Early Platforms, Early Plazas:

Exploring the Precursors to Mississippian Mound-and-Plaza Centers

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Abstract

Both platform mounds and plazas have an over 5,000-year-long history in the Eastern United States but are often viewed through the lens of late prehistoric and early historic understandings of mound use. This review approaches the history of these important landscape features via a forward-looking temporal framework that emphasizes the variability in their construction and use through time and across space. I suggest that by viewing platform mounds in their historical contexts, emphasizing the construction process over final form, and focusing on non-mound sites and off-mound areas such as plazas, we can build a less biased and more complex understanding of early Native American monumentality.

Keywords

Southeastern United States, Archaic period, Woodland period, Monumental landscapes, Platform mounds, Plazas

Introduction

Mound building has a long history in the Eastern United States, beginning in the Archaic period (ca. 8000–1000 BC) and elaborating during the Woodland (ca. 1000 BC–AD 1000) and Mississippi (ca. AD 1000–1500) periods. Flat-topped versions of earthen mounds, known as platform mounds, are often thought to develop rather late in this sequence. While many of these mounds served as foundations for structures, I define platform broadly to include any flat-topped structure on which activities were likely to have taken place. Because of their ubiquity on Mississippian sites, platform mounds have been consistently tied to hierarchical social organization and agricultural lifeways, and this has led to them being seen as diagnostic of those traits. However, platform mounds have been constructed since mound building began by societies with a wide range of sociopolitical and economic systems; thus, their functions and meanings are undoubtedly more variable than often assumed.

In this paper, I highlight two particular issues that plague interpretations of pre-Mississippian platform mounds. This first issue involves the backward-looking approach taken by archaeologists interested in discovering the origins of particular cultural practices. In the case of platform mounds, this has led to the overreliance on Mississippian and early historic understandings of platform mound function and use. The second issue involves the mound-centrism present in most interpretations of monumental landscapes. While mounds are often the most conspicuous site features, studies that focus primarily on their construction and use unfairly bias our interpretations of the range of activities taking place at a given location. Plazas, defined as bounded, open spaces large enough to hold public gatherings, are likely to have contained a large percentage of the social activities taking place at mound sites. As such, they should be as, if not more, important in developing understandings about what happened at these sites and the

traits of the cultures that used and inhabited them. While generally not discussed as an exclusively late prehistoric development, plazas are still too often discussed in the context of Mississippian mound-and-plaza centers, making their interpretation also subject to mound-centrism and archaeologists' backward-looking gaze. By exhaustively reviewing pre-Mississippian mounds and non-mound and pre-mound examples of plazas, this review begins the process of correcting these persistent biases and painting a more varied, yet accurate, picture of this important set of prehistoric practices.

Monumentality and Mound Building in the Southeast

Monuments can serve any number of purposes. Some commemorate the past while others honor some aspect of the present, they mark certain places as special and communicate messages to their viewers (Scarre 2011, p. 9). Traditional definitions of the term "monument" emphasize a number of features; monuments are built to endure, their scale and elaboration exceed the requirements of mere utilitarian function, and their construction necessitates some organization of labor and resources beyond that of the household unit (e.g., Abrams 1989; Bradley 1993, p. 5; DeMarrais et al. 1996, pp. 18–19; Trigger 1990, p. 119). These characteristics have factored heavily in interpretations of societies associated with large–scale public architecture. For example, Trigger (1990) argued that because of their labor and surplus requirements, monumental constructions correlate with increasing stratification and differentiation within a society and were built for the purposes of unambiguously marking social and political relationships and taking part in conspicuous consumption. The broad acceptance of this pattern led to the long-standing and relatively pervasive assumption that the development of prehistoric monumentality was tied to the emergence of agriculture and the rise of hierarchical society (e.g.,

Feinman 1995; Haas and Creamer 2012; Peebles and Kus 1977; Yoffee 1993). More specifically, this historical positioning of monumentality led many to assume that such constructions were inherently incompatible with more egalitarian, hunter-gatherer societies (Randall 2015, pp. 48–49). This assumption was, in turn, bolstered by the lack of ethnographic case studies in which hunter-gatherers engaged in significant monument construction (Abrams 1989, p. 55; Bradley 1993, p. 1; Endonino 2010, p. 55; Sassaman and Heckenberger 2004, pp. 216–220).

Though not without resistance, times have changed and archaeologists have moved away from relying so heavily on ethnographic analogies to understand hunter-gatherer groups, focusing instead on archaeological data sets. This shift allowed for the acknowledgement of greater diversity and a higher degree of complexity within past hunter-gatherer societies (Price and Brown 1985). With this acknowledgement came the recognition that monument construction was a regular occurrence in at least some cases (Scarre 2011, p. 10). In the American Southeast, these shifts occurred around 25 years ago with the widespread acceptance of Archaic period monuments (e.g., Russo 1994b; Saunders et al. 1994). Earlier recognitions of Archaic monumentality were denied popular acceptance due to prevailing cultural-historical and evolutionary paradigms in the field; early radiocarbon dates were written off as anomalous and compelling evidence was not published due to the fear of backlash (see Russo 1994a). However, a solid corpus of archaeological data quickly accumulated and the fact that some hunter-gatherer societies in the Southeast were regularly building mounds eventually became common knowledge, a fact which now figures prominently in summaries of early new world monumentality (e.g., Burger and Rosenswig 2015).

In the years since this initial acceptance, focus has shifted to questioning the level of complexity (and in particular, sociopolitical organization) required to construct monuments. If

hunter-gatherer societies could create monumental architecture, did that mean that the sociopolitical structure of those groups was more complex than previously assumed, or were our assumptions about what monumental architecture actually required off-base? In the southeastern literature, this line of inquiry manifested as a debate between three primary points of view: (1) that some Archaic people were clearly living in more complex and hierarchical communities than we had imagined, (2) that the emergence of mound building did not necessarily indicate significant sociopolitical change because monuments could be built by relatively simple and egalitarian groups, and (3) that the identified mounds did not really qualify as monuments in the true sense and thus necessitated no change in our understandings of Archaic sociality (see chapters in Gibson and Carr 2004). Evaluating the level of complexity reached by Archaic societies required moving beyond the presence or absence of monumental constructions and taking into account other archaeologically accessible cultural traits, such as investment in plant domestication, craft specialization, trade, sedentism, site planning, and/or storage, as well as evidence for settlement hierarchy, differentiation in structural remains, competitive feasting, ritual elaboration, and/or grave goods (see chapters in Gibson and Carr 2004). The picture painted by the investigations that resulted from this need for more materially grounded studies of Archaic complexity is one of great variability (which should be in no way be surprising given the geographic and temporal extent of Archaic cultures in the Southeast).

In reflecting on this variability, Endonino (2010, p. 20) draws attention to the fact that it is probable that "the motivations for hunter-gatherers in the southeastern United States to construct mounds varied from region to region and group to group, representing the differing outcomes of local historical experience. In view of this, attention to the local context and historical antecedents present in a given area where monument construction occurred [is] of

importance in understanding these monuments." This critical recognition draws attention to a major issue in archaeological interpretation more broadly that I see as having significantly affected the interpretation of early platform mounds (Kassabaum et al. 2011).

Bailey (2007, p. 203) discusses the particular challenges brought about by the palimpsestic nature of the archaeological record and outlines two common approaches for dealing with them: (1) archaeologists may attempt "to reconstitute the individual episodes of activity" or (2) they may "focus on the best preserved and most highly resolved exemplars." Because ethnographic case studies offer the thick descriptions not commonly afforded by prehistoric archaeology, they have often provided the data for the latter strategy. As discussed above, repeated application of strategy 2 allowed ethnographies of contemporary hunter-gatherers to have detrimental effects on the early acceptance of Archaic monumentality. Though many questions remain, it has only been through the application of strategy 1 that real progress has been made in our understanding of these mound-building cultures. In the following section, I argue that platform mound studies in the United States have been particularly susceptible to this problematic tendency within archaeological thinking and that an encyclopedic look at early platform mound sites is necessary to correct the resulting biases.

The Particular Case of Platform Mound Studies

The Mississippi period is broadly characterized by the development of institutionalized status hierarchy (i.e., chiefdom-type social organization), corn agriculture, shell-tempered pottery, wall-trench structures, a widely shared religious system displayed through iconography, and platform mound-and-plaza centers (Anderson 2012, p. 78). Because of the Woodland period's position immediately before the transition to Mississippian societies, it is often looked to for

evidence of the incipient stages of these developments. In many cases, this search for Woodland precursors has been successful. For example, we now know that corn was utilized in the Eastern United States long before it became the staple crop of Mississippian society. However, research on this early use of corn has painted a picture quite different from our understanding of Mississippian corn agriculture; early corn was utilized as a minor, ceremonial cultigen and did not form a major part of the diet (Smith 1989, p. 1570).

Similarly, platform mounds were long thought to be a uniquely Mississippian phenomenon; in some cases, the unflinching acceptance of this assumption even led to dramatic misinterpretations of early platform mound sites (e.g., Sears 1956; 1992). Evidence gradually mounted against this belief however, and a number of reviews of Woodland platform mounds were published in the 1990s (e.g., Jefferies 1994; Knight 1990; Lindauer and Blitz 1997; Pluckhahn 1996). As demonstrated below, we now know that flat-topped mounds were common at Woodland (and present on Archaic) sites. Even in the wake of dramatic increases in archaeological understandings of pre-agricultural, non-chiefdom complexity in general and pre-Mississippian platform construction specifically, long-held beliefs about status and hierarchy have nevertheless continued to hold sway over discussions of platform mound ceremonialism. In essence, while it became acceptable that relatively egalitarian, non-agricultural populations constructed monumental architecture in the form of conical mounds, platform mounds were another story.

Despite the obvious point that the earliest iterations of a practice do not always match later iterations, our assumptions about pre-Mississippian platform mounds have relied heavily on understandings of well-excavated Mississippian centers and ethnohistoric accounts of mound use at the point of European contact (Kassabaum et al. 2011). For these reasons, it is often assumed

that the shift from building conical to platform mounds reflects parallel social, political, and economic shifts (i.e., from a more egalitarian to a more hierarchical social order, and from hunting and gathering to agriculture), even when sites lack other characteristics associated with institutionalized hierarchy, such as burial practices indicating differences in status (Kassabaum 2011). While the use of ethnohistoric and archaeological data from descendent groups sidesteps the most damning issues with using ethnographic analogies from unrelated, present-day groups, I contend that it has still had a strong homogenizing and distorting influence on our understanding of pre-Mississippian platform mound ceremonialism.

As will be discussed below, platform mound architecture varies widely across time and space, suggesting that the motives and meanings behind these structures were similarly varied. The function and meaning of monuments is not explicit in their final form; rather, a certain degree of knowledge about the social context in which they were constructed is necessary for their interpretation (Endonino 2010, p. 32). Thus, to whatever degree possible, it is important to understand early platform-mound-building cultures in and of themselves without relying too heavily on references to later societies.

Largely, though perhaps not entirely due to our desire to utilize the "most highly resolved exemplars" (Bailey 2007, p. 203), archaeologists tend to employ a backward-looking approach to the past. This is clearly evidenced by our obsession with identifying the origins of various cultural practices. However, prehistoric people had no way of knowing what they were headed toward, while they certainly had deep knowledge of the past. Any progress towards developing a more emic perspective on the construction and use of platform mounds will require the examination of patterns via a forward-looking rather than backward-looking temporal framework. In this review, I begin with the earliest known examples of platform mounds and

work forward toward the more recent past, attempting to disregard assumptions originating from later periods about what sites might represent. While this process undoubtedly increases knowledge of pre-Mississippian platforms, it also has the potential to broaden thinking about more commonly discussed sites of the Mississippi period.

The Role of Plazas

In addition to the distorting effects of time perspectivism (Bailey 2007) as described above, a second issue — that of mound-centrism — also plagues archaeological interpretations of platform mound sites. For too long, archaeological work at mound centers has been overly focused on the mounds themselves. Especially in late prehistory, platform mounds commonly occur as part of mound-and-plaza centers but the tendency to privilege earthworks over off-mound spaces has led to a mound-centric view that emphasizes a limited range of activities assumed to be taking place on mound summits (Barrier and Kassabaum 2017).

Plazas are as ubiquitous in the archaeological record as traditional monuments, having been regularly identified at short-term occupations, villages, and major cities and associated with the entire range of cultural expressions from egalitarian hunter-gatherers to highly hierarchical states. The privileging of architecture over open spaces limits archaeological interpretation of the cultural dynamics in these societies. Research from around the globe has demonstrated that the careful study of plazas can provide useful insights into the lives of the people who built and used them (e.g., Low 2000; Moore 1996; Nair 2015, pp. 65–87; Tsukamoto and Inomata 2014). That said, there is great variation in the size and form of plazas, their locations and relationships to other constructed landscape features, and their cultural contexts. Undoubtedly, these variables affected what activities took place in the plaza, who participated in them, and how they were

perceived by others. This complexity suggests the need for focused studies that trace histories of plaza construction and use.

In recent decades, Mississippian scholars have turned their attention toward the plazas associated with platform mounds (Alt et al. 2010; Boudreaux 2013; Cobb and Butler 2017; Dalan 1997; Davis et al. 2015; Holley et al. 1993; Lewis et al. 1998; Nelson 2014; Rogers et al. 1982). Though not as common, scholars of earlier periods have also undertaken focused discussions of plazas (Barrier and Kassabaum 2017; Kidder 2004; Pluckhahn 2010; Sassaman and Heckenberger 2004). However, synthetic reviews of plazas in Eastern North America are lacking. This is likely due to the under-identification and lack of discussion of these site features in the primary literature as well as the variable vocabulary used to describe them. While not as encyclopedic as the discussion of pre-Mississippian platform mounds, this article will also survey the evidence for the construction and use of pre-Mississippian plazas and build a basic outline from which we may start working towards a more complete review.

The Long History of Platform Mound Construction

Three decades ago, Southeastern archaeologists focused their attention on demonstrating that platform mounds were not a uniquely Mississippian phenomenon. The number of known Archaic and Woodland platform mounds has since grown dramatically and we now recognize that they were built by temporally and geographically diverse pre-Mississippian cultures. In response to this increase in data, Pluckhahn (1996, p. 207) has called for "more focused studies of the similarities and differences among [pre-Mississippian platforms]." In the 1990s, a number of reviews undertook, to some degree, the called-for examinations (e.g., Jefferies 1994; Knight 1990; Lindauer and Blitz 1997; Pluckhahn 1996). These reviews led to a variety of conclusions

about the construction and use of primarily, Middle Woodland platform mounds and tended not to discuss earlier Archaic or later Woodland examples in as much detail. Regardless, on particularly important point emerged from these reviews—that while there is variability in the design attributes and signs of use associated with Woodland platforms, there are identifiable shifts in the construction histories displayed by early versus late mounds. For example, most reviews suggested that summit structures, especially residences, are common on late platforms while irregular scatters of post molds, large standing posts, middens, and burned surfaces characterize early platforms.

However, early platform mounds are more common and more diverse than is recognized in previous reviews, especially if we view the process of mound building as more important than the final product. Because flat-topped stages are common in mounds that are later capped with a rounded fill episodes, excavation of these structures allows us to trace an even longer history of platform mound use characterized by continuous as well as non-linear shifts in mound function. In the following section, I use time and space to organize the evidence for early platform mounds and provide some general background about the groups who constructed them. In doing so, I show that previous literature exaggerates the consistency, ubiquity, and scale of the shifts that are thought to occur at the transition from Woodland to Mississippian. I provide evidence that the shifts described in previous reviews are not unidirectional and do not take place concurrently. Rather, there are many examples where the types of activities that regularly took place on Woodland period platform mounds (e.g., feasting and post-setting) persist into the Mississippi period and equally many where characteristically late uses of platform mounds (e.g., foundations for structures) have longer histories than are often acknowledged.

Archaic Period Platform Mounds

Though often not acknowledged in reviews of early platforms, both Middle and Late Archaic flat-topped mounds are now well documented (Fig. 1). The best understood examples are at the Late Archaic Poverty Point site in Louisiana, though earlier Archaic platforms have been documented elsewhere in the Lower Mississippi Valley (LMV) and in the St. Johns River Valley in Florida. The relative dearth of known Archaic platform mounds is undoubtedly exacerbated by our general lack of knowledge about mound construction during this period. It was only around 25 years ago that Middle Archaic mound building became well accepted (Russo 1994a; b; Saunders et al. 1994), and many unexcavated and undated sites still exist. As more research is focused on this period, it is likely the corpus of identified Archaic platforms will grow substantially.

Lower Mississippi Valley

Due to the strong influence of Poverty Point culture (ca. 2000–600 BC) on our understanding of the history of mound construction in the Eastern United States, I will begin this discussion with a review of the roles that platforms played at the type-site. Poverty Point served as a location for seasonal aggregation, trade, and craft production for mobile fisher-hunter-gatherer populations. At the end of the Archaic, the site consisted of six elliptical ridges, two possible bird effigies, two conical mounds, and one flat-topped mound (Fig. 2). Recent research at the site has shown that at least four of these mounds were, at one time, flat-topped and likely served a variety of functions (e.g., Kidder et al. 2009; Ortmann 2007). Unpublished research has also documented Poverty Point-era platform mounds at Jaketown (Kidder et al. n.d.) (Table 1).

Mound building began at Poverty Point with the construction of Mound B. Though it

appears conical in final form, Mound B's initial stages covered a prepared surface with platforms used for food preparation. A final construction episode added a conical cap and activity in the area ceased (Ford and Webb 1956, pp. 33–46; Kidder et al. 2009; Ortmann 2007, pp. 63–79). In a north-south line with Mound B is Mound E, a flat–topped mound with a similar construction sequence, but lacking the conical cap (see Fig. 1d). With Lower Jackson, a Middle Archaic mound two miles south, these mounds formed a central axis, indicating Late Archaic people's desire to tie their constructed landscape to the architecture of the past. Mound A would also eventually be built along this axis (Kidder et al. 2009, p. 128).

After Mound B was capped, the site was reorganized around the construction of the ridges to create a central plaza in which Mound C was built. Excavations in Mound C revealed a low platform consisting of midden deposits, horizontal caps, and differentially colored and textured floors on which a variety of activities took place. The mound was then partially covered by a material–rich cap around the time of Mound A's construction (see Fig. 1c). Mound C's function remains elusive, but nonlocal materials and short–term activities suggest ritual use (Kidder et al. 2009, pp. 110–112; Ortmann 2007, pp. 148–181).

While often discussed as an effigy, Mound A was built as a massive conical mound onto which a large platform was added (see Figure 1b). Recent geoarchaeological analyses revealed that Late Archaic people built this mound in less than two months, requiring huge labor forces (Kidder et al. 2009; Ortmann 2007, pp. 190–250). No features have been identified on platform, leaving its function unknown. That said, as one of the largest earthen constructions in North America, it is odd that it has not figured more prominently in discussions of early platform mounds.

While Mound A's size and form are extraordinary, the other mounds at Poverty Point

were not unique during the Archaic period. Rather, the construction of platforms as the first stage of mounds later covered with conical caps has a deep history in the Middle Archaic period (ca. 6000–2000 BC) at sites such as Monte Santo (Kuttruff 1997), Hornsby (Gibson and Shenkel 1988, pp. 9–10), Frenchman's Bend, Hedgepeth, and perhaps Watson Brake (Saunders 2012, pp. 37–41) (see Table 1). At least one of these platforms supported mortuary facilities (Kuttruff 1997) while others show evidence of structures and non-mortuary activities on their summits (Gibson and Shenkel 1988, pp. 9–10; Saunders 2012, pp. 37–41).

Regardless of their function, these very early mounds were built by localized fisher-hunter-gatherers that did not engage in trade like that of the succeeding Poverty Point culture. Middle Archaic society was egalitarian with some groups constructing mounds and others not, suggesting that the practice was undertaken by autonomous communities rather than coordinated, intergroup efforts as seen at Poverty Point. Moreover, many Middle Archaic mound sites show evidence of intensive Early Archaic occupation, suggesting significant place-based continuity among these groups, with little change in subsistence or other daily activities associated with the onset of monument construction (Saunders 2010; 2012). This persistence of place is further demonstrated by 200-year hiatuses in mound construction at Watson Brake, suggesting the mounds themselves, not specific people, drew populations back (Saunders et al. 2005b; see also Thompson 2010).

Further excavation at these and other Archaic sites in the LMV will likely reveal additional Archaic platforms and provide more detail on their diverse functions. The combined evidence from Poverty Point and Middle Archaic examples demonstrate that platform mounds were an important form of monumentality for Archaic people. Their sequentially occupied summits served as foundations for structures and provided platforms for activities ranging from

burial and processing of the dead, to food preparation and consumption, to short-term ritual events. Clearly, the idea of using constructed platforms to physically, and perhaps psychologically, elevate certain activities was present in mound-building practice from its inception.

