	Flint River Chert	1	2.4	
526	Flake:Not-Utilized	CPC	1	1.3	Heat Treated
526	Flake:Not-Utilized	Flint River Chert	3	1.4	
527	Flake:Not-Utilized	Flint River Chert	8	14.6	Heat Treated
527	Flake:Not-Utilized	CPC	1	0.7	
530	Flake:Not-Utilized	Flint River Chert	1	0.2	Heat Treated
530	Flake:Not-Utilized	CPC	1	0.4	Heat Treated
533	Flake:Not-Utilized	Flint River Chert	1	2.8	
544	Flake:Not-Utilized	CPC	1	0.3	
546	Flake:Not-Utilized	Flint River Chert	1	1	
598	Biface:Not-Hafted	Flint River Chert	1	2.8	
598	Biface:Not-Hafted	CPC	1	0.9	Heat Treated
599	Flake:Not-Utilized	CPC	1	2.6	
605	Flake:Utilized	Flint River Chert	1	1.7	Uniface fragment
605	Core	CPC	1	13	
611	Flake:Not-Utilized	CPC	1	0.9	
998	Flake:Not-Utilized	CPC	1	2.1	Heat Treated
1000	Flake:Not-Utilized	CPC	1	0.4	Heat Treated
1004	Flake:Not-Utilized	CPC	1	0.4	
1114	Biface:Not-Hafted	CPC	1	5.2	Fragment, Heat Treated
1114	Flake:Not-Utilized	CPC	1	0.6	Heat Treated
1115	Flake:Not-Utilized	CPC	2	0.9	Heat Treated
1118	Flake:Not-Utilized	CPC	1	0.3	Heat Treated
1119	Flake:Not-Utilized	Ridge and Valley Chert	1	0.5	
1119	Flake:Not-Utilized	Flint River Chert	2	7	
1121	Flake:Not-Utilized	CPC	2	0.6	
1124	Flake:Not-Utilized	Flint River Chert	1	0.7	
1143	Flake:Not-Utilized	CPC	1	0.3	
2001	Flake:Not-Utilized	CPC	2	4	Heat Treated
2002	Flake:Not-Utilized	CPC	3	5.6	Heat Treated
2003	Flake:Not-Utilized	Flint River Chert	2	1.9	
2003	Flake:Not-Utilized	Quartz	1	0.6	
2003	Flake:Not-Utilized	CPC	1	2.8	
2004	Flake:Not-Utilized	CPC	2	6.2	
2006	Flake:Not-Utilized	UID	2	14.5	

Table B.2. Lithics from Gridded Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
2006	Flake:Not-Utilized	CPC	1	0.8	Heat Treated
2006	Sheet	Mica	1	0.1	
2007	Flake:Not-Utilized	CPC	2	4	Heat Treated
2007	Flake:Not-Utilized	Flint River Chert	2	2.9	
2007	Flake:Not-Utilized	Quartzite	1	0.7	
2008	Flake:Not-Utilized	Quartz	1	0.3	
2008	Flake:Not-Utilized	CPC	2	0.6	
2009	Flake:Not-Utilized	Fort Payne Chert	1	0.2	
2011	Flake:Not-Utilized	Flint River Chert	2	1	
2011	Flake:Not-Utilized	CPC	3	1.3	Heat Treated
2013	Flake:Not-Utilized	Flint River Chert	2	2	
2014	Flake:Not-Utilized	CPC	2	1	
2015	Flake:Not-Utilized	CPC	1	0.6	
2015	Flake:Not-Utilized	Flint River Chert	1	0.2	
2015	Flake:Utilized	CPC	1	4.9	
2016	Flake:Not-Utilized	CPC	1	2.3	
2016	Flake:Not-Utilized	Flint River Chert	1	0.8	Heat Treated
2017	Flake:Not-Utilized	Flint River Chert	2	1.1	
2017	Flake:Not-Utilized	CPC	1	0.6	
2018	Flake:Not-Utilized	CPC	1	0.3	
2018	Flake:Not-Utilized	Chalcedony	1	0.2	
2018	Biface:Hafted	CPC	1	0.8	Mississippian triangular, Heat Treated
2018	Flake:Not-Utilized	Quartz	1	0.3	
2019	Flake:Utilized	CPC	2	5.8	Heat Treated
2020	Flake:Not-Utilized	UID Metavolcanic	1	0.6	
2020	Flake:Not-Utilized	CPC	1	0.1	
2020	Core	CPC	1	71.6	
2020	Flake:Utilized	CPC	1	2.3	
2021	Flake:Not-Utilized	CPC	1	3	
2022	Flake:Not-Utilized	CPC	1	0.7	
2022	Flake:Not-Utilized	Quartz	1	1.2	
2023	Flake:Not-Utilized	Flint River Chert	2	1	
2024	Flake:Not-Utilized	CPC	1	0.6	Heat Treated
2024	Flake:Not-Utilized	Quartz	1	0.3	
2025	Flake:Not-Utilized	CPC	2	1.1	
2027	Flake:Not-Utilized	Quartz	1	0.3	
2027	Flake:Not-Utilized	CPC	2	0.8	
2029	Flake:Not-Utilized	CPC	2	1.3	
2029	Flake:Not-Utilized	Quartz	1	1.6	
2030	Flake:Not-Utilized	Quartz	3	2.4	
2030	Flake:Not-Utilized	CPC	4	2.2	
2032	Flake:Not-Utilized	CPC	1	0.6	
2034	Flake:Utilized	CPC	1	12.1	
2034	Flake:Not-Utilized	CPC	1	0.1	
2035	Flake:Not-Utilized	CPC	2	2.7	

Table B.2. Lithics from Gridded Shovel Test Survey

Lot Number	Artifact Type	Material Type	Count	Weight	Comments
2036	Flake:Not-Utilized	CPC	1	0.2	
2037	Flake:Not-Utilized	Quartz	4	2.1	
2037	Flake:Not-Utilized	CPC	3	0.6	
2039	Flake:Not-Utilized	CPC	2	2.1	
2040	Flake:Not-Utilized	CPC	1	0.1	
2040	Flake:Not-Utilized	Quartz	1	0.5	
2040	Flake:Not-Utilized	Flint River Chert	1	2.3	
2041	UID: Groundstone Tool	Ferruginous Sandstone	1	179.1	Groundstone fragment
2042	UID: Groundstone Tool	Ferruginous Sandstone	1	182.7	Groundstone
2043	Flake:Not-Utilized	Flint River Chert	1	0.8	Heat Treated
2043	Flake:Not-Utilized	CPC	1	2.2	
2043	Flake:Not-Utilized	Quartz	1	1.1	
2043	Flake:Not-Utilized	Flint River Chert	1	0.6	
2043	Flake:Not-Utilized	CPC	1	2.3	Heat Treated
2044	Flake:Not-Utilized	CPC	1	1.9	Heat Treated
2047	Flake:Not-Utilized	Flint River Chert	1	0.4	
2050	Flake:Not-Utilized	Flint River Chert	1	0.3	Heat Treated
2051	Flake:Not-Utilized	CPC	4	5.8	Heat Treated
2052	Flake:Not-Utilized	Quartz	2	3.1	
2053	Flake:Not-Utilized	CPC	1	0.1	
2054	Flake:Not-Utilized	Flint River Chert	1	1.3	
2055	Flake:Utilized	CPC	1	11	Uniface
2055	UID: Groundstone Tool	Ferruginous Sandstone	1	43.5	Groundstone tool
2056	Flake:Not-Utilized	Other	1	0.3	
2056	Flake:Not-Utilized	CPC	4	2.6	Heat Treated
2056	UID: Groundstone Tool	Ferruginous Sandstone	1	43.9	Groundstone
2058	Flake:Not-Utilized	Flint River Chert	1	0.6	
2406	Other	UID	1	10.3	Polished stone
2410	Flake:Not-Utilized	CPC	1	8	
2411	Flake:Not-Utilized	Flint River Chert	1	0.9	

Table B.3. Nondiagnostic Sherds from Transect/STP Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
647	Sand/Grit	1	2.6
648	Sand/Grit	1	0.5
678	Sand/Grit	1	2.6
679	Sand/Grit	2	7.4
682	Sand/Grit	9	31.5
684	Sand/Grit	1	3.7
685	Sand/Grit	2	15.3
685	Shell	1	2.3
686	Sand/Grit	1	7.1
686	Shell	1	1.4
687	Sand/Grit	1	8.8
688	Sand/Grit	1	5.2
690	Sand/Grit	1	2.5
691	Sand/Grit	1	3.7
692	Sand/Grit	4	10.7
693	Sand/Grit	2	8.7
694	Shell	1	7.2
695	Sand/Grit	2	3.4
697	Sand/Grit	1	0.7
698	Sand/Grit	1	11.1
698	Shell	1	1.5
699	Sand/Grit	1	2.1
700	Sand/Grit	2	5.9
701	Sand/Grit	2	8.5
702	Sand/Grit	1	6.6
703	Sand/Grit	1	6.5
704	Sand/Grit	7	21.7
705	Sand/Grit	3	11.6
706	Sand/Grit	1	9
707	Sand/Grit	4	22
707	Shell	1	1
708	Sand/Grit	6	33.2
709	Sand/Grit	1	4
710	Sand/Grit	1	1.3
712	Sand/Grit	1	1.9
713	Sand/Grit	1	11.5
714	Sand/Grit	2	22.8
715	Sand/Grit	3	15.1
716	Sand/Grit	1	3.3
717	Sand/Grit	2	1.1
718	Sand/Grit	9	35.3
720	Sand/Grit	5	19.5
721	Sand/Grit	1	2.2
722	Sand/Grit	1	7.8
724	Sand/Grit	3	3.3
725	Sand/Grit	2	2.3

Table B.3. Nondiagnostic Sherds from Transect/STP Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
803	Sand/Grit	27	83.1
803	Shell	1	1.3
804	Sand/Grit	1	1
805	Sand/Grit	13	26.8
805	Shell	1	3.7
806	Sand/Grit	8	16.5
807	Sand/Grit	17	18
808	Sand/Grit	12	18.7
809	Sand/Grit	1	14.7
810	Sand/Grit	2	3.4
812	Sand/Grit	1	3.6
816	Sand/Grit	3	7.2
817	Sand/Grit	1	1.3
818	Sand/Grit	1	3.5
819	Sand/Grit	2	33.3
820	Sand/Grit	2	2.7
821	Sand/Grit	2	4.1
822	Sand/Grit	1	1.5
870	Sand/Grit	11	28.4
870	Shell	5	21.6
872	Sand/Grit	7	29.7
873	Sand/Grit	3	16.4
874	Sand/Grit	2	2.5
875	Sand/Grit	2	5.2
876	Sand/Grit	12	13
877	Sand/Grit	1	0.3
878	Sand/Grit	4	4.5
879	Sand/Grit	8	10.4
880	Sand/Grit	21	43.6
881	Sand/Grit	5	6.1
883	Sand/Grit	16	34.2
884	Sand/Grit	3	14.9
885	Sand/Grit	12	44.1
885	Shell	2	2.6
886	Sand/Grit	1	2.9
887	Sand/Grit	46	186.4
888	Sand/Grit	2	1.8
889	Sand/Grit	5	11.4
891	Shell	1	2.2
891	Sand/Grit	47	79.6
893	Sand/Grit	4	12.2
895	Sand/Grit	5	8.6
896	Sand/Grit	27	47.3
897	Sand/Grit	49	136.4
898	Sand/Grit	5	17.4
899	Sand/Grit	13	26.1

Table B.3. Nondiagnostic Sherds from Transect/STP Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
900	Sand/Grit	2	9.4
901	Sand/Grit	1	7.7
902	Sand/Grit	23	21.9
903	Sand/Grit	7	7.9
903	Fiber	1	0.8
904	Sand/Grit	4	6.4
905	Sand/Grit	3	4
907	Sand/Grit	5	14
908	Sand/Grit	4	5.7
909	Sand/Grit	2	5.6
910	Sand/Grit	8	10.8
911	Sand/Grit	48	89.2
912	Sand/Grit	5	8.3
913	Shell	1	3.7
913	Sand/Grit	39	102.7
914	Sand/Grit	16	75.1
915	Sand/Grit	7	12.9
915	Shell	1	4.1
916	Sand/Grit	1	1.8
917	Sand/Grit	6	49.9
918	Sand/Grit	1	2.2
919	Sand/Grit	5	16.5
920	Sand/Grit	9	12.8
921	Sand/Grit	21	57.2
969	Sand/Grit	2	1
969	Shell	1	0.5
982	Sand/Grit	6	22.5
983	Sand/Grit	2	2.8
984	Sand/Grit	1	3.7
1093	Shell	1	2.6
1093	Sand/Grit	22	43.8
1094	Sand/Grit	39	118.3
1094	Shell	2	5.6
1095	Sand/Grit	21	62.3
1095	Shell	3	6
1096	Sand/Grit	7	25.2
1097	Sand/Grit	1	3.3
1098	Sand/Grit	22	65.4
1098	Shell	2	7.1
1099	Sand/Grit	14	46.4
1099	Shell	2	1.8
1161	Sand/Grit	11	23.4
1162	Sand/Grit	9	35.2
1163	Sand/Grit	27	70.9
1164	Sand/Grit	2	1.6
1165	Sand/Grit	2	6.7

Table B.3. Nondiagnostic Sherds from Transect/STP Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
1166	Sand/Grit	1	4.4
1167	Sand/Grit	30	52.6
1168	Sand/Grit	3	10.3
1169	Sand/Grit	18	18.2
1170	Sand/Grit	2	10.6
1171	Sand/Grit	29	58.7
1171	Shell	4	3.3
1172	Sand/Grit	3	9.9
1172	Shell	1	5.3
1173	Sand/Grit	5	4.5
1174	Sand/Grit	1	0.7
1175	Shell	2	9.6
1175	Sand/Grit	17	35.3
1176	Sand/Grit	5	6.7
1176	Shell	1	0.5
1178	Sand/Grit	5	17.4
1179	Sand/Grit	22	57.7
1180	Sand/Grit	6	11.6
1181	Sand/Grit	21	43.1
1181	Shell	1	2.7
1182	Sand/Grit	4	5.1
1182	Shell	1	0.2
1183	Sand/Grit	3	4.1
1183	Shell	3	9.7
1184	Sand/Grit	25	64.4
1185	Sand/Grit	2	4.4
1186	Sand/Grit	28	42.3
2075	Sand/Grit	9	39.5
2076	Shell	1	0.5
2076	Fiber	1	1.2
2076	Sand/Grit	14	36.3
2077	Sand/Grit	3	6.3
2078	Sand/Grit	5	12.8
2079	Sand/Grit	5	5.7
2083	Sand/Grit	6	21.6
2085	Fiber	1	5
2087	Sand/Grit	2	3.5
2088	Sand/Grit	17	27.5
2089	Sand/Grit	13	71.4
2089	Shell	4	22.1
2090	Sand/Grit	1	4.2
2091	Sand/Grit	18	51.9
2092	Sand/Grit	5	4.4
2268	Sand/Grit	3	7.7
2269	Sand/Grit	12	39
2271	Fiber	1	4.4

Table B.3. Nondiagnostic Sherds from Transect/STP Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
2271	Sand/Grit	6	16.8
2272	Sand/Grit	6	8.6
2272	Sand/Grit	4	13
2273	Sand/Grit	6	24.2
2274	Sand/Grit	3	3.4
2275	Sand/Grit	3	18.8
2275	Shell	1	2.3
2276	Sand/Grit	1	3.9
2279	Sand/Grit	1	22.6
2280	Sand/Grit	1	6.3
2281	Sand/Grit	23	56.2
2282	Sand/Grit	2	2.3
2283	Sand/Grit	9	25.2
2284	Sand/Grit	1	4.9
2286	Sand/Grit	3	4
2287	Sand/Grit	2	13
2289	Sand/Grit	1	2
2294	Sand/Grit	2	6.3
2367	Sand/Grit	1	5.1
2378	Sand/Grit	2	3.4
2379	Shell	1	20.4
2381	Sand/Grit	1	4.1
2383	Sand/Grit	6	19.1
2386	Sand/Grit	5	19.8
2387	Sand/Grit	1	4.4
2388	Sand/Grit	1	2.1
2390	Sand/Grit	3	19.8
2392	Sand/Grit	5	7
2394	Sand/Grit	8	26
2394	Shell	2	6.4
2396	Sand/Grit	1	3.3
2398	Sand/Grit	2	2
2399	Sand/Grit	3	13.8
2400	Sand/Grit	1	2.5
2401	Sand/Grit	13	17.2
2401	Shell	2	2.5
2402	Sand/Grit	1	3
2405	Shell	1	0.8
2405	Sand/Grit	6	9
2407	Sand/Grit	14	17.6

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
23	Sand/Grit	1	2.4
24	Sand/Grit	2	5.4
25	Sand/Grit	2	25
26	Sand/Grit	1	2
28	Sand/Grit	1	1.2
29	Sand/Grit	1	3.1
30	Sand/Grit	1	8
31	Sand/Grit	1	2
31	Shell	1	4.4
32	Sand/Grit	14	20
33	Sand/Grit	14	24.9
34	Sand/Grit	2	3.8
34	Shell	1	2.3
35	Sand/Grit	1	3.8
36	Sand/Grit	4	10.9
37	Sand/Grit	1	14.7
38	Sand/Grit	1	0.7
39	Sand/Grit	15	19.4
41	Sand/Grit	2	2.9
42	Sand/Grit	4	16.9
65	Sand/Grit	1	6.5
66	Sand/Grit	16	36.4
67	Shell	1	3.6
67	Sand/Grit	22	72.1
68	Shell	3	6.4
68	Sand/Grit	9	29.1
69	Shell	1	3.8
69	Sand/Grit	1	1.5
70	Shell	1	0.9
70	Sand/Grit	4	45.4
71	Sand/Grit	7	29.9
73	Shell	1	0.3
73	Sand/Grit	1	1.8
75	Sand/Grit	1	7.4
76	Shell	4	9.9
76	Sand/Grit	23	35
77	Sand/Grit	6	5.7
78	Sand/Grit	1	3.9
78	Shell	1	0.9
79	Sand/Grit	19	43.1
79	Shell	1	1.4
80	Shell	2	5.3
80	Sand/Grit	1	7.1
81	Sand/Grit	2	3.8
82	Sand/Grit	3	8.5
83	Sand/Grit	117	298

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
83	Shell	6	7.5
84	Sand/Grit	3	9.9
85	Shell	1	2
85	Sand/Grit	15	31.6
86	Sand/Grit	1	2.4
87	Sand/Grit	4	16.6
88	Sand/Grit	3	23.4
89	Sand/Grit	1	5.9
91	Sand/Grit	1	1.2
92	Shell	1	0.9
92	Sand/Grit	5	4.6
93	Sand/Grit	1	3.6
94	Sand/Grit	3	10.3
95	Sand/Grit	11	42
96	Sand/Grit	8	23.1
97	Sand/Grit	4	9.4
98	Sand/Grit	1	0.4
101	Shell	1	0.7
101	Sand/Grit	2	2
102	Sand/Grit	3	3.8
103	Sand/Grit	1	1.6
104	Shell	1	0.6
104	Sand/Grit	3	4.3
105	Sand/Grit	2	9.6
106	Sand/Grit	2	1.6
107	Sand/Grit	2	1.5
108	Sand/Grit	1	11.4
144	Sand/Grit	1	3.5
145	Sand/Grit	3	8.5
146	Sand/Grit	5	7.2
147	Shell	10	15.1
147	Sand/Grit	5	7.5
148	Sand/Grit	3	29.9
148	Shell	1	2.6
149	Shell	1	4.5
149	Sand/Grit	2	5.3
150	Sand/Grit	1	2.1
151	Sand/Grit	3	13.9
152	Sand/Grit	2	4.9
153	Sand/Grit	1	2.6
154	Sand/Grit	1	1.2
155	Sand/Grit	4	2.8
157	Sand/Grit	1	3.9
157	Shell	1	1.4
158	Shell	11	17.9
158	Sand/Grit	37	83

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
159	Sand/Grit	8	29.1
159	Shell	2	3.6
160	Sand/Grit	1	7.2
161	Sand/Grit	1	1.2
162	Shell	2	3.7
162	Sand/Grit	3	3.8
163	Sand/Grit	4	10
164	Sand/Grit	3	9.2
165	Sand/Grit	3	8.5
166	Sand/Grit	6	7.8
167	Sand/Grit	1	1.8
168	Sand/Grit	2	9.7
169	Shell	1	3.5
170	Sand/Grit	1	1.3
171	Sand/Grit	2	2.8
172	Sand/Grit	5	16.8
173	Sand/Grit	4	9.5
174	Sand/Grit	1	1.9
175	Sand/Grit	1	3.7
176	Sand/Grit	6	39.5
177	Sand/Grit	1	1.2
178	Sand/Grit	3	5.4
179	Sand/Grit	3	5.7
181	Sand/Grit	3	4.1
182	Sand/Grit	2	2.6
183	Sand/Grit	29	95.4
183	Shell	2	2.3
184	Sand/Grit	19	93
185	Sand/Grit	4	15.4
186	Sand/Grit	3	3.3
187	Sand/Grit	6	4.8
188	Sand/Grit	14	24.3
189	Shell	1	1
189	Sand/Grit	29	55.5
190	Sand/Grit	2	3.4
191	Sand/Grit	2	3.9
192	Sand/Grit	1	1.1
193	Sand/Grit	1	2.3
194	Sand/Grit	1	0.5
194	Shell	1	1.9
195	Sand/Grit	6	9.7
195	Shell	1	0.7
196	Sand/Grit	1	1.4
197	Shell	4	5.2
197	Sand/Grit	9	14.2
198	Sand/Grit	14	55.5

