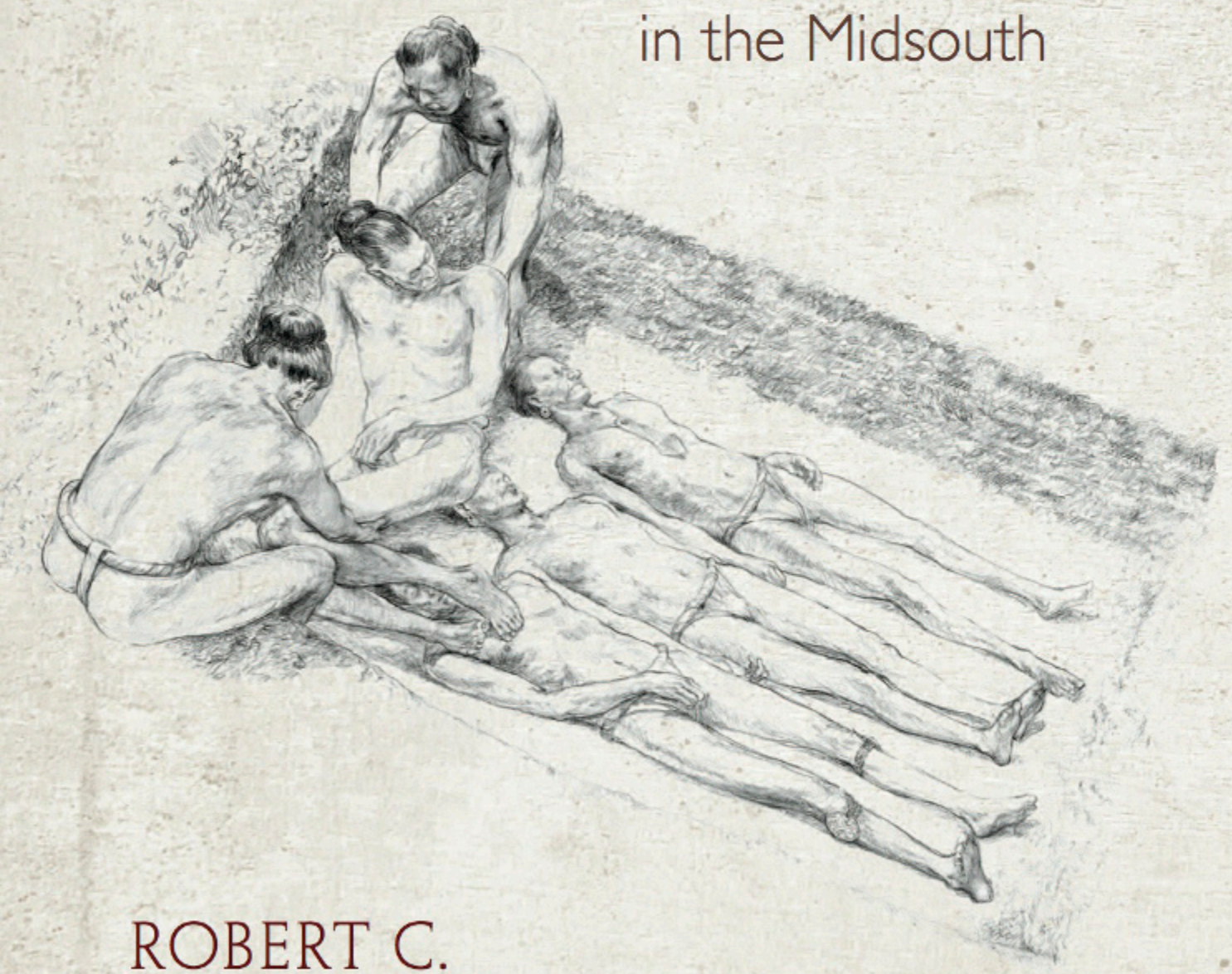
PINSON MOUNDS

Middle Woodland Ceremonialism in the Midsouth



ROBERT C. MAINFORT JR.

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With Contributions by Mary L. Kwas,
Charles H. McNutt, Andrew M. Mickelson,
and Robert Thunen

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Preface

In 1976, shortly after successfully defending my dissertation on an eighteenth-century Native American cemetery in Michigan, the whims of the job market took me to Nashville, Tennessee, where I accepted a job with the Tennessee Division of Archaeology. Funding for development of an archaeological park—including a large museum, offices, lab, and curation space—at a site known as Pinson Mounds was on the verge of being approved. As regional archaeologist for West Tennessee, I was expected to relocate to the area upon completion of the facility. My own plan was to be long gone before that happened, but things did not go quite as expected.

One of my first tasks for the Division of Archaeology was to prepare a report on previous investigations at Pinson Mounds. In 1974 and 1975, my predecessor, John Broster, conducted large-scale excavations at several localities within the mound complex. Prior to moving to New Mexico in late 1975, Broster and Lee Schneider completed a report on these excavations, and Broster personally paid for 100 copies to be printed. The Division of Archaeology did not have sufficient money to publish the report as a research monograph until funds for park development were obtained. In 1979 the Tennessee state archaeologist asked me to prepare the report for publication. This entailed editing, writing some new material, and adding a few necessary graphics; the monograph was published in 1980 (Mainfort 1980).

By late 1980 construction of the museum was completed and a new park manager, Mary Kwas, had been hired. As part of the final phase of developing Pinson Mounds as a state park, funds were set aside for conducting three years of archaeological work to provide information for exhibits and programs. This is a key point in understanding why certain areas were selected for excavation. With that objective, as well as limited funds and limited time, my research approach was to target the excavations to address key questions asked by the public, which also were the major questions of interest to archaeologists (notwithstanding some grumblings about the importance of stratified random samples and such). Reduced to the barest basics, these were (1) How old are the mounds; (2) What were the mounds used for; and (3) Where did the people who built the mounds come from?

This was all well and good, but I was in almost over my head and knew it. Nevertheless, I was a pretty good field archaeologist, was good at getting things done, and had sense enough to ask people with more experience than I for advice. Before starting my first year of fieldwork in 1981, I talked with Jim Brown, Dan Morse, and Charles McNutt about what to do and how to do it; in subsequent years, Jimmy Griffin, Steve Williams, and others also offered much appreciated suggestions. Thus, with the help of field school students from Memphis State University, the 1981 excavations focused on the second-largest mound at the site (Ozier Mound) and a small burial mound (Mound 31).

For the 1982 field season, another cooperative field school with Memphis State, I selected Mound 10 (an earthwork of moderate size) and a remarkable concentration of artifacts that was designated the Duck's Nest sector. Just before the start of fieldwork, John Broster, Karen Johnson, and I published a short article in *Tennessee Anthropologist* (Mainfort et al. 1982) that presented radiocarbon dates for Ozier Mound and Mound 31, along with dates from some localities tested by Broster.

During 1983 I was able to hire an experienced field crew, and we spent most of the summer and fall excavating a portion of the northern Twin Mound. The season's work was depicted in *The Ritual of the Mounds*, a film produced by the Tennessee Department of Conservation for use in public interpretation. As discussed later in this volume, nothing remotely comparable to the remarkable stratigraphy and burial facilities we uncovered had been reported in the Midsouth. George Shannon, Jack Tyler, and I published a preliminary account of the Twin Mounds excavation in 1985 (Mainfort et al. 1985).

With three years of excavations completed, it clearly was time to turn my attention to writing a

comprehensive report on the fieldwork. Such a document was needed for preparing an exhibit plan for the park museum, but that aside, I have always found it annoying when the results of excavations at important sites are not published for a decade or more after the fact. In June 1984 Mary Kwas and I hosted a meeting of the newly revived Midsouth Archaeological Conference at Pinson Mounds. Showing over 100 colleagues the Pinson Mounds site and many of the artifacts collected provided additional motivation (and lots of useful opinions and suggestions) for completing a report on the 1981–1983 excavations. (Many of the papers presented at the conference were published a few years later [Mainfort (ed.) 1988]—a minor best-seller for the Mississippi Department of Archives and History.)

Pinson Mounds: A Middle Woodland Ceremonial Center (Mainfort 1986a) was not, by design, a traditional technical monograph, in the sense that I did not include comprehensive lists of all artifacts and exhaustive descriptions of this material. Rather, I attempted to include some of the basic features of a technical report, but at the same time produce something that was fairly accessible to the educated public. It was with an eye to the latter that I argued forcefully that the monograph should be professionally designed and composed, rather than have the appearance of, for example, the 1980 Pinson Mounds report. All told, it worked pretty well, and the entire run of 1,000 copies was sold out by 1994.

After a few years' hiatus, another round of fieldwork began in 1987, when Twin Mounds alumnus Robert (Buzz) Thunen began a three-year testing project in the Eastern Citadel as part of his dissertation research (Thunen 1990).

With a few new radiocarbon dates in hand, I presented a summary of all the excavations through 1983 in *American Antiquity* (Mainfort 1988a). The same year saw publication of papers from the 1984 Midsouth Conference, including Thunen's initial thoughts about the Eastern Citadel (Thunen 1988) and what I regard as my least satisfactory (though widely cited) paper on Pinson Mounds (Mainfort 1988b).

With funding from the National Geographic Society, I directed more extensive excavations on the upper summit of Ozier Mound in 1989, which among other things demonstrated that nonlocal materials (e.g., mica, Flint Ridge chert bladelets) were used on the mound surface. Around the same time, Rick Walling and I obtained some charred organic material for dating from the Bynum, Miller, and Pharr sites in northeastern Mississippi in an effort to place Pinson Mounds in a regional chronological context (Walling et al. 1991). While writing up the results of this, Rick and I also prepared a paper on the Ozier Mound excavations (Mainfort and Walling 1992). Meanwhile, Buzz Thunen (1990) completed his dissertation on the Eastern Citadel, which added a landscape perspective to our understanding of Pinson Mounds.

By 1992 I was ready to put Pinson Mounds behind me. Thanks in large measure to Bill Lawrence, I had become very intrigued with the archaeological potential of the Reelfoot Lake area (e.g., Lawrence and Mainfort 1993; Mainfort 1996c) and with late prehistoric sites in the Mississippi River counties of Tennessee (e.g., Mainfort and Moore 1998). In 1993, however, the Department of Anthropology at Memphis State University asked me to conduct an archaeological field school. I decided to use this as an opportunity to excavate some of the deposits being lost to erosion in the Mound 14 sector. A combination of other obligations to the Tennessee Division of Archaeology (Mainfort 1994) and a move to Fayetteville, Arkansas, to accept a position with the Arkansas Archeological Survey prevented me from completing the analysis of this work, much less writing a report.

Things were a bit different in Fayetteville from what they had been in Tennessee, and I was pleasantly surprised when Survey director Tom Green offered Survey funds to continue neutron activation analysis of a large sample of pottery from Pinson Mounds (Mainfort et al. 1997), the findings of which I viewed at the time as a bit disappointing. Moreover, Survey staff was available to help me and Lynne Sullivan to bring *Ancient Earthen Enclosures of Eastern North America* (1998), with Thunen's chapter on the Eastern Citadel, to publication.

The Pinson Mounds chemical characterization study and its surprising (and admittedly weak on my part) conclusions caught the eye of Jim Stoltman, who proposed a follow-up petrographic analysis, to which I

readily agreed (Stoltman and Mainfort 2002). Since I had been unable to "escape" from Pinson Mounds in Fayetteville, I concluded that I really needed to write a final statement on the mound group, focusing specifically on dating and, in particular, taking advantage of advances in calibration. For this undertaking, I was able to enlist the aid of longtime friend (and occasional thorn in my side!) Charles McNutt (Mainfort and McNutt 2004).

At this point, although I had taken care of (if not exceeded) my professional obligations regarding Pinson Mounds, publications on the post-1986 research were strewn about in various journals and books, and the 1986 monograph was long out of print. As Mary Kwas repeatedly (but gently) reminded me, it really would be useful to assemble all the published material on the site in a single volume. I conceded the point, but I was busy with other matters and, frankly, was not terribly interested in publishing a compilation of material that I considered outdated. What really was needed, I felt, was something totally new, a volume that used all the data, but approached the mound complex from a modern perspective.

That was something I was not quite willing to undertake in 2004, but after completing a large monograph on historic cemeteries (Mainfort and Davidson 2006) and the catalog for the Sam Dellinger exhibit at the Old State House Museum (Mainfort 2008), I mustered the enthusiasm to attempt it.

My general approach to the present volume has been to consider any and all past interpretations that I (and in some cases others) had presented as subject to critique and revision. This ranged from such mundane issues as inferred house or structure patterns and mound stratigraphy, to chronology, and to symbolic choices in the placement of some mounds. Perhaps the "easy part" of this endeavor has been applying some of the ideas and insights developed by folks such as Richard Bradley, Martin Byers, N'omi Greber, and Mark Seeman since the time of the 1986 monograph. I also wanted to address some shortcomings that I recognized in my own earlier work. In some instances this required a great deal of new research and reading in such areas as presettlement forest cover and ceramic ethnoarchaeology. Recent geophysical surveys contributed critical data about several areas within the mound complex, and 3-D modeling has permitted new insights into mound structure and the site landscape.

Organization of the Volume

The introductory chapter presents the expected *obligatoire*, but with some new twists. Most notably, I make the case that it is incorrect to view Pinson Mounds as a single archaeological "site." Rather, the mound group as seen today comprises at least three distinct ritual precincts.

In the second chapter, Mary Kwas presents an expanded discussion of antiquarian musings that offers a much better context for the historical accounts of Pinson Mounds than did her earlier article on the same subject (Kwas 1997). This is followed in chapter 3 by a nearly verbatim version of a paper that Andrew Mickelson, Mary, and I published in *Southeastern Archaeology* (2011), in which we use E. G. Buck's 1917 site map as a springboard for assessing the veracity of a number of reported earthworks at Pinson Mounds.

Chapter 4 is the first of the chapters focused on excavations. Included here are discussions of Mound 31, Ozier Mound, the Twin Mounds and Twin Mounds sector, and the Cochran site area. There are some interesting new interpretations presented here. The following chapter takes us east across Hudson Branch to Mounds 10 and 12, the Duck's Nest, and the Mound 12 and Duck's Nest sectors. Reinterpretation of the Duck's Nest sector draws upon advances in ceramic ethnoarchaeology and benefits from insights gained during two technical analyses of ceramics (Mainfort et al. 1997; Stoltman and Mainfort 2002). The final chapter on excavations, chapter 6 presents a reappraisal of the Eastern Citadel. It includes a number of images from Thunen's (1990, 1998) fieldwork, but perhaps the most noteworthy aspect is the assertion that in plan view, the Eastern Citadel embankment is startlingly similar to the circular/near circular portion of the composite earthen enclosure at Milford, Ohio.

In chapter 7 Charles McNutt and I examine Pinson Mounds chronology, drawing on a paper that we published in 2004. Here we take a more critical

view of some of the radiocarbon dates and also offer an explicit assessment of the traditional model of Pinson Mounds chronology (e.g., Mainfort 1986, 1988a, 1988b).

The concluding chapter is an overview of Middle Woodland sites, particularly those with earthen architecture, in the greater Midsouth and Lower Mississippi Valley.

There are two appendices. The first is a comprehensive tabulation of ceramics from all areas excavated. The second is a reissue, with only minor editorial changes, of Mary Kwas's 1997 article that outlines the history and politics that led to the purchase and development of Pinson Mounds as a state park.

Acknowledgments

Funding for the 1981, 1982, and 1983 excavations at Pinson Mounds was provided by the Tennessee Department of Conservation, Division of Planning and Development; the late Walter Criley was instrumental in securing and administering these funds. The 1989 Ozier Mound excavation was partially funded by a grant from the National Geographic Society; additional funding was provided by the Tennessee Department of Conservation, Division of Archaeology. For his research in the Eastern Citadel, Robert Thunen was funded by a National Science Dissertation Improvement Grant BNS-8722665 and by a series of University of North Florida Faculty Development Grants. Most of the funding for the INAA study of Pinson Mounds ceramics was provided by the Arkansas Archeological Survey, courtesy of Survey director Tom Green, who also funded acquisition of digital images of various archival material. Other Survey colleagues who helped in various ways during preparation of this volume include Mike Evans, Jami Lockhart, and Jared Pebworth. Walter Manger (Department of Geosciences, University of Arkansas) identified the material used to produce several funerary objects from the northern Twin Mound.

Steve Rogers, Jonathan Smith, Harbert Alexander, Jack Wood of the Jackson-Madison County Public Library, and Robin Roggio in the University of Arkansas Library Interlibrary Loan Department helped to gather early archival and published source material. Jonathan Smith also shared results of his own research. Nell Nuckolls shared personal information and donated letters, articles, and manuscripts of her late husband's (Dr. John Nuckolls) to the Pinson Mounds Museum. As discussed above Judge Andrew "Tip" Taylor was a longtime supporter of Pinson Mounds; he donated a number of letters, newspaper clippings, and articles to the museum. At the National Anthropological Archives, John Beckman and Leanda Gahegan were particularly helpful in identifying and copying the William Myer material discussed in several chapters. Jovanka Ristić (National Geographical Society) located and scanned the Beers and Lanagan map.

Gary Barker (Tennessee Department of Transportation) tracked down the original copies of the circa 1983 topographic maps of Pinson Mounds and graciously allowed me to borrow and scan them. Billie Barton, Lane Beck, Ken Hartsell, Bill Lawrence, George Shannon, Parris Stripling, Jack Tyler, Rick Walling, and Beth Williams served as supervisors during fieldwork. Mike Moore (director, Tennessee Division of Archaeology [TDOA]) granted permission to reproduce some photographic images that were published previously in TDOA monographs. Suzanne Hoyal (TDOA) has been very helpful in providing information from the Tennessee state site file.

Charles Faulkner (emeritus, University of Tennessee) granted permission to reproduce the article that appears as Appendix 2 and has always been very supportive of various projects that Kwas and Mainfort have been involved in. Susan Estelle Kwas, Andrew Mickelson, and Angie Payne contributed some outstanding graphics and digital renderings to this volume.

Lynne Sullivan and Bobby Braly located and provided digital copies of various old photographs that are reproduced here. Richard Faust and Richard Vernon (U.S. National Park Service [NPS], Southeast Archeological Center) provided documents and photographs pertaining to sites managed by NPS. Patricia Kervick and Jessica Desany (Peabody Museum of Archaeology and Ethnology) located and made digital copies of the two earliest known photographs of Pinson Mounds.

Most of the research materials used in preparing this volume are curated by the Tennessee Division of Archaeology (Nashville and Pinson Mounds State Archaeological Area, Tennessee State Parks (Pinson Mounds State Archaeological Area), and the Special Collections Department of the University Libraries, The University of Memphis.

Thanks to David Anderson, Sam Brookes, Martin Byers, Mary Kwas, Charles McNutt, Andrew Mickelson, and Buzz Thunen, who read all or nearly

all of the original manuscript. Ian Brown, Jarrod Burks, Michael Glascock, N'omi Greber, Ken Kvamme, and Mark Seeman read one or more chapters each. All made useful suggestions, not all of which were heeded. Other professional colleagues who contributed to the research reported herein include Dean Arnold, Jim Brown, Jimmy Griffin, Marvin Kay, Dan Morse, Bruce Smith, Jim Stoltman, and Steve Williams. Finally, a special note of gratitude to Nathan Brazil and Hari Seldon.

Pinson Mounds

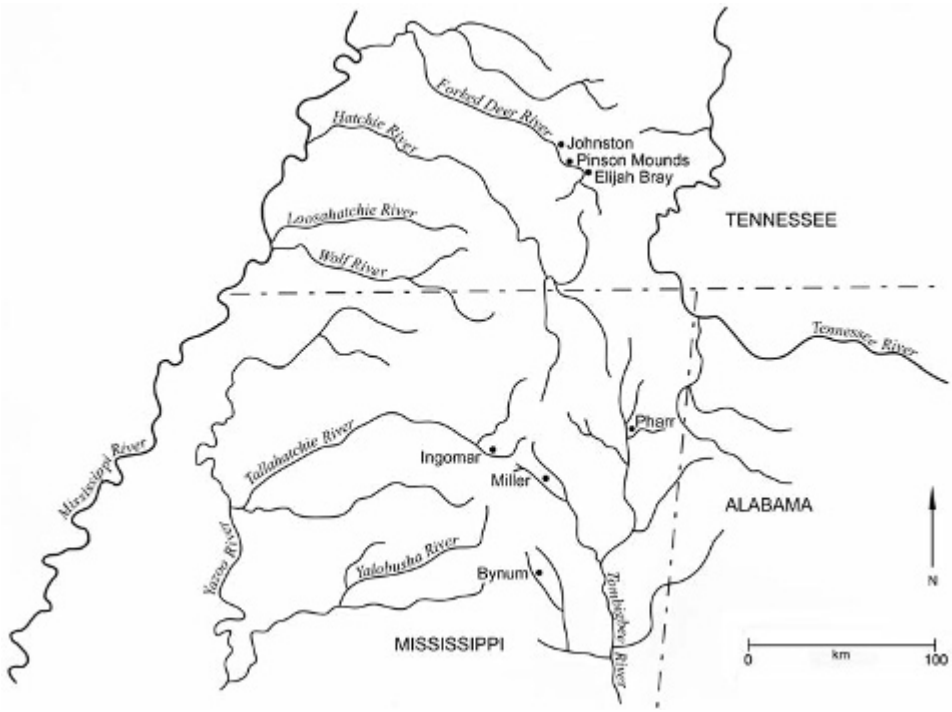

FIGURE 1.1. Location of Pinson Mounds.

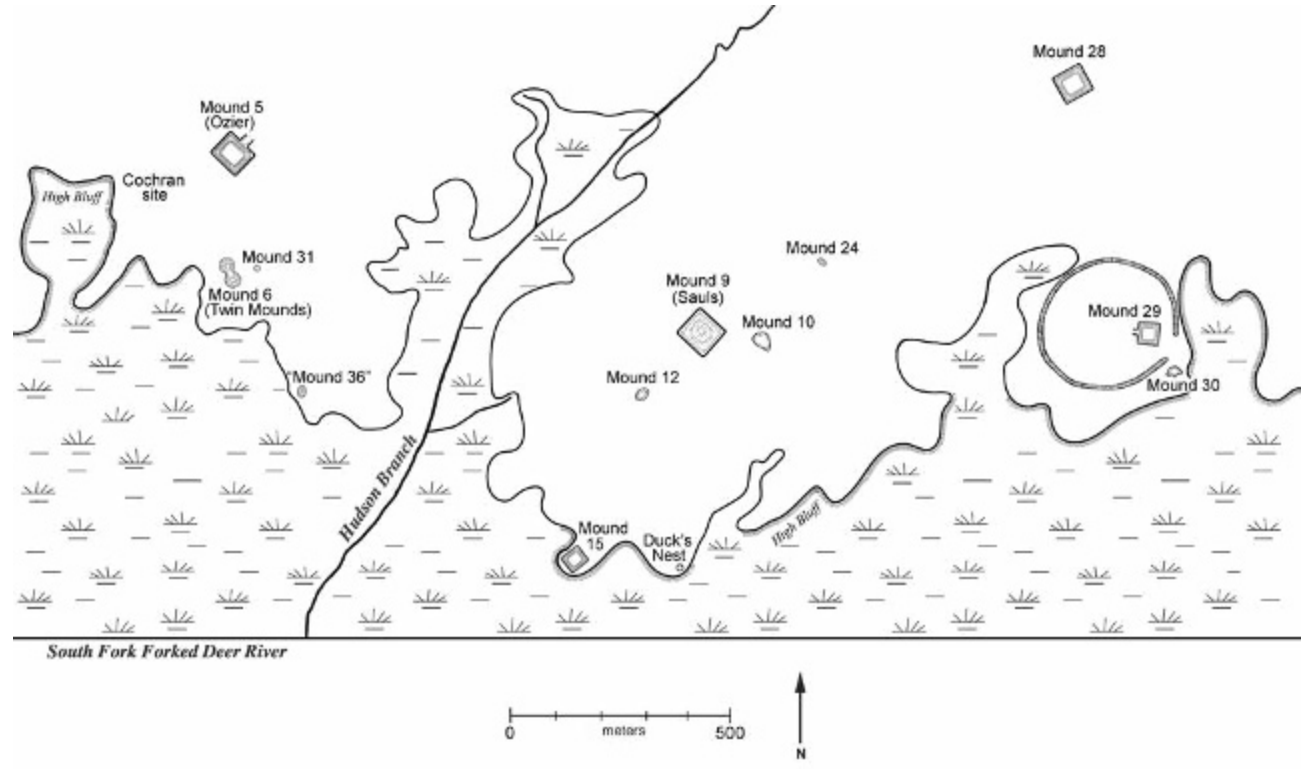

FIGURE 1.2. The Pinson Mounds complex.

CHAPTER 1

Pinson Mounds and Its Setting

It is hard to realize that in the State of Tennessee ruins of a great ancient walled city with outer defenses measuring fully six miles in length, with elaborate outer and inner citadels, with 35 mounds of various sizes, should have remained almost unknown beyond the bare fact that near the little railroad station of Pinson, in Madison County, there were some mounds and inclosures.—William Myer, 1922

The Pinson Mounds Complex

Pinson Mounds is located in West Tennessee,[1] about 15 km south of Jackson, in Madison and Chester Counties (Figure 1.1). Included within the Pinson Mounds complex are at least 13 mounds, a geometric earthen embankment, and contemporary short-term ritual-activity areas (Mainfort 1986a, 1988a, 1996a) (Figure 1.2). The mound group covers about 160 ha (400 acres), an area over three times that ascribed to the Hopewell site (Squier and Davis 1848:26–29) and twice that of the large Mississippian site of Moundville (Knight and Steponaitis 1998:3). Among Middle Woodland mound complexes outside Ohio, only the Mann site (Ruby 1997, 2006) encompasses a greater area.

As detailed by Kwas (1996, this volume), in 1917 William Myer, an archaeologist affiliated with the Smithsonian Institution, contracted with a local surveyor to map several mound sites in Madison County, including Pinson Mounds. The resulting map portrays 34 possible mounds (one south of the South Fork Forked Deer River) and an extensive series of earthen embankments surrounding and within the site complex (Myer 1922). Modern investigations (Mainfort [ed.] 1980; Mainfort 1986a; Morse 1986) have demonstrated that many of the alleged mounds are natural rises and that most, but not all, of Myer's "breastworks" represent flights of fancy (Kwas and Mainfort 2007; Mainfort 1996b; Mainfort et al. 2011, this volume), although new geophysical technologies may yet discover no-longer-visible features (e.g., Burks and Cook 2011). Myer also missed at least two earthworks—a mound southeast of the Twin Mounds (Morse 1986:99; Figure 1.2) and a possible embankment or mound west of Ozier Mound (Mainfort 1996b:119).

Located at what often is perceived as the "center" of the mound complex (e.g., Figure 2.2), the largest mound, Mound 9 or Sauls Mound, stands about 22 m (72 feet) tall and is about 100 m in diameter (Figure 1.3). There is no indication of a ramp (Mainfort 1986a:4). A topographic map prepared by the Tennessee Department of Transportation aerial survey team shows that Sauls Mound is actually rectangular in plan view (Figure 1.4). The relatively small top is unusual, but probably reflects its aboriginal appearance (see Kwas 1996:87–88, this volume). Construction of Sauls Mound entailed the excavation, transport, and redeposition of approximately 60,500 m^3 of soil (Shenkel 1986:214). A 23 m soil core section, taken to the base of the mound in 30 cm increments, did not reveal any definable summits and little evidence of definable construction stages in general,

but this may be because the core was obtained near (perhaps within) a historic disturbance on the east side (see Kwas 1996:88–90; Morse 1986:112).

Most people cannot really comprehend the amount of dirt used in constructing large earthworks such as Sauls Mound. Some years ago, Rick Shenkel (1986:220) came up with a sensible and clever unit of measure to express mound volume within the realm of modern experience, namely "dump truck kilometers." This term refers to the length of a line of bumper-to-bumper, average-sized dump trucks needed to transport a given volume of mound fill. In the case of Sauls Mound, the line of trucks would be 42 km (26 miles) long.

Archaeologists and the general public are perhaps even more intrigued with the amount of time required to construct mounds and embankments (e.g., Craig et al. 1998; Pluckhahn 2003:193). The work of Erasmus (1965) and, more recently, Muller (1997:273–275), and Bernardini (2004:340) provide useful baseline figures for making reasonable estimates. In his often-cited paper, Erasmus (1965) reported that using a digging stick, a worker could excavate as much as 2.6 m^3 of soil during a five-hour workday. This figure is highly suspect because it was a projection based on only 30 minutes actual work and the workers were paid incrementally for the amount of soil excavated (Erasmus 1965:285). Using modern contractors' figures, Muller (1997:273–274) estimates that a figure of about 1.25 m^3 per workday is more reasonable. These figures suggest that it took between 23,269 and 48,400 person-days simply to excavate the earth used to construct Sauls Mound. Then there is the issue of transporting the excavated material to the construction site. Bernardini (2004:340), citing published figures, reports that a cubic meter of soil can be transported 50 m in about 1.5 person-hours. The borrow areas used while constructing Sauls Mound have not been identified conclusively, but a likely source for some of the fill is about 200 m south of the large earthwork. Using this distance, transport of the soil would require 72,600 five-hour person-days. Adding this figure to the time needed to excavate the earth results in an estimate of 100 people working between 959 and 1,210 five-hour days. Such estimates,

FIGURE 1.3. Sauls Mound, circa 1915. View to south. © Presidents and Fellows Harvard University, Peabody Museum, 2004.29.2397.

however, can only address the issue from the perspective of a modern construction engineer and ignore the care and ceremony often involved in selecting and depositing fills used in constructing earthen monuments (Anderson 2012; Sherwood and Kidder 2011).

Two much smaller mounds were constructed near Sauls Mound. About 100 m to the east is Mound 10, a small, oddly shaped platform mound that was tested in 1982, and Mound 12, a small burial mound (Broster et al. 1980), is located 200 m southwest (Figure 1.2). Mound 24, 200 m to the northeast, may be a constructed earthwork, though more excavation is needed to ascertain this (Broster et al. 1980:37–38).

Mound 15, one of five rectangular platform mounds (including Sauls Mound) at Pinson Mounds, is located about 580 m southwest of Mound 9 within a small peninsula above the South Fork Forked Deer River bottomlands (Figures 1.2 and 1.5). The base of Mound 15 measures about 50 m square—about the same as the base of Mound 29. A small, circular embankment designated the "Duck's Nest" was constructed near the edge of the bluff about 400 m south of Mound 9 (Figure 1.2). William Myer (1919, 1922, 1923) did not record this earthwork, which was tested in 1963 and 1982 (Mainfort 1986a; Morse 1986; chapter 5, this volume).

Mounds 28 and 29, two large rectangular platform mounds, are located east of Sauls Mound at

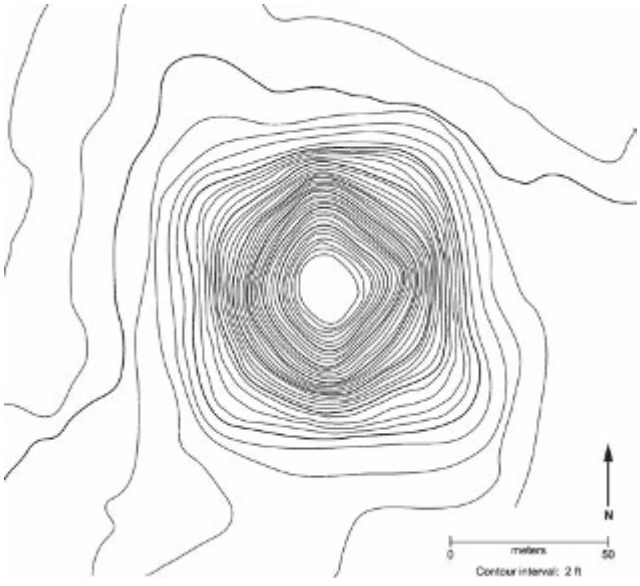

FIGURE 1.4. Topographic map of Sauls Mound.

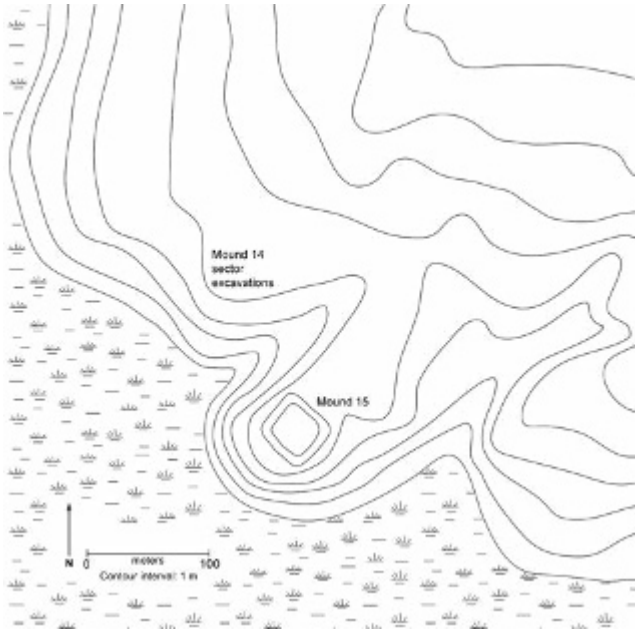

FIGURE 1.5. Mound 15 and surrounding area.

distances of about 1020 and 1010 m ("center to center"), respectively (Figure 1.2). Mainfort's (1986a:4) statement that "the placement of these earthworks can scarcely be attributed to chance and implies the contemporaneity of Mounds 9 [Sauls], 28, and 29" is both unsubstantiated and naive. *No* mound locations, anywhere, were selected by mere chance. Mounds played vital roles among the societies that built them, and their locations were chosen with care (e.g., Bradley 1993:44). But that is quite a different matter than Mainfort's (1986a:5) notion of a "site plan" in which Mounds 28 and 29 supposedly mark two "corners" of the Pinson Mounds complex. As to the contemporaneity of Mounds 9, 28, and 29, although this is likely true in a general sense (i.e., all were built between about A.D. 1 and 300), there is no supporting excavation or radiocarbon evidence.

Mound 28 is nearly square in plan view, with a base measuring about 67 m on each side (Figures 1.6 and 1.7). An auger test indicated that its height is about 3.35 m, but there was no evidence of the sand-covered summits seen elsewhere at Pinson Mounds. Mound 28 contains approximately 12,855 m^3 of fill (Shenkel 1986:214). No excavations have been conducted at this large earthwork.

Situated within the earthen enclosure (Figure 1.2), Mound 29 is a good bit larger than reported by

FIGURE 1.6. Mound 28. View to northeast.

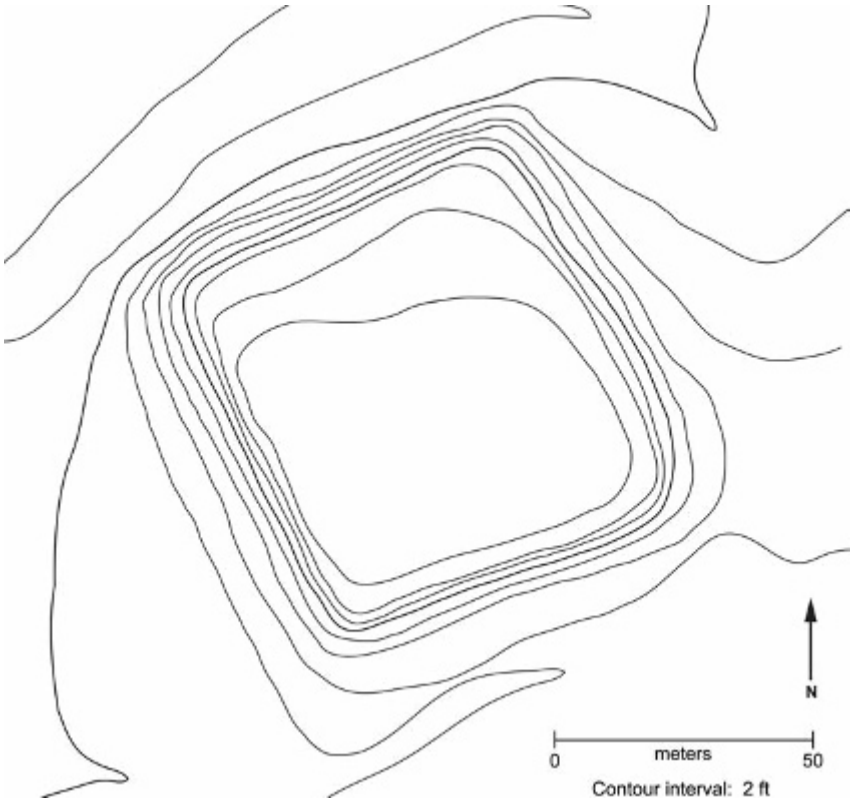

FIGURE 1.7. Topographic map of Mound 28.

William Myer (n.d.; chapters 3 and 6), with basal dimensions of about 49 m by 51 m. Test excavations (Morse 1986:114–117) revealed that the height is about 3.6 m and that Mound 29 was constructed in at least two stages. The initial summit, about 1.8 m below the present mound surface, is covered by pale yellow sand similar to that used on the summits of Ozier Mound.

The earthen embankment that surrounds Mound 29, Myer's "Eastern Citadel," is about 363 m in diameter and surrounds an area of about 6.7 ha (16.5 acres) (chapter 6). Sadly, nearly a third of it was destroyed by erosion and cultivation between the time of Myer's visits and 1941. The Pinson enclosure is one of a modest number of Middle Woodland geometric embankments in the Midsouth and Lower Mississippi Valley (see chapter 8). Myer (1922) interpreted Mound 30, located southeast of Mound 29 near the edge of the bluff above the river bottomland, as a bird effigy. It is more likely to be a burial mound, and its odd shape may be the result of fairly recent erosion (Morse 1986:100; see chapter 6). Mound 30 is about 2 m tall and 24 m in diameter.

West of Sauls Mound are at least four mounds (Figure 1.2), including one or more not recorded by Myer (Mainfort 1996b:119; Morse 1986:99), and a ritual activity area designated the Cochran site (Broster et al. 1980:31–36). A ramped rectangular mound with a height of about 10 m, Ozier Mound (Mound 5) is the second largest mound in the Pinson group (Figure 1.8). Its volume is about 25,900 m^3, less than half that of Sauls Mound and twice that of Mound 28 (Shenkel 1986:216). Excavations conducted in 1981 and 1989 are described in chapter 4, as are excavations at two burial mounds in the vicinity. The "Twin Mounds" (Mound 6), a pair of large, conjoined burial mounds about 200 m to the south (Figure 1.9), were partially excavated in 1983. Just to the east of the northern Twin Mound is the small, conical Mound 31, tested in 1963 (Morse 1986) and extensively excavated in 1981.

It is likely that the modern conception of the Pinson Mounds complex encompasses what the Middle Woodland pilgrims likely viewed as two (or more) "sites," or if not distinct sites, certainly as separate ritual precincts. The mound complex is divided

FIGURE 1.8. Ozier Mound, spring 1963. View to southwest. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

FIGURE 1.9. Twin Mounds, spring 1963. View to east. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

physically into eastern and western portions by Hudson Branch, a small stream that has downcut an area over 200 m wide, with a bank 2 to 10 or more meters tall (Figures 1.2 and 1.10). Along with the attendant vegetation, this presents a formidable barrier between the western and eastern portions of the mound complex. Ozier Mound, the Twin Mounds, Mound 31, and one or more additional mounds are located west of Hudson Branch and comprise the western ritual precinct.

The Eastern Citadel area occupies a small peninsula of land that is surrounded on all but part of the north side by deep ravines and bluffs. This physical separateness suggests that the embankment and adjacent mounds constitute a second distinct ritual precinct within the Pinson Mounds site.

Another obvious candidate for ritual precinct status is Sauls Mound and the surrounding area, which includes Mounds 10 and 12, as well as some non-mound areas that are linked to ritual use. The Duck's Nest and Duck's Nest sector, Mound 15, and Mound 28 are all spatially separated from other mounds and may also have been viewed as ritually distinct loci.

In some past publications (e.g., Mainfort 1986a:5, 1988b:135) I suggested that mound placement indicates a high degree of site planning, with Sauls Mound at the "center" of the site, Mounds 28 and 29 at the northeast and southeast "corners," respectively, Mound 15 in the southwest corner, and Ozier Mound occupying the northwest corner. This suggests a degree of formality in architectural layout that simply does not exist (for comparison, see Knight 1998), all the more so if Ozier Mound and the Twin Mounds, as well as the embankment area, are viewed as separate ritual precincts. Moreover, the suggestion was premised in part on the untenable assumption that "Most, if not all, construction of the major mounds was completed during the first century A.D."

(Mainfort 1988b:145; see Mainfort and McNutt 2004; chapter 7). That said, mound locations certainly were chosen with care and the selected localities were appropriate to accomplishing the goals of the rituals in which they played a part.

Environment

The mound complex is situated on one of the rare expanses of relatively flat terrain that overlooks the floodplain of the South Fork Forked Deer River (Figure 1.11). The South Fork is the longest of the three major forks of the river, and Pinson Mounds is located about 160 river miles from the mouth of the Forked Deer, which empties into the Mississippi River about 80 km north of Memphis. Prior to channelization in 1914 (Fasken 1963:14, 18; *contra* Smith 2000:29; Speer et al. 1965:H8) (Figure 1.12), the South Fork Forked Deer River was a low-gradient meandering stream. "Before this region [West Tennessee] was deforested, these rivers and streams flowed with good depth all year round" (Ashley 1910:12), and in the 1820s the South Fork was navigable at least as far as Jackson (Abbot 1905:447; Benyaurd 1881:1492; Bergland 1886:1367; Goodspeed 1887:801; Thomas and Baldwin 1856:688; Willard 1887:1482). Major deforestation of the adjacent, tillable uplands was well underway by the mid-1800s and continued apace, causing severe erosion, channel infilling, and sedimentation throughout the floodplain. By the late 1800s, the South Fork and other rivers in West Tennessee had become sluggish, sediment-choked streams that regularly overflowed their banks for extended periods (Hidinger and Morgan 1912; Morgan and McCrory 1910; Simon 1989).