St. Johns River Valley

Archaic platform mounds are also found at a series of Mount Taylor period (ca. 5400 – 2600 BC) shell mounds in the St. Johns River Valley of Florida (see Fig. 1; Table 2). Harris Creek was a small mortuary platform that was gradually expanded through time (Aten 1999). Formal similarities and limited excavations have suggested that the Mount Taylor mounds at North Hontoon Island and Hontoon Dead Creek also fit this description (Randall and Sassaman 2005), as well as perhaps Live Oak (Sassaman 2003), Orange (Aten 1999, p. 176), and others that have not been sufficiently excavated (Randall and Sassaman 2005). Slightly later, Thornhill Lake contains two sand burial mounds built in the shape of truncated cones (Endonino 2010).

Though excavation at these sites has been minimal, it appears that the constructions began as flat-topped mounds associated with mortuary activities. Generally, there is evidence of significant premound activity, followed by the construction of a low platform upon which layers of shell midden, clean shell, sand, and other sediments were placed, creating additional flat summits. These summits show evidence of various activities in the form of midden deposits, burning episodes, additional burials, postholes, hearths, and other features. In addition to their mortuary functions, these early platforms provided locations for specialized (but not domestic) food production and consumption. Capping episodes were eventually undertaken to create conical final forms, but this generally occurred later by cultures reusing the mounds (Aten 1999;

Kidder and Sassaman 2009, p. 674; Randall and Sassaman 2005; Randall 2015). Patterns of site use and mound construction before, during, and after Mount Taylor times thus suggest that people were again concerned with tying their earthworks to the past cultural landscape and that the construction of mortuary monuments was not something wholly new but rather "a transformation [of] preexisting practice" (Endonino 2010, p. 21).

In weighing the accuracy of this review, it is important to note that most shell mounds in this region have been severely damaged by shell mining (Randall 2015, p. 5). Early investigations (e.g., Wyman 1875) noted pre-ceramic components in many now-destroyed, St. Johns-area mounds. In addition, most Mount Taylor components that survived are buried under later deposits, allowing early monumentality to remain unnoticed (Randall and Sassaman 2005, pp. 18–20). As in the LMV, there are many un- and under-excavated sites with undated components. Considering well over half of the Mount Taylor-age mounds tested in modern times contain hints of initial flat-topped stages, it seems likely that internal platforms will be discovered in many more with further investigation.

Summary

In their discussion of Archaic monumentality, Kidder and Sassaman (2009, p. 675) state that "mound building as a monumental practice is a substantial change from practices of earlier times. Mounds are not only an indication of the capacity to move dirt or to mobilize labor but they are also a social and conceptual statement by the builders that they are capable of recreating the landscape to suit their needs and to fulfill their vision of how the physical and symbolic world should be constructed." It is clear from the examples presented here that, from its inception, the practice of mound construction in the Southeast included platforms as important

components of symbolic landscapes. Stratigraphic data from the excavated examples show cyclical patterns of mound construction and use that suggest both continuity and change in the construction and summit activities that occurred during the Archaic period. It is likely that this data set will grow substantially as more Archaic mounds are identified and excavated, and with it we will gain a better understanding of the function and meaning of these structures to their builders.

Woodland Period Platform Mounds

Woodland platform mounds are now commonly recognized in the southeastern archaeological literature, though uncertainties about their functions and how they relate to later Mississippian examples remain. In this section, I include data from infrequently discussed and recently published sites that may help to clarify these questions. I review examples of Woodland platform mounds from across the Eastern United States, employing regional divisions to simplify the discussion of the similarities and differences between sites (Figure 3). I defined these regions based on the accepted geographic ranges of archaeological cultures as they are discussed in the literature. For each region, I include a complete listing of known Woodland platform mounds and look in depth at examples of well-understood sites. In doing so, I situate Woodland platform mounds in their broader landscape, drawing attention to their relationships with other site features and natural topography.

Midwest

The Early Woodland mound-building culture in the Midwest is known as Adena (ca. 600 BC–AD 100). Adena people were hunter-gatherers who supplemented with small-scale horticulture.

They built large, conical burial mounds, some of which may have started as platforms (Hays 2001). Adena is followed by Hopewell (ca. BC 100–400 AD), a culture known for its expansive trade network that connected Middle Woodland groups throughout the Eastern United States. The classic expression of Hopewell was centered in southern Ohio and characterized by a horticultural subsistence system, elaborate geometric earthworks, and conical burial mounds containing distinctive grave goods (Lepper 2014). Though less frequently discussed, platform mounds also occur as part of the monumental architecture at Hopewell sites both in Ohio and beyond (see Fig. 3; Table 3).

The Hopewell earthwork at Marietta features platform mounds prominently in its layout, which also includes three enclosures, a walled road, a conical burial mound with a ditch and embankment (Pickard 1996; Squier and Davis 1848, pp. 73–77). Testing in one platform revealed complex stratigraphy and abundant features. A prepared premound surface was covered with differentially colored sediments in complex patterns and the excavation of one buried summit revealed post holes that had been pulled and refilled with brightly colored sediments before the next stage of mound construction (Pickard 1996).

Platform mounds are also reported at other Hopewell sites with geometric enclosures, including Newark (Squier and Davis 1848, pp. 67–72), Cedar Banks, and Ginther (Squier and Davis 1848, pp. 52–54) in Ohio, and Mann (Ruby 1997) in Indiana. At these sites, the placement of the platforms within the broader earthwork complex suggests they were integral to the design of the site and not added later (Prufer 1964; Ruby 1997, p. 406). Though only some have been excavated, those that have resemble Marietta in the presence of complex prepared floors, large posts, and other unusual features (Ruby 1997; Shetrone 1926). At Mann, midden deposits and differentiated activity areas on the summits suggest that mound-top activities focused on food

sharing and ceremonies surrounding symbolically valuable goods and raw materials (Ruby 1997).

Though undated, the platform mound within the enclosure at Cedar Banks may represent a precursor to Hopewellian platforms given the characteristically Adena site layout (Prufer 1964, p. 51). Regardless, an Early Woodland platform has been identified at Biggs (Applegate 2008, p. 525; Squier and Davis 1848, pp. 77–82) and the Adena origin of platform mounds is supported by their presence underlying conical mounds at Camargo (Squier and Davis 1848, p. 93) and Snake Den (Fischer 1974, p. 78), and as an early stage of one of the C & O mounds (Webb et al. 1942, pp. 315–317). This latter construction practice continues at Middle Woodland sites in Ohio (e.g., Seip [Shetrone and Greenman 1931, pp. 480–490] and Wright [Shetrone 1924, p. 346]) and Illinois (e.g. Dickison [Walker 1952, pp. 16–18] and Wilson [Neumann and Fowler 1952, p. 188]).

Though I have not included these sites, the Illinois Hopewell mortuary program consists of crypts placed into or under low, platform-like, ramp-and-tomb structures that served as stages for ceremonial activities (Fig. 4) (Charles et al. 2004; King et al. 2017). That said, Reed (1969, pp. 38–39) clearly outlines how this early form of mound construction could seamlessly transform into the platform mounds prevalent in later periods. He suggests a shift toward increased sedentism would make covering ritual and/or mundane refuse less necessary, thereby demonstrating how applying a forward-looking temporal framework to archaeological data can shift interpretations.

Appalachian Summit

The Connestee phase (ca. AD 200–800) in the Appalachian Summit is defined by ceremonialism

surrounding the Hopewell Interaction Sphere. It is characterized by continued reliance on wild foods, semi-permanent base camps in river valleys, and a shift towards constructing platform mounds at important sites (Wright 2014b, pp. 28–56) (see Fig. 3; Table 4). The recognition of these early mounds as substructural platforms suggested that the defining characteristics of South Appalachian Mississippian culture did not enter the region as a developed set from elsewhere, but that platform mounds saw an *in situ* development in the region (Peterson 1975). Importantly, while this development coincides with people settling down in larger, more formalized communities, there is little to no evidence of ranked, hierarchical society (Wright 2014b, pp. 50–51).

Garden Creek, consisting of four mounds, two ditch enclosures, a plaza, and two village areas, has been the focus of recent research (Wright 2014a, b). The single platform mound contains two Middle Woodland episodes and a later Mississippian cap. The construction began with yellow clay placed atop a ritually dismantled special-purpose structure. Another structure and large standing posts were placed on the first summit and continuously maintained for multiple generations. At the end of its use life, this structure was burned before the second fill episode. Additional standing posts, post molds, refuse pits, and hearths were identified on this level (Wright 2014a). Off–mound investigations at Garden Creek suggest the area immediately surrounding the mounds was used for feasting and craft production focused on Hopewell Interaction Sphere items. The areas further afield hosted temporary, but more typically domestic events associated with mound top activities with no evidence for permanent settlement (Wright 2014b). Investigation of nearby Biltmore revealed another Connestee Phase platform mound site with a similar location, layout, and pattern of use (Kimball et al. 2010).

Midsouth

In the Midsouth, the Middle Woodland period is identified by the presence of Miller tradition (ca. 100 BC–AD 600) ceramics and/or Copena tradition (ca. AD 100–500) mortuary ceremonialism. Settlement patterns include non-mound villages, mound sites with villages, ceremonial mound sites, and burial sites with conical mounds. Early platform mounds in this region (see Fig. 3; Table 5) show low artifact and feature densities suggesting they were nonresidential and occupied only on ceremonial occasions (Andras 2004; Kwas and Mainfort 1986, p. 38; Mainfort 2013). Like elsewhere, Woodland-period burials occurred on platforms later covered with conical caps—e.g., Pharr (Bohannon 1972; Walling et al. 1991), Brogan (Baca and Peacock 1996, pp. 15–16), McRae (Blitz 1986), and Bynum (Cotter and Corbett 1951, pp. 6, 11; Walling et al. 1991) (see Table 5).

Two early platform mound sites, Pinson and Johnston, indicate an area of distinct importance along the Forked Deer River. Both sites include small, low-density habitation areas suggesting they were not occupied year-round. Nonlocal materials and ritual paraphernalia suggest that the sites served as ceremonial centers for people in nearby settlements. Abundant burial mounds suggest that mortuary ritual was an important part of this ceremonialism (Kwas and Mainfort 1986; Mainfort 2013, pp. 14–14, 96–141).

Pinson, the better understood of these sites, consists of an embankment and at least 13 mounds, six of which are flat-topped (Mainfort 2013). Mound 9, a tall, rectangular platform near the site's center, was built in stages, aligned with the cardinal directions, and shows no evidence of a structure on its unusually small summit (Mainfort 1988). Mound 10, a teardrop-shaped platform, began with the replacement of the submound topsoil and proceeded in stages (Mainfort 2013, pp. 151–153). The ramped Mound 29 was built in stages and is surrounded by a circular

embankment reminiscent of classic Hopewell sites (Mainfort 2013, pp. 179–181). Mounds 15 and 28 were built as single events (Mainfort 1988).

Another group of four mounds sits to the west of this primary complex and would potentially have been viewed as a separate site prehistorically (Mainfort 2013, p. 7). Mound 5 with its prominent ramp dominates this area and aligns with the cardinal directions as well as, potentially, the solstice. Like Mound 10, the premound surface was prepared by removing and replacing the subsoil and then the mound was constructed in stages. Excavation of the uppermost summits showed that they were not single floors but rather each represented a series of events that involved removing and re-veneering the surface with yellow, upland sand and gray, lowland clay. No summit structures were identified, but two hearths, a low clay platform, and scattered nonlocal goods suggest ritual use (Mainfort 2013, pp. 85–96).

Other Miller tradition platform mound sites include Forkland (Shogren 1989, pp. 1–9), Ingomar (Andras 2004; Rafferty 1990), Slate Springs (Baca 2015) and likely, Thelma (Johnson and Atkinson 1985; Rafferty 2015) and Nanih Waiya (Carleton 1999). While most of these sites have not been well studied, excavations at Ingomar have demonstrated distinct similarities between the vacant, multi-mound complex and the Forked Deer sites discussed above, including ramped platform mounds that were built in stages, cardinally oriented, and capped with multi-colored clay.

Evidence for Middle Woodland platform mound construction in the Tennessee River Valley has been found at Walling (Knight 1990), Florence (Boudreaux and Johnson 2000), Savannah (Welch 1998), and Oakville (Rael 2014). These sites belong to the Copena tradition, named for the characteristic copper and galena objects found with burials (Walthall 1980, pp. 116–117). The best understood example is Walling, a single platform adjacent to an oval-shaped

midden surrounding a plaza and associated with two Copena burial mounds (Knight 1990, pp. 1–18). Built over a premound midden, excavation of the earliest floors revealed a random assortment of post molds, large standing posts, and small pits while the latest floor showed a clear structural pattern (Knight 1990, pp. 31–51). Food remains and ceramics from the premound and mound-related deposits lack characteristics of domestic consumption and suggest the site served as a location for ceremonial feasting (Knight 1990, pp. 115–164, 2001).

Coastal Plain

The Atlantic and Gulf Coastal Plains are home to a sequence of archaeological cultures that provide extensive evidence for Woodland platform mound construction including sites dating to Late, Middle, and potentially late Early Woodland times (see Fig. 3; Table 6). Though there is a great deal of variation, Woodland sites on the Coastal Plain are generally characterized by a series of overlapping ceramic complexes known as Deptford, (ca. 800 BC–AD 700), Cartersville (ca. 100 BC–AD 500), Santa Rosa–Swift Creek (ca. AD 50–800), and Weeden Island (ca. AD 200–1000) (see Stephenson et al. 2002). When combined with the evidence for Archaic period monumentality in the St. Johns River Valley, the Coastal Plain was clearly a hotbed of early monumental architecture, and more specifically, an important center for early platform mound ceremonialism. In this section, I further subdivide the impressive number of Woodland-period platform mound sites into four geographic areas: northern and eastern Georgia, southern Alabama and the southern Chattahoochee Valley, northern Florida, and central Florida. The overall impression given by a review of this area is of great complexity and great variability in both the construction and use of platform mounds.

In northern and eastern Georgia, Woodland platform mounds are found at at least eight sites, including one large, multi-mound center that shows direct connection to Hopewellian communities further north and west. The Leake complex consisted of one rectangular and one circular platform mound, a conical mound, ditch enclosure, cave, hilltop stone enclosure, stone-covered tomb, and residential areas. Midden deposits, structures, and features at the site suggest both domestic and ceremonial activities occurred there from late Early through Middle Woodland times (Keith 2010).

The Leake assemblage is dominated by local ceramics but also contains non-local items suggesting connections to communities throughout the Southeast and Midwest; a direct connection between Leake and Mann (see above) is indicated through stylistic and petrographic analysis of stamped pottery (Keith 2010, pp. 312–315; Stoltman 2015, pp. 117–127). Leake likely served as a place of residence as well as a stop for Middle Woodland traders. As a gateway community, the site would have been a center of interaction that drew together large groups for feasting, mound building, and other ceremonies, as well as manufacture and trade of Hopewell goods (Keith 2010; Stoltman 2015). Though exact dates on the platform mounds are not known, mound building began at Leake in the first century BC and increased during the Middle Woodland. Excavation on the summit of Mound A revealed abundant post molds with potential structural alignments and pit features associated with large standing posts (Keith 2010, pp. 457–460).

Further east, the platform mound at Fortson also contains early Swift Creek pottery but has no evidence of a structure on its summit and minimal off-mound habitation (Elliott and Kowalewski 1989; Williams 1992). Dating slightly later, Cold Springs (Fish and Jefferies 1986; Jefferies 1994, pp. 76–82), Swift Creek (Jefferies 1994, pp. 71–73; Kelly and Smith 1975),

Anneewakee Creek (Dickens 1975, pp. 36–38; Wauchope 1966, pp. 404–406), Milamo (Kelly and Smith 1975, pp. 202–210; Snow et al. 1979), and Evelyn (Ashley et al. 2007; Kelly and Smith 1975, pp. 242–244) all contain Middle Woodland platform mounds. Evidence for significant off-mound habitation at these sites is variable, but summit excavations consistently revealed both small, possibly structural posts and large standing posts. Nearby, but during the Late Woodland period, the summit of the large platform mound at Summerour held a temple or public structure with identifiable entrances, central posts, benches, and fire pits (Pluckhahn 1996).

Southern Alabama and the southern Chattahoochee Valley is home to another cluster of Woodland platform mounds centered around the well excavated sites of Mandeville and Kolomoki, both of which were home to large, resident populations. Mandeville was occupied during late Early and early Middle Woodland times and consists of one platform and one conical burial mound with an intensive and permanent village area in between (Kellar et al. 1962a; b). Extensive excavation in the platform revealed no definitive structures on the sequential summits, though circular structures, pits, and massive standing posts were present under the mound. The mound's construction sequence was unusual, starting with several small, sand and clay platforms that were eventually connected into a single summit that was then extended laterally but not vertically. Throughout the mound's history, only one half of the summit was utilized, while the other was kept clean (Kellar et al. 1962a). Though these unusual patterns of construction and use are not born out at nearby Shorter (Kurjack 1975, pp. 87–109) and Durant Bend (Nance 1976), these single mound sites add support to the possibility of late Early Woodland platform mound construction in this region. Though they have not been well explored, we know the mounds were built using special sediments differentiated by color and texture and an unbroken sequence of

mound construction through the entire Woodland period at Durant Bend suggests long-term continuity in site use.

Kolomoki was founded in the Middle Woodland and constitutes a major, multi-mound center with a long history of investigation (e.g., Pluckhahn 2003; Sears 1956). Nearby Mitchell may be an additional Middle Woodland platform mound in this cluster, but the site has not been well investigated (Earnest 2004). Kolomoki consists of a low, earthen embankment and at least eight mounds, five of which are or were at one time platforms. The off-mound deposits at Kolomoki are particularly interesting and consist of 12 activity areas defining an inner and outer plaza.

Recent research suggests that the site developed over four phases, beginning as a vacant mound center that gradually grew into a small, permanent settlement. Construction on Mound A, a large platform mound with a tiered summit, likely began during this time (Pluckhahn et al. 2017). In the following phase, a formal arrangement of mounds and a U–shaped village developed, followed by an embankment and a number of burial mounds, including the early stages of Mound D, an architecturally complex conical structure with an early, tiered platform stage (Pluckhahn 2003, pp. 56–64). Concurrent with the completion of Mounds A and D, this highly organized site plan morphed into a hypertrophic, yet discontinuous village (Pluckhahn et al. 2017). As construction diminished, two additional mounds were built, including a platform of unclear shape riddled with the remains of many superimposed, large posts. This mound may have hosted large feasts or other communal activities during this period of decline (Pluckhahn 2003, pp. 58–59).

Occupation during the final phase was even less structured but two mounds were added before the site's abandonment. Mounds F and H began as small platforms for structures and/or

mortuary activities, which were later covered with conical caps (Pluckhahn 2003, pp. 67–68). Along with the examples from Kolomoki and one from Cold Springs (Fish and Jefferies 1986), the McQuorquodale mound indicates that the practice of constructing platforms as the first stage in burial mounds was present in the Gulf Coastal Plain (Wimberly and Tourtelot 1941).

Just south of this cluster, Letchworth, Waddells Mill Pond, and Block-Sterns in the Florida Panhandle support the case for high variability in the construction and use of Woodland platform mounds on the Coastal Plain. Letchworth consists of around 20 burial mounds surrounding a plaza and a large platform mound with a complicated construction history involving significant color symbolism. Domestic debris is scarce suggesting either short occupation or habitation only by a small group of caretakers who occasionally hosted integrative events in the plaza (Bigman and Seinfeld 2017; Seinfeld and Bigman 2013; Tesar et al. 2003). Block-Sterns, a permanent village with four mounds, includes a very early Middle Woodland platform with post molds, scattered debris, and fragments of human bone on its stacked summits (Jones et al. 1998). The single platform mound at Waddells Mill Pond was built on a prepared surface within an earlier village and each summit showed evidence of structures and hearths (Tesar and Jones 2009). Though not well understood, at least five other sites in northern Florida may contain Woodland platform mounds: Yent, Hall, Aucilla River, and Pierce along the Gulf Coast (Moore 1902, pp. 217–229; 265–274, 282–304; 325–329; Willey 1949, pp. 271–272, 278–282, 290–292, 301–302; White 2014) and Murphy Island on the Atlantic Coast (Moore 1895, p. 15).