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
199	Shell	3	2.2
199	Sand/Grit	48	90.5
200	Sand/Grit	1	1.6
201	Sand/Grit	2	7.5
201	Shell	1	1.2
202	Sand/Grit	1	4.6
203	Sand/Grit	32	86.4
204	Sand/Grit	5	13.7
206	Shell	3	3.6
206	Sand/Grit	1	2.3
207	Sand/Grit	4	5.5
208	Shell	2	7.1
209	Sand/Grit	19	27.7
210	Sand/Grit	3	16.8
211	Sand/Grit	2	5.1
212	Sand/Grit	4	5.9
213	Sand/Grit	3	4.5
214	Sand/Grit	6	24.6
215	Shell	1	2.2
215	Sand/Grit	2	1.5
216	Sand/Grit	14	21.2
217	Sand/Grit	6	5.2
218	Sand/Grit	4	4.5
219	Sand/Grit	2	3.4
220	Sand/Grit	64	91.3
220	Shell	4	5.1
221	Sand/Grit	15	15.7
305	Sand/Grit	11	25.2
306	Sand/Grit	58	121.5
306	Shell	2	4.4
307	Shell	1	1.4
307	Sand/Grit	39	71
308	Sand/Grit	16	18.7
308	Shell	7	11
309	Sand/Grit	4	6.3
310	Sand/Grit	4	9.2
310	Shell	2	6.7
311	Sand/Grit	14	24.4
311	Shell	4	10.5
312	Sand/Grit	13	22.7
312	Shell	1	1.6
313	Shell	5	7.3
313	Sand/Grit	12	39.3
314	Sand/Grit	30	89.7
314	Shell	2	15
315	Sand/Grit	6	12.1

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
316	Shell	1	2
317	Sand/Grit	1	1.2
318	Sand/Grit	61	208.6
319	Sand/Grit	1	2.7
320	Sand/Grit	1	1.6
321	Sand/Grit	1	11.2
322	Sand/Grit	2	8.8
323	Sand/Grit	2	17.8
324	Shell	1	12.1
325	Sand/Grit	3	12
326	Sand/Grit	8	15.2
326	Shell	1	1.6
327	Sand/Grit	36	96.3
328	Sand/Grit	4	10.3
329	Sand/Grit	2	4.6
330	Sand/Grit	1	3.8
331	Sand/Grit	16	58.2
332	Shell	2	2.9
332	Sand/Grit	11	38.5
333	Sand/Grit	2	8.4
334	Sand/Grit	19	41.2
335	Sand/Grit	1	0.7
336	Sand/Grit	3	12
337	Sand/Grit	6	21.9
338	Sand/Grit	10	15.4
338	Shell	1	0.9
339	Sand/Grit	10	28.7
340	Sand/Grit	23	67.9
340	Shell	1	0.8
341	Sand/Grit	5	8.8
342	Sand/Grit	27	95.8
342	Shell	1	3.3
343	Sand/Grit	35	73.4
343	Shell	3	2.9
344	Sand/Grit	9	20.7
345	Sand/Grit	31	83.4
345	Shell	1	2.7
346	Shell	1	7
348	Sand/Grit	1	3.8
349	Sand/Grit	2	15.7
393	Sand/Grit	5	17.9
393	Shell	1	0.9
394	Shell	2	2
394	Sand/Grit	43	60.2
395	Sand/Grit	36	66.1
395	Shell	3	5.5

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
396	Sand/Grit	6	15.4
397	Sand/Grit	22	53.7
400	Sand/Grit	2	2.5
401	Sand/Grit	28	47.9
402	Sand/Grit	16	38.7
402	Shell	2	11.4
403	Sand/Grit	6	15.4
407	Sand/Grit	5	17
408	Sand/Grit	30	85.2
408	Shell	4	10.4
409	Sand/Grit	12	24
409	Shell	2	3.7
410	Sand/Grit	2	2.7
411	Sand/Grit	6	19.6
411	Shell	1	4.2
412	Sand/Grit	17	72.6
412	Shell	1	0.7
413	Sand/Grit	3	12.5
414	Sand/Grit	1	1.2
415	Sand/Grit	2	5.1
416	Sand/Grit	3	5.8
417	Sand/Grit	10	80.1
417	Shell	2	3.4
418	Sand/Grit	9	24
419	Sand/Grit	3	9.1
419	Shell	1	7.2
420	Shell	1	1.8
420	Sand/Grit	9	63.6
421	Sand/Grit	1	1.8
421	Shell	1	5.3
422	Sand/Grit	3	4.4
422	Shell	3	2.2
423	Sand/Grit	5	15.6
425	Sand/Grit	17	52.6
425	Shell	3	8.8
426	Sand/Grit	6	43
428	Sand/Grit	2	6.7
428	Shell	2	6.4
429	Sand/Grit	4	14.9
429	Shell	1	1.3
430	Sand/Grit	4	23
431	Shell	1	2.2
431	Sand/Grit	13	43.7
432	Sand/Grit	2	8.2
432	Shell	1	4.2
433	Sand/Grit	14	29.9

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
433	Shell	1	1.3
434	Sand/Grit	2	2.7
435	Sand/Grit	2	5.7
436	Sand/Grit	1	6.7
437	Sand/Grit	4	17
437	Shell	1	5.6
438	Sand/Grit	1	2.1
439	Sand/Grit	2	6.5
440	Sand/Grit	7	23.5
441	Sand/Grit	7	5.2
442	Shell	2	5.9
442	Sand/Grit	59	128.2
443	Sand/Grit	1	0.2
443	Shell	1	0.9
444	Sand/Grit	1	0.6
445	Sand/Grit	17	13.4
486	Sand/Grit	98	193.6
486	Shell	8	20.2
487	Sand/Grit	10	22.8
488	Sand/Grit	8	17.4
489	Sand/Grit	21	92.1
490	Sand/Grit	28	49.6
490	Shell	2	4.1
492	Sand/Grit	12	21.1
492	Shell	1	2.7
493	Sand/Grit	2	4
494	Sand/Grit	14	16.7
494	Shell	1	1.9
495	Sand/Grit	139	246.9
495	Shell	6	9.6
495	Other	1	1.1
496	Sand/Grit	8	16.4
497	Sand/Grit	38	87
497	Shell	10	48.7
499	Sand/Grit	2	1.4
499	Shell	2	3.1
500	Sand/Grit	25	30.3
501	Sand/Grit	19	47.8
501	Shell	1	1.4
502	Sand/Grit	31	60
502	Shell	5	9.9
503	Sand/Grit	12	42
503	Shell	1	0.6
504	Sand/Grit	4	13.5
505	Sand/Grit	110	299
505	Shell	13	30.4

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
506	Sand/Grit	3	6.1
507	Sand/Grit	12	26.5
508	Sand/Grit	4	7.3
511	Sand/Grit	1	5.3
512	Sand/Grit	2	5.1
513	Sand/Grit	32	51
513	Shell	2	4.7
514	Sand/Grit	17	21.5
514	Shell	1	1.3
516	Sand/Grit	43	94.9
517	Sand/Grit	3	6.6
519	Sand/Grit	3	3.2
520	Sand/Grit	6	11.3
520	Shell	1	1.3
521	Sand/Grit	41	86.9
522	Sand/Grit	92	163.6
522	Shell	1	9
524	Sand/Grit	11	12.8
525	Sand/Grit	60	113.3
526	Sand/Grit	54	119.4
526	Shell	1	1.1
527	Sand/Grit	33	92.7
527	Shell	3	17.7
529	Sand/Grit	2	3.9
530	Sand/Grit	51	117.5
531	Sand/Grit	14	19.7
532	Shell	1	3.3
533	Sand/Grit	13	52.3
534	Sand/Grit	16	32
534	Shell	1	0.6
535	Sand/Grit	6	5.8
535	Shell	1	1.3
536	Sand/Grit	52	112.2
536	Shell	4	5.6
537	Sand/Grit	4	8.9
540	Sand/Grit	16	30.4
541	Sand/Grit	24	39.8
541	Shell	2	3.9
542	Shell	1	2.2
543	Sand/Grit	6	6.1
544	Sand/Grit	10	25.3
545	Sand/Grit	23	48
546	Sand/Grit	41	79
546	Shell	6	9.1
547	Sand/Grit	11	34.7
547	Shell	8	16.4

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
548	Sand/Grit	13	15.1
548	Shell	2	1.7
549	Sand/Grit	9	22
550	Sand/Grit	31	45
551	Sand/Grit	27	46
552	Sand/Grit	11	14.1
598	Sand/Grit	17	35.3
598	Shell	1	5.3
599	Sand/Grit	37	40.2
600	Sand/Grit	34	54.9
600	Shell	2	2.4
601	Sand/Grit	66	120.7
601	Shell	1	2.8
602	Sand/Grit	6	7.7
603	Sand/Grit	1	3
604	Sand/Grit	26	52.2
605	Sand/Grit	11	30.4
606	Sand/Grit	2	6.2
607	Sand/Grit	2	2.9
608	Sand/Grit	8	18.5
609	Sand/Grit	46	95.9
609	Shell	3	5.6
610	Shell	2	1.8
610	Sand/Grit	47	104.4
611	Sand/Grit	18	44.6
612	Sand/Grit	7	16.2
613	Sand/Grit	9	22
614	Sand/Grit	3	6
615	Sand/Grit	2	2.1
616	Sand/Grit	1	6.6
616	Shell	1	5.5
617	Sand/Grit	1	0.5
618	Sand/Grit	1	2.9
619	Sand/Grit	12	31.9
620	Sand/Grit	1	4.6
643	Sand/Grit	1	0.9
644	Sand/Grit	10	15.1
644	Shell	1	3.7
645	Sand/Grit	15	21.6
995	Sand/Grit	2	1.9
997	Sand/Grit	1	2
998	Sand/Grit	12	35.8
999	Sand/Grit	39	120.1
999	Shell	2	2.3
1000	Sand/Grit	35	97
1000	Shell	1	2.3

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
1001	Sand/Grit	12	14.2
1002	Sand/Grit	24	69
1003	Sand/Grit	2	4.3
1004	Sand/Grit	71	150.1
1004	Shell	2	1.8
1073	Sand/Grit	23	53.2
1073	Shell	2	1.4
1074	Sand/Grit	45	120.4
1074	Shell	6	12.5
1075	Shell	3	10.4
1075	Sand/Grit	45	158.9
1076	Sand/Grit	22	44
1076	Shell	1	2.8
1077	Sand/Grit	6	14
1078	Sand/Grit	13	45.4
1078	Shell	2	4
1079	Sand/Grit	2	10.8
1080	Sand/Grit	1	2
1081	Sand/Grit	5	16.4
1083	Sand/Grit	5	19.3
1084	Sand/Grit	3	4.8
1085	Sand/Grit	2	3.2
1086	Sand/Grit	9	20.7
1087	Sand/Grit	4	13.1
1088	Sand/Grit	2	15.3
1089	Sand/Grit	3	10.4
1090	Sand/Grit	4	9.4
1091	Sand/Grit	1	1.4
1092	Sand/Grit	1	1
1113	Sand/Grit	9	16.7
1114	Sand/Grit	22	61.3
1114	Shell	1	2.7
1115	Shell	4	9.3
1115	Sand/Grit	26	51.7
1116	Sand/Grit	13	49.6
1117	Sand/Grit	13	21.6
1117	Shell	1	3.5
1118	Sand/Grit	33	70.7
1119	Sand/Grit	32	58.8
1119	Shell	2	15.3
1120	Sand/Grit	12	22.9
1121	Sand/Grit	19	29.6
1122	Sand/Grit	38	104.9
1123	Sand/Grit	34	85.6
1123	Shell	1	4.5
1124	Sand/Grit	44	94.6

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
1125	Sand/Grit	3	5.4
1126	Sand/Grit	2	9.4
1127	Sand/Grit	6	23.4
1128	Sand/Grit	1	7.9
1129	Sand/Grit	5	6.3
1130	Sand/Grit	5	25.9
1131	Sand/Grit	5	11.2
1132	Sand/Grit	1	1.1
1133	Sand/Grit	7	17.6
1133	Shell	1	1.8
1134	Sand/Grit	4	7
1135	Sand/Grit	12	66.7
1136	Sand/Grit	3	10.5
1137	Sand/Grit	5	18.6
1138	Sand/Grit	1	3.2
1139	Shell	1	0.5
1139	Sand/Grit	8	20.4
1141	Sand/Grit	4	18
1142	Sand/Grit	2	2.8
1143	Sand/Grit	3	20.7
2001	Shell	13	29.7
2001	Sand/Grit	47	113
2002	Shell	4	17.6
2002	Sand/Grit	34	87
2003	Sand/Grit	29	68.1
2003	Sand/Grit	29	68.1
2003	Shell	2	6.3
2003	Shell	2	6.3
2004	Sand/Grit	40	81.8
2004	Shell	7	8
2005	Shell	2	49.1
2005	Sand/Grit	21	80.5
2006	Sand/Grit	69	170
2006	Shell	9	16.7
2007	Sand/Grit	36	147.5
2007	Shell	9	17.8
2008	Shell	10	20
2008	Sand/Grit	91	171.7
2009	Shell	4	4.5
2009	Sand/Grit	38	62.4
2010	Shell	9	15.4
2010	Sand/Grit	61	149.6
2011	Sand/Grit	64	172.9
2011	Shell	7	8.3
2012	Sand/Grit	32	100.4
2012	Shell	5	8.7

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
2013	Sand/Grit	92	246.1
2013	Shell	10	50.7
2014	Sand/Grit	40	101
2014	Shell	4	6.7
2015	Shell	9	15.9
2015	Sand/Grit	40	86.4
2016	Shell	5	11.3
2016	Sand/Grit	61	149.9
2017	Shell	4	10.6
2017	Sand/Grit	62	143.9
2018	Sand/Grit	52	123.7
2018	Shell	13	39.8
2019	Shell	1	1.6
2019	Shell	4	3.3
2019	Sand/Grit	45	99.8
2020	Shell	9	33.3
2020	Sand/Grit	54	120.3
2021	Sand/Grit	13	27.3
2022	Shell	15	41.1
2022	Sand/Grit	82	185.9
2023	Sand/Grit	24	76.4
2024	Sand/Grit	12	31
2025	Sand/Grit	13	37.8
2026	Sand/Grit	3	5
2027	Sand/Grit	16	49.9
2028	Sand/Grit	16	46
2029	Sand/Grit	7	10.9
2030	Sand/Grit	20	38.3
2031	Sand/Grit	21	39.6
2033	Sand/Grit	8	21.6
2034	Sand/Grit	6	9.5
2035	Sand/Grit	9	19.4
2036	Sand/Grit	12	49.9
2037	Sand/Grit	21	39.5
2038	Sand/Grit	135	357.4
2038	Shell	4	27.2
2039	Sand/Grit	45	142.5
2039	Shell	12	29.7
2040	Shell	6	30.7
2040	Sand/Grit	93	379.7
2041	Sand/Grit	38	126.2
2041	Shell	2	1.6
2042	Sand/Grit	71	247.7
2042	Shell	3	9.4
2043	Shell	2	2.1
2043	Sand/Grit	58	167.7

Table B.4. Nondiagnostic Sherds from Gridded Shovel Test Survey

Lot Number	General Temper Type	Count	Weight
2044	Sand/Grit	6	10.3
2045	Sand/Grit	14	28.5
2046	Sand/Grit	12	28.6
2047	Sand/Grit	10	11.6
2048	Sand/Grit	47	190.2
2048	Shell	9	31.5
2049	Sand/Grit	45	125.7
2049	Shell	3	4.7
2050	Sand/Grit	30	79.7
2050	Shell	4	7.9
2051	Sand/Grit	70	337.6
2051	Shell	2	3.9
2052	Shell	4	12.1
2052	Sand/Grit	26	62.3
2053	Shell	4	29.4
2053	Sand/Grit	25	89.2
2054	Sand/Grit	38	152.5
2054	Shell	4	10.6
2055	Sand/Grit	35	108.5
2055	Shell	3	12.8
2056	Sand/Grit	112	302
2056	Shell	4	19.1
2057	Sand/Grit	24	77.6
2058	Shell	9	69.1
2058	Sand/Grit	52	230.5
2368	Sand/Grit	4	5.8
2403	Sand/Grit	6	17
2406	Sand/Grit	28	88.2
2406	Shell	1	0.6
2410	Shell	1	1.6
2410	Sand/Grit	35	146
2411	Sand/Grit	12	82.3
2411	Shell	1	4.6

Table B.5. Nondiagnostic Sherds from Excavation Units

Lot Number	General Temper Type	Count	Weight
2059	Shell	18	81.3
2059	Sand/Grit	155	655.1
2060	Shell	35	115.6
2060	Sand/Grit	237	929.1
2061	Residual Sherd	6	7
2061	Sand/Grit	14	62
2062	Sand/Grit	291	1248
2062	Shell	6	16.2
2063	Sand/Grit	112	498.1
2063	Shell	1	1.8
2063	Residual Sherd	115	174
2064	Sand/Grit	183	979
2064	Shell	4	17.4
2064	Residual Sherd	136	192
2066	Sand/Grit	660	2578.6
2066	Shell	85	366
2067	Sand/Grit	751	4954.8
2067	Residual Sherd	417	577
2067	Shell	26	87.4
2068	Residual Sherd	107	161
2068	Shell	2	9.7
2068	Sand/Grit	96	403.4
2069	Sand/Grit	677	3035.2
2069	Shell	137	630.3
2070	Residual Sherd	62	87.7
2070	Shell	41	275.4
2070	Sand/Grit	247	1514.7
2071	Sand/Grit	175	841.1
2071	Shell	90	526.7
2071	Residual Sherd	112	136.8
2072	Shell	47	219
2072	Sand/Grit	110	664.6
2073	Sand/Grit	332	1573.1
2073	Shell	84	488.6
2074	Residual Sherd	155	260
2074	Shell	17	141.5
2074	Sand/Grit	262	1877.2
2093	Sand/Grit	79	500.5
2093	Residual Sherd	93	181
2093	Shell	29	236.9
2094	Residual Sherd	100	122
2094	Shell	39	233.8
2094	Sand/Grit	136	836.1
2096	Sand/Grit	22	101.8
2098	Sand/Grit	14	45.9
2098	Shell	15	89.9

Table B.5. Nondiagnostic Sherds from Excavation Units

Lot Number	General Temper Type	Count	Weight
2098	Residual Sherd	39	52.3
2099	Residual Sherd	308	403
2099	Shell	93	716.3
2099	Sand/Grit	373	2018.3
2101	Residual Sherd	466	585
2101	Shell	68	371
2101	Sand/Grit	457	1840.2
2104	Sand/Grit	11	40.8
2104	Shell	3	8.8
2105	Sand/Grit	45	263.7
2105	Shell	8	50.6
2105	Residual Sherd	22	30
2106	Residual Sherd	187	278
2106	Sand/Grit	429	2459.6
2106	Shell	11	58.7
2107	Sand/Grit	260	1627.9
2107	Shell	88	699.9
2107	Residual Sherd	200	199
2108	Sand/Grit	138	715.6
2108	Residual Sherd	106	141
2108	Shell	67	557.2
2109	Shell	8	68.4
2109	Residual Sherd	13	21
2109	Sand/Grit	22	78.6
2110	Residual Sherd	5	7
2110	Sand/Grit	6	38.8
2110	Shell	2	4.2
2111	Residual Sherd	17	20
2111	Shell	26	134.5
2111	Sand/Grit	33	160
2112	Residual Sherd	97	128
2112	Shell	12	52.6
2112	Sand/Grit	195	383.6
2116	Residual Sherd	273	333
2116	Shell	68	234.1
2116	Sand/Grit	456	1465.6
2168	Sand/Grit	14	60.6
2168	Residual Sherd	6	7
2168	Shell	3	11.9
2171	Residual Sherd	9	12
2171	Shell	11	78
2171	Sand/Grit	31	147
2204	Sand/Grit	36	179.9
2204	Residual Sherd	19	20.8
2204	Shell	19	110.5
2207	Sand/Grit	4	9.6

Table B.5. Nondiagnostic Sherds from Excavation Units

Lot Number	General Temper Type	Count	Weight
2208	Sand/Grit	3	3
2211	Residual Sherd	2	4
2211	Shell	1	2.9
2211	Sand/Grit	3	19