Ecologically, Pinson Mounds lies within the transitional zone between the West Tennessee Uplands and the West Tennessee Plain (Stearns 1975:5–7), which

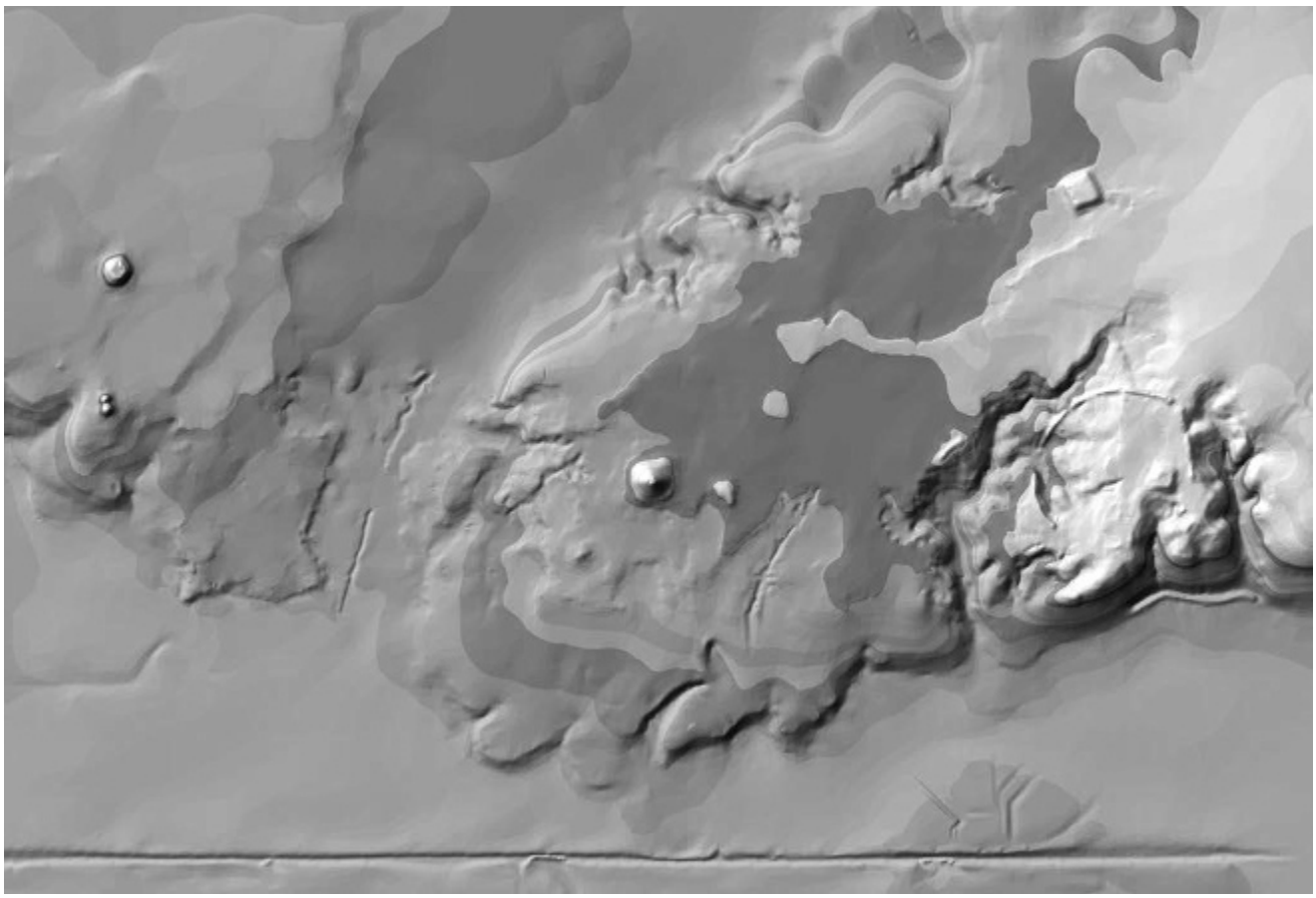

FIGURE 1.10. Digital surface model of the Pinson Mounds complex. Original image by Andrew Mickelson.

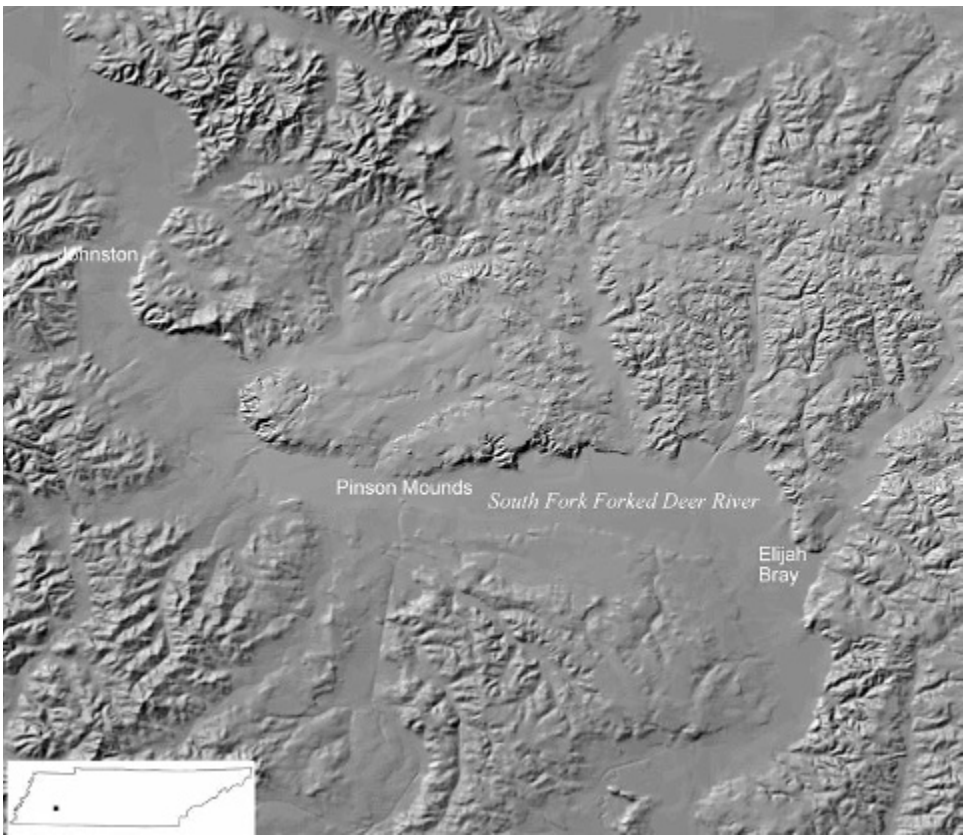

FIGURE 1.11. Hillshade image of Pinson Mounds and vicinity.

FIGURE 1.12. South Fork Forked Deer River near Henderson, Tennessee, 1916. From *Flow of Water in Drainage Channels,* by C. E. Ramser, Technical Bulletin 129, U.S. Department of Agriculture, Washington, D.C., 1929.

are subunits of the Gulf Coastal Plain (Braun 1950; Fenneman 1938; Miller 1974). This area also is referred to as the North Central Hills (Parks 1975:B6). Braun (1950:157) classified the region as western mesophytic forest, a combination of mixed mesophytic taxa from the east and oak-hickory taxa from the west. Dice's (1943:16) Carolinian Biotic Province, characterized by a rich and varied fauna (Cleland 1966), encompasses most of western Tennessee, including Pinson Mounds. The modern climate of western Tennessee is temperate, albeit with pronounced seasonal variations in temperature and precipitation. There is a minimum of 200 frost-free days per year (Brown et al. 1978:49; Springer and Elder 1980:6–7).

Throughout the areas selected for mound construction at Pinson Mounds, the associated soil is the well-drained Lexington silt loam, 2 to 5 percent slope (Brown et al. 1978:12–13; see also Lyman et al. 1906, who identify soils in the western portion of the mound complex as Memphis silt loam). To the detriment of archaeological preservation this soil type is acidic, easily worked, and prone to erosion. The Johnston mound group, a Middle Woodland platform mound site that may be antecedent to Pinson Mounds (Kwas and Mainfort 1986; see below), is located about 6.5 km northwest of Pinson Mounds in a setting virtually identical to that of the latter site, including the local soil. Obviously, those who selected the locations for these sites were concerned with at least three variables—the particular segment of the South Fork Forked Deer River, a setting immediately above the bottomlands, and level terrain. It is unlikely that the soil type was preferred because of its suitability for cultivation of the weedy annuals planted by Woodland (and earlier) peoples (*contra* Mainfort 1986a:1), which will grow almost anywhere.

Below the Quaternary surface soils, Pinson Mounds is underlain by the Upper Cretaceous McNairy Formation, which in southeastern Madison County includes materials comparable to the Owl Creek and Clayton Formations (Hackley et al. 2006:19; Russell and Parks 1975:B8, map insert; see also Lloyd and Lyke 1995; Parks and Carmichael 1989). Specific designation aside, a key characteristic of these formations (as well as the Paleocene and Eocene formations that outcrop to the north and west) is that they comprise interbedded layers of clay and sand (see Fischer and McNutt 1962:1). Some examples of this interbedding were exposed during excavation of the submound burial pits beneath the Twin Mounds (chapter 4), where the variegated sand and clay lenses easily could have been mistaken for very sandy mound fill if not for their preconstruction context (see Brown et al. 1978:13, 45; see also www2.ftw.nrcs.usda.gov/osd/dat/L/LEXINGTON.html [accessed April 22, 2009]).

The sandy character of soils throughout the West Tennessee clay and sand belt (Stearns 1975:5; see also Lyman et al. 1907:692), including the Pinson Mounds area, makes them prone to excessive erosion, and deep gullies formerly were common within abandoned croplands (Maddox 1915; see also Safford 1884:430 and Saucier 1994:71–71). Earthwork construction at Pinson Mounds, particularly along the bluff line (i.e., Mounds 15, 29, and 30), had the potential to destabilize soils in the vicinity, but it appears that the builders took some care to ensure that this did not happen.

A number of commercial-grade clay deposits are located in the general vicinity of Pinson Mounds. Geologically, the most impressive of these is the "greatest known outcrop thickness of Porters Creek clay in Tennessee" (Whitlach 1940:240), located about 1 km west of the mound complex. Broster and Schneider (1977:60) state that Middle Woodland people in the vicinity of Pinson Mounds used Porters Creek clay extensively for the production of ceramic vessels. Although this was a reasonable supposition, compositional analysis of sherds and raw clay samples (Mainfort et al. 1997:47; Stoltman and Mainfort 2002:8) show that Middle Woodland potters used neither Porters Creek clay, nor the commercially utilized clays of the Holly Springs formation, found in the vicinity of the Pinson community farther to the west (Whitlach 1940:283–285). Successful firing of these clays requires much higher temperatures than those that can be achieved by prehistoric open-air firing.

The source of the clays used prehistorically in the Pinson Mounds area has not been determined. Although backswamp clays, such as those exploited by prehistoric potters in northeast Arkansas (Morse and Million 1980:15-3–15-8), probably were rare in bottomlands along the Forked Deer River in the early 1900s (Lyman et al. 1907:696; Oswalt and King 2005:80; see also Nelson 1911:25), by then the character of the floodplain had changed markedly from its condition in presettlement times, including the deposition of several feet of sediment from upland runoff (Ashley 1910:12; Bazemore et al. 1991; Wolfe and Diehl 1993). Buried presettlement alluvial deposits along the Forked Deer River, including the South Fork, contain a fair amount of clay (Russell and Parks 1975:B7, B33, map insert; Wolfe and Diehl 1993:7) that presumably would have been available to prehistoric potters. Moreover, Ramser (1929:29; see also Fasken 1963:14) reported the occurrence of "heavy clay" in 1916 near the bottom of the dredged channel of the South Fork a few kilometers southeast of Pinson Mounds. Thus, it seems fairly likely that clay was

readily obtainable from the floodplain along the South Fork Forked Deer River prior to circa 1825. Some deep soil cores collected along the channelized course of the river would provide evidence to test this supposition.

In the vicinity of Pinson Mounds there are three distinct topographic and physiographic zones (Broster and Schneider 1977). These are the floodplain of the South Fork Forked Deer River; the mixed beech-oak slopes bordering the floodplain; and the oak-hickory uplands, on which the site is located. Broster and Schneider relied on modern species composition to characterize these zones, as did I (Mainfort 1986a:1) in the 1986 site monograph. Below I will offer some comments on presettlement forest conditions in the Pinson Mounds area, though these may be viewed more broadly as characteristic of much of the West Tennessee plain.

The land comprising West Tennessee was not surveyed under the authority of the General Land Office (GLO). Though the early (circa 1820) surveyors apparently kept some records in the fashion of their GLO counterparts (Howard 1883b), they were not as detailed and systematic (Howard 1902), and none of the records have been located to date. Instead, the discussion below draws on a variety of previously underutilized historical sources. Discussion begins with the bottomland/floodplain, followed by the slopes/bluffs, and the uplands.

Like other rivers in West Tennessee (Shankman 1996:217), the South Fork Forked Deer River has a floodplain some 3 to 5 km wide and formerly was "subject to overflow at all times of the year" (Nelson 1911:2). This made it nearly impossible to raise crops in the floodplain (Cooper 1908; Hidinger and Morgan 1912:231), much of which was covered by an extensive swamp (Shankman and Smith 2004:33; see also Glenn 1915:60).

In his landmark *Geology of Tennessee*, Safford (1869:115) observed that the rivers of West Tennessee "are long and sluggish, and have wide bottoms, filled with heavy timber. The Bald Cypress, (*Taxodium distichum*,) with its curious *knees*, is very common." Writing a few years later, Killebrew (1874:89) mentioned the abundance of tupelo (*Nyssa aquatica*) in swampy areas throughout West Tennessee, but also noted that "on the river banks there is very fair cypress" (Killebrew 1874:1134). Gattinger (1901:25) reported: "In the cypress swamps and boggy lowlands [of West Tennessee] we find the planer tree, or water elm (*Planera aquatica*); the cypress (*Taxodium distichum*), the stateliest of our timber trees; the Swamp locust (*Gleditschia monosperma*); the tupelo gums (*Nyssa sylvatica* and *Nyssa aquatica*); the Swamp white oak (*Quercus bicolor*)."

Given these early observations, it is predictable that in the early 1900s, swampy bottomlands of the South Fork Forked Deer River in Madison County, Tennessee, were "covered with a heavy growth of timber," primarily oak, beech, black and sweet gums, cypress, and tulip poplar (Lyman et al. 1907:697; see also Hall 1910:23, 30; Hupp 2000:1211; Nelson 1911:2–3; Oswalt and King 2005:79; Safford 1884:430). The oaks, beech, and tulip poplar would have occupied natural levees and the slopes on the margins of the floodplain. Channelization has changed hydrology, which in turn has altered modern bottomland forest composition (Hupp 1992; Shankman 1996; Simon and Hupp 1992; Wilder and Roberts 2005). A "concentration of charred nuts and seeds" associated with the floor of an early Mississippian house at Pinson Mounds (Fischer and McNutt 1962:5) confirms the presence of oaks (*Quercus sp.*), American beech (*Fagus grandifolia*), and sweetgum (*Nyssa sp.*) in the general vicinity of the mound complex at circa A.D. 1050.

To reach the mound complex from the floodplain requires ascending gently to steeply sloping bluffs averaging about 10 m high, with the height increasing to the east. These bluffs are (or were) dissected by a number of tributary streams and springs that flow into the South Fork along its course. American beech is especially numerous along these slopes, but red oak, white oak, black walnut, and bitternut hickory also are common. Although the prominence of beech often is a product of historical disturbance (Franklin and Kupper 2004; Signell and Abrams 2007:152), various historical accounts suggest that this species was well represented in the presettlement forests of West Tennessee (Hall 1910:30; Lyman 1907:698; Manning 1903:30; Safford 1869:114; see above).

Perhaps the earliest record of upland forest composition in the Obion-Forked Deer drainage of West Tennessee appears in Calvin S. Jones's 1820 journal

that he kept while surveying lands for the University of North Carolina. Jones evidently did not travel along the South Fork Forked Deer River at this time, but in the uplands above the Middle Fork, about 40 km north of Pinson Mounds, he observed red oak, hickory, and dogwood, adding that there was "not much under growth" (Jones 1783:12). Red oak (probably *Quercus rubra*) was the dominant tree, with lesser numbers of hickory (probably *Carya tormentosa*) (Jones 1783:13). Similar forest flora was present to the north along the Rutherford Fork of the Obion River (Jones 1783:30, 33). Jones (1783:12–15) also notes the infrequent occurrence of white oak (probably *Q. alba*), sassafras, black walnut, and chestnut. Again, undergrowth was sparse (Jones 1783:12). The forest species composition reported by Jones is compatible with Oak-Hickory forests as described by Braun (1950) and Kuchler (1964), which were established in upland areas throughout the Midsouth by circa 2000 B.C. (Delcourt and Delcourt 1981, 1985).

Reporting over half a century later, Killebrew (1874:1134) noted that "Oaks are plentiful all over the country [Madison County], and there was formerly much good poplar, but it is becoming scarce. There is also plenty of good hickory." Benyaurd (1881:1491), an engineer who was specifically referring to lands along the South Fork Forked Deer River, reported that "White oak, ash, poplar, chestnut, and hickory predominate." Again, the reported composition suggests an Oak-Hickory forest.

The more hilly upland areas in Madison County, Tennessee, such as the area northeast of Pinson Mounds, retained their presettlement forest cover into the early 1900s. At that time, the tree species consisted "mainly of white, red, and post oak, with some beech, chestnut, and sweet and black gum" (Lyman et al. 1907:695). Commenting on forests in the same setting, Hall (1910:30) identifies post (*Quercus stellata*), black jack (*Q. marilandica*), scarlet (*Q. coccinea*), and Spanish (*Q. falcata*) oaks, as well as pignut hickory as the most common trees. Such compositions fall within the range of variability for an Oak-Hickory forest and reflect somewhat poorer soils.

Excavations at the Oliver site, located in the uplands about 130 km northwest of Pinson Mounds in Obion County, Tennessee, produced archaeobotanical remains that reflect the presence of an oak-history forest circa A.D. 1000 (Shea and Mainfort 1994:167–169). The wood fragment assemblage is overwhelmingly dominated by oaks (*Quercus* sp.) and hickories (*Carya* sp.), with the former slightly more numerous. Ash (*Fraxinus* sp.) is much less numerous, but far outnumbers any other minority tree genera, which include beech (*Fagus grandifolia*), honey locust (*Gleditsia triacanthos*), and maples (*Acer* sp.). The species composition is broadly consistent with the historical accounts cited above. The absence of tulip poplar (*Liriodendron tulipifera*), impressive stands of which were located in the vicinity of the Oliver site circa 1870 (Killebrew 1874:1150), is noteworthy and may reflect prehistoric Native American preference for hickory and oak. A much smaller archaeobotanical sample from 40GB42, a floodplain site about 80 km northwest of Pinson Mounds that was occupied primarily between about 2000 B.C. and A.D. 1, is broadly comparable to that from the Oliver site, with oaks a strong dominant, followed by hickories (Lawrence et al. 1994).

The ecological setting of Pinson Mounds is not unique or even somewhat unusual. Comparable ecology and topography exists along all the rivers and major streams in West Tennessee, including the Chickasaw bluffs that bound the east side of the Mississippi River valley. Certainly, the area was fairly rich in key food resources utilized by prehistoric Native Americans, but no more so than any other tract of land located along a major river in West Tennessee. Ecology cannot be invoked successfully as an explanation for the specific location of Pinson Mounds.

Cultural Setting

Site surveys in the Forked Deer River drainage (Broster and Schneider 1977; Jolley 1984; Smith 1979), including an intensive survey in the more immediate vicinity of Pinson Mounds (Nelson 1982), have recorded many sites of probable Middle Woodland age (see also Mainfort 1994:16). The interpretation of these sites as Middle Woodland is based primarily on the presence of sandy-textured ceramics similar to those found at Pinson Mounds. Based on surface indications, these could be characterized as hamlet-sized (cf. Mainfort 1996b:83), suggestive of a dispersed settlement pattern similar to that associated with Ohio Hopewell (Dancey

1996; Dancey and Pacheco 1997; Pacheco 1996), but two factors severely compromise any attempt to interpret the extant survey data. First, there is essentially nothing known about Late Woodland ceramics in the West Tennessee interior (Anderson 1987; Mainfort and Chapman 1994a, b; Smith 1996). At this point, it appears that either much of the entire region was essentially uninhabited after circa A.D. 400 (Mainfort 1994:16; Smith 1996:109), or that many of the sandy-textured (with or without clay particles in the paste) cordmarked ceramic sherds from the area are of Late, rather than Middle, Woodland age. Second, none of the Woodland habitation sites in the region have been excavated, so nothing is known about site structure, subsistence, or seasonality. Thus, there is presently no basis for discussing Pinson Mounds within the context of regional Middle Woodland settlement. That said, even with far richer data, the relationships between Ohio Hopewell earthwork sites and habitation sites remain problematic and contentious (e.g., Byers 2004; Dancey and Pacheco 1997).

Unlike southern Ohio or the lower Illinois River valley, there are very few mounds of demonstrable Middle Woodland age in West Tennessee (see Rolingson and Mainfort 2002:28; cf. Smith 1979:3, 1996; Suzanne Hoyal, personal communication, 2009). In fact, the only two unequivocal examples are located near Pinson Mounds along the South Fork Forked Deer River. These are the Johnston and Elijah Bray sites.

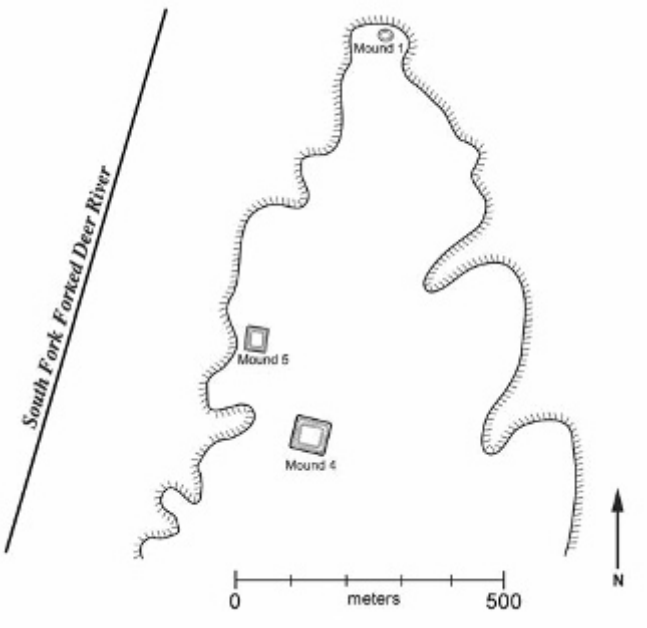

FIGURE 1.13. The Johnston site. Mound numbers follow draft map by E. G. Buck (Kwas and Mainfort 1986:Figure 2).

The Johnston site is located 5.5 km northwest of Pinson Mounds, specifically of Ozier Mound. Like its larger neighbor, this mound complex occupies a fairly level tableland some 20 m above the floodplain of the river. The north end is defined by a lower bluff that rises above an unnamed stream (Kwas and Mainfort 1986).

Within an area of about 30 ha are two flat-topped rectangular mounds, a small conical burial (presumably) mound, and associated short-term occupation areas (Figure 1.13). As shown on a map of the mound complex that was drafted by E. G. Buck (Kwas and Mainfort 1986:Figure 2), several more conical mounds may once have been present. William Myer (1923) reported the existence of two lengthy, parallel earthen walls, 60 m apart and extending about 670 m north-south (Kwas and Mainfort 1986:34). They were less than a meter tall circa 1820 (Haywood 1823:160–161), and there was little evidence of them circa 1917 (Myer 1923:637). No trace of these walls was visible in the 1980s, and their existence is questionable (Kwas and Mainfort 1986:35). No comparable features have been documented at any other Middle Woodland site.

The most prominent architectural feature, Mound 4, is a rectangular platform mound about 6 m tall and 60 m square, that is larger than most of the earthworks at Pinson Mounds. Northwest of Mound 4 and near the bluff edge is a smaller flat-topped mound (Mound 5), approximately 3 m tall, with sides about 42 m long at the base. At the extreme north end of the site is a conical mound (Mound 1), roughly 2 m tall and 15 m in diameter. Buck's map (Kwas and Mainfort 1986:33) shows a "graveyard" east of Mound 5. The artifacts Myer reports from this locality (Myer 1923:642–643), which include an "earthenware vessel shaped like a squash," may be of Mississippian age. There have been no professional archaeological excavations at the Johnston site.

As at Pinson Mounds, artifact density is very light at the Johnston site. All recorded ceramics are sandy-textured wares identical to those from the former site, i.e., Furrs Cordmarked, Baldwin Plain, and Saltillo Fabric Impressed (Kwas and Mainfort 1986:36; Smith

1979:89). Notwithstanding the possible Mississippian cemetery, no shell-tempered sherds have been collected at the Johnston site. In contrast to the ceramics, the small collection of identifiable points, which includes four Pickwick variants (Figure 1.14), is markedly different than the point assemblage from Pinson Mounds, which is dominated by Middle Woodland stemmed variants. If the specimens are coeval with mound construction, the Johnston site may have been constructed prior to Pinson Mounds (Kwas and Mainfort 1986:39), but until targeted excavations emphasizing datable samples from appropriate contexts are undertaken, this scenario will remain speculative. The Johnston site is now owned by the State of Tennessee and is managed as a subunit of Pinson Mounds State Archaeological Area, which may facilitate research.

The proximity of Pinson Mounds and the Johnston site, as well as their location along a particular segment of the South Fork Forked Deer River, indicates that this area was very important to Middle Woodland people for many generations. Why it was is unknown and perhaps unknowable. Some general physical parameters can be identified—relatively broad expanses of slightly undulating tableland elevated above the river bottoms (see Figure 1.11). These may represent *some* of the criteria used in site selection, but other localities in the Pinson Mounds area share these qualities, as do many others along major rivers throughout West Tennessee. Circa A.D. 1 there was a very special perceived quality of this limited area that made it the appropriate place to construct Pinson Mounds and the Johnston site. Purely functional assessments of site location choice will fall far short of the mark.

Another Middle Woodland mound site near Pinson Mounds is the Elijah Bray group (Myer n.d.:614), which is located about 8 km southeast on a small, somewhat hilly peninsula of land near the confluence of Clarks Creek and the South Fork Forked Deer River (Figure 1.11). The site includes two conical mounds (presumably mortuary) and a light scatter of occupation debris within an area of at least 4 ha (10 acres) (Figure 1.15). Mound A is the larger, with a height of about 5.5 m and a diameter of 20 m. It occupies a higher elevation (by about 6 m) than the smaller mound. Mound B, located a short distance southeast of Mound A, stands about 3 m tall and is 10 m in diameter. Both earthworks have been damaged, Mound A by pothunters, Mound B by construction of a storm cellar. Nothing is known of the contents of either mound, but the small surface collections from the site area and artifacts in private collections are sufficient to identify the site as Middle Woodland.

Although the Elijah Bray mound group is fairly

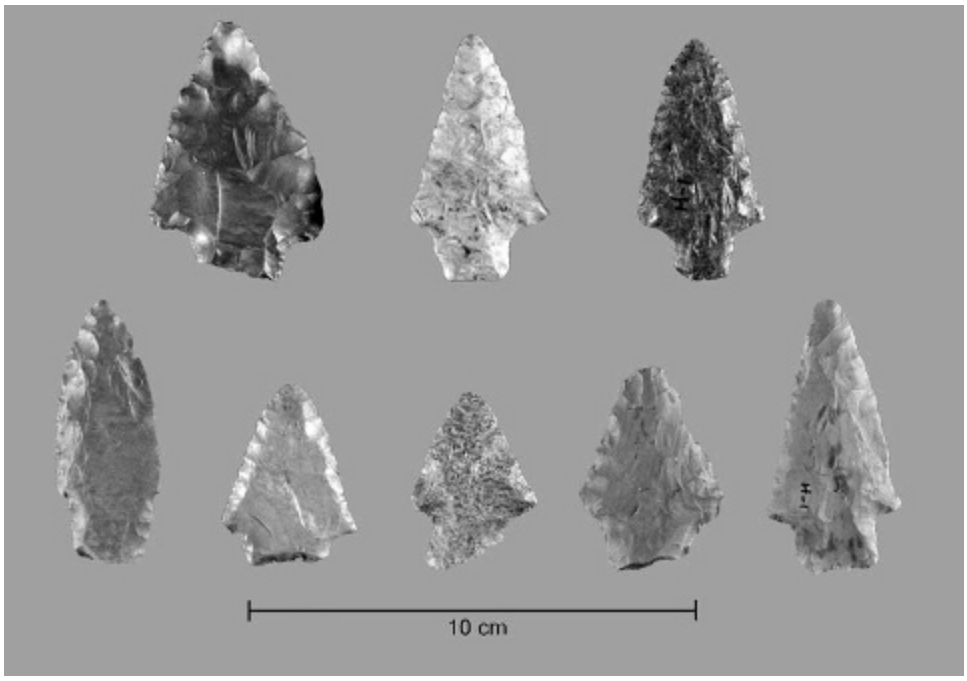

FIGURE 1.14. Lithics from the Johnston site.

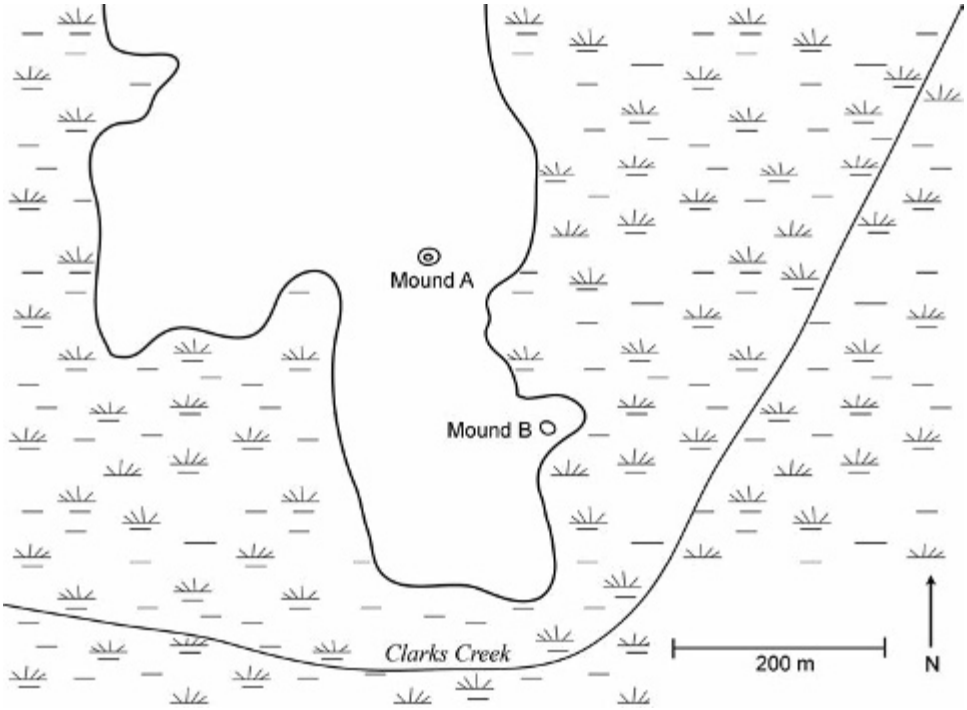

FIGURE 1.15. The Elijah Bray mound group.

small and lacks platform mounds, it seems incontestable that the site is linked to both Pinson Mounds and the Johnston site to the northeast. Its presence serves to underscore the importance of a short stretch of the South Fork Forked Deer River to Middle Woodland people. This calls to mind Bradley's (1993:44) cogent observation that "All monuments were built in places, and many of these places were selected precisely because they already enjoyed special significance."

History of Investigations

As detailed by Kwas (1996, chapter 2), the first published reference to Pinson Mounds appeared in 1823 and other references, some obscure, were published sporadically during the next hundred years, but the mound complex is conspicuous in its absence from the landmark publication of Cyrus Thomas (1894). William Myer's (1922) article, which included the beautifully drawn "City of Cisco" map (see chapter 3), brought Pinson Mounds to the attention of professional and avocational archaeologists, but this publicity apparently did not spark research interest in the site. Although Pinson Mounds seemingly would have been an excellent candidate for excavation under the New Deal program (Lyon 1996) and was visited by some archaeologists during this period (Douglas Osborne,[2] personal communication, November 2, 1986), no work was conducted. It was not until the early 1960s that the first systematic evaluations of Pinson Mounds were undertaken. This work was spurred by the efforts of local citizens, many of them avocational archaeologists, to have the State of Tennessee purchase the site and develop it as an archaeological park (Kwas 1997; Appendix 2).

In December 1961 Charles McNutt and Fred Fischer, both affiliated with the University of Tennessee, spent three days at Pinson Mounds, inspecting the mound complex, making surface collections, and conducting a small test excavation. Although they concluded, quite correctly, that "Middle Woodland occupations were responsible for most, if not all, of the impressive earthworks at the Pinson Site" (Fischer and McNutt 1962:11), their test excavation exposed part of a Mississippian wall-trench house (see discussion of radiocarbon assays in Faulkner [1967]). This structure seemingly caused many archaeologists to overlook the overwhelming evidence of Middle Woodland affiliation and to assume that the large plat-

form mounds were of Mississippian age (e.g., Faulkner 1972). In fact, the house (and there may be a few others nearby) seems to represent an isolated farmstead.

In 1963 the National Park Service allocated funds for the University of Tennessee to conduct more intensive investigations at Pinson Mounds. In March and April of that year, Dan Morse directed a three-week program of survey, mapping, and test excavations (Morse 1986; Morse and Polhemus 1963). Morse and his crew tested Mounds 15, 29, 30, and 31, the earthen enclosure, the Duck's Nest, some of Myer's (1922) putative "breastworks," and several off-mound locations. Like Fischer and McNutt (1962), Morse concluded that "Marksville Hopewell was responsible for the construction of most of the earthworks present at the Pinson Mounds Site" (Morse and Polhemus 1963:58), although he believed that Mounds 5 (Ozier) and 9 (Sauls) were Mississippi period earthworks (Morse 1986:117; Morse and Polhemus 1963:60). Morse chose not to publish his findings because of his legitimate concern that doing so could lead to pothunting (Kwas 1986a:97). Unfortunately, this deprived the archaeological community of evidence indicating that large flat-topped mounds were constructed during Middle Woodland times.

By 1974 the State of Tennessee had purchased the land encompassing Pinson Mounds and development of the long-sought state park was imminent (Kwas 1997; Appendix 2). In that year John Broster, regional archaeologist with the newly created Tennessee Division of Archaeology, initiated a two-year research program at Pinson Mounds, during which he conducted excavations at several important localities within the mound complex (Broster and Schneider 1976; Mainfort [ed.] 1980; Mainfort et al. 1982). During the first year Broster tested an area east of Ozier Mound, the area just south of the Twin Mounds (previously tested by Morse), an area northeast of Mound 12, and the Mound 14 sector (an unsuccessful attempt to relocate the wall-trench house). The following year, Broster partially excavated Mound 12 and opened a block excavation west of Ozier Mound in an area designated the Cochran site. Importantly, Broster obtained the first Middle Woodland radiocarbon assays from Pinson Mounds. The substantive results of Broster's work are discussed, with revised interpretations, in subsequent chapters.

My own involvement with Pinson Mounds began inauspiciously in June 1978 when, at the direction of the state archaeologist, I monitored initial preparation for the construction of roads and a large interpretive facility. Within minutes of starting initial clearing, heavy equipment exposed a number of prehistoric features at the locality selected for the interpretive center, which corresponded to Myer's Mound 11. I persuaded the construction crew to cease, and some months later the Tennessee Division of Archaeology conducted limited salvage excavations at this and other localities (Toplovich 1980). The cost to the state in delays and relocating the site of the interpretive center was considerable and avoidable.

By late fall 1980, the interpretive center, which housed a large archaeology lab, offices, photo lab, drafting room, curation and equipment storage areas, was basically complete, and I began serving as regional archaeologist for West Tennessee. Thanks to the vision of Walter Criley (director of Planning and Development, Tennessee Department of Conservation), funds were available to conduct three seasons of excavations at Pinson Mounds, two with considerable help from Memphis State University summer field schools. I published a comprehensive monograph on these investigations in 1986. The resulting data receive a major reworking in this volume.

During the summers of 1986–1989, Buzz Thunen conducted investigations in the Eastern Citadel area as part of his dissertation research (Thunen 1990). He published a useful summary some years later (Thunen 1998), and Buzz, Andrew Mickleson, and I present a revisionist perspective on the enclosure and associated mounds in chapter 6.

With funding from the National Geographic Society, in 1989 I directed more extensive excavations on top of Ozier Mound (Mainfort and Walling 1992). This work is revisited in chapter 4.

Parts of the Pinson Mounds complex are being lost to erosion. In 1993 I directed a Memphis State University field school in the "Mound 14 sector," along the bluff line immediately south of the long-lost wall-trench house (Broster et al. 1980; Fischer and McNutt 1962; Morse and Polhemus 1963), which I relocated during the project (Norton and Mainfort 1993). Unfortunately, the records and most of the artifacts remain unanalyzed for a variety of reasons, but

Marvin Kay has conducted a detailed study of use wear on the large sample of chert bladelets found during the excavations (Kay et al. 2003).

Other excavations have been conducted at Pinson Mounds since my departure for Arkansas in late 1994, but the results have not been published. Mark Norton (1997) tested a mound southeast of the Twin Mounds, confirming Morse's (1986:99) earlier impression that the landform was, in fact, a mound. In 1999 Middle Tennessee State University conducted a field school in the loblolly pine nursery southeast of Ozier Mound (frank.mtsu.edu/~soc/anthropology/pinson/index.html [accessed December 7, 2009]). The exposed soil deposits have been interpreted as representing the remains of a platform mound; the on-line photographs portray soils quite unlike any mound fill reported at Pinson Mounds. I had no opportunity to view the excavations in person.

By the early 1990s, I had begun to question my earlier interpretations of site chronology (e.g., Mainfort 1996a), and with the help of Charles McNutt, I presented a major reevaluation of the Pinson Mounds radiocarbon dates and attempted to correlate them with dates from other mound sites in the region (Mainfort and McNutt 2004). In chapter 7, we raise questions about some interpretations and conclusions presented in that paper.

More recently, there has been some discussion about the veracity of various historical documents that describe earthen architecture at Pinson Mounds as it may have appeared during the first 50 years or so of settlement in the area (Kwas and Mainfort 2007; McNutt 2005, 2007). In the following chapter, Mary Kwas provides an authoritative historiographical analysis of these documents and places them in their context.

NOTES

1. Capitalization of "West Tennessee" is mandated by the Tennessee State Constitution.
2. In 1940, Osborne directed WPA excavations at the Obion site, Henry County, Tennessee (Baldwin 1992).

CHAPTER 2

Antiquarians' Perspectives on Pinson Mounds 2.0

Mary L. Kwas

From the time the first Euro-Americans set eyes on the mounds and embankments of Madison County, Tennessee, in the early 1820s, those prehistoric earthworks became a source of interest and speculation. Throughout the nineteenth century and into the early decades of the twentieth century, references to the earthworks near Pinson found their way into numerous archaeological and historical accounts, which included eyewitness reports, scholarly catalogs, and armchair musings. Many of the published accounts today are obscure, while other documents languished in archives and were never published. Bringing them to light not only allows researchers to see Tennessee's most outstanding archaeological site with the fresh eyes of first discovery, but also offers a richness to the interpretation of the site that should neither be lost nor overlooked.

This chapter is a revision of an earlier article published in *Tennessee Anthropologist* (Kwas 1996, with appendix by Mainfort 1996b) that was researched before the advent of the Internet. Not only has the Internet simplified contact with researchers and repositories, but the on-line posting of early documents, publications, and photographs, along with the utility of search engines, has made the process of identifying and locating nineteenth-century references and materials vastly more efficient. Thanks to the Internet, this revision includes additional lost references and a broader context on the early authors who wrote about Pinson Mounds.

The reasons for writing the original article remain valid for this revision. They are to (1) cite all known references to Pinson Mounds in early publications; (2) publish early archival accounts of Pinson Mounds, such as the primary documents by William E. Myer and civil engineer E. G. Buck; (3) untangle and correct garbled information in later published sources, such as the books of Samuel Cole Williams (1930) and Emma Inman Williams (1972) that became the popular sources for the history of Madison County; (4) provide biographical sketches of the authors of these accounts in order to understand their connection to the site and to archaeology; and (5) compare early descriptions of the mounds and embankments with archaeological observations made since the 1960s. Quoted extracts of early accounts retain the original spelling and punctuation, unless otherwise noted.