McKeithen is the best-understood platform mound site in northern Florida and emphasizes the importance of platforms in Woodland mortuary ceremonialism. The site includes three platform mounds surrounding a central plaza and connected by a low embankment and

midden ridge built up through the persistent use of the site as a village during the Late Woodland. The three mounds were functionally distinct. Mound A's summit was partitioned by a screen behind which mortuary and potentially feasting activities took place (Knight 2001; Milanich et al. 1984, pp. 94–105); Mound B supported a structure controlled by a ritual specialist who was eventually interred inside it (Milanich et al. 1984, pp. 105–112); and Mound C held a charnel house used to store human remains for processing (Milanich et al. 1984, pp. 112–117). As the importance of the site faded, activities on all platforms ended abruptly, the summit structures were burned, and the mounds were capped, but the midden areas continued to be occupied (Milanich et al. 1984, p. 91).

Moving south, Garden Patch, Bayshore Homes, Roberts Island, and Crystal River provide strong evidence for both the complexity and variability of Woodland platforms on the Coastal Plain. The site layout of Garden Patch, including its ramped platform mound, was developed during the Middle Woodland (Wallis and McFadden 2016; Wallis et al. 2015), while Bayshore Homes (Austin and Mitchem 2014; Austin et al. 2008) and the Roberts Island complex include very Late Woodland platform mounds. Roberts Island in particular evidences an extremely high level of architectural complexity with three stepped platforms made of shell, a plaza, and an extensive midden deposits (Pluckhahn et al. 2016).

The nearby center of Crystal River consists of a plaza, a curvilinear shell feature, three stone monuments, between four and six platform mounds, and one burial mound complex (Pluckhahn et al. 2010; Thompson and Pluckhahn 2010). The earliest construction at the site occurred during the Early Woodland when a mortuary complex including conical mounds, a large, slightly sloping platform, and a roughly triangular platform were built (Pluckhahn et al. 2010, pp. 173–174). Two non-mortuary platforms were built somewhat later, followed by a

large, unusually narrow platform mound with a prominent ramp. This mound was built quickly using zones of boulders and shell alternating with sand, with each layer extending the height but not the footprint of the mound (Pluckhahn et al. 2010, pp. 170, 177). The residents then began artificially expanding the terrace on which the site was built, topping this expansion with a large, ramped platform by alternating between rapid mound construction and slow deposition through activities such as feasting (Norman 2014, p. 66).

The nearly 50 Woodland platform mounds on the Coastal Plain show a huge degree of variability. Some served as vacant ceremonial or mortuary centers while others had long-term or short-term residential populations; some were built quickly while others were constructed continuously throughout the entirety of the Woodland period. The summits of some show evidence for permanent structures (of domestic, mortuary, and ceremonial function), others indicate standing posts, and still others appear to have been kept clean. Combined, they do not paint a consistent picture of platform mound construction and use and instead suggest a variable practice that drew on earlier patterns of site use, while fundamentally transforming the landscape of the Coastal Plain.

South Florida

South of the range of Deptford, Cartersville, Santa Rosa-Swift Creek, and Weeden Island, there is evidence of Woodland mound building associated with the Glades tradition (ca. 500 BC–AD 1000) (see Fig. 3; Table 7). These sites represent a distinctive coastal tradition of platform mound ceremonialism through their consistent use of shell and distinctive structural remains, with the largest sites closely tied to mortuary ceremonialism.

The largest, Fort Center, consists of mounds, embankments, middens, circular ditches, plazas or courtyards, and a man-made pond. The pond, along with its two flanking platform mounds and encircling embankment, forms a Middle Woodland mortuary complex. A raised wooden platform over the pond was elaborately decorated with wooden statues and supported a large number of human burials. One of the flanking platforms shows an elaborate construction process and contains evidence for the preparation of human remains. Across the pond, rich midden atop a large, irregular platform suggests a habitation area for people responsible for processing the dead. Given the large number of interments at Fort Center and the minimal evidence for occupation, it is likely that the site served as a ceremonial center for a dispersed regional population (Sears 1982; Thompson and Pluckhahn 2012).

Additional sites in South Florida, including Key Marco (Widmer 1996; cf. Marquardt 2010, pp. 563–563), Shell Island (Widmer 2002, pp. 379–380), Russell Key (Schwadron 2010), and possibly Belle Glade (Purdy 1991, pp. 66–81; Widmer 2002, pp. 383–384) provide further support for Woodland platforms within the Glades tradition. Key Marco, famous for Cushing's (1896) excavation of the "Court of the Pile Dwellers," is often assumed to be Mississippian; however, the objects recovered from the pond are strikingly similar to those from Fort Center. Recent excavations revealed a Woodland flat-topped, shell mound built in stages, each of which supported a structure before being veneered with specially procured clam shells. The final structure appears to have been raised above the mound's summit on pilings, as did the superimposed structures on the mound at Shell Island. A second platform at Key Marco was also indicated in these excavations but not further explored (Widmer 1996, 2002).

Lower Mississippi Valley

As previously discussed, platform mound building in the LMV began during the Archaic. It is generally thought that platform mounds then disappeared as a form of public architecture until the Middle Woodland, when they rose in popularity with Marksville culture (ca. 100 BC – AD 400), a trend that continued through the early Late Woodland Baytown (ca. AD 300–700) and Troyville (ca. AD 400–700) cultures and blossomed in the terminal Late Woodland Plum Bayou (ca. AD 600–1050) and Coles Creek (ca. AD 700–1200) cultures. This amounts to a huge corpus of evidence for Woodland platform mound construction in this region (see Fig. 3; Table 8). While there is a great deal of variability present, this review supports relatively gradual and continuous change in platform mound ceremonialism in LMV through time.

Mounds attributed to Plum Bayou and Coles Creek populations are often eliminated from reviews of Woodland platform mounds under the premise that they are "emergent Mississippian" rather than truly Woodland in nature. For example, when describing the limits of his review, Knight (1990, p. 168) states, "deliberately weeded out are the Early and Late Coles Creek mound sites, for which growing evidence reveals distinctly proto–Mississippian form *and function* ... that is so far much less clear, if not entirely missing, from the generally earlier and more easterly remainder" (emphasis original). To the contrary, I contend that these sites clearly represent a culmination of long traditions of mound building and use that began much earlier, and thus serve as a fitting end point for such a review (for an early recognition of this, see Belmont 1967, pp. 31–32).

Studies of Early Woodland mound building in the LMV suggest that dispersed conical burial mounds took the place of large mound centers, the long distance trade that characterized the terminal Archaic ceased, and the first intensive use of ceramic technology began. Early Woodland people fished, hunted, and gathered wild resources from relatively permanent villages

grouped around burial sites that sometimes contained mounds (Hays and Weinstein 2010). Recent work at Batesville has provided evidence against a strict Early Woodland (800 BC – AD 1) hiatus in platform mound construction. Batesville consists of six mounds, including at least two platforms, and associated midden deposits. The mounds were initially assumed to be Middle Woodland (Ford 1996), however an unusual assemblage in the first two stages of Mound B and off-mound areas suggested an Early Woodland date. The summit that divides the stages containing Early Woodland material from those potentially built later was left open for some time and marks a shift in mound shape from ovate to rectangular. Features and collections from the site suggest short-term, non-domestic use, perhaps focused on food preparation for communal feasts associated with mortuary ritual (Johnson et al. 2002).

Like elsewhere, both Early—e.g., Lafayette (Heller et al. 2013, pp. 280–323) and Lake Louis (Kidder 2002)—and Middle Woodland—e.g., Mound 4 at Marksville (Fowke 1928), Mound A at Crooks (Ford and Willey 1940), Grand Gulf (Brookes 1976), and Womack (Ford 1980; Koehler 1966)—burial mounds began as platforms for ceremonies relating to mortuary activities. The association of at least two of these sites with Early Woodland ceramics further suggests that platform mound construction did not cease entirely, but rather that the scarcity of evidence may be due to a paucity of excavated mound sites and a lack of recognition that conical mounds may have begun as platforms.

In addition to containing these multi-stage burial mounds, Marksville sites also incorporated earthen embankments like those at Middle Woodland sites in other regions, participated to a small degree in the Hopewell Interaction Sphere, and contained increasing numbers of platform mounds through time (McGimsey et al. 2005, p. 85). Marksville communities were largely egalitarian hunter-gatherers, though it has been argued that

excavations at some sites suggest incipient social differentiation (McGimsey 2010). The most complex and best-investigated Middle Woodland site in the LMV, the Marksville type-site, includes a C–shaped ditch and embankment, six mounds, and an open plaza. Outside of this main area but clearly associated with the site are two additional mounds, four embankments, and up to 70 unique ring-shaped earthworks of enigmatic function (McGimsey 2003; McGimsey et al. 2005).

Mound 4, mentioned above, is a burial mound in the primary complex that began as a platform that supported a structure and was left open for some time before being capped (Gibson and Shenkel 1988, p. 15; Fowke 1928). Mound 7, a platform north of the main site area, resembles the first stage of Mound 4 and may represent an unfinished conical burial mound (Fowke 1928; Mainfort 2013, p. 204). This case highlights the fact that these initial flat-topped stages likely served as important components of the ritual landscape during their time as platforms.

Two additional mounds in the main Marksville complex were platforms upon which small conical mounds may have been constructed (Toth 1974, pp. 28–31; Vescelius 1957). This pattern of mound construction, while present in other regions (Fischer 1974, p. 78; Pluckhahn and Thompson 2009, p. 17), seems to be especially popular in the LMV. Further north, Leist shows considerable similarity including a large platform mound surmounted by a conical mound, associated embankments, and additional mounds (Jackson 1998; Phillips 1970, pp. 367–373). Marksville platform mounds with associated embankments may also exist at nearby Spanish Fort and Little Spanish Fort (Jackson 1998; Mainfort 2013, p. 209).

The early part of the Late Woodland period in the LMV contains two distinct cultures — Baytown to the north and Troyville to the south. While platform mounds became more common

during this period, they share a great deal with their predecessors in terms of construction and use. "Mound building during the Baytown period was likely characterized by some form of ideological influence and ritual engagement of local societies and the surrounding population, rather than economic control" (Lee 2010, p. 138). Some individuals may have achieved higher status, but this power was impermanent and not inherited, ascribed, or made visible in the mortuary program and was less marked than in both the preceding Middle Woodland and succeeding Mississippi periods. Baytown people lived in small, dispersed hamlets, and like earlier groups, subsisted on wild resources (Lee 2010). Many Baytown mound sites have sizeable premound components, and were likely important symbolic locations before mounds were constructed. Both premound and mound deposits are often associated with evidence of large-scale food consumption likely representing intercommunity events (Belmont 1982, p. 88).

The multi–mound sites of McGuffee (Saunders et al. 2005a; Shuman et al. 1999), Marsden (Bitgood 1989, pp. 48–75), and possibly Baptiste (Whitmer 1987; Phillips 1970, p. 897; cf. McGimsey and Cossey 2000), as well as the single–mound site of Thornton (Phillips 1970, pp. 371, 581–587) include large platforms surmounted by conical mounds and are thus reminiscent of earlier, Marksville sites. Oliver may also have had a conical mound that surmounted a platform at one time, though it was eventually subsumed in a later mound stage (Belmont 1961, pp. 31–50). In addition to these examples, Manny (Greengo 1964; Phillips 1970, pp. 616–697), King (Gibson 1983, pp. 210–218), Poplar Grove Landing (Gibson 1983, pp. 188–190), Fredericks (Girard 2000), Baytown (Rolingson 1998, pp. 115–116; Phillips 1970, pp. 903–904), and Gold Mine (Belmont 1982; McGimsey 2004) each likely include at least one early Late Woodland platform mound.

The Troyville provides a unique example of Woodland platform mound construction. Troyville consists of an elaborate, 25 m-tall earthen mound, at least nine additional mounds, and an earthen embankment. The Great Mound at Troyville included two terraced, rectangular platforms built over a prepared surface surmounted by an exceptionally steep, truncated conical mound. The initial platform was constructed of differentially colored sediments as well as cane matting, palm fronds, wooden planks, and large posts (Walker 1936). Recent testing at the site has suggested that the four additional platform mounds were functionally variable; one (the earliest) had a mortuary function, two had domestic refuse on their summits, and another showed evidence for communal feasting (something further supported by Belmont's [1982] investigations at Gold Mine) (Saunders and Jones 2003; Saunders et al. 2006). Additional refuse was associated with the embankment and off-mound areas suggesting a residential population at the site (Cusick et al. 1995; Lee et al. 2010).

Also in the early Late Woodland but further south, Graveline (Blitz and Downs 2015), Jackson Landing (Boudreaux 2015; Williams 1987), and Indian Camp (Webb 1982) served as major coastal mound centers. The first stage of the platform mounds at Graveline and Jackson Landing appear less like platforms and more like enclosures around a ritual space where feasting and other activities took place. It is possible that such structures also served as berms to help control the construction process. Mound summit excavations indicate non-domestic group activities, potentially including ceremonial feasting, and little to no material was found in the off-mound areas.

The latter portion of the Late Woodland in LMV is characterized by Plum Bayou culture to the north and Coles Creek culture to the south. As mentioned above, these cultures have often been viewed as regional variants of emergent Mississippian; however, they also show a great

deal of continuity with their Woodland predecessors (Kassabaum 2014, pp. 12–13; Rolingson and Kelly 2012, pp. 102). The Plum Bayou region is dominated by the site of Toltec with approximately 18 mounds (including at least seven low platforms, a large platform, and two large conicals) carefully arranged around two plazas within a ditched embankment. While little is known about the big mound, excavations have demonstrated that the low platforms were not all in use at once, but rather utilized successively. Most were built over earlier midden and evidence for structures on their summits is equivocal, though flank midden deposits indicate feasting and other ceremonial activities. While trash deposits occur at various locations around Toltec, there is not enough material to suggest a large, permanent occupation (Rolingson 1998; Rolingson and Kelly 2012).

In adjacent drainages, Coy (Nassaney 1996, pp. 29–31) and Hayes represent additional Plum Bayou mound centers that likely served as central gathering places for a dispersed population (Rolingson 1998, pp. 102–104). People continued consuming wild foods but relied heavily on cultivated and domesticated native plants, including small quantities of maize. The small number of multi-mound centers and abundant hamlets in this region have been interpreted as a settlement hierarchy, and along with the presence of small amounts of non-local items and local prestige goods, initially implied some degree of status differentiation. However, this has not supported by data from burials and structural remains. Nassaney (1996, see also Rolingson and Kelly 2012, pp. 149–150) has convincingly argued that while Plum Bayou groups may show slight increases in status differentiation over the predecessors, they were still living in communally oriented societies with minimal competition (Rolingson 1998, pp. 105–110).

Coles Creek sites further to the south paint a similar picture. Mound centers are characterized by consistent site layouts consisting of two or more flat-topped mounds arranged

around open, curated plazas (Figure 5). Hundreds of Coles Creek mound centers have been reported (Steponaitis 1986, p. 385) and basic data from over 40 sites was examined for this review. Due to the exceptional number of identified platforms, they are not listed individually here and have not been included in Figure 3 or Table 8. The most extensively excavated and best-understood sites will be used below as examples of identified patterns.

Coles Creek mound centers were largely vacant and served as central gathering places for dispersed populations (Barrier and Kassabaum 2017; Kassabaum 2014; Roe and Schilling 2010). People subsisted on wild resources and eventually adopted a number of domesticated, indigenous seeds crops, though corn does not become a major cultigen until the very end of Coles Creek (Fritz and Kidder 1993). The mortuary program and lack of identified status symbols implies a relatively egalitarian social structure (Kassabaum 2011; cf. Barker 1999). That said, a great deal of change occurs within Coles Creek, with early site layouts, artifact assemblages, settlement patterns, and presumed lifeways closely resembling their Troyville and Baytown predecessors, and terminal Coles Creek culture beginning to show characteristics more like the later, Mississippian Plaquemine culture (Harmon and Rose 1989; Kassabaum 2014, pp. 177–181, 212; Roe 2010, p. 164; Roe and Schilling 2010; Wells 1997).

Early excavations at large and complex sites like Lake George, with 25–30 mounds surrounding two well developed plazas (Williams and Brain 1983), and Greenhouse, with seven mounds around a plaza (Ford 1951), led to interpretations of Coles Creek as a sort of "Mississippian–lite" (e.g., Barker 1999; Steponaitis 1986). This conclusion was supported by the presence of well-defined structures on platform mound summits, a trait thought to be diagnostic of hierarchical Mississippian social organization. More recently, a flurry of excavation has taken place with the goal of exploring the transition from Woodland to Mississippian traditions in the

LMV and this picture has been complicated. This research has focused on Coles Creek sites in the Natchez Bluffs, i.e., Feltus (Kassabaum 2014; Steponaitis et al. 2015, Smith Creek (Kassabaum et al. 2017), and Mazique (LaDu 2016); the Tensas Basin, i.e., Raffman (Roe 2010) and Mott (Schilling 2006); and the Gulf Coast, i.e., Bayou Grand Cheniere (Schilling 2004). Additional important work has been undertaken through contract and public archaeology projects in both Mississippi and Louisiana (e.g., Kassabaum et al. 2014b; Kowalski and Jackson 2015; Weinstein 2005; Ryan 2004).

Based on these recent investigations, the functions of Coles Creek platform mounds were variable. Evidence concerning summit use varies, with some having evidence of formal buildings, e.g., Mound C at Osceola (Kidder 1990) and Mound 1 at Morgan (Fuller and Fuller 1987); others implying periodic use of temporary structures, e.g., Mound B at Raffman (Roe 2010); and still others showing no evidence of buildings at all, e.g. Mound A at Feltus (Kassabaum 2014; Steponaitis et al. 2015) and Mound A at Raffman (Roe 2010). In addition, some platforms continued to function as burial locations, e.g., Mound C at Lake George (Williams and Brain 1983) and Mount Nebo (Giardino 1977). Moreover, some mound complexes developed rapidly, e.g., Lake Providence (Weinstein 2005), while others were built gradually throughout the Coles Creek period, e.g., Bayou Grand Chenier (Schilling 2004]). Plazas were present at many sites from their inception (Belmont 1967; Kassabaum 2014), with the process of mound construction causing them to become more circumscribed through time (Kidder 1998; 2004; Roe 2010; Schilling 2004).

The overall picture painted by this review of platform mound construction in the LMV is one of great continuity. While platform mound sites certainly increase in frequency and complexity through time, many more early platforms are present than often acknowledged.

Evidence for changes in the structural, social, economic, and political characteristics of these societies likewise demonstrate gradual change. Terminal Woodland mounds in the LMV share some formal and functional characteristics with Mississippian platforms and others with earlier Woodland platforms, precisely as one might expect from a practice being undertaken at a temporal frontier. As such, Plum Bayou and Coles Creek mounds provide an important connection between this review and understandings of later mounds.

Summary

Prior to understanding the deep history of mound construction in the Eastern United States, archaeologists had become "complacent about the trajectory of social evolution" (Saunders 2010, p. 76) assuming that mound construction, and particularly the construction of flat-topped platform mounds, required stratified, agricultural polities epitomized by Mississippian chiefdoms. We now know that platform mounds have persisted as a form of public architecture for over five thousand years, and that up until very recently, their builders sustained themselves by fishing, hunting, and gathering.

This long review of pre-Mississippian platform mound ceremonialism paints a picture of gradual, though inconsistent change. "Mound building is an iterative mechanism of social integration adopted and abandoned by societies of varying complexity, economy, and antiquity" (Saunders 2012, p. 47). Rather than consistently building towards highly complex Mississippian society, the levels of complexity demonstrated by early mound building groups are highly variable depending on which societal traits are examined. This complexity waxes, wanes, and morphs, with potential peaks associated with wide interaction spheres during Late Archaic, Middle Woodland, and Mississippian times. While the intervening Middle Archaic, Early

Woodland, and Late Woodland groups participated in more localized and inward-facing traditions, platform mound ceremonialism still played an important role.

The scarcity of identified Early Woodland and Archaic platform mounds may be due in part to a paucity of well excavated mound sites from those times and a lack of recognition that some conical mounds began as platforms. Moreover, the same bias that has sometimes caused Middle and Late Woodland mounds to be assigned to the Mississippi period on the basis of form may still be at work in these earlier cases. That said, climatic shifts could also explain the Early Woodland lull (Kidder 2010). In either case, it is important to recognize that a lack of platform mound construction does not indicate a lack of platform mounds. Mound sites would have remained as persistently important places on the landscape (Thompson 2010), a fact clearly demonstrated by later re–occupation and mound construction at early sites (e.g. Mound D at Poverty Point [Ortmann 2007, pp. 275–276]).