Table B.6. Diagnostic Sherds from T/STP Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
682	68201	Rim	7.9	UID Plain
697	69701	Rim	2.3	UID Plain
715	71501	Rim	2.6	UID Plain
720	72001	Body	2.4	Moundville Incised
720	72002	Body	4	UID Plain
725	72501	Rim	4.5	UID Plain
803	80301	Rim	1.7	UID Plain
803	80302	Rim	6.6	UID Plain
803	80303	Rim	4.2	UID Plain
803	80304	Rim	45.1	UID Plain
805	80501	Rim	7	UID Plain
806	80601	Body	0.8	UID Plain
807	80701	Rim	3.7	UID Plain
807	80702	Rim	14.5	UID Plain
875	87501	Rim	8.8	UID Plain
883	88301	Rim	5.1	UID Plain
887	88701	Rim	5.9	UID Plain
887	88702	Rim	4.8	UID Incised
887	88703	Body	2.2	UID Incised
887	88704	Body	3.3	Cool Branch Incised
891	89101	Rim	3.1	UID Plain
891	89102	Rim	3.2	UID Incised
896	89601	Rim	8.3	UID Plain
896	89602	Rim	7.2	Ingram Plain
897	89701	Body	2.8	UID Plain
897	89702	Rim	4	UID Plain
897	89703	Rim	3.4	UID Plain
897	89704	Rim	9.2	UID Plain
897	89705	Rim	0	UID Plain
899	89901	Rim	4.8	UID Incised
902	90201	Rim	5.7	UID Incised
908	90801	Rim	7.4	UID Plain
910	91001	Body	6	UID Plain
914	91401	Body	5.9	UID Plain
915	91501	Rim	5	Columbia Incised
920	92001	Rim	3.6	Columbia Incised
983	98301	Rim	3.5	UID Plain
988	98801	Body	3.1	UID Plain
1093	109301	Rim	6.8	UID Plain

Table B.6. Diagnostic Sherds from T/STP Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
1094	109401	Body	1.8	UID Plain
1094	109402	Body	1.6	Point Washington Incised
1095	109501	Rim	7.1	UID Plain
1098	109802	Rim	5.7	UID Plain
1098	109803	Rim	7.8	Lamar Plain
1099	109901	Rim	20	UID Plain
1167	116701	Body	1.5	Point Washington Incised
1167	116702	Body	17.2	UID Plain
1167	116703	Rim	1.7	UID Incised
1167	116704	Rim	5.8	UID Incised
1167	116705	Rim	4.1	UID Plain
1171	117101	Body	4.2	UID Plain
1171	117102	Rim	12.1	UID Plain
1175	117501	Rim	7.4	UID Plain
1175	117502	Rim	6.8	UID Incised
1175	117503	Body	4.3	Columbia Incised
1179	117901	Disc	9.3	
1179	117902	Rim	2.3	UID Plain
1181	118101	Rim	8.9	UID Incised
1181	118102	Rim	7.4	UID Incised
1181	118103	Rim	7.7	UID Plain
1181	118104	Body	2.6	UID Plain
1181	118105	Body	4.5	UID Plain
1184	118401	Rim	6.1	UID Plain
1184	118402	Rim	7.8	UID Plain
2075	207501	Rim	4	UID Plain
2075	207502	Rim	1.3	Other
2088	208801	Rim	7	UID Plain
2088	208802	Rim	36.1	UID Plain
2088	208803	Disc	13.1	
2089	208901	Rim	10.4	UID Plain
2089	208902	Body	5.5	UID Incised
2089	208903	Body	3.6	UID Complicated Stamped
2090	209001	Rim	8.5	UID Fiber Tempered
2271	227101	Body	5	UID Plain
2272	227201	Rim	6.1	UID Plain
2273	227301	Rim	4.6	Not Recorded
2277	227701	Body	1	UID Incised
2380	233901	Rim	8.2	UID Incised

Table B.6. Diagnostic Sherds from T/STP Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2385	234401	Body	2.1	Cool Branch Incised
2363	236301	Rim	2.1	UID Plain
2366	236601	Rim	5.7	UID Plain

Table B.7. Diagnostic Sherds from Gridded Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
72	7201	Body	3.8	UID Stamped
83	8301	Rim	0	Columbia Incised
147	14701	Body	11.6	Moundville Incised
147	14702	Body	2.8	Fort Walton Incised
199	19901	Body	8.9	Fort Walton Incised
199	19902	Body	5.5	UID Complicated Stamped
306	30601	Body	2.1	Point Washington Incised
311	31101	Rim	6	Point Washington Incised
317	31701	Rim	19.7	Columbia Incised
318	31801	Rim	6	UID Plain
331	33101	Body	10.8	Columbia Incised
334	33401	Body	4.2	UID Stamped
342	34201	Rim	8.2	UID Plain
394	39401	Body	1.9	Point Washington Incised
402	40201	Pipe Bowl	0.7	Punctated
408	40801	Body	1.3	Cool Branch Incised
408	40802	Body	1.5	Fort Walton Incised
410	41001	Body	4.4	UID Check Stamped
417	41701	Rim	15.6	Lamar Plain
419	41901	Body	10.6	Moundville Incised
438	43801	Rim	16.6	Cool Branch Incised
495	49501	Body	2.1	UID Plain
495	49502	Body	22.6	UID Plain
495	49503	Rim	38.9	UID Incised
495	49504	Body	35.8	UID Plain
495	49505	Rim	11.1	UID Plain
501	50101	Body	4.2	Cool Branch Incised
502	50201	Body	3.5	UID Incised
502	50202	Body	3.2	Moundville Incised
502	50203	Body	6.2	Moundville Incised
502	50204	Body	0	UID Stamped
502	50205	Body	3.1	UID Stamped
505	50501	Body	5.5	Savannah Complicated Stamped
505	50502	Body	11.7	UID Plain
505	50503	Rim	3.7	UID Incised
505	50504	Rim	10	UID Incised
505	50505	Body	19.7	UID Incised
505	50506	Body	3.6	Cool Branch Incised

Table B.7. Diagnostic Sherds from Gridded Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
505	50507	Body	1.6	UID Incised
508	50801	Rim	4.7	UID Plain
513	51301	Body	3.1	UID Complicated Stamped
515	51501	Body	2.7	Not Recorded
516	51601	Rim	8.3	Cool Branch Incised
516	51602	Rim	20.2	UID Plain
516	51603	Rim	9	UID Plain
519	51901	Body	2.4	UID Plain
522	52201	Rim	5.4	Columbia Incised
522	52202	Rim	16.5	UID Plain
522	52203	Rim	7.4	UID Plain
522	52204	Rim	1.6	UID Plain
525	52501	Body	1.5	UID Plain
525	52502	Body	0.9	Point Washington Incised
526	52601	Rim	3	UID Incised
526	52602	Body	1.5	Point Washington Incised
526	52603	Body	0.4	Point Washington Incised
526	52604	Pipe Bowl	1.3	
527	52701	Body	14.6	Moundville Incised
527	52702	Rim	5.1	UID Incised
527	52703	Body	10.6	UID Plain
530	53001	Rim	4.1	UID Plain
530	53002	Rim	18.2	UID Plain
530	53003	Rim	2.7	UID Plain
533	53301	Rim	10.8	UID Plain
534	53401	Rim	4	UID Plain
537	53701	Body	4.8	Columbia Incised
540	54001	Rim	16.3	UID Plain
540	54002	Body	3.1	UID Plain
541	54101	Body	1.3	Moundville Engraved
541	54102	Body	0.5	Moundville Incised
541	54103	Rim	6.8	UID Plain
546	54601	Body	2.5	UID Plain
549	54901	Rim	4.7	UID Plain
550	55001	Rim	2.4	UID Plain
551	55101	Rim	2.9	UID Plain
598	59801	Rim	18.1	UID Plain
598	59802	Rim	9.1	UID Plain
599	59901	Rim	11.1	UID Incised

Table B.7. Diagnostic Sherds from Gridded Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
599	59902	Rim	8.2	UID Plain
599	59903	Body	16.1	UID Plain
600	60001	Body	4.5	UID Plain
601	60101	Rim	6.5	UID Plain
601	60102	Body	0.6	UID Fabric Marked
604	60401	Body	1.8	UID Incised
605	60501	Rim	8.1	Lamar Plain
605	60502	Rim	17	UID Plain
610	61001	Rim	15.1	UID Plain
610	61002	Rim	49.7	UID Plain
610	61003	Rim	3.1	UID Plain
610	61004	Rim	3	UID Plain
611	61101	Rim	1.7	UID Plain
619	61901	Rim	4.8	UID Plain
619	61902	Rim	2.6	UID Plain
999	99901	Rim	6.6	Ingram Plain
1000	100001	Body	2.2	Point Washington Incised
1001	100101	Body	16.2	Savannah Complicated Stamped
1001	100102	Body	2.1	UID Complicated Stamped
1004	100401	Rim	2.7	UID Plain
1004	100402	Rim	4.4	UID Incised
1074	107401	Body	1.8	Fort Walton Incised
1074	107402	Rim	8.6	UID Plain
1075	107501	Rim	55.7	UID Plain
1075	107502	Body	3.6	UID Complicated Stamped
1075	107503	Body	12	Columbia Incised
1075	107504	Rim	14.2	Columbia Incised
1075	107505	Rim	4.9	UID Plain
1075	107506	Rim	30.8	UID Plain
1076	107601	Rim	7.6	UID Plain
1085	108501	Rim	5.7	UID Plain
1114	111401	Rim	2.6	UID Plain
1114	111402	Rim	5.9	UID Plain
1115	111501	Body	1.4	Point Washington Incised
1115	111502	Rim	2.3	UID Plain
1115	111503	Rim	2.6	UID Plain
1119	111901	Body	1.4	UID Incised
1119	111902	Rim	3.6	UID Plain

Table B.7. Diagnostic Sherds from Gridded Shovel Test Survey

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
1119	111903	Rim	5.9	UID Plain
1119	111904	Rim	2.6	UID Plain
1121	112101	Body	2.8	Point Washington Incised
1121	112102	Rim	2.4	UID Incised
1121	112103	Body	3.5	UID Plain
1122	112201	Rim	4.3	UID Incised
1122	112202	Rim	6.8	UID Plain
1122	112203	Rim	1.7	UID Plain
1123	112301	Body	13.7	Cool Branch Incised
1123	112302	Rim	4.1	UID Incised
1123	112303	Rim	2.3	UID Plain
1124	112401	Body	5.9	UID Plain
1124	112402	Rim	3.1	UID Plain
1124	112403	Rim	3.2	UID Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2059	205901	Rim	16.4	UID Plain
2059	205902	Rim	10.1	UID Plain
2059	205903	Body	1.8	UID Check Stamped
2059	205904	Body	0	UID Incised
2059	205905	Rim	5.3	UID Plain
2059	205906	Rim	2.9	UID Plain
2059	205907	Rim	2.9	UID Incised
2059	205908	Rim	2.6	UID Plain
2059	205909	Rim	3.8	UID Plain
2059	205910	Rim	3.7	UID Plain
2059	205911	Rim	2.9	UID Incised
2059	205912	Rim	15.5	UID Incised
2059	205913	Rim	9.9	UID Plain
2059	205914	Rim	1.9	UID Plain
2060	206001	Body	2.9	Carthage Incised
2060	206002	Body	2.3	Point Washington Incised
2060	206003	Body	6.8	UID Complicated Stamped
2060	206004	Body	7.2	Moundville Incised
2060	206005	Rim	9.7	UID Plain
2060	206006	Body	6.6	UID Plain
2060	206007	Body	5	UID Incised
2060	206008	Body	2.2	UID Incised
2060	206009	Body	2.1	Carthage Incised
2060	206010	Rim	3.4	UID Plain
2060	206011	Rim	1.8	
2060	206012	Rim	14.2	
2060	206013	Body	3	
2060	206014	Rim	20.9	UID Incised
2060	206015	Rim	24.6	UID Plain
2060	206016	Rim	13.3	UID Plain
2060	206017	Rim	4.1	UID Plain
2060	206018	Rim	5.9	UID Plain
2060	206019	Rim	2.3	UID Plain
2060	206020	Rim	4	UID Plain
2060	206021	Rim	6.7	UID Plain
2060	206022	Rim	4.6	UID Plain
2060	206023	Rim	5.6	UID Plain
2060	206024	Rim	4.6	UID Plain
2060	206025	Pipe Bowl	0	
2061	206101	Rim	3.3	UID Plain
2062	206201	Body	7.9	UID Plain
2062	206202	Body	8.6	UID Plain
2062	206203	Body	3.9	UID Plain
2062	206204	Rim	7.7	UID Plain
2062	206205	Rim	8	UID Plain
2062	206206	Rim	15.4	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2062	206207	Body	3.1	UID Incised
2062	206208	Body	1.8	UID Complicated Stamped
2062	206209	Rim	6	Lamar Plain
2062	206210	Disc	8.3	
2062	206211	Body	1.3	UID Plain
2062	206212	Body	1.6	UID Plain
2062	206213	Body	5.7	Fort Walton Incised
2062	206214	Body	2.1	Fort Walton Incised
2062	206215	Rim	2.2	Fort Walton Incised
2062	206216	Rim	27.2	UID Complicated Stamped
2062	206217	Body	5.6	UID Complicated Stamped
2062	206218	Rim	5.9	UID Complicated Stamped
2062	206219	Rim	7.7	UID Incised
2062	206220	Rim	5.9	UID Plain
2062	206221	Rim	8	Ingram Plain
2062	206222	Rim	8.2	UID Plain
2062	206223	Rim	10.7	Columbia Incised
2062	206224	Rim	3.1	Columbia Incised
2062	206225	Body	2.9	Columbia Incised
2062	206226	Rim	6.8	UID Plain
2062	206227	Rim	6.8	UID Plain
2062	206228	Rim	7.7	UID Plain
2062	206229	Rim	3.6	UID Plain
2062	206230	Rim	5.3	UID Plain
2062	206231	Rim	3	UID Plain
2062	206232	Rim	2	UID Plain
2062	206233	Rim	3	UID Plain
2062	206234	Rim	3.7	UID Incised
2062	206235	Rim	6.5	UID Plain
2063	206301	Disc	7	
2063	206302	Rim	4.3	UID Plain
2063	206303	Body	1.8	Point Washington Incised
2063	206304	Body	3.9	Fort Walton Incised
2063	206305	Body	2	Lamar Complicated Stamped
2063	206306	Body	8.5	UID Incised
2063	206307	Rim	21.5	UID Plain
2063	206308	Rim	10.4	UID Plain
2063	206309	Body	14.6	UID Plain
2063	206310	Body	11.8	UID Plain
2063	206311	Body	11.1	UID Plain
2063	206312	Body	5.5	UID Plain
2064	206401	Body	1.1	UID Complicated Stamped
2064	206402	Rim	6.7	Columbia Incised
2064	206403	Rim	10.3	Columbia Incised
2064	206404	Body	4.1	Fort Walton Incised
2064	206405	Rim	6.8	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2064	206406	Rim	22.8	UID Plain
2064	206407	Rim	11.1	UID Plain
2064	206408	Rim	11.4	UID Incised
2064	206409	Rim	8	UID Incised
2064	206410	Rim	7.5	UID Plain
2064	206411	Rim	4.4	UID Incised
2064	206412	Rim	2.8	UID Plain
2064	206413	Rim	4.8	UID Plain
2064	206414	Rim	1.7	UID Incised
2064	206415	Body	5.6	UID Plain
2064	206416	Body	2.8	UID Plain
2064	206417	Body	4.5	UID Plain
2064	206418	Rim	21	UID Plain
2064	206419	Rim	5.9	UID Plain
2064	206420	Rim	13.7	UID Plain
2064	206421	Rim	9.3	UID Incised
2064	206422	Rim	10.4	UID Incised
2064	206423	Rim	15	UID Incised
2064	206424	Rim	41.4	Ingram Plain
2064	206425	Rim	25.8	Ingram Plain
2064	206426	Rim	7.2	UID Plain
2066	206601	Body	5.9	Moundville Incised
2066	206602	Body	5	Moundville Incised
2066	206603	Body	12.6	UID Incised
2066	206604	Body	2.6	UID Incised
2066	206605	Body	3.6	UID Plain
2066	206606	Body	5.4	UID Plain
2066	206607	Body	5.4	UID Plain
2066	206608	Body	2.1	UID Decorated
2066	206609	Rim	7.7	UID Incised
2066	206610	Rim	7.5	UID Plain
2066	206611	Body	1.4	UID Incised
2066	206612	Body	2.8	Cool Branch Incised
2066	206613	Body	3.8	UID Decorated
2066	206614	Body	4	UID Stamped
2066	206615	Rim	2.7	Ingram Plain
2066	206616	Body	2.8	UID Punctated
2066	206617	Body	1.6	UID Plain
2066	206618	Body	6.1	UID Plain
2066	206619	Body	7.7	UID Plain
2066	206620	Rim	1.9	UID Plain
2066	206621	Rim	2.1	UID Plain
2066	206622	Rim	18.7	UID Plain
2066	206623	Rim	6.9	
2066	206624	Body	2.4	UID Incised
2066	206625	Body	1.8	UID Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2066	206626	Body	1.1	Columbia Incised
2066	206627	Rim	14.2	Columbia Incised
2066	206628	Rim	6.2	Columbia Incised
2066	206629	Body	2.7	Columbia Incised
2066	206630	Rim	2.8	UID Incised
2066	206631	Body	3.8	Cool Branch Incised
2066	206632	Rim	9.5	UID Plain
2066	206633	Rim	6.5	UID Plain
2066	206634	Rim	6	UID Plain
2066	206635	Rim	3.6	UID Incised
2066	206636	Rim	4.7	UID Incised
2066	206637	Rim	3.7	UID Plain
2066	206638	Rim	4.6	UID Plain
2066	206639	Rim	3.3	UID Plain
2066	206640	Rim	3.8	UID Plain
2066	206641	Rim	8.8	UID Plain
2066	206642	Rim	17.6	UID Incised
2066	206643	Rim	17.3	UID Plain
2066	206644	Rim	8.9	UID Plain
2066	206645	Rim	10.9	UID Plain
2066	206646	Rim	6.1	UID Plain
2066	206647	Rim	8.8	UID Plain
2066	206648	Rim	6	UID Plain
2066	206649	Rim	4.8	UID Plain
2066	206650	Rim	7.2	Not Recorded
2066	206651	Rim	4.6	UID Plain
2066	206652	Rim	6.1	UID Plain
2066	206653	Rim	4.6	UID Plain
2066	206654	Rim	11.9	UID Plain
2066	206655	Rim	8.3	UID Plain
2066	206656	Rim	8.4	UID Plain
2066	206657	Rim	5.2	UID Plain
2066	206658	Rim	4.6	UID Plain
2066	206659	Rim	4.2	UID Plain
2066	206660	Rim	1.9	UID Incised
2066	206661	Rim	6.9	Not Recorded
2066	206662	Rim	8	UID Plain
2066	206681	Rim	2.1	Not Recorded
2067	206701	Rim	2.4	Columbia Incised
2067	206702	Body	3.4	Not Recorded
2067	206703	Rim	4.2	Columbia Incised
2067	206704	Body	14.2	Columbia Incised
2067	206705	Disc	6.3	
2067	206706	Rim	1.8	Columbia Incised
2067	206707	Rim	8.4	UID Plain
2067	206708	Body	3.3	UID Check Stamped