New to this revision is a more historiographic approach. The 1996 article provided detailed citations of early references to Pinson Mounds, but without providing much analysis or explanation of the accounts, assuming that other archaeologists would read them with the same understanding as the author. A less critical use of the sources (McNutt 2005) and

the subsequent responses (Kwas and Mainfort 2007; McNutt 2007) made evident the weaknesses in the first article and the need to correct the deficiencies. Prehistorians generally are not accustomed to working with early historical materials and thus may not realize the need for careful evaluation. Reading and assessing historical accounts is not straightforward; it requires skepticism and thoughtful interpretation of both the accounts and their contexts. Historical accounts require the same careful interpretation as any other kind of data.

Questions to consider are many. Is the account from an eyewitness or is it second-hand? If an eyewitness account, what are the qualifications of the observer? Was the person a trained archaeologist, a surveyor, a landowner? Are measurements an estimate or a true measure? If a measure of height, what is defined as the base? If a measure of distance, from what point on a mound (center, corner) is it taken? If the account is second-hand, is the author a respected scholar or an armchair antiquarian, and how good were the sources of either? And to what extent has any information been garbled, embellished, and incorporated into local lore? Quite simply, just because something is written or published does not make it so.

It is particularly difficult to align the earliest accounts of Pinson Mounds with features we know today. During the first years of settlement, much of the land was still overgrown with trees that obscured shapes, sizes, and linear distances, while agricultural practices over nearly 200 years may have obliterated smaller mounds and possible embankments. Only Sauls Mound, being more than twice as high as any other mound in the area, can be confidently identified in historic accounts. Even so, Sauls Mound is described as being anywhere from 70 to 150 feet tall (it is 72 feet tall), with a flat top from 20 to 60 feet across. If the published dimensions of this visually outstanding mound are that unreliable, very little confidence can be placed in the descriptions of any of the smaller earthworks.

A detailed description of the layout of Pinson Mounds and its setting is provided in chapter 1. In order to better match the historical accounts, however, the brief description that follows will focus on the features most noticeable to early observers and will include English rather than metric measurements.

Pinson Mounds Yesterday and Today

Pinson Mounds is located in Madison County, Tennessee, about two and a half miles east of the unincorporated town of Pinson and about eight miles south of Jackson. The mound complex sits on the natural bluff that runs along the South Fork Forked Deer River. Although estimates of up to 35 mounds and several miles of embankments had been made by early writers, archaeological research has confirmed 13 mounds and about 3,500 linear feet of a roughly circular embankment. Agricultural practices undoubtedly obliterated some features noted by earlier observers, but modern research suggests that many others were natural landforms enhanced by enthusiastic imaginations.

The mounds are designated by numbers assigned by William E. Myer (1922) on his published "City of Cisco" map (Figure 2.1). Although the map was not published until 1922, it has had a profound impact on later researchers, such that the individual mound numbers and tripartite mound-cluster names used today descend from Myer's designations. In addition, the historical accounts dating before 1922 have long been viewed within the context of whether they support or disagree with Myer's map. (The accuracy of the map is discussed in chapter 3). So, although the map chronologically should be placed later in the chapter, it is shown here.

The mounds cluster into roughly three groups, designated as the Central Mound Group (Myer's Inner Citadel), the Eastern Citadel (or Eastern Ritual Precinct), and the Western Mound Group (or Western Ritual Precinct).

The Central Mound Group is overshadowed by Sauls Mound (Mound 9), the tallest of the site at an impressive 72 feet and the second tallest mound in North America; its size made it worthy of note to antiquarians and travelers in West Tennessee. The mound is named for John Sauls, the last private landowner prior to state acquisition, whose family owned the land since the middle 1800s. Note that "Sauls" is not a possessive and is never correctly spelled with an apostrophe, although this is a common error in the literature. In some early accounts, Sauls Mound is referred to as the Murphy Mound, named for then-owner James Murphy, the husband of Arabella Sauls.

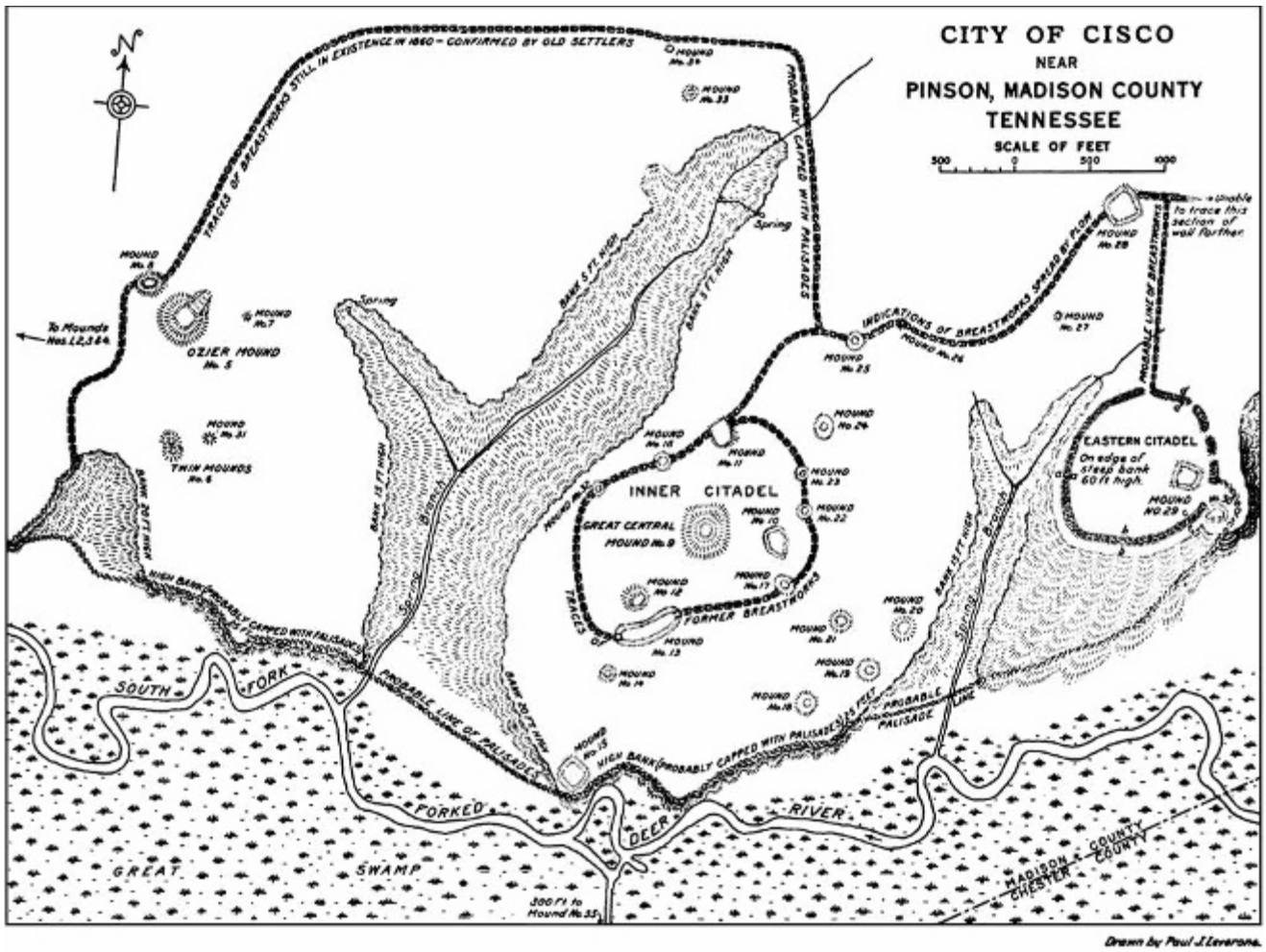

FIGURE 2.1. Map of the City of Cisco. From *Art and Archaeology* 14(3), September 1922.

John Sauls was Arabella's nephew (Watlington 1997:25–26). In other early accounts, Sauls Mound is called Mount Pinson, confusing it with a nearby natural hill of that name. Myer (1922) called it the Great Central Mound. The earliest measurement of the height of Sauls Mound, probably made about 1822, put it at 78 feet, but within a couple of years the height had been exaggerated to as much as 150 feet. Throughout much of the nineteenth century, consensus placed the height at about 90 feet, which is how it is shown on the 1877 Beers and Lanagan map. J. G. Cisco remeasured the mound in 1880, when it topped out at today's 72 feet. The modern height was determined by aerial photogrammetry and coring conducted in the 1980s (Mainfort 1986a:4). A couple of trial excavations in the mound in the nineteenth century probably affected its shape, creating the sloughing area along one side that now resembles a ramp, but it is unlikely that the excavations substantially decreased its height. Suppositions that Sauls Mound eroded since discovery are based on the exaggerated heights. The six-foot difference between the first measurement (if reported accurately) and the modern measurement can be explained by the uncertainty of what surveyors determined to be the actual base of the mound, but any designated height over 80 feet should be considered an exaggerated estimate, not an actual measurement.

Smaller mounds in the Central Mound Group include Mound 24, Mound 15, Mound 12, and Mound 10 (a teardrop-shaped, flat-topped mound). Some early accounts mention an embankment encircling Sauls Mound and including or connecting a number of other smaller mounds, which William Myer designated as the Inner Citadel. As no remnants of this earthwork remain today—and, notwithstanding Myer's published

map, were not visible at the time of his survey in 1917 (Mainfort et al. 2011, chapter 3)—it is difficult to know what early observers may have seen. In some cases, especially with second-hand accounts, authors may have confused and overlain the different features of the site, so that Sauls Mound is described as being within what sounds like the embankment of the Eastern Citadel. Because the soils found in West Tennessee are prone to erosion, soil conditions and agricultural practices may also have contributed to the buildup of embankment-like features. In an interview with landowner John Sauls in 1980, he described the practice, going back several generations, of soil banking along fence lines and ditch excavations to prevent erosion.[1] Other putative embankments are likely natural rises, as was discovered when testing Mounds 11 and 13. Since a geometric embankment does exist in the Eastern Citadel, however, others cannot be completely ruled out until multiple geophysical technologies have been used to examine the area (but see chapter 3, this volume).

About a half mile to the east of Sauls Mound is the Eastern Citadel (Thunen 1990, 1998; chapter 6), named for the geometric earthen embankment that encompasses about 16 acres. The name reflects the erroneous nineteenth-century interpretation of the embankment as defensive fortifications. For approximately 140 degrees of its diameter, the wall of this embankment forms a virtually perfect circle with a diameter of 595 feet, although when viewed from the ground it can appear square. The Eastern Citadel is the only embankment feature that exists at Pinson Mounds today. In the southeast quadrant of the area surrounded by the embankment sits flat-topped Mound 29 (about 11 feet tall). The remains of a nineteenth-century house were recorded on this mound (Morse 1986:114, 117). Just outside the embankment is Mound 30, thought by Myer (1922:142) and some later local residents to be a bird effigy. North of the embankment is Mound 28, another large flat-topped earthwork (also 11 feet high), which was called the Potato Mound by local residents because of the crop grown in it during the Depression years of the 1930s.

The Western Mound Group is located about a half mile to the west of Sauls Mound and has been part of the Tennessee Division of Forestry-Pinson Nursery since the 1940s. The second-tallest mound in the complex, Ozier Mound (Mound 5), is located here. This flat-topped, ramped mound is 33 feet tall and is named for the former landowner, Roy L. Ozier. It is often referred to in the early accounts as being "pentagonal." To the south are the Twin Mounds (Mound 6), an intersecting pair of burial mounds, 23 and 26 feet tall. Mound 31, a small conical burial mound, is nearby.

Discovery

Understanding the earliest reports about Pinson Mounds requires an understanding of the context of settlement in West Tennessee. The lands that make up West Tennessee were once part of the western territory of North Carolina, which was designated in the 1780s to be used for land grants for North Carolina's Revolutionary soldiers, and a land office was opened for entries under those acts.[2] In 1789 North Carolina ceded the territory of Tennessee to the United States, but retained the right to perfect the titles to the grants, which required surveying the lands. Seven years later, Tennessee was admitted to the Union, and thus began a long and complex battle between the two states over the rights to the military lands. Gifts of land to the University of North Carolina involved the university in the battle. Complicating the situation, the western part of Tennessee was recognized as belonging to the Chickasaw Indians until the treaty of 1818 in which the Chickasaws ceded all their lands east of the Mississippi River. This opened the floodgates for settlement, and by 1820 more than 100 surveyors were working throughout West Tennessee (Battle 1974:378–382; Hoyt 1914a:165).

In 1819 the trustees of the University of North Carolina appointed Judge Archibald D. Murphey to secure the interests of the university with the state of Tennessee. In his early forties, Judge Murphey was a well-respected attorney and jurist, and strongly supportive of public education. In 1821 the North Carolina General Assembly resolved that the university was to have any land warrants issued to soldiers who had died without legal heirs or legal proof of heirs, called *escheats*. Tennessee took exception to the resolution and shortly after a delegation that included Murphey arrived in Tennessee to confer with the

Tennessee legislature to settle the dispute. This became only the first of Murphey's numerous trips to Tennessee, including to the Western District. In the meantime, the university formed a Committee of Appointments, which included Judge Murphey and William Polk, charged with managing the university's claims in the western lands (Battle 1974:382–384; Hoyt 1914a:xxxii; Powell 1991:345).

North Carolinians had a great interest in the lands in West Tennessee. Not only did these new lands provide opportunities for farmers and planters, and those trades and professions that supported them, but even more for men with vision who could make fortunes in land speculation. Those willing to do the hard work of surveying and perfecting titles could acquire land to build a future. Men with connections, especially the sons and grandsons of North Carolina's politicians and wealthy elite, quickly found work and futures in the new land. Two such men formed the partnership of Hunt & Dickins and began no later than 1820 to put surveyors into the woods. Thomas Hunt, a physician, was the son of Memucan Hunt, a state senator and the first treasurer of North Carolina. Samuel Dickins (also spelled "Dickens"), the son of a partner in a mercantile firm, served in the North Carolina House of Commons as well as in the U.S. House of Representatives. Both men were in their early forties. In 1820 Dickins moved his family to Madison County, Tennessee, probably to manage the surveying operations from a local base, as Hunt remained in North Carolina. The partnership had already been doing work for the University of North Carolina, but in 1821 William Polk officially appointed Dickins to locate and sell lands for the university. His compensation for locating lands was 16 2/3 percent of the value of the lands, payable in land. The firm located over 300,000 acres, and Dickins's work for the university continued for many years. One of Hunt & Dickins's survey crews consisted of Memucan Hunt Howard (the nephew of Thomas Hunt), Samuel McCorkle, and Joel Pinson, among others (Battle 1974:38–386; Howard 1883b; Powell 1986:64–65, 1988:232).

In August 1821 Polk also contracted with Col. Thomas Henderson Jr., of Raleigh, to collect evidence regarding heirs to the military warrants and to oversee the processing of claims. Henderson, in his early thirties, was a well-respected businessman in Raleigh, a director of the leading bank, a state printer, and the editor of the *Star and North Carolina State Gazette*. He traveled to Tennessee with Judge Murphey as a member of the delegation meeting with the legislators. Payment for Henderson's services was one-half of the warrants, amounting to over 70,000 acres, part of which he paid to his subagents. He tackled the job in an efficient manner, and within two months he had completed his work for the university (Battle 1974:385; Powell 1988:107–109).

These were the men—Murphey, Hunt, Dickins, Howard, and Henderson—involved in the discovery and earliest reports of the mounds near Pinson, Tennessee.

MEMUCAN HUNT HOWARD

Memucan Hunt Howard (Figure 2.2) was just 21 years old in 1820 when he accepted the offer from his uncle Thomas Hunt to work as a surveyor locating land warrants in West Tennessee. It was physically hard labor that included living in the wilderness, but Howard kept at it for some 16 years. In 1883 when he was 84 years old, Howard wrote his recollections of the early days of West Tennessee for the Tennessee Historical Society at the request of former Tennessee governor James Porter. Howard's manuscript is now in the collections of the Tennessee State Archives and Library (Howard 1883a, 1883b). Almost 20 years after the writing, and some 15 years after Howard's death, a condensed and edited version of the manuscript was published in the *American Historical*

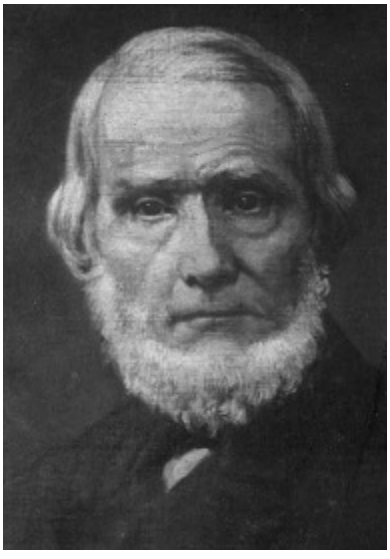

FIGURE 2.2. Memucan Hunt Howard. Tennessee Historical Society Picture Collection, courtesy of the Tennessee State Library and Archives.

Magazine (Howard 1902), which I cited in my earlier article (Kwas 1996:86). Howard's recollections were recorded some 60 years after their occurrence, and it should be no surprise if some of his details are muddled, but there is remarkable clarity in the account. Regarding the passage on the discovery of Pinson Mounds, the original manuscript is longer than the published version, providing additional details that further illuminate and answer questions. It is cited herein.

Howard's survey crew, headed by Samuel Dickins, crossed the Tennessee River into West Tennessee on April 24, 1820. The crew worked for several months until Dickins was stricken with a serious fever. Howard and Sam McCorkle stayed with the sick man for about week in a log hut, according to Howard (1883b), until Dickins "got over his fright and able to travel and left for Middle Tennessee never to take to the woods again, and left the labourious and rough business of the Company in my charge." Howard was not altogether accurate, as Dickins lived in Madison County in West Tennessee and continued as a hands-on surveyor for many years, as indicated by letters in the papers of Archibald Murphey (Hoyt 1914a), as well as Battle's (1974) history. It does, however, permit us to more closely place the time the survey party was in the Pinson vicinity. Howard says they had been working for several months, so it was likely August or September, which is corroborated by a letter from Herndon Haralson to Judge Murphey, written on September 24, 1820, in which Haralson states that he saw Hunt and Dickins on the Forked Deer River, and that Dickins "lies very sick, it is probable he has caught his Death by exposure this summer in surveying this new Country" (Hoyt 1914a:175–176).

As noted, Howard was left in charge of the survey crew, which included Sam McCorkle, Joel Pinson, James McDaniel, David Moore, and two packmen. After each warrant was surveyed, the accompanying entry had to include the number of acres, the district, range, and section, and an identifying feature by which it was named. Howard continues:

> On emerging from the swamp of the middle fork of the Forked Deer River, about a dozen miles above Jackson, when going South—to high land we came to a large bold spring of water and camped between it & a mound some six or seven feet high, and extensive enough for Houses & a small yard, and a large body of beautifull Rich level heavy timbered land adjacent to it, with which Pinson was so much pleased that some one of the company proposed to call it Mount Pinson; we did not see or know of the large mounds two or three miles further South for months afterward, but persons who had seen them supposing it was the large mound that we called Mount Pinson adopted that name as having been intended for it, and they have borne that name since. Pinson left soon after this he subsequently removed to Pontotoc Mississippi, or its neighborhood from Lincoln County Tenn.—he was an active sprightly agreeable gentleman. I saw the large mound a year or two later, supposed it to be about 70 or 75 feet high, and was nearly four hundred yards in circumference near it was a Square Mound (I think it was Square) about twenty feet high—smaller mounds dikes etc. abounded thereabouts. The land including the spring and low mound we had called Mount Pinson, was entered by Hunt & Dickins for Col. Thomas Henderson, who built & lived, and I supposed died on it, I was once at his House there. We soon learned that whenever we came upon a mound that there was almost certainly good land and constant running water near. (Howard 1883a:29–30)

This extract from Howard's original manuscript answers questions and provides insights that the published version does not. Here we learn why the mound complex was named for Joel Pinson even though he did not settle in the area. Because the surveyors were required to name each warrant based on an identifying feature, the mounds and high ground, combined with Joel Pinson's enthusiasm for the area, led to the name. Pinson, who was 34 at the time of the survey, lived in Lincoln County in Middle Tennessee where he was a partner in the mercantile firm of Pinson, Kincannon & Co. When the business failed in 1834, Pinson moved his family to Pontotoc, Mississippi, where he again did business as a merchant and a land agent, accumulating wealth and becoming a prominent citizen, known locally as Judge Pinson.[3]

As Howard explained, the site of Sauls Mound was *not* what the survey crew had found, instead it was a location with at least one smaller mound that became the property of Thomas Henderson. A further description of Henderson's homestead appeared in an 1826 letter to the *North Carolina Journal*:

> About one mile and a half from Mount Pinson, on the plantation of Col. Thomas Henderson, late of Raleigh, are two mounds about 60 yards apart, and about 5 feet high: one of which is 150 and the other 60 feet square. One of these is the scite [*site*] for his mansion-house: the other is

> within the enclosure of his garden, and upon which he is preparing a beautiful and picturesque summer-house. (Anonymous 1826)

The location of Henderson's homesite long remained a mystery, and it was suggested in my earlier article that the location might have been in the Eastern Citadel, because of the remains of a nineteenth-century house on top of Mound 29, or at the nearby Johnston site (Kwas and Mainfort 1986). Neither was correct. Thanks to the excellent detective work of genealogical researcher Jonathan Smith and civil engineer James Hanna, the site of Henderson's homestead has been relocated (J. Smith 2000). In addition, their research led to an understanding of the fluid nature of the name "Mount Pinson" and its multiple referents: (1) the Henderson homesite, (2) a high knob of land just south of the homesite, (3) a small community that formed at the knob of land, and (4) Sauls Mound. It is often difficult to determine in the historic record which of these four are intended when the term "Mount Pinson" is used.

The modern town of Pinson is located about eight miles south of Jackson, along U.S. 45. From Pinson, Ozier Road (formerly the Mt. Pinson–Mifflin Road) goes east across railroad tracks and across the South Fork Forked Deer River. The property that became Henderson's homesite was located just to the north of Ozier Road on the east side of the bluff line, while Mount Pinson hill was located just to the south of Ozier Road, also along the bluff line. Sauls Mound is about two miles further east of either location.

After the death of his father, Thomas Henderson decided to seek new opportunities in West Tennessee, so he sold his newspaper and brought an extended group of his family members from North Carolina to the 640-acre tract that became his Mount Pinson plantation. The group arrived in May 1823. Henderson quickly established himself, offering hospitality, hobnobbing with dignitaries, and making a brief foray into politics. He established a school—Mount Pinson Academy—near his land and partnered with Charles Slater in a general store at Mount Pinson hill. The store became the location for the first post office. Over the 12 years Henderson lived in the area, he lost his wife and overspeculated into bankruptcy. In 1835 he left Tennessee to join his brother in Alabama and died there the following year. The mounds that once stood on the property have been worn away by agricultural practices (Powell 1988:107–109; J. Smith 2000:6–18).

A small community of houses and commercial buildings grew up around Henderson and Slater's store at Mount Pinson hill. Nearby was a grist and sawmill, and a cemetery was established on the hill. The post office remained in the community until 1860, about the time the Mobile & Ohio Railroad came through, laying track west of the river and determining the location of the town of Pinson. Over the years the Mount Pinson community faded from memory (J. Smith 2000:19–29, 32–34). Mount Pinson hill still has a presence as a high knob on the bluff across from the town of Pinson. It is found by name on modern USGS topographic maps and is the site of a benchmark.

What this convoluted discussion indicates is that the location of "Mount Pinson" in historic accounts is not precise. From the very beginning, it referred to both Sauls Mound and the Thomas Henderson homesite. Not long after, it included a nearby hill and the village that grew there. Historic accounts rarely specify which location is meant. Locals might have known because of context, but outsiders were likely to be confused. This should be kept in mind when considering the early accounts that will be cited below.

Returning to Howard's reminiscences, the survey crew did *not* come out on the Middle Fork Forked Deer River, as both Pinson Mounds and the Henderson home site are located on the South Fork. This was just an error of memory, and it was edited out of the published version. Even though his crew did not actually discover Pinson Mounds, Howard did visit the mound complex a year or two later, in 1821 or 1822, and gave his description. He estimated the height of Sauls Mound to be between 70 and 75 feet, and since he was an experienced surveyor, this can be considered a credible estimate. He mentioned other small mounds in the area and embankments, which he called dikes, although he gave no details on how extensive they might be or where they were located. He also described a square mound, about 20 feet high. What he meant by "square" was probably one of the flat-topped mounds, although none comes in at 20 feet. Howard's recollection of the mound complex after 60 years was probably not precise, but the largest mound made an impression. Thus, Howard's account

provides the earliest estimate of the height of Sauls Mound by a person experienced in surveying.

JUDGE ARCHIBALD DEBOW MURPHEY

About the same time that Howard actually visited Pinson Mounds, Judge Archibald Murphey (Figure 2.3) was touring the area. As mentioned earlier, he came to Tennessee representing the University of North Carolina in their land claims, but like so many others, he also hoped to improve his financial circumstances through land speculation. In the first three weeks of July 1822, he traveled through West Tennessee, as he explained in a letter to Thomas Ruffin:

> Since I wrote to You last I have been through nearly one half of the Chickasaw Purchase. . . . I have travelled from the Kentucky Line Across the Country to the South Forked Deer, and everywhere seen beautiful Lands, and fine Crops.
>
> How I have overlooked my Chance here of making a Princely Fortune! Had I known a few Months Ago, what I know now, I could have been rich before this time. Col. Polk, Saml. Dickens, John McLemore, Colonel T. Henderson, and Genl. Bryant, will be as rich as I was. (Hoyt 1914a:244–248)

While in Madison County, Murphey apparently took time to visit the mounds and had Sauls Mound measured, probably by one of the survey crews working in the area. According to the letter in the *North Carolina Journal*: "The elevation of Mount Pinson . . . was taken by Judge Murphey, when he was in this country, and ascertained to be 78 feet" (Anon. 1826).

FIGURE 2.3. Judge Archibald D. Murphey. From *The Papers of Archibald D. Murphey, Vol. 2*, edited by William Henry Hoyt, North Carolina Historical Commission, Raleigh, 1914.

As was the case with many educated men of the time, Murphey was interested in the Native Americans. He planned to write a history of North Carolina, and his outline indicates that a section of the book was to be devoted to "Aboriginal History" (Hoyt 1914b:334–335), so it is not surprising that the mounds at Pinson caught his interest.

Unfortunately, I have been unable to locate any original letters or documents of Murphey's that record his measurements of Sauls Mound. Thus we cannot know from the third-hand account cited above if the information was relayed accurately to the correspondent, and if the newspaper correctly read and typeset the handwritten number. Nor can we know how the measurement was made. Even so, this represents the first formal measurement of Sauls Mound, with a height close to Howard's estimate and within six feet of the modern measurement.

JUDGE JOHN HAYWOOD

The earliest published reference to Pinson Mounds appeared in 1823 in *The Natural and Aboriginal History of Tennessee* by John Haywood (Figure 2.4). Haywood was born in North Carolina in 1762, the son of a tobacco farmer. He was the cousin of another John Haywood who would become the state treasurer of North Carolina and with whom he is often confused. Haywood had a brilliant mind, and after studying law on his own, opened a law practice and quickly rose to distinction, becoming a North Carolina Supreme Court judge in his early thirties. After damaging his reputation in defending a friend, Haywood moved to the vicinity of Nashville, Tennessee, about 1807. He reestablished a law practice, again quickly gaining distinction, and in 1816 was elected to Tennessee's supreme court (Irwin 1999:239–243).

In his late fifties, Haywood became interested in preserving the history of Tennessee. Educated men who settled in the new western states of the Ohio and Mississippi valleys, discovering the many earthworks left by the Native Americans, felt it their duty to record and preserve them for scientific study before they were destroyed by the plow or curious excavators. Two who shared Haywood's interests were George Tunstall, one of the editors of the Nashville *Whig*, and Ralph Earl, a portrait painter. In 1818 Tunstall and Earl founded a Museum of Natural and

FIGURE 2.4. John Haywood. Tennessee Historical Society Collection, courtesy of the Tennessee State Library and Archives.

Artificial Curiosities for the State of Tennessee. The following year Haywood published an early attempt at aboriginal history called *The Christian Advocate*, much of which wound up in his succeeding book. Tunstall and Earl joined with Haywood in 1820 to organize the Tennessee Antiquarian Society, and Haywood became president. The society had four areas of interest: education, general literature, antiquities, and history, among which were included zoology, geology, and paleontology. The members were assigned to collect materials and documents from all over the state. Haywood and Earl were most interested in antiquities, with Haywood concentrating on writing and Earl excavating mounds and gathering objects for his museum (Miles 1946:90–95).

In 1823 Haywood published his two-volume history, the first entitled *The Natural and Aboriginal History of Tennessee*, and the second, *The Civil and Political History of the State of Tennessee*. The works drew upon oral history of old pioneers, as well as records, letters, and personal papers that Haywood and members of the Antiquarian Society collected. Although Haywood's books have been criticized for inaccuracies in the details and credulousness in the oral traditions, his contributions have nonetheless led him to be recognized as Tennessee's first historian (Irwin 1999:246–247).

A description of Pinson Mounds was included in *The Natural and Aboriginal History*, within a section describing mounds throughout the state:

> On the South Fork of the Forked Deer River, in that part of the state of Tennessee which is between the Tennessee and Mississippi rivers, is the appearance of what the people there call an ancient fortification. It is 250 yards square. The wall is made of clay, and is now 8 feet above the common surface. Trees as large as any in the country, are growing on the sides and top of the wall. There is no appearance of any intrenchment. Within this wall is an ancient mound, 87 feet high by actual measurement. It is circular except the top, which is square at the sides, and level at the top. The top is 50 feet square. It is accessible only on one side. On the sides and edges of the mounds are trees as high and as large as any in the surrounding country; but no trees are immediately on the top. This mound is on the area within the wall, near the south side. Other small mounds of different sizes and descriptions are also within the enclosure. Without the enclosure and within a quarter of a mile, is a group of small mounds, one of which is of an oblong figure, about 50 feet in length, 15 or 20 in width, and from 12 to 15 in height. Two or three miles from this place is another walled enclosure, more spacious than the former, within which are mounds of different descriptions. There is no water within any of these enclosures; but some fine springs are near the first, and the Forked Deer is within 200 yards, where is a beautiful bluff. (Haywood 1823:146–147)

It is unlikely that Haywood visited the mound complex, rather, following his manner of researching, he received the information from an informant. This could have been anyone living in the area with whom he had contact, but probably the information came from Judge Archibald Murphey. Three months after Murphey returned from West Tennessee, Haywood sent him a letter requesting his assistance in compiling information for the book. He asked for copies of letters, titles of laws, information on limestone and volcanoes, and "all the natural and aboriginal phenomena which you have noticed" (Hoyt 1914:268–269). *If* the information came from Judge Murphey and *if* his measurement of Sauls Mound was correctly reported in the *North Carolina Journal*, then it appears that Haywood's described height of 87 feet was a simple typographical transposition of Murphey's 78 feet. Unfortunately, as Haywood's book was the first published source of information on Pinson Mounds and widely available, the erroneous height became set as fact.

Working from someone else's report and being unfamiliar with Pinson Mounds, Haywood might have confused and overlain two separate areas of the

mound complex. His description of the walled enclosure most closely matches that of the Eastern Citadel, based on the size of the embankment and the location of the mound within it. Even later researchers mistook the semicircular feature for a square (Morse and Polhemus 1963:13). It is Mound 29, however, that sits in the southeast quadrant of the area enclosed by the embankment, not Sauls Mound. The 12- to 15-foot mound within a quarter mile of the enclosure may refer to Mound 28, although since there is no "group of small mounds" near the Eastern Citadel today, Haywood might have been describing the cluster near Sauls Mound. The other walled enclosure two or three miles away is too far to be another area of Pinson Mounds and probably refers to a different site.

Haywood's account is important for being the first published, as well as the first to provide expanded details, but his errors muddied the waters. He seems to have conflated the location of the Central Mound Group, which includes Sauls Mound, with the mounds and embankment of the Eastern Citadel, leaving the question of an embankment around Sauls Mound unanswered. His misreporting of the height of Sauls Mound led to suppositions that it had lost height through erosion or excavation over the years, and it would take nearly 60 years before this error was corrected.

CONSTANTINE SAMUEL RAFINESQUE

About six months after the publication of Haywood's book, a fantastic reference to Sauls Mound was published in an article by Constantine Rafinesque (Figure 2.5), a brilliant but eccentric naturalist. Rafinesque was born in 1783 in Turkey, first came to the United States in 1802, and finally settled here in 1815, when he was in his early thirties. He widely collected plants and animals, publishing their scientific names, and was interested in river fishes, mollusks, meteorology, and linguistics. From 1819 to 1826 he served as a professor of botany and natural science at Transylvania University in Lexington, Kentucky, where he became interested in the area's prehistoric sites (Boewe 1993:752–753; Stout and Lewis 1995:83–85). He published an article in serial format on the mounds of Ohio in the *Cincinnati Literary Gazette* in 1824, in part to encourage the reporting of sites in Kentucky and Ohio. As an example of new discoveries, he noted:

FIGURE 2.5.
Constantine Rafinesque. From *Pioneers of Science in America: Sketches of Their Lives and Scientific Work*, by William J. Youmans, D. Appleton, New York, 1896.

> Before I came to Kentucky, hardly 25 sites and 100 monuments were known to be in this State, and my researches during 4 or 5 years have increased sixfold the number of sites and fivefold those of the monuments of Kentucky. I feel therefore no hesitation in asserting that there must be at least as many in Ohio. . . .
>
> But this does not apply to Ohio alone, as much may be performed in every other Western State, and even Western Sections of the Atlantic States; witness the 120 Forts! or monuments of the Kenhaway [*Kanawha*] Valley in Virginia, barely mentioned collectively by Madison: or the beautiful quadrangular pyramid 150 feet high! lately discovered on the Forkeddeer River in West Tennessee. (Rafinesque 1824:117)

Where Rafinesque came up with such an inflated figure for Sauls Mound is unknown. He likely would have had a copy of Haywood's book, but neither the height nor the description as a "beautiful quadrangular pyramid" suggests Haywood. If Rafinesque had seen the mound complex himself, a more detailed description including other mounds would be expected, so it seems his source may have been hearsay. Perhaps Rafinesque intentionally inflated the size of the mound to motivate a response from readers, for in the next paragraph he assures readers that he holds "no bad feeling against those who may correct my statements," and invites readers to contribute "additional or more correct information."

DAVID ANDERSON DEADERICK

When Herndon Haralson wrote to Judge Archibald Murphey in September 1820 about the Forked Deer River area in West Tennessee, he predicted that

"Thousands of people will move there this fall and Winter" (Hoyt 1914:175). Indeed, settlers flooded into the Western District seeking land and establishing plantations, and close on their heels came the merchants.

In the winter of 1825–1826, David Anderson Deaderick (Figure 2.6), then 28 years old and a member of a mercantile family from Jonesborough in East Tennessee, visited the Western District to scout out a location for a new store. He selected the town of Somerville in Fayette County and left the store under the management of his cousin William Anderson. Beginning in 1825 and continuing until his death in 1873, Deaderick kept a journal of his travels and observations. Like many other intelligent men of the period, he was interested in the Native American earthworks, and noted in his journal that he had "made a survey of a remarkable fortification, similar in character to those found so frequently in the western country" (S. C. Williams 1936:128–129). The site was located at Franklin on the Harpeth River and included ten mounds.

In August 1826 Deaderick returned to West Tennessee in the company of his brother-in-law, Dr. David Nelson, after the death of the cousin managing the store. Nelson was interested in moving to the district and purchased some 600 acres of land while there. On the way to Somerville, Deaderick and Nelson would have passed near Pinson, and they probably took the opportunity to visit the mound complex. Deaderick included a brief description in his journal:

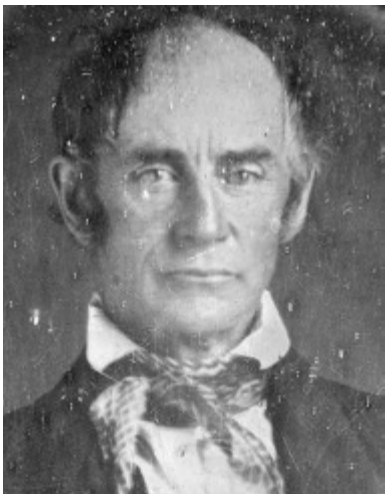

FIGURE 2.6. David Anderson Deaderick. Edith Scott Collection, McClung Historical Collection, courtesy of Knox County Public Library System, Tennessee.

> Many ancient mounds are found in the Western District of Tennessee. The largest of which I have any knowledge or perhaps the largest in any part of the West is situated on the South Fork of the Forked Deer river above Jackson in Madison county called Mt. Pinson. The largest mound is 72 feet high surrounded by many smaller ones. (S. C. Williams 1936:129)

When Deaderick refers to the mound as being "above Jackson," he does not mean the site is north of the town, but rather that it is *upriver* from Jackson. There is no indication nor reason to think that Deaderick had the mound measured, so presumably he got the height from a nearby settler. Although he notes smaller mounds around the large mound, it is particularly interesting that he does not mention any embankments.

NORTH CAROLINA JOURNAL

In the very same month that Deaderick was visiting Pinson Mounds, another writer sent a letter to the *North Carolina Journal* in Fayetteville, expounding on the advantages, conditions, and curiosities of the Western District. The letter was dated August 29, 1826, and was published a month later on September 27. The writer's name and town were not given, and the editor noted that it was an extract. As was typical for the times, other newspapers reprinted the letter, one such being the Greensborough, North Carolina, *Patriot*, in which version it became known to later researchers.[4] In my 1996 article, I refer to it as the *Patriot* letter. The original publication in the *North Carolina Journal*, however, was nearly twice as long as that printed by the *Patriot* and included a sentence about the author: "I have been settled in the Western District of Tennessee since last November, and business and curiosity have led me to view almost every part of it" (Anonymous 1826).

It is unfortunate that the author's name was not included, as his description of the mounds is both detailed and provides an important early observation. The fact that the author had business throughout the Western District suggests that he might have been a merchant, lawyer, or minister, rather than a farmer. It seems more than coincidental that this letter was written in the same month that Deaderick visited the mound complex, and it is likely that the writer accompanied Deaderick and may have been encouraged by

him to write his observations. Considering the date, one is tempted to believe that Deaderick himself wrote it, except that Deaderick remained a resident of East Tennessee.

Former newspaper editor Thomas Henderson would be a likely candidate, but he had settled in the Western District two and a half years before the November 1825 date provided by the author. A stronger candidate would be Atlas Jones. Jones was a North Carolina lawyer, planter, and trustee of the University of North Carolina, where for a time he served as tutor of ancient languages. His brother, Calvin, had been Henderson's partner in the newspaper and owned vast acreage in West Tennessee. After purchasing land along Butler Creek near Jackson, Atlas moved his family to Madison County; among them was his 11-year-old son, Pickering Jones, who figures later in this history (Haywood 1919:27).[5] Atlas's first letter to Calvin from Madison County, dated November 24, 1825, begins: "I arrived here a week ago after a journey of 43 days."[6] After getting settled, he planned to ride through the country to inspect Calvin's lands, a process he predicted would take three months. The following month he sent another letter to Calvin, dated December 8/9, 1825, in which he states: "I went to see Henderson and Mt. Pinson two days ago."[7] It seems likely in this context that "Mt. Pinson" refers to the large mound, which certainly would have been an attraction to a newcomer. Atlas clearly was in the right place at the right time. He had moved to Madison County in the month stated in the *North Carolina Journal* letter, had business throughout the Western District, and had visited the mound complex.

While it may never be possible to definitively identify the author of the letter to the *North Carolina Journal*, the description of Pinson Mounds he provided is intriguing nonetheless.

The first half of the letter discusses the towns, rivers, and agricultural products, before detailing the prehistoric sites. The account differs slightly from that of the *Patriot*, notably in some measurements:

> There are some artificial curiosities in this country, which are calculated to arrest the attention of the inquisitive traveler. They consist of mounds of earth, called here Indian Mounds. The most remarkable are Mount Pinson and those in its neighborhood, situated in a level country, from eight to twelve miles above Jackson, and from one fourth of a mile to one mile and a half from the Forked Deer. The elevation of Mount Pinson (as I was informed by a gentleman living near it) was taken by Judge Murphey, when he was in this country, and ascertained to be 78 feet. It appears nearly round towards its base, and is so steep, it is with difficulty that, by the help of trees and shrubs growing upon its side, one can ascend to its summit. The top of this mound is table land, 60 feet square. There are several others in this neighborhood of about one half the height of Mount Pinson, one of which has upon its top about one acre of table land. Several are denominated twin-mounds. These are united at the base, and are of a conical form, resembling two stacks of hay placed adjacent to each other. The summits of all these mounds, except the twin-mounds, are table land of a square or oblong form; and, what is very remarkable, the line by which they are bounded all vary exactly twenty-five degrees from the cardinal points. Upon the sides and tops of all of them are large trees, apparently the same age with the growth of the surrounding country. At the distance of about 150 yards from Mount Pinson, and at about the same distance from several other mounds, on every side the earth is raised about six feet high, in lines precisely corresponding with squares or oblongs upon their summits. In the middle of each of these lines an outlet or opening is left, about 10 feet wide, which suggests the idea of its having once been occupied by a gate. Near some of these outlets or gateways, within the lines, a mound is raised overlooking the inclosure or breastwork, like a watch-tower. All these things lead an observer to suppose that these may have been fortifications. (Anonymous 1826)

The account goes on to describe the Henderson homesite and general characteristics of other mounds in the district. It concludes with a speculation on which cultural group built the mounds—"Many other things also indicate that this country was once inhabited by people much farther advanced in the arts of civilization than the present race of Indians"—an opinion common among antiquarians of the day.