During Middle Woodland times, the number of identified platform mounds increases dramatically, along with other forms of landscape modification such as earthen embankments, ditches, and constructed plazas. Site layouts and mound use during this period are highly variable, with both hypertrophic (e.g., Kolomoki [Pluckhahn 2003] and Marksville [McGimsey et al. 2005]) and simple examples existing in most regions. During the Late Woodland, particularly in the LMV, the traditional mound-and-plaza arrangements that have long dominated archaeological discourse about platform mounds develop organically out of these earlier prototypes. While highly organized and elaborate site layouts increased through time, platform mounds have consistently formed only a small part of complex constructed landscapes that also include conical mounds, embankments, ditches, palisades, borrow pits, water features, zones of occupation, and, of course, plazas.

The Long History of Plaza Construction

Like platform mounds, plazas are hallmark features of Mississippian centers and recent literature has drawn attention to the importance of plaza-focused studies for understanding site construction histories and site function. However, detailed studies of plazas have generally been limited to situations in which they form part of a traditional mound-and-plaza arrangement (i.e., an open space symmetrically surrounded by flat-topped, earthen constructions) (Alt et al. 2010; Boudreaux 2013; Cobb and Butler 2017; Dalan 1997; Davis et al. 2015; Holley et al. 1993; Kidder 2004; Lewis et al. 1998; Nelson 2014; Rogers et al. 1982; cf. Barrier and Kassabaum 2017; Pluckhahn 2010; Sassaman and Heckenberger 2004). If the concept of the plaza is decoupled from the Mississippian ideal, then it becomes clear that: (1) plazas also have a long history in the Eastern United States, (2) this history is not always tied to mounds, as plazas predate them at some sites and exist entirely independently of them at others, and (3) because they vary in form, function, and defining characteristics, their study is necessary to understanding the cultures that created them.

The review below is limited by a number of factors. Plazas are chronically under-discussed at mound sites and often go unidentified at non-mound sites leading to fewer descriptions in the primary literature. Moreover, the variable vocabulary used to describe empty spaces makes a comprehensive literature review difficult. While less encyclopedic than my discussion of pre-Mississippian platform mounds, this section surveys the evidence for construction and use of pre-Mississippian plazas and builds an outline from which we may work towards a more complete review.

I view plazas as bounded, open spaces large enough to hold public gatherings. This differs slightly from definitions that emphasize the role of permanent architecture in bounding plaza spaces. Plazas are not dependent on the presence of mounds (Kidder 2004, p. 516), let alone platform mounds; rather, ring middens and other sites with distinctly circular plans are found throughout the Southeast spanning many time periods and geographic areas. As with platform mounds, these sites vary dramatically in form and function from permanently occupied villages to vacant centers used sporadically for special occasions.

Despite the commonality of this layout, it has been differentially studied. In the coastal regions of the Southeast where shell rings are an easily identifiable site type, the study of circular settlements is well developed, while similar studies in more inland regions are lacking. Here I will focus on three distinct classes of circular sites: coastal shell rings, ring middens on the Coastal Plain, and ring middens in LMV.

Coastal Shell Rings

Perhaps due to interest in hunter-gatherer complexity, there has been a recent proliferation of work on coastal shell rings. Shell rings consist of circular, U-shaped, or C-shaped arrangements of shell-bearing sediments surrounding areas of little to no shell often referred to as plazas (Marquardt 2010, p. 563). They were built along the coasts of South Carolina, Georgia, Florida, and Mississippi primarily during the Late Archaic and Early Woodland periods, though perhaps continuing into the later Woodland in some areas (Schwadron 2010). Over 50 Late Archaic and Early Woodland rings have been identified and there is distinct spatial variation in their layouts, with large U-shaped and curvilinear shellworks in South Florida, circular and horseshoe shapes in northeastern Florida, and smaller circles or C–shaped arrangements in coastal Georgia and

South Carolina (Russo 2006) (Fig. 6). Ongoing work continues to add to this count, especially because many sites have been submerged under rising seas and/or buried under later shellworks (Schwadron 2010).

Shell rings were used year-round as either permanent settlements or ceremonial centers (Russo 2006, pp. E45–46). Many sites consist of single rings, while more elaborate examples include interconnected rings, e.g., Fig Island 1 (Saunders and Russo 2002) and Rollins (Saunders 2004); numerous rings in close proximity, e.g., Fig Island (Saunders and Russo 2002) and Sapelo (Thompson 2006); or rings in association with other monumental architecture (Russo 2006, p. E27–E29; Schwadron 2010). The symmetry implicit in circular shellworks has been interpreted as evidence of communal, egalitarian social organization (Trinkley 1985). Yet C- and U-shaped shellworks often have higher shell volumes at the closed end, e.g. Sewee (Russo and Heide 2003), Rollins (Saunders 2004), Fig Island 1 (Saunders and Russo 2002), and Horr's Island (Russo 1991) suggesting differential importance of the occupants or activities in those areas (Russo 2004).

Shell rings and their plazas have variously been interpreted as relating to feasting behavior (Saunders 2004; Russo 2004), purposeful monumentality (Sassaman 2004; Sassaman and Heckenberger 2004), burial ceremonialism (Elliott and Sassaman 1995, p. 146; cf. Russo 2006, pp. E46–E51), trade (Russo 2004), water management (Marquardt 2010; Middaugh 2009), and domestic habitation (Thompson 2006; Trinkley 1985). The key issue in this debate often becomes whether shell rings were formed gradually through midden accumulation or deliberately constructed as monuments. Evidence supporting both interpretations has been recovered; for example, Sapelo 3 (Thompson 2006) and Lighthouse Point (Trinkley 1985) had houses atop their rings, while the steepness of the rings at Horr's Island and Fig Island would

preclude summit buildings (Russo 2006, p. E17). The use of shells mined from other middens as construction fill further supports their monumental nature, e.g., Fig Island 1 (Saunders and Russo 2002). The conflicting evidence in this discussion has led some scholars to conclude that shell rings likely served variable functions through time (e.g., Russo 2004; Russo and Heide 2003; Thompson 2007).

Despite debates about the functions of coastal shell rings and the fact that central open spaces are essential to the definition of the site type, relatively few shell ring plazas have been explicitly investigated (Russo 2006, pp. E49–E50). Thompson (2007, p. 91) notes that no matter the assumed function of the ring, the plaza is always viewed as communal and kept clean and Russo (2010, p. 163) suggests that plazas were places of ceremony, oratory, and display (but does not explain why). On the other hand, features, midden, and artifact scatters found inside the rings at Chester Field (Flannery 1943), Horr's Island (Russo 1991), and Cederland (Sassaman and Ledbetter 1996, p. 80) led their excavators to believe the interiors of the rings were occupied.

Very recently, a small number of studies have directly tackled the question of what happens in the plazas of shell rings through both excavation and geophysical exploration. Sanger and Thomas (2010) excavated in the plazas of St. Catherine's and McQueen's shell rings and uncovered large, circular, empty pits, which they suggest may be mast processing pits or large postholes. Marquardt (2010) suggests they may have been dug as wells during particularly dry spells. Thompson's (2007) work at Sapelo Island III revealed evidence for intensive occupation of the central plaza in the form of ceramic and lithic debris and pit features. While these studies have provided some data from which to begin thinking about the activities that took place in the centers of shell rings, the plazas at the vast majority of sites remain untested and future

investigations of these spaces will be necessary to further our understanding of the functions of shell ring sites.

While the creation of shell rings slows significantly around the transition from Late Archaic to Early Woodland (Russo 2006, p. E27), Schwadron's (2010) work in far South Florida suggests that it does not cease entirely. Instead, she argues for a degree of continuity with later Woodland period groups in the Glades region and emphasizes "the persistence of memory tied to the landscape" (Schwadron 2010, p. 137). Sassaman and colleagues (2014, pp. 152–154) likewise identify many U-shaped shell ridges constructed ca. AD 1–400 and build a similar argument for the persistent use of certain locations. Regardless of the degree to which shell rings continue as a form of architecture in the Woodland period, coastal cultures of that time certainly continued to organize their settlements in circles, and these sites are the focus of the next section.

Coastal Plain Ring Middens

In addition to abundant research on shell rings in the coastal Southeast, attention has been focused on curvilinear (and occasionally rectangular) arrangements of dark, organically stained soils intermixed with cultural material surrounding central open areas. Though overlapping in their distribution, these sites are distinct from Late Archaic shell rings due to a general lack of shell and minimal topographic relief (Russo et al. 2014, p. 127). While these characteristics have made them more difficult to identify from the surface, over 35 Woodland period circular and semicircular middens have been found in Florida, Georgia, and Alabama (see summaries in Pluckhahn 2010, Russo et al. 2014, and Stephenson et al. 2002). Additionally, recent work at Silver Glen Springs has suggested that this pattern may extend back into the terminal Archaic (Randall et al. 2014). Ring midden sites have been identified based on distributions of ceramic

material and midden soils using systematic shovel test and auguring surveys and density maps (e.g., Bense 1998, pp. 267–268; Pluckhahn 2003, pp. 91–125; Randall et al. 2014, fig. 1.4; Russo et al. 2014, figs. 6.2–6.4; Seinfeld and Bigman 2013, p. 17). These maps and subsequent excavations show that most ring middens are not consistent, closed rings, but are better described as irregular semi-circles or discontinuous rings made up of distinct midden patches (Russo et al. 2014, p. 127).

Ring middens on the Coastal Plain were recognized as a common site type fairly early when Willey (1949, p. 403) interpreted them as either evidence of ancient fortifications or the remains of ceremonial activities. However, they did not become a focus of intensive study until the mid-1970s when a number conference papers asserted that ring middens were the remains of villages associated with burial mounds (Russo et al. 2014, p. 124). The presence of post molds in middens such as Horseshoe Bayou (Bense 1998, p. 258–259) and Old Homestead (Thomas et al. 1996) and the discontinuous nature of many rings has led to their interpretation as the remains of domestic dumps associated with particular houses (though structural patterns have not been discernable) (Stephenson et al. 2002, pp. 345–346). It is now assumed that most large villages during the Woodland period on the Coastal Plain would have taken this form (Pluckhahn 2010, p. 105).

This domestic interpretation has persisted with little attempt to critically examine how detailed artifact analyses could augment understandings of midden function. Unless exotic materials were recovered, artifact assemblages, especially those containing food remains, were generally interpreted as straightforward evidence of domestic activity (Russo et al. 2014, p. 125). When analyses were completed on artifactual collections, they focused on determining whether ring middens represented permanent or seasonal encampments. Evidence for this was divided

with some sites showing faunal diversity that suggested permanent settlement, e.g., Bird Hammock (Byrd 1994; Nanfro 2004) and Old Homestead (Thomas et al. 1996), and others showing a more limited suite o) faunal resources that may suggest seasonal occupation, e.g., Third Gulf Breeze (Byrd 1994] and those on Tyndall Air Force Base (Russo et al. 2014).

Though Russo and colleagues (2014, p. 127) remark that studies of ring middens have generally not focused on what was happening in the plazas, the contents of plazas at Woodland ring middens have figured more significantly in site interpretations than at Archaic shell rings. The authors of these studies have generally argued for more ceremonial site interpretations. For example, faunal and ceramic collections from plaza pits at Bird Hammock (Nanfro 2004) and Old Homestead (Thomas et al. 1996) were interpreted as indicating short-term ritual activities that may have included feasting. Likewise, excavations at ring middens on Tyndall Air Force Base led to the development of a model in which communal feasting in plazas would have allowed for reciprocal food sharing during seasonal fluctuations in resource availability (Russo et al. 2011). At Bernath, burials and exceptionally large pits were interpreted as evidence for elite occupation and/or punctuated ceremonial use (Bense 1998).

Russo and colleagues (2014, pp. 129–136) present additional evidence for these more ceremonial interpretations, suggesting that exotic pottery, non-local materials, and other burial objects were brought to nearby mound sites via ceremonies held at ring middens. While the middens themselves were very likely locations of habitation, the plazas would have served as public arenas for the manipulation of both everyday and exotic materials during ritual events. "The open space of ring plazas facilitated verbal and visual communication and allowed for the manufacture, display, presentation, and symbolic negotiation of sacred objects destined for the mound" (Russo et al. 2014, p. 134). The close material and spatial relationships between

domestic and ceremonial activity at these ring middens implies that the two domains were unlikely to be viewed as separate by the people involved. Rather, ring middens and their plazas were locations where the sacred and secular merged.

Pluckhahn (2010) presents a conflicting interpretation in his discussion of the midden rings and plazas at large Middle Woodland villages associated with mounds in the same region. Taking Kolomoki as his prime example, he interprets mound-and-plaza complexes as "corporately organized ritual spaces that served to reduce tensions in growing communities" while also noting that that the ritual activities taking place would have provided opportunities for personal aggrandizement and status seeking. He concludes that "this contradiction was mitigated through the segregation of ceremonial and domestic activities" into spaces partitioned through dichotomies in both the built environment and material culture.

The plaza at Kolomoki is defined more by a concentric set of ring middens than by mounds (Fig. 7). This site layout would not have restricted access to the plaza in the way that the high mound densities and palisade walls at later, Mississippian sites would, thus providing support for the interpretation of Middle Woodland plazas as resolutely public spaces. This communal interpretation is further supported by the labor requirements for constructing and maintaining these plazas. Artifact densities suggest that time was taken to sweep the Kolomoki plaza clean after ceremonial activities took place there. In addition, the elimination and subsequent control of vegetation in plaza spaces in the subtropical climate of the Coastal Plain would have required huge labor investments (Pluckhahn 2010, p. 106–107). Importantly, this discussion highlights the high level of community investment in plaza spaces rather than allowing them to be passively defined by what is not there (i.e., habitation debris).

While many ring midden plazas would have served only the community living in the proximate village, Pluckhahn (2010, p. 107) argues that the largest of these ring middens may have integrated a regional community. Many of these sites had associated mounds, including some of the early platform mound sites discussed above—e.g., Kolomoki (Pluckhahn 2003), Letchworth (Seinfeld and Bigman 2013); McKeithen (Milanich et al. 1984, pp. 53–54), Garden Patch (Wallis and McFadden 2016), Walling (Knight 1990), and potentially Evelyn (Ashley et al. 2007). In some cases (e.g., Kolomoki), the midden appears to predate the majority of mound construction; in others, the midden and the mounds grew up more-or-less simultaneously (e.g., Garden Patch). Regardless, plazas would have been defining characteristics of these sites from the beginning and the activities that took place within them must have been essential to the development of early villages and mound centers in the Coastal Plain.

Lower Mississippi Valley Ring Middens

While there are significant similarities in the site types present and social processes at play at coastal and inland sites, there is great variation in the way the sites are thought about and discussed. Despite the recognition from within the LMV that plazas are not just empty spaces but rather meaningful locations of activity (Kidder 2004), discussion of them at inland sites relies heavily on the presence of mounds. Of course, plazas figure prominently in discussions of Mississippian site layouts, and they are also discussed in the literature on pre–Mississippian platforms reviewed above.

The practice of constructing mounds around open spaces is present from the inception of monument construction in the inland Southeast, e.g., Frenchmen's Bend, Hedgepeth, Caney, and Watson Brake (Saunders 2012). However, research at Middle Archaic sites has often been

limited to coring and small test excavations aimed at establishing the age and stratigraphy of mounds. While this leaves very little known about activities that took place between and around them, the highly planned nature of these empty spaces has been clearly demonstrated (Clark 2004; Sassaman and Heckenberger 2004), thereby suggesting that the associated activities were important and should be further investigated.

In the Late Archaic, Poverty Point provides an obvious example of monumental constructions oriented around a central plaza (Clark 2004; Ortmann 2007). Other Poverty Point culture sites may also have had mounds arranged around plazas (Sassaman and Heckenberger 2004) and Cedarland and Claiborne represent contemporary non-mound sites with central open areas (Bruseth 1991; Clark 2004). Investigations in the plaza at Poverty Point have shown it to be a purposefully constructed space that likely required significant labor investment (Ortmann 2003). While its functions are not well understood, a highly complex ceremonial mound and a series of post circles that suggest ritual activity were erected within it (Greenlee 2009; Ortmann 2007, pp. 148–181).

Sassaman and Heckenberger (2004) interpret Archaic sites with mounds and plazas as indicating the hierarchical nature of their builders. They emphasize that plazas separate people rather than drawing them together by dividing insiders from outsiders, nature from culture, and sacred from profane. However, this is a minority point of view as circular spaces have been regularly interpreted as a reflection of unity and U- and C-shaped spaces as demonstrating structural opposition between relatively equal halves. Regardless, Sassaman and Heckenberger make an important point that plazas' "significance lies not so much in the labor needed to erect them as in the ideas needed to conceive of them" (Sassaman and Heckenberger 2004, p. 220). This is undoubtedly true for the large number of mound-and-plaza layouts identified throughout

the Woodland period as well. Many examples were discussed in the previous section and will not be recounted here, but it should be noted that the inclusion of sites that do not contain platform mounds would increase the number of Woodland mound-and-plaza centers significantly.

Importantly, there is a great deal of evidence from the LMV that suggests plazas predate mounds at many sites and thus may have provided their defining organizational principles. At Watson Brake, one of the few extensively excavated Middle Archaic sites, investigations suggest that the site's layout was initially developed as an oval-shaped premound midden to which the mounds were later added (Saunders et al. 2005b). This pattern of initial midden deposition surrounding an open space has also been identified at Late Archaic sites, including Jaketown (Ford et al. 1955), Savory (Phillips 1970, pp. 338–339), and Teoc Creek (Connaway et al. 1977).

Woodland midden rings defining the future layout of mound-and-plaza sites have been broadly recognized. One of the earliest recognitions of this pattern comes from Belmont's (1967) work at Greenhouse, a prominent Coles Creek mound center in Louisiana. The Baytown occupation of Greenhouse consisted of an oval plaza flanked by crescent-shaped middens at each end, with smaller middens on the sides and no signs of occupation either inside or outside the ring. The mounds were not constructed atop this ring of midden until the succeeding Coles Creek period. Belmont (1967) notes that this site plan existed at earlier Middle Woodland sites as well and became common during late Baytown.

Phillips (1970, pp. 265–268, 270–272, 352–359, 373–376) recognizes a similar pattern of Baytown ring middens in the Lower Yazoo Valley, most of which never had mounds built atop them (Fig. 8). He documents at least seven instances of this pattern, most of which consist of circular arrangements of shell heaps interpreted as household middens surrounding a clean plaza. Though less common, he acknowledges that this same circular arrangement has also been found

at non-shell sites. These ring middens are more difficult to identify from the surface, especially when not associated with later mounds, and are thus likely to be underrepresented in Phillips's sample.

The regular presence of non-shell bearing ring middens under later mound-and-plaza sites further supports this conclusion. Recent work at the early Coles Creek Feltus site has suggested that the mounds were built on an oval or parentheses-shaped midden similar to that at identified by Belmont (1967) at Greenhouse (Steponaitis et al. 2015). Density maps of artifact types collected from a grid of shovel tests showed the midden's extent, or perhaps more accurately, the plaza's extent. Geophysical surveys of off-mound areas and excavations into premound deposits further supported this pattern (Kassabaum 2014, pp. 28–30). This clearly indicates that the site was not occupied haphazardly before the construction of the mounds, but rather was a planned use of space, which already included the purposeful creation of a central plaza.

Recent research has suggested the presence of distinct, ring-shaped, pre-mound middens at other Coles Creek sites as well, e.g., Mazique (LaDu 2016, pp. 361–380, and likely Raffman (Roe 2010, p. 77), Morgan (Fuller and Fuller 1987, p. 9), and Lake Providence (Weinstein 2005, pp. 56–61, fig. 5–23). Moreover, investigations of many additional Coles Creek mounds (as well mounds from other periods) show evidence of major sub-mound midden deposits, but the sites lack significant excavation in the areas between the mounds that might connect the dots between these deposits. Correcting the long-standing emphasis on understanding mound stratigraphy at the expense of off-mound investigations by focusing excavations in these gaps in the monumental landscape might demonstrate that plazas at many other sites were laid out before mounds were constructed.

In addition to Ortmann's (2003) work in Poverty Point's plaza, excavations at Coles Creek sites have demonstrated the degree to which plazas were actively constructed in the LMV. Kidder's (2004) extensive work at Raffman has shown that the plaza was leveled by purposefully filling in low spots and then artificially extended during early Coles Creek. Additional mounds were later built atop this extension (Roe 2010, pp. 74–75). Large-scale plaza extensions have also been documented at Mazique (LaDu 2016, pp. 381–383). Not only does this suggest that a great deal of labor was directed towards plaza construction, but it also underscores the importance of viewing plazas as active spaces that change through time and thus require detailed archaeological attention (Kidder 2004).

Summary

Circular site layouts are common throughout the world. The fact that hunter–gatherer, horticultural, and agricultural societies have and continue to regularly organize both their villages and their monuments in circular patterns is well documented (e.g., Clay 1987; Fraser 1968; Heckenberger 2005; Levi-Strauss 1963; Means 2007). The plazas at these sites have served as locations for dances, burials, feasts, and other ceremonial activities, as well as mundane activities such as food and craft production and exchange.