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2067	206709	Rim	3.4	UID Stamped
2067	206710	Rim	7.6	UID Plain
2067	206711	Rim	7.3	UID Plain
2067	206712	Rim	5.1	UID Plain
2067	206713	Body	4.2	UID Plain
2067	206714	Body	4.2	UID Plain
2067	206715	Body	3.3	Cool Branch Incised
2067	206716	Body	17.1	Cool Branch Incised
2067	206717	Body	5.4	Cool Branch Incised
2067	206718	Body	2.9	UID Incised
2067	206719	Body	4.6	Cool Branch Incised
2067	206720	Body	11.5	Cool Branch Incised
2067	206721	Body	6.3	Point Washington Incised
2067	206722	Body	3.2	Point Washington Incised
2067	206723	Body	2.6	Point Washington Incised
2067	206724	Body	3.6	Savannah Complicated Stamped
2067	206725	Body	20.5	Savannah Complicated Stamped
2067	206726	Rim	13.8	Ingram Plain
2067	206727	Rim	12.2	Ingram Plain
2067	206728	Body	2.2	Ingram Plain
2067	206729	Rim	25.2	Ingram Plain
2067	206730	Rim	38.7	Not Recorded
2067	206731	Rim	5.6	UID Incised
2067	206732	Rim	4.7	UID Plain
2067	206733	Rim	12.1	UID Plain
2067	206734	Rim	12.1	UID Plain
2067	206735	Rim	7.6	UID Plain
2067	206736	Rim	5	UID Plain
2067	206737	Rim	11.7	UID Plain
2067	206738	Rim	31.3	UID Plain
2067	206739	Rim	2.9	UID Plain
2067	206740	Rim	3.7	UID Plain
2067	206741	Rim	1.8	UID Plain
2067	206742	Rim	2.2	UID Plain
2067	206743	Rim	2.9	UID Plain
2067	206744	Rim	3	UID Plain
2067	206745	Rim	3.5	UID Plain
2067	206746	Rim	2.9	UID Incised
2067	206747	Rim	2.9	UID Incised
2067	206748	Rim	3.2	UID Plain
2067	206749	Rim	5.8	UID Plain
2067	206750	Rim	5	UID Plain
2067	206751	Rim	5.2	UID Plain
2067	206752	Rim	6.5	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2067	206753	Rim	9.7	UID Plain
2067	206754	Rim	8.7	UID Plain
2067	206755	Body	5.9	UID Plain
2067	206756	Body	7.7	UID Plain
2067	206757	Body	6.2	UID Plain
2067	206758	Body	4.5	UID Plain
2067	206759	Body	11.6	UID Plain
2067	206760	Body	4.5	UID Plain
2067	206761	Body	6.9	UID Plain
2067	206762	Body	2.8	UID Plain
2067	206763	Body	3.3	UID Plain
2067	206764	Body	2.8	UID Plain
2067	206765	Body	9.8	UID Plain
2067	206766	Body	5.6	UID Plain
2067	206767	Body	30.3	UID Plain
2067	206768	Rim	3.5	UID Plain
2067	206769	Rim	8	UID Plain
2067	206770	Rim	6.6	UID Plain
2067	206771	Body	4.2	UID Plain
2067	206772	Rim	14.1	UID Incised
2067	206773	Body	6.2	UID Plain
2067	206774	Rim	12.9	UID Plain
2067	206775	Rim	6.3	UID Plain
2067	206776	Rim	6.1	UID Plain
2067	206777	Rim	5.2	UID Plain
2067	206778	Rim	4.8	UID Plain
2067	206779	Rim	4	UID Plain
2067	206780	Rim	4.7	UID Plain
2067	206781	Rim	7.8	UID Plain
2067	206782	Rim	18.1	UID Plain
2067	206783	Rim	19.5	UID Plain
2067	206784	Rim	11.4	UID Incised
2067	206785	Rim	8.3	UID Incised
2067	206786	Rim	14	UID Plain
2067	206787	Rim	19.3	UID Incised
2067	206788	Rim	77.6	UID Plain
2067	206789	Rim	14.9	UID Plain
2067	206790	Rim	13.3	UID Plain
2067	206791	Rim	37.9	UID Plain
2067	206792	Rim	47.3	UID Plain
2067	206793	Rim	37	UID Plain
2068	206801	Body	1	UID Plain
2068	206802	Body	3.5	UID Stamped
2068	206803	Body	6	UID Incised
2068	206804	Rim	8.7	UID Plain
2068	206805	Rim	27.5	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2068	206806	Rim	2.9	Ingram Plain
2068	206807	Rim	3.8	Ingram Plain
2068	206808	Rim	10.6	Lamar Plain
2068	206809	Rim	10.6	UID Plain
2068	206810	Rim	3.6	UID Plain
2068	206811	Rim	6.9	UID Plain
2069	206901	Body	3.6	UID Plain
2069	206902	Rim	7.2	UID Plain
2069	206903	Rim	25.1	UID Incised
2069	206904	Rim	12.5	UID Incised
2069	206905	Rim	6.5	UID Incised
2069	206906	Rim	18	UID Incised
2069	206907	Rim	8.1	UID Incised
2069	206908	Rim	8.8	UID Plain
2069	206909	Disc	3.7	
2069	206910	Rim	5.4	UID Plain
2069	206911	Rim	15.8	UID Plain
2069	206912	Rim	11	UID Plain
2069	206913	Rim	4.4	UID Plain
2069	206914	Rim	8.2	UID Plain
2069	206915	Rim	2.9	UID Plain
2069	206916	Rim	9.3	UID Plain
2069	206917	Rim	7.7	UID Plain
2069	206918	Rim	5.1	Fort Walton Incised
2069	206919	Body	4.7	UID Punctated
2069	206920	Body	4.1	Point Washington Incised
2069	206921	Body	7.4	Carthage Incised
2069	206922	Rim	9.8	Ingram Plain
2069	206923	Body	2.1	Ingram Plain
2069	206924	Rim	13.6	Ingram Plain
2069	206925	Rim	5.9	Lamar Plain
2069	206926	Body	1.5	Moundville Incised
2069	206927	Body	1	Moundville Incised
2069	206928	Body	6.1	Moundville Incised
2069	206929	Body	5.5	Moundville Incised
2069	206930	Body	3.7	UID Incised
2069	206931	Body	4.4	Moundville Incised
2069	206932	Body	2.7	Columbia Incised
2069	206933	Rim	7.9	Columbia Incised
2069	206934	Rim	5.9	Columbia Incised
2069	206935	Rim	8	Columbia Incised
2069	206936	Body	0	Carthage Incised
2069	206937	Body	4.4	UID Incised
2069	206938	Body	0	UID Incised
2069	206939	Body	1.3	UID Incised
2069	206940	Body	0	UID Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2069	206941	Body	16.9	UID Incised
2069	206942	Body	10.1	Columbia Incised
2069	206943	Body	3.4	Cool Branch Incised
2069	206944	Body	2.1	Cool Branch Incised
2069	206945	Body	1.8	Cool Branch Incised
2069	206946	Body	18	Cool Branch Incised
2069	206947	Rim	18.1	Cool Branch Incised
2069	206948	Rim	4	Not Recorded
2069	206949	Rim	3.9	UID Plain
2069	206950	Rim	11.3	UID Plain
2069	206951	Rim	16.1	UID Plain
2069	206952	Rim	19.3	UID Plain
2069	206953	Rim	7.3	UID Plain
2069	206954	Rim	4.2	UID Plain
2069	206955	Rim	2.6	Lamar Plain
2069	206956	Rim	4.9	UID Incised
2069	206957	Rim	2.3	UID Plain
2069	206958	Rim	2.1	UID Plain
2069	206959	Rim	3.2	UID Incised
2069	206960	Rim	6.7	UID Incised
2069	206961	Rim	4.5	UID Plain
2069	206962	Rim	5	UID Plain
2069	206963	Rim	5.4	UID Plain
2069	206964	Rim	2.5	UID Plain
2069	206965	Rim	2.8	UID Plain
2069	206966	Rim	3.6	UID Plain
2069	206967	Rim	5.8	UID Plain
2069	206968	Rim	4.6	UID Plain
2069	206969	Rim	11.9	UID Plain
2069	206970	Rim	2.7	UID Plain
2069	206971	Rim	5.1	UID Plain
2069	206972	Rim	4	UID Plain
2069	206973	Rim	3.8	UID Plain
2069	206974	Rim	9.6	UID Plain
2069	206975	Rim	2.2	UID Plain
2069	206976	Rim	2.7	UID Plain
2069	206977	Rim	5.6	UID Plain
2069	206978	Rim	6.7	UID Plain
2069	206979	Rim	2.2	UID Plain
2069	206980	Rim	1.5	Not Recorded
2069	206981	Rim	3.8	UID Plain
2069	206982	Rim	2.2	UID Plain
2069	206983	Rim	2.4	UID Plain
2069	206984	Rim	2.9	UID Plain
2069	206985	Rim	1.8	UID Plain
2069	206986	Rim	8.6	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2069	206987	Rim	9.9	UID Plain
2069	206988	Body	2.7	UID Plain
2069	206989	Body	3.9	UID Plain
2069	206990	Body	3.9	UID Plain
2069	206991	Body	5	UID Plain
2069	206992	Body	2.6	UID Plain
2069	206993	Body	2.9	UID Plain
2069	206994	Body	6.6	UID Plain
2069	206995	Body	1.7	UID Plain
2069	206996	Body	5.5	UID Plain
2069	206997	Body	4.3	UID Plain
2069	206998	Body	16.6	UID Plain
2069	206999	Body	13.1	UID Plain
2070	207001	Rim	10	UID Plain
2070	207002	Body	2.6	UID Check Stamped
2070	207003	Disc	27.7	
2070	207004	Disc	7.8	
2070	207005	Rim	7.6	Columbia Incised
2070	207006	Body	0	Columbia Incised
2070	207007	Rim	13.6	UID Plain
2070	207008	Rim	7	UID Incised
2070	207009	Rim	4.3	UID Plain
2070	207010	Rim	18.8	UID Plain
2070	207011	Rim	19.4	UID Incised
2070	207012	Rim	9.4	UID Plain
2070	207013	Rim	17.1	UID Incised
2070	207014	Rim	4.8	Ingram Plain
2070	207015	Rim	22.4	Ingram Plain
2070	207016	Rim	18.6	UID Plain
2070	207017	Rim	26.3	UID Incised
2070	207018	Rim	20.9	UID Incised
2070	207019	Rim	67.5	UID Plain
2070	207020	Rim	28.9	UID Incised
2070	207021	Rim	31.6	UID Plain
2070	207022	Rim	16.2	UID Plain
2070	207023	Body	19.7	Cool Branch Incised
2070	207024	Body	9	Not Recorded
2070	207025	Rim	7.5	UID Plain
2070	207026	Rim	24.6	UID Plain
2070	207027	Rim	14.7	UID Plain
2070	207028	Rim	85.1	UID Plain
2070	207029	Rim	13.2	Moundville Engraved
2070	207030	Body	5	Cool Branch Incised
2070	207031	Body	7.1	Cool Branch Incised
2070	207032	Body	14.9	Cool Branch Incised
2070	207033	Body	4	Cool Branch Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2070	207034	Body	9	Cool Branch Incised
2070	207035	Body	9.9	Cool Branch Incised
2070	207036	Body	4.5	Cool Branch Incised
2070	207037	Rim	21	UID Plain
2070	207038	Rim	9.1	UID Plain
2070	207039	Rim	5.9	UID Plain
2070	207040	Rim	7.8	UID Plain
2070	207041	Rim	18.1	UID Plain
2070	207042	Rim	11	UID Plain
2070	207043	Rim	12	UID Plain
2070	207044	Rim	3.6	UID Plain
2070	207045	Rim	2.8	UID Plain
2070	207046	Rim	5.2	UID Plain
2071	207101	Rim	51.5	UID Plain
2071	207102	Body	25.2	UID Plain
2071	207103	Body	5.4	UID Plain
2071	207104	Rim	11.3	UID Plain
2071	207105	Rim	9.2	UID Plain
2071	207106	Rim	1.7	UID Incised
2071	207107	Body	4.6	Cool Branch Incised
2071	207108	Body	3.6	UID Plain
2071	207109	Body	6.9	UID Plain
2071	207110	Body	3.1	UID Plain
2071	207111	Rim	7.7	UID Plain
2071	207112	Body	14.1	UID Incised
2071	207113	Rim	14.4	Lamar Plain
2071	207114	Rim	4	UID Incised
2071	207115	Rim	7.9	UID Plain
2071	207116	Rim	3.6	UID Plain
2071	207117	Body	5.6	UID Plain
2071	207118	Rim	1.3	UID Incised
2071	207119	Rim	5	UID Plain
2071	207120	Rim	3.6	UID Plain
2071	207121	Rim	3.1	UID Plain
2071	207122	Rim	5.4	UID Plain
2071	207123	Rim	8.9	UID Plain
2071	207124	Rim	10.4	UID Plain
2071	207125	Rim	5.2	UID Plain
2071	207126	Rim	18.1	UID Incised
2071	207127	Rim	20.4	UID Plain
2071	207128	Rim	9.7	Columbia Incised
2071	207129	Body	11.7	Columbia Incised
2072	207201	Body	9.3	Cool Branch Incised
2072	207202	Rim	12.5	UID Plain
2072	207203	Rim	4.7	UID Plain
2072	207204	Disc	33.3	

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2072	207205	Rim	15	UID Plain
2072	207206	Body	12.3	UID Plain
2072	207207	Body	2	UID Plain
2072	207208	Body	5.6	UID Plain
2072	207209	Rim	6.9	UID Incised
2072	207210	Rim	6.5	UID Plain
2072	207211	Rim	2.1	UID Incised
2072	207212	Body	2.1	Moundville Incised
2072	207213	Rim	7.8	UID Plain
2072	207214	Rim	15.4	UID Plain
2072	207215	Body	5.6	Cool Branch Incised
2072	207216	Body	2.9	Cool Branch Incised
2072	207217	Body	1.3	Cool Branch Incised
2072	207218	Body	12.8	Alachua Cob Marked
2072	207219	Body	21.7	Moundville Incised
2072	207220	Body	5.9	Moundville Incised
2072	207221	Body	14.4	Moundville Incised
2072	207222	Rim	25.7	Moundville Incised
2072	207223	Body	6.8	Carthage Incised
2073	207301	Rim	6.3	Columbia Incised
2073	207302	Disc	12.4	
2073	207303	Rim	8.9	UID Plain
2073	207304	Body	3.9	UID Plain
2073	207305	Body	11	UID Incised
2073	207306	Rim	37.4	UID Plain
2073	207307	Rim	22.5	UID Plain
2073	207308	Body	5.4	UID Incised
2073	207309	Body	1.8	UID Incised
2073	207310	Rim	7	UID Incised
2073	207311	Body	2.1	Moundville Incised
2073	207312	Body	3.7	Moundville Incised
2073	207313	Body	3.2	Moundville Incised
2073	207314	Rim	9.3	UID Plain
2073	207315	Rim	3.9	UID Plain
2073	207316	Rim	11	UID Plain
2073	207317	Rim	56.6	UID Plain
2073	207318	Body	3	UID Plain
2073	207319	Body	3.8	UID Plain
2073	207320	Body	4.7	UID Plain
2073	207321	Body	4.4	UID Plain
2073	207322	Body	7.4	UID Plain
2073	207323	Body	21.9	UID Plain
2073	207324	Rim	21.9	UID Plain
2073	207325	Rim	9.2	UID Plain
2073	207326	Rim	4.7	UID Plain
2073	207327	Rim	13.9	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2073	207328	Rim	7.3	UID Plain
2073	207329	Rim	27.4	UID Plain
2073	207330	Rim	28.8	UID Plain
2073	207331	Rim	25.4	UID Plain
2073	207332	Rim	9.4	UID Plain
2073	207333	Body	4.4	Cool Branch Incised
2073	207334	Body	2.3	Moundville Incised
2073	207335	Body	2.6	Cool Branch Incised
2073	207336	Body	4.3	Cool Branch Incised
2073	207337	Body	3.7	Cool Branch Incised
2073	207338	Body	5.1	Cool Branch Incised
2073	207339	Rim	69.4	Cool Branch Incised
2073	207340	Rim	4	UID Plain
2073	207341	Rim	7.8	Not Recorded
2073	207342	Rim	4.5	UID Plain
2073	207343	Rim	11.1	UID Plain
2073	207344	Rim	16.1	UID Plain
2073	207345	Body	15.6	Ingram Plain
2074	207401	Rim	2	UID Plain
2074	207402	Body	7.2	Etowah Complicated Stamped
2074	207403	Body	8.8	Fort Walton Incised
2074	207404	Rim	12	Lamar Plain
2074	207405	Pipe Bowl	3.9	
2074	207406	Rim	5.1	Ingram Plain
2074	207407	Body	3.9	UID Plain
2074	207408	Body	6.7	UID Plain
2074	207409	Body	17.5	Moundville Incised
2074	207410	Body	7.1	Moundville Incised
2074	207411	Body	2.1	Moundville Incised
2074	207412	Body	6.4	UID Plain
2074	207413	Rim	19.1	UID Plain
2074	207414	Rim	49.6	UID Plain
2074	207415	Body	16.6	Not Recorded
2074	207416	Body	4.2	Not Recorded
2074	207417	Body	5.2	Carthage Incised
2074	207418	Body	17.4	Cool Branch Incised
2074	207419	Body	13.9	Cool Branch Incised
2074	207420	Body	6.4	Cool Branch Incised
2074	207421	Body	6.8	Cool Branch Incised
2074	207422	Body	2.7	Cool Branch Incised
2074	207423	Body	3	Cool Branch Incised
2074	207424	Body	4.1	Cool Branch Incised
2074	207425	Body	7.8	Cool Branch Incised
2074	207426	Rim	4.7	UID Plain
2074	207427	Rim	6.2	UID Plain
2074	207428	Rim	5.8	UID Plain

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2074	207429	Rim	4.4	UID Incised
2074	207430	Rim	4.1	UID Incised
2074	207431	Rim	3.7	UID Plain
2074	207432	Rim	5.2	UID Plain
2074	207433	Rim	8.3	UID Plain
2074	207434	Rim	11.8	UID Plain
2074	207435	Rim	19.9	UID Plain
2074	207436	Rim	16.2	UID Plain
2074	207437	Rim	5	UID Incised
2074	207438	Rim	4.6	UID Plain
2074	207439	Rim	15	UID Plain
2074	207440	Rim	2.1	UID Plain
2074	207441	Rim	20.1	UID Plain
2074	207442	Rim	7.3	UID Plain
2074	207443	Rim	18.1	UID Incised
2074	207444	Rim	6.2	Columbia Incised
2074	207445	Body	3.8	Columbia Incised
2074	207446	Rim	9.1	Columbia Incised
2074	207447	Body	8.6	Columbia Incised
2074	207448	Rim	13.9	Columbia Incised
2074	207449	Rim	7	Columbia Incised
2074	207450	Rim	11.5	Columbia Incised
2074	207451	Rim	15.5	Columbia Incised
2093	209301	Rim	0	Keith Incised
2093	209302	Rim	7.9	UID Plain
2093	209303	Rim	9.5	UID Plain
2093	209304	Rim	5.4	UID Plain
2093	209305	Rim	4.3	UID Plain
2093	209306	Body	8.7	Moundville Incised
2093	209307	Body	3.8	Moundville Incised
2093	209308	Body	7.5	Moundville Incised
2093	209309	Body	10	Other
2093	209310	Rim	45.6	UID Plain
2093	209311	Body	10	Columbia Incised
2093	209312	Rim	12.6	Columbia Incised
2093	209313	Body	6.4	Cool Branch Incised
2093	209314	Body	4.7	Cool Branch Incised
2093	209315	Body	5.4	Cool Branch Incised
2093	209316	Body	4.4	Cool Branch Incised
2093	209317	Rim	2.9	Not Recorded
2093	209318	Rim	3.4	UID Plain
2093	209319	Rim	3.8	UID Plain
2093	209320	Rim	12.3	UID Plain
2094	209401	Rim	6.1	UID Plain
2094	209402	Body	4.3	Not Recorded
2094	209403	Rim	9.1	Columbia Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2094	209404	Rim	2.3	Columbia Incised
2094	209405	Rim	2.3	UID Plain
2094	209406	Rim	13.7	UID Plain
2094	209407	Body	7.3	Point Washington Incised
2094	209408	Body	5.6	Cool Branch Incised
2094	209409	Body	5	Cool Branch Incised
2094	209410	Rim	11.4	UID Plain
2094	209411	Body	3.9	UID Incised
2094	209412	Rim	12.7	UID Plain
2094	209413	Rim	5.2	UID Plain
2094	209414	Rim	5.7	UID Plain
2094	209415	Rim	4.9	UID Plain
2094	209416	Rim	7.1	UID Plain
2094	209417	Rim	26.8	UID Plain
2094	209418	Rim	4.4	UID Plain
2094	209419	Rim	0	UID Plain
2094	209420	Rim	9.5	UID Plain
2094	209421	Rim	6.9	UID Plain
2094	209422	Rim	4	UID Plain
2094	209423	Body	13.5	Moundville Incised
2094	209424	Body	3.8	Moundville Incised
2094	209425	Body	4.8	Moundville Incised
2096	209601	Rim	4.6	UID Plain
2096	209602	Rim	3.1	UID Plain
2098	209801	Rim	16.2	Columbia Incised
2098	209802	Rim	3.5	UID Plain
2098	209803	Rim	4.3	UID Plain
2099	209901	Body	19.1	Moundville Incised
2099	209902	Body	8	Moundville Incised
2099	209903	Body	6.1	Moundville Incised
2099	209904	Body	5.1	Moundville Incised
2099	209905	Body	4.7	Moundville Incised
2099	209906	Body	5.4	Not Recorded
2099	209907	Rim	9.2	Not Recorded
2099	209908	Rim	6.9	Lamar Plain
2099	209909	Rim	9.3	Lamar Plain
2099	209910	Rim	14.6	Lamar Plain
2099	209911	Disc	8.2	
2099	209912	Rim	13.5	UID Incised
2099	209913	Body	4.6	Not Recorded
2099	209914	Body	2.4	Not Recorded
2099	209915	Body	6.9	Not Recorded
2099	209916	Body	4.8	Not Recorded
2099	209917	Body	6.1	Not Recorded
2099	209918	Body	2.6	UID Incised
2099	209919	Rim	3.8	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2099	209920	Body	1.5	Not Recorded
2099	209921	Body	3.2	Not Recorded
2099	209922	Body	3.8	Not Recorded
2099	209923	Body	1	Not Recorded
2099	209924	Rim	45.4	Cool Branch Incised
2099	209925	Body	6.8	Cool Branch Incised
2099	209926	Body	4	Not Recorded
2099	209927	Body	9	Cool Branch Incised
2099	209928	Rim	25.3	Cool Branch Incised
2099	209929	Rim	5.3	Cool Branch Incised
2099	209930	Body	1.8	Cool Branch Incised
2099	209931	Rim	34.7	Columbia Incised
2099	209932	Body	1.8	Columbia Incised
2099	209933	Rim	3.4	Columbia Incised
2099	209934	Body	14.8	Columbia Incised
2099	209935	Body	16.2	Columbia Incised
2099	209936	Rim	12.4	Columbia Incised
2099	209937	Rim	14.3	Not Recorded
2099	209938	Rim	26.3	Not Recorded
2099	209939	Rim	14.4	Not Recorded
2099	209940	Rim	2.3	Not Recorded
2099	209941	Rim	2.2	Not Recorded
2099	209942	Rim	6.8	Not Recorded
2099	209943	Rim	1.9	Not Recorded
2099	209944	Rim	18.4	Not Recorded
2099	209945	Rim	22.1	Not Recorded
2099	209946	Rim	19.7	Not Recorded
2099	209947	Rim	15	Not Recorded
2099	209948	Rim	13.2	Not Recorded
2099	209949	Rim	25.8	Not Recorded
2099	209950	Rim	5	Not Recorded
2099	209951	Rim	44.6	Not Recorded
2099	209952	Body	38	UID Complicated Stamped
2099	209953	Body	7.1	Not Recorded
2099	209954	Body	8.5	Not Recorded
2099	209955	Body	5	Lamar Complicated Stamped
2099	209956	Pipe Bowl	6.5	
2099	209957	Pipe Bowl	1.7	
2099	209958	Rim	1.8	Not Recorded
2099	209959	Rim	2.7	Not Recorded
2099	209960	Rim	2.7	Not Recorded
2099	209961	Rim	7.8	Not Recorded
2099	209962	Rim	5	Not Recorded
2099	209963	Rim	4.6	Not Recorded
2099	209964	Rim	4.1	Not Recorded
2099	209965	Rim	3.5	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2099	209966	Rim	2.2	Not Recorded
2099	209967	Rim	3.4	Not Recorded
2099	209968	Rim	4.3	Not Recorded
2099	209969	Rim	2.6	Not Recorded
2099	209970	Rim	5.5	Not Recorded
2099	209971	Rim	7.9	Not Recorded
2099	209972	Rim	2.2	Not Recorded
2099	209973	Rim	5.2	Not Recorded
2099	209974	Rim	2	Not Recorded
2099	209975	Rim	6.1	Not Recorded
2099	209976	Rim	9.7	Not Recorded
2099	209977	Rim	10.8	Not Recorded
2099	209978	Rim	13.6	Not Recorded
2099	209979	Rim	15.1	UID Simple Stamped
2099	209980	Rim	2.7	Not Recorded
2099	209981	Rim	12.5	Not Recorded
2099	209982	Rim	9	Not Recorded
2101	210101	Rim	7.9	Not Recorded
2101	210102	Body	2.7	UID Complicated Stamped
2101	210103	Rim	3.2	Not Recorded
2101	210104	Rim	2.2	Not Recorded
2101	210105	Rim	5.5	Not Recorded
2101	210106	Body	10.1	Not Recorded
2101	210107	Body	4.1	Fort Walton Incised
2101	210108	Disc	10.7	
2101	210109	Body	17.9	Not Recorded
2101	210110	Body	2	Not Recorded
2101	210111	Rim	4	Not Recorded
2101	210112	Body	11.1	Not Recorded
2101	210113	Rim	8.4	Lamar Plain
2101	210114	Rim	4.4	Not Recorded
2101	210115	Rim	13.6	Not Recorded
2101	210116	Body	7.9	UID Stamped
2101	210117	Rim	10.2	Not Recorded
2101	210118	Rim	3.1	Not Recorded
2101	210119	Rim	3	Not Recorded
2101	210120	Body	2.2	Point Washington Incised
2101	210121	Body	1.9	Point Washington Incised
2101	210122	Rim	5.3	Point Washington Incised
2101	210123	Rim	4.9	Columbia Incised
2101	210124	Rim	4.8	Columbia Incised
2101	210125	Rim	21.3	Columbia Incised
2101	210126	Body	0	Cool Branch Incised
2101	210127	Body	1.7	UID Incised
2101	210128	Body	1	UID Punctated
2101	210129	Body	1.9	UID Punctated