From the detailed description provided, including the method needed to climb Sauls Mound, this appears to be an eyewitness account. It is interesting both for what the author describes and what he omits. This is the first account to mention the two most prominent mounds in the Western Ritual Precinct: Ozier, which is described as being about half the height of Sauls Mound, and the nearby Twin Mounds. Mound summits described as "table land" refer to flat-topped mounds. This account also is the first to provide a detailed description of what appears to be embank-

ments around Sauls Mound and other nearby mounds. Yet, there is no separate description of the Eastern Citadel embankment, making it impossible to know if the features of the two mound groups might have been conflated. The author's specified distance of embankments from Sauls Mound at 150 yards, however, would put them in the area of Mound 10 (Figure 1.2).

What, then, did the author actually see? At the time of his account, West Tennessee had been open to settlers for only seven years. While the settlers certainly had become familiar with the features of their land during that time, it is likely that much of the acreage still remained wooded. Clearing of acreage was a slow and work-intensive process, slowed even more in the first year or two by the construction of a residence and outbuildings. A study of new settlement in the delta of the lower Mississippi Valley in the 1930s found that families purchasing 40 acres of cutover timberland were required to clear only five acres each year for the first three years as part of their purchase agreement (Jones et al. 1941:468, 471). Settlers in West Tennessee in the 1820s were purchasing large tracts of land, several hundred acres in size, and heavily wooded. So there would have been fewer people in an area to clear acreage with heavier tree covering, and using a more primitive technology to do so. Timber was viewed as the land's first commodity, according to letters from Atlas Jones in 1824 and 1825.[8] He also noted tracts of about 30 acres having already been cleared. Considering the hundreds of acres that the first settlers owned, however, this probably represents only a small fraction of the total land. Thus, a clear, bird's-eye view from the top of Sauls Mound would not have been possible. In addition to viewing mounds and possible embankments hidden in trees, the author did not test any features to determine which were manmade and which natural landforms.

The author was familiar with the discussion pertaining to Native American earthworks and artifacts, suggesting that he was both interested in the topic and likely familiar with published sources. Knowledge of the layout of earthworks in the Ohio Valley and Middle Tennessee might well have influenced his perception of the relationship between earthworks and natural landforms in the Central Mound Group.

Yet, the author's description cannot be dismissed out of hand. As early as 1820, Caleb Atwater (1820:142) warned of the ongoing destruction of the embankments at Circleville, Ohio. Just thirteen years later, in the preface to a volume that included a reprint of the earlier work, he lamented that much had been lost in the intervening years: "All the most important Ancient Works are either entirely or partly destroyed, and will soon be gone" (Atwater 1833:6). In 1848, Squier and Davis gave a similar warning in *Ancient Monuments of the Mississippi Valley* (1848:xxxix): "The operations of the elements, the shifting channels of streams, the levelling hand of public improvement, and the most efficient of all, the slow but constant encroachments of agriculture, are fast destroying these monuments of ancient labor, breaking in upon the symmetry and obliterating their outlines. Thousands have already disappeared, or retain but slight and doubtful traces of their former proportions."

Even more relevant may be the article by Stout and Lewis (1995) on the Canton Site in Kentucky, in which they compare drawings and descriptions made by the aforementioned Constantine Rafinesque, published in 1833, with the modern condition of the site. They found that numerous features that Rafinesque illustrated have been eroded, altered, or destroyed through the years by agriculture and building construction. Although, as with Pinson Mounds, it could not be determined if some features Rafinesque described actually were natural features rather than Native American constructions. Interestingly, however, all remnants of the embankments and many of the small mounds have completely disappeared.

These first accounts of the discovery of Pinson Mounds are important both for their details and the time of their recording. During these first seven years of settlement in Madison County, new landowners had time enough to explore and clear tracts of land sufficient to reveal the extent of Native American earthworks, yet not so long as to diminish them or plow them away. All of the eyewitness reports indicate the height of Sauls Mound—the most prominent on the landscape—to be between 70 and 78 feet, coinciding with the modern measurement of 72 feet. Anything taller comes from writers who did not visit the mound complex. While the circular embankment of the Eastern Citadel is still visible today and thus without question, none of the descriptions of embankments around Sauls Mound can be corroborated with

man-made prehistoric features that survive today. Thus, the validity of the embankments remains open to interpretation. It would be nearly 20 years when people again became interested in Pinson Mounds—and by then the mound complex would be changed.

Early Accounts

In the first half of the nineteenth century, archaeology as a scientific field of study did not exist. During what is termed the Speculative Period, intellectual interest in American antiquities was spurred by exploration and settlement in western territories, but its purpose was the publication of literary works, filled with armchair speculation rather than scientific inquiry about the origins of Native Americans. A large part of the debate centered on the identity of the builders of the mounds, with most people favoring an advanced civilization that had been destroyed by later savage Indians. Playing into this was the recognition that European settlement had displaced native peoples, which could be justified if natives were viewed as unworthy savages (Willey and Sabloff 1980:12–33). This kind of speculation is seen in the works by Haywood and the letter to the *North Carolina Journal* cited above, despite their contributions in reporting early observations.

Beginning in the 1840s and continuing into the early twentieth century, a shift in intellectual thought occurred that laid the foundation for what would become American archaeology. During this Classificatory-Descriptive Period, researchers sought to develop a systematic scientific discipline by focusing on "the description of archaeological materials, especially architecture and monuments, and rudimentary classification of these materials" (Willey and Sabloff 1980:34). Arising out of this were such noted works as *Ancient Monuments of the Mississippi Valley* by E. G. Squier and E. H. Davis (1848) and Cyrus Thomas's conclusive evidence that the builders of the mounds were the ancestors of modern Native Americans. Speculative thought and literature did not disappear in this period, but gradually moved away from the track of professional archaeology. Pinson Mounds is mentioned in accounts of both the scientific and speculative nature during this period.

It should also be understood that as time passed, the landscape in Madison County changed. Pinson Mounds was not yet preserved as a park, but rather was agricultural land subject to the whims and uses of private landowners. More and more land was cleared as the years progressed, both revealing the extent of the ancient earthworks, but also exposing them to damage. Acreage around and over the mounds was plowed and planted. Many of the smaller mounds lost height and definition through plowing, some disappearing altogether, while even the largest mounds were plowed and planted up the sides or on the top. Any prehistoric embankments that might have been present on the good agricultural land surrounding Sauls Mound were removed as impediments. Historic activities for creating drainage ditches, fence lines, and property boundaries left earthen features that could be difficult to distinguish from prehistoric embankments. As early as 1825, for example, Atlas Jones outlined plans in a letter for building a ditch and embankment to redirect a creek to his mill.[9] The accounts cited in this section cover a period from about 20 years to 50 years after discovery—one to two generations—so that what is known and what is remembered by local residents becomes blurred stories of the past.

GERARD TROOST

Nearly 20 years had passed from the *North Carolina Journal* letter before the next appearance of Pinson Mounds in print, in a short article on "Ancient Remains in Tennessee" by Gerard Troost (Figure 2.7), state geologist and Tennessee's "best-known antebel-

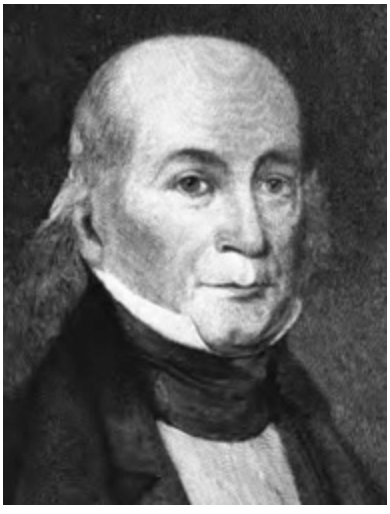

FIGURE 2.7. Gerard Troost. From *Pioneers of Science in America: Sketches of Their Lives and Scientific Work*, by William J. Youmans, D. Appleton, New York, 1896.

lum scientist" (Corgan 2008). Troost was born in the Netherlands in 1776 and was trained as a physician and pharmacist, but had wide-ranging interests that included geology, botany, zoology, and archaeology. He had a distinguished career in Europe before coming to Philadelphia in 1810, where he became the founding president of the Academy of Natural Sciences and served as a professor of pharmacy. Later he lived for a time at the communal experiment of New Harmony, Indiana. He arrived in Tennessee in 1827, at the age of 51, and the following year was employed as the professor of science at the University of Nashville, which position he held until his death in 1850. During his first five years in Tennessee, he ran the Nashville Museum of Natural History, which included his personal collections and probably the earlier collections of the Museum of Natural and Artificial Curiosities that had been founded by Ralph Earl and George Tunstall, contemporaries of John Haywood. By the end of his life, Troost's natural history collection contained 22,000 specimens and nearly 14,000 minerals. In 1831 Troost became Tennessee's first state geologist, which position he also held until his death (Corgan 2002; Miles 1946:91).

Prior to 1845 the secretary of the American Ethnological Society contacted the president of the University of Tennessee seeking information on Tennessee's aboriginal remains. The request was passed to Troost, whose response became an article published in the Society's *Transactions*. Troost admitted that the "investigation of the antiquities of our aborigines does not form my favorite occupation" (Troost 1845:356), but he went on to discuss burials, artifacts, human effigy figurines (which he called idols), and tumuli (or mounds), including Sauls Mound:

> We have many tumuli, and some remarkable ones, in our State. The oldest Indians know nothing about their construction. I have reason to believe they were constructed by the race who have made the above described idols. The most remarkable one is called Mount Pinson, situated in the Western District. It is the highest that I have seen, (perhaps ninety or one hundred feet,) of a conical shape, terminating in a small level about twenty feet diameter, and is surrounded with circumvallations. I have been able to ascertain from that mound that these tumuli were not burying places for the dead, as is often supposed. A person having discovered by the divining rod, as he thought, that money or silver was buried in this mound, has made a section in it from the summit to the very base: this section shows that the whole was made of common earth of the surrounding country,—not a single bone or utensil was found in it. Large trees lay prostrate on the summit, which had fallen down by age, and large trees (of eighty and ninety feet high) were now growing upon it. (Troost 1845:364–365)

FIGURE 2.8. Sauls Mound, 1953. This image clearly shows the excavation made by an unknown person prior to Gerard Troost's descripton in 1845. From "Man-Made Mountain" by Julius S. Hurst, *Nashville Tennessean Magazine*, November 1, 1953.

Based on his description, it appears that Troost visited Pinson Mounds. He overestimated the height of Sauls Mound, probably being influenced by Haywood's published height. He also noted embankments (which he called "circumvallations") surrounding it, which suggests that at least remnants of what the *North Carolina Journal* writer had seen were still visible a generation later. Of greatest interest was his report of a recent and extensive excavation made by a treasure hunter, which undoubtedly accounts for the sloping area that is visible today along the northeast side of the mound (Figure 2.8) and the perception of a ramp that several archaeologists posited in the 1960s (Morse and Polhemus 1963:9), especially since no earlier accounts mention a ramp or slope up the mound. The lack of artifacts is another feature of the mound complex that continued to puzzle investigators through the years.

EPHRAIM GEORGE SQUIER

Ephraim Squier, an Ohio newspaperman, and Edwin Davis, an Ohio physician, are well known in American

archaeology for their 1848 publication *Ancient Mounds in the Mississippi Valley*, noteworthy for its descriptive study of numerous mounds accurately surveyed by them. While Pinson Mounds was not mentioned in their landmark work, the mound complex did appear in Squier's later publication *The Serpent Symbol, and the Worship of the Reciprocal Principals of Nature in America* (1851). It is unlikely, however, that Squier actually visited Pinson Mounds. His account is clearly a paraphrase of Troost, whom he cites:

> Respecting the contents of those of Tennessee and Kentucky, very little is known. Some of these have been opened from time to time, and found to contain human remains, but whether of an ancient or recent date, it is impossible, in the absence of facts, to determine. One, of large size, situated on the Forkadeer River, fifteen miles from Jacksonville, in the Western District of Tennessee, was excavated a number of years ago, by a person who supposed that it contained treasure of some kind. A section was made from top to bottom, which showed that it was composed of the common earth of the surrounding country,—not a bone or relic of any kind was found in it. This mound, which is locally known as "Mount Pinson," is between ninety and one hundred feet in height, conical in shape, and terminating in a level platform about a hundred feet in circumference. It is surrounded by circumvallations. (Squier 1851:92)

JOSEPH BUCKNER KILLEBREW

By the time of the next reports, a quarter of a century had passed and with it came many changes to West Tennessee. In the 1850s the Mobile & Ohio Railroad began laying track from Mobile, Alabama, north to Columbus, Kentucky. The line went through the middle of West Tennessee, with a stop at Pinson and a repair shop at Jackson. The railroad was completed on April 22, 1861, just as the Civil War broke out. The opposing forces both used and then destroyed the railroad, so that it had to be rebuilt after the war (Lemly 2004). The post office at Mount Pinson hill moved west of the Forked Deer River to abut the railroad, and thus the modern town of Pinson was founded. The railroad also made the agricultural lands of West Tennessee more accessible, as businessmen looked to create a New South by promoting the resources and opportunities of the land.

J. B. Killebrew (Figure 2.9), Tennessee's first commissioner of agriculture, was a New South advocate.

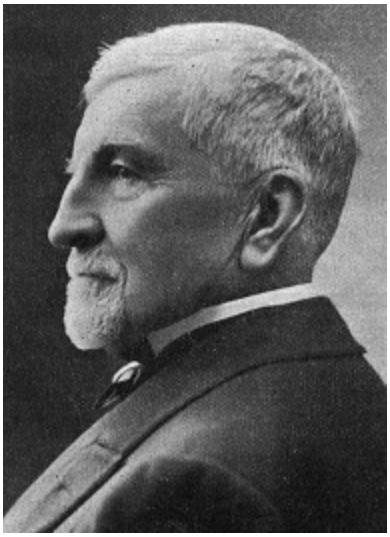

FIGURE 2.9.
J. B. Killebrew. From *Official Guide to the Tennessee Centennial and International Exposition and the City of Nashville*, Marshall & Bruce, Nashville, 1897.

He was born in 1831 and began his career in law, but after marrying and inheriting a plantation, he devoted himself to agriculture. His skillful management through the years of the Civil War allowed him to remain debt free. In 1871 he became agricultural editor of the Nashville *Union and American*, his articles receiving wide distribution, and in 1872 he became editor-in-chief of the *Rural Sun*. From 1872 to 1881 he served as Tennessee commissioner of agriculture, statistics, and mines. Killebrew published numerous volumes and pamphlets promoting the natural resources of the state. Among his works was the *Introduction to the Resources of Tennessee,* which ran nearly 1,200 pages outlining the resources of each county (Lester 2002; Speer 1978:82–86).

Included among the list of resources in Madison County was a section titled "Artificial Mounds" that described those at Pinson:

> Pinson's mounds, in the south-eastern portion of the county, near Pinson's Station, on the Mobile and Ohio Railroad, are curiosities worthy of mention. Several of them are from 50 to 60 feet long, from 45 to 50 feet in height and from 50 to 75 feet in diameter, being nearly hemispherical in shape. Around these is a semi-circular enclosure made of throwing up earth, as in building fortifications. This enclosure, if completed, would form a circle not less than 600 feet in diameter. It is supposed that these mounds were ancient burying grounds, but who were the builders we know not. (Killebrew 1874:1133)

It is not known if Killebrew personally visited Pinson Mounds, but his misunderstanding of the

relationship between the mounds and embankments suggests that he did not. His height of Sauls Mounds at only 50 feet and diameter of the embankment in the Eastern Citadel at half its size, suggests that his information was gathered by field agents or local contacts. The most interesting part of this account, however, is his description of the embankment in the Eastern Citadel, for Killebrew is the first to describe its incomplete but semicircular shape.

EDWIN HENDERSON RANDLE

The year following Killebrew's publication, E. H. Randle, a professor at a small college in McKenzie, Tennessee, became interested in the mounds in Madison County. He wrote to Joseph Henry of the Smithsonian Institution on June 29, 1875, offering to send him artifacts for the Philadelphia Centennial Exposition scheduled for 1876 and to visit the mound complex:

> I will commence the examination of the mounds at Mount Pinson in Aug.—a city of mounds & will report to you as soon as I can—I will send you some specimens for the Centennial as soon as I have time to over haul my cabinet & gather up some more that I am now in pursuit of. (Randle 1875a)

Edwin Randle was born in 1830 in Henry County, Tennessee. After graduating from college in 1856, he returned to Henry County and established Caledonia College, which closed and then burned during the Civil War. After the war he opened the Paris Female College, but then joined with Henry C. Irby in 1871 to charter McKenzie College, sharing the presidency with Irby and then becoming sole president in 1874 when Irby retired and sold his interest to Dr. A. P. Waterfield. Randle's letterhead a year later shows the college as McKenzie Male and Female College, and in 1882 the name was officially changed to McTyeire Institute (Carter and Devault, n.d.).[10] Randle was building a natural and archaeological collection for his school, and while Pinson seems rather far afield, being about 45 miles south of McKenzie, the mound complex might have come to his attention from Killebrew's publication. Randle's access to the mounds was undoubtedly improved by the Mobile & Ohio Railroad line. At the time of his interest in Pinson Mounds, Randle would have been 44 years old.

Although there is no reply on file from Joseph Henry, apparently the Smithsonian parted with the generous sum of $25 for Randle to examine Pinson Mounds. Less than six weeks later, on August 10, 1875, Randle followed up with a second letter. His first paragraph lists ores, crystals, fossils, natural oddities, and Native American artifacts he was willing to lend for the Centennial Exposition. He then provides a report on Pinson Mounds:

> Last week I visited Mount Pinson in Madison Co. for the purpose of spending $25 in excavation—found an extensive line of fortifications enclosing 8 or 10 sqr miles. Many of the largest & most interesting mounds I ever saw—some of them double mounds—some were well covered with chips of every variety of flint—1 mound 190 ft sqr at base 120 ft sqr on top & 38 ft high—beautiful—one 90 ft high 60 ft sqr on top covering about ¾ of an acre well fortified around about with fortified way to the creek. A well beaten & traveled road once led to this city of mounds from the west. I believe the only other mound 90 ft high in the U.S. is the one in Ill. near St. Louis. I did not undertake to go into the mound. Some men once commenced the job hoping to find gold they did about $25 worth of digging hih [*high*] up on the side & the ground eventually began to sound hollow which frightened them away. To go into it will require regular mining operations and skill. Mr. W. P. Harris a man of wealth & honor who mined thirteen years in Cal. will undertake the work for me. He is a man full of energy & of sound judgement. Will charge nothing for his oversight if undertaken before crop gathering, or only a trifle at any time as he is anxious to satisfy his curiosity. Nothing less than $100.00 would make a satisfactory examination of this mound & I am neither able to spare nor to advance the money. By taking advantage of the deep cut into it already made, we might make a justifiable beginning for $50.00. I gave Mr. Harris full instructions what I desired & we agreed upon a plan. He will send for me immediately on any discovery. My services will be free of charge. I am anxious to have this mound examined as from its position I am of opinion it was built for the king's observatory whence to overlook his vast city. Perhaps his remains & other deposits may be found in it. Can you appropriate the 100 or the fifty dollars, or shall I undertake smaller mounds with the $25 already appropriated? I will send you a more complete description of this city of mounds—about 100 in said neighborhood—when I return home. (Randle 1875a)

Randle's interest in Pinson Mounds came to the attention of the *Jackson Sun*, a local newspaper. He sent a letter, written on August 18, describing his survey of the mounds. The paper published it on August 27, 1875:

> Your notice of my visit to the mounds on the Forked Deer, near Pinson Station, in Madison County, seems to necessitate some sort of report of my trip. The Smithsonian Institution, made a small appropriation for the purpose of excavating some of the mounds in West Tennessee; stating that if results should justify more ample and continued appropriations would be made; and asked me to examine the mounds. I thought the amount entirely sufficient for a good beginning, and concluded to commence on the Pinson mounds. On visiting them however, I found such a vast collection of mounds and fortifications, and some of them of such unusual dimensions that I was taken with a strong desire to examine these largest through all their depths. But to do this would require weeks of time and regular mining operations—more time and money than I then had to spare, but I think I shall go into them yet. They are scattered over about ten square miles and mostly enclosed by an outer wall of earthworks difficult now to judge how high it was at first; perhaps five or six feet but now not more than two or three, and in some places scarcely visible. Not far from a central and elevated position, on Mrs. Saul's farm, stands the most interesting mound I ever beheld. There is only one other in the United States of equal height, 90 feet, which is in Illinois, near St. Louis. When building the M. & O. R.R. [*Mobile & Ohio Railroad*] the surveyor took the height of this mound and found it the same. The one in Illinois covers nearly eight acres, this a little over one. It is 60 feet square on top, and about 200 feet square at the base, containing over 1,500,000 cubic feet. There is no graded ascent to the top. Whence the dirt to build this mound was taken is only conjectural; but to have been taken from any spot and raised to such inconvenient heights, must have taken immense labor. This mound was anciently surrounded by earthworks, running somewhat after the manner of earthworks of modern warfare, at a distance varying from 100 to 1000 yards, and a fortified way to a small creek. To appreciate the height of this mound think of the tallest upland oaks. About three-fourths of a mile from this mound, there is another one on Mrs. Hart's farm, the most beautiful that I ever saw, and besides, the most beautiful site for a residence. It is nearly 40 feet high, 60 feet square on top, 140 feet square at the base. Many other mounds in the neighborhood, high mounds, low mounds, double mounds, single mounds, large and small, perhaps one hundred within five miles. On the top of some which had been plowed over, I discovered many chips of flint of every variety that I have ever seen, which is evidence that the rough flint was brought there from elsewhere, and there manufactured into implements of husbandry and of warfare. This then, was a manufacturing city. Since there is no flint indigenous to West Tenn., they must have brought it from a great distance; they were therefore a commercial people, which is further evidenced by the remains of an old road, which must have been large and well beaten, leading out from the city south of west. This extensive and costly preparation for living shows that they must have been a well settled and not a nomadic people. Considering the immense labor with nothing but stone implements, requisite to erect such fortifications, they must have had a well organized government, and the people must have been used to obedience. From the likeness of the mounds and of the tools and weapons of war generally throughout the Mississippi valley, they must have been a homogeneous people; but from their many fortifications and fenced cities they must have been divided into petty kingdoms, and had frequent wars with one another, and old Mt. Pinson, must have been the capitol city of a powerful tribe, and the tallest mound, the grand observatory of the king and the strong citadel of the city from which he or his chief overseers and commanders could look out over perhaps a treeless country and survey the laboring of his people and marching of his troops, or the assaults of an enemy. How long a line of successive monarchs may have enthroned upon the mound, or how many royal tombs may lie vaulted beneath its summit, is not yet known and may never be. (Randle 1875b)

Apparently Randle had not seen the mounds prior to his first letter to Joseph Henry, and he was overwhelmed by the size and number of the mounds in the area. He notes that there were about 100 mounds surrounded with "fortifications" ranging out to 10 square miles, what today would include multiple sites. Considering that nobody previously had reported such an extensive line of embankments, what did Randle see? Randle was not a resident of the area, and therefore unfamiliar with its characteristics and history of use. By this date the land had been under cultivation for some 50 years, and much of the natural landscape—as well as the earthworks—had undergone changes caused by agricultural practices, including plowing and erosion control. Even by Randle's own admission, the purported embankments were no higher than two or three feet—when they were visible at all—so it can be assumed that Randle must have relied on the landowners to indicate the former extent and surviving remnants of these features. These landowners, however, were not the original owners of the land. Property that had descended in families had already reached the second and even the third generation, but much more was in the hands of altogether new owners. What the landowners knew of the extent of Native American earthworks may have already become oral history or folklore. Thus it is impossible to know if what Randle was seeing were remnants of aboriginal embankments, natural features, or histori-

cal constructions such as property boundaries and agricultural terraces, any and all of which were probably enhanced by the landowners' tales.

Setting aside the purported outer embankments, which were too far away to be part of Pinson Mounds, Randle's description of the Central Mound Group is somewhat contradictory. In his letter to Joseph Henry, he notes that Sauls Mound was "well fortified round about," suggesting that he saw what he took to be embankments. Yet, in his letter to the *Jackson Sun*, he says that the mound was "anciently surrounded by earthworks," which suggests by the word "anciently" that the features were no longer visible, although he also places them at a distance of 100 to 1,000 yards from Sauls Mound. Does this mean that Randle saw remnants of low ridges that he took for embankments, or was his description based on what local residents told him had once been there? Or did he mean by "earthworks" not just embankments, but also the smaller mounds that surround Sauls Mound?

Randle is the only observer to mention a fortified way to the creek extending from Sauls Mound, which seems more probable as a property boundary or agricultural feature. Information about this possible feature was not picked up by William Myer and does not appear on his later map.

Randle compares the height and size of Sauls Mound to that of Monk's Mound at Cahokia in Illinois, indicating his knowledge of other Native American sites, and also notes the excavation previously mentioned by Troost. It is most interesting that he states Sauls Mound was measured by one of the surveyors during the building of the Mobile & Ohio Railroad, the information probably coming from a local informant. It is more likely, however, that it was Mount Pinson *hill*, not Sauls Mound, that was measured by the surveyor. Since he was not a resident of the area, Randle probably did not know that two different landscape features could go by the name "Mount Pinson." Sauls Mound is not visible from the railroad tracks, but Mount Pinson hill is and would have been a prominent landmark for train engineers to sight upon. The hill rises about 90–100 feet above the floodplain where the tracks are located, according to the modern USGS topographic map.

Other features mentioned in Randle's letters are the Twin Mounds and Ozier Mound (on Mrs. Hart's land, estimated near 38 feet high). Oddly, Randle does not mention the circular embankment in the Eastern Citadel, which should have caught his attention. As to the outer wall of earthworks encompassing 10 square miles, Randle likely just connected the dots between fragments of embankments, natural features, and historic constructions.

We can be thankful that Randle recognized that $25 could not approach the costs to examine the mounds, and that he held off to request more money from the Smithsonian. What remains of Joseph Henry's reply to Randle is too deteriorated to read, but it was the last of their correspondence and the last that is heard of Randle's interest in Pinson Mounds. Two years later Randle moved to Paducah, Kentucky, where he remained until 1881, before returning to West Tennessee and settling in Lauderdale County. By then his interest in Pinson Mounds seems to have abated. Thanks to the lack of $100, the mounds at Pinson remained intact for a later day.

JOSEPH JONES

Joseph Jones (Figure 2.10) is best known as an outstanding physician and medical researcher. He was born in 1833 in Georgia and went on to study medicine at the University of Pennsylvania Medical Department, publishing four articles before his graduation in 1856. He returned to Georgia, holding successive positions at several colleges and universities before the outbreak of the Civil War. He served as a surgeon, with the rank of major, in the army of the Confederate States. He preferred research to the practice of medicine

FIGURE 2.10. Joseph Jones. From *The Gulf States Historical Magazine* 2(1), July 1903.

and made major contributions to the study of a wide variety of diseases, such as malaria, yellow fever, and tetanus, and continued his research during the war years. During his lifetime he published over 100 articles, as well as reports and monographs. Following the war in 1866, Jones accepted a position at the University of Nashville's Institute of Medicine, served as chief health officer of the city, and coedited the *Nashville Journal of Medicine and Surgery.* He held the position for less than two years before accepting another at the University of Louisiana (later Tulane) in New Orleans, where he settled for the remainder of his life (Riley 1984:155–167).

During his short period in Tennessee, Jones began a study of the mounds and skeletal remains in Middle Tennessee, which was published as *Explorations of the Aboriginal Remains of Tennessee* (1876). While his focus was not West Tennessee, he did provide what appears to be a very oblique reference to Sauls Mound in his chapter on "Mounds, Fortifications, and Earthworks," when he mentions streams that empty into the Mississippi River (which would include the Forked Deer) and a mound reaching the height of seventy feet. Jones writes:

> Numerous mounds of various dimensions are found on the banks of the Cumberland, Big Tennessee, Little Tennessee, French Broad, Hiawassee, Elk, Harpeth, Duck, and Stone Rivers, and on the streams which empty into the Mississippi, running from the dividing ridge between that river and the Tennessee.
>
> As a general rule, these mounds have been erected upon rich alluvial bottoms, and are either surrounded by extensive earthworks or are located in the neighborhood of the fortifications which mark the sites of ancient towns.
>
> The mounds vary in number and dimensions with the extent and richness of the valleys and the size of the earthworks. The smallest are not more than a few feet in height, and about thirty feet in diameter; whilst the largest attain a height of seventy feet, and cover from one to two acres of ground. (Jones 1876:36)

In his *Beginnings in West Tennessee,* S. C. Williams cites a passage from Jones about a stone image supposedly originating from Pinson Mounds: "This striking and beautiful image is carved out of white compact fluor-spar, a mineral unknown to that portion of the Mississippi Valley" (S. C. Williams 1930:4). Williams attributes the passage to Jones's book *Antiquities of Tennessee*, but Jones did not publish a book by that title, which instead was authored by Gates P. Thruston (1890). The quote, however, *is* from Jones's *Explorations* (Jones 1876:130). It does not refer to Pinson Mounds, but rather to the Obion site in Henry County (Garland 1992).

BEERS AND LANAGAN MAP

The earliest known map (Figure 2.11) that shows the mounds near Pinson was produced by D. G. Beers and J. Lanagan in 1877, published out of Philadelphia. Daniel G. Beers, of Fairfield County, Connecticut, worked as a civil engineer for a short period of time before returning to Fairfield County and becoming a farmer and manufacturer of canopy wagon tops.[11] During the late 1860s and 1870s, he produced numerous maps of communities and counties in the northeastern United States, as well as Kentucky and Tennessee. The surveys were made by him or under his direction. Beers's map of Madison County, broken down by civil districts, shows two large mounds in District 17, clearly Sauls and Ozier. The height of Sauls Mound is noted as 90 feet. The map includes locations of towns, landowners, roads, creeks, and railroads, but it is not a topographic map, and aside from Sauls Mound, does not provide heights of features. Therefore, it is unlikely that Beers or Lanagan surveyed the height; instead, they probably just relied on local information.

It is not logical that Sauls Mound was first recorded with a height ranging between 70 and 78 feet, then grew to 90 feet in the middle 1800s, only to shrink back to 72 feet a few years after the publication of the Beers and Lanagan map (as will be discussed in the next section). The exaggerated height of Sauls Mound during this period most likely entered local consciousness from three independent but reinforcing sources: (1) Haywood's published error of 87 feet, (2) Troost's account rounding up to 90 feet, and (3) the Mobile & Ohio Railroad surveyor's measurement of Mount Pinson hill. Certainly, people from outside the area, like Randle and Beers, would not have been aware of the shared name, and even people who lived in Madison County but not in the Pinson community might not have fully understood the difference.

Descriptions of the embankments in these later accounts still do not unquestionably verify their location or existence outside of the Eastern Citadel. Troost

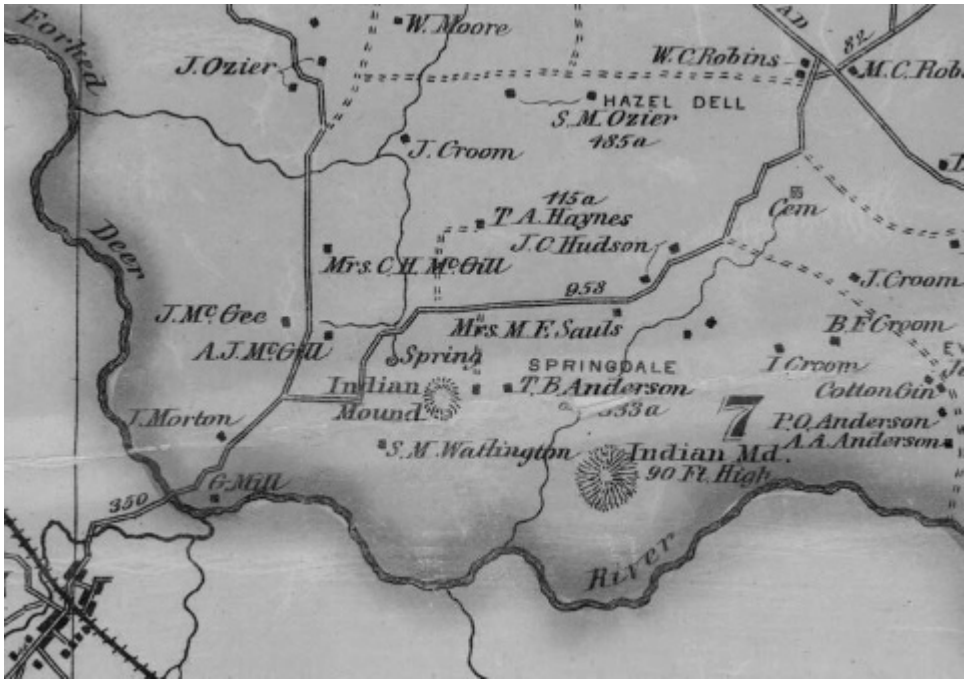

FIGURE 2.11. Extract from the Beers and Lanagan map, 1877, showing Ozier Mound and Sauls Mound. From *Map of Madison County, Tenn. From Actual Surveys and Official Records,* by D. G. Beers, Philadelphia. Reproduced courtesy of American Geographic Society Library, University of Wisconsin-Milwaukee.

reported embankments around Sauls Mound but provided no details. Killebrew was describing the Eastern Citadel. Randle's account seems largely based on the memories of landowners describing features by then eroded or missing after 50 years of cultivation. In fact, the last eyewitness report of embankments in the Central Mound Group seems to be that of Troost in 1845. Perhaps most intriguing in these and the earlier accounts is that when the embankments are mentioned at all, they refer to *either* the Eastern Citadel *or* to ones around Sauls Mound—in none of the accounts are embankments described in *both* places. Could this be because all the embankment descriptions really refer only to the Eastern Citadel, or because whatever embankments may have existed around Sauls Mound were exaggerated in some minds by the knowledge of the Eastern Citadel? Unfortunately, the solution to the problem continued to fade as the years progressed.

The City of Cisco

In 1875, the same year that Randle was poking around Pinson Mounds for the Smithsonian Institution, a flamboyant newspaperman arrived in Jackson. His wide-ranging interests included archaeology, ethnology, and paleontology, as well as a passion for butterflies, genealogy, and early Tennessee history, and he authored several books and articles on those subjects. His avid interest in Pinson Mounds was to mark a flurry of activity surrounding the mound complex that literally put it on the map. The newspaperman's name was Jay Guy Cisco, but he usually published under the initials J. G.

JAY GUY CISCO

Before 1870 little information can be found on J. G. Cisco (Figure 2.12). According to his own writings, Cisco was born in New Orleans, Louisiana, on April 25, 1844, the son of Louis Jerome Cisco and Louretta Wezinski. He claimed to be the grandson of the Marquis de Seso de Touchaire and the Baron Wezinski. He also claimed to have spent four years serving in the Confederate army with the 6th Louisiana Infantry, as a scout in the Trans-Mississippi Department, and possibly with Quantrill's Raiders. He wrote that after the war he engaged in the newspaper business before taking a year to visit Europe and Egypt. None of the above, however, has been substantiated. He is first found in 1870, working on a farm, when he married Mildred George "Georgie" Pursley, in Obion County, Tennessee.[12] The couple produced five sons and three daughters between 1870 and 1888 (Cisco 1909:147–150; Thayer 2003).

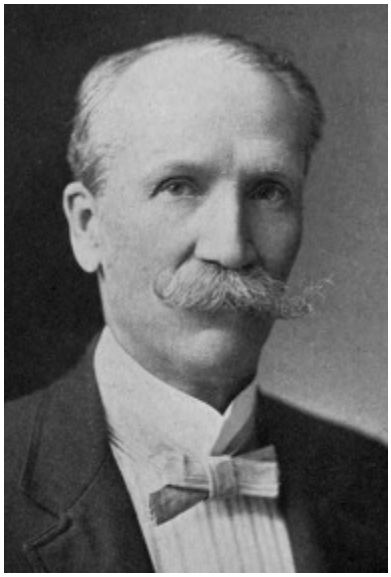

FIGURE 2.12. J. G. Cisco. Courtesy of the Tennessee State Library and Archives.

After spending a few years in Tuscaloosa, Alabama, Cisco arrived in Jackson, Tennessee, in 1875 and opened a bookstore; he was 31 years old. Besides books, he dealt in stationery, sheet music, musical instruments, and picture frames and moldings. In 1883 he expanded his career by establishing the *Forked Deer Blade* and served as its editor (Cisco 1909:149; Gardner and Gaines 1875:30, 45; Goodspeed 1887; Leypoldt 1883:395). Apparently, Cisco never failed to express his personal convictions, regardless of popular opinion, and stuck to his principals when he thought he was right. He was "remembered by many as a brilliant, fearless, mysterious, erratic, pugnatious man" (E. I. Williams 1972:263, 269–270). In 1888 Cisco left Jackson for a few years before returning in the early 1890s. He may have continued the paper in that decade. Most of the extant issues date to the 1880s, and since a complete run no longer exists, it is difficult to follow the paper's course.

Long before that happened, however, Cisco became an outspoken proponent of archaeology and the mounds in Madison County. He visited many sites, even excavating a few, and collected Indian artifacts throughout West Tennessee, amassing a collection that numbered in the thousands. In 1879 he became a member of the American Association for the Advancement of Science and the Tennessee Historical Society (Cisco 1902:329; 1909:149). In March of the same year, Cisco wrote to the *American Antiquarian* regarding Pinson Mounds:

> I propose to give a description of certain mounds found in Madison County, Tenn. These mounds are scarcely known outside the neighborhood in which they are situated, and our people do not appreciate the fact that we have at our very door some of the most remarkable monuments of the long-ago that there are in the United States; yet it is evident that ages before this continent was known to the people of the old world, this region was the scene of busy life, the centre of a dense population.
>
> There are more or less mounds in every district in the County; but those to which I refer are known as the "Pierson Mounds," near the village of Pinser, in the south-east corner of the County, two miles from the Mobile & Ohio Railroad. There are in the group about forty mounds of various sizes, scattered along the Forked Deer River, within an area of about one and one-half square miles. There are several fine springs in the neighborhood. The soil is a rich black loam, and has been cultivated for about forty years. The mounds are connected, or rather surrounded, by a line of earthworks or embankments about two miles long. Most of the mounds have been plowed over for years, and consequently are much smaller than when first seen by the white settlers; but some of them being too steep for the plowman, have preserved their original form. The largest mound is about ninety feet high, and about one thousand feet in circumference at the base, and is covered with a dense growth of trees and bushes. The second in size is thirty-eight feet high, and is pentagonal in form, with a graded avenue or approach at one corner, and is one hundred feet across the summit. There are several large poplar and beech trees growing on the top and sides of this mound. One of the poplar trees is over four feet in diameter, and long ago began to decay.
>
> I have a great many valuable relics from this locality, one of the most interesting of which is a flint spade, a drawing of which I herewith enclose. It is seven and three-fourths inches long and six wide, seven-eighths of an inch thick in the centre. (Cisco 1879:259–260)

In his first foray into archaeology, Cisco covers familiar ground. He describes Sauls Mound at 90 feet tall, as was accepted at that period, and the ramped Ozier Mound as having a pentagonal shape. He does not mention any embankments specifically encircling Sauls Mound, but does note about two miles of embankments surrounding the entire mound complex. The misspelling of Pinson was an error of the type-setter in attempting to read a handwritten letter. The drawing of the flint spade was not published with the letter, but it most likely is the one pictured in Gates Thruston's (1890:220–221) *Antiquities of Tennessee*. Although Cisco identified the spade as coming from the Pinson vicinity, his find location is not precise enough to definitely associate it with Pinson Mounds.

Cisco's most active period investigating the mounds and collecting artifacts in West Tennessee probably covered about 11 years from 1877 to 1888. He did more than just engage in armchair ruminations, for in 1880 Cisco and one of the college professors at Jackson took it upon themselves to measure Sauls Mound. Their measurement came in at a height of 72 feet 2 inches, equivalent to the modern height, and finally dispelled the erroneous and exaggerated 90 feet that had long been accepted. The identity of the college professor who assisted Cisco is unknown (Cisco 1902:329; Myer 1919).