The review presented here supports the existence of similar practices throughout the prehistory of the Eastern United States. Though never associated with mounds, excavations at the Paleoindian site of Bull Brook in Massachusetts suggest that domestic space surrounded a plaza used for public activities (Robinson et al. 2009). As demonstrated above, this organizational principle continued throughout the Archaic and Woodland, during which it was elaborated into the mound-and-plaza complexes so characteristic of late prehistory. While mound

building slowed dramatically prior to European contact, the construction of has plazas continued through the historic period and until today. A review of the literature on the stomp grounds and square grounds of contemporary Native groups reveals remarkable consistency with the stated functions of these spaces (i.e., constructing identity, building community, creating harmony, and settling disputes both within and between groups) (Hudson 1976; Jackson 2003; Witthoft 1949; see also Pluckhahn 2010, pp. 114–115). "Plazas, like other monuments, represent the social relations of the people who build, maintain, or simply appear in them. They are fixed, or marked, points that not only reflect social relations but also perpetuate or 'sediment' these relations in place" (Sassaman and Heckenberger 2004, p. 229).

In drawing attention to the importance of plazas in the Southeast, I am trying to correct the long-standing mound-centrism in current interpretations and suggest a gap in our theoretical and methodological approaches to mound sites. Through targeted excavations of submound and between-mound contexts, it has becomes clear that the premound iterations of many mounded landscapes were not without structure, but rather focused around formal plazas from their inception. As such, the functions and meanings of mounded landscapes and their associated plazas developed from a long and widespread tradition of central open spaces and should be understood with respect to those earlier iterations as much as, if not more than, the mound centers that are so heavily studied from later time periods. Doing so will likely shift the emphasis of our discussions about the social interactions taking place at mound-and-plaza centers (or perhaps we should call them plaza-and-mound centers) from models of Mississippian sociopolitical hierarchy to more dynamic models that take into account the variety of integrative and competitive outcomes of communal social behavior.

Conclusion and Future Directions

Early platform mounds are more common than has been recognized in previous discussions. The picture painted by this review is one of remarkable time depth and remarkable diversity. I reviewed over 100 pre-Mississippian platform mound sites, allowing me to trace a longer history of platform mound use characterized by continuous and non-linear shifts in mound function. Generally, numbers of platforms are low in the Archaic and Early Woodland (though this number is likely to increase with further excavation) and then explode during the Middle Woodland. Further research and many more dates will be necessary to determine if the practice of constructing flat-topped mounds developed independently in each region during this time or spread along with the goods and ideas traveling through the Hopewell Interaction Sphere. Understanding Archaic and Early Woodland histories of platform mound construction in each region is an essential step towards answering this question. The pace of platform mound construction increases even more during the Late Woodland, though it is more isolated to the LMV, where mound-and-plaza centers that resemble those constructed at later Mississippian sites become the norm.

When examined with a forward-looking temporal framework, it is very difficult to list a suite of characteristics that clearly differentiates pre-Mississippian platform mounds from those that came after (cf. Lindauer and Blitz 1997). In each period and region examined, mound summit use varied; some mounds served as burial locations, some as foundations for structures, and some as stages for communal, ritual, or elite activities. Through the Archaic and Woodland periods and across the Eastern United States, some platforms were associated with large, permanent habitations, some were home to more limited or temporary occupations, and some were not inhabited at all, instead serving as vacant centers for a dispersed population. Platform

mounds construction histories also varied wildly; some were built rapidly while others grew gradually through time, still others began as platforms and were eventually covered with conical caps. Most have complex construction sequences that involve preparation of the premound surface and purposefully chosen sediments deposited in structured ways. Identifying patterns in practices of mound construction and use is thus difficult as the variability within any given period is as great as, if not greater than, the variability between periods. It is possible that geographic location accounts for more patterning in the data than period of construction does.

This suggests that our interpretations of platform mound sites of all periods ought to be formed on the basis of the evidence present at the particular site. While regional and temporal patterns certainly exist and can be useful in forming hypotheses, the multidirectional and asynchronous nature of the broader patterns suggests we be cautious in relying too heavily on expectations. How, then, do we control the desire for "highly resolved exemplars" (Bailey 2007, p. 203) that has caused us to regularly take a problematic, backward-looking approach to the issue of interpreting early platform mound sites? I propose three distinct areas in which to focus: (1) we must emphasize and investigate the process of constructing a mound as much as its post-construction use, (2) we must take a less mound-centric approach to sites, focusing on off-mound and between-mound areas such as plazas, and (3) we must increase our understanding of the full range of non-mound sites utilized by mound-building populations.

Studies of mounds in the Eastern United States have historically focused on their post-construction use—more or less as burial locations or platforms for activities. In other words, most studies have focused on mounds as static symbols rather than mound building as a dynamic process. Calls to change this have been becoming progressively more common (e.g., Anderson 2012; Knight 1986; Sherwood and Kidder 2011) and have been focused on recognizing mound-

building processes as highly sophisticated and likely highly meaningful for the participants. As a necessarily communal activity, better understandings of construction practices would undoubtedly reveal important information about social interaction and relations of power within mound-building communities. Knight (1986, pp. 678–679) uses linguistic and ethnohistoric evidence from contemporary Native groups to argue that the meaning of mounds was tied as much to their creation and maintenance as to the use of their final form. Joyce (2004) has put forward a similar point, adding to it that the permanence of monuments extends the possibilities for variable interactions indefinitely, leading to both intended and unintended consequences of monumentality.

Recent studies have revealed the complexity and variability involved in the mound construction process, as well as demonstrated techniques by which archaeologists can examine it more easily and in more detail (e.g., Bigman and Seinfeld 2017; Herrmann et al. 2014; Kassabaum et al. 2014a; Kidder 2011; Kidder et al. 2009; King et al. 2017; Sherwood 2006; Sherwood and Kidder 2011; Thompson and Pluckhahn 2010; Zimmer-Dauphinee 2017). More studies like these, making use of geoarchaeological and geophysical data followed by excavation, will be necessary to create a more complete account of the wide variety of materials and myriad construction techniques utilized by prehistoric mound builders.

However, monuments are a small part of the lived landscape at most sites. It is likely that only a tiny percentage of the activities at a given site would take place on the summit of a mound. Moreover, at some site, those activities may be highly limited in terms of attendance. Focusing on plazas and other "empty" places shifts the emphasis of discussions about social interactions taking place at mound-and-plaza centers from the special activities taking place on mound summits to the more everyday activities taking place in off–mound areas. Plazas were

meaningful spaces of interaction and excavations have shown that a great deal of labor was directed toward their construction at some sites (e.g., Anderson et al. 2012; Holley et al. 1993; Kidder 2004). In order to more effectively locate and research plazas and other important non-mounded spaces, we must document midden distributions in pre- and non-mound contexts. Systematic surface collection, coring, shovel testing, and geophysical survey has successfully mapped plazas at a number of sites (e.g., Bense 1998:267–8; Kassabaum 2014, Figure 2.6; LaDu 2016, figs. 8.3–8.10; Pluckhahn 2010, pp. 92–110; Pluckhahn et al. 2010; Russo et al. 2009, p. 76, 91, 2011, pp. 61, 97). Targeted excavation within these identified spaces is clearly the necessary next step.

Finally, in addition to off-mound locations, focused investigations of non-mound sites will be necessary to build a broader understanding of the social milieu in which mounds and plazas were being constructed and used. Just as summit activities represent only a small fraction of activities taking place on mound sites, so do the activities on and near mounds represent only a small fraction of the overall social sphere in which people lived. Systematic survey and more intensive use of the data from contract archaeology are two effective ways to identify non-mounds sites on which to focus investigations.

These three suggested ways forward combine to provide a method for constructing a "thick prehistory" (*sensu* Carr and Case 200 2008) of the lives prehistoric mound builders in the Eastern United States. As anthropologists, we should be interested in the mound builders and the mound users more so than the mounds. Carr and Case (2008, p. 3) state that "rapport with and understanding of another person comes in part from taking the time to experience life together with them, cultivating within oneself an awareness of their actions, responses, and sensitivities in varying contexts, and situating oneself, to the extent possible, in their social and personal

worlds." For archaeologists, this is challenging and the difficulties we face in trying to people the past are often what cause us to fall back on the expectations and assumptions that we have developed by looking backward through time from better understood cases. It is only through studies that focus on investigating people, events, and actions in their local cultural, natural, and historical contexts that the dynamic processes of identity construction happening at the multitude of sites on which prehistoric people lived their lives may be accessed. "Immersing oneself in such details constrains the range of reconstructions that can logically be made, and gives at least the hope that the material voices of past people will speak louder than one's own presuppositions, and will help to jar one into awareness of them" (Carr and Case 2008, p. 3). This review has revealed the remarkable diversity of pre-Mississippian platform mounds and plazas, drawn attention to some of the issues that have plagued prior interpretations of them, and suggested a few ways forward. Undoubtedly, the picture of Archaic and Woodland monumentality painted here is incomplete and with any luck, it will look quite different in a matter of years.

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References Cited

Abrams, E. M. (1989). Architecture and energy: An evolutionary perspective. *Journal of Archaeological Method and Theory* **1:** 47–87.

Alt, S. M., Kruchten, J. D., and Pauketat, T. R. (2010). The construction and use of Cahokia's Grand Plaza. *Journal of Field Archaeology* **35:** 131–146.

Anderson, D. G. (2012). Monumentality in eastern North America during the Mississippian period. In Burger, R. L., and Rosenswig, R. M. (eds.), *Early New World Monumentality*, University Press of Florida, Gainesville, pp. 78–108.

Anderson, D. G., Cornelison, J. E., and Sherwood, S. C. (2012). Archaeological investigations at Shiloh Indian Mounds National Historical Landmark (40HR7) 1999–2004. Manuscript on file, Southeast Archaeological Center, National Park Service, Tallahassee, FL.

Andras, P. M. (2004). A place in prehistory: The function of Ingomar Mounds, a Middle Woodland site, northeastern Mississippi, Master's thesis, Department of Sociology, Anthropology, and Social Work, Mississippi State University, Starkville.

Applegate, D. (2008). Woodland period. In Pollack, D. (ed.), *The Archaeology of Kentucky: An Update*, *Volume 1*, Kentucky Heritage Council, Frankfurt, pp. 339–604.

Ashley, K. H., Stephenson, K., and Snow, F. (2007). Teardrops, ladders, and bull's eyes: Swift Creek on the Georgia coast. *Early Georgia* **35:** 1–28.

Aten, L.E. (1999). Middle Archaic ceremonialism at Tick Island, Florida: Ripley P. Bullen's 1961 excavations at the Harris Creek site. *The Florida Anthropologist* **52:** 131–200.

Austin, R. J., and Mitchem, J. M. (2014). Chronology, site formation, and the Woodland–Mississippian transition at Bayshore Homes, Florida. *Southeastern Archaeology* **33:** 68–86.

Austin, R. J., Mitchem, J. M., Fradkin, A., Foss, J. E., Drwiega, S., and Allred, L. (2008). Bayshore Homes archaeological survey and National Register evaluation. Manuscript on file, Florida Department of State, Bureau of Historic Preservation, Tallahassee.

Baca, K. A. (2015). The Slate Springs mound, a Woodland period platform mound in the North Central Hills of Mississippi. In Galloway, P., and Peacock, E. (eds.), *Exploring Southeastern Archaeology*, University Press of Mississippi, Oxford, pp. 146–165.

Baca, K. A., and Peacock, E. (1996). The Brogan mound, a Middle Woodland site in Clay County, Mississippi. In Mainfort, R. C., and Walling, R. (eds.), *Mounds, Embankments, and Ceremonialism in the Midsouth*, Research Series No. 46, Arkansas Archeological Survey, Fayetteville, pp. 12–21.

Bailey, G. (2007). Time perspectives, palimpsests and the archaeology of time. *Journal of Anthropological Archaeology* **26:** 198–223.

Barker, A. W. (1999). *Chiefdoms and the Economics of Perversity*, Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Barrier, C. R., and Kassabaum, M. C. (2017). Gathering in the Late Woodland: A look at plazas and gathering spaces at two sites from the greater southeastern US, AD 750–1000. In Price, S. E., and Carr, P. C. (eds.), *Investigating the Ordinary: Everyday Matters in Southeast Archaeology*, University Press of Florida, Gainesville, in press.

Belmont, J. S. (1961). The Peabody excavations, Coahoma County, Mississippi, 1901–1902, Honors thesis, Department of Anthropology, Harvard University, Cambridge, MA.

Belmont, J. S. (1967). Cultural sequence at the Greenhouse site, Louisiana. *Southeastern Archaeological Conference Bulletin* **6:** 27–35.

Belmont, J. S. (1982). The Troyville concept and the Gold Mine site. *Louisiana Archaeology* **9:** 65–98.

Bense, J. A. (1998). Santa Rosa–Swift Creek in northwestern Florida. In Williams, M. W., and Elliot, D. T. (eds.), *A World Engraved: Archaeology of the Swift Creek Culture,* University of Alabama Press, Tuscaloosa, pp. 247–273.

Bigman, D. P., and Seinfeld, D. M. (2017). The anthropological potential of ground-penetrating radar for southeastern earthen mound investigations: A case study from Letchworth mounds, Tallahassee, Florida. In McKinnon, D., and Haley, B. (eds.), *Archaeological Remote Sensing in North America: Innovative Techniques for Anthropological Applications,* University of Alabama Press, Tuscaloosa, pp. 185–197.

Bitgood, M. J. (1989). *The Baytown Period in the Upper Tensas Basin,* Lower Mississippi Survey Bulletin No. 12, Peabody Museum, Harvard University, Cambridge, MA.

Blitz, J. H. (1986). The McRae mound: A Middle Woodland site in southeastern Mississippi. *Mississippi Archaeology* **21:** 11–39.

Blitz, J. H., and Downs, L. E. (2015). *Graveline: A Late Woodland Platform Mound on the Mississippi Gulf Coast,* Archaeological Report No. 34, Mississippi Department of Archives and History, Jackson.

Bohannon, C. F. (1972). Excavations at the Pharr Mounds, Prentiss and Itawamba Counties, Mississippi and excavations at the Bear Creek site, Tishomingo County, Mississippi. Manuscript on file, US Department of the Interior, National Park Service, Washington, DC.

Boudreaux, E. A. (2013). Community and ritual within the Mississippian center at Town Creek. *American Antiquity* **78:** 483–501.

Boudreaux, E. A. (2015). *Archaeological Investigations at Jackson Landing: An Early Late Woodland Mound and Earthwork Site in Coastal Mississippi,* Archaeological Report No. 36, Mississippi Department of Archives and History, Jackson.

Boudreaux, E. A., and Johnson, H. B. (2000). Test excavations at the Florence mound: A Middle Woodland platform mound in northwest Alabama. *Journal of Alabama Archaeology* **46:** 87–130.

Bradley, R. (1993). *Altering the Earth: The Origins of Monuments in Britain and Continental Europe*, Monograph Series No. 8, Society of Antiquaries of Scotland, Edinburgh, UK.

Brookes, S. O. (1976). *The Grand Gulf Mound: Salvage Excavation of an Early Marksville Burial Mound in Claiborne County, Mississippi,* Archaeological Report No. 1, Mississippi Department of Archives and History, Jackson.

Bruseth, J. E. (1991). Poverty Point development as seen at the Cedarland and Claiborne sites, southern Mississippi. In Byrd, K. M. (ed.), *The Poverty Point Culture, Local Manifestations, Subsistence Practices, and Trade Networks*, Geoscience and Man No. 29, Louisiana State University, Baton Rouge, pp. 7–24.

Burger, R. L., and Rosenswig, R. M. (eds.) (2015). *Early New World Monumentality*, University Press of Florida, Gainesville.

Byrd, J. E. (1994). *The Zooarchaeology of Four Gulf Coast Prehistoric Sites,* Ph.D. dissertation, Department of Anthropology, University of Tennessee, Knoxville.

Carleton, K. (1999). Nanih Waiya (22W1500): An historical and archaeological overview. *Mississippi Archaeology* **34:** 125–155.

Carr, C. D., and Case, D. T. (2005). The gathering of Hopewell. In Carr, C. D., and Case, T. D. (eds.), *Gathering Hopewell: Society, Ritual, and Ritual Interaction,* Kluwer

Academic/Plenum Publishers, New York, pp. 19–50.

Carr, C. D., and Case, D. T. (2008). Documenting the lives of Ohio Hopewell people: A philosophical and empirical foundation. In Case, T. D., and Carr, C. D. (eds.), *The Scioto Hopewell and Their Neighbors: Bioarchaeological Documentation and Cultural Understanding,* Springer, New York, pp. 3–40.

Charles, D. K., Van Nest, J., and Buikstra, J. E. (2004). From the earth: Minerals and meaning in the Hopewellian world. In Boivan, N., and Owoc, M. A. (eds.), *Soils, Stones and Symbols: Cultural Perceptions of the Mineral World*, Cavendish Publishing, Portland, OR, pp. 43–70.

Clark, J. E. (2004). Surrounding the sacred: Geometry and design of early mound groups as meaning and function. In Gibson, J. L., and Carr, P. J. (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast,* University of Alabama Press, Tuscaloosa, pp. 162–213.

Clay, R. B. (1987). Circles and ovals: Two types of Adena space. *Southeastern Archaeology* **6:** 46–56.

Cobb, C. R., and Butler, B. M. (2017). Mississippian plazas, performances, and portable histories. *Journal of Archaeological Method and Theory* **23:** 1–27.

Connaway, J. M., McGahey, S. O., and Webb, C. H. (1977). *Teoc Creek: A Poverty Point Site in Carroll County, Mississippi*, Archaeological Report No. 22, Mississippi Department of Archives and History, Jackson.

Cotter, J. L., and Corbett, J. M. (1951). *Archeology of the Bynum Mounds, Mississippi*, Archaeological Research Series No. 1, US Department of the Interior, National Park Service, Washington, DC.

Cushing, F. H. (1896). Exploration of ancient key dwellers' remains on the Gulf Coast of Florida. *Proceedings of the American Philosophical Society* **35:** 329–448.

Cusick, J. G., McMakin, T., Dawdy, S., and Yakubik, J. (1995). Cultural resources documentation Black River Bridge at Jonesville JCT, LA 3037 to LA 565, Catahoula and Concordia Parishes Route LA–US 84. Manuscript on file, Earth Search, New Orleans, LA.

Dalan, R. A. (1997). The construction of Mississippian Cahokia. In Pauketat, T. A., and Emerson, T. E. (eds.), *Cahokia: Domination and Ideology in the Mississippian World*, University of Nebraska Press, Lincoln, pp. 89–102.

Davis, J. R., Walker, C. P., and Blitz, J. H. (2015). Remote sensing as community settlement analysis at Moundville. *American Antiquity* **80:** 161–169.

DeMarrais, E., Castillo, L. J., and Earle, T. (1996). Ideology, materialization, and power strategies. *Current Anthropology* **37:** 15–31.

Dickens, R. S. (1975). A processual approach to Mississippian origins on the Georgia Piedmont. *Southeastern Archaeological Conference Bulletin* **18:** 31–42.

Earnest, T. G. (2004). The history and results of archaeological investigations at 1Cv32, the Mitchell site, in Covington County, Alabama, Master's thesis, Department of Anthropology, University of South Florida, Tampa.

Elliott, D. T., and Kowalewski, S. A. (1989). Fortson mound, Wilkes County, Georgia. *Early Georgia* **17:** 50–75.

Elliott, D. T., and Sassaman, K. (1995). *Archaic Period Archaeology of the Georgia Coastal Plain and Coastal Zone.* Laboratory of Archaeology Series Report No. 35, University of Georgia, Athens.

Endonino, J. C. (2010). *Thornhill Lake: Hunter–Gatherers, Monuments, and Memory,* Ph. D. dissertation, Department of Anthropology, University of Florida, Gainesville.

Feinman, G. M. (1995). The emergence of inequality. In Price, T. D., and Feinman, G. M. (eds.), *Foundations of Social Inequality,* Plenum, New York, pp. 255–279.

Fischer, F. W. (1974). *Early and Middle Woodland Settlement, Subsistence and Population in the Central Ohio Valley,* Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis, MO.

Fish, S. K., and Jefferies, R. W. (1986) The site plan at Cold Springs, 9Ge10. *Early Georgia* **11:** 61–73.

Flannery, R. (1943). Some notes on a few sites in Beaufort, South Carolina. *Bureau of American Ethnology Bulletin* **133:** 147–153.