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2101	210130	Body	2.7	UID Punctated
2101	210131	Body	1.6	UID Punctated
2101	210132	Body	6	Not Recorded
2101	210133	Body	1.5	Moundville Incised
2101	210134	Body	1.8	UID Incised
2101	210135	Body	7.3	Not Recorded
2101	210136	Other	7.3	Other
2101	210137	Rim	6.7	Not Recorded
2101	210138	Rim	10	Not Recorded
2101	210139	Rim	7.9	Not Recorded
2101	210140	Rim	3.6	Not Recorded
2101	210141	Rim	8.9	Not Recorded
2101	210142	Rim	3	Not Recorded
2101	210143	Rim	3	Not Recorded
2101	210144	Rim	5	Not Recorded
2101	210145	Rim	6.7	Not Recorded
2101	210146	Rim	0.9	Not Recorded
2101	210147	Rim	1.8	Not Recorded
2101	210148	Rim	3.8	Not Recorded
2101	210149	Rim	3.1	Not Recorded
2101	210150	Rim	3.4	Not Recorded
2101	210151	Rim	2.3	Not Recorded
2101	210152	Rim	2.4	Not Recorded
2101	210153	Rim	2	Not Recorded
2105	210501	Rim	15.8	UID Plain
2105	210502	Body	5.1	UID Plain
2105	210503	Rim	28.5	Columbia Incised
2105	210504	Body	27	Moundville Incised
2105	210505	Body	9	Moundville Incised
2105	210506	Rim	13.3	UID Plain
2105	210507	Rim	11.3	UID Plain
2105	210508	Rim	28.2	UID Plain
2105	210509	Rim	21.1	Keith Incised
2106	210601	Rim	16.6	UID Plain
2106	210602	Rim	14.2	UID Plain
2106	210603	Rim	16.2	UID Plain
2106	210604	Body	12.6	Columbia Incised
2106	210605	Body	12.2	Columbia Incised
2106	210606	Rim	17.2	Columbia Incised
2106	210607	Rim	3.1	Columbia Incised
2106	210608	Body	8.2	Moundville Incised
2106	210609	Body	7.5	UID Incised
2106	210610	Body	3.8	Columbia Incised
2106	210611	Body	2.3	Columbia Incised
2106	210612	Body	1.1	Point Washington Incised
2106	210613	Body	4.4	Point Washington Incised

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2106	210614	Body	4.9	UID Incised
2106	210615	Body	2.6	Ingram Plain
2106	210616	Rim	7.1	UID Plain
2106	210617	Rim	5.7	UID Plain
2106	210618	Body	1.9	UID Incised
2106	210619	Body	3.1	UID Incised
2106	210620	Body	9.6	Cool Branch Incised
2106	210621	Body	6.8	Cool Branch Incised
2106	210622	Body	5	Cool Branch Incised
2106	210623	Body	3.1	Cool Branch Incised
2106	210624	Body	3.7	Cool Branch Incised
2106	210625	Body	6.2	Cool Branch Incised
2106	210626	Body	9.2	UID Incised
2106	210627	Body	1.5	Cool Branch Incised
2106	210628	Rim	7.3	UID Plain
2106	210629	Rim	9.1	UID Incised
2106	210630	Rim	2.2	UID Plain
2106	210631	Rim	2.6	UID Plain
2106	210632	Rim	5.1	UID Plain
2106	210633	Rim	4.2	UID Plain
2106	210634	Rim	4.6	UID Incised
2106	210635	Rim	4	UID Plain
2106	210636	Rim	1.7	UID Plain
2106	210637	Rim	4.6	UID Plain
2106	210638	Rim	7.8	UID Incised
2106	210639	Rim	2.6	UID Incised
2106	210640	Rim	4.6	UID Plain
2106	210641	Rim	20.4	UID Incised
2106	210642	Rim	11.6	UID Plain
2106	210643	Rim	6.8	UID Plain
2106	210644	Rim	12.8	UID Incised
2106	210645	Rim	7.8	UID Plain
2106	210646	Rim	13	UID Plain
2106	210647	Rim	6.8	UID Plain
2106	210648	Body	6.8	UID Plain
2106	210649	Body	8	UID Plain
2106	210650	Body	9.3	UID Plain
2106	210651	Rim	94.4	UID Plain
2107	210701	Body	3.8	Moundville Incised
2107	210702	Body	14.9	Etowah Complicated Stamped
2107	210703	Rim	21	Not Recorded
2107	210704	Body	3	Point Washington Incised
2107	210705	Other	2.9	Not Recorded
2107	210706	Body	4.9	Not Recorded
2107	210707	Other	10.7	Not Recorded
2107	210708	Body	2.2	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2107	210709	Body	2.9	Not Recorded
2107	210710	Body	28.6	Not Recorded
2107	210711	Body	2.8	Not Recorded
2107	210712	Body	5	Not Recorded
2107	210713	Body	7.4	Not Recorded
2107	210714	Rim	10	Not Recorded
2107	210715	Body	6.8	Fort Walton Incised
2107	210716	Body	2.9	Fort Walton Incised
2107	210717	Body	4.2	Not Recorded
2107	210718	Body	44.5	Not Recorded
2107	210719	Body	36.1	Not Recorded
2107	210720	Rim	1.7	Not Recorded
2107	210721	Rim	9.8	Not Recorded
2107	210722	Rim	36.4	Not Recorded
2107	210723	Rim	12.2	Not Recorded
2107	210724	Rim	22.4	Not Recorded
2107	210725	Rim	33.9	Not Recorded
2107	210726	Rim	13.9	Not Recorded
2107	210727	Rim	3.6	Not Recorded
2107	210728	Rim	7.6	Not Recorded
2107	210729	Rim	26.4	Not Recorded
2107	210730	Rim	50	Not Recorded
2107	210731	Rim	5.2	Moundville Incised
2107	210732	Body	2.3	UID Incised
2107	210733	Body	2.2	Cool Branch Incised
2107	210734	Rim	45.4	Cool Branch Incised
2107	210735	Rim	26.7	Not Recorded
2107	210736	Rim	27.1	Not Recorded
2107	210737	Rim	21.9	Not Recorded
2107	210738	Rim	9.4	Not Recorded
2107	210739	Rim	32.4	Not Recorded
2107	210740	Rim	4	Not Recorded
2107	210741	Rim	5.7	Not Recorded
2107	210742	Rim	32.2	Not Recorded
2107	210743	Rim	18.7	Not Recorded
2107	210744	Rim	10.3	Not Recorded
2107	210745	Rim	8.8	Not Recorded
2107	210746	Rim	9.2	Columbia Incised
2107	210747	Rim	5.3	Columbia Incised
2107	210748	Rim	3.9	Columbia Incised
2107	210749	Body	3.5	Columbia Incised
2107	210750	Body	6.9	Columbia Incised
2107	210751	Rim	13.3	Columbia Incised
2107	210752	Body	16.3	Columbia Incised
2107	210753	Body	4.5	Not Recorded
2107	210754	Rim	28.3	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2108	210801	Rim	4.4	Not Recorded
2108	210802	Body	5.7	Not Recorded
2108	210803	Disc	20.1	
2108	210804	Rim	10.7	Not Recorded
2108	210805	Rim	2.1	Not Recorded
2108	210806	Rim	13.2	Not Recorded
2108	210807	Rim	31	Not Recorded
2108	210808	Rim	10.6	Not Recorded
2108	210809	Rim	15.9	Not Recorded
2108	210810	Body	10.2	Not Recorded
2108	210811	Rim	8	Columbia Incised
2108	210812	Body	4.3	Moundville Incised
2108	210813	Body	1	UID Incised
2108	210814	Body	17.3	Not Recorded
2108	210815	Body	7.9	Etowah Complicated Stamped
2108	210816	Rim	9	Not Recorded
2108	210817	Rim	7.2	Not Recorded
2108	210818	Rim	5.6	Not Recorded
2108	210819	Body	6.6	Wakulla Check Stamped
2108	210820	Body	8	Wakulla Check Stamped
2108	210821	Body	4.9	Cool Branch Incised
2108	210822	Body	11.2	Cool Branch Incised
2108	210823	Body	4.1	Cool Branch Incised
2108	210824	Body	1.2	Cool Branch Incised
2108	210825	Body	34.7	Not Recorded
2108	210826	Rim	57.5	Not Recorded
2108	210827	Rim	107.7	Not Recorded
2108	210828	Rim	3.5	Not Recorded
2108	210829	Rim	7.6	Not Recorded
2108	210830	Rim	2.8	Not Recorded
2108	210831	Rim	3.7	Not Recorded
2108	210832	Rim	4	Not Recorded
2108	210833	Rim	7.3	Not Recorded
2108	210834	Rim	13.4	Not Recorded
2108	210835	Rim	64.5	Not Recorded
2109	210901	Rim	6.1	Not Recorded
2109	210902	Rim	11	Not Recorded
2109	210903	Body	6.7	Not Recorded
2109	210904	Rim	5.2	Not Recorded
2110	211001	Rim	4.2	UID Plain
2111	211101	Rim	6	Not Recorded
2111	211102	Rim	6.8	Not Recorded
2111	211103	Disc	16	
2111	211104	Pipe Bowl	6	
2111	211105	Rim	2.6	Not Recorded
2111	211106	Rim	4	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2111	211107	Rim	16.1	Not Recorded
2111	211108	Body	15.5	Cool Branch Incised
2111	211109	Body	2.4	Cool Branch Incised
2111	211110	Body	2.7	Moundville Incised
2112	211201	Rim	2.1	Not Recorded
2112	211202	Rim	4.1	Columbia Incised
2112	211203	Body	3.5	Moundville Incised
2112	211204	Rim	5.9	Not Recorded
2112	211205	Rim	9	Not Recorded
2112	211206	Rim	4.4	Not Recorded
2112	211207	Rim	3.3	Not Recorded
2112	211208	Rim	3.8	Not Recorded
2112	211209	Rim	3.2	Not Recorded
2116	211601	Rim	39.1	Not Recorded
2116	211602	Rim	6.3	Not Recorded
2116	211603	Rim	3.3	Not Recorded
2116	211604	Body	3.5	Not Recorded
2116	211605	Rim	38.8	Not Recorded
2116	211606	Rim	2.9	Not Recorded
2116	211607	Rim	4.8	Fort Walton Incised
2116	211608	Body	0	Fort Walton Incised
2116	211609	Body	12.9	Cool Branch Incised
2116	211610	Body	1	UID Incised
2116	211611	Body	9	Columbia Incised
2116	211612	Rim	0	Not Recorded
2116	211613	Rim	3.5	Not Recorded
2116	211614	Rim	6.1	Not Recorded
2116	211615	Rim	2	Not Recorded
2116	211616	Body	0	Not Recorded
2116	211617	Body	1.6	Not Recorded
2116	211618	Rim	25.5	Not Recorded
2116	211619	Rim	4.1	Not Recorded
2116	211620	Rim	0	Not Recorded
2116	211621	Rim	7.1	Lamar Plain
2116	211622	Rim	10.8	Lamar Plain
2116	211623	Body	5.8	Not Recorded
2116	211624	Body	1.9	UID Incised
2116	211625	Body	0	Moundville Incised
2116	211626	Body	1.1	Moundville Incised
2116	211627	Body	2	Moundville Incised
2116	211628	Rim	1.3	Not Recorded
2116	211629	Rim	1.5	Not Recorded
2116	211630	Rim	1.3	Not Recorded
2116	211631	Rim	4.4	Not Recorded
2116	211632	Rim	4.1	Not Recorded
2116	211633	Rim	8.5	Not Recorded

Table B.8. Diagnostic Sherds from Excavation Units

Lot Number	Diagnostic Sherd Number	Diagnostic Type	Weight	Preliminary Type Designation
2116	211634	Rim	1.8	Not Recorded
2116	211635	Rim	2	Not Recorded
2116	211636	Rim	2.6	Not Recorded
2116	211637	Rim	5.9	Not Recorded
2116	211638	Rim	2.7	Not Recorded
2116	211639	Rim	3.9	Not Recorded
2116	211640	Rim	2.9	Not Recorded
2116	211641	Rim	3.7	Not Recorded
2116	211642	Rim	3.7	Not Recorded
2116	211643	Rim	6.1	Not Recorded
2116	211644	Rim	8	Not Recorded
2116	211645	Rim	5.4	Not Recorded
2116	211646	Rim	3.8	Not Recorded
2116	211647	Body	4.8	Lamar Complicated Stamped
2116	211648	Body	3.4	Lamar Complicated Stamped
2116	211649	Body	3.6	UID Complicated Stamped
2116	211650	Body	8	Lamar Complicated Stamped
2116	211651	Body	22.2	UID Stamped
2106	216015	Body	2.6	Not Recorded
2204	220401	Rim	20.7	UID Plain
2204	220402	Rim	7.2	UID Incised
2204	220403	Body	1.9	Cool Branch Incised
2204	220404	Rim	2.6	UID Plain
2204	220405	Rim	12.6	UID Plain
2204	220406	Pipe Bowl	2.4	Wrapped Pipe Bowl
2207	220701	Rim	6.5	UID Plain
2069	2069100	Rim	7.2	Not Recorded
2069	2069101	Body	8	UID Plain
2069	2069102	Body	9.8	Cool Branch Incised
2069	2069103	Rim	9.9	UID Plain
2069	2069104	Rim	14	UID Plain
2069	2069105	Body	11.9	UID Plain
2069	2069106	Rim	107.1	UID Plain
2069	2069107	Rim	10.1	UID Plain
2069	2069108	Body	8.6	UID Plain
2069	2069109	Body	4.6	UID Plain
2069	2069110	Rim	9.2	UID Plain
2069	2069111	Rim	12	UID Plain
2069	2069112	Body	10.5	Not Recorded
2069	2069113	Rim	5.4	Columbia Incised

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Per	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
1011011																X																				
10111009		X																																		
10120011		X					X																													X
10140011		X					X																													X
1014003							X																													X
1016002		X																									X									
10170011		X													X																				X	X
10177002		X										X																							X	X
10227011		X								X																										X
10311002										X																										X
10311003																																				X
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
206007								X																									X		
206008																X																		X	
206009									X																									X	
206207														X																				X	
206208																												X							X
206213														X													X							X	
206214														X												X								X	
206215														X												X								X	
206216																								X										X	
206217																								X										X	
206218																								X										X	X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Per	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
206223		X																			X													X		
206224																																			X	
206225																							X												X	
206303		X								X																									X	
206304		X								X																X							X	X		
206305																													X						X	
206306												X																							X	
206401		X																											X					X	X	
206402		X																			X													X	X	
206403		X																				X												X	X	
206404	X																										X									X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
206709																							X										X	X		
206715																																		X		
206716							X																										X	X		
206717										X																							X	X		
206718		X													X																		X	X		
206719		X						X																									X	X		
206720		X					X																										X	X		
206721		X							X			X																						X	X	
206722		X																																X	X	
206723		X							X																									X	X	
206724	X																																	X	X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
206725																												X						X	
206802																													X					X	
206803												X																						X	
206918																										X								X	
206919																									X									X	
206920		X								X																						X		X	
206921		X										X																			X			X	
206926																																			X
206927																																			X
206928				X																															X
206929	X							X																											X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
2069330		X																	X																X
2069331	X	X		X																															X
2069332		X																			X										X				
2069333																						X												X	
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206935																						X												X	
206936		X																		X													X	X	
206937		X																		X													X	X	
206938		X																		X													X	X	
206939																		X															X	X	
206940																																		X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Per	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-Line, Angled	Incising, Ext, UID, Multi-Line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
206941										X																							X	X		
206942	X																				X													X		
206943			X																															X	X	
206944						X																														
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207002																												X								X
207005	X																																			X
207006																																				X
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
207336																																	X	X		
207337		X					X																										X	X		
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207339							X																											X	X	
207402																													X						X	
207403												X														X									X	
207409		X	X																															X		X
207410	X						X																											X		X
207411	X																																			X
207417																	X																	X	X	
207418								X																										X		X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Per	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-Line, Angled	Incising, Ext, UID, Multi-Line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
207419							X																										X		
207420							X																										X	X	
207421	X	X																															X	X	
207422							X																											X	
207423								X																										X	
207424	X						X																											X	
207425								X																										X	X
207444																					X												X	X	
207445																						X												X	
207446																						X											X	X	
207447																																	X	X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
209314		X					X																											X	
209315		X					X																										X	X	
209316								X																									X	X	
209403																				X													X		
209404		X																			X												X	X	
209407		X							X																							X		X	
209408							X																											X	
209409		X						X																										X	
209411		X										X																					X	X	
209423								X																											X
209424		X																																	X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
2099425																																				X
2099801																																				X
2099901																					X													X	X	
2099902				X																																X
2099903	X						X																													X
2099904																																				X
2099905																																				X
2099906							X																													X
2099912												X																								X
2099913																												X								X
2099916	X														X																					X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-Line, Angled	Incising, Ext, UID, Multi-Line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell			
209917	X													X																			X	X			
209918														X																					X		
209919		X										X																				X		X			
209920		X										X																							X		
209921		X									X																				X	X			X		
209922																																				X	
209923		X																														X			X		
209925		X					X																												X	X	
209926								X																										X	X		
209927																																			X	X	
209928	X																																			X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Perp	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-Line, Angled	Incising, Ext, UID, Multi-Line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
2099229	X				X																												X	X		
2099330							X																											X		
2099331																					X													X		
2099332	X																																		X	
2099333																																				
2099334	X																																			
2099335																																				
2099336	X																																			
2099522																								X					X						X	
2099533																									X										X	
2099554																									X										X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
209955																													X					X	
209979		X																																X	X
210102																													X					X	
210103		X										X																						X	X
210107		X													X																			X	X
210116																														X	X			X	
210120		X							X						X																	X		X	
210121		X							X																							X		X	
210122		X									X												X											X	
210123																								X										X	X
210124																																			X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-Line, Angled	Incising, Ext, Curvilinear, Multi-Line, Perp	Incising, Ext, Curvilinear, Single-Line, Perp	Incising, Ext, Rectilinear, Multi-Line, Angled	Incising, Ext, Rectilinear, Multi-Line, Per	Incising, Ext, Rectilinear, Single-Line, Angled	Incising, Ext, Rectilinear, Single-Line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-Line, Angled	Incising, Ext, UID, Multi-Line, Perp	Incising, Ext, UID, Single-Line, Angled	Incising, Ext, UID, Single-Line, Perp	Incising, Int, Curvilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Multi-Line, Perp	Incising, Int, Rectilinear, Single-Line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</
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Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
210822		X					X																										X	X	
210823		X					X																											X	
210824		X					X																											X	
210825											X																							X	
210903															X																				X
211108		X					X																											X	
211109							X																											X	
211110								X																											X
211202																																		X	
211203																																	X		X
211203							X																										X		X
211607																									X									X	