During this time period, Cisco's interest in prehistory began to be known more widely, probably through interactions with like-minded individuals in the Tennessee Historical Society, which led to his recognition as a local authority. In 1883 Dr. Anson Nelson of the historical society asked him to conduct a survey of mounds in Madison County, as indicated in this reply by Cisco:

> In reply to yours Apr 30" would say, I will take pleasure in performing the agreeable, though difficult task assigned me by the State Historical Society, soon as I can spare the time from my business.
>
> There are in this county over two hundred mounds, one of which is, I believe, the largest in the south, being seventy two feet high.
>
> I have in my collection over four thousand specimens of aboriginal relics found within a radius of twenty miles of Jackson, and am securing others daily.[13]

GOODSPEED'S HISTORY OF MADISON COUNTY

Cisco's work also came to the attention of the Goodspeed brothers. When the Goodspeeds were publishing their state and county histories in the 1880s, they relied on local informants for many details. In their 1886 *History of Tennessee*, they mention mounds along the South Fork Forked Deer River and what is obviously Sauls Mound and the Eastern Citadel, but the information, which came from Haywood's publication, was already out of date:

> Two miles south of the south fork of Forked Deer River and about fifty miles east of the Mississippi, is a mound fifty-seven feet high and over 200 feet across. On the south side of Forked Deer River, about forty miles west of the Tennessee, is a mound about 100 rods in diameter at the base, the summit containing about four acres, and in this part of the country are a great number of mounds besides . . .
>
> Numbers of the constructions by the Mound Builders were evidently for other than sacrificial or religious purposes. On the south branch of Forked Deer River between the Tennessee and Mississippi Rivers is the appearance of what the people there call an ancient fortification. It is 250 yards square. The wall is made of clay and is eight feet above the general level. Trees as large as any in the surrounding county are growing on the top and sides of the wall. Within this wall is an ancient mound eighty-seven feet high, circular in form except at the top where it is square and fifty feet each way. (Goodspeed 1886:52–53, 55)

By the following year, Goodspeed's edition that included Madison County provided a more-detailed description of local sites, undoubtedly provided by Cisco. The edition also mentioned Cisco's antiquarian interests and artifact collection:

> A short distance west of Jackson are several circular mounds of the usual form peculiar to Mound Builders. Near Pinson, in the southeast portion of the county on the Mobile & Ohio Railroad, are several mounds of immense size. The highest of these is seventy-two feet in height and of the usual conical shape. There are several others, fifty or more feet in height; some are almost perfect cones, others are frusta of cones, and one presents the frustum of a pentagonal pyramid, with sides seventy or more feet. In connection with these may be seen an old earthwork or earthworks. It consists of a ditch and an embankment, the embankment being from two to five feet in height. In some places two distinct embankments are to be seen extensively in parallel directions. The mounds consist of earthwork entirely, and have been constructed of surface soil entirely. These mounds indicate that they have been built for defenses, for observatories or for sacred and sepulchral purposes. None but a few of the smaller ones have ever been examined with any care. Hon. J. G. Cisco, of the Forked Deer *Blade*, who is quite an antiquarian, and who has an excellent collection of Indian relics, has made an examination of some of the smaller mounds, and has been rewarded with a large number of arrow-heads, some excellent specimens of pottery and bones, skulls and other specimens of human remains. Charred remains, sticks, coals, bones are the usual relics of the sepulchral mounds. A scientific investigation, by some skillful antiquarian, of these mounds would doubtless reveal some rich pages of the history of a very peculiar people. A systematic boring and tunneling would amply repay the expenditure. A small appropriation each year expended under the direction of the State geologist, would add an immense treasure to Tennessee's archaeological collection, which is being destroyed every year by the unlettered, or carried away by relic hunters from other States. (Goodspeed 1887:801–802)

Most of the physical description seems to refer to Pinson Mounds, although the parallel embankments are probably those reported at the Johnston site. The mounds from which the artifacts and human remains were recovered are not specified, but Cisco (1902:329) later noted they were from mounds at and west of Jackson, not Pinson. It is interesting to note Goodspeed's concern with the destruction of mounds by untrained individuals and relic hunters, an issue still of concern today, more than a hundred years later. Despite his apparent praise for Cisco, one wonders if Goodspeed was not, in fact, including him among those unlettered individuals destroying the mounds, or if it was Cisco himself who was making the plea for a more scientific examination.

SAMUEL CHRISTOPHER LANCASTER

About this time an excavation was made into the Twin Mounds by Samuel C. Lancaster (Figure 2.13), either at Cisco's urging or because of the interest he had generated (Myer 1919). Lancaster, who was born in 1864 in Mississippi and moved to Jackson, Tennessee, as a boy with his family, was a gifted engineer. He studied engineering for a year in college, before gaining practical experience on the railroad. After recovering from polio, he was employed as city engineer for Jackson from 1888 to 1906, as well as chief engineer for the Madison County Good Roads Commission from 1903 to 1905, concluding with the publication of a paper on "Practical Road Building in Madison County, Tennessee" (Lancaster 1905). Lancaster's roadwork was so highly acclaimed that he was hired as consulting engineer for highway construction in the state of Washington and went on to direct construction of the magnificent Columbia River Highway in Oregon through the Columbia River Gorge (Alexander 2002:141–144; Lancaster 1916).

FIGURE 2.13. Samuel C. Lancaster. Courtesy of the Oregon State Library.

Around 1888 while Lancaster was still in Jackson, he cut a large trench in the center of the northern Twin Mound, starting at the top and continuing to the floor of the mound (see chapter 4). If he had found anything of interest, the rest of the mound, along with the southern mound, undoubtedly would have been destroyed to get at the contents. As it was, he went no further than his original trench. The digging of the Twin Mounds by Lancaster proved to have an ironic twist of fate discovered many years later. During the 1983 field season, archaeologists excavated the northern Twin Mound, using Lancaster's trench as a starting place. They were surprised to discover that the base of Lancaster's pit was located in the center of four tombs—missing all four by only inches. All that remained of his efforts were the unfilled trench and the remnant of a metal shovel handle (Mainfort 1986a:47).

In 1888 Cisco left Madison County for a few years when he accepted an appointment from President Grover Cleveland to serve as consul general to Nuevo Laredo, Mexico, a position he held for less than a year from September 1888 until spring 1889, several months after the change of presidents. His activities during the 1890s are not well documented, but it appears he returned to Jackson by 1891, where he opened an auction and commission house, and continued the *Forked Deer Blade* (Booker and Simmons 1892:107).[14] In the meantime other writers mentioned Pinson Mounds in their works, but now the information was coming from Cisco rather than earlier sources.

CYRUS THOMAS

Cyrus Thomas is notable in the history of American archaeology for his work laying to rest the debate on whether the mounds were built by the ancestors of Native Americans. An entomologist from Illinois, Thomas was hired in 1882 by John Wesley Powell, the director of the Bureau of Ethnology, to head the

Division of Mound Exploration. Thomas sent out a team of assistants to extensively survey and excavate mounds throughout the eastern states (Willey and Sabloff 1980:41–43).

In 1891 Thomas published a *Catalogue of Prehistoric Works East of the Rocky Mountains*, in which Pinson Mounds was cataloged under Madison County, Tennessee: "'Pierson mounds' and inclosure near the village of Pinson, in the southeast corner of the county, 2 miles from the Mobile and Ohio Railroad. Described by J. G. Cisco, Am. Antiq., vol. 1 (1897), pp. 259, 260. Also reported by Wiley Britton. A mound near Jackson, known as 'Mount Pinson.' Reported by J. D. Middleton" (Thomas 1891:208). Both Britton and Middleton were among Thomas's field assistants, but letters and reports of theirs listed on-line at the National Anthropological Archives indicate they worked in Arkansas, not West Tennessee. Nonetheless, that may have been close enough for them to hear about the tall mound at Pinson and report it to Thomas.

Thomas's monumental work on the mound explorations was published in 1894, but unfortunately did not contain information on Pinson Mounds. It does appear, however, that Cisco was aware of Thomas's work and in agreement with his conclusions, for just a year later he wrote:

> There are those who contend that the people who piled up these immense heaps of earth were a race antidating, and in their occupancy of the land, preceding the Indians, a separate and distinct race, of different blood, of different habits and of different customs; that they were conquered and overrun by the Indians the white men found when they discovered America. But of this there is no shadow of proof. That the Indians and the Mounds Builders were identical is agreed by all who have given the subject any thought. (Cisco 1895:5)

GATES PHILLIPS THRUSTON

The Civil War brought Ohioan Gates P. Thruston (Figure 2.14) to Tennessee where he made his contribution to Tennessee archaeology. Thruston was born in Dayton in 1835 and earned a law degree at Cincinnati Law School just before the outbreak of the war. He joined the Union forces, served in a number of campaigns, and rose to the rank of brigadier general. By the end of the war he was headquartered in

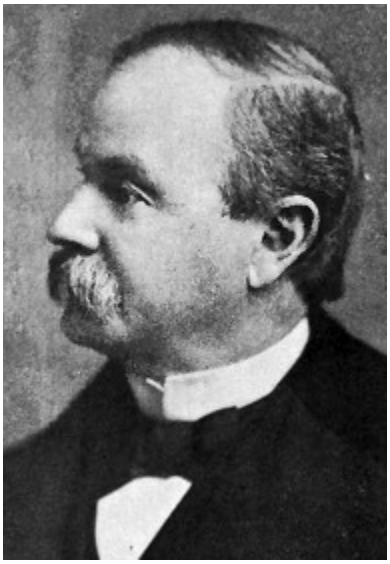

FIGURE 2.14. Gates P. Thruston. From *The Thruston Collection, Vanderbilt University*, by L. C. Glenn, Vanderbilt University, Nashville, 1910, reprinted from *Vanderbilt Quarterly*, October–December 1910.

Nashville, where he met the woman he married and permanently settled. His law practice and business ventures brought him prosperity, while he won the regard of Nashvillians with his efforts on their behalf in ameliorating harsh Reconstruction policies. After his early retirement at the age of 43, Thruston turned his attention to archaeology. He served as the Tennessee representative to the Paris Exposition and, while in Europe, received permission to excavate at Pompeii. Returning to Tennessee, he expanded his archaeological explorations and built a large collection of artifacts, which won several medals at expositions and was later donated to Vanderbilt University. In 1890 he published his magnum opus *The Antiquities of Tennessee*. The book was well received and earned him a second edition (1897), as well as election to the American Association for the Advancement of Science. Thruston served for over twenty years as secretary and then vice president of the Tennessee Historical Society, which undoubtedly introduced him to Cisco's work (McGaw and Weesner 1965:127–131; K. Smith 2002a).

The information on Pinson Mounds in *Antiquities of Tennessee* came directly from Cisco:

> There is a very extensive system of mounds in Madison county, in the western district. Mr. John G. Cisco, of Jackson, informs us that Mt. Pinson, the largest of the group, is about seventy-two feet high, and one thousand feet in circumference at its base. A pentagonal mound, with an altitude of about thirty-eight feet, lies about a half-mile west of Mt. Pinson. (Thruston 1890:46)

Again, these descriptions refer to Sauls and Ozier mounds. Thruston illustrated his book with drawings of artifacts, and pieces from Cisco's collection figured in two illustrations. Plate XII, opposite page 220, illustrates points, drills, and scrapers, all taken from Cisco's collection, but with no indication as to where they were found. Figure 120.1, on page 220, shows a Mississippian chert hoe that Thruston describes as:

> No. 1. An agricultural implement or "hoe," of flinty chert, is from Madison county (J. G. Cisco's collection). It is about eight inches long, is slightly curved, and is symmetrical in form. The type is unusual in Tennessee. As it is quite common in Illinois, this fine hoe may have been an importation, in ancient times, from that section. (Thruston 1890:221)

This object appears to be the "flint spade" from Pinson Mounds that Cisco mentioned in the *American Antiquarian* letter (Cisco 1879:260). In W. E. Myer's later notes (1919), he confirmed that the Thruston illustration depicts a Pinson Mounds artifact. Since it is not known exactly where the hoe was found, other than in the Pinson Mounds vicinity, it is more likely that it came from a separate but nearby Mississippian site.

BREVOORT BUTLER

At about the same date that Thrustons's book was published, Cisco decided to sell off his collection. In late 1891, while still living in Jackson, he sold his collection of Indian artifacts to a wealthy plantation owner from Yazoo County, Mississippi, named Brevoort Butler.

Brevoort Butler was born in 1846 in Natchez, Mississippi. He became a successful planter in Yazoo County and developed into an avid collector of Indian artifacts, owning specimens from all over the eastern United States. He erected a special building on his plantation just to house the collection. Butler had family in Jackson, Tennessee, and may have met Cisco on any number of visits. He personally collected in Madison County and also acquired artifacts from other area residents besides Cisco. Butler purchased Cisco's collection on November 21, 1891, and after Butler's death in 1908, the collection was acquired by the Mississippi Department of Archives and History.[15] Fifteen objects identified in the records as specifically having come from Pinson Mounds were donated to the Tennessee Department of Conservation in 1980. Several were displayed as part of the first exhibits at the Pinson Mounds museum.

The objects (Figure 2.15a, b) consist of the following: a sandstone tube, a jasper spindle rest, a hematite celt, a jasper net sinker, a sandstone hammerstone, four jasper gorgets, a sandstone gorget, two jasper boatstones, a sandstone boatstone, and a white clay object that may be a pottery stamp, as well as a historic kaolin nest egg (not shown). As with the hoe illustrated in Thruston, the specific find locations are not identified, so it is impossible to know what part of Pinson Mounds or what other mounds in the vicinity the artifacts may have come from.

CISCO'S HISTORY OF MADISON COUNTY

According to E. I. Williams (1972:11), Cisco interested the local community in the mounds by keeping his collection of Indian artifacts on display in his newspaper office. He was reputed to have written extensively about his avocation in the *Forked Deer Blade* (Payne and Kroll 1969:106), but an examination of extant copies, most of which are from the 1880s, revealed nothing about archaeology. If the sale of his artifacts is any indication, Cisco's interest in archaeology seems to have abated by the 1890s, when his interests began to turn toward local history. Still under the *Blade*'s banner, Cisco began writing and publishing county histories in the paper. In 1895 his *History of Madison County* was printed as a separate pamphlet,[16] the first chapter of which included what he knew about the county's mounds. The history was later reprinted in two parts in the *American Historical Magazine* (Cisco 1902, 1903) in a somewhat reduced form. In my 1996 article I quoted from Cisco's 1902 version; the following is from the earlier pamphlet and includes a few additional details:

> Southeast of Jackson ten miles, and north of Pinson three miles is one of the most interesting groups of aboriginal monuments in the southern states. There are probably one hundred and fifty mounds in the group within an area of about three square miles. The largest of them is mentioned by Judge Haywood in his Natural and Aboriginal History of Tennessee, published in 1826. He gives its height at ninety-six feet. But this is a mistake, I measured it in 1880 and found it to be seventy two feet two inches high and about one thousand feet in circumference at its

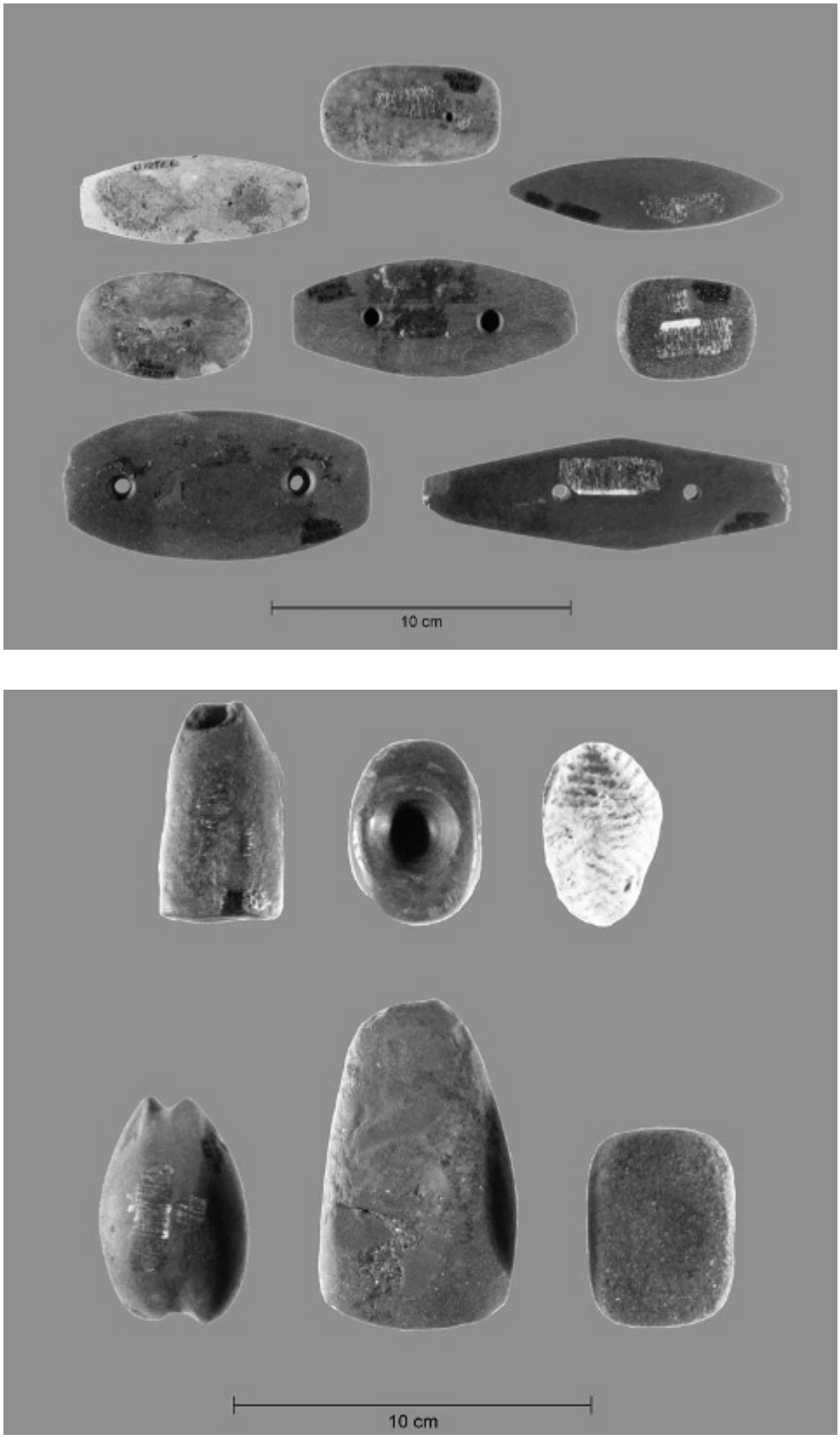

FIGURE 2.15A, B. Pinson Mounds artifacts from the Brevoort Butler collection.

> base. It is in form a truncated pyramid with a flat top about fifteen feet wide. There is no excavation near to show from where the earth was taken to build the mound. With the simple means at their command it must have required a vast amount of labor to construct such a pile; the earth was probably loosened with sticks and stones, gathered up with the hands and put in baskets and skins in which it was carried to the top of the mound by the Indians. About half a mile to the Northwest of this mound is another of peculiar shape, being pentagonal in form. It is twenty feet high, with five faces, sloping to the top at an angle of about forty-five degrees. The five sides are each about one hundred feet. This mound is flat on the top and has an approach at one corner. There are a number of large beech and oak trees growing on this mound, and on one of its sides not far from its base is a poplar tree near four feet in diameter, and so old that it has begun to decay at the top. To the South of this mound fifty chains in length is what is called the "twin mounds." They are about twelve feet high and are what their name implies. There are other mounds in the group, some quite large, and others so small as to be scarcely noticeable. They have all been more or less reduced by the white man's plow that has gone over them year after year for more than half a century.
>
> These mounds are on the North side, in a sweeping bend of the south branch of the Forked Deer River, in a fertile valley dotted with springs of pure, cold sparkling water. Col. Pick Jones, one of the early settlers of this county, who is, I believe, still living in Texas at a ripe old age, told me that when he was a boy he rode a horse for the distance of six miles on a line of earthworks that connected and partially surrounded these mounds. Traces of these works are still to be seen outside the plowed fields. (Cisco 1895:5–6)

Cisco presents a number of details in his report, some of which add new information. He includes 150 mounds in the Pinson group, but defines that group as covering three square miles, what today would be defined as multiple sites. He corrects Haywood's height for Sauls Mound, bringing it back to within the range first reported and modernly measured. Cisco describes both Ozier Mound (pentagonal) and the nearby Twin Mounds, but curiously his heights for both are too short. His 1879 letter to the *American Antiquarian* put the height of Ozier Mound at 38 feet (rather than the 20 feet reported above), which is close to its modern measurement of 33 feet. The Twin Mounds are about twice as tall as Cisco's claim; the North Twin is 23 feet and the South Twin is 26 feet. At the time Cisco measured Sauls Mound, he may not have measured any of the others and, when writing this article so many years later, his recollection of the heights of Ozier and the Twin Mounds may have been fuzzy. Interestingly, Cisco did not mention the Eastern Citadel nor did he report any embankments around Sauls Mound. He does mention that "traces" of embankments can still be seen "outside the plowed fields." These outer embankments may well have been pointed out to Cisco by Pick Jones, and based on what Cisco later told William Myer, may represent the northern line of putative embankments on Myer's map.

This small passage on the earthworks in the Pinson vicinity, which appeared in a larger work on the history of Madison County, is the most Cisco ever wrote about the mounds at Pinson, despite claims to the contrary (e.g., Brown 1944), as well as the last he ever wrote about them. But it was not his last connection to Pinson Mounds, as will be seen.

TIMOTHY PICKERING JONES

Cisco's anecdotal report of a ride along the embankments by Col. Pick Jones unfortunately has been given far too much uncritical credence over the years (e.g., Broster and Schneider 1976:19; Nash 1961:15; Nuckolls 1958:175; E. I. Williams 1972:14), even continuing today (McNutt 2005:145–146). Jones did not make his observation of the embankments as a military man, nor even as an adult, for he told Cisco that he had ridden the embankments "when he was a boy."

Timothy Pickering Jones was born in North Carolina in 1814,[17] the son of Atlas and Rebecca Jones. The family was among the earliest settlers in Madison County, arriving in November 1825, when the boy was 11 years old. During those early years in Madison County, Jones enjoyed visiting and hunting with his father's friend, Davy Crockett. In 1830 Jones received an appointment to the academy at West Point and shared a room with Edgar Allan Poe, but Jones was dismissed later that year for not attending classes and presumably returned home. In 1835 he fought in the Texas War for Independence, and later fought in the Mexican War and the Civil War, the last earning him the rank of colonel. In between he returned to Madison County where he farmed. By 1900 Jones had moved permanently to Texas and died there in 1904, a month shy of his ninetieth birthday (Woodberry 1909:369).[18]

Clearly Jones was in Madison County early enough to see the landscape before it was reformed by agricultural practices, but spent a number of years during the 1830s out of state. Therefore, if his ride was made when he was a boy, it most likely occurred between 1825 and 1830, or between the ages of 11 and 15 years. It is not a stretch to imagine that his father, Atlas, took along his son when he traveled through the county on legal or land business, and gave the boy the grand tour of his new home within the first year of arriving in Madison County. As noted earlier, Atlas stated in a December 1825 letter to his brother that he had visited "Mt. Pinson"; he may well have taken his son with him. If indeed Atlas was the author of the *North Carolina Journal* letter and interested in Native American earthworks, he likely interpreted the features for Pick as they explored the mound complex. Regardless of the authorship of the letter, I think it is highly likely that Pick Jones made his ride of the embankments in the company of his father in December 1825, or later that winter, when he was 11 years old.

Pick Jones's statement must be evaluated in the context of its source, the landscape, a child's perceptions, and the fallibility of memory. Bear in mind that we do not have a direct account from Jones, rather only a brief statement, lacking in details, that came through Cisco. It must also be remembered, as was previously noted, that at this early date the land remained heavily wooded and no one had tested the features to determine if they were man-made or natural. It also is interesting to note that although Jones spent much of his adult life in Madison County, he seems never to have repeated the ride or verified what he saw.

So what did Jones see? The account describes a "line of earthworks that connected and partially surrounded" the mounds, indicating that even at that early date there were missing or unbuilt sections—or separate embankments for individual sites that were only "connected" by a Euro-American mental template. Which mound groups were connected? Do the six miles of embankments surround a large area, or zigzag between groups? No details were provided to answer these questions. Aside from the lack of details, a child's perception of size and expanse may be exaggerated. Adults returning to a childhood locale are often surprised to discover that things are not as large as remembered. And as a newcomer to the county, the young Pick would have been influenced in what he was seeing by the interpretation of his father.

There is also the issue of inaccuracy of memory. The report of the ride along the embankments was not made at the time it occurred, but many years later. Cisco first published Jones's report in 1895, but it was probably during Cisco's active collecting years that Jones gave him the information, probably before 1879 when Cisco's first account was published. If Jones made the ride in 1825 and told Cisco about it before 1879, there were over 50 years separating the memories of a boy from the reporting and 70 years separating the memories from publication. One cannot expect a minimally 50-year-old memory to constitute an unimpeachable account of an event.

The most that can be derived from Jones's account is that there were embankments or landscape remnants in the Pinson vicinity, information that has been reported in other accounts. Without more specific details or better corroborating evidence, Jones's account is only interesting as a historical anecdote—and this detailed analysis of a very brief statement has been required only because of emphasis placed on it by later writers.

At the same time, Pick Jones's story may have more importance than is at first apparent. William Myer was definitely influenced by Jones's account of six miles of embankments, which he learned from Cisco and which he incorporated into his map of Pinson Mounds. Edwin Randle's account of the embankments, written only two years before Cisco's interest began, may have had the same source. That is, Pick Jones may have described and pointed out embankments to both Cisco and Randle. And, if the *North Carolina Journal* letter was written by Pick's father, then all the accounts that detail numerous embankments, aside from the Eastern Citadel, may originate from a single family.

JOHN O. BLANTON

Even with scientific efforts underway to catalog and study the aboriginal sites of Tennessee, the literature of armchair speculation had not completely died out, as indicated by a 20-page booklet published in 1896. Ignoring the recent work of Cisco and others, John O.

Blanton placed Pinson Mounds as the site of a decisive prehistoric battle in his *Pre-Historic Man in Tennessee*.

Blanton was born in 1848 in Coffee County, Tennessee. He went into the ministry as an adult, serving with the Methodist Episcopal Church, South.[19] How he became interested in the topic of prehistoric man is unknown, for aside from his booklet, he seems not to have written any more on the subject. He spun a wild tale, asserting that the "ancient Mound Builders crossed the Pacific Ocean about the year 1400 B.C." and eventually engaged in a great battle with giants (Blanton 1896:4, 16). In a chapter on "Fortifications and the Invasion," he inserted the Eastern Citadel at Pinson Mounds, taking his information directly from Haywood:

> On the south branch of Forked Deer River is an ancient fortification. It is 250 yards square. The walls are eight feet high and made of clay. Large trees are growing on the top and sides of the wall. Within these walls are a number of mounds. (Blanton 1896:16)

But Blanton was not satisfied with a simple description. As his booklet reached its conclusion, the final action occurred at Pinson Mounds:

> As to the Mound Builders who inhabited the territory now West Tennessee, we conjecture they were destroyed by an army of Giants who crossed the Ohio river from the Illinois side, the decisive battle having been fought in the fortification on Forked Deer River. (Blanton 1896:20)

In the last paragraph, Blanton admitted that he did not have "great proficiency in pre-historic lore" and that "some of his conclusions are conjectural" (Blanton 1896:20). It is probably unnecessary to add any more to that.

In the meantime, however, Cisco's interest in Pinson Mounds was placed aside for other concerns. After his wife died in 1894, when their youngest child was just six years old, Cisco left Madison County. He sold his paper that year and two years later moved to Memphis, where he took over editorship of the *Memphis Herald*. Within two years, at the age of 53, Cisco moved from Memphis to Nashville, accepting in February 1898 the position of assistant industrial and immigration agent for Tennessee for the Louisville and Nashville Railroad. He remained in Nashville for the rest of his life. Cisco entertained himself by continuing historical and literary pursuits, publishing a series of county histories in 1904 and a successful book on the history and genealogy of Sumner County in 1909, and working on manuscripts for books on Tennessee authors and a Tennessee biographical dictionary. He continued his involvement with the Tennessee Historical Society, presenting papers, donating archival materials, and becoming the custodian of the society's library[20] (Cisco 1909:149). In 1915, 20 years after his published description of Pinson Mounds, Cisco made a trip back to Madison County.

ROBERT CARTMELL DIARY

A Jackson native, Robert Henry Cartmell, kept a private diary for the 44 years of his adult life. Cartmell was born in 1828, began his diary when he was 21, and made entries every day. He spent his life as a farmer, but his observations ranged beyond agriculture. Although he kept the diaries private while he was alive, they have become a wonderful account of Jackson's early history from a personal perspective (Alexander 2002:121–125). On May 2, 1915, after reading an article in the *Jackson Sun* about Pinson Mounds, Cartmell mentioned the mound complex in his diary:

> [*May 2, 1915*] Col Tom Henderson, settled at old Mt Pinson, the M & O road runs a mile or so of old Mt Pinson and old T. moved over there but left the Indian mounds, one of which is a huge one, said to be the largest in the U. States, from appearances I would guess it was 60 or 70 ft high, tapering a little to top, which is level, & a hundred or more men could stand on its top. When built and by whom and for what purpose will ever remain a mystery. I noticed a few days an article in the Sun that J. G. Cisco of Nashville who is writing a History of Tenn was in Jackson, had visited Pinson, & will have in his history, photographs of these mounds &c. Cisco lived in Jackson many years, was editor of the *Blade*. (Cartmell 1915:59)

The *Jackson Sun* issue that Cartmell refers to in his diary is not among extant copies, so the diary entry is important in recording Cisco's continued involvement with Pinson Mounds. He apparently made the trip from Nashville to photograph the mounds as a precursor to writing a book on Tennessee history. Although the book was never written, and unfortunately the photographs are now lost, this project was a logical extension of Cisco's county histories. Within a

year, however, whatever Cisco might have wanted to write about the state's prehistoric past was superseded by the work of William E. Myer. It was through Myer that Cisco was to make one last contribution to Pinson Mounds.

WILLIAM EDWARD MYER

In the spring of 1916, William E. Myer (Figure 2.16) contacted the Tennessee Historical Society requesting assistance in gathering information on the state's caves, mounds, and Indian graves. John DeWitt, the society's president, sent letters to the members in late March, including one to Cisco, requesting their help on the project.[21] He also ran the request in the June issue of the *Tennessee Historical Magazine:*

> Mr. W. E. Myer, of Carthage, Tenn., in conjunction with Prof. Warren K. Moorehead of the Peabody Museum, Andover, Mass., has undertaken the task of writing a book on "Primitive Man in Tennessee." This work will be of great scientific interest and has long been needed by our State.
>
> It is now believed by many scientists that man of the same geological age as the Cave Man of Europe existed at one time in Tennessee. Mr. Myer has been requested thoroughly to explore the caves of this State.
>
> The Tennessee Historical Society urges the public-spirited citizens of the State to aid in this work. Explore the caves in your vicinity and write Mr. Myer whether you find anything or not. If any human or animal bones are found, do not disturb them. Write Mr. Myer and he will visit the cave and study them just as found. Only in this way can their history be accurately worked out. Write and tell him even when no remains are found.
>
> Also please send him a list of the Indian mounds and Indian graves in your section. State which have been explored and which have not. Tell who explored them and what was found and where the objects now are.
>
> Tennessee is one of the most interesting states in the Union from a scientific view, yet little has been done to bring her rich past to the knowledge of the world. This can only be done by our people reporting what is in their section, so that scientists may visit and study it. They have had long experience in such work.
>
> Mr. Myer will gratefully acknowledge your aid in the forthcoming book. Address W. E. Myer, Carthage, Tenn.[22]

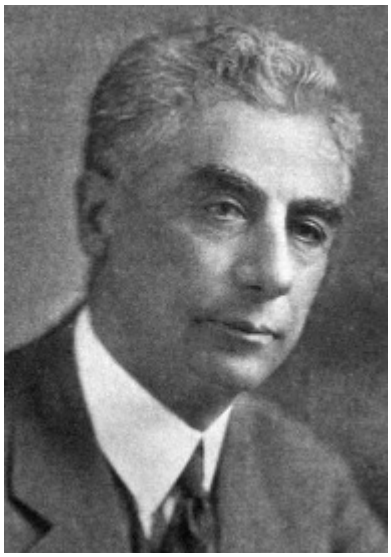

FIGURE 2.16. William E. Myer. From "[Obituary of] William Edward Myer," *Tennessee Historical Magazine* 8(1924):225–230.

There is no question that Cisco, now 72 years old, brought Pinson Mounds to Myer's attention and, in doing so, fired up Myer's enthusiasm. Myer, in turn, rewarded Cisco for his help and previous work by naming the mound complex "The City of Cisco."

Survey of the Mounds

William Edward Myer was born in 1862 in Barren County, Kentucky, but moved to Carthage, Tennessee, about 50 miles east of Nashville, as a young boy. After graduating from Vanderbilt University, Myer returned to Carthage and went into the mercantile business. As a successful businessman, he rose to leadership positions in his community, organizing the first bank in Smith County and developing transportation infrastructure in Middle Tennessee. Myer's interest in archaeology began as a student, and he continued his studies on a daily basis throughout his work years. Successful enough to take an early retirement when he reached his fifties, in 1915 Myer turned to the study of archaeology in earnest. Initially his intent, as noted in the 1916 letter above, was to write a book on Tennessee's archaeological remains. As a relative novice, Myer offered as credentials an association with Warren K. Moorehead, curator of archaeology of the Peabody Institute at Phillips Academy in Andover, Massachusetts, and former curator of archaeology for the Ohio Archaeological and Historical Society[23] (DeWitt 1925:225–230; Swanton 1928:729–731).

Following his letter to the Tennessee Historical Society, Myer visited Pinson Mounds twice, once in the summer of 1917 for a two-week stretch as part of the surveying project and once with Warren K. Moorehead on January 17, 1919, for several hours

walking over the mound complex. Unfortunately, undated materials in Myer's notes and some incorrect dates in his articles and manuscripts have confused the chronology of his visits. In his *Art and Archaeology* article, Myer (1922:141) says he visited Pinson Mounds in 1916, and in his unpublished manuscript (Myer 1923:627), Myer notes that he measured Sauls Mound in 1918. Both dates are incorrect, as letters from surveyor E. G. Buck to Myer regarding the survey and visit to the mounds are dated 1917 (Myer 1919). In Myer's three-ring notebook, there are also notes recording information from Cisco (Myer 1919) that most likely were acquired at two different times. The earlier set bears no date, while the later set is dated January 1919. Since Myer did not know of the mounds at Pinson until after communicating with Cisco, the undated notes probably date to late 1916 or early 1917.

The confusion undoubtedly arose from the amount of work Myer had undertaken over a short period of time—for he did not work exclusively on Pinson Mounds—and a disruption to his work during World War I. Myer initiated work in Madison County in the late summer of 1917, walking over Pinson Mounds and other sites with the survey crew, then returned to Carthage to await surveyor Buck's measurements, which arrived in letters in September and October. The United States had entered World War I that spring, and before Myer could do much with the data, he was appointed U.S. fuel administrator for Tennessee in the fall, a position he held until the end of the war in late 1918. He returned to his archaeological endeavors in 1919, interviewing Cisco for a second time, returning to Pinson Mounds for a day with Moorehead, and sending one follow-up letter for clarification on the Pinson Mounds survey to Buck. That year Myer also moved to Washington to study at the Smithsonian Institution, which led to his work as a special archaeologist for the Bureau of American Ethnology. Beginning in 1920 and until his death in 1923, Myer undertook an ambitious schedule of fieldwork, mapping and excavating at a number of prominent sites in Middle Tennessee, as well as working with Moorehead at Cahokia in Illinois and preparing manuscripts[24] (DeWitt 1925:226; Myer 1922:141–150; Swanton 1928:729–731). By the time he was working on the Pinson Mounds manuscripts, he may no longer have been clear on specific dates among a large body of work. Nonetheless, Myer states in his unpublished manuscript that he made two visits to the mound complex, one of two weeks' duration with a crew of three men and the other in January 1919 with Moorehead (Myer 1923:630–631), and Moorehead corroborates this (Myer 1919).

MYER INTERVIEWS CISCO

After Myer's 1916 request to the Tennessee Historical Society was relayed to members, Cisco contacted Myer. The two probably met in Nashville or exchanged correspondence in late 1916 or early 1917. In a footnote from Myer's unpublished manuscript (1923:613), Myer says the City of Cisco "was named for Mr. J. G. Cisco, Nashville Tennessee who first told the author that there were many large mounds and some long walls near Pinson."

On a loose-leaf page with an imprint of Carthage, Tennessee, from Myer's three-ring notebook, Myer's handwritten notes record the information Cisco first gave him. The page is headed: "Mounds described by J. G. Sisco. Nashville, Tenn. They are all in Madison Co., Tenn." Note the misspelling of Cisco's name. The list includes information on sites at Campbell's Farm near Jackson and the Denmark mounds (40MD85), as well as two large mounds at the Johnston site (Figure 1.13). Immediately following the description of the Johnston mounds, Myer records the following information from Cisco:

> North from above 2 mounds, outside the fields, at edge of bluff, begins a line of earthworks, plainly marked. After entering the field they disappear—(obliterated by the plow). Early pioneers say they extended several miles & embraced in their enclosure over 100 mounds of various sizes. Col. Pic. Jones, a pioneer, claimed to have ridden a distance of 5 mi. on the embankment. It can still be seen where plow has not leveled it down.
>
> About 2 miles from the above 2 mounds, on old Henderson farm, now Sam Ozier estate, a most interesting group of mounds. The largest in a field not far from spring branch—72' high (Haywood says 96') truncated pyramid, 1000 ft. around base. Not explored. 300 yds. w. of this mound, in a flat fork is mound with 5 equal sides, each "angle" about 90'—top flat, has several beech trees on it near 12 in. diam. Angle of slopes 45°.
>
> South of the above mound, in a cultivated field is a Twin mound 8' to 10' high, about 20' long and 15' wide.
>
> Within 1 mi. of the big 72' mound referred to on other

> page there are many small mounds and many others have disappeared before the plow. If any have been excavated Sisco was not aware. This field has furnished many thousands of fine relics, flint stone and pottery. (Myer 1919)

It is interesting that Cisco describes remnants of embankments near the Johnston site, but none at all at Pinson Mounds. He describes mounds in the Central and Western mound groups at Pinson, but not the Eastern Citadel, which suggests that Cisco still did not know of the Eastern Citadel even years after his publications. He also identifies Sauls Mound as being part of the old Thomas Henderson plantation, which as discussed above, it was not; this suggests that by the time Cisco was first interested in the mounds, the exact location of the Henderson homesite was already forgotten. Cisco also was confused about Sauls Mound being on the Sam Ozier farm, although, of course, Ozier Mound was.

About two years passed before Myer contacted Cisco again. During those years, Myer visited Pinson Mounds and had the mound complex surveyed, but also had his archaeological work disrupted by the war effort. When Myer returned his attention to archaeology, he contacted Cisco a second time to clarify information. Myer wrote:

> In January 1919 Mr. Cisco told me that Col. Pic Jones, living at Jackson, Tenn., told him that in 1840 he had ridden along the breastworks in and about the Cisco Group for a distance of 6 miles. In 1877 Cisco saw remains of the breastworks or walls in Ozier's fields, is not certain about seeing them in Watlington's fields. Cisco had in the eighties & nineties a collection of arrow & spear heads from the Cisco Group. Many of these he got from Ozier and Watlington. Thruston illustrated same in fig. 120 fig. 1 & 3—No. 1 was about 8" wide x 10" long. No. 3 about 10" long. Both 1 & 3 of flint of typical West Tenn. appearance, very much in color & appearance of Humphries & Henry Co. specimens.
>
> Pinson neighborhood settled (says Cisco) about 1823.
>
> The Main Mound on Murphy land was 72' 2" when measured by Cisco and one of the college professors of the College at Jackson in 1878. The hole in this large Murphy Mound was dug by local school teacher about 1870—found nothing.
>
> The digging in one of the Twin Mounds on Ozier farm was done about 1888 probably by Sam Lancaster (who later became famous as a good road man). No record of what he found—Do not think he found anything other than the sandstone rocks now about the old unfilled hole. (Myer 1919)

Compared against earlier accounts, it can be seen that errors have been introduced into Myer's notes, either through Cisco's faulty recollections or Myer's note taking. Cisco's measurement of Sauls Mound was taken in 1880, not 1878. While a local schoolteacher may have been responsible for excavating a portion of Sauls Mound in 1870, this statement most likely confuses schoolmaster E. H. Randle's 1875 visit with the excavation by an unknown person that was reported by Randle. In this version of the interview, Pick Jones's ride along the embankments was said to have occurred in 1840—a date that does not appear in earlier accounts and is unlikely, as Jones would have been 26 years old in that year, hardly an age at which he would have described himself as a boy.

In this second interview, it appears that Myer asked Cisco about features either he or Buck observed at Pinson Mounds. In Buck's letter of September 7, 1917 (Myer 1919), he mentions excavated areas in both Sauls Mound and the Twin Mounds and reports that no one knew of anything being found. Myer specifically asked Cisco about those two excavations. Myer may also have pressed Cisco about the location of other embankments, especially if Myer had seen landscape features that resembled embankments. Cisco told Myer about seeing remnants of the embankments some 40 years earlier in Ozier's fields, which would have encompassed the Western Mound Group near Ozier Mound, but that he was not sure of seeing any in Watlington's fields, an area to the west of the Ozier tract and outside of what is considered today as the site boundaries (Kwas and Mainfort 2007:146–147). Again, it is interesting that Cisco did not report embankments in either the Eastern Citadel or around Sauls Mound in the Central Mound Group, both areas where embankments had been previously reported. It is also evident that by the time Myer visited Pinson Mounds, almost nothing was left of any embankments.

Although these two accounts appear together in Myer's notebook, with the dated 1919 account preceding the other, I believe they represent two different interviews, the undated one having occurred in late 1916 or 1917. Supporting this is the misspelling of Cisco's name in the earlier interview and its correction in the 1919 interview, as well as the emphasis on mound excavations in the 1919 account that obviously

postdates Buck's letter describing those excavations. The slight difference in measurements of the embankments and Sauls Mound between the two accounts also suggests they were made at different times.