Ford, J. A. (1951). *Greenhouse: A Troyville–Coles Creek Period Site in Avoyelles Parish, Louisiana,* Anthropological Papers No. 11, American Museum of Natural History, New York.

Ford, J. A., Phillips, P., and Haag, W. G. (1955). *The Jaketown Site in West–Central Mississippi,* Anthropological Papers No. 45, American Museum of Natural History, New York.

Ford, J. A., and Webb, C. H. (1956). *Poverty Point, a Late Archaic Site in Louisiana,* Anthropological Papers No. 46, American Museum of Natural History, New York.

Ford, J. A., and Willey, G. R. (1940). *Crooks Site, a Marksville Period Burial Mound in La Salle Parish, Louisiana,* Anthropological Study No. 3, Department of Conservation, Louisiana Geological Survey, Baton Rouge.

Ford, J. (1980). Alas, poor Womack! *Mississippi Archaeology* **15:** 26–32.

Ford, J. (1996). Preliminary impressions from the Batesville mound group. *Mississippi*

Archaeology **31:** 56–67.

Fowke, G. (1928) *Archaeological Investigations–II*, 44th Annual Report of the Bureau of American Ethnology, Washington, DC, pp. 399–436.

Fraser, D. (1968). *Village Planning in the Primitive World*, George Braziller, New York.

Fritz, G. J., and Kidder, T. R. (1993) Recent investigations into prehistoric agriculture in the Lower Mississippi Valley. *Southeastern Archaeology* **12:** 1–14.

Fuller, R. S., and Fuller, D. S. (1987). *Excavations at Morgan: A Coles Creek Period Mound Complex in Coastal Louisiana*, Lower Mississippi Survey Bulletin No. 11, Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA.

Giardino, M. J. (1977). An osteological analysis of the human population from the Mount Nebo site, Madison Parish, Louisiana, Master's thesis, Department of Anthropology, Tulane University, New Orleans, LA.

Gibson, J. L. (1983). Mounds on the Ouachita. *Louisiana Archaeology* **10:** 171–270.

Gibson, J. L. (2001). *The Ancient Mounds of Poverty Point: Place of Rings*, University Press of Florida, Gainesville.

Gibson, J. L., and Carr, P. J. (eds.) (2004). *Signs of Power: The Rise of Cultural Complexity in the Southeast*, University of Alabama Press, Tuscaloosa.

Gibson, J. L., and Shenkel, J. R. (1988). Louisiana earthworks: Middle Woodland and predecessors. In Mainfort, R. C. (ed.), *Middle Woodland Settlement and Ceremonialism in the Midsouth and Lower Mississippi Valley*, Archaeological Report No. 22, Mississippi Department of Archives and History, Jackson, pp. 7–18.

Girard, J. S. (2000). Excavations at the Fredericks site (16NA2), Natchitoches Parish, Louisiana. *Louisiana Archaeology* **24:** 1–106.

Greengo, R. E. (1964). *Issaquena: An Archaeological Phase in the Yazoo Basin of the Lower Mississippi Valley,* Memoirs No. 18, Society for American Archaeology, Salt Lake City, UT.

Greenlee, D. M. (2009) Annual report of the Station Archaeology Program at Povert Point State Historic Site. Manuscript on file, Department of Geosciences, University of Louisiana, Monroe.

Haas, J., and Creamer, C. (2012). Why do people build monuments? Late Archaic platform mounds in the Norte Chico. In Burger, R. L., and Rosenswig, R. M. (eds.), *Early New World Monumentality*, University Press of Florida, Gainesville, pp. 289–312.

Harmon, A. M., and Rose, J. C. (1989). Bioarchaeology of the Louisiana and Arkansas study area. In Jeter, M. D., Rose, J. C., and Williams, G. I. (eds.), *Archaeology and Bioarchaeology of the Lower Mississippi Valley and Trans–Mississippi South in Arkansas and Louisiana*, Research Series No. 37, Arkansas Archaeological Survey, Fayetteville.

Hays, C. T. (2001). Adena. In Peregrine, P. N. and Ember, M. (eds.), *Encyclopedia of Prehistory,* Kluwer Academic/Plenum, New York, pp. 1–13.

Hays, C. T. and Weinstein, R. A. (2010). Tchefuncte and Early Woodland. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 97–119.

Heckenberger, M. (2005). *The Ecology of Power: Culture, Place, and Personhood in the Southern Amazon, AD 1000–2000*, Routledge Press, New York.

Heller, N., Davis, D., Holt, H., Chatelain, D., Boyko, W., Pevny C., Buckley, R., Meaden, E., Williams, M., and Goodwin, R. C. (2013). The Tchefuncte culture and the Early Woodland period in coastal Louisiana: New analysis of the Tchefuncte, Bayou Jasmine,

Lafayette mounds, and Little Woods sites. Manuscript on file, R. Christopher Goodwin and Associates, New Orleans, LA.

Herrmann, J. T., King, J. L., and Buikstra, J. E. (2014). Mapping the internal structure of Hopewell tumuli in the Lower Illinois River Valley through archaeological geophysics. *Advances in Archaeological Practice* **2:** 164–179.

Holley, G. R., Dalan, R. A., and Smith, P. A. (1993). Investigations in the Cahokia site grand plaza. *American Antiquity* **58:** 306–319.

Hudson, C. M. (1976). *The Southeastern Indians*, University of Tennessee Press, Knoxville.

Jackson, H. E. (1998). Little Spanish Fort: An early Middle Woodland enclosure in the Lower Yazoo Basin, Mississippi. *Midcontinental Journal of Archaeology* **23:** 199–220.

Jackson, J. B. (2003). *Yuchi Ceremonial Life: Performance, Meaning, and Tradition in a Contemporary American Indian Community*, University of Nebraska Press, Lincoln.

Jefferies, R. W. (1994). The Swift Creek site and Woodland platform mounds in the southeastern United States. In Hally, D. J. (ed.), *Ocmulgee Archaeology, 1936–1986*, University of Georgia Press, Athens, pp. 71–83.

Johnson, J. K., Alea, G. M., Stuart, R. T., and Sullivan, J. (2002). *The 1996 Excavations at the Batesville Mounds: A Woodland Period Platform Mound Complex in Northwest Mississippi*, Archaeological Report No. 32, Mississippi Department of Archives and History, Jackson.

Johnson, J. K., and Atkinson, J. R. (1985). New data on the Thelma mound group in northeast Mississippi. In Marshall, D. A., *The Emergent Mississippian: Proceedings of the Sixth Mid–South Archaeological Conference, June 6–9, 1985*, Occasional Papers 87-01, Cobb Institute of Archaeology, Mississippi State University, Starkville pp. 63–70.

Jones, B. C., Penton, D. T., and Tesar, L. D. (1998). 1973 and 1994 excavations at the Block–Stems site, Leon County, Florida. In Williams, M. W., and Elliot, D. T. (eds.), *A World Engraved: Archaeology of the Swift Creek Culture*, University of Alabama Press, Tuscaloosa, pp. 222–246.

Joyce, R. A. (2004). Unintended consequences? Monumentality as a novel experience in Formative Mesoamerica. *Journal of Archaeological Method and Theory* **11:** 5–29.

Kassabaum, M. C. (2011). Looking beyond the obvious: Identifying patterns in Coles Creek mortuary data. *Southeastern Archaeology* **30:** 215–225.

Kassabaum, M. C. (2014). *Feasting and Communal Ritual in the Lower Mississippi Valley, AD 700–1000,* Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Kassabaum, M. C., Cranford, D. J., and Nelson, E. S. (2011). Multiple modes of monumentality: Case studies from the American South. *SAA Archaeological Record* **11:** 33–37.

Kassabaum, M. C., Graham, A. F., and Fishman, S. G. (2017). Smith Creek and the mysterious Coles Creek–Plaquemine transition. Paper presented at the 74th annual meeting of the Southeastern Archaeological Conference, Tulsa, OK.

Kassabaum, M. C., Henry, E. R., Steponaitis, V. P., and O'Hear, J. W. (2014a). Between surface and summit: The process of mound construction at Feltus. *Archaeological Prospection* **21:** 27–37.

Kassabaum, M. C., Steponaitis, V. P., and Melton, M. A. (2014b). Mississippi Mound Trail, southern region: Phase 2 investigations. Manuscript on file, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Keith, S. (2010). Archaeological data recovery at the Leake site, Bartow County, Georgia.

Manuscript on file, Southern Research, Historic Preservation Consultants, Ellerslie, GA.

Kellar, J. H., Kelly, A.R., and McMichael, E. (1962a) *Final Report on Archaeological Excavations at the Mandeville Site, 9CLA1, Clay County, Georgia,* Laboratory of Archaeology Series Report No. 8, University of Georgia, Athens.

Kellar, J. H., Kelly, A.R., and McMichael, E. (1962b). The Mandeville site in southwest Georgia. *American Antiquity* **27:** 336–355.

Kelly, A. R., and Smith, B. A. (1975). Swift Creek site, 9 BI 3, Macon, Georgia. Manuscript on file, US Department of the Interior, National Park Service, Washington, DC.

Kidder, T. R. (1990). *Final Report on the 1989 Archaeological Investigations at the Osceola (16Te2) and Reno Brake (16Te93) Sites, Tensas Parish, Louisiana,* Archaeological Report 1, Center for Archaeology, Tulane University, New Orleans, LA.

Kidder, T. R. (1998). Mississippi period mound groups and communities in the Lower Mississippi Valley. In Lewis, R. B., and Stout, C. (eds.), *Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar*, University of Alabama Press, Tuscaloosa, pp. 123–150.

Kidder, T. R. (2002). Woodland period archaeology of the Lower Mississippi Valley. In Anderson, D. G., and Mainfort, R. C. (eds.), *The Woodland Southeast,* University of Alabama Press, Tuscaloosa, pp. 66–90.

Kidder, T. R. (2004). Plazas as architecture: An example from the Raffman site, northeast Louisiana. *American Antiquity* **69:** 514–532.

Kidder, T. R. (2010). Trend, tradition, and transition at the end of the Archaic. In Thomas, D. H., and Sanger, M. C. (eds.) (2010). *Trend, Tradition, and Turmoil: What Happened to the Southeastern Archaic? Proceedings of the Third Caldwell Conference St. Catherines*

Island, Georgia May 9–11, 2008, American Museum of Natural History, New York, pp. 23–32.

Kidder, T. R. (2011) Transforming hunter-gatherer history at Poverty Point. In Sassaman, K. E. and Holley, D. H. (eds.), *Hunter-Gatherer Archaeology as Historical Process*, University of Arizona Press, Tucson, pp. 95–119.

Kidder, T. R., Arco, L. J., Ortmann, A. L., Schilling, T. M., Boeke, C., Bielitz, R., and Adelsberger, K. A. (2009). Poverty Point Mound A: Final report of the 2005 and 2006 field seasons. Manuscript on file, Louisiana Division of Archaeology and the Louisiana Archaeological Survey and Antiquities Commission, Baton Rouge.

Kidder, T. R., Henry, E. H., and Arco, L. J. (n.d.) Rapid climate change-induced collapse of hunter-gatherer societies in the Lower Mississippi River valley between ca. 3300 and 2780 cal BP. Manuscript on file, Department of Anthropology, Washington University, St. Louis, MO.

Kidder, T. R., and Sassaman, K. E. (2009). The view from the Southeast. In Emerson, T. E., McElrath, D. L., and Fortier A. C. (eds.), *Archaic Societies: Diversity and Complexity Across the Midcontinent*, State University of New York Press, Albany, pp. 667–694.

Kimball, L. R., Whyte, T. R., and Crites, G. D. (2010). The Biltmore Mound and Hopewellian mound use in the southern Appalachians. *Southeastern Archaeology* **29:** 44–58.

King, J. L., McKinnon, D., Herrmann, J. T., Buikstra, J. E., and Thornton, T. H. (2017). The role of geophysics in evaluating structural variation in Middle Woodland mounds in the Lower Illinois Valley. In McKinnon, D., and Haley, B. (eds.), *Archaeological Remote Sensing in North America: Innovative Techniques for Anthropological Applications*, University of Alabama Press, Tuscaloosa, pp. 171–184.

Knight, V. J. (ed.) (1990). *Excavation of the Truncated Mound at the Walling Site: Middle Woodland Culture and Copena in the Tennessee Valley*, Report of Investigations No. 56, Alabama Museum of Natural History, Division of Archaeology, University of Alabama, Tuscaloosa.

Knight, V. J. (1986). The institutional organization of Mississippian religion. *American Antiquity*, **51:** 675–687.

Knight, V. J. (2001). Feasting and the emergence of platform mound ceremonialism in eastern North America. In Dietler M., and Hayden, B. (eds.), *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, Smithsonian Institution Press, Washington, DC, pp. 311–333.

Koehler, T. H. (1966). *Archaeological Excavation of the Womack Mound (22–Ya–1),* Bulletin 1, Mississippi Archaeological Association, University.

Kowalski, J. A., and Jackson, H. E. (2015). Report of investigations for the Mississippi Mound Trail Project 2014 season: Issaquena, Washington, Sharkey, and Warren Counties, Mississippi. Manuscript on file, Department of Anthropology and Sociology, University of Southern Mississippi, Hattiesburg.

Kurjack, E. B. (1975). Archaeological investigations in the Walter F. George Basin. In DeJarnette, D. L. (ed.), *Archaeological Salvage in the Walter F. George Basin of the Chattahoochee River in Alabama*, University of Alabama Press, Tuscaloosa, pp. 87–198.

Kuttruff, C. (1997). Louisiana's lost heritage: The Monte Sano mounds. *Louisiana Archaeological Conservancy* **7:** 4–6.

Kwas, M. L., and Mainfort R. C. (1986). The Johnston site: Precursor to Pinson Mounds? *Tennessee Anthropologist* **11:** 29–41.

LaDu, D. A. (2016). *The View from Mazique (22Ad502): The Coles Creek/Plaquemine Cultural Transition from the Perspective of the Natchez Bluffs Region of the Lower Mississippi Valley*, Ph.D. dissertation, Department of Anthropology, University of Alabama, Tuscaloosa.

Lee, A. L. (2010) Troyville and the Baytown period. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 135–156.

Lee, A. L., Biddescombe, J., Harlan, D., Nolan, C., Smith, R., and Yakubik, J. (2010). Archaeological data recovery and monitoring at the Troyville Mounds site (16CT7). Manuscript on file, Earth Search, Inc., New Orleans, LA.

Lepper, B.T. (2014). Archaeology of the Hopewell culture. In Smith, C. (ed.), *Encyclopedia of Global Archaeology*, Springer, New York, pp. 3483–3488.

Levi–Strauss, C. (1963) *Structural Anthropology*, Basic Books, New York.

Lewis, R. B., Stout, C., and Wesson, C. B. (1998). The design of Mississippian towns. In Lewis, R. B., and Stout, C. (eds.), *Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar*, University of Alabama Press, Tuscaloosa, pp. 1–21.

Lindauer, O., and Blitz, J. H. (1997). Higher ground: The archaeology of North American platform mounds. *Journal of Archaeological Research* **5:** 169–207.

Low, S. M. (2000). *On the Plaza: The Politics of Public Space and Culture*, University of Texas Press, Austin.

Mainfort, R. C. (1988). Middle Woodland ceremonialism at Pinson Mounds, Tennessee. *American Antiquity* **53:** 158–173.

Mainfort, R. C. (2013). *Pinson Mounds: Middle Woodland Ceremonialism in the Midsouth*, University of Arkansas Press, Fayetteville.

Marquardt, W. H. (2010). Shell mounds in the Southeast: Middens, monuments, temple mounds, or works? *American Antiquity* **75:** 551–570.

McGimsey, C. (2003). The rings of Marksville. *Southeastern Archaeology* **22:** 47–62.

McGimsey, C. (2004). The Gold Mine site (16RI13): An AD 825 ossuary in northeast Louisiana, Regional Archaeology Program, Management Unit III, 2004/2004 Annual Report. Manuscript on file, Department of Sociology and Anthropology, University of Louisiana, Lafayette.

McGimsey, C. (2010). Marksville and Middle Woodland. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 120–134.

McGimsey, C., and Cossey, M. (2000). Surprise! The Baptiste site mounds are Plaquemine in age. *Louisiana Archaeological Society Newsletter* **27:** 22–27.

McGimsey, C., Roberts, K. M., Jackson, H. E., and Hargrave, M. L. (2005). Marksville then and now: 75 years of digging. *Louisiana Archaeology* **26:** 75–98.

Means, B. K. (2007). *Circular Villages of the Monongahela Tradition*, University of Alabama Press, Tuscaloosa.

Middaugh, D. P. (2009). Putative structures and salinity gradients at the Sewee shell ring, South Carolina: Evidence for ancient control of freshwater resources. *Journal of the North Carolina Academy of Science* **125:** 87–102.

Milanich, J. T., Cordell, A. S., Sigler–Lavelle, B. J., and Kohler, T. A. (1984). *McKeithen Weeden Island—The Culture of Northern Florida, AD 200–900,* Academic Press, New York.

Moore, C. B. (1902). *Certain Aboriginal Remains of the Northwest Coast of Florida, Part 2*, Journal of the Academy of Natural Sciences of Philadelphia No. 12.

Moore, C. B. (1895). *Certain Sand Mounds of Duval County, Florida*, Journal of the Academy of Natural Sciences of Philadelphia No. 10.

Moore, J. D. (1996). The archaeology of plazas and the proxemics of ritual, three Andean traditions. *American Anthropologist* **98:** 789–802.

Nair, S. (2015). *At Home with the Sapa Inca: Architecture, Space, and Legacy at Chinchero*, University of Texas Press, Austin.

Nance, C. R. (1976). *The Archaeological Sequence at Durant Bend, Dallas County, Alabama*, Special Publication No. 2, Alabama Archaeological Society, Orange Beach.

Nanfro, C. E. (2004). An analysis of faunal remains from the Bird Hammock site (8Wa30), Master's thesis, Department of Anthropology, Florida State University, Tallahassee.

Nassaney, M. S. (1996). Aboriginal earthworks in Central Arkansas. In Mainfort, R. C., and Walling, R. (eds.), *Mounds, Embankments, and Ceremonialism in the Midsouth*, Research Series No. 46, Arkansas Archeological Survey, Fayetteville, pp. 22–35.

Nelson, E. S. (2014). Intimate landscapes: The social nature of the spaces between. *Archaeological Prospection* **21:** 49–57.

Neumann, G. K. and Fowler, M. L. (1952) Hopewellian sites in the Lower Wabash Valley. In Deuel, T. (ed.), *Hopewellian Communities in Illinois*, Scientific Papers 5(5), Illinois State Museum, Springfield, pp. 177–248.

Norman, S. P. (2014). Modeling the relationship between climate change and landscape modification at the Crystal River site (8CI1), Florida, Master's thesis, Department of Anthropology, University of South Florida, Tampa.

Ortmann, A. L. (2003). Project 2/01: Results o f the 2001 and 2002 field seasons at Poverty Point. Manuscript on file, Louisiana Division of Archaeology, Baton Rouge.

Ortmann, A. L. (2007). *The Poverty Point Mounds: Analysis of the Chronology, Construction History, and Function of North America's Largest Hunter–Gatherer Monuments,* Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis, MO.

Peebles, C. S., and Kus, S. M. (1977). Some archaeological correlates of ranked societies. *American Antiquity* **42:** 421–448.

Peterson, D. A. (ed.) (1975). Complicated Stamped Pottery and Platform Mounds: The Origins of South Appalachian Mississippian. *Southeastern Archaeological Conference Bulletin* **18.**

Phillips, P. (1970). *Archaeological Survey In the Lower Yazoo Basin, Mississippi, 1949–1947,* Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 60, Harvard University, Cambridge, MA.

Pickard, W. H. (1996). Excavations at Capitolium mound (33Wn13) Marietta, Washington County, Ohio: A working evaluation. In Pacheco, P. J. (ed.), *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*, The Ohio Archaeological Council, Columbus, pp. 274–285.

Pluckhahn, T. J. (1996). Joseph Caldwell's Summerour mound (9FO16) and Woodland platform mounds in the southeastern United States. *Southeastern Archaeology* **15:** 191–211.

Pluckhahn, T. J. (2003). *Kolomoki: Settlement, Ceremony, and Status in the Deep South, AD 350 to 750*, University of Alabama Press, Tuscaloosa.

Pluckhahn, T. J. (2010). The sacred and the secular revisited: The essential tensions of early village society in the southeastern United States. In Bandy, M. S., and Fox, J. R. (eds.), *Becoming Villagers: Comparing Early Village Societies*, University of Arizona Press, Tucson, pp. 100–118.

Pluckhahn, T. J., Menz, M., West, S. E., and Wallis, N. J. (2017). A revised chronology for natural and imagined communities at Kolomoki (9ER1). *American Antiquity*, in press.