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell	
2116008																										X							X	X		
2116009		X					X																											X	X	
2116110																													X					X		
2116111																					X													X		
2116116		X										X																			X			X		
2116117		X										X																				X			X	
2116203												X																			X				X	
2116204										X				X																				X	X	
2116205	X		X																																	X
2116206																																				X
2116207			X																																	X

Table B.8. Surface Treatment Attributes, Modes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive, Clay, Grog	Additive, Mica	Arcade, Eyelash, Angled	Arcade, Eyelash, Perp	Arcade, Punctated, Angled	Arcade, Punctated, Perp	Arcade, Unembellished, Angled	Arcade, Unembellished, Perp	Incising, Ext, Curvilinear, Multi-line, Angled	Incising, Ext, Curvilinear, Multi-line, Perp	Incising, Ext, Curvilinear, Single-line, Perp	Incising, Ext, Rectilinear, Multi-line, Angled	Incising, Ext, Rectilinear, Multi-line, Perp	Incising, Ext, Rectilinear, Single-line, Angled	Incising, Ext, Rectilinear, Single-line, Perp	Incising, Ext, Squiggle, Perp	Incising, Ext, UID, Multi-line, Angled	Incising, Ext, UID, Multi-line, Perp	Incising, Ext, UID, Single-line, Angled	Incising, Ext, UID, Single-line, Perp	Incising, Int, Curvilinear, Multi-line, Perp	Incising, Int, Rectilinear, Multi-line, Perp	Incising, Int, Rectilinear, Single-line, Perp	Line Block	Punctuation, Angled	Punctuation, Perp	Stamped, Check	Stamped, Curvilinear	Stamped, Rectilinear	Surface, Treatment, Brown, Filmed	Surface, Treatment, Burnished	Surface, Treatment, Red, Filmed	Surface, Treatment, Smoothed	Tempering, Sand, Grit	Tempering, Shell
211647																												X						X	
211648																													X					X	
211649																												X						X	
211650																												X						X	
211651		X																									X						X	X	
220403		X																															X	X	
2069102								X																										X	
2069113	X																							X							X			X	

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clav Groove	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctured	Lip Scalloped	Lip Ticked	Mode Applique	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Modeled Pinched Below Rim	Punctured Penn-Annealed	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell							
210830																									X																						
205907								X		X															X																X	X					
205911	X							X		X	X							X							X																X						
206915		X																								X																X	X				
206806															X	X										X																	X				
206746								X		X																X																	X				
206747								X		X																X																	X				
209317	X																									X																X					
211640																							X			X																X					
206231																								X																				X			
210119	X									X																X																X	X				
210142																										X																X	X				

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clay Groove	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctated	Lip Scalloped	Lip Ticked	Mode Applique	Mode Bulge Collar	Mode Folded/Thickened	Mode Noded	Mode Thinned	Mode Wedged	Moded Pinched Below Rim	Punctated Penn-Annealed	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell		
205910		X						X		X	X										X				X														X			
206637												X															X											X	X			
207431																											X												X	X		
211641																											X		X										X			
211642																									X													X	X			
205909											X																X												X			
206640											X										X			X															X			
206973	X																									X													X			
206981																										X													X	X		
208077	X															X									X														X			
209319																											X													X		
211208																																								X		

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

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Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clav Groove	Additive Micra	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lin	Lin Notched	Lin Pinched	Lin Punctated	Lin Scalloped	Lin Ticked	Mode Apollone	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Moded Pinched Below Rim	Punctated Penn-Axled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Core	Tempering Shell
20305			X																							X													X	
206913			X																							X													X	
207429		X						X		X															X					X								X	X	
209418				X																						X												X		X
211206		X																					X	X						X								X	X	
211631																										X														X
211014															X											X					X							X	X	
210801		X	X																								X											X	X	
206961																		X								X												X	X	
207342			X							X								X									X					X						X	X	
206022		X																									X												X	
206651				X																							X													X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

	Dia	Diagnosis	Shear	Number
		Additive Clay Grog		
		Additive Mica		
		Direct Collar Present	X	
		Handle Closed		
		Handle Open		
		Incised Arcades		
		Incised Body		
		Incised Exterior		
		Incised Interior		
		Incised Parallel to Lin		
		I in Notched		
		I in Pinched		
		I in Punctated		
		I in Scalloped		
		I in Ticked		
		Mode Anollane		
		Mode Bulbre Collar		
		Mode Folded Thickened		
		Mode Noded		
		Mode Thinned		
		Mode Wedged		
		Moded Pinched Below Rim		
		Punctated Peris-Angled		
		Rim Everted		
		Rim Orient Inleaned		
		Rim Orient Outleaned	X	
		Rim Orient Upright		
		Rim Shape Composite		
		Rim Shape Elarine		
		Rim Shape Rounded	X	
		Rim Shape Stratair		
		Stamned Complicated		
		Surface Treatment Brown Filmed	X	
		Surface Treatment Brushed		
		Surface Treatment Burnished		
		Surface Treatment Red Filmed		
		Surface Treatment Roughened		
		Surface Treatment Smoothed		
		Tempering Sand Grit	X	
		Tempering Shell		

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

	Dia	Diagnosic	Sherd Number	
207209		Additive Chaz Grog		
206811	X	Additive Mica		
209421	X	Direct Collar Present	X	
209908	X	Handle Closed		
207310		Handle Open		
207008		Incised Arcades		
210616		Incised Brdvs	X	
209416		Incised Exterior		
211621		Incised Interior		
20650	X	Incised Parallel to Lin		
20690		L in Notched		
207008		L in Punched		
210616		L in Punctated		
20650		L in Scalloped		
209421		L in Ticked		
211621		Mode Amollone		
206811	X	Mode Bulse Collar		
207209		Mode Folded Thickened		
206811		Mode Nodded		
20650		Mode Thinned		
20650		Mode Wedged		
20650		Moded Pinched Below Rim		
20650		Punctated Penn-Angled		
20650		Rim Everted		
20650		Rim Orient Inleaned		
20650	X	Rim Orient Outleaned		
20650	X	Rim Orient Unbolt		
20650	X	Rim Shape Composite		
20650		Rim Shape Flaring		
20650	X	Rim Shape Rounded		
20650	X	Rim Shape Stratohr		
20650		Stamped Comalized		
20650		Surface Treatment Brown Filmed		
20650		Surface Treatment Brushed		
20650		Surface Treatment Burnished		
20650		Surface Treatment Red Filmed		
20650		Surface Treatment Roughened	X	
20650	X	Surface Treatment Smoothed	X	
20650		Tempering Sand Grit		
20650		Tempering Shell		

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clay Grog	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lin	Lin Notched	Lin Pinched	Lin Punctured	Lin Scalloped	Lin Ticked	Mode Applique	Mode Bulge Collar	Mode Folded Thickened	Mode Nodded	Mode Thinned	Mode Wedged	Modeled Pinched Below Rim	Punctuated Perpendicular	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell
206785							X		X																X			X										X	X	
207433																										X				X								X	X	
206656	X																			X						X				X									X	
206707																	X									X												X	X	
210113																						X					X											X	X	
211633																						X					X											X	X	
211633																										X												X	X	
206986	X		X																							X				X						X			X	
206804	X																									X				X									X	
206647			X																	X					X				X											X
206641			X														X				X				X			X		X									X	
206908	X	X																X								X				X										X
210745	X						X	X	X	X															X														X	X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clay Groove	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctured	Lip Scalloped	Lip Ticked	Mode Amblone	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Modeled Pinched Below Rim	Punctured Penn-Angled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell
2073225		X	X																				X			X				X							X	X		
2071005		X																						X													X	X		
2099907															X										X				X							X	X			
2069116			X														X									X				X								X	X	
2073114			X																					X															X	
2064211		X	X					X		X							X								X					X							X	X		
2099909																						X				X												X		
2073332		X																							X				X						X			X		
2070112																				X						X			X								X	X		
2107338			X																							X		X									X	X		
2066332		X								X							X									X			X						X			X		
2094119										X							X								X					X							X	X		

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clav Grog	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lin	Lin Notched	Lin Pinched	Lin Punctated	Lin Scalloped	Lin Ticked	Mode Annular	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Model Pinched Below Rim	Punctated Perre-Angled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filmed	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filmed	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell		
2094220	X									X															X														X	X		
2093303											X									X						X														X	X	
2069974																										X																
2060005	X																										X												X	X		
2071228	X						X	X	X																X													X	X			
2067753																										X												X	X			
2099976	X																							X														X	X			
2069922	X						X		X							X										X			X							X		X				
2107221																										X												X	X			
2059113			X																							X																
2069877																									X				X									X	X			
2069103			X																							X			X									X	X			

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clay Grog	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctured	Lip Scalloped	Lip Ticked	Mode Applique	Mode Bulge Collar	Mode Folded/Thickened	Mode Noded	Mode Thinned	Mode Wedged	Model Pinched Below Rim	Punctured Penn-Annuled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell
207001																		X								X														X
210138																									X															X
210714	X		X					X		X																X														X
205902			X																							X														X
2069107	X		X					X		X														X															X	X
210117										X																X												X	X	
206403	X							X		X	X															X												X	X	
210744	X	X																X								X													X	
207124	X	X																X								X												X	X	
206308		X															X	X								X	X		X									X	X	
206422		X						X		X								X								X													X	
206808																						X					X													X
206808																						X					X													X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clay Grog	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctated	Lip Scalloped	Lip Ticked	Mode Applique	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Modeled Pinched Below Rim	Punctated Penn-Angled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell
210751	X					X		X					X												X					X							X	X		
210834	X																X									X			X									X		
209912							X	X																			X												X	
206924															X											X				X								X	X	
207007	X	X																								X			X									X	X	
210115	X	X																								X				X								X	X	
209978																									X				X									X	X	
206420	X	X																								X			X									X	X	
209406	X	X	X																							X				X								X	X	
206726	X	X													X	X										X				X								X	X	
207327		X						X		X								X								X				X									X	
207448							X		X		X															X					X							X	X	

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

	Diagnostics	Sherd Number
	Additive Clay Core	
	Additive Mica	
	Direct Collar Present	X
	Handle Closed	
	Handle Open	
	Incised Arcades	
	Incised Body	
	Incised Exterior	
	Incised Interior	
	Incised Parallel to Lin.	
	Lin Nouched	
	Lin Pinched	
	Lin Punctuated	
	Lin Scalloped	
	Lin Ticked	
	Made Anallone	
	Made Bulge Collar	
	Made Folded Thickened	X
	Made Noded	
	Made Thinned	
	Made Wedged	
	Model Pinched Below Rim	
	Punctated Perpendicular	
	Rim Everted	
	Rim Orient Inleaned	
	Rim Orient Outleaned	X
	Rim Orient Horizontal	
	Rim Shape Constricted	
	Rim Shape Flaring	X
	Rim Shape Rounded	
	Rim Shape Straight	X
	Stamped Complicated	
	Surface Treatment Brown Filled	
	Surface Treatment Brushed	
	Surface Treatment Burnished	
	Surface Treatment Red Filled	
	Surface Treatment Roughened	
	Surface Treatment Smoothed	X
	Tempering Sand/Grit	
	Tempering Shell	X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sherd Number	Additive Clav Groove	Additive Micra	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lip	Lip Notched	Lip Pinched	Lip Punctated	Lip Scalloped	Lip Ticked	Mode Applique	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Modeled Pinched Below Rim	Punctated Penn-Angled	Rim Everted	Rim Orient Inleaned	Rim Orient Outleaned	Rim Orient Upright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamped Complicated	Surface Treatment Brown Filled	Surface Treatment Brushed	Surface Treatment Burnished	Surface Treatment Red Filled	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Core	Tempering Shell	
220401			X							X														X						X								X	X		
206014		X	X					X		X							X									X														X	
207018	X	X	X					X		X								X								X													X	X	
206418				X														X								X													X	X	
207037											X																X												X	X	
210703																		X								X															X
210509			X					X										X								X															X
210125							X		X	X	X														X															X	
206307			X																							X															X
207324			X																							X															X
210737		X	X															X								X													X	X	
209945			X																							X			X										X	X	

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Sheet Number	207015	210724	207307	206406	206015	207026	206903	206729	209928	207331	211618	207222
Additive Clay Grog												
Additive Mica	X			X	X		X	X	X	X		X
Direct Collar Present		X				X			X	X		X
Handle Closed						X						
Handle Open												
Incised Arcades									X			X
Incised Body												
Incised Exterior							X		X			X
Incised Interior									X			
Incised Parallel to Lin							X					
Lin Notched	X											
Lin Pinched												
Lin Punctated												
Lin Scalloped												
Lin Ticked								X				
Mode Annular	X							X				
Mode Bulge Collar							X					
Mode Folded Thickened	X	X			X				X	X		
Mode Noded												
Mode Thinned												
Mode Wedged												
Moded Pinched Below Rim												
Punctated Peris-Axial												X
Rim Everted												
Rim Orient Inleaned												
Rim Orient Outleaned		X		X	X	X		X	X	X	X	X
Rim Orient Uniaxial	X		X				X					
Rim Shape Composite									X	X		
Rim Shape Flaring												
Rim Shape Rounded	X	X	X	X	X	X	X	X				
Rim Shape Striated												
Stained Complicated												
Surface Treatment Brown Filmed												
Surface Treatment Brushed												
Surface Treatment Burnished												
Surface Treatment Red Filmed												
Surface Treatment Roughened												
Surface Treatment Smoothed	X		X			X	X			X	X	
Tempering Sand Grit	X		X		X	X	X		X			
Tempering Shell		X						X				X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

Diagnostic Spond Number	Additive Clav Groove	Additive Mica	Direct Collar Present	Handle Closed	Handle Open	Incised Arcades	Incised Body	Incised Exterior	Incised Interior	Incised Parallel to Lin	Lin Notched	Lin Punched	Lin Punctated	Lin Scalloped	Lin Ticked	Mode Ampleone	Mode Bulge Collar	Mode Folded Thickened	Mode Noded	Mode Thinned	Mode Wedged	Moded Pinched Below Rim	Punctated Peris-Angled	Rim Everted	Rim Orient Inleanned	Rim Orient Outleanned	Rim Orient Unright	Rim Shape Composite	Rim Shape Flaring	Rim Shape Rounded	Rim Shape Straight	Stamned Complicated	Surface Treatment Brown Filmed	Surface Treatment Brnished	Surface Treatment Burnished	Surface Treatment Red Filmed	Surface Treatment Roughened	Surface Treatment Smoothed	Tempering Sand Grit	Tempering Shell
210754		X			X		X	X									X									X	X											X	X	
210503		X	X				X		X	X	X														X						X							X	X	
207330		X	X														X									X	X			X								X	X	
207020		X	X														X									X						X						X	X	
210807											X															X				X								X	X	
206738											X						X										X			X								X	X	
2070221			X														X									X	X											X	X	
210742	X	X	X																							X				X									X	X
210739			X																							X					X								X	X
210725			X														X	X									X	X		X								X	X	
209931							X	X	X	X																X					X								X	
210722	X																									X													X	X

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

[illegible]

Table B.9. Rim Modes, Attributes, and Motifs Recorded from Diagnostic Sherds

	Diagnostics	Sheard Number
	Additive Clasp Groove	
	Additive Mica	X
	Direct Collar Present	X X
	Handle Closed	X
	Handle Open	
	Incised Arches	
	Incised Body	
	Incised Exterior	
	Incised Interior	
	Incised Parallel to Lin	
	L in Notched	X
	L in Pinched	
	L in Punctated	
	L in Scalloped	
	L in Ticked	
	Mode Anallone	
	Mode Bulire Collar	
	Mode Folded Thickened	
	Mode Noded	
	Mode Thinned	
	Mode Wedged	X
	Moderl Pinched Below Rim	
	Punctated Perse-Anulled	
	Rim Everted	
	Rim Orient Inleaned	
	Rim Orient Outleaned	X
	Rim Orient Upright	
	Rim Shape Composite	
	Rim Shape Elaring	X
	Rim Shape Rounded	
	Rim Shape Straiab	X
	Stannod Complicated	
	Surface Treatment Brown Filmed	
	Surface Treatment Brushed	
	Surface Treatment Burnished	
	Surface Treatment Red Filmed	X
	Surface Treatment Roughened	X X
	Surface Treatment Smoothed	
	Tempering Sand Grit	X X
	Tempering Shell	

APPENDIX C: ITEMSET MINING RESULTS

Key to Abbreviations:

Perp – Perpendicular Incising

Ext – Exterior of Vessel

Int – Interior of Vessel

Rect – Rectilinear

Curv – Curvilinear

M – Multiple Parallel Lines

S – Single Line

Squi – Squiggle Incised line

Angl – Angled Incising Direction

Table C.1. Category: Surface Decoration Itemsets - Incised on the Interior of Rims

		Identified Itemsets										
Additive.Mica	X		X		X		X		X			
Incising.Int.Curv.M.Per	X	X										
Incising.Int.Rect.M.Per			X	X	X	X	X	X				
Incising.Int.Rect.S.Per									X	X	X	
Surface.Treatment.Burnished			X	X					X			
Surface.Treatment.Smoothed							X	X		X		
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X
Unit	AU	Weight by Itemset										
4	1											
	2											
	3			6.2	18							
	4			18.7			8		7.9	5.4		
	5								6.3			
	6							9.7	11.7			
	7						16.2					
5	2	10.7	2.9									3.1
	3											
	4			16.6			1.8	20.4	4.2			
	5						45.1	6.1				
	6						22.3	15.5	37.8			
	7						3.2	7.6				
	8				9.1			2.3				
	9				12.6				10			
	10							28.5				
	11											
6	1								4.1			
	2						9					
	3				21.3		4.8				4.9	
	4			1.8	50.9	12.4	3.4	14.8				
	5						3.5	29	34.7			
	6									8		
	7											
	8											

Table C.2.Category: Surface Decoration Itemsets - Arcaded Jars 1

	Identified Itemsets													
Additive.Clay.Grog	X			X			X						X	
Additive.Mica		X		X				X						X
Arcade.Eyelash.Angled	X	X	X											
Arcade.Eyelash.Perp				X	X									
Arcade.Eyelash.UID						X	X	X						
Arcade.Punctated.Angled									X					
Arcade.Punctated.Perp										X				
Arcade.Unembellished.Angled											X	X	X	
Surface.Treatment.Smoothed		X				X		X				X	X	
Tempering.Shell	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset													
4	1														
	2														
	3					5									
	4				4.4	6.1									
	5					5.9			21.7			3.7			
	6														
	7														
5	2														
	3														
	4														
	5										8.2				
	6		17.5					2.1					7.1		
	7														
	8			3.8											
	9					8.7									
	10						9								
	11														
6	1														
	2	1.5		2											
	3														
	4					8	19.1					5.4		6.1	
	5									3.8					
	6											4.3			
	7														
	8														