BUCK'S SURVEY OF THE MOUNDS

After the initial interview with Cisco, Myer came to Madison County in June 1917 and spent two weeks exploring the mound groups at Pinson Mounds, the Johnston site, and near the community of Denmark. He worked with a crew of three men including E. Gale Buck, a civil engineer with the Patton Engineering Company of Jackson. Myer looked for artifacts and designated which mounds and embankments he wanted Buck to survey. He then returned to Carthage and, while waiting for the results of Buck's work, sent a letter to Moorehead, dated July 9, 1917, reporting on several sites, including Pinson Mounds. Myer wrote:

> Since I wrote you last I have made an exploring trip to Williamson and Madison counties, Tennessee. . . .
>
> In Madison county, West Tennessee, I made a most interesting discovery. That there was a most interesting group near Pinson, Madison county, has been long known. But they had never been explored or written up by an archaeologist. One of the owners of the land told me that a group of men from Johns Hopkins had visited and surveyed the group. I wrote to Dr. Robinson of Johns Hopkins but he knew nothing of it. This group consists of about 20 mounds, scattered about over 500 acres. These mounds range in height from 2 to 75 feet. At one time there was a breastwork extending for something like 3½ miles. Hidden away in the heavy underbrush and timber I found the well-preserved remains of about ¾ of a mile of this great breastwork, still untouched by the plow. I spent several days with a first-class civil engineer and his assistants making an accurate map of the ancient town. I did not attempt to explore any of the mounds, because of the enormous expense that would be entailed. Some of these mounds must be burial mounds, from the fact that no graves have been found around the old town. This group will make a most interesting chapter.[25]

This first report on Pinson Mounds after Myer's visit indicates that the only piece of the embankments Myer found "well-preserved" was that in the Eastern Citadel. It is also clear from this letter that Myer did not excavate in any of the mounds. His follow-up of the Johns Hopkins report shows that it was misinformation; the informant might have confused Cisco's earlier survey of Sauls Mound or simply received some handed-down story that was incorrect.

Buck's letters to Myer, of which there were a total of five, began arriving in early September. It is obvious that Buck responded to specific questions Myer posed in letters back to him, although Myer's letters do not survive. The letters cited below are excerpted to feature only the material on Pinson Mounds, omitting information on the Johnston, Denmark, and other sites. Typing errors have been corrected.

> *[Letter 1: E. G. Buck to W. E. Myer, September 7, 1917]*
>
> I am mailing you this evening under separate cover plat of the Pinson Indian village and also of the group near Harts bridge on Johnson place. Also a sketch showing the approximate location in the county of the various groups and the location as related to the Hatchie river trading grounds and also to the Tennessee river, showing the trails leading from the villages in this county to the others.
>
> I have endeavored to show all information you requested but it may be that we have left off some of it and if we have please advise and we will arrange to add it in.
>
> Regret we have been unable to get the data off to you sooner but it has been absolutely impossible without we neglected every thing else in its favor.
>
> Will thank you to advise us by return mail if plats are satisfactory or complete.
>
> Am sending table showing size and volume of various mounds with copy general notes.
>
> General notes,
>
> Mound No. 5. (Known as the Ozier mound) Rectangular in shape; has approach or incline leading to the general land level on the east side; is covered with grove of large trees from eighteen to thirty inches in diameter; trees are Walnut, White Oak, Red Oak, Chestnut and Elm.
>
> Number 6. This mound consists of two circular mounds that are built into each other; the mound to the north is twenty two feet high while the south mound is twenty five feet high; the tops of the two mounds are yt [*sic, typing error corrected in next letter as 65*] feet apart; the depression between the two mounds is six feet below the lower of the two mounds; the north mound has been entered on the east side about the center but have found no one who knows of any thing being found.
>
> Number 9. Known as the big Murphy mound; has been entered near the top from the east side to a depth about 15 feet; no record of any thing being found. Special mention should be made of the exceptional view to be had of the surrounding country from the top of this mound.
>
> Numbers 17 and 18 have numerous bit of old broken pottery and chips of sand stone and flint.
>
> Number 27. Has small tree growing from center.
>
> Number 32. Has large Beech tree about 42 inches in diameter 30 inches from the ground growing from the center of the mound.
>
> Under conditions referred to in your letter, we calculate an Indian to move about 1.25 to 1.40 cubic yards per day. (Myer 1919)

TABLE 2.1. Table showing size and volume of various mounds in the old Indian village near Pinson, Madison County, Tennessee.

This table accompanied a letter from E. G. Buck to Myer dated 7 September 1917, and appears in the typescript of ""Stone Age Man in the Middle South (pp. 619-620) with the addition of the material below the entry for Mound 35.

No. on Map	Shape	Height in Feet	Size		Cu. Contents Cubic Yds.
			Base	Top	
1	Polygon	6	90X120	60X80	1,527
2	Rectangular	3.5	90X100	70X50	722
3	Rectangular	4.5	95X100	45X55	1,065
4	Circular	1.5	80	pointed	654
5	Polygon	32.2	240X230	100X100	34,346
6	Twin circular				21,000
7	Circular	1.5	40	21	44
8	Oval	2.0	90X160		533
9	Oval	73	300X370	38X60	923,000
10	Polygon	6.5	130X200	70X140	2,700
11	Rectangular	3.5	170X180	110X130	2,915
12	Oval	7.0	150X190	88X30	3,266
13	Circular	3.5	150		1,500
14	Circular	2.5	100		242
15	Rectangular	6 to 10	160X165	105X117	6,666
16	Circular	3.5	125	Rounded	151
17	Oval	3.5	120X160	Rounded	898
18	Circular	6.0	150	Rounded	1,309
19	Circular	4.0	150	Rounded	873
20	Circular	3.5	175	Rounded	1,039
21	Circular	4.0	160	Rounded	993
22	Circular	1.0	120	Rounded	140
23	Circular	2.0	100	Rounded	194
24	Oval	3.0	150X175	Rounded	745
25	Circular	2.5	150	Rounded	500
26	Point in ridge or embankment being point in known location of old line of breastworks around the town.				
27	Circular	4.0	39	Pointed	28
28	Rectangular	14.0	205X215	130X140	15,763
29	Rectangular	10.0	130X140	95X105	6,740
30	Irregular	7.5			1,444
31	Circular	3.0	80	Rounded	654
32	Circular	3.5	80	Rounded	700
33	Circular	4.0	80	Rounded	800
34	Circular	1.5	25	Rounded	12
35	Circular	15.0	100	50	3,472
Total Cu. Contents of Cu. Yards					205,935
Cubic contents of breastworks (Supposing them to be the same size as the portions which now remain.)					
Total cubic contents of all earthworks					240,355

The table (Table 2.1) included notes on the shapes of the mounds (i.e., circular, polygon, etc.), the heights, widths, and lengths for both bases and tops, the volumes in cubic yards, and the landowners. The heights of Sauls Mound (73 feet), Ozier Mound (32.2 feet), and the Twin Mounds (22 and 25 feet) are within a foot of modern measurements. The Twin Mounds and Ozier Mound were owned by R. L. Ozier; Sauls Mound by J. Murphy; Mound 28 by J. J. Marshall and R. S. Price; and Mounds 29 and 30 in the Eastern Citadel by J. F. Thedford.

As can be seen, Buck provided a description of the excavations into Sauls Mound and the Twin Mounds, and noted that there were no reports of artifacts. Myer's interest in determining how much people-power it takes to build a mound has also intrigued others. See chapter 1 in this volume for a discussion. His subsequent letter referred to sketches of the principal mounds (Figure 2.17).

[Letter 2: E. G. Buck to W. E. Myer, September 17, 1917]

I am sending you under separate cover today sketches and plats as per requests contained in your letter of the 12th. It has been impossible for me to get these off sooner and in fact would not be able to send them this morning but I put in a solid day yesterday and even then had to finish this morning.

In reference to the dimensions of the Twin mounds, they are as follows—distance across base of both mounds, 170 feet N & S; the distance across base of mounds E & W, 95 feet; elevation of North mound 22.5 feet; elevation of South mound 25.5 feet; elevation of the depression between the two mounds 16.5 feet; distance between the tops of the two mounds, 65 feet.

[Five paragraphs follow on the Denmark mound group and the "Hatchie River Trading grounds."]

Kindly acknowledge receipt of the maps and sketches and if you want me to have them traced send back so that I will be able to work on them next Sunday as all my time is taken up with outside work. (Myer 1919)

In Letter 2, Buck refined his measurements of the Twin Mounds and corrected the typing error regarding the Twin Mounds from Letter 1.

[Letter 3: E. G. Buck to W. E. Myer, September 24, 1917]

I am sending you today sketches of the crossections and the Breast works around Mound 29 enlarged as per your request—all sketches are on Tracing paper. I would have sent them this way at first but you asked me to send them in pencil first.

I am sure that the crossections are shown correctly as they are made from notes taken with the instrument and to when making the survey I made a sketch in the field and then made the sketches from them.

As to the elevation of the high ground or bluff near 29 and 30 I think I am correct though there may be some slight difference as the elevation given is only estimated and not taken with an Instrument.

Mound 35 is the mound we went to see on Sunday when we went below Pinson on the road to Henderson and failed to find and saw a Mr. Parker on our way back; according to information furnished by Mr. Parker this mound is 50 feet across the top; 75 feet across the base and is from 15 to 20 feet high.

The compass reading on the east side of 29 is N 5 E and on the north side is N 85 W, making the N E corner a right angle.

We did not get any compass readings on 9 or 10 that would give you the location or direction in which they were placed and the only reading I can give you is to take them from the plat with the Protractor and these would not be at all accurate. If you wish them I will go out and get them for you.

[Four paragraphs follow on the Johnston group.]

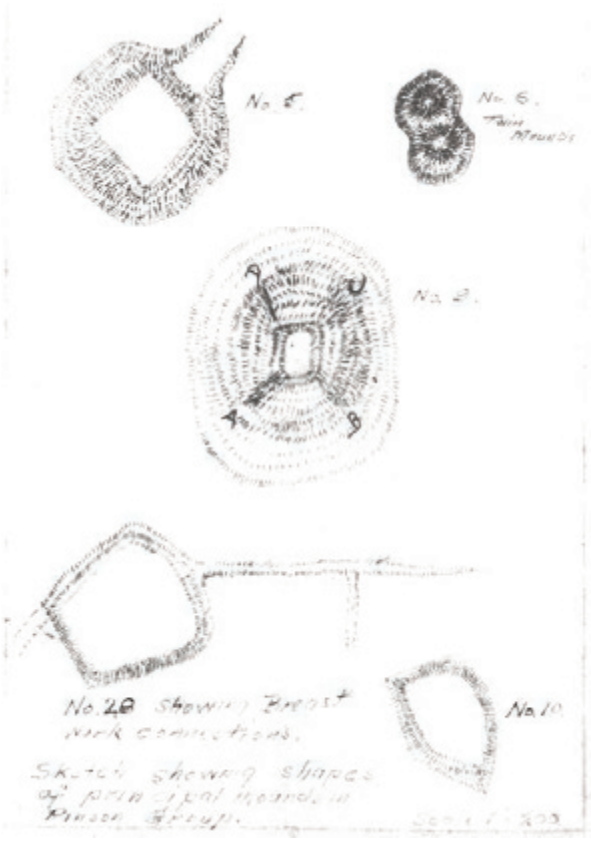

FIGURE 2.17. "Sketch showing the shapes of the principal mounds in the Pinson Group." Probably drawn by E. G. Buck. No. 5 is Ozier Mound, No. 6 is the Twin Mounds, and No. 9 is Sauls Mound. From William E. Myer material, MS 2899, Smithsonian Institution National Anthropological Archives.

> As per your request I am inclosing you a statement of your account with me.
>
> Should there be any further information you desire let me know and I will get it up for you as promptly as possible. (Myer 1919)

In Letter 3 Buck responded to questions from Myer regarding the embankment and bluff in the Eastern Citadel. He also clarified information on Mound 35, which is located away from the main group on the south side of the Forked Deer River. Inspection of the mound in the 1980s indicated that it is a natural erosional remnant that supported prehistoric habitation. Myer was also interested in the direction faced by Sauls Mound and nearby Mound 10. Letter 4 followed a month after the previous letter, during which time Buck went back to Pinson Mounds to measure the height of the bluff at the Eastern Citadel.

> *[Letter 4: E. G. Buck to W. E. Myer, October 25, 1917]*
>
> I have your letter of October 19th. I have only just been able to check up the height of the Bluff near Mounds of the Pinson Group and I find the height of the Bluff to the east of 29 to be 50 feet, and immediately south of # 30 it is approximately 60 feet. I have been unable to get in communication with anyone who could give me this information and I went out myself yesterday afternoon.
>
> I regret having been so long in giving you this information, but it is the best I have been able to do, and I trust the delay has not greatly inconvenienced you.
>
> *[One paragraph follows on the Johnston group and a table with measurements of mounds in that group appears on a separate page.]* (Myer 1919)

This concluded all the information Myer received from Buck in 1917. Shortly afterward, Myer went on hiatus from archaeology to serve as U.S. fuel administrator for Tennessee during America's involvement in World War I, which concluded in November 1918.

MYER'S RETURN TO ARCHAEOLOGY AND MOOREHEAD'S VISIT

As his service to the war effort ended and 1919 dawned, Myer again turned his attention to archaeology, picking up where he left off. In January he conducted a second interview with Cisco, discussed above, in which he asked for additional information on the embankments and the excavations into Sauls Mound and the Twin Mounds. He then made a one-day excursion with Warren K. Moorehead to Pinson Mounds on January 17. The two men spent several hours walking over the mound complex and searching for artifacts. Moorehead prepared a short report of their visit, a copy of which is included in Myer's three-ring notebook:

> Few objects were found on the surface during Mr. Myer's two weeks spent at this place. For instance, while red jasper seems to have been the favorite material, yet there is very little found considering the extent of the group. This curious fact was noted by Mr. Myer who spent much time searching the fields about the mounds. He and I walked over the place during our visit of January 17, [*handwritten 1919 inserted, probably by Myer*], and were unable to find more than three or four fragments of pottery, an arrowhead and some chips of the Camden chert. How this place could have been occupied as it was long enough to construct 35 mounds, one of which is probably the largest in the State of Tennessee, is another of our archaeological mysteries.
>
> The theory that suggests itself is that the place was abandoned immediately after the mounds were constructed. This fact can not be determined until further exploration. At any rate until the mounds and walls are actually shown in the survey of the group. Preparations were made by the Indians for one of the largest fortified places in either the Tennessee or Cumberland Valleys, yet smaller places shown signs of vaster occupation. (Myer 1919)

The lack of artifacts within the mound complex has long puzzled researchers, as noted by Moorehead's statement. Probably because of the paucity of surface artifacts and the lack of any spectacular finds during the couple of trial excavations that had been done, Pinson Mounds survived to modern times with very little vandalism.

Moorehead's statement in the second paragraph regarding the determination of site usage needing to wait until "the mounds and walls are actually shown in the survey of the group" is puzzling, and for a time led me to think that this report predated the survey and thus was incorrectly dated. The statement, however, probably just refers to the fact that Myer had not yet completed the maps and drawings of the mound complex that were later used in his article.

Later in 1919, undoubtedly after reviewing Buck's letters, measurements, and plats from 1917, Myer wrote to Buck for clarification on the embankments and Mound 35. One page of his June 24 letter was included with Buck's reply:

[W. E. Myer to E. G. Buck, June 24, 1919]

Referring to the enclosed cross section of breastworks, you say "scale 6 inches equal 20 feet." You evidently do not mean this. Please give me correct scale.

Please calculate roughly the cubic yards in the ancient walls around the old town at Pinson. These walls extended about 4 miles, counting the inner and outer wall; also please count the cubic contents of mound No. 35. Mound No. 35 is the one we went to see on Sunday on the road to Henderson. We did not get to see it. A Mr. Parker, on our way back, told us this mound was from 15 to 20 ft. high, 75 ft. across the base, and 50 ft. across the top. I suggest that you estimate it as 15 ft. high, and 100 feet across the base, and 50 ft. across the top. It would certainly be over 75 feet across the base. (Myer 1919)

Buck, who was now employed by the Madison County Highway Commission, sent a handwritten reply a few weeks later:

[Letter 5: E. G. Buck to W. E. Myer, July 18, 1919]

Your letter June twenty fourth regard to the Indian Mounds.

[One paragraph on the Mainard group follows.]

Referring to the cross sections of Breast Works, the scale is 1" = 20'—I show the necessary correction.

Cubic contents mound # 35 figured with 50 foot top & 100 foot base—15 feet high is 3472 cubic feet.

For the wall around the Pinson Group. I am unable to give you anything but an estimate based on an assumed size of wall—Taking this as 4 feet high—with top 4 feet wide & a base of 18 feet—which is the approximate average of the wall around #29, the yardage for the four miles is 34420.

I believe I've answered all your questions except as regard to wall connecting Johnson & Mainard groups. I will try to get you this information at as early a date as possible.

Any other information you desire I will be glad to get for you if I am able to do so. (Myer 1919)

There are three important clues to understanding Myer's perception of Pinson Mounds in these letters. One regards the dimensions of Mound 35. Despite the fact that neither Myer nor Buck actually saw the mound, Myer instructed Buck to change the dimensions provided by the informant Mr. Parker. As Myer recognized, Parker's estimate could not be correct, since a mound 75 feet across the base and 50 feet across the top was closer to a cylinder than any kind of a mound. Rather than asking Buck to go back to measure the mound or discarding the measurements altogether, however, Myer simply changed them to suit his purpose—essentially, he created a fantasy mound.

The second important clue pertains to the embankments. When Myer published the "City of Cisco" map of Pinson Mounds (Myer 1922:140), he showed embankments circling the Eastern Citadel, the Central Mound Group, and extending in a wide arc northward and westward as far as the Western Mound Group (Figure 2.1). A close look at the map, however, includes the words "traces," "indications," and "probable" regarding all the embankments except that of the Eastern Citadel. When Myer asked Buck in his June 24, 1919, letter to calculate the volume of the embankments around the town extending for four miles, Buck replied that he was unable to give Myer "anything but an estimate based on an assumed size of wall," which he based on the average of the wall around Mound 29 within the Eastern Citadel. That is, Buck based the volume of all the purported embankments on the only embankment he could measure—the Eastern Citadel. (See also Kwas and Mainfort 2007 for discussion.)

The third clue appears in Myer's July 9, 1917, letter to Moorehead, in which Myer described his visit to the site with Buck and reported seeing *only* the embankment in the Eastern Citadel, despite hearsay of more extensive embankments. Myer also noted that he did not do any ground-truthing. Clearly, Myer's perception of the mound complex was influenced by local folklore.

Even more damning to Myer's "City of Cisco" map is its comparison with Buck's original field survey map, early-twentieth-century photographs, a 1947 topographic map, and results from geophysical technologies (Mainfort et al. 2011, chapter 3). Myer made numerous emendations on Buck's map and included notes of directed changes before sending the map to a draftsman to prepare for publication. The analysis of the two maps and their comparison with other maps and photographs demonstrated that Myer not only misidentified natural features as prehistoric constructions, but included fantasy mounds and embankment sections that simply were not visible, nor had ever existed.

Myer arrived on the scene nearly 100 years after the land was first opened to Euro-American settle-

ment, a time period covering at least four generations. He relied on anecdotal information from "very old settlers who had lived in the immediate vicinity from 40 to 60 years" (Myer 1923:626)—and those "settlers" may have primarily been Pick Jones and J. G. Cisco—to determine the extent and location of the embankments. But memories are known to be faulty and other evidence has not been found to corroborate them. Indeed, what the earliest settlers might have seen or interpreted, passed on to newcomers and later generations, had likely entered the realm of folklore by the time it reached Myer. Thinking back 40 years, even Cisco could recall only a few remnants of the embankments near Ozier Mound. Yet, conversely, E. H. Randle's report from the same time period of a "fortified way to a small creek" from Sauls Mound does not appear either as a remnant or settler's memory on Myer's map.

Myer's map of Pinson Mounds is important for being the first that was made of the mound complex and for the impact it had on how later researchers viewed the site and structured their research. Nonetheless, researchers must view the map with skepticism. By the time Myer visited Pinson Mounds in 1917, virtually all traces of any possible embankments—except for the Eastern Citadel—had long ago disappeared. Ultimately, Myer saw little, if any, more than what can be seen today.

The land around Pinson Mounds has been in cultivation now for close to 200 years and whatever embankments might have existed, aside from the Eastern Citadel, are now long gone. The possibility that they once existed cannot be completely dismissed, but whether we will ever have the geophysical technologies to find them is another matter.

ON TO THE BUREAU OF AMERICAN ETHNOLOGY

In 1919 Myer moved from Tennessee to Washington, D.C., to continue his work and studies at the Smithsonian Institution, under the guidance of J. Walter Fewkes, the chief of the Bureau of American Ethnology. Myer returned with Fewkes to Tennessee and led him on a tour of sites on the Harpeth River. Soon he was working in a position as special archaeologist for the BAE. In the fall of 1920, Myer excavated under the auspices of the BAE at the Gordon site in Davidson County and the Fewkes Group in Williamson County, both in Tennessee (Fewkes 1928:15, 37; Myer 1928b; Swanton 1928:729). He made his first presentation on his work, which he titled "Recent Explorations in the Cumberland Valley, Tennessee" in January 1921 to the Anthropological Society of Washington. His talk was illustrated with lantern slides. Besides the Cumberland Valley sites, he also presented information on Pinson Mounds, as explained in a report of the meeting:

> The speaker showed a map of the city of Cisco, discovered by him in Madison County, western Tennessee. This great city had walls about six miles in circumference, covered over 800 acres, and contained 35 mounds, ranging from one foot to 73 feet in height. The main mound was 73 feet high and about 320 feet across the base. This main mound was defended by a series of inner breastworks which formed an inner citadel. The ruins of this city are probably second in extent only to the great mound group of Cahokia.[26]

In the fall of 1921, Myer investigated Omaha and Osage sites in South Dakota and western Missouri on the Big Sioux River (Fewkes 1928:64–67), before taking a hiatus to write up his Tennessee research. This was published as "Recent Archaeological Discoveries

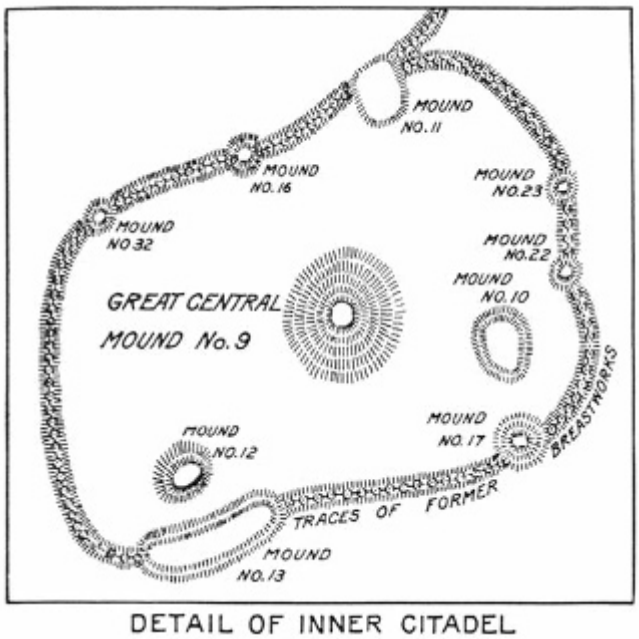

FIGURE 2.18. Detail of Inner Citadel. From *Art and Archaeology* 14(3), September 1922.

in Tennessee" in the September 1922 issue of *Art and Archaeology*. The illustrated article covered his work at the Great Mound Group in Cheatham County, the Fewkes Group and the Gordon site, as well as Old Stone Fort, but the most conspicuous feature of the article was the City of Cisco. The text was accompanied by a map of the City of Cisco (Figure 2.1)—drafted by Paul Leverone, based on E. G. Buck's survey, but with emendations by Myer (Mainfort et al. 2011; chapter 3)—showing the inferred extent of the embankments and the relative sizes and locations of the mounds, which were assigned individual numbers. A second drawing (Figure 2.18) illustrated the detail of the Central Mound Group (which Myer called the Inner Citadel). A third drawing was a sketch of Sauls Mound (which he called the Great Central Mound)—which, interestingly, did not show any embankments surrounding the mound. About the City of Cisco, Myer wrote:

> It is hard to realize that in the State of Tennessee ruins of a great ancient walled city with outer defenses measuring fully six miles in length, with elaborate outer and inner citadels, with 35 mounds of various sizes, should have remained almost unknown beyond the bare fact that near the little railroad station of Pinson, in Madison County, there were some mounds and inclosures.
>
> The author visited this site in 1916. He found in the thickets and swamps and woodlands along the waters of the south fork of Forked Deer River, in Madison and Chester Counties, the remains of an ancient fortified city together with its outlying towns and settlements. This ancient city and its adjoining towns were so close together that doubtless their cultivated fields and small isolated truck patches formed a more or less continuous cultivated site for a distance of about 12 miles.
>
> The remains of the city of Cisco, as they appear today, are shown on the map.
>
> This map is from a careful survey made by the author's expedition. This great city extends along the high banks (locally called bluffs) of the Forked Deer River for a distance of 2½ miles. It was probably defended on the river side by a continuous line of wooden palisades along the edge of the high banks. Further protection on this side was given by the river itself, and also by the great swamp extending the full length of the town on the opposite shore of the river. On the land side there was a long line of earthen walls surmounted by wooden palisades. The total length of the outer defenses was a little over 6 miles. The walls of the inner citadel and the other inner defenses add five-sixths of a mile to this total. The dotted lines on the map show where some of the earthen embankments have been destroyed in recent years by cultivation; but we were fortunate in finding several old inhabitants who remembered their exact location and appearance. In the undisturbed woodlands and thickets the original earthen embankments still remain. Of course all traces of the wooden palisades have long since disappeared.
>
> There are now 35 mounds in this city. These range from very low rises, not over 1 foot in height, to the great mound in the inner citadel. This great mound is 73 feet high; its base 300 feet x 370 feet; and its flat summit 38 feet x 60 feet. It contains 92,300 cubic yards of earth. This mound is about sixth in size among the great mounds of the United States. It commands a view of the surrounding country for many miles in every direction. At one time it probably had the great house of the king upon its summit. Several of these mounds are very large, being from one-third to one-fourth the size of this great central mound. These large mounds were placed at strategic points in every quarter of the city.
>
> Mound No. 30, just beyond the line of walls of the eastern citadel, stands on the summit of the high river bank. It was probably devoted to sacred ceremonial purposes and supported some sacred building. It appears to somewhat resemble a bird with outstretched wings. The thunder bird and other sacred birds played an important rôle in the religious rites of stone-age man in the Southern states.
>
> There is abundant evidence showing this city was the central city and capital of a large region; that it had a population of several thousand, and was built by some conqueror-king. This great fortified city was occupied only for a short time after it was completed. Then the conqueror-king was overthrown. His stronghold was taken and destroyed. It was left desolate and never afterward occupied. (Myer 1922:141–142)

Myer was the first to suggest that the oddly shaped Mound 30 looked like a bird. Because of his preconceived notions, he saw sites with embankments as only defensive in nature. Thus he considered the embankments to be fortifications and imagined wooden palisades topping them. His naming of sections of the mound complex as "citadels" continued this view, as did the idea that only a "conqueror-king" could hold such a "city." The lack of artifacts could only be explained by the site's quick abandonment. None of these perceptions, however, were supported by excavated data. Despite Myer's unfounded suppositions about the mound complex, the article served one important function—the publication of a map—although that has proven to be more problematic than useful. The article was also Myer's only writing on Pinson Mounds that ever made it to publication.

At the same time Myer was conducting his

Tennessee work, he also became fascinated with ancient Indian trails. In the same article, he mentions a trail leading from Pinson Mounds: "The author discovered an ancient trail which led from the city of Cisco in a southwestern direction to another old fortified town near Bolivar, Tenn. . . . From the city of Cisco another trail led eastward, crossing the Tennessee River near the present Johnsonville" (Myer 1922:142). Myer eventually produced a large manuscript, with maps, on the "Indian Trails of the Southeast," which was completed and published posthumously by the BAE (Myer 1928a). An entry on the Cisco trail also was included in this work: "This ancient trail led from the populous settlements on Tennessee River, in the neighborhood of Savannah, to the headwaters of the south fork of Forked Deer River, and thence to the great town of Cisco, in Madison County, and the many adjoining towns near Pinson. At Cisco it connected with several others" (Myer 1928a:854). Myer's work on trails, however, must also be used with caution. He connected sites along his trails with no regard to contemporaneity. Even John Swanton's preface to the publication expressed some caveats to Myer's work, noting that Myer "introduced some which are positively known to have been employed only by the early colonists or early colonial military expeditions" and that "there is some doubt as to the original nature of certain traces which Mr. Myer has classed as Indian" (Swanton 1928:731). Like the embankments, Myer's work on ancient trails indicates an interest in finding large-scale and expansive Native constructions, but his desire to see these features often out-reached his evidence.

Myer's article, in which he named the mound complex after J. G. Cisco, should have pleased its namesake, but the article reached publication just a few months too late. On April 24, 1922, just one day short of his seventy-eighth birthday, J. G. Cisco passed away.

Myer was back in the field in the spring of 1923 investigating sites in Tennessee, including Link Farm in Humphreys County (46HS6), Denny Farm in Davidson County, the Great Mound Group in Cheatham County (Mound Bottom, 40CH8), and another mound group on the Elk River. Concluding the fieldwork, he returned to Washington to write his report on the Great Mound Group and to continue working on two larger manuscripts, the aforementioned "Indian Trails of the Southeast" and "Stone Age Man in the Middle South," which was to include a chapter on Pinson Mounds. Before he completed his work, William Myer was struck down by a heart attack and died on December 2, 1923. He was 61 years old (DeWitt 1925:225–231; Fewkes 1928:89, 111, 116).

Myer's Manuscript

Several years later, "Stone Age Man in the Middle South" was considered for publication by the Bureau of American Ethnology, but ultimately was rejected. John Swanton, who had prepared the "Trails" manuscript, asked Neil Judd, curator of American archaeology at the Smithsonian Institution, to review "Stone Age Man." Judd's letter of January 29, 1929, explained:

> As you requested some months ago, I have examined a portion of late Mr. W. E. Myer's manuscript, "Stone Age Man in the Middle South." Specifically I have confined my examination to Volume No. 2 of his manuscript (pages 216–437).
>
> These pages comprise a catalogue of Indian sites with which Mr. Myer was personally or indirectly familiar. For the general reader this catalogue would prove uninteresting; it would prove none too helpful to the student of archaeology. Few of the sites are described with sufficient detail; nor does there appear to be an adequate number of groundplans and photos to aid the reader in a clearer conception of the subject matter. The plates and text figures to which Mr. Myer constantly refers, do not accompany his manuscript.
>
> It is my opinion that the Myer manuscript requires rather severe editing and the addition of much data based on a comparative study of the artifacts from the region under Indian villages visited by early explorers and the introduction of other historical information would seem desirable. From my perusal of this single volume, I am not convinced that Mr. Myer has chosen his title wisely nor that the manuscript in its present form is suitable for publication by the Bureau. (included in Myer 1923)

Therefore, until 1996, when the first version of this chapter was published in *Tennessee Anthropologist*, Myer's chapter on Pinson Mounds remained largely unknown. It is somewhat unfair to judge Myer's work from a draft version, since if he had lived to complete it, the manuscript certainly would

have undergone extensive editing and revising. Nonetheless, his lengthy chapter on Pinson Mounds, the most extensive writing about the mound complex to that time, deserves inclusion here for its historical value.

Because I worked from a typed transcript of the draft manuscript, I have taken liberties to improve readability. References to figures and all but one footnote have been omitted, which has resulted in some excerpting. It is not known if spelling errors in the original were corrected in the typescript, while it was obvious that typing errors were introduced, therefore I have corrected spelling and typing errors. The following is Myer's chapter on Pinson Mounds from his unpublished manuscript "Stone Age Man in the Middle South":

The City of Cisco

Along the waters of the south fork of Forked Deer River, in Madison and Chester Counties, Tennessee, are the remains of a great city and many outlaying, closely related, Indian towns and settlements. Everything points to a powerful, vanished civilization.

The great central point appears to have been the ruins, which have been named by us "The City of Cisco." [*Footnote:* This city was named for Mr. J. G. Cisco, Nashville Tennessee who first told the author that there were many large mounds and some long walls near Pinson. *Then cites Cisco's piece in American Antiquarian.*] There were several large Indian towns which were in close proximity. All of them were on the waters of the south fork of Forked Deer river.

There was one town on the site of the present city of Jackson; one at the Mainard group, about 6 miles southeast of Jackson; one at Johnston group, about 2 miles southeast of the Mainard group; then came the great city of Cisco, which was about 3 miles southeast of the Johnston group; then came the town at the Elijah Bray group, about 6 miles southeast of the city of Cisco. This ancient city and the related towns were so close together, that doubtless their cultivated fields and isolated farm wigwam sites formed nearly one continuous inhabited or cultivated site from the Elijah Bray group to the Mainard group, a distance of about 12 miles.

The metropolis of this region was the great City of Cisco, which the author found on the Forked Deer River about 1½ miles northeast of the station of Pinson on the Mobile & Ohio R.R. This great city extends along the bank of the Forked Deer River for a distance of about 2½ miles. It was defended on the river side probably by a line of wooden palisades along the sage of the low river bluffs, and on the landward side its great southern walls also probably surrounded by palisades, extended for a distance of 3½ miles. The total length of the downward walls, including the inner fortifications, was 4 1/3 miles. The total length of its bluff and landward palisade defenses was 65 miles. The space covered by the city was 815 acres, 590 acres within the walls, and about 225 acres outside the walls. These walls enclosed thirty-four mounds, some of them of large size. One mound is now 73 feet in height, and contains 92,300 cubic yards of earth.

It is remarkable that these great ruins should not have been fully understood, and their existence and importance made known to the world sooner. While it was known that some large mounds and some earthen embankments were here, no one appears to have fully realized they were the remains of a great ancient city, until the author visited and surveyed them in 1917.

The first record of this great city is in Haywood's "Natural and Aboriginal History of Tennessee" [*which he then cites, followed by the citation out of Cyrus Thomas*].

The space covered by the "city within the walls" is 590 acres. A considerable portion of the city was without the walls, as will be seen by reference to the map. Judging from the four large mounds outside the walls to the westward, and the one large mound outside the walls to the south, the city must have covered not less than 225 acres outside the walls. Therefore the entire City of Cisco covered about 815 acres. It must have had a population of several thousand. This ancient Indian city covered about one-third the space now occupied by the nearby city of Jackson. The city of Jackson covers 2100 acres, and has a population of about 18,000. The City of Cisco was, beyond doubt, one of the great, if not the greatest, Indian cities within the borders of the United States.

That it was the capital of the group is beyond question. The great outer fortifications and the elaborate inner fortifications, together with the great Central Mound, fully establish this.

The City of Cisco is situated on three hills and scattered over the adjoining level plain. It contains 35 mounds, many of them of great size.

Mounds 1, 2, 3, and 4 are outside the walls, on the hill to the westward of the town. The great Ozier group (5, 6, and 31) is within the fortifications and near the western walls of the town. The great Central Mound, No. 9, known as the Murphy Mound, from the name of the owner of the land on which it is situated, is within the inner citadel on a hill in the central portion. This great mound is 73 feet in height, and has a level top 38 by 60 feet. It was surmounted either by a temple or the house of the king. It will be noted that this inner citadel was formed by an inner line of breastworks connecting up mounds 11, 16, 32, 13, 17, 22, 23. Within this inner citadel must have been the king and many of the most important personages of the city and nation. The great chiefs and sub-chiefs and priests had their homes and temples on the many other mounds scattered throughout the city. On the eastern border of the town, on a bluff-like hill, was the great fortification surrounding mound 29.

The great Ozier mound No. 5, is 32 feet in height, 240

feet by 230 feet across the base, with a level top 100 feet by 100 feet, and contains 34,346 cubic yards of earth. The great mound No. 28, at the northeastern corner of the town, is 14 feet in height, 205 ft. by 215 feet across the base, with a flat top 130 feet by 140 feet, and contains 15,763 cubic yards of earth. No. 15, at the southern edge of the town; from 6 to 10 feet high; measures 160 feet by 165 feet across the base, with a flat top 105 feet by 117 feet; contains 6,666 cubic yards of earth. Mound No. 29, on the eastern edge of the town, measures 10 feet in height, with a base 130 feet by 140 ft., and a level top 95 by 105 feet, and contains 6,740 cubic yards of earth. All of these were probably occupied by the greatest of the sub-chiefs, and were placed on or near the walls at the four quarters of the town.

This city was not only the center of the immediate region, but, from its overshadowing size and character, it must have been the capitol of the great and powerful nation. It contained a large population and complex organization. Each of the thirty-five mounds probably contained the temple or a dwelling of a chief or sub-chief. The spacing between these mounds was doubtless filled with the habitations of the common people. There is a great level place to the east of the great central Murphy mound, No. 9, which was used as the great public square, where the games and the sacred dances and other ceremonies pertaining to the city, and also the great affairs pertaining to the entire nation were celebrated. In this public square the prisoners ran the gauntlet, and otherwise tortured and killed, unless, by the whim of some woman he was saved, and adopted into the tribe and given at least a portion of the love, respect and honors of some warrior, slain in battle, whose place he took.

Here the stately, dignified ambassadors of other tribes were received with elaborate ceremonial; and later, as the nation's guest, lodged in some of the adjoining buildings and given, during his stay, a daughter of one of the wives of the king or some headman to be his temporary wife in every sense of the word.

The author is constrained to believe that the Murphy mound was occupied by the dwelling of the king, and not by a temple. A man with a personality strong enough to hold the kingship over this teeming population, and to cause this great city to be built, would have had the vanity and the wisdom, judging from primitive man's standpoint, to place his dwelling on the most commanding site in the city. This site would naturally be within the inner most defenses. A temple was probably on mounds Nos. 10 or 11, both of which overlook the public square.

Mound No. 30, without the walls, on the eastern side of the town and on the extreme edge of a steep bluff-like hill about 35 feet in height, was evidently the site of some sacred edifice. It will be noted that it has a shape totally unlike the other mounds in the group.

There is a gap in the walls between mounds 29 and 30. This gap is part of the original plan. It was probably filled in by wooden palisades. There are gaps at V, W, X, Y, Z in the wall around mound No. 29. These gaps probably mark the location of ancient wooden towers, projecting somewhat beyond the wall as a further aid in defense.

The portions of the walls now remaining are shown in heavy lines. Where the walls have been destroyed they are shown in dotted lines. The author was fortunate in being able to find a number of very old settlers who had lived in the immediate vicinity from 40 to 60 years, who remembered, and were able to locate with accuracy, that portion of the wall now destroyed by the plow. Ten years from now this would have been impossible.

Mr. Cisco, who was born about 1849, reported to the author in January 1919 that Col. Pickard Jones, who lived at Jackson, stated that in 1840 he had ridden along the breastworks in and about the Cisco group, for a distance of six miles. In 1877 Mr. Cisco visited the group and saw the remains of the breastworks or walls in the fields near the Ozier mound No. 5, and at many other places. The soil on this site is of a typical West Tennessee sandy loam, and the walls were easily leveled by cultivation.

It is interesting to note the little, if any, change in the height of the main mound in the 40 years intervening between 1878 and 1918. Mr. Cisco had this mound measured in 1878, and found it 72 feet and 2 inches. The author's measurements in 1918 showed it to be 73 feet. This slight discrepancy arises from the fact that it is difficult to tell precisely where the surface level of the soil begins. It is apparent that the mound has decreased very little in height in these 40 years. Haywood's height of 87 feet taken about 1820, must have been somewhat erroneous. There is no indication that the mound has undergone any such change in height during that time.

Fortunately the breastworks encircling mound No. 29 have not been in cultivation. They were preserved by the thickets.

The great central mound No. 9 commands a view of the surrounding country for several miles. The king's house on the summit of this could have been seen from several of the surrounding towns. This domination of the landscape by the great house on the great mound, must have played an important part in maintaining the prestige of the king.

This mound had an excavation sunk to a depth of 15 feet on the eastern edge of the summit by a local school teacher about 1870. He found nothing.

Mound No. 5, the Ozier mound, on the land of Mr. R. L. Ozier, is . . . rectangular in shape, and has on its eastern side an approach or incline leading to the summit. It is covered with a beautiful grove of large walnut, oak, chestnut and elm. These trees range from 18 to 30 inches in diameter. Mr. Ozier takes commendable pride in the preservation of this beautiful mound and surrounding grove of about 20 acres. This grove and mound is a source of great pleasure to the neighboring country. Here all the local picnics are held.

Twin mounds, No. 6, consist of two circular mounds that run into each other. The mound to the north is 22 feet

high; the one to the south 25 feet high. The depression between the two mounds is about 6 feet lower than the summits. In 1888 a local man sunk an excavation on the eastern side of the northern mound to a depth of about 10 feet. He found nothing. These twin mounds appear to contain a considerable amount of sandstone slabs, which must have been brought from a distance of at least one-half mile.

Mound No. 32 has on it a large beech tree about 42 inches in diameter.

It is to be regretted that lack of funds has prevented the author from making a thorough exploration of this great city.

As yet no trace of the graves of the ancient inhabitants of this city has been located. They will, undoubtedly, be found somewhere on the site. Careful inquiry makes certain that none of the graves have as yet been discovered. These graves will be of great interest, because they have never been disturbed.

Paucity of Artifacts on This Site

Few relics of primitive man have been found on or around these mounds. The author spent two weeks with three men surveying and studying this group. In all that time only eight small pieces of pottery, seven arrow-heads and flint chips were found, and one egg shaped quartz object.

In January, 1919, Prof. Warren K. Moorehead and the author walked over this site for several hours. They made a close search, and were able to find only four fragments of pottery, one arrow-head and two chips of Camden chert.

Red jasper, light yellow colored flint and cream colored flint predominate. Only one rude arrow-head of gray flint was found. The pottery fragments are of domestic ware, and some of them show impressions of fabrics.

Local people report finding no pottery, and only a very few arrow-heads. A large number of arrow-heads and other artifacts are found on some of the other nearby sites on Forked Deer River. This scarcity of artifacts on the site of the City of Cisco, and a careful estimate of the cubic contents of the mounds and walls, shed some light on the probable history of the city. It evidently was not inhabited for a great length of time after its completion. The long habitation of the great population which must have lived here would have left a large amount of broken pottery, arrow-heads, flint chips and various other evidences of human occupation.