Pluckhahn, T. J., and Thompson, V. D. (2009). Mapping crystal river: Past, present, future. *Florida Anthropologist* **62:** 3–22.

Pluckhahn, T. J., Thompson, V. D., and Rink, J. (2016). Evidence for stepped pyramids of shell in the Woodland period of eastern North America. *American Antiquity* **81:** 345–363.

Pluckhahn, T. J., Thompson, V. D., and Weisman, B. R. (2010). Toward a new view of history and process at Crystal River (8CI1). *Southeastern Archaeology* **29:** 164–181.

Price, T. D., and Brown, J. A. (eds.) (1985). *Prehistoric Hunter–Gatherers: The Emergence of Cultural Complexity,* Academic Press, Orlando, FL.

Prufer, O. H. (1964). The Hopewell complex of Ohio. In Caldwell, J. C., and Hall, R. L. (eds.), *Hopewellian Studies,* Scientific Papers Vol. 12, Illinois State Museum, Springfield, pp. 35–83.

Purdy, B.A. (1991). *The Art and Archaeology of Florida's Wetlands*, CRC Press, Boca Raton, FL.

Rael, T. (2014). Overview of excavations conducted at Oakville mounds in Lawrence County, Alabama. Paper presented at the 71st annual meeting of the Southeastern Archaeological Conference, Greenville, SC.

Rafferty, J. E. (1990). Test excavations at Ingomar mounds, Mississippi. *Southeastern Archaeology* **9:** 93–102.

Rafferty, J. E. (2015). Owl Creek, Thelma, and Bessemer Mounds: Large peripheral Mississippian mound groups and bet–hedging. In Galloway, P. and Peacock, E. (eds.), *Exploring Southeastern Archaeology,* University Press of Mississippi, Oxford, pp. 189–

215.

Randall, A. R. (2015). *Constructing Histories: Archaic Freshwater Shell Mounds and Social Landscapes of the St. Johns River, Florida*, University Press of Florida, Gainesville.

Randall, A. R., and Sassaman, K. E. (2005). *St. Johns Archaeological Field School 2003–2004: Hontoon Island State Park*, Technical Report No. 6, Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.

Randall, A. R., Sassaman, K. E., Gilmore, Z. I., Blessing, M. E., and O'Donoughue, J. M. (2014). Archaic histories beyond the shell "heap" on the St. Johns River. In Wallis, N. J., and Randall, A. R. (eds.), *New Histories of Precolumbian Florida*, University Press of Florida, Gainesville, pp.18–37.

Reed, N. A. (1969). Monks and other Mississippian mounds. In Fowler, M. L. (ed.), *Explorations into Cahokia Archaeology*, Illinois Archaeological Survey Bulletin No. 7, University of Illinois, Urbana.

Robinson, B. S., Ort, J. C., Eldridge, W. E., Burke, A. L., and Pelletier, B. C. (2009). Paleoindian aggregation and social context at Bull Brook. *American Antiquity* **74:** 423–447.

Roe, L. M. (2010). *Social Complexity and Mound Ceremony in the Coles Creek Culture: Research at the Raffman Mound Center in Madison Parish, Louisiana*, Ph.D. dissertation, Department of Anthropology, Tulane University, New Orleans, LA.

Roe, L. M., and Schilling, T. M. (2010). Coles Creek. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 157–171.

Rogers, J. D., Moore, M. C., and Greaves, R. (1982). *Spiro Archaeology: The Plaza*, Studies in Oklahoma's Past, No. 10, Oklahoma Archaeological Survey, Norman.

Rolingson, M.A. (1998). *Toltec Mounds and Plum Bayou Culture: Mound D Excavations,*

Research Series No. 54, Arkansas Archeological Survey, Fayetteville.

Rolingson, M. A. and Kelly, L. S. (2012). *Toltec Mounds: Archeology of the Mound–and–Plaza Complex*, Research Series No. 65, Arkansas Archeological Survey, Fayetteville.

Ruby, B. J. (1997). *The Mann Phase: Hopewellian Subsistence and Settlement Adaptations in the Wabash Lowlands of Southwestern Indiana*, Ph.D. dissertation, Department of Anthropology, Indiana University, Bloomington.

Russo, M. (1991). *Archaic Sedentism on the Florida Coast: A Case Study from Horr's Island*, Ph.D. dissertation, Department of Anthropology, University of Florida, Gainesville.

Russo, M. (1994a). A brief introduction to the study of Archaic mounds in the Southeast. *Southeastern Archaeology* **13:** 89–93.

Russo, M. (1994b) Why we don't believe in Archaic ceremonial mounds and why we should: The case from Florida. *Southeastern Archaeology* **13:** 93–109.

Russo, M. (2004). Measuring shell rings for social inequality. In Gibson, J. L., and Carr, P. J. (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast*, University of Alabama Press, Tuscaloosa, pp. 26–70.

Russo, M. (2006). *Archaic Shell Rings of the Southeast US*, Southeast Archeological Center, National Park Service, Tallahassee, FL.

Russo, M. (2010). Shell rings and other settlement features as indicators of cultural continuity between the Late Archaic and Woodland periods of coastal Florida. In Thomas, D. H., and Sanger, M. C. (eds.), *Trend, Tradition, and Turmoil: What Happened to the Southeastern Archaic? Proceedings of the Third Caldwell Conference St. Catherines Island, Georgia May 9–11, 2008*, American Museum of Natural History, New York, pp. 149–172.

Russo, M., Dengel, C., and Shanks, J. (2014). Northwest Florida Woodland mounds and middens: The sacred and not so secular. In Wallis, N. J., and Randall, A. R. (eds.), *New Histories of Precolumbian Florida,* University Press of Florida, Gainesville, pp. 121–142.

Russo, M., Dengel, C., Shanks, J., and Stanton, T. (2011). Baker's and Strange's mounds and middens: Woodland occupations on Tyndall Air Force Base. Manuscript on file, Southeast Archaeological Center, National Park Service, Tallahassee, FL.

Russo, M., Hadden, C., and Dengel, C. (2009). Archaeological investigations on mounds and ring middens at Hare Hammock, Tyndall Air Force Base. Manuscript on file, Southeast Archeological Center, National Park Service, Tallahassee.

Russo, M., and Heide, G. (2003). Mapping the Sewee shell ring. Manuscript on file, Southeast Archeological Center, National Park Service, Tallahassee, FL.

Ryan, J. (ed.) (2004). *Data–Recovery Excavations at the Hedgeland Site (16CT19), Catahoula Parish, Louisiana,* Coastal Environments, Baton Rouge, LA.

Sanger, M. C., and Thomas, D. H. (2010). The two rings of St. Catherines Island: Some preliminary results from the St. Catherine's and McQueen shell rings. In Thomas, D. H., and Sanger, M. C. (eds.), *Trend, Tradition, and Turmoil: What Happened to the Southeastern Archaic? Proceedings of the Third Caldwell Conference St. Catherines Island, Georgia May 9–11, 2008,* American Museum of Natural History, New York, pp. 45–70.

Sassaman, K. E. (2003). *St. Johns Archaeological Field School 2000–2001: Blue Spring and Hontoon Island State Parks*, Technical Report No. 4, Laboratory of Southeastern Archaeology, Department of Anthropology, University of Florida, Gainesville.

Sassaman, K. E. (2004). Complex hunter–gatherers in evolution and history: A North American perspective. *Journal of Archaeological Research* **12:** 227–280.

Sassaman, K. E., and Heckenberger, M. J. (2004). Crossing the symbolic rubicon in the Southeast. In Gibson, J. L., and Carr, P. J. (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast,* University of Alabama Press, Tuscaloosa, pp. 214–233.

Sassaman, K. E., and Ledbetter, J. R. 1996. Middle and Late Archaic architecture. In Sassaman, K. E., and Anderson, D. G. (eds.), *Archaeology of the Mid–Holocene Southeast,* University Press of Florida, Gainesville, pp. 75–95.

Sassaman, K. E., McFadden, P. S., Monés, M. P., Palmiotto, A., and Randall, A. R. (2014). North Gulf Coast archaeology of the here and now. In Wallis, N. J., and Randall, A. R. (eds.), *New Histories of Precolumbian Florida,* University Press of Florida, Gainesville, pp.143–162.

Saunders, J. W. (2010). Middle Archaic and Watson Break. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 63–76.

Saunders, J. W. (2012). Early mounds in the Lower Mississippi Valley. In Burger, R. L., and Rosenswig, R. M. (eds.), *Early New World Monumentality*, University Press of Florida, Gainesville, pp. 25–52.

Saunders, J. W., Allen, T., and Saucier, R. T. (1994). Four Archaic? mound complexes in northeast Louisiana. *Southeastern Archaeology* **13:** 134–153.

Saunders, J. W., and Jones, R. B. (2003). 2003 annual report for Management Unit 2. Manuscript on file, Regional Archaeology Program, Department of Geosciences, University of Louisiana, Monroe.

Saunders, J. W., Jones, R. B., and Allen, T. (2005a). 2006 annual report for Management Unit 2.

Manuscript on file, Regional Archaeology Program, Department of Geosciences, University of Louisiana, Monroe.

Saunders, J. W., Jones, R. B., and Allen, T. (2006). 2006 annual report for Management Unit 2. Manuscript on file, Regional Archaeology Program, Department of Geosciences, University of Louisiana, Monroe.

Saunders, J. W., Mandel, R. D., Sampson, C. G., Allen, C. M., Allen, E. T., Bush, D. A., Heathers, J. K., Gremillion, K. J., Hallmark, C. T., Jackson, H. E., Johnson, J. K., Jones, R., Saucier, R. T., Stringer, G. L., and Vidrine, M. F. (2005b). Watson Brake, a Middle Archaic mound complex in northeast Louisiana. *American Antiquity* **70:** 631–668.

Saunders, R. (2004). The stratigraphic sequence at Rollins shell ring: Implications for ring function. *Florida Anthropologist* **57:** 249–268.

Saunders, R. (2017). Archaic shell mounds in the American Southeast. *Oxford Handbooks Online*, retrieved 1 Oct. 2017, from http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199935413.001.0001/oxfordhb–9780199935413–e–75.

Saunders, R., and Russo, M. 2002. The Fig Island ring complex (38CH42): Coastal adaptation and the question of ring function in the Late Archaic. Manuscript on file, South Carolina Department of Archives and History, Columbia.

Scarre, C. (2011). Monumentality. In Insoll, T. (ed.), *The Oxford Handbook of the Archaeology of Ritual,* Oxford University Press, Oxford, UK, pp. 9–23.

Schilling, T. M. (2004). Excavations at the Bayou Grande Cheniere Mounds (16Pl159): A Coles Creek period mound complex, Master's thesis, Department of Geography and Anthropology, Louisiana State University, Baton Rouge.

Schilling, T. M. (2006). The 2005 investigations at the Mott Mounds (16FR11). Manuscript on file, Department of Anthropology, Washington University, St. Louis, MO.

Schwadron, M. (2010). Prehistoric landscapes of complexity: Archaic and Woodland period shell works, shell rings, and tree islands of the Everglades, South Florida. In Thomas, D. H., and Sanger, M. C. (eds.), *Trend, Tradition, and Turmoil: What Happened to the Southeastern Archaic? Proceedings of the Third Caldwell Conference St. Catherines Island, Georgia May 9–11, 2008,* American Museum of Natural History, New York, pp. 113–146.

Sears, W. H. (1956). *Excavations at Kolomoki: Final Report,* Series in Anthropology No. 5. University of Georgia Press, Athens.

Sears, W. H. (1982). *Fort Center: An Archaeological Site in the Lake Okeechobee Basin*, University Press of Florida, Gainesville.

Sears, W.H. (1992). Mea culpa. *Southeastern Archaeology* **11:** 66–71.

Seinfeld, D. M., and Bigman, D. P. (2013). Investigating monumental architecture at the Letchworth Mounds site (8JE337). Manuscript on file, Florida Department of State, Division of Historical Resources, Tallahassee.

Sherwood, S. C. (2006). Geoarchaeological study of the Mound A stratigraphy, Shiloh National Military Park, Hardin County, Tennessee. Manuscript on file, Southeast Archeological Center, National Park Service, Tallahassee, Florida.

Sherwood, S. C., and Kidder, T. R. (2011). The DaVincis of dirt: Geoarchaeological perspectives on Native American mound building in the Mississippi River basin. *Journal of Anthropological Archaeology* **30:** 69–87.

Shetrone, H. C. (1924). Explorations of the Wright group of prehistoric earthworks. *Ohio*

Archaeological and Historical Quarterly **33:** 341–358.

Shetrone, H. C. (1926). Explorations of the Hopewell group of prehistoric earthworks. *Ohio Archaeological and Historical Quarterly* **35:** 1–227.

Shetrone, H. C., and Greenman, E. F. (1931). Explorations of the Seip group of prehistoric earthworks. *Ohio Archaeological and Historical Quarterly* **40:** 343–509.

Shogren, M. G. (1989) A limited testing program at four mound sites in Greene County, Alabama. De Soto Working Paper No. 11, Alabama DeSoto Commission, Alabama Museum of Natural History, University of Alabama, Tuscaloosa.

Shuman, M. K., Jones, D., Goodwin, B., and Giardino, M. (1999). New data on two prehistoric mound sites on the Ouachita River in Catahoula Parish, Louisiana. *Louisiana Archaeological Society Newsletter* **26:** 13–18.

Smith, B. D. (1989). Origins of agriculture in eastern North America. *Science* **246:** 1566–1571.

Snow, F., Wilcox, E., and Trowell, C. T. (1979). Some preliminary observations on Milamo. *The Profile* **26:** 35–37.

Squier, E. G., and Davis, E. H. (1848). *Ancient Monuments of the Mississippi Valley: Comprising the Results of Extensive Original Surveys and Explorations*, Smithsonian Institution, Washington, DC.

Stephenson, K., Bense, J., and Snow, F. (2002). Aspects of Deptford and Swift Creek of the South Atlantic and Gulf Coastal Plains. In Anderson, D. G., and Mainfort, R. C. (eds.), *The Woodland Southeast,* University of Alabama Press, Tuscaloosa, pp. 318–351.

Steponaitis, V. P. (1986) Prehistoric archaeology in the southeastern United States, 1970–1985. *Annual Review of Anthropology* **15:** 363–404.

Steponaitis, V. P., Kassabaum, M. C., and O'Hear, J. W. (2015). Coles Creek antecedents. In

Pauketat, T. R., and Alt, S. M. (eds.), *The Medieval Mississippians*, School for Advanced Research Press, Santa Fe, NM, pp. 12–19.

Stoltman, J. B. (2015). *Ceramic Petrography and Hopewell Interaction*, University of Alabama Press, Tuscaloosa.

Tesar, L. D., and Jones, B. C. (2009). The Waddells Mill Pond site (8JA65): 1973–74 test excavation results. Manuscript on file, Florida Department of State, Division of Historical Resources, Tallahassee.

Tesar, L. D., Swann, B. N., Miller, J. J., Damour–Horrell, M., and Lavender, M. (2003). Results of the Letchworth Mounds (8JE337) Archaeological State Park auger and topographic survey with management recommendations. Manuscript on file, Florida Department of State, Division of Historical Resources, Tallahassee.

Thomas, P. M., Penalva, M. L. S., Campbell, L. J., Cox, M. (1996). *Controlled Excavation at 8WL58, the Old Homestead Site: Completing the Compliance Process at Eglin Air Force Base, Okaloosa, Santa Rosa and Walton Counties*, vols. 26–30, Report of Investigations No. 284, Prentice Thomas and Associates, Fort Walton Beach, FL.

Thompson, V. D. (2006). *Questioning Complexity: The Prehistoric Hunter–Gatherers of Sapelo Island, Georgia*, Ph.D. dissertation, Department of Anthropology, University of Kentucky, Lexington.

Thompson, V. D. (2007). Articulating activity areas and formation processes at the Sapelo Island shell ring complex. *Southeastern Archaeology* **26:** 91–107.

Thompson, V. D. (2010). The rhythms of space–time and the making of monuments and places during the Archaic. In Thomas, D. H., and Sanger, M. C. (eds.), *Trend, Tradition, and Turmoil: What Happened to the Southeastern Archaic? Proceedings of the Third*

Caldwell Conference St. Catherines Island, Georgia May 9–11, 2008, American Museum of Natural History, New York, pp. 217–228.

Thompson, V. D., and Pluckhahn, T. J. (2010). History, complex hunter–gatherers, and the mounds and monuments of Crystal River, Florida, USA: A geophysical perspective. *Journal of Island and Coastal Archaeology* **5:** 33–51.

Thompson, V. D., and Pluckhahn, T. J. (2012). Monumentalization and ritual landscapes at Fort Center in the Lake Okeechobee basin of South Florida. *Journal of Anthropological Archaeology* **31:** 49–65.

Toth, E. A. (1974). *Archaeology and Ceramics at the Marksville Site*, Anthropological Papers No. 56, Museum of Anthropology, University of Michigan, Ann Arbor.

Tsukamoto, K., and Inomata, T. (eds.) (2014). *Mesoamerican Plazas: Arenas of Community and Power*, University of Arizona Press, Tucson.

Trigger, B. G. (1990). Monumental architecture: A thermodynamic explanation of symbolic behaviour. *World Archaeology* **22:** 119–132.

Trinkley, M. B. (1985). The form and function of South Carolina's Early Woodland shell rings. In Dickens, R. S., and Ward, H. T. (eds.), *Structure and Process in Southeastern Archaeology*, University of Alabama Press, Tuscaloosa, pp. 102–118.

Vescelius, G. S. (1957). Mound 2 at Marksville. *American Antiquity* **22:** 416–420.

Walker, W. M. (1936). *Troyville Mounds, Catahoula Parish, Louisiana*, Bulletin 113, Bureau of American Ethnology, Smithsonian Institution, Washington, DC.

Walker, W. M. (1952). The Dickison mound group, Peoria County. In Deuel, T. (ed.), *Hopewellian Communities in Illinois*, Scientific Papers 5(5), Illinois State Museum, Springfield, pp. 13–42.

Walling, R., Mainfort, R. C., and Atkinson, J. R. (1991). Radiocarbon dates for the Bynum, Pharr, and Miller sites, northeast Mississippi. *Southeastern Archaeology* **10:** 54–62.

Wallis, N. J., and McFadden, P. S. (2016). Recovering the forgotten Woodland mound excavations at Garden Patch (8DI4). *Southeastern Archaeology* **35:** 194–212.

Wallis, N. J., McFadden, P. S. and Singleton, H. M. (2015). Radiocarbon dating the pace of monument construction and village aggregation at Garden Patch: A ceremonial center on the Florida Gulf Coast. *Journal of Archaeological Science: Reports* **2:** 507–516.

Walthall, J. A. (1980). *Prehistoric Indians of the Southeast: Archaeology of Alabama and the Middle South*, University of Alabama Press, Tuscaloosa.

Wauchope, R. (1966). *Archaeological Survey of Northern Georgia with a Test of Some Cultural Hypotheses,* Memoirs No. 21, Society for American Archaeology, Salt Lake City, UT.

Webb, M. C. (1982). Preliminary report on excavations at an early Troyville period site (16ST6) on the West Pearl River, Louisiana. *Louisiana Archaeology* **9:** 205–250.

Webb, W. S., Haag, W. G., and Snow, C. E. (1942). *The C. and O. mounds at Paintsville, sites Jo2 and Jo9, Johnson County, Kentucky,* Reports in Anthropology and Archeology, 5(4), University of Kentucky, Lexington, pp. 297–372.

Weinstein, R. A. (2005). *Lake Providence: A Terminal Coles Creek Culture Mound Center, East Carroll Parish, Louisiana,* Coastal Environments, Baton Rouge, LA.

Welch, P. D. (1998). Middle Woodland and Mississippian occupations of the Savannah site in Tennessee. *Southeastern Archaeology* **17:** 79–92.

Wells, D. C. (1997). Political competition and site placement: Late prehistoric settlement in the Tensas Basin of northeast Louisiana. *Louisiana Archaeology* **22:** 71–91.

White, N. M. (2014). Pierce Mounds Complex: An ancient capital in northwest Florida.

Manuscript on file, Department of Anthropology, University of South Florida, Tampa.

Whitmer, A. M. (1987). Physical structure of the Baptiste site (16AV25), Master's thesis, Department of Anthropology, University of Washington, Seattle.

Widmer, R. J. (1996). Recent excavations at the Key Marco site, 8CR48, Collier County, Florida. *The Florida Anthropologist* **49:** 10–25.

Widmer, R. J. (2002). The Woodland archaeology of south Florida. In Anderson, D. G., and Mainfort, R. C. (eds.), *The Woodland Southeast*, University of Alabama Press, Tuscaloosa, pp. 373–397.