Table C.3. Category: Surface Decoration Itemsets - Arcaded Jars 2

	Identified Itemset												
Additive.Mica	X						X	X			X		X
Arcade.Eyelash.Angled							X						
Arcade.Eyelash.Perp								X	X	X			
Arcade.Eyelash.UID											X	X	
Arcade.Punctated.Angled													X
Arcade.Unembellished.Angled	X	X	X										
Arcade.Unembellished.Perp				X	X	X							
Surface.Treatment.Burnished		X											
Surface.Treatment.Red.Filmed				X									
Surface.Treatment.Smoothed			X	X	X		X	X	X		X	X	X
Tempering.Sand.Grit							X	X	X	X	X	X	X
Tempering.Shell	X	X	X	X	X	X							

Unit	AU	Weight by Itemset											
4	1												
	2					7.2							
	3		5.9										
	4	5.5							3.4				
	5	2.1			3.2							4.3	
	6			14.1						4.6			
	7												
5	2												
	3												
	4												
	5												
	6					6.8							
	7												
	8				13.5								
6	1		3.5										
	2												
	3						2.5						
	4											5.3	
	5					5.2							
	6												
	7												
	8					2.7							

Table C.4. Category: Surface Decoration Itemsets - Arcaded Jars 3

		Identified Itemsets											
Additive.Mica	X			X	X					X	X	X	X
Arcade.Punctated.Perp	X												
Arcade.Punctated.UID		X											
Arcade.Unembellished.Angled			X	X	X	X							
Arcade.Unembellished.Perp							X	X	X	X	X	X	X
Incising.Ext.Rect.M.Per											X		
Punctation.Perp	X												
Surface.Treatment.Burnished										X			
Surface.Treatment.Red.Filmed							X						
Surface.Treatment.Smoothed	X	X		X		X		X				X	
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset											
4	1												
	2												
	3			2.8						3.8			
	4			20.2					19.8	9.8			
	5	5.6			17.6				69.4	2.9			8.8
	6												
	7												
5	2												
	3												
	4				11.5				17.1				4.6
	5				10.8	14.6	3.7			6.8			
	6			2.7		4.1		17.4	14.2	16.9			
	7			14.9	5		4.5			23.7		9.9	16.1
	8			5.6									5
	9				5.4	4.7			4.4	6.4			
	10												
	11												
	12												
6	1												
	2				12.9								
	3												
	4		9	1.8	6.8	25.3			4				
	5										2.2		45.4
	6					1.2						16.1	4.1
	7												
	8			2.4									15.5

Table C.5. Category: Surface Decoration Itemsets - Stamped Wares

Identified Itemsets														
Additive.Mica	X			X		X			X					
Stamped.Check	X	X	X	X										
Stamped.Curvilinear					X	X	X	X						
Stamped.Line.Block								X	X	X	X			
Stamped.Rectilinear												X	X	X
Surface.Treatment.Brown.Filmed												X		
Surface.Treatment.Burnished	X													
Surface.Treatment.Red.Filmed												X		
Surface.Treatment.Smoothed		X		X		X			X	X			X	
Tempering.Sand.Grit	X	X	X	X		X	X	X	X	X	X	X	X	X
Tempering.Shell					X									
Unit	AU	Weight by Itemset												
4	1			1.8										
	2										6.8			
	3	4												
	4													
	5			12.8										
	6													
	7													
5	2				1.8					5.9	32.8			
	3						2							3.5
	4		3.3			4.7	20.5			3.4				
	5													
	6													7.2
	7			2.6										
	8													
	9													
	10													
	11													
	12													
6	1													
	2			22.2			19.8							
	3		6				2.7					7.9		
	4			4.6			5	152	15.1		15.6			
	5												14.9	
	6	14.6												7.9
	7													
	8													

Table C.6. Category: Surface Decoration Itemsets - Punctated Wares

		Identified Itemsets															
Additive.Mica	X	X		X		X											
Incising.Ext.Curv.M.Per	X																
Incising.Ext.Rect.M.Per			X														
Incising.Ext.Curv.S.Per		X															
Incising.Ext.Rect.S.Perp				X	X	X	X	X									
Punctuation.Angl		X	X	X	X			X						X	X	X	
Punctuation.Perp	X					X	X		X	X	X	X					
Surface.Treatment.Burnished								X		X				X			
Surface.Treatment.Smoothed	X	X		X							X				X		
Tempering.Sand.Grit	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
Tempering.Shell									X								

Unit	AU	Weight by Itemset															
4	1																
	2																
	3													2.8			
	4									5.1						4.7	
	5								40.1								
	6																
	7																
5	2				4.3		5.7										
	3		3.9														
	4					4.1											
	5																
	6			8.8													
	7																
	8																
	9																
	10																
	11																
	12																
6	1																
	2										5					4.8	
	3				4.1						1.9	3.7		1.6			
	4																
	5	4.5			2.9			6.8									
	6																
	7																
	8																

Table C.7. Category: Surface Decoration Itemsets - Exterior Incised Wares 1

	Identified Itemsets														
Additive.Mica					X		X		X	X	X	X	X		
Incising.Ext.Curv.M.Angl					X	X	X								
Incising.Ext.Curv.M.Per	X	X						X	X	X	X	X	X	X	X
Incising.Ext.Rect.M.Per			X						X						
Incising.Ext.UID.M.Perp				X											
Incising.Ext.Rect.S.Perp										X					
Surface.Treatment.Burnished					X	X		X		X	X				
Surface.Treatment.Smoothed	X								X			X		X	
Tempering.Sand.Grit					X	X	X	X	X	X	X	X	X	X	X
Tempering.Shell	X	X	X	X											

Unit	A U	Weight by Itemset														
4	1															
	2					2.9	5							2.3		2.1
	3			1.4				1.8								
	4							5.5			4.1				16.9	
	5	9.1										1.8				
	6															
	7															
5	2															
	3													1.8		
	4								6.3			2.6				
	5			7.5								1.1				
	6															
	7															
	8										7.3					
	9				7.5											
	10															
	11															
6	1															
	2															
	3									2.2	1.9					
	4							3.8								
	5									3					44.5	
	6		1													
	7															
	8															

Table C.8. Category: Surface Decoration Itemsets - Exterior Incised Wares 2

Additive.Mica	X			X	X	X			X						X
Incising.Ext.Rect.M.Angl	X	X	X												
Incising.Ext.Rect.M.Per				X	X	X	X	X							
Incising.Ext.Squ.P												X			
Incising.Ext.UID.M.Angl									X	X					
Incising.Ext.UID.M.Perp											X				
Incising.Ext.Rect.S.Perp													X	X	
Incising.Ext.UID.S.Angl															X
Surface.Treatment.Brown.Filmed	X												X		
Surface.Treatment.Burnished	X	X		X			X								
Surface.Treatment.Smoothed					X				X		X		X		
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X			
Tempering.Shell													X	X	X

Unit	AU														
4	1											4			
	2								2.2						
	3			12.6				5.2	2.6						
	4				7.4							1.3			3.7
	5				5.4								2.1		
	6														
	7														
5	2														
	3								14.5						
	4					3.2									
	5				4.4		4.9		5						
	6										5.2				
	7					13.2									
	8														
	9					4.1									
	10														
	11														
	12														
6	1														
	2				3.2			5.8							
	3				5.3	3.2				1.7					
	4	3.2			6.3				13.5						
	5					28.3			2.9						
	6		34.7			10.2									
	7													6.7	
	8														

Table C.9. Category: Surface Decoration Itemsets - Exterior Incised Wares 3

Additive.Mica					X			X	X	X	
Incising.Ext.Curv.S.Per		X	X	X							
Incising.Ext.Rect.S.Angl					X						
Incising.Ext.Rect.S.Perp		X				X	X	X			
Incising.Ext.UID.S.Angl									X		
Incising.Ext.UID.S.Perp	X									X	
Surface.Treatment.Brown.Filmed											X
Surface.Treatment.Burnished							X		X		
Surface.Treatment.Smoothed		X	X		X	X		X		X	
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X
Tempering.Shell	X										

Unit	AU										
4	1										
	2										
	3										
	4									14	
	5										
	6										
	7										
5	2						3.1				
	3										
	4			5.4				2.9			
	5									9.2	
	6										
	7										
	8					3.9					
	9										
	10										
	11										
	12										
6	1										
	2		1.9								1
	3	1.8									
	4					2.6		10.9			
	5	2.8			2.3				2.2		
	6										
	7										
	8										

Table C.10. Category: Rim Itemsets - Outleaned Bowls or Plates Incised on Rim Interiors 1

Identified Itemsets												
Additive.Mica	X		X	X	X		X				X	
Incised.Interior.Body.M	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Interior.Body.S	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Interior.Parallel.to.Rim	X		X	X		X	X	X			X	X
Lip.Form.Flattened	X						X	X	X	X	X	X
Lip.Form.Rounded		X	X	X	X	X						
Lip.Notched	X		X			X	X		X	X	X	X
Lip.Scalloped		X			X							
Orient.Outleaned	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Shape.Rounded						X	X	X	X			
Rim.Shape.Straight	X	X	X	X	X					X	X	X
Surface.Treatment.Burnished	X		X									
Surface.Treatment.Smoothed				X	X	X	X	X			X	X
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset										
4	1											
	2											
	3	6.2										
	4	5.4		5.9				7.9				
	5											
	6			9.7								
	7											
	8											
5	1											
	2											
	3											
	4	2.4					10.3					
	5		17.2									
	6								11.5		6.2	
	7											
	8											
	9											
	10									28.5		
	11											
	12											
6	1											
	2											
	3							4.8				
	4											
	5				13.3	5.3					3.9	
	6											
	7											
	8											

Table C.11. Category: Rim Itemsets - Outleaned Bowls or Plates Incised on Rim Interiors 2

Additive.Mica				X	X		X					
Incised.Interior.Body.M	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Interior.Body.S	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Interior.Parallel.to.Rim	X	X					X	X	X			
Lip.Form.Flattened	X	X	X	X	X	X	X	X				X
Lip.Form.Rounded									X	X		
Lip.Notched	X		X	X	X	X	X	X	X	X		
Lip.Scalloped												
Lip.Ticked		X										
Orient.Outleaned	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Shape.Rounded											X	
Rim.Shape.Straight	X	X	X	X	X	X	X	X	X	X		X
Surface.Treatment.Burnished			X					X	X			X
Surface.Treatment.Smoothed		X		X		X	X					
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X
Unit	AU											
4	1											
	2											
	3			14.2								2.8
	4										8	
	5											
	6											
	7	16.2										
	8											
5	1											
	2											
	3											
	4		4.2		6.7							
	5											
	6					23	15.5					
	7						7.6					
	8				2.3			9.1				
	9								12.6			
	10											
	11											
	12											
6	1					4.1						
	2											
	3					4.9				21.3		
	4				12.4			34.7				
	5						8.8					
	6											
	7											
	8											

Table C.12. Category: Rim Itemsets - Arcaded Jars

		Identified Itemsets						
Additive.Mica				X				X
Arcades	X	X	X	X	X	X	X	X
Collared	X	X	X	X	X	X	X	X
Handle.Closed	X		X		X			
Incised.Exterior.Parallel.to.Rim				X	X			X
Lip.Form.Flattened	X	X		X	X	X	X	X
Lip.Form.Rounded			X					
Orient.Outleaned	X		X		X	X		
Orient.Upright		X		X				X
Punctated.Perp-Angled	X							
Rim.Mode.Width.Folded.Thickened								X
Rim.Shape.Composite					X			
Rim.Shape.Flaring								X
Rim.Shape.Straight	X	X	X	X		X		
Surface.Treatment.Smoothed			X	X	X			
Tempering.Sand.Grit			X	X	X	X	X	X
Tempering.Shell	X	X						

Unit	AU	Weight by Itemset						
4	1							
	2							
	3							
	4					18.1		
	5	25.7		69.4				
	6							
	7							
	8							
5	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
6	1							
	2							
	3							
	4				5.3	45.4		25.3
	5		5.2					
	6							
	7							
	8							

Table C.13. Category: Rim Itemsets - Handled and Collared Jars

	Identified Itemsets											
Additive.Mica		X		X		X		X				
Collared	X	X	X	X	X	X	X	X	X	X	X	X
Handle.Closed	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Exterior.Parallel.to.Rim										X	X	
Lip.Form.Flattened	X	X	X	X		X	X	X	X	X	X	X
Lip.Form.Rounded					X							
Orient.Outleaned	X	X					X	X		X		X
Orient.Upright			X	X	X	X			X		X	
Rim.Mode.Width.Folded.Thickened	X	X		X	X							
Rim.Mode.Width.Wedged								X				
Rim.Shape.Composite								X				
Rim.Shape.Rounded	X											
Rim.Shape.Straight		X	X	X	X	X	X		X	X	X	X
Surface.Treatment.Burnished										X		
Surface.Treatment.Smoothed	X		X	X		X	X	X	X			
Tempering.Sand.Grit				X	X	X	X	X	X	X	X	X
Tempering.Shell	X	X	X									

Unit	A U	Weight by Itemset										
4	1										15.5	
	2											
	3									7.7		
	4				107.1							
	5			15								
	6	51.5										
	7											
	8											
5	1											
	2											
	3											
	4											
	5				94.4							
	6					49.6						
	7						14.7		85.1			7.5
	8					13.7						
	9											
	10											
	11											
	12											
6	1											
	2											
	3											
	4											
	5							45.4				
	6		107.7									
	7											
	8											

Table C.14. Category: Rim Itemsets - Handled and Collared Jars

	Identified Itemsets										
Additive.Mica		X	X		X	X					
Collared	X	X									X
Handle.Closed	X	X	X	X	X	X	X	X	X		X
Handle.Open(?)										X	
Incised.Exterior.Parallel.to.Rim		X	X		X						
Lip.Form.Flattened	X		X	X	X	X	X		X		X
Lip.Form.Rounded		X						X		X	
Orient.Inleaned			X								
Orient.Outleaned							X	X			X
Orient.Upright	X	X		X	X	X			X	X	
Rim.Mode.Width.Folded.Thickened	X										
Rim.Shape.Flaring	X	X								X	X
Rim.Shape.Rounded			X	X	X	X					
Rim.Shape.Straight							X	X	X		
Surface.Treatment.Smoothed		X	X	X		X	X				
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X
Tempering.Shell											

Unit	AU	Weight by Itemset									
4	1									9.9	
	2										14.2
	3								7.5		
	4			10.1	23.9						
	5		6.9								
	6										
	7										
	8										
5	1										
	2				7.7						
	3	27.5									
	4										
	5										
	6							19.1			
	7						24.6				
	8										
	9										
	10										
	11										
	12										
6	1										
	2									38.8	
	3										
	4										
	5					10					
	6										
	7										
	8										

Table C.15. Category: Rim Itemsets - Rims Pinched below the Rim and Indirect Collars (Lamaresque)

		Identified Itemsets															
Additive.Clay.Grog		X				X											
Additive.Mica						X								X			
Collared											X						
Complicated.Stamped													X	X	X	X	
Lip.Form.Flattened								X	X	X		X					X
Lip.Form.Rounded		X	X	X	X	X	X	X				X		X	X		
Orient.Outleaned										X	X	X		X	X	X	
Orient.Upright		X	X	X	X	X	X	X	X				X				
Rim.Mode.Pinched.below.Lip		X	X	X	X	X	X	X	X	X	X	X	X				
Rim.Mode.Width.Folded.Thickened		X		X		X	X										X
Rim.Mode.Width.Thinned																X	
Rim.Shape.Flaring		X		X	X	X			X				X	X	X	X	
Rim.Shape.Rounded										X							
Rim.Shape.Straight			X				X	X			X	X					
Surface.Treatment.Smoothed				X	X	X		X			X	X		X	X	X	
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Unit	A U	Weight by Itemset															
4	1																
	2																
	3																
	4				2. 6					5. 9							
	5																
	6											14. 4					
	7																
	8																
5	1																
	2									6		27. 2				5. 9	
	3								10. 6								
	4															3. 4	
	5																
	6	1 2															
	7																
	8																
	9																
	10																
	11																
	12																
6	1																
	2					7. 1											
	3							8. 4									
	4		9. 3	14. 6			6. 9							15. 1			
	5																
	6																
	7																
	8																

Table C.16 Category: Rim Itemsets - Applied Vessels

		Identified Itemsets															
Additive.Mica			X		X			X	X				X	X			
Collared		X								X							
Incised.Exterior.Parallel.to.Rim								X									
Lip.Form.Flattened		X	X	X	X	X		X	X	X	X	X				X	X
Lip.Form.Rounded							X						X	X	X		
Lip.Ticked																X	
Orient.Inleaned			X														
Orient.Outleaned										X	X		X				
Orient.Upright		X		X	X	X	X	X	X			X		X	X	X	X
Punctated.Perp-Angled																	
Rim.Mode.Appliques		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Mode.Width.Folded.Thickened									X	X					X		
Rim.Mode.Width.Thinned			X														
Rim.Shape.Flaring		X								X		X				X	
Rim.Shape.Rounded			X	X	X			X	X								X
Rim.Shape.Straight						X	X				X		X	X	X		
Surface.Treatment.Burnished								X									
Surface.Treatment.Smoothed		X	X	X		X	X		X	X	X	X		X			
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset															
4	1																
	2																
	3																2.7
	4					13.6	9.8										
	5																
	6																
	7																
	8																
5	1																
	2			8													
	3											3.8		2.9			
	4	25.8	41.4		25.2			13.8					12.2				
	5																
	6																
	7														4.8		
	8																
	9																
	10																
	11																
	12																
6	1										2.1						
	2								10.8								
	3				4.4												
	4				9.2												
	5																
	6									5.6							
	7																
	8																

Table C.17. Category: Rim Itemsets - Collared Jars 1

		Identified Itemsets															
Additive.Mica		X						X	X		X		X	X		X	
Collared		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Everted																X	
Incised.Exterior.Parallel.to.Rim								X		X							
Lip.Form.Flattened		X	X	X	X				X		X	X	X	X			X
Lip.Form.Rounded						X	X	X		X					X	X	
Orient.Outleaned					X							X					X
Orient.Upright		X	X	X		X	X	X	X	X	X		X	X	X	X	
Rim.Mode.Width.Folded.Thickened		X									X	X			X		X
Rim.Mode.Width.Wedged																	
Rim.Shape.Composite									X	X	X				X	X	
Rim.Shape.Rounded					X												
Rim.Shape.Straight		X	X	X		X	X	X				X	X	X			X
Surface.Treatment.Smoothed		X	X			X		X	X	X	X	X	X	X	X	X	
Surface.Treatment.Red.Filmed																	
Tempering.Sand.Grit		X				X	X	X	X	X	X		X		X	X	
Tempering.Shell			X	X	X							X		X			X
Unit	A U	Weight by Itemset															
4	1																
	2					9.7											
	3																
	4			7.2			4.4			25.1			7.7				
	5					21.9			27.4		25.4		4.7			28.8	
	6																
	7																
	8																
5	1																
	2																
	3												3.6		10.4		
	4			7.6		37.9		1.5									
	5	12.8				6.8							6.8				
	6					20.1											
	7	28.9															
	8																
	9		7.9				4.3										
	10																
	11																
	12		4.2														
6	1																
	2																
	3	3.6											13.6				
	4	15															
	5						27.1					13.9	26.7				22.4
	6			13.2									4.4	7.2			
	7						4						6				
	8				1.1												

Table C.18. Category: Rim Itemsets - Collared Jars 2

		Identified Itemsets																	
Additive.Clay.Grog					X														
Additive.Mica		X	X		X	X	X	X									X		
Collared		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Incised.Exterior.Parallel.to.Rim								X						X	X	X			
Lip.Form.Flattened		X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Lip.Form.Rounded							X												
Lip.Notched									X										
Lip.Punctated												X							
Orient.Outleaned			X	X	X	X		X						X	X	X	X		
Orient.Upright		X					X		X	X	X	X	X					X	X
Rim.Mode.Width.Folded.Thickened		X							X	X	X	X					X	X	X
Rim.Shape.Straight		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Surface.Treatment.Brown.Filmed							X												
Surface.Treatment.Burnished							X												
Surface.Treatment.Smoothed		X	X	X		X		X		X	X		X	X	X	X	X		X
Surface.Treatment.Red.Filmed								X											
Tempering.Sand.Grit		X				X	X	X	X	X	X	X	X	X	X	X	X		
Tempering.Shell			X	X	X													X	X

Unit	A U	Weight by Itemset																	
4	1				16.4														
	2							20.9											
	3						8.9											18.7	
	4										9.3			12.5	12.5		8.2		
	5		4.7						4.5										3.9
	6												20.4						7.7
	7																		
	8																		
5	1																		
	2												8						
	3																		
	4									5.9		12.1	78.7	5.6	5.6	9.3			
	5	12.8								4.6			7.8						
	6																		
	7	28.9											16.2	26.3	26.3				
	8																		
	9																		
	10			11.3															
	11																		
	12																		
6	1																		
	2																		45.4
	3	3.6																	
	4	15											19.7						
	5					32.2													
	6						6.1											10.7	
	7																		
	8																		