The rock in the twin mounds appears to have been brought from a distance of one-half mile. The great Ozier mound appears to have been brought from a depression about 1,000 feet to the north. The other earthworks in the city appear to have been brought from the surface soil immediately around them. The cubic contents of all these earthworks, including mounds and breastworks, is 240,355 cubic yards. In the following estimate we will consider the material for all the earthworks to have been brought from immediately around their base. We think 1¼ cubic yards of earth is a liberal estimate of the amount of material dug and placed in position by the average Indian with his primitive methods of digging and carrying in one day. Based on this, it would have taken five hundred men, working steadily 384 days, to have erected the earthworks of this city. They probably did not work over one-third their time, and a fair estimate would be, it took five hundred men about three years to do this work.

Every indication points to a large number of men, probably more than five hundred aiding in the building of this city, at the command of some king with absolute power. It is probable that, soon after its completion, it was taken and destroyed by some rival tribe, who removed its inhabitants and the city became a waste place.

It is inconceivable that a great city of this size should have been evacuated by its inhabitants, of their own volition, so soon after its completion.

When the burial places of the inhabitants of this city are found they will also throw an interesting light on the probable length of time the city was occupied.

As more artifacts are found on some of the neighboring town sites than at Cisco, it is probable that these existed before the city of Cisco, and that some powerful chief arose who was able to obtain control not only of the entire local region, but possibly his sway extended far and wide. Such power was possessed by the king of the Natchez in historic times. Shortly after the king had builded this great city his power was destroyed and his city desolated.

This city is located in the region occupied by the Chickasaws in historic times. As yet it is impossible to determine who built the City of Cisco. The ancient inhabitants did not leave enough of their artifacts on the surface to enable one to tell. This can only be found out by a long and costly exploration. The author hopes some day to be able to solve the mystery of this great city which he has brought to the attention of the world.

The State of Tennessee owes a sacred duty to future generations to buy and preserve in a park the ruins of this great city. (Myer 1923:613–634)

Even considering that this was a draft version, it is disappointing to read Myer's account. With the first surface reconnaissance and mapping to his credit, one would have hoped for greater results. A small amount of subsurface testing would have given him the data to make a studied interpretation; instead, he reverted to an antiquarian perspective, choosing to interpret the mound complex based only on its size, architecture, local lore, and minimal borrowing from ethnographic accounts.

Myer depicts Pinson Mounds as a fortified city-state governed by a powerful ruler, and he imagines

wooden palisades and towers, temples and houses for thousands of people, and dramatic activities in the public square. He is certain the mound complex was destroyed by a more-powerful enemy soon after its construction, simply because few artifacts are found. Never does Myer consider a more peaceful or ritual purpose for Pinson Mounds. Sadly, none of his suppositions were correct, and the information he gathered remained unutilized. Even Myer's renaming of the mound complex "The City of Cisco" would quickly lose out to the old familiar "Pinson Mounds."

Nevertheless, Myer deserves credit for being the first to have the mound complex systematically surveyed, incorporating mound sizes into the text of the manuscript, and the first to publish a map of Pinson Mounds. He observed that Sauls Mound, despite Haywood's erroneous height, had not changed appreciably over the years and noted the difficulty with determining the base of the mound in order to make an exact measurement. Exhibiting a spark of foresight, Myer also deserves credit for proposing that Pinson Mounds be preserved as a park—although that would take several more decades to accomplish.

The End of an Era

Those decades would see limited interest in the mound complex, and most accounts from those years simply rehashed and often garbled earlier work, including S. C. Williams's *Beginnings of West Tennessee*, published in 1930, and E. I. Williams's *Historic Madison*, published in 1946 as one of the state's sesquicentennial projects. Shetrone in *The Mound-Builders* (1930) includes a straightforward but short passage on Pinson Mounds: "An extensive system of mounds in Madison County, toward the western end of the state, has as its outstanding tumulus what is known as Mount Pinson, more than 70 feet in height and 1,000 feet in diameter at the base" (Shetrone 1930:432–433).

A more extensive description was included in *Tennessee: A Guide to the State*, a Depression-era volume in the American Guide Series produced by the Federal Writers' Project of the WPA. A brief mention was included in the background chapter: "The most prominent of the earthen remains are the pyramidal mounds, often elaborately terraced, with level tops. Notable examples are the huge Pinson Mounds in Madison County, the largest of which is some seventy feet high" (Federal Writers' Project 1939:28). This was followed by a more detailed account under the entry for the town of Pinson:

> Left from Pinson on a graveled country road to Ozier's Mound, 3 m. (R), the first in the mound group of Cisco Indian Village. The village was named for J. G. Cisco, historian and editor, who made extensive excavations here. In these thickets, swamps, and woodlands along the south fork of the Forked Deer River are the remains of an ancient fortified city, together with its outlying towns and settlements. Thirty-five mounds and other defense works, six miles long and having elaborate outer and inner citadels, are well preserved.
>
> Ozier's Mound, 40 feet high, is the base of what was a pyramid. Because of its flat top it is believed to have been a place of assembly. This mound, a favorite spot for picnickers, is described in *Windy Hill* (1926), a novel by Jennings Perry, a former Jacksonian.
>
> Saul's Mound, 5 m., can be reached by crossing Saul's woodlot. In dry weather automobiles can go within 0.8 of a mile of it.
>
> At strategic points on every side are mounds ranging from rises of a few feet to Saul's Mound, which is 73 feet high, has a base 300 feet wide by 370 long, and a summit of 38 feet wide by 60 long.
>
> Several other tumuli in the group are also very large, ranging from one-third to one-fourth the size of the central mound.
>
> South of Ozier's Mound, 0.4 m. are the Twin Mounds, believed to have been erected over the graves of a chief and his squaw. Apparently many of the smaller mounds were used for burial purposes.
>
> On the river side Cisco was probably protected by a continuous line of wooden palisades, built along the steep bluffs. The river and a large swamp also furnished protection on one side of the city. On the land side the crumbling outer wall, made of boulders and debris from the river bed, is still standing in many places, but the wooden palisades have long since rotted away.
>
> There is evidence that the walled city of Cisco was the central town of a large region, with a population of several thousand, and that it was suddenly deserted. William Edward Myer, an archeologist who explored the site, suggested that the city was built by some conquering king, who ruled the region in prehistoric times. Other archeologists believe that the builders were ancestors of the Chickasaw. (Federal Writers' Project 1939:414–415)

While it is apparent that much of the information in the WPA guide came from Myer, for which he was cited, the writers also introduced new inaccuracies, probably gotten from local informants and representing

local folklore about the mound complex. Certainly Myer had not credited Cisco with "extensive excavations," suggested that the smaller mounds held burials, nor spun a tale about the Twin Mounds holding the graves of a "chief" and his wife. Nor did Myer describe the embankments as constructed of boulders and debris, now crumbling like a stone wall. Since West Tennessee has little native stone, the writers must have been hard-pressed to come up with that description. Apparently they did not bother to visit the mound complex. They also introduced the error of adding possessives to the names of the principal mounds, a problem that continues to today.

More interesting was their information on Ozier Mound. The writers noted that the site was a favorite picnic spot. Myer (1923:629) also mentioned this, and it may be where the WPA writers got the information, but it is also likely that the mound continued to be favored for picnics through the early years of the twentieth century. Even more interesting was their mention of Ozier Mound as the setting for the novel *The Windy Hill* by Jennings Perry (1926). The centerpiece of Perry's novel was a scene in which a free-spirited young woman danced naked in the moonlight atop an Indian mound for a couple male friends, based on an actual event that occurred during the Roaring Twenties outside of Jackson. Although Perry was not a participant in the event, the story quickly spread throughout the community, and it was both a surprise and a scandal when the story appeared in Perry's novel. Perry was a Jackson native, born in 1900, who worked as a reporter for West Tennessee newspapers before joining the staff of the *Nashville Tennessean,* where he eventually became editor. He published only one other book during his lifetime, a popular account of the fight against the poll tax (Alexander 2002:149–152; Perry 1926:57–79; Perry 1944).

Perry's description of the mound appears in chapter three, book one, of the novel, interspersed through the action. The description is vague enough to suggest both Sauls and Ozier mounds, if Perry was even describing a mound at Pinson. Excerpts follow:

> Conical and bald and dominant, with the oaktree waving above like a plume, it stands up in the midst of a rough country not far from our town. For miles in any direction it may be seen, and most who see marvel.
>
> The builders chose the highest eminence they could find (hills are insignificant and rocks are unknown in our part of the country) and cleared away the forest from it. . . .
>
> . . . It is rather inaccessible, and a deuce of a stiff climb, so not many ever get to the top of it. One or two ten-foot excavations have been made by budding archeologists. Maybe they have found some pottery or something . . . a couple of arrowheads or a tomahawk. I do not know. Anyway they quit. The secret of the mound—if it has one—is still in its heart.
>
> . . . By day you can look far down the valleys until the vistas hide in the blue atmospheric hazes, and across the unpretentious hills. . . . The declivities slant away on all sides of you at once, sort of oddly bulging out . . . and you have to climb up into the tree to see down to the base . . . and the red-clay curving stretch where the big road makes an elbow at its nearest approach to the mound. (Perry 1926:65–66)

The real location of the infamous dance occurred on a natural rise, thought by locals to be an Indian mound, east of Jackson (Alexander 2002:149; Harbert Alexander, personal communication, June 30, 2009), but Perry's description, especially regarding the abandoned excavations and the former road that made a right angle at Ozier Mound, does fit Pinson Mounds. Taking literary license, Perry may have moved the setting to the prominent mound group. This seems even more likely when it is known that Perry provided his editorial skills to the WPA project, being acknowledged in the book's preface for "reading and criticizing the entire manuscript and for his advice during its preparation" (Federal Writers' Project 1939:Ixi). Thus, it seems probable that Perry himself provided the connection between Ozier Mound and *The Windy Hill*.

Regardless of these 1930s and 1940s publications, the age of the antiquarians as regards Pinson Mounds essentially ended with the deaths of J. G. Cisco and William Myer. In a sense, their deaths marked the end of an age in archaeology. The world was changing and there would be less room for antiquarian musings within it.

Interest in the mound complex would pick up again in the 1950s, as a prominent group of Jackson residents—avocational archaeologists among them—began a push for the protection of Pinson Mounds as a state archaeological park. Their efforts brought attention to the mound complex and led to the first investigations by professionally trained archaeologists, including Fred Fischer and Charles McNutt (1962), Dan Morse (Morse and Polhemus 1963), and John

Broster and Lee Schneider (1976, 1977). Their work is discussed elsewhere in this volume.

Concluding Remarks

Nineteenth-century accounts of prominent sites, like Pinson Mounds, reveal the changing perspectives of both researchers and the community and provide clues to site architecture and arrangement diminished or lost through agricultural practices and other activities. At the same time, a critical analysis must be applied to these accounts to separate reliable observations from garbled transmissions, foggy memories, wishful thinking, and descendant folklore.

The earliest accounts report Native American construction as it appeared to the first settlers and before there was much opportunity for agricultural practices to damage or destroy the architecture. Yet, these often-incomplete accounts have many limitations, as the full extent of mound sites was occluded by tree cover, testing to distinguish between natural and man-made features was not undertaken, and preconceptions influenced how sites were seen and interpreted. Second-hand or third-hand accounts that made it to publication confused and conflated sections of a complex mound group and misreported heights of the tallest mounds. This misinformation then continued to inform subsequent accounts.

Later reporters, including early archaeologists, faced a changed landscape after nearly a century of agricultural practices and were left to rely upon descriptions passed down to newer landowners and later generations. By then, these stories of the discovery and expanse of Pinson Mounds had evolved into folklore. William Myer's work in the early twentieth century served as a bridge between that folklore and later scientific investigation. His commission of a survey and publication of a site map created a visual image of descendant folklore superimposed on landscape features, but his lack of any archaeological testing confused legitimate prehistoric mounds and embankment remnants with fantasy, which has ill-served later researchers.

One example of how profound the impact of Myer's City of Cisco map was on later researchers can be seen in the 1968 Master Plan for the development of Pinson Mounds as a state park. In his recommendations for "archaeological development," Charles H. Nash gave first priority to the investigation of the embankments in the various areas of the site, to be followed by their reconstruction, and also recommended that any mounds that were not to be excavated in the near future be reconstructed "to dimensions and heights shown in Meyers [*sic*] Survey" (Hansen, Schneeman & Assoc., Inc. 1968:6). Such recommendations, if followed, would have been disastrous to the integrity of the site.

As I have shown regarding Pinson Mounds, even such dominant features as the largest mounds are subject to misinformation, while no-longer-extant features can have the substance of ghosts. The data that can be teased out of these reports must be used with caution, and researchers would be wise to realize that any hypotheses based on that data are built upon a slippery and unstable foundation. It is well to acknowledge that what remains of sites today is not all that ever existed, but a desire to reconstruct the complete picture should not undermine a rigorous approach.

Notes

1. Jennings Bunn, Tennessee Department of Conservation, taped interview with landowner John Sauls, January 18, 1980. On file Pinson Mounds State Archaeological Area, Pinson, Tennessee, as of March 1986. The present whereabouts of this and other similarly cited items below is unknown.
2. For a more thorough discussion of North Carolina's land claims in Tennessee, see Battle 1974:378–404.
3. Lauderdale County, Alabama, Court Records, Chancery Court, Record Book F, 1849–1852, pp. 338, 342, http://www.rootsweb.ancestry.com/~allauder/chancery-bkf-5.htm (accessed October 21, 2008).
4. Emma Inman Williams, former Madison County historian, published a transcription of *The Patriot* letter in the *Jackson Sun*, Tennessee, March 10, 1946. She apparently learned of the letter (E. I. Williams 1972:14) "[f]rom a paper read by C. W. Davis at the June meeting (1944) of the Madison County Historical Society." Davis was a professor at Union University in Jackson; a transcription of his paper can be found in the *Jackson Sun*, June 11, 1944.
5. Madison County Deed Book 2, pp. 59, 70, in "My Old Salem Cemetery Tombstone Inscriptions Scrapbook," by Jonathan K. T. Smith, http://www.tngenweb.org/records/madison/cemeteries/donahue/oldsal6.htm#jones (accessed May 24, 2010); *Hartford Republican*, Kentucky, May 22, 1903.

6. Atlas Jones, Madison, Tennessee, to Calvin Jones, Wake County, North Carolina, November 24, 1825, "Jones Family Papers 1784–1940," Tennessee State Library and Archives [hereafter TSLA], Microfilm Acc. #240, Reel #2, Box 3, File 5.
7. Atlas Jones to Calvin Jones, December 8/9, 1825, "Jones Family Papers 1784–1940," TSLA, Microfilm Acc. #240, Reel #2, Box 3, File 5.
8. Atlas Jones to Calvin Jones, November 3, 1825, November 24, 1825, "Jones Family Papers 1784–1940," TSLA, Microfilm Acc. #240, Reel #2, Box 3, File 5.
9. Atlas Jones to Calvin Jones, December 8/9, 1825, "Jones Family Papers 1784–1940," TSLA, Microfilm Acc. #240, Reel #2, Box 3, File 5.
10. "Goodspeed's Biographies of Lauderdale Co., TN," http://www.tngenweb.org/lauderdale/gsbios4.htm (accessed June 26, 2009); "Goodspeed's History of Tennessee, History of Carroll County," Nashville, TN, 1886–1887, http://www.tngenweb.org/records/carroll/history/goodspeed/index.html (accessed June 26, 2009).
11. 1870 U.S. Census, Newtown, Fairfield, Connecticut, Roll M593_98, p. 176, Image 203; 1880 U.S. Census, Newton, Fairfield, Connecticut, Roll T9_94, Family History Film 1254094, p. 193. 4000, Enumeration District 115, Image 0389.
12. Cisler, J. G. to Pursley, G. E. , January 7, 1870, January 8, 1870, McBride, C.W., MG19_71, Obion County Marriages 1870s, on-line source, http://www.tngenweb.org/obion/Obion1870sA.htm#C (accessed August 5, 2011); 1870 U.S. Census, Union City District 2, Obion Co., Tennessee, Roll M593_1552, p. 76A, Image 158.
13. Letter, J. G. Cisco to A. Nelson, May 2, 1883. Copy on file at Pinson Mounds State Archaeological Area, Pinson, Tennessee, as of March 1986.
14. *Memphis Commercial Appeal*, August 16, 1898; e-mail from Evan Dawley, Special Projects Division, Office of the Historian, U.S. Department of State, to M. L. Kwas, August 31, 2011.
15. Butler (Brevoort) Papers, Private MSS Collection #Z-954, Ledgers A and B, biographical notes, Mississippi Department of Archives and History, Jackson.
16. The pamphlet is undated, but based on information Cisco included in the narrative, it was printed in 1895. In the 1902 version, Cisco states, "Eighty-three years have come and gone . . . since the first white family settled in what is now Madison County, Tennessee," making the date of settlement 1819. In the 1895 version, he states "Seventy-six years have come and gone," thus arriving at 1895 for the date of publication.
17. Jones's birthdate of November 1814 derives from his West Point application papers and Mexican War pension application, but information provided in several censuses and in newspaper articles is consistent with the March 1814 birthdate he provided in the 1900 census. See next note for references.
18. Timothy Pickering Jones grave marker, http://www.waymarking.com/waymarks/WM3W98_Timothy_Pickering_Jones (accessed May 7, 2009); Horsfall-Vaulx Families, http://worldconnect.rootsweb.com/~bgf2006&id=I0315 (accessed October 3, 2008); 1850 U.S. Census, Madison Co., District 14, Tennessee, Roll M432_889, p. 339, Image 250; 1860 U.S. Census, Madison Co., District 17, Tennessee, Roll M653_1263, p. 190, Image 380; 1870 U.S. Census, Madison Co., District 15, Tennessee, Roll M593_1545, p. 357b, Image 720; 1880 U.S. Census, Madison Co., District 15, Tennessee, Roll 1270, p. 312b, E. D. 99; 1900 U.S. Census, Guadalupe Co., Texas, Roll T623_1641, p. 21A, E. D. 64; Madison County Deed Book 2, pp. 59, 70, in "My Old Salem Cemetery Tombstone Inscriptions Scrapbook," by Jonathan K. T. Smith, http://www.tngenweb.org/records/madison/cemeteries/donahue/oldsal6.htm#jones (accessed May 24, 2010); National Archives Microfilm Publication 688, U. S. Military Academy Cadet Application Papers, 1805–1866; *Hartford Republican*, Kentucky, May 22, 1903; *Utica Herald-Dispatch*, New York, October 21, 1904.
19. John Owen Blanton obituary, *Nashville Christian Advocate*, September 5, 1913. On-line at http://www.tngenweb.org/records/tn_wide/obits/nca/nca11–09.htm (accessed July 14, 2009).
20. *Tennessee Historical Magazine* [1916] 2(2):150; [1918] 4(3):291; [1920] 6(1):71; [1920] 7(2):70; [1921] 7(2):144; *Nashville American*, August 16, 1898; *Memphis Commercial Appeal*, August 16, 1898.
21. Letter, John H. DeWitt, Tennessee Historical Society, Office of the President, to J. G. Cisco, March 28, 1916. Copy on file at Pinson Mounds State Archaeological Area, Pinson, Tennessee, as of March 1986.
22. *Tennessee Historical Magazine* [1916] 2(2):152–153.
23. Historical Sketch, Warren King Moorehead Papers, MSS 106, Ohio Historical Society, Columbus, Ohio.
24. William E. Myer obituary, in "Anthropological Notes," *American Anthropologist*, New Series, 25(4):585.
25. Letter, W. E. Myer, Carthage, Tennessee, to Warren K. Moorehead, Andover, Mass., July 9, 1917. Warren K. Moorehead Papers, Record Group #90.183, Robert S. Peabody Museum of Archaeology, Andover, Mass. The letter from Myer to Moorehead that precedes this is dated June 6, 1917.
26. Proceedings of the Anthropological Society of Washington, Meeting of January 18, 1921. *American Anthropologist*, New Series 23(4) [1921]:497–498.

CHAPTER 3

Mapping Never-Never Land: An Examination of Pinson Mounds Cartography

Robert C. Mainfort Jr., Mary L. Kwas, and Andrew M. Mickelson

In a 1922 issue of *Art and Archaeology*, William E. Myer published a brief description of Pinson Mounds. Accompanying this article was a beautifully drafted map titled "City of Cisco near Pinson, Madison County, Tennessee" (Figure 2.2). This was the first published map of the mound complex. The most visually striking features appearing on the City of Cisco map are extensive embankments, which include two roughly circular sections designated the "Inner Citadel" and the "Eastern Citadel," and expansive outer embankments encompassing the entire mound complex. The Eastern Citadel embankment still exists, but neither the lengthy "old exterior breastworks" nor the shorter Inner Citadel embankment is visible today. Moreover, the City of Cisco map shows 34 mounds as opposed to the 13 or so known today. Determining which of the landscape features mapped as mounds and inferred embankment remnants has long been of interest to researchers at Pinson Mounds (Kwas 1996; Kwas and Mainfort 2007; McNutt 2005, 2007; Mainfort 1996; Morse 1986; Morse and Polhemus 1963).

Here we offer new insight into the City of Cisco map and what it represents through a comparison with a 1917 field survey map made by E. Gale Buck, upon which the City of Cisco map was based. We also have compared the two maps with a circa 1915 photograph, a 1941 aerial photo, and 1947 and 1981 topographic maps. Our assessment of Buck's map leads us to conclude that, contrary to what is depicted on the City of Cisco map, neither the Inner Citadel nor outer embankments were visible in 1917.[1]

Mapping of Pinson Mounds

The Pinson Mounds vicinity was opened to Euroamerican settlement following an 1818 treaty with the Chickasaw Indians, and within a few years settlers were flooding into the new land, clearing tracts for timber and cultivation. By 1850, 115,872 acres (about 35 percent of Madison County) were under cultivation or otherwise improved (DeBow 1854:310). Corn and cotton were the major crops (Lyman et al. 1907:693; Safford 1884:6), and both were grown using ridge cultivation (Lyman et al. 1907:690). In the 1870s, about 10 percent of the cotton produced in Madison County was shipped from the depot in Pinson (Killebrew 1874:1135–1137). William Myer did not arrive on the scene until the early twentieth century (Kwas 1996; Kwas and Mainfort 2007).

Myer first learned of the mounds near Pinson from J. G. Cisco, for whom Myer named the site the "City of Cisco." Cisco lived in Madison County on

and off for about 20 years, where he published a newspaper, among other things, and delved into antiquarianism. During the years of his most active interest in the prehistoric sites of Madison County, from 1877 to about 1888, he visited many sites, excavated in a few mounds, and amassed a collection of artifacts numbering in the thousands (Kwas 1996:92–97). Myer conducted two interviews with Cisco, the first in late 1916 or early 1917 before visiting the site, and the second in January 1919.[2]

After receiving Cisco's information, Myer spent two weeks in Madison County with a survey crew of three men, headed by civil engineer E. G. Buck, who worked for the Patton Engineering Company in Jackson, Tennessee (Kwas 1996:98–99). Myer hired and paid Buck[3] to conduct a field survey and produce a map of landscape features that Myer interpreted as mounds and embankments, and Myer remained with the crew to supervise the mapping[4] (Kwas and Mainfort 2007:146; Myer n.d.:630 [also numbered as 717]; see also Myer n.d.:615[702] and Myer 1922:141). Several years later as Myer was preparing his article for *Art and Archaeology,* he commissioned draftsman Paul J. Leverone, of Hyattesville, Missouri, to produce the City of Cisco map that accompanied the article.[5]

Leverone's map is based on a heretofore unpublished field map, measuring about 29 x 15 inches, drafted by E. G. Buck. Buck's original map, which he mailed to Myer on September 7, 1917, includes extensive emendations in dark blue-colored pencil and others in plain pencil that we believe were added by William Myer, prior to turning the map over to Leverone to finish for publication.[6] The colored-pencil cursive script differs stylistically from the generally printed script on the original map, which presumably is in Buck's hand. The cursive notations presage those that appear on the City of Cisco map.

Buck's map, like the City of Cisco map, is planimetric (i.e., it depicts features of interest in plan only), albeit with some hachures to highlight the mapped features. Planimetric maps are quite different from contour maps, which are based on topographic surveys that are made to determine the relief of the earth's surface.

Referring to the landscape features represented on either map—and particularly the City of Cisco map—as landforms seen and recorded by Buck (e.g., McNutt 2005:144) is misleading. It was Myer, not Buck, who determined what landforms to map and how they were to be interpreted, and that interpretation was not based on archaeological testing. Identification of large mounds such as Sauls and Ozier mounds as constructed earthworks is straightforward, but there is a serious issue in the case of more diminutive landscape features that were mapped as artificial mounds or embankments (Kwas and Mainfort 2007; Mainfort 1996). Moreover, Myer directed Buck to include Mound 35 on the draft map even though neither of them actually saw the landform. A local informant told them about it and provided an estimate of its size, which Myer did not like and instructed Buck to change.[7] Myer's instructions to Leverone directed a number of changes, including the following pertaining to the mounds: "Endeavor from letting the mounds (on large scale map) from appearing that they might be as located on [*the City of Cisco*] map."[8]

In the absence of actual field records or a surveyor's notebook, annotations on Buck's map provide insight into how Buck produced the map. In mapping most smaller "mounds" (e.g., Mounds 2, 3, and 4), he shot in a point on the landform and sketched its assumed limits (Figure 3.1), Buck and his crew may have used a tape to measure the extent of the landforms, as suggested by the table of mound dimensions and volumes that he compiled for Myer,[9] but the dimensions likely were based on instructions from Myer. Buck then set up his transit over the point just mapped and shot a point to the next nearest "mound" that Myer identified, repeating the process across most of the site and sometimes establishing a new transit station at an intervening point. There is no indication on the original map that Buck shot in any transit points along the northern section of "breastworks," nor on Mounds 33 or 34 (Figure 3.2). We must reiterate here that Buck's map is planimetric, not topographic, and researchers would be unwise to accept the reported measurements as accurate (see below). Moreover, archaeological testing has shown that many of the smaller "mounds" Buck mapped are natural landforms (Kwas and Mainfort 2007; Mainfort 1996).

For some larger mounds, Buck made multiple shots around the inferred base—13 for Sauls Mound

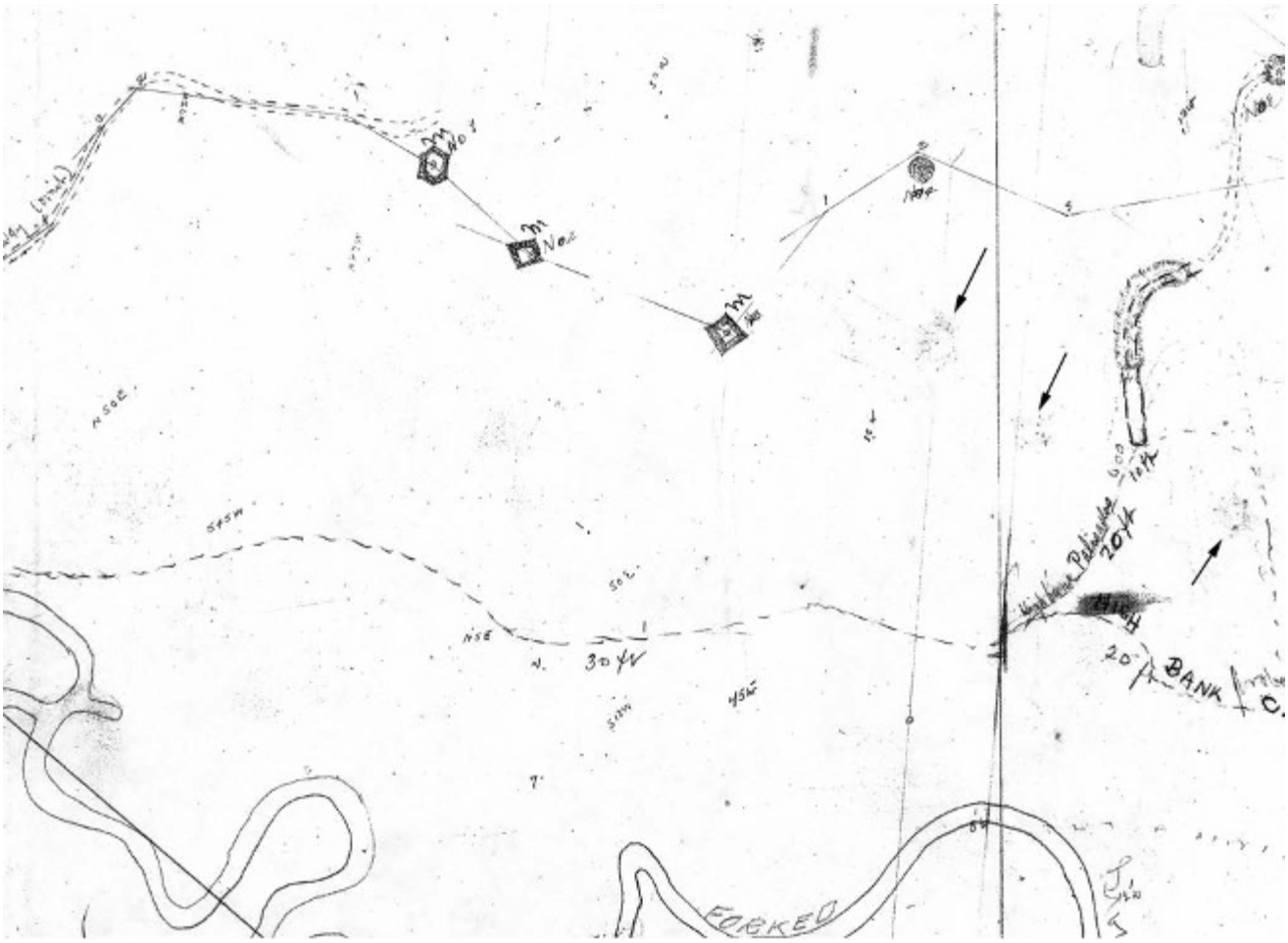

FIGURE 3.1. Buck field map showing Mounds 1–4 and surrounding area.

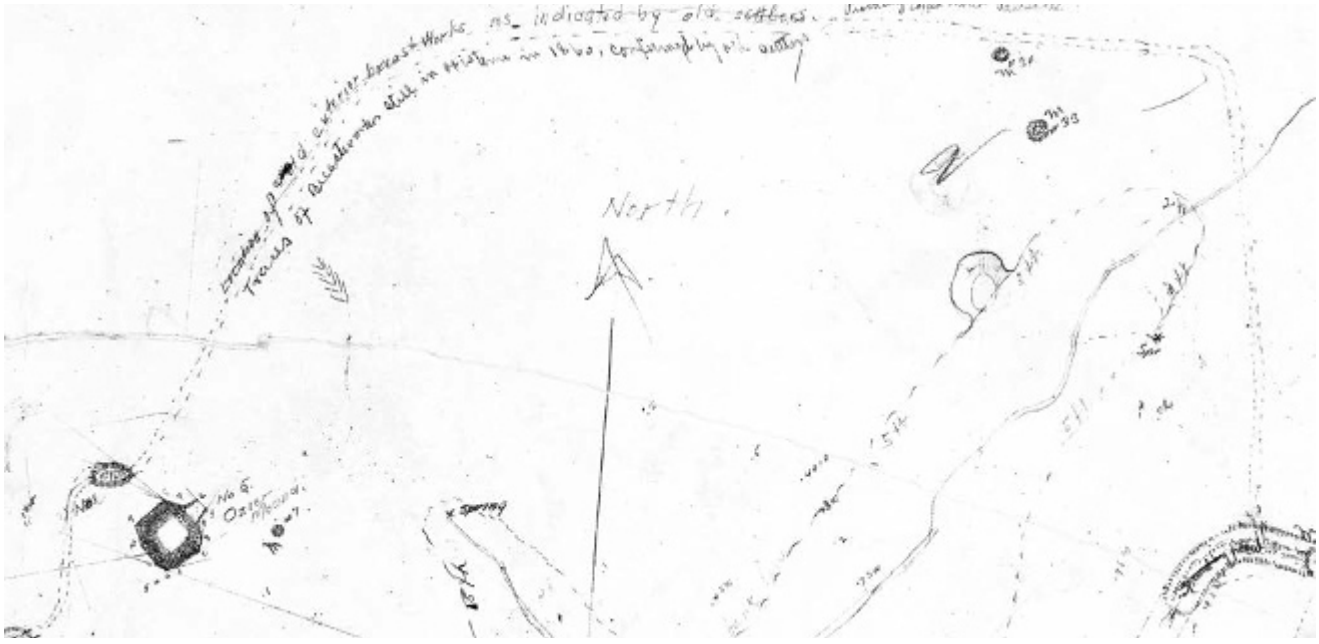

FIGURE 3.2. Buck field map showing Ozier Mound and lengthy section of inferred "breastworks."

(Figure 3.3), 12 in the case of Ozier Mound, and 8 for the Twin Mounds. Lacking topographic measurements, determining what points represent the "base" of a mound is necessarily subjective, though less so in the case of large mounds than for landscape features only a few feet tall. Buck used 21 transit shots to map the outline of the Eastern Citadel embankment (Figure 3.4), apparently starting in the northwest quadrant and working his way clockwise. The outline of Mound 30, the purported "bird effigy" (Myer 1922:144), as it is portrayed on Buck's map, does not appear to be based on transit survey around the base.

Buck's map includes several landscape features that are not included on the City of Cisco map (Myer 1922). The most obvious of these are "Mounds" 1, 2, 3, 4, and 35, which lie outside the bounded area Myer wanted shown on the City of Cisco map.[10] For preparation of the latter, Myer probably decided to eliminate these features in order to emphasize the appearance of the other mounds and the inferred embankments.

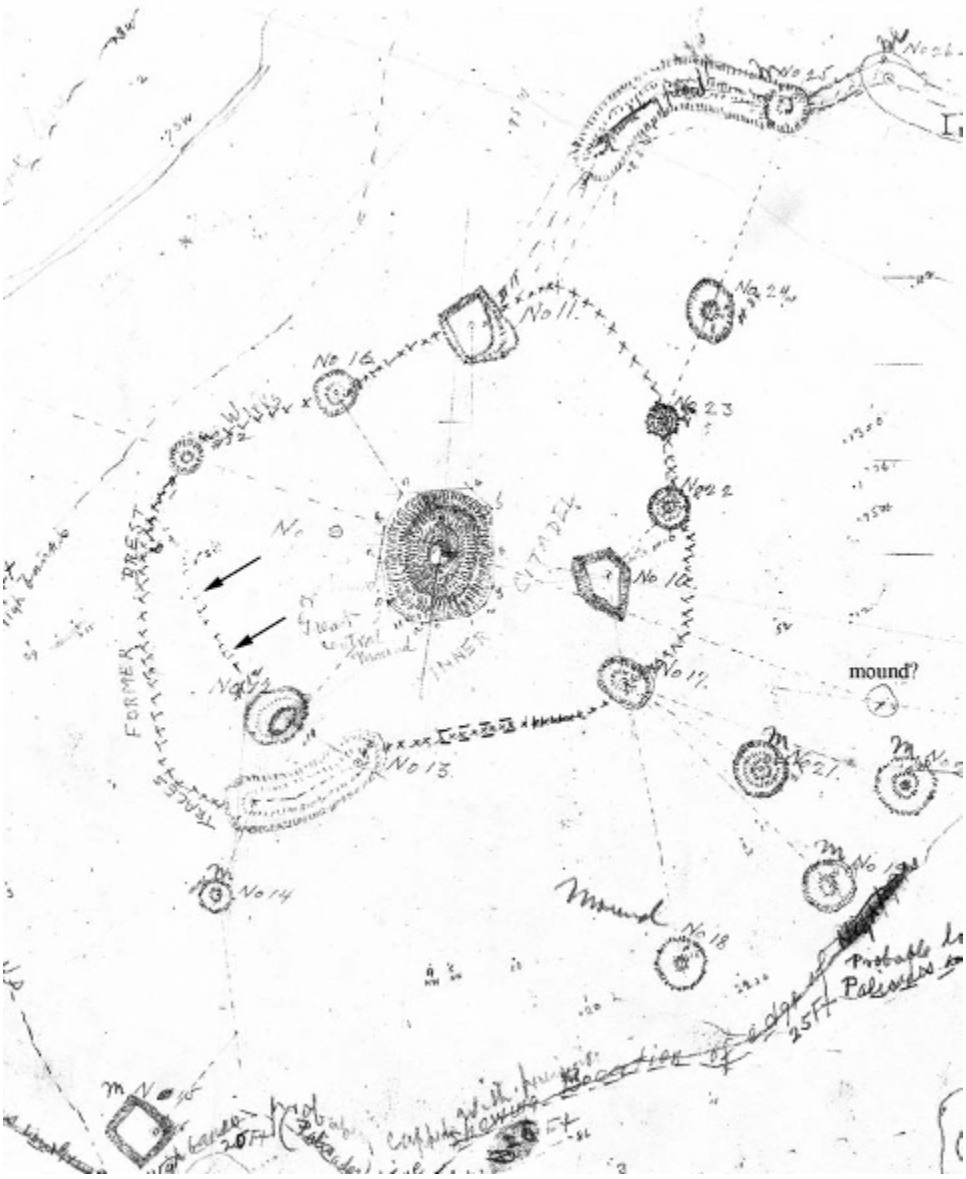

FIGURE 3.3. Buck field map showing Inner Citadel area. Arrows indicate erased embankment. We added the annotation "mound?" to call attention to a mapped feature mentioned in the text.

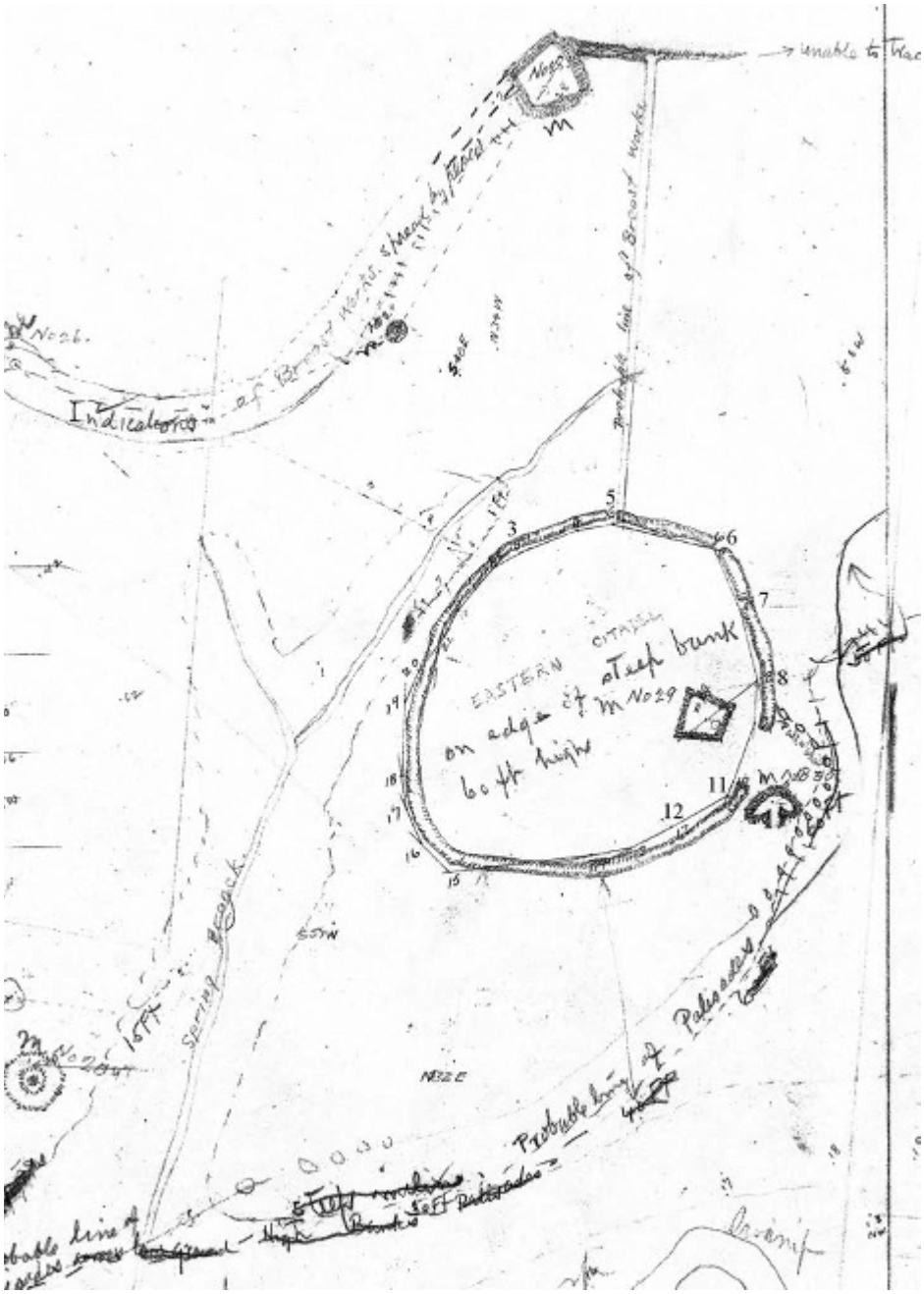

FIGURE 3.4. Buck field map showing Mound 28 and Eastern Citadel area. Transit stations mentioned in the text are highlighted using a larger font.

Discussion of Map Features

We will discuss the mapped features proceeding west to east across the site, or left to right on Buck's map.