Willey, G. R. (1949). *Archeology of the Florida Gulf Coast*, Miscellaneous Collections Vol. 113, Bureau of American Ethnology, Smithsonian Institution, Washington, DC.

Williams, J. M. (1987). *Archaeological Excavations at the Jackson Landing/Mulatto Bayou Earthwork*, Archaeological Report No. 19, Mississippi Department of Archives and History, Jackson.

Williams, J. M. (1992). *Archaeological Excavations at the Fortson Mound (9WS2),* LAMAR Institute Publication No. 25, Savannah, GA.

Williams, S., and Brain, J. P. (1983), *Excavations at the Lake George Site, Yazoo County, Mississippi, 1958–1960,* Papers Vol. 74, Peabody Museum of Archaeology and Ethnology, Harvard University Press, Cambridge, MA.

Wimberly, S. B., and Tourtelot, H. A. (1941). *The McQuorquodale Mound: A Manifestation of the Hopewellian Phase in South Alabama*, Museum Paper No. 19, Geological Survey of Alabama, Tuscaloosa.

Witthoft, J. (1949). *Green Corn Ceremonialism in the Eastern Woodlands,* Occasional Contributions No. 13, Museum of Anthropology, University of Michigan Press, Ann

Arbor.

Wright, A. (2014a). History, monumentality, and interaction in the Appalachian Summit Middle Woodland. *American Antiquity* **79:** 277–294.

Wright, A. P. (2014b). *Inscribing Interaction: Middle Woodland Monumentality in the Appalachian Summit, 100 BC–AD 400*, Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Wyman, J. (1875). *Fresh Water Shell mounds of the St. John's River, Florida,* Memoirs No. 1, Peabody Academy of Science, Salem, MA.

Yoffee, N. (1993). Too many chiefs? (or, safe texts for the '90s). In Yoffee, N., and Sherratt, A. (eds.), *Archaeological Theory: Who Sets the Agenda?* Cambridge University Press, Cambridge, UK, pp. 60–78.

Zimmer-Dauphinee, J. (2017). Exploring the deepest reaches of Arkansas's tallest mounds with electrical resistivity tomography. In McKinnon, D., and Haley, B. (eds.), *Archaeological Remote Sensing in North America: Innovative Techniques for Anthropological Applications*, University of Alabama Press, Tuscaloosa, pp. 198–214.

Bibliography of Recent Literature

Anderson, D. G., and Mainfort, R. C. (eds.) (2002). *The Woodland Southeast,* University of Alabama Press, Tuscaloosa.

Barker, A. W. (1999). *Chiefdoms and the Economics of Perversity,* Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Beasley, V. R. (2008). *Monumentality During the Mid–Holocene in the Upper and Middle St. Johns River Basins, Florida*, Ph.D. dissertation, Department of Anthropology, Northwestern University, Evanston, IL.

Blitz, J. H., and Mann, C. B. (2000). *Fisherfolk, Farmers and Frenchmen: Archaeological Investigations on the Gulf Coast,* Archaeological Report No. 30, Mississippi Department of Archives and History, Jackson.

Boudreaux, E. A. (2011). Dating the construction of early Late Woodland earthen monuments at the Jackson Landing site in coastal Mississippi. *Southeastern Archaeology* **30:** 351–364.

Burks, J. (2014). Geophysical survey at Ohio earthworks: Updating nineteenth century maps and filling the 'empty' spaces. *Archaeological Prospection* **21:** 5–13.

Brown, I. W. (1981).The Morgan site: An important Coles Creek mound complex on the Chenier Plain of southwest Louisiana. *North American Archaeologist* **2:** 207–237.

Brown, I. W. (1984). Late prehistory in coastal Louisiana: The Coles Creek period. In Davis, D. D. (ed.), *Perspectives on Gulf Coast Prehistory*, University Press of Florida, Gainesville, pp. 94–124.

Cherkinsky, A., Pluckhahn, T. J., and Thompson, V. D. (2014). Variation in radiocarbon age determinations from the Crystal River archaeological site, Florida. *Radiocarbon* **56:** 801–810.

Cotter, J. L. (1952). The Gordon site in southern Mississippi. *American Antiquity* **18:** 110–126.

Endonino, J. C. (2008). The Thornhill Lake research project: 2005–2008. *Florida Anthropologist* **61:** 149–165.

Fritz, G. (2000). Native farming systems and ecosystems in the Mississippi River Valley. In Lentz, D. L. (ed.), *Imperfect Balance: Landscape Transformations in the Precolumbian Americas*, Columbia University Press, New York, pp. 225–250.

Fritz, G. (2008). Plum Bayou foodways: Distinctive aspects of the paleoethnobotanical record. *Arkansas Archaeologist* **47:** 31–41.

Gibson, J. L. (1996). *Ancient Earthworks of the Ouachita Valley in Louisiana*, Technical Reports No. 5, Southeast Archaeological Center, Tallahassee, FL.

Gibson, J. L. (2010). Poverty Point Redux. In Rees, M. A. (ed.), *Archaeology of Louisiana*, Louisiana State University Press, Baton Rouge, pp. 77–96.

Graybill, J. R. (1980). Marietta works, Ohio, and the eastern periphery of Fort Ancient. *Pennsylvania Archaeologist* **50:** 51–60.

Holland–Lilly, M. (1996). Batesville Mounds: Recent investigations at a Middle Woodland site. *Mississippi Archaeology* **31:** 40–55.

Jones, D., and Kuttruff, C. (1998). Prehistoric enclosures in Louisiana and the Marksville site. In Mainfort, R. C., and Sullivan L. P. (eds.), *Ancient Earthen Enclosures of the Eastern Woodlands*, University Press of Florida. Gainesville, pp. 31–56.

Kassabaum, M. C., and Nelson E. S. (2016). Standing posts and special substances: Gathering and ritual deposition at Feltus (22Je500), Jefferson County, Mississippi. *Southeastern Archaeology* **35:** 134–154.

Keel, B. C. (1976). *Cherokee Archaeology: A Study of the Appalachian Summit*, University of

Tennessee Press, Knoxville.

Kellar, J. H. (1979). The Mann site and "Hopewell" in the Lower Wabash–Ohio Valley. In Brose, D. S., and Greber, N. (eds.), *Hopewell Archaeology: The Chillicothe Conference*, Kent State University Press, Kent, OH, pp. 100–107.

Kidder, T. R. (1992). Coles Creek period social organization and evolution in northeast Louisiana. In Barker, A. W., and Pauketat, T. R. (eds.), *Lords of the Southeast: Social Inequality and the Native Elites of Southeastern North*, American Anthropological Association, Washington, DC, pp. 145–162.

Kidder, T. R. (2004). Prehistory of the Lower Mississippi Valley after 800 BC. In Fogelson, R., and Sturtevant, W. C. (eds.), *Handbook of North American Indians: Volume 14. Southeast*, Smithsonian Institution Press, Washington, DC, pp. 544–549.

Kidder, T. R. (2010). Hunter gatherer ritual and complexity: New evidence from Poverty Point, Louisiana. In Alt, S. M. (ed.), *Ancient Complexities: New Perspectives in Precolumbian North America*, University of Utah Press, Salt Lake City, pp. 32–51.

Kidder, T. R., and Fritz, G. J. (1993). Subsistence and social change in the Lower Mississippi Valley: The Reno Brake and Osceola sites, Louisiana. *Journal of Field Archaeology* **20:** 281–297.

Kidder, T. R., Ortmann, A., and Allen, T. (2004). Testing mounds B and E at Poverty Point. *Southeastern Archaeology* **23:** 98–113.

Kidder, T. R., Roe, L., and Schilling, T. M. (2010) Early Woodland settlement and mound building in the Upper Tensas Basin, northeast Louisiana. *Southeastern Archaeology* **29:** 121–145.

Knight, V. J., and Schnell, F. T. (2004). Silence over Kolomoki: A curious episode in the history

of southeastern archaeology. *Southeastern Archaeology* **23:** 1–11.

Mainfort, R.C. (ed.) (1988). *Middle Woodland Settlement and Ceremonialism in the Mid–South and Lower Mississippi Valley*, Archaeological Report No. 22, Mississippi Department of Archives and History, Jackson.

Mainfort, R. C. (1996). Pinson Mounds and the Middle Woodland period in the Midsouth and Lower Mississippi Valley. In Pacheco, P. J. (ed.), *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*, Ohio Archaeological Council, Columbus, pp. 370–391.

Mainford, R. C., and McNutt, C. H. (2004). Calibrated radiocarbon chronology for Pinson Mounds and Middle Woodland in the Midsouth. *Southeastern Archaeology* **23:** 12–24.

Mainfort, R. C., and Walling, R. (1992). Excavations at Pinson Mounds: Ozier mound. *Midcontinental Journal of Archaeology* **17:** 112–136.

Mann, R. (2005). Intruding on the past: The reuse of ancient earthen mounds by Native Americans. *Southeastern Archaeology* **24:** 1–10.

McKinnon, D. P., King, J. L., Buikstra, J. E., Thornton, T. H., and Herrmann, J. T. (2016). Returning to the Kamp mound group (11C12): Results from geomagnetic survey and high-density topographic mapping in Calhoun County, Illinois. *Midcontinental Journal of Archaeology* **41:** 231–254.

Milanich, J. T. (ed.) (1999). *Famous Florida Sites: Mount Royal and Crystal River*, University Press of Florida, Gainesville.

Nassaney, M. S. (1992). *Experiments in Social Ranking in Prehistoric Central Arkansas,* Ph.D. dissertation, Department of Anthropology, University of Massachusetts, Amherst.

Nassaney, M. S. (1994). The historical and archaeological context of Plum Bayou culture in central Arkansas. *Southeastern Archaeology* **13:** 36–55.

Nassaney, M. S., and Cobb, C. R. (eds.) (1991). *Stability, Transformation, and Variation: The Late Woodland Southeast*, Plenum Press, New York.

Nelson, E. S., and Kassabaum, M. C. (2014). Expanding social networks through ritual deposition: A case study from the Lower Mississippi Valley. *Archaeological Review from Cambridge* **29:** 103–128.

Ortmann, A. (2010). Placing the Poverty Point mounds in their temporal context. *American Antiquity* **75:** 657–678.

Ortmann, A. L., and Kidder, T. R. (2013). Building Mound A at Poverty Point, Louisiana: Monumental public architecture, ritual practice, and implications for hunter-gatherer complexity. *Geoarchaeology* **28:** 66–86.

Pluckhahn, T. J. (2000). Fifty years since Sears: Deconstructing the domestic sphere at Kolomoki. *Southeastern Archaeology* **19:** 145–155.

Pluckhahn, T. J. (2007). "The mounds themselves might be perfectly happy in their surroundings": The "Kolomoki problem" in notes and letters. *The Florida Anthropologist* **60:** 63–76.

Pluckhahn, T. J. (2010). "Gulfization" revisitied: Household change in the Late Woodland period at Kolomoki (9ER1). *Early Georgia* **38:** 207–220.

Pluckhahn, T. J. (2010). Practicing complexity (past and present) at Kolomoki. In Alt, S. M. (ed.), *Ancient Complexities: New Perspectives in Precolumbian North America*, University of Utah Press, Salt Lake City, pp. 52–72.

Pluckhahn, T. J. (2013). Cooperation and competition among Late Woodland households at Kolomoki, Georgia. In Carballo, D. M. (ed.), *Cooperation and Collective Action: Archaeological Perspectives*, University Press of Colorado, Boulder, pp. 175–196.

Pluckhahn, T. J. (2015). Households making history: An eventful temporality of the Late Woodland period at Kolomoki (9ER1). In Gilmore, Z. A., and O'Donoughue, J. M. (eds.), *The Enigma of the Event: Moments of Consequence in the Ancient Southeast*, University of Alabama Press, Tuscaloosa, pp. 93–118.

Pluckhahn, T. J., Compton, J. M., and Bonhage–Freund, M. T. (2006). Evidence of small–scale feasting from the Woodland period site of Kolomoki, Georgia. *Journal of Field Archaeology* **31:** 263–284.

Pluckhahn, T. J., Hodson, A. D., Rink, W. J., Thompson, V. D., Hendricks, R. R., Doran, G., Farr, G., Cherkinsky, A., and Norman, S. P. (2015). Radiocarbon and luminescence age determinations on mounds at Crystal River and Roberts Island, Florida, USA. *Geoarchaeology* **30:** 238–260.

Pluckhahn, T. J., Thompson, R. E., and Kemp, K. (2017). Constructing community at civic–ceremonial centers: Pottery–making practices at Crystal River and Roberts Island. *Southeastern Archaeology* **36:** 110–121.

Pluckhahn, T. J., Thompson, V. D., and Cherkinsky, A. (2015). The temporality of shell–bearing landscapes at Crystal River, Florida. *Journal of Anthropological Archaeology* **37:** 19–36.

Quimby, G. (1951). *The Medora Site, West Baton Rouge Parish, Louisiana*, Anthropological Series Vol. 24, No. 2, Field Museum of Natural History, Chicago.

Randall, A.R. (2013). The chronology and history of Mount Taylor period (ca. 7400–4600 cal BP) shell sites on the middle St. Johns River, Florida. *Southeastern Archaeology* **32:** 193–217.

Rafferty, J. E. (1983). A new map of the Ingomar mounds site, 22-Un-500. *Mississippi Archaeology* **18:** 18–30.

Rafferty, J. E. (1987). The Ingomar mounds site: Internal structure and chronology. *Midcontinental Journal of Archaeology* **12:** 147–173.

Roberts, K. M. (2006). *Seasonality, Optimal Foraging, and Prehistoric Plant Food Production in the Lower Mississippi in the Tensas Basin, Northeast Louisiana,* Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis, MO.

Roe, L. M. (2007). Coles Creek antecedents of Plaquemine mound construction: Evidence from the Raffman site. In Rees, M. A. and Livingood, P. C. (eds.), *Plaquemine Archaeology*, University of Alabama Press, Tuscaloosa, pp. 20–37.

Rolingson, M. A. (ed.) (1982). *Emerging Patterns of Plum Bayou Culture,* Research Series No. 18, Arkansas Archaeological Survey, Fayetteville.

Rolingson, M. A. (1987). An assessment of the significance of clay-tempered ceramics and platform mounds at the Toltec mounds site. In Marshall, D. A., *The Emergent Mississippian: Proceedings of the Sixth Mid–South Archaeological Conference, June 6–9, 1985,* Occasional Papers 87-01, Cobb Institute of Archaeology, Mississippi State University, Starkville, pp. 107–116.

Rolingson, M. A. (1990). The Toltec mounds site: A ceremonial center in the Arkansas River Lowland. In Smith, B. D. (ed.), *The Mississippian Emergence,* University of Alabama Press, Tuscaloosa, pp. 27–50.

Rolingson, M. A. (1992). Excavations of Mound S at the Toltec mounds site: Preliminary report. *Arkansas Archaeologist* **31:** 1–30.

Ruby, B. J. (2006). The Mann phase: Hopewellian subsistence and settlement in the Wabash Lowland. In Charles, D. K., and Buikstra, J. E. (eds.), *Recreating Hopewell,* University Press of Florida, Gainesville, pp. 190–205.

Ruby, B. J., and Shriner, C. M. (2005). Ceramic vessel compositions and styles as evidence of the local and nonlocal social affiliations of ritual participants at the Mann site, Indiana. In Carr, C., and Case, D. T. (eds.), *Gathering Hopewell*, Kluwer Academic/Plenum, New York, pp. 553–572.

Sassaman, K. E., and Randall, A. R. (2012). Shell mounds of the middle St. Johns Basin, northeast Florida. In Burger, R. L., and Rosenswig, R. M. (eds.), *Early New World Monumentality*, University Press of Florida, Gainesville, pp. 53–72.

Sampson, C. P. (2015). Oyster demographics and the creation of coastal monuments at Roberts Island mound complex, Florida. *Southeastern Archaeology* **34:** 84–94.

Saunders, R., and Russo, M. (2011). Coastal shell middens in Florida: A view from the Archaic period. *Quaternary International* **239:** 38–50.

Smith, B. A. (1975). *A Re–Analysis of the Mandeville Site, 9Cla1, Focusing on its Internal History and External Relations*, Ph.D. dissertation, Department of Anthropology, University of Georgia, Athens.

Steinen, K. T. (1995). *Woodland Period Archaeology of the Georgia Coastal Plain*, Laboratory of Archaeology Series Report No. 36, Department of Anthropology, University of Georgia, Athens.

Steinen, K. T. (1998). Kolomoki and the development of sociopolitical organization on the Gulf Coast Plain. In Williams, M., and Elliott, D. T. (eds.), *A World Engraved: Archaeology of the Swift Creek Culture*, University of Alabama Press, Tuscaloosa, pp. 181–196.

Steinen, K. T. (2006). Kolomoki: Cycling, settlement patterns, and cultural change. In Charles, D. K., and Buikstra, J. E. (eds.), *Recreating Hopewell*, University Press of Florida, Gainesville, pp. 178–189.

Steponaitis, V. P. (ed.) (1998) *The Natchez District in the Old, Old South*, Academic Affairs Library, Center for the Study of the American South, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Thompson, V. D., and Andrus, C. F. (2011). Evaluating mobility, monumentality, and feasting at the Sapelo Shell Ring Complex. *American Antiquity* **76:** 315–343.

Thompson, V. D., Pluckhahn, T. J., Das, O., and Andrus, C. F. (2015). Assessing village life and monument construction (cal AD 65–1070) along the central Gulf Coast of Florida through stable isotope geochemistry. *Journal of Archaeological Science: Reports* **4:** 111–123.

Thunen, R. L. (1998). Defining space: An overview of the Pinson Mounds enclosure. In Mainfort, R. C., and Sullivan, L. P. (eds.) *Ancient Earthen Enclosures of Eastern North America*, University Press of Florida, Gainesville, pp. 57–67.

Toth, E. A. (1979). *The Lake St. Agnes Site: A Multi–Component Occupation of Avoyelles Parish, Louisiana*, Melanges No. 13, Museum of Geoscience, Louisiana State University, Baton Rouge.

Wells, D. C. (1998). *The Early Coles Creek Period and the Evolution of Social Inequality in the Lower Mississippi Valley*, Ph.D. dissertation, Department of Anthropology, Tulane University, New Orleans, LA.

Wells, D. C., and Weinstein, R. A. (2007). Extraregional contact and cultural interaction at the Coles Creek–Plaquemine transition: Recent data from the Lake Providence mounds, East Carroll Parish, Louisiana. In Rees, M. A. and Livingood, P. C. (eds.), *Plaquemine Archaeology*, University of Alabama Press, Tuscaloosa, pp. 38–65.

West, S., Pluckhahn, T. J., and Menz, M. (n.d.) Size matters: Kolomoki (9ER1) and the power of

the hypertrophic village. In Birch, J., and Thompson, V. D. (eds.) *The Power of Villages*, University Press of Florida, Gainesville.

Wright, A. P., and Henry, E. R. (eds.) *Early and Middle Woodland Landscapes of the Southeast*, University Press of Florida, Gainesville.

Figure Captions

Fig. 1 Locations of Archaic period platform mounds in the Eastern United States.

Fig. 2 Poverty Point site layout and platform mounds (adapted from Gibson 2001, Figures 5.2 and 5.3). (a) Schematic of the Late Archaic Poverty Point site. (b) Schematic of Mound A showing a large platfm attached to the initial conical mound. (c) Schematic of Mound C showing a platform partially covered with a conical cap. (d) Schematic of Mound E showing the remaining platform at the site

Fig. 3 Locations of Woodland period platform mounds in the Eastern United States. Because platform mound sites dating to the Coles Creek period in the LMV are so numerous, their individual locations are not listed, though the general Coles Creek culture area is outline by a dashed line.

Fig. 4 Idealized sketch of the ramp-and-tomb structures found inside many Illinois Hopewell burial mounds (adapted from Charles et al. 2004, fig. 3.3).

Fig. 5 Typical Coles Creek mound-and-plaza center layouts (adapted from Roe and Schilling 2010, fig. 9.1).

Fig. 6 Archaic and Woodland shell ring footprints from Florida, South Carolina, Georgia, and Mississippi (adapted from Russo 2006, fig. 1; Saunders 2017, fig. 2; Schwadron 2010, fig. 6.6).

Fig. 7 The site plan at Kolomoki during the Middle Woodland period, showing arc-shaped midden concentrations surrounding an inner and an outer plaza (adapted from Pluckhahn 2010, fig. 6.2).

Fig. 8 Site plans of ring middens in the Lower Yazoo Basin. Dashed areas represent concentrations of midden (adapted from Phillips 1970, figs. 77, 80, 133, and 149).