Table C.19. Category: Rim Itemsets - Collared Jars 3

	Identified Itemsets																
Additive.Clay.Grog																	
Additive.Mica		X	X			X			X			X					
Collared		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Everted																	
Handle.Open									X								
Incised.Exterior.Parallel.to.Rim				X				X	X		X	X	X	X	X		
Lip.Form.Flattened		X		X	X	X	X	X	X	X	X	X		X		X	X
Lip.Form.Rounded			X										X		X		
Lip.Notched																	
Lip.Punctated																	
Orient.Inleaned															X	X	X
Orient.Outleaned											X	X	X	X			
Orient.Upright		X	X	X	X	X	X	X	X	X							
Rim.Mode.Width.Folded.Thickened		X	X	X	X	X	X	X					X	X	X		
Rim.Mode.Width.Wedged																X	
Rim.Shape.Composite					X											X	
Rim.Shape.Flaring																	
Rim.Shape.Rounded				X													
Rim.Shape.Straight		X	X			X	X	X	X	X	X	X	X	X	X		X
Surface.Treatment.Brown.Filmed							X										
Surface.Treatment.Burnished						X									X		
Surface.Treatment.Smoothed		X	X		X		X			X		X		X			
Surface.Treatment.Red.Filmed																	
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X	X	X	X		X	
Tempering.Shell															X		X

Unit	AU	Weight by Itemset																
4	1																	
	2																	
	3														6.9	8.8		
	4									2.9								
	5			13.9													9.3	
	6		10.4															
	7																	
	8																	
5	1																	
	2																	
	3									10.6								
	4							8	14.1	39.6	11.4		10.4					
	5	12.8		20.4										13				
	6		4.6							2.1	5	18.1						
	7	28.9																
	8																	
	9									5.4								
	10				28.2													
	11																	
	12																	
6	1																	
	2									8.2								
	3	3.6																

	4	15															
	5		21. 9			10. 3	4			32. 4							
	6																
	7																
	8																

Table C.20. Category: Rim Itemsets - Collared Jars 4

	Identified Itemsets																	
Additive.Mica		X		X		X			X				X	X		X		
Collared		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Everted																		
Handle.Open																		
Incised.Exterior.Parallel.to.Rim																		
Lip.Form.Flattened		X	X	X	X	X	X		X		X	X	X	X	X	X		X
Lip.Form.Rounded								X		X							X	
Lip.Notched																		
Lip.Punctated																		
Orient.Inleaned					X				X		X	X						
Orient.Outleaned						X				X				X		X		
Orient.Upright		X	X	X			X	X				X			X		X	X
Rim.Mode.Width.Folded.Thickened		X	X			X		X			X				X			
Rim.Mode.Width.Wedged														X				
Rim.Shape.Composite																	X	
Rim.Shape.Flaring							X											
Rim.Shape.Rounded			X	X										X	X			
Rim.Shape.Straight		X			X	X		X	X	X	X	X	X			X		X
Surface.Treatment.Brown.Filmed																		
Surface.Treatment.Burnished												X	X			X		
Surface.Treatment.Smoothed		X			X	X	X	X	X	X				X	X		X	
Surface.Treatment.Red.Filmed																		
Tempering.Sand.Grit		X	X	X	X	X	X		X	X	X	X	X	X	X	X		X
Tempering.Shell								X									X	

Unit	A U	Weight by Itemset																	
4	1																		
	2				4														
	3										8. 3	6. 1	4. 6				10. 9		4.8
	4																		11
	5							56. 6	7. 8										
	6												8. 9						
	7																		
	8																		
5	1																		
	2																		
	3																		
	4				4												77. 6		
	5	12. 8																	
	6																		16. 2
	7	28. 9	18. 6								67. 5								
	8																		
	9																		
	10																13. 3		
	11																		
	12																		
6	1																		
	2																		
	3	3.6																	
	4	15						22. 1							13. 2			26. 3	

	5																		
	6																		
	7																		
	8																		

Table C.21. Category: Rim Itemsets - Collared Jars 5

	Identified Itemsets																			
Additive.Clay.Grog																	X			
Additive.Mica		X															X		X	X
Collared		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Everted																				
Handle.Open									X											
Incised.Exterior.Parallel.to .Rim						X											X			
Lip.Form.Flattened		X		X	X	X	X	X	X		X	X	X	X			X	X	X	X
Lip.Form.Rounded			X							X						X				X
Lip.Notched							X													
Orient.Inleaned									X											
Orient.Outleaned				X	X	X	X					X			X	X				X
Orient.Upright		X	X					X		X	X		X				X	X	X	X
Rim.Mode.Width.Folded. Thickened		X		X	X					X	X	X				X	X			
Rim.Shape.Composite										X										
Rim.Shape.Flaring											X	X								X
Rim.Shape.Rounded						X	X						X			X	X	X	X	
Rim.Shape.Straight		X	X	X	X			X	X						X					X
Surface.Treatment.Brown. Firmed								X												
Surface.Treatment.Smooth ed		X	X	X	X					X	X	X				X	X	X	X	X
Surfact.Treatment.Red.Fil med																				
Tempering.Sand.Grit		X		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Tempering.Shell			X							X										

Unit	A U	Weight by Itemset																			
4	1													10. 1							
	2																				
	3					17. 6		6						4.6							
	4				16. 1		19. 3		1 2												
	5		12. 5														15. 4		7. 3		
	6																				
	7																				
	8																				
5	1																				
	2														15. 4						
	3														21. 5						
	4				21								5. 2	7.8					13. 7		
	5	12. 8													11. 6						
	6			1 5	15																
	7	28. 9										31. 6					20. 9		13. 6		
	8		31. 2										7. 1								
	9																				
	10																				
	11																				
	12																				
6	1			5. 9	5.9																
	2			8	8																
	3	3.6																			
	4	15													5						25. 8

	5									33. 9					18. 7					
	6																			
	7																			
	8																			

Table C.22. Category: Rim Itemsets - Flaring Rim Serving Wares

	Identified Itemsets																		
Additive.Mica	X		X		X				X										
Collared	X	X																	X
Incised.Exterior.Parallel.to.Rim													X			X		X	
Lip.Form.Flattened	X						X	X	X	X	X			X		X	X	X	
Lip.Form.Rounded		X	X	X	X	X						X	X		X				X
Lip.Ticked										X									
Orient.Inleaned																X			
Orient.Outleaned			X	X	X	X	X	X	X								X		X
Orient.Upright	X	X								X	X	X	X	X	X			X	
Rim.Mode.Width.Folded.Thickened												X					X		
Rim.Mode.Width.Thinned						X													
Rim.Shape.Flaring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Surface.Treatment.Burnished	X																		
Surface.Treatment.Smoothed		X		X	X	X	X	X	X	X	X			X		X	X	X	
Surface.Treatment.Roughened								X											
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X		X	X
Tempering.Shell											X						X		

Unit	A U	Weight by Itemset																		
4	1																			
	2																			
	3																			
	4	15. 8																		
	5																			
	6					8. 8														
	7																			
	8																			
5	1																			
	2											6. 5			7. 7					
	3																			
	4															1. 7		8. 3	3 7	
	5																			
	6						5. 2								3. 7					
	7																			
	8								4. 9											
	9																			
	10																15. 8			
	11																			
	12																			
6	1													3. 2						
	2								2. 6							3. 8				
	3									3. 1	6. 7									
	4			4. 1	13. 6	44. 6									3. 5					
	5		9. 4						12. 2											
	6					64. 5		2. 8												
	7																			
	8																			

Table C.23. Category: Rim Itemsets - Restricted Bowls

		Identified Itemsets													
Additive.Mica		X		X	X				X				X	X	
Incised.Exterior.Body									X						
Incised.Exterior.Parallel.to.Rim			X	X				X	X						
Lip.Form.Flattened		X			X	X	X	X	X	X	X	X	X		
Lip.Form.Rounded			X	X										X	
Lip.Notched					X	X	X	X							
Orient.Inleaned		X	X	X	X	X	X	X	X		X	X	X	X	
Orient.Upright									X						
Rim.Mode.Width.Folded.Thickened		X						X				X			
Rim.Mode.Width.Wedged							X								
Rim.Shape.Rounded		X	X	X	X	X	X	X	X	X	X	X	X	X	
Surface.Treatment.Smoothed		X	X	X	X			X			X		X	X	
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X	X	X	X	

Unit	AU	Weight by Itemset													
4	1														
	2														
	3						3.8						17.3		
	4														
	5			2.1					7						
	6		1.7										9.2	5	
	7														
	8														
5	1														
	2					5.9									
	3														
	4														
	5														
	6														
	7														
	8							12.5							
	9														
	10														
	11														
	12														
6	1														
	2											3.7			
	3	3.8										3.1			
	4										13.5			9.7	
	5														
	6				15.9										
	7														
	8														

Table C.24. Category: Rim Itemsets - Hemispherical Bowls 1

	Identified Itemsets													
Additive.Clay.Grog			X											
Additive.Mica	X							X		X	X	X		
Incised.Exterior.Parallel.to.Rim	X						X				X			
Lip.Form.Flattened	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lip.Form.Rounded														
Lip.Notched					X	X							X	X
Orient.Upright	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Mode.Width.Folded.Thickened								X	X		X			X
Rim.Mode.Width.Wedged				X										
Rim.Shape.Rounded	X	X	X			X	X	X	X	X	X	X	X	X
Rim.Shape.Straight				X	X									
Surface.Treatment.Smoothed	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset													
4	1														
	2			5.6											
	3						3.7								
	4	14.8	13.1					4.9		15.5	4.9		11.3		
	5									22.5			11.1		
	6												11.3		
	7														
	8														
5	1														
	2														
	3														
	4		7.3					11.4		8.4				38.1	
	5	4.6	16.2		4.6	7.1					16.6				
	6	5.8													
	7						26.2				18.8	19.4			
	8														
	9														
	10														
	11										12.6				
	12														
6	1														
	2										5.9				
	3														
	4							7.9							
	5														
	6														
	7							16.1							
	8														

Table C.25. Category: Rim Itemsets - Hemispherical Bowls 2

	Identified Itemsets														
Additive.Mica				X			X		X	X					X
Incised.Exterior.Parallel.to.Rim			X												
Lip.Form.Flattened		X	X	X	X	X	X		X	X	X	X	X	X	X
Lip.Form.Rounded							X	X							
Lip.Notched		X	X		X				X	X		X		X	
Lip.Pinched						X									
Orient.Outleaned				X					X						X
Orient.Upright		X	X		X	X	X	X	X		X	X	X	X	X
Rim.Mode.Width.Folded.Thickened		X			X	X	X		X						
Rim.Mode.Width.Wedged			X								X			X	
Rim.Shape.Flaring									X						
Rim.Shape.Rounded			X		X	X	X	X	X		X	X	X	X	X
Rim.Shape.Straight		X		X						X					
Surface.Treatment.Smoothed		X	X	X	X	X	X	X	X	X	X		X		
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X		X		X	X
Tempering.Shell											X		X		

Unit	AU	Weight by Itemset													
4	1												3.8		
	2														
	3														6.9
	4					2.5									
	5														
	6														
	7														
	8														
5	1														
	2														
	3														
	4				12.1				8				5		
	5														
	6	5.1													
	7		9.1	7		44.7						9.4	7.8		
	8														
	9													9.5	
	10														
	11														
	12														
6	1														
	2	9.1												3.5	
	3									3					
	4								6.8						
	5														
	6						7.3						9		
	7														
	8														

Table C.26. Category: Rim Itemsets - Hemispherical Bowls 3

		Identified Itemsets															
Additive.Mica		X	X		X										X		
Collared														X			
Everted												X	X				
Handle.Open					X			X									
Incised.Exterior.Body															X		
Incised.Exterior.Body.Lip					X												
Incised.Exterior.Parallel.to.Rim						X											
Incised.Interior.Body.M																X	X
Incised.Interior.Body.S																X	X
Incised.Interior.Parallel.to.Rim																X	
Lip.Form.Flattened		X	X	X	X	X	X			X	X		X	X	X	X	X
Lip.Form.Rounded								X	X				X				
Lip.Notched			X	X			X	X							X		X
Orient.Inleaned											X				X		
Orient.Outleaned							X										
Orient.Upright		X	X	X	X	X		X	X	X			X	X		X	X
Rim.Mode.Width.Folded.Thickened			X	X		X	X										
Rim.Shape.Composite								X									
Rim.Shape.Flaring							X										
Rim.Shape.Rounded		X	X	X	X	X			X	X	X				X	X	X
Rim.Shape.Straight													X	X			
Surface.Treatment.Burnished			X														
Surface.Treatment.Smoothed					X			X	X						X	X	
Tempering.Sand.Grit		X	X	X	X	X	X	X	X	X	X	X			X	X	X
Tempering.Shell													X				

Unit	AU	Weight by Itemset															
4	1																
	2																
	3		9.5							11.9							
	4																
	5								7.8								
	6																
	7																
	8																
5	1																
	2		6.8														
	3																
	4					19.3	7.2										
	5										14.2						3.1
	6																
	7														13.2		
	8											6.1					
	9									3.8							
	10																
	11												20.7				
	12																
6	1																
	2			2								2.9					
	3									1.8							
	4							18.4		2.7						3.4	
	5				28.3												

	6																		
	7																		
	8																		

Table C.27. Category: Rim Itemsets - Outleaned Bowls 1

	Identified Itemsets													
Additive.Mica	X	X	X		X	X							X	X
Incised.Exterior.Parallel.to.Rim			X		X	X					X		X	X
Lip.Form.Flattened	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lip.Form.Rounded														
Lip.Notched		X			X		X	X	X				X	X
Orient.Outleaned	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Mode.Width.Folded.Thickened			X		X		X							
Rim.Mode.Width.Wedged										X				
Rim.Shape.Rounded	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Surface.Treatment.Brushed													X	
Surface.Treatment.Burnished				X									X	
Surface.Treatment.Smoothed	X					X	X	X	X	X	X			
Surface.Treatment.Roughened										X				
Tempering.Sand.Grit	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset												
4	1					2.9								
	2													
	3		6										3.6	4.7
	4		4	6.5	5.6						4.4	23		
	5													
	6													
	7													
	8													
5	1													
	2													
	3													
	4											3.2		
	5													
	6					4.4					4.1			
	7													
	8	11.4												
	9													
	10													
	11													
	12													
6	1													
	2											6.1		
	3						7.9	10.2						
	4													
	5									50				
	6							41.6						
	7													
	8													

Table C.28. Category: Rim Itemsets - Outleaned Bowls 2

	Identified Itemsets														
Additive.Mica	X	X			X	X	X								
Everted				X											
Incised.Exterior.Parallel.to.Rim	X												X	X	
Lip.Form.Flattened	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Lip.Form.Rounded											X				
Lip.Notched	X	X	X	X		X		X	X	X	X			X	X
Orient.Outleaned	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rim.Mode.Width.Folded.Thickened								X		X				X	
Rim.Mode.Width.Wedged	X												X		X
Rim.Shape.Flaring							X								
Rim.Shape.Rounded	X	X	X	X			X		X	X	X	X	X	X	X
Rim.Shape.Straight						X			X						
Surface.Treatment.Smoothed			X				X	X							X
Surfact.Treatment.Red.Filmed															X
Tempering.Sand.Grit	X	X	X	X	X	X			X	X	X	X	X	X	X
Tempering.Shell								X							

Unit	AU	Weight by Itemset													
4	1	3.7													
	2											13.3			
	3			3.3						6.5	4.6				
	4														
	5				16.1		6.5	8.9							
	6														
	7														
	8														
5	1														
	2											3.6		7.7	
	3														
	4		11.7			22.8						11.1			
	5														
	6														
	7														
	8		9.5												
	9														
	10														
	11														
	12														
6	1												3.3		
	2														
	3														
	4														
	5								7.6						26.4
	6														
	7														
	8														

Table C.29. Category: Rim Itemsets - Other Burnished Vessels

		Identified Itemsets							
Additive.Clay.Grog									
Additive.Mica		X	X	X	X			X	X
Handle.Open									X
Incised.Exterior.Body								X	
Incised.Exterior.Parallel.to.Rim			X					X	
Lip.Form.Flattened		X	X	X	X	X			X
Lip.Form.Rounded							X		
Orient.Inleaned			X						
Orient.Outleaned							X		
Orient.Upright		X		X	X	X		X	X
Rim.Mode.Width.Folded.Thickened				X			X		
Rim.Mode.Width.Wedged						X			
Rim.Shape.Flaring							X		
Rim.Shape.Rounded					X	X			
Rim.Shape.Straight		X	X	X				X	X
Surface.Treatment.Burnished		X	X	X	X	X	X	X	X
Tempering.Sand.Grit		X	X	X	X	X	X	X	X

Unit	AU	Weight by Itemset							
4	1								
	2				4.6		5.9		
	3								
	4					5.4			8.6
	5	37.4							
	6								
	7								
	8								
5	1								
	2								
	3								
	4			5.1					
	5								
	6								
	7								
	8			12.7					
	9				45.6				
	10								
	11								
	12								
6	1								
	2								
	3		5.3						
	4						3.8		
	5								
	6								
	7								
	8								

APPENDIX D: OXCAL CODE FOR LOCAL AND REGIONAL CHRONOLOGIES

D.1. Local Sequence for Singer-Moye

```
Sequence("9SW2")
{
  Boundary("Start of Singer-Moye Occupation");
  Phase("Time Frame I")
  {
    R_Date("Premound C", 770, 60);
    R_Date("Premound C New", 840, 20);
    Interval("Time Frame I");
  };
  Boundary("Between I and II");
  Phase("Time Frame II")
  {
    R_Date("Pre-Palisade", 800, 20);
    Interval("Time Frame II");
  };
  Boundary("Between II and IIIa");
  Phase("Time Frame IIIa")
  {
    R_Date("Mound H3", 720, 40);
    R_Date("Mound H4", 680, 40);
    R_Date("Mound H1", 630, 30);
    Interval("Duration of Time Frame IIIa");
  };
  Boundary("Between IIIa and IIIb");
  Phase("Time Frame IIIb")
  {
    R_Date("Mound D", 690, 30);
    R_Date("Mound E", 680, 80);
    Interval("Time Frame IIIb");
  };
  Boundary("Between IIIb and IVb");
  Phase("Time Frame IVb")
  {
    R_Date("Mound A Wood", 550, 60);
    R_Date("Mound A Seed", 340, 20);
    Interval("Time Frame IVb");
  };
};
```

```

Boundary("End of Singer-Moye Occupation");
Span("Singer-Moye");
};

```

D.2. Local Sequence for Gary's Fish Pond

```

Plot()
{
  Sequence()
  {
    Date("T_Date 1100",1100);
    Boundary("Start 1");
    Sequence("1")
    {
      R_Date("pre mound surface", 620, 40);
      R_Date("mound", 530, 120);
    };
    Boundary("End 1");
    Date("T_Date 1500",1500);
  };
};

```

D.3. Local Sequence for Cool Branch

```

Plot()
{
  Sequence()
  {
    Date("T_Date 1100",1100);
    Boundary("Start 1");
    Sequence("1")
    {
      R_Date("pre mound feature 47 burial pit", 850, 50);
      R_Date("mound", 770, 50);
    };
    Boundary("End 1");
    Date("T_Date 1500",1500);
  };
};

```

D.4. Local Sequence for Cemochechobee

```

Plot()
{
  Sequence()

```

```

{
Date("T_Date 1100",1100);
Boundary("Start 1");
Sequence("1")
{
Boundary("Premound Start");
Phase("premound B")
{
R_Date("premound B1", 1050, 60)
R_Date("premound B2", 970, 60)
R_Date("Premound B3", 750, 60)
R_Date("Premound B4", 630, 120)
};
Boundary("Premound End");
Boundary("Mound Start");
R_Date("AI", 940, 60)
R_Date("AII", 960, 60)
R_Date("BI", 790, 60);
Boundary("Transition BI-II");
R_Date("BII", 1000, 70);
Boundary("BII End");
Boundary("BIV Start");
Phase("BIV")
{
R_Date("BIVa", 900, 60);
R_Date("BIVb", 960, 80);
R_Date("BIVc", 870, 90);
};
Boundary("BIV End");
Boundary("BVI Start");
Phase("BVI")
{
R_Date("BVIa", 760, 60);
R_Date("BVIb", 720, 70);
R_Date("BVIc", 520, 60);
};
Boundary("Mound End");
};
Boundary("End 1");
Date("T_Date 1500",1500);
};
};

```

D.5. Local Sequence for Rood's Landing

Plot()

```
{  
Sequence()  
{  
Date("T_Date 1100",1100);  
Boundary("Start 1");  
Sequence("1")  
{  
R_Date("A2", 260, 70);  
R_Date("mound A1 - Center Structure", 690, 60);  
};  
Boundary("End 1");  
Date("T_Date 1500",1500);  
};  
};
```