Mounds 1, 2, 3, and 4 (Figure 3.1) "are outside the walls, on the hill westward of the town" (Myer n.d.:621[708]). Mounds 2 and 3 are represented as essentially square, Mound 4 as circular, and Mound 1 as hexagonal. Faint mirror images of Mounds 1, 2, and 3, along with accompanying transit lines, appear to the east and southeast of Mound 3. Their presence may be due to folding and improper storage of the map, which created a reverse print, at some point in its history.

There is what appears to be a curvilinear rise shown about 700 feet southwest of Ozier Mound; it is incorporated into the "breastworks" on the City of Cisco map (Figure 2.1). Because Buck's map is not topographic, the height of this possible landscape feature is unknown. This and two other possible rises

discussed below seem to have been the basis for much of Myer's (1922) inferred lengthy series of embankments at Pinson Mounds. To the southern end of this landscape feature, Myer added (in blue pencil) a north-south extension that carried it about 200 feet south to the head of the ravine west of the Twin Mounds. This linear portion corresponds to the former property line between the Ozier (future state tree nursery) tract to the east and the Watlington tract to the west (Kwas and Mainfort 2007:146–147).

On the 1947 topographic map of the northern portion of the Ozier tract,[11] prepared shortly after the State of Tennessee acquired the property for use as a tree nursery, there is no topographic feature corresponding to this rise, but there is a curvilinear feature specifically labeled as a "terrace" (i.e., an agricultural terrace) in the general area (Figure 3.5).

Proceeding north from the mapped rise, Buck's map shows an inferred section of embankment extending more or less north of the mapped rise that intersects Mound 8, about 30 m northwest of Ozier Mound. We are fortunate to have a circa 1915 photograph of this area,[12] one of the two earliest images of Pinson Mounds (Figure 3.6). This photo shows Ozier Mound as viewed from the west. In the right (south) foreground is the west end of a fence that extends east to the mound and partially encircles its base. This fence (or its successor) appears on the 1947 topographic map (Figure 3.5), and it appears that the photographer deliberately captured the west end of the fence in his image. This reference point places his location at about 150 m (500 feet) west of Ozier Mound on the property line between the Ozier and Watlington tracts. This means that Myer's inferred embankment was located about 70 m east of the photographer's location. Thus, the putative embankment, as well as Mound 8, are within the viewscape of the photograph. There is no visual evidence of either. Note that Buck reported the dimensions of Mound 8 as 90 x 160 feet and 2 feet tall (Myer n.d.:619[706]), larger than

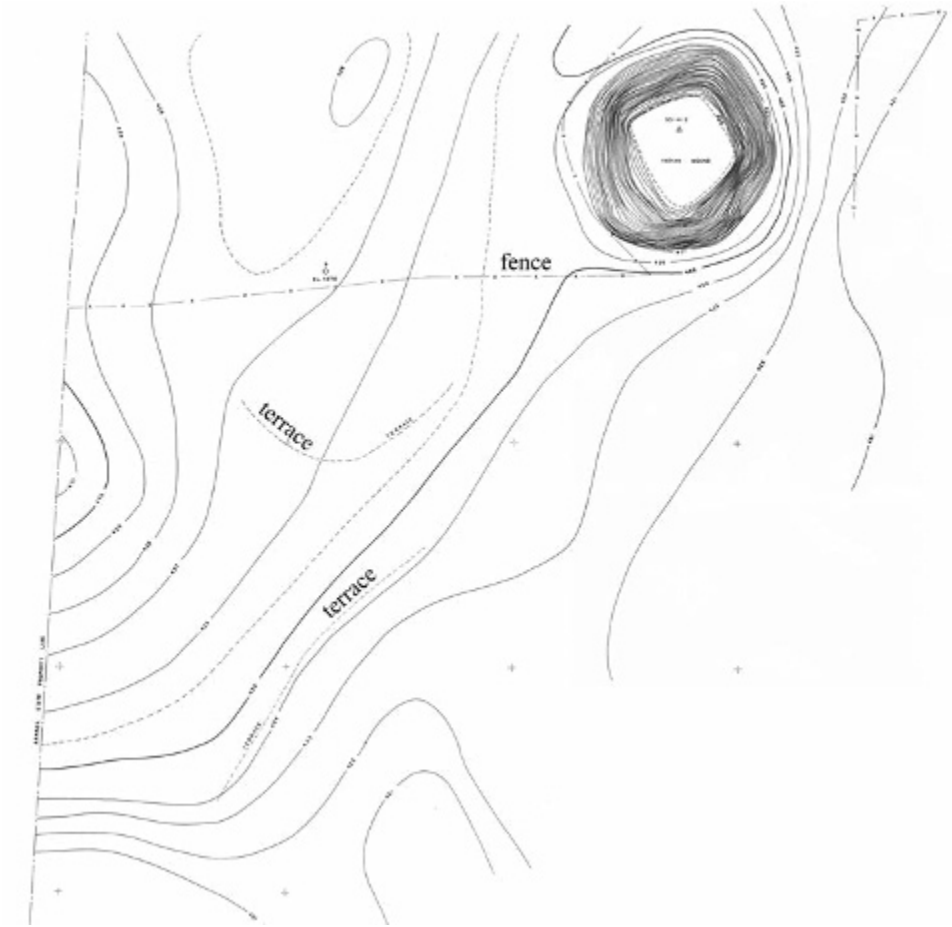

FIGURE 3.5. Composite topographic map of Ozier Mound area, 1947. The authors added "terrace" and "fence" in a larger typeface. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

"Mounds" 22 and 23, but neither Mound 8 nor the inferred embankment in the general vicinity were visible in 1915—two years before Buck's transit survey.

Buck drew another curvilinear rise about 600 feet northwest of Ozier Mound, but he or Myer largely erased it. As with the similar feature to the south, the linear portion corresponds with the Ozier-Watlington property boundary. There is no evidence of this landscape feature on the 1947 topographic map, and we suspect that Myer had Buck eliminate it from his map because it did not fit Myer's conjectured course of the outer embankment. As shown in Figure 3.3, this rise is a bit wider and shorter than the one to the southwest of Ozier Mound.

Above the lengthy embankment segment shown northeast of Ozier Mound (Figure 3.2) is the notation in Buck's hand: "Location of old exterior breastworks as indicated by old settlers." Myer crossed this out and added the revised notation: "Traces of Breastworks still in existence in 1860, confirmed by old settlers," which appears also on the City of Cisco map. The original wording on Buck's map carries no implication that he or Myer actually saw any "traces" of an embankment at this location. Myer's revision ("Traces") clearly does, and this section of "breastworks," as well as the sinuous section extending north and south of Mound 8, may be simply the product of wishful thinking on Myer's part. Above the inferred embankment in the vicinity of "Mound 34," Myer inserted: "Probably capped with Palisades," although he conducted no archaeological testing that would have revealed any evidence of palisades. There are no indications that Buck mapped the locations of the inferred embankment or "Mounds" 33 and 34, located in the general vicinity, with a transit. There are no transit points or transit lines shown on the map (Figure 3.2).

As mapped, the northernmost section of the "old exterior breastworks" is linear and follows an east-west course, essentially along the crest of a 20-foot rise above a tributary of Hudson Branch immediately to the north (Figure 3.7). The topographic setting of this section is noteworthy. If the "exterior breastworks" actually existed, this section would have been the most likely to be preserved because an earthen wall at this location would have prevented soil from eroding into the low area to the north. The sandy character of West Tennessee soils, such as those in the Pinson Mounds

FIGURE 3.6. Ozier Mound, circa 1915. View to east. © Presidents and Fellows Harvard University, Peabody Museum, 2004.29.2398.

area, makes them prone to severe erosion (Brown et al. 1978:12–13; Lyman et al. 1907; Maddox 1915; see also Myer n.d. 627[714]), and the 10° slope down to the tributary makes it a prime candidate for heavy erosion.

The 1947 topographic map (Figure 3.5) and several historic photographs[13] (Figure 3.8) show that individuals farming the Pinson Mounds complex built low soil terraces to control erosion, and it seems unlikely that an existing earthen wall that served such a purpose would have been destroyed. Moreover, this section of embankment, like the Eastern Citadel, would not have been an impediment to agriculture—it was located along the edge of a field.

The northernmost portion of the "breastworks" extended about 2,400 feet east-west. At the eastern end, Buck's map shows this feature making a sharp turn to the south. As shown in Figure 3.2, this turn roughly follows the southern course of the Hudson Branch tributary mentioned above. The "breastworks" continue south for about 1,600 feet, where they intersect a mapped curvilinear rise with "Mound 25" on its eastern end. Today there is a low (2 feet) rise in this vicinity, but most of the general area lies along the 440' contour, with the relief falling off to the north. Buck did not map any transit points along the long embankment section.

It is unfortunate that some of Buck's original annotation on the "Indications of Breast Works spread by plow" to the east of Mound 25 and Mound 26 (a point on the inferred embankment) is no longer discernable. "Indications" and "spread by plow" are written in blue pencil in Myer's hand (Figure 3.4). "Indications" covers one or more words written by Buck, and just to the left is part of a scarcely visible word that starts with "P"; the line appears to say "possible line of breastworks."

The representation of the Inner Citadel embankment on Buck's map (Figure 3.3) differs stylistically

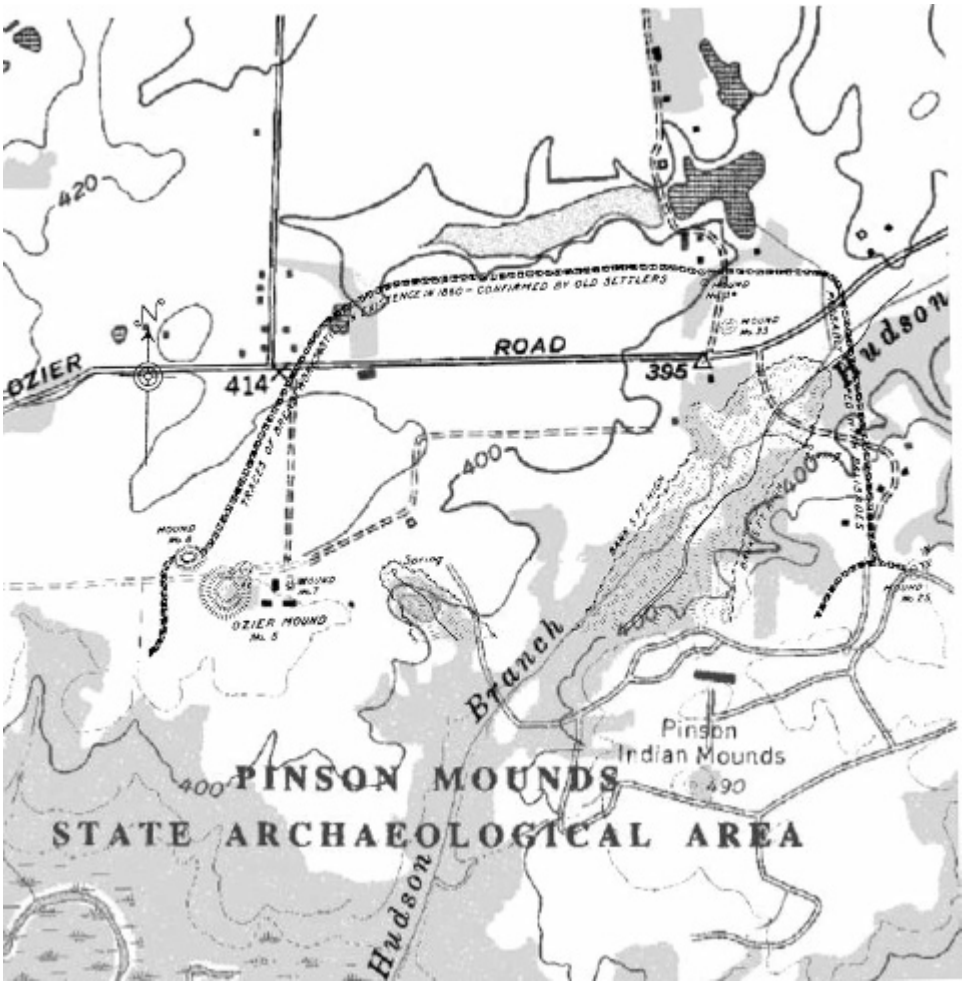

FIGURE 3.7. Excerpt of modern USGS quadrangle map showing western and central portion of Pinson Mounds. A scaled and rotated portion of the City of Cisco map showing the northern section of breastworks is superimposed. Note that the branch of Hudson Branch just north of the breastworks mentioned in the text has been dammed to create the pond shown here.

FIGURE 3.8. "Truncated pyramidal mound near Pinson," probably winter 1935–1936. 1935–1936, WPA/TVA Archives. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

from that of the other illustrated embankments, the embankment being represented by a series of Xs. There are no transit points shown, and the only markings along its course were rendered later by Myer in blue pencil, though the annotation "traces former brest works" may be in Buck's hand.

In handwritten notes by Myer presumably intended for Leverone,[14] Myer listed several changes he wanted made in the final rendering of Buck's map (i.e., the City of Cisco map); among the notes are these comments: "make the ••• [*presumably meant to indicate the graphic style used*] of vanished walls in some way different from those of existing walls" and "Put 'Probable embankment' on wall around [*Mound*] 9." The only "existing walls" on the City of Cisco map, as shown by the different graphic style, are those of the Eastern Citadel. This seems to indicate that Myer did not actually observe the Inner Citadel embankment or even "Traces," as he indicated for the "old exterior breastworks" mentioned above. The graphic rendering of Sauls Mound (presumably by Paul Leverone) that appeared in Myer's article (Myer 1922:143) does not show an embankment (Figure 3.9), though the panoramic view easily could have accommodated the feature. Also of note is the faint (largely erased) line of markings that runs northwest from Mound 12. This probably continued to "Mound 32" and may represent Myer's original concept of this portion of the Inner Citadel embankment.

Buck's map shows an ovoid area, probably meant to be a rise based on his use of hachure, about 150 feet south of Mound 12 that is labeled "Mound 13" at the eastern end. This also appears on the City of Cisco

FIGURE 3.9. Graphic rendering of Sauls Mound. From Myer (1922:143).

map, but there is no trace of a rise in this area on a 1981 topographic map commissioned by the Tennessee Division of Archaeology.[15] Kwas and Mainfort (2007:147) note that the size of "Mound 13" as mapped differs substantially from its stated size. We suspect that this possible landscape feature provided the basis for Myer's final conception of the Inner Citadel. The area mapped as Mound 13 is clearly visible on a 1941 aerial photograph[16] (Figure 3.10), made by the U.S. Department of Agriculture. The "edges" are marked by field rows, and it appears to have different vegetation cover than the surrounding fields. Morse (1986:100) excavated a 5-m-long trench near the center of Mound 13 and found no evidence of a prehistoric embankment, but found the remains of a historic fence. West and southwest of Mound 11, inferred embankment sections articulate well with the course of an incipient gully and the east edge of a large gully overgrown with trees.

On the 1941 aerial photograph, in the vicinity of "Mound 17" and its adjoining "former breastworks" are several prominent agricultural terraces, the location and orientation of which correspond closely to the "former breastworks" shown on the City of Cisco map. Also visible on the photo is the location of "Mound 21," demonstrated to be a natural rise (Mainfort 1996:117), within a cleared area southeast of Mound 17 (Figure 3.10). Northwest of Mound 23 is another agricultural feature that corresponds to an inferred embankment section.

Buck mapped a circular locality north of Mound 20 that Myer must initially have considered to be a mound (Figure 3.3), but later changed his mind. As noted above, Myer's decisions of what to include or eliminate from Buck's map were not based on archaeological testing. Here is another indication that Myer's identification of various landforms as constructed mounds was somewhat arbitrary.

Just outside the inferred western portion of the Inner Citadel embankment is the notation, seemingly original: "traces of former brest works." There is no evidence of a rise here on the 1981 topographic map, but the relief does drop off to the west from the general location. Immediately west of Sauls Mound is the

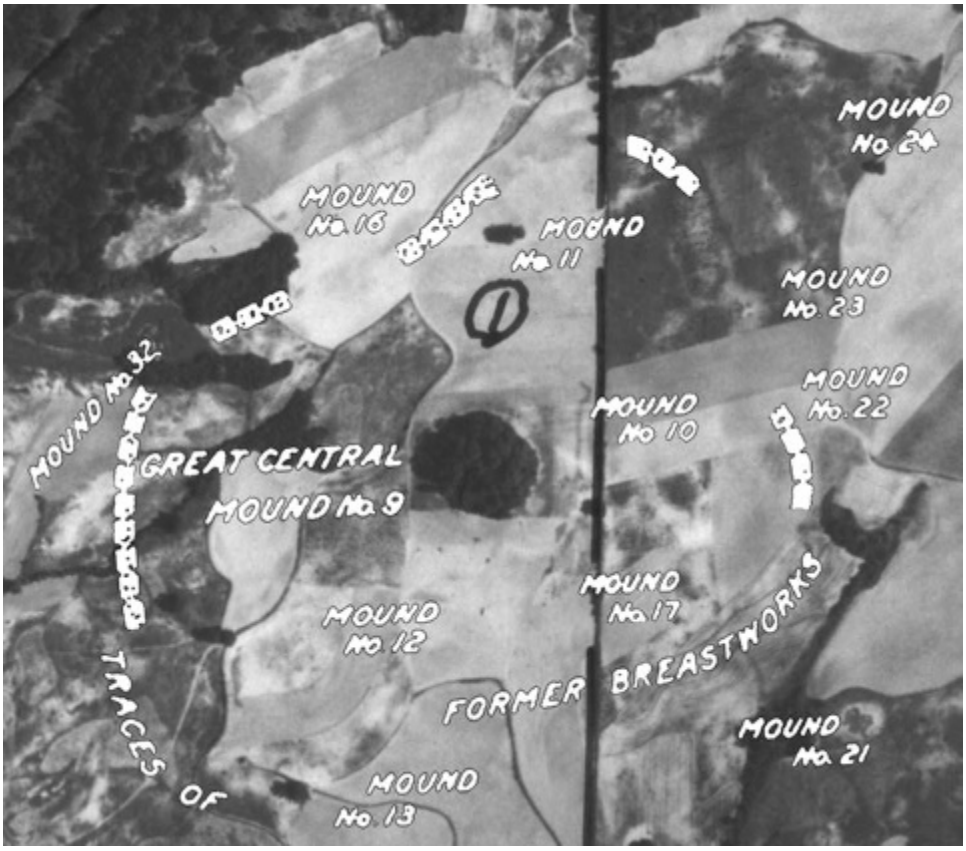

FIGURE 3.10. Detail of Inner Citadel area from 1941 aerial photograph with scaled excerpt from the City of Cisco map superimposed. The circled "1" and the solid line that follows a property boundary east of Sauls Mound were added to the photograph for reasons unknown.

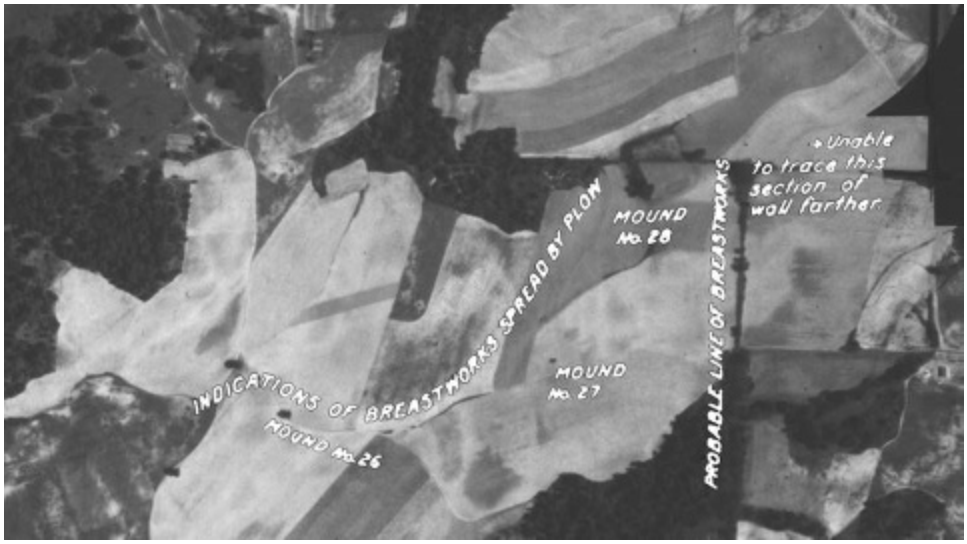

FIGURE 3.11. Detail of Mound 28, the Eastern Citadel, and surrounding area from 1941 aerial photograph with scaled excerpt from the City of Cisco map superimposed.

largely erased notation "Murphy Mound," a reference to the landowner, James Murphy.[17] Below this, in Myer's handwriting, is "or Great Central Mound."

Buck did not map the inferred section of embankment that extends northeast from Mound 11. Myer added this section later, evidently to "connect" Mound 11 to the curvilinear rise that terminates at Mound 25 (Figure 3.3). The 1981 topographic map shows a rise in this general area, but its form and size do not correspond to the mapped feature on Buck's map.

The mapped course of the embankment between "Mound 25" and Mound 28 (Figure 3.4) corresponds roughly to the modern 440' contour line, and the relief falls off gently to the north. There is no modern evidence of this embankment section, nor was there in 1963 (Morse 1986:100). The curve of the "indications of breastworks spread by plow" east of "Mound 26" (actually a "point in ridge or embankment being point in known location of old line of breast works around the town"[18]) is clearly visible on the 1941 aerial photograph as an agricultural terrace or field row that defines the edges of several fields (Figure 3.11). A portion is recorded on the 1981 topographic map as a somewhat curving row of vegetation, with the local relief falling off to the north; just the sort of place one would want to have an erosion control terrace.

The inferred embankment sections shown as abutting the northwest and northeast corners of Mound 28 (Figure 3.4) are highly suspect. As shown on the 1941 aerial photograph, a tree/shrubbery line marking a property boundary (Hansen, Schneeman & Associates, Inc. 1968:Map 1; Morse 1986:100; Tennessee Department of Conservation 1976:15) bisects the northern portion of the mound and continues to the east and west. It seems apparent that this property boundary was the basis for these inferred embankments, and any linear rises observed here in 1917 almost certainly were created during Euroamerican times. Notice that on Buck's map, the embankment originally was shown as being nearly as wide as Mound 28. Myer later crossed out the southern edge and added, in blue pencil, the narrower version that would appear on the City of Cisco map. Appearing below both lines is Buck's mapped transit line from Mound 27 to Mound 28 (Figure 3.4).

The "probable line of breast works" that runs south to the Eastern Citadel also appears as a tree line on the 1941 aerial photograph (Figure 3.4). The northern portion clearly follows a former property boundary (Hansen, Schneeman & Associates, Inc. 1968:Map 1), and it is likely that the southern portion does as well. The entire embankment differs stylistically from all similar features on Buck's map. It is shown as two solid lines that obviously were drawn using a straight edge, and the lines extend through the northern edge of Buck's rendering of the Eastern Citadel. A small portion of this putative embankment is shown on a standalone sketch of the Eastern Citadel, probably drawn by Buck, that we published previously (Figure 3.12; Kwas and Mainfort [2007:148]).

The appearance of the Eastern Citadel area on Buck's map is, expectedly, quite similar to his stand-alone sketch, though there are a few differences. Perhaps the most noticeable of these is the trapezoidal outline of Mound 29 on the draft map (Figure 3.4); on the stand-alone sketch, this earthwork is rendered as nearly square, which is close to its actual shape. On Buck's map, two openings in the embankment are plainly visible at transit stations 5 and 6; these correspond to "Y" and "X" on the smaller sketch. There is a very narrow opening at station 7, which corresponds to "Gap W" on the sketch. Station 8 on Buck's map is very close to "Gap V" on the stand-alone sketch, and it seems unlikely that Buck failed to notice an opening here. Finally, the opening labeled "Z" on the sketch corresponds closely to transit station 3 on the draft map, but no gap is shown at this location. We must also mention that it is puzzling that Buck and Myer did not represent the prominent ravine immediately south of Mound 29, all the more so because it seems apparent that Buck made a transit shot (between stations 11 and 12) across the ravine. The original outline of Mound 30 on Buck's map is not discernable (except for the rounded base of the "tail") because of Myer's later emendation, but it is our impression that the tail-wing junctures as originally drawn were not as pronounced as Myer represented them.

Accuracy of the Buck Survey

Many historical maps depicting archaeological sites are inaccurate in their portrayal of earthworks and other features, a point made by Cyrus Thomas (1889) over a century ago (Kidder [2002a] provides a recent example). These maps often lack accuracy in distance measurements between features of interest as well. Even the most distorted maps, however, retain topological relationships between the features that are being depicted, and this is why historical maps are of value to archaeologists.

Topology refers to the spatial relationships between mapped features—no matter how a map is "stretched" or warped, or otherwise distorted—spatial relationships are maintained between features on the map (Wade and Sommer 2006:212). There is no question that the Buck map is a topologically correct rendering of the features at Pinson Mounds, that is, Ozier Mound is located west of the Inner Citadel, which is west of the Eastern Citadel, and so on. Quantifying the spatial accuracy is another matter.

We used three separate procedures to analyze the accuracy of the Buck and City of Cisco maps. First, we compared the two maps to determine if there were any differences between Buck's original map and the redrafted version published by Myer (1922). Second,

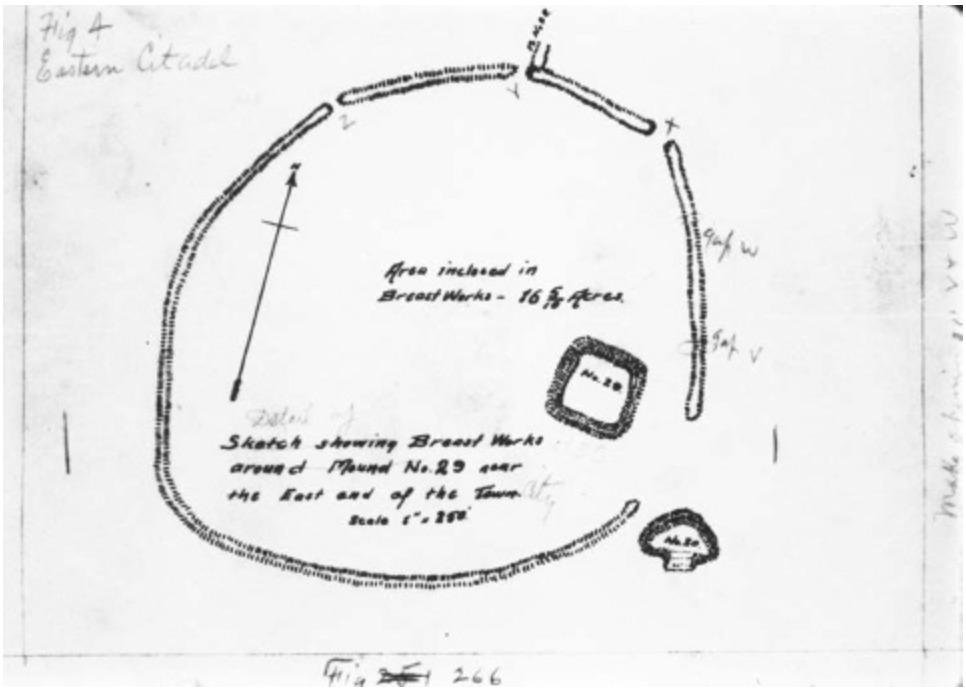

FIGURE 3.12. E. G. Buck's post-field drawing of the "Eastern Citadel," with annotations presumably added by William Myer (NAA Ms. 2150 A).

we estimated the level of accuracy of Buck's survey of Pinson Mounds. Third, we constructed a distortion grid following Forstner and Oehrli (1998).

Utilizing georeferencing tools in *ArcGIS* 9.3 and the distortion measurement software *MapAnalyst* (Jenny and Weber 2010) we tested the degree to which the Buck map and the City of Cisco map varied from reality by comparing these maps to aerial photography and the 1981 topographic map coverages of Pinson Mounds. The technique of georeferencing refers to aligning geographic data to a known coordinate system through stretching, rubber-sheeting, or rotating operations for overlay analysis purposes. The accuracy of the georeferencing and subsequent rectification process is measured through two key variables, residuals and root mean square (RMS) error estimates. Residuals are distance estimates of the fit between true locations of control points and the output points, while the RMS error indicates how good the derived transformation is overall. Generally, as the RMS value approaches zero, the transformation is more precise. However, using the minimum of three points can produce a lousy fit and in this case, the RMS error will equal zero. A number of good ground control points are required to produce a good fit, usually 5–10 points well distributed across the map will suffice (Conolly and Lake 2006:86–88).

First, the City of Cisco map was georeferenced to the Buck map by selecting corners of mounds common to each map as control points. The purpose of this exercise was to determine if anything had changed between the making of the map in the field and the version drafted for publication (Myer 1922). Mounds (Ozier, Sauls, and Mounds 15, 28, and 29) were selected at the four edges and the center of the map to ensure even coverage across the maps, which increases the accuracy of the georectification. The RMS error between the City of Cisco map and the Buck map is near zero (0.14), demonstrating that the maps are, for all purposes, identical. Thus the City of Cisco map (Figure 2.1) essentially is a facsimile of the Buck map.

Since the Buck and City of Cisco maps are identical in the location of earthworks and other features, the second stage of analysis involved determining the level of measurement accuracy of the Buck survey through georeferencing his map to twentieth-century spatial data in the same manner as discussed above. Data used for this analysis were the 1981 photogrammetric two-foot contour maps and aerial photography. These datasets are projected to the Tennessee State Plane Coordinate System with horizontal and vertical distances expressed in feet.

We selected eight control points in common with the Buck map and known features at Pinson Mounds for analysis (Table 3.1), utilizing a first-order polynomial transformation method to obtain an idea of how much distortion existed. Initially, georeferencing the Buck map over modern topographic data using the minimum required number of three control points indicated that Sauls Mound was nearly 246 feet south of its location on the Buck map. Clusters of points spread across the site were selected so that accuracy estimates could be obtained for the eastern, western, and central portions of the mound complex. The

TABLE 3.1. Residuals for each control point used in georeferencing Buck's map.

Mound	Location within site	Residual error in feet	Direction from Actual
5 (Ozier)	west	48.9 (14.9 m)	north
6 (Twin Mounds)	west	82.4 (25.1 m)	north
9 (Sauls)	central	96.4 (29.4 m)	south
10	central	122.1 (37.2 m)	south
12	central	40.43 (12.3 m)	southeast
28	east	89.3 (27.2 m)	south-southeast
29	east	95.5 (29.1 m)	north-northeast
30	east	124.4 (37.3 m)	north
RMS error		91.7 (27.9 m)	

overall RMS error estimate of the map is at one standard deviation of 91.7, or at the 95 percent confidence level of two standard deviations of about 180 feet. This means that the mounds as mapped by Buck are within about 90 feet of their actual locations, and some sectors of the site are depicted with less distortion than other areas. The western portion of Pinson Mounds, which includes Ozier Mound and the Twin Mounds, was rendered significantly better than the Inner Citadel or the eastern portion of the site containing the Eastern Citadel. For instance, on Buck's map Ozier Mound is plotted within about 50 feet of its actual location, while Sauls Mound is nearly 100 feet off the mark, and the Eastern Citadel embankment and the eastern mounds are roughly 100–125 feet north of where they are in reality. Utilizing a first-order polynomial transformation method, the trend in the distance errors generally appears to increase systematically in the north-south direction moving east across the mound complex.

A third procedure for evaluating historic map distortion in greater detail is through the creation of what is known as a "distortion grid." A distortion grid is a graphic representation that depicts the level of accuracy across a historical map. Use of distortion grids has a long history of implementation in cartography (Forstner and Oehrli 1998). The *MapAnalyst* software package was developed to facilitate the creation of distortion grids and to provide a statistical estimate of the degree of distortion in a given map (Jenny et al. 2007). The same control points as used above, except for Mound 30, were employed to create the distortion grid. For this analysis we used the City of Cisco map, which, as demonstrated above, is identical to the Buck map.

The graphical representation of distortion in the City of Cisco map (Figure 3.13) demonstrates the trend discussed above more clearly. The map is distorted to the north in its eastern portion. Statistical estimates of map error generated by the distortion grid method indicate that, at the 1σ level, the horizontal accuracy is ± 25 m (82 ft), with a mean positional error of ± 36 m (118 ft), there is a rotational error of about 5 degrees along the X axis, and 1 degree along the Y axis. Scaling along each axis is also different. The map scale along the X axis is estimated at 1:8,700, and 1:9,200 along the Y axis.

Distortion analysis indicates that the City of Cisco map (and Buck's map) are increasingly inaccurate from west to east. This suggests that Buck began his survey on the western end of the site and ended at the Eastern Citadel; we reached the same conclusion above based on graphical evidence.

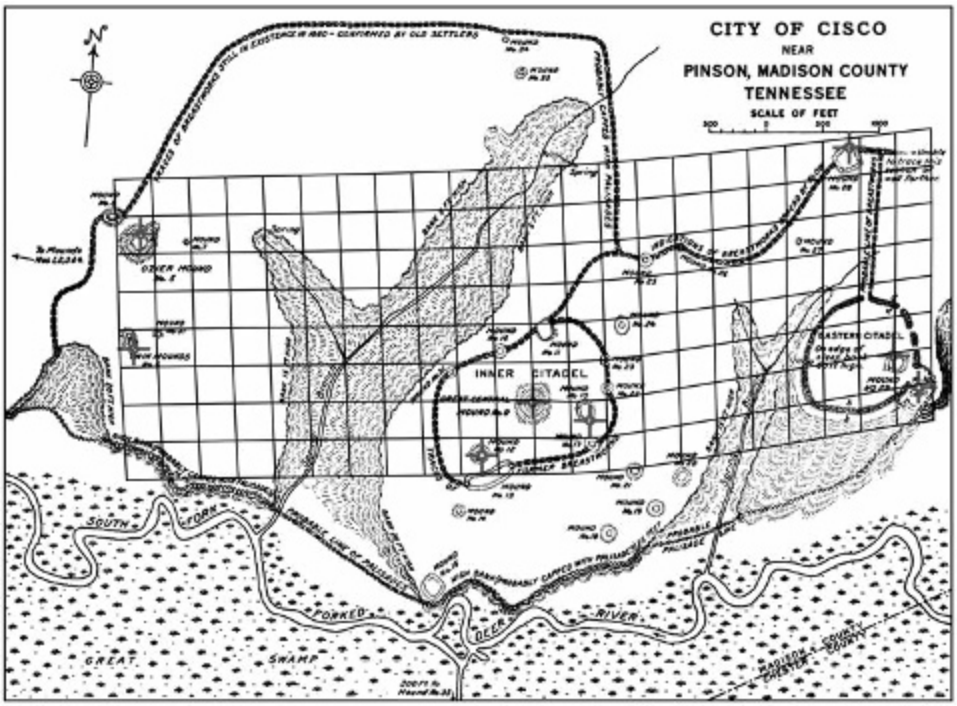

FIGURE 3.13. City of Cisco map with superimposed distortion grid.

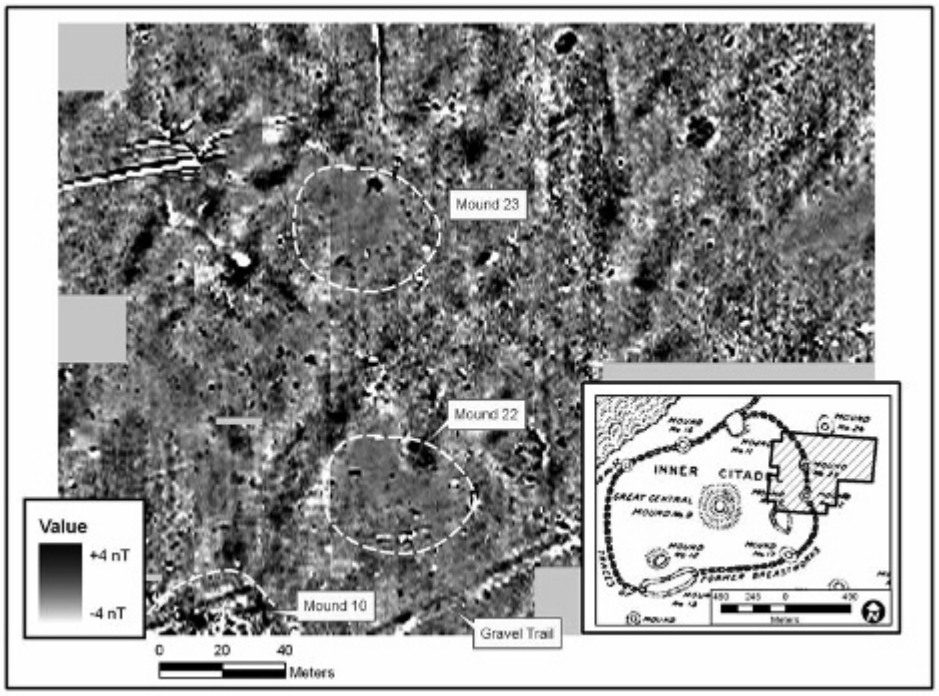

FIGURE 3.14. Magnetometry map of eastern Inner Citadel area.

We will add that if the western, central, and eastern thirds of the City of Cisco map are taken independently, they retain a higher level of accuracy. That said, one implication of this analysis is that the City of Cisco map is sufficiently distorted to the point that using the map for purposes such as seeking archaeoastronomical alignments is untenable (e.g., McNutt 2005; see Hively and Horn [2006] for an excellent discussion of data, models, and statistical requirements for archaeoastronomical studies).

Geophysical Investigations

We feel that the cartographic and photographic evidence presented above makes a very strong case against the existence of the Inner Citadel as envisioned by William Myer (1922), but in the absence of field investigations, some might regard our findings as inconclusive. To address such concerns, we conducted a gradiometry survey of a portion of the Inner Citadel area specifically to search for subsurface remains of a prehistoric embankment. An area of 3.5 ha (8.64 acres) along the eastern portion of the Inner Citadel was surveyed with a dual Bartington 601 gradiometer along 1-m transects, collecting four readings per meter. The data were minimally processed using *Archaeosurveyor* (version 2.3.4.0), and were destriped (zero median traverse) and clipped to ± 4 nT.

The survey covered about 14 percent, or 208 linear meters, of potential embankment and was oriented so that an area of roughly about 100 m east and west of the hypothetical embankment centerline was covered. As shown in Figure 3.14, no evidence for an embankment was found. Because we employed only one geophysical technology, our negative results are not conclusive, but they certainly corroborate the cartographic and photographic evidence.

In Ohio, Middle Woodland embankments often are accompanied by an interior or exterior ditch where sediment/soil was mined (Byers 1987). In a perfect world, earthen embankments will have a strong positive magnetic reading due to the accumulation of topsoil, while ditches have a negative signature due to the removal of topsoil. After several decades of agricultural activity, the positive-reading topsoil is smeared by the plow away from its original location, while still leaving evidence for its source location. In many cases, the "borrow ditches" become filled-in with organic material leaving traces of their existence in magnetometry surveys (Burks and Pederson 2002; Kvamme 2006:218–219).

Geophysical surveys of Ohio Valley Middle Woodland sites have detected subsurface features such

as postmolds and distinctive fills of sediments that significantly contrast with surrounding natural soils (Greber 2005a; Greber and Shane 2009; Lynott 2004; Lynott and Weymouth 2002; McKee 2005). No evidence for any such features described above was found to indicate that such an embankment existed at the site.

The results of the gradiometry survey indicate considerable prehistoric human activity within this portion of Pinson Mounds, as evidenced by magnetic signatures of *presumably* (no ground-truthing was attempted) thousands of pit features, some prepared surfaces, and structural remnants that are beyond the scope of discussion here. Near the locations Myer identified as Mounds 22 and 23, there is no geophysical evidence of mound construction or subsurface pits similar to those exposed beneath Mounds 6, 12, and 31 (Broster et al. 1980; Mainfort 1986). The magnetometry data did reveal, however, possible prepared surfaces at these locations. In the northeast quadrants of the Mound 22 area and northeast quadrant Mound 23 area, the magnetic data suggest the presence of structures. A portion of a probable structure was found along the northern edge of Mound 10, where a line of substantial posts appears along the northern edge of the mound (Figure 3.14).

Discussion

There is no question that the well-known City of Cisco map (Myer 1922) was based on E. G. Buck's earlier map (with Myer's emendations); we have demonstrated that the two maps are essentially identical in their portrayal of features held in common. From a historiographic perspective, however, Buck's map is more valuable than the published map because it is the primary document. Buck's map of Pinson Mounds and Myer's subsequent emendations provide important new information about how the mound complex was mapped and what landscape features actually were visible in 1917. Historic photographs and a historic topographic map contribute additional relevant details. Two key features of concern to modern researches are the existence of embankments and the number of constructed earthen mounds in the complex. Both are addressed below.

The existence of the lengthy "old exterior breastworks" and the shorter "Inner Citadel" embankment has been critiqued and discussed by several modern researchers (Kwas 1996; Kwas and Mainfort 2007; McNutt 2005, 2007; Mainfort 1996; Morse 1986; Morse and Polhemus 1963). Although these are the most visually striking features appearing on the City of Cisco map (Myer 1922), neither is visible today. Our assessment of Buck's map leads us to conclude that neither embankment was visible in 1917, a conclusion supported by independent evidence.

Myer's notes on a January 1919 conversation with J. G. Cisco suggest that few indications of possible embankments were visible even some 40 years earlier[19] (Kwas 1996:102). In fact, the notes make it clear that the "old exterior breastworks" were not plainly visible when Cisco first visited the site: "In 1877 Cisco saw the *remains* [*emphasis added*] of breastworks or walls in Ozier's fields, is not certain about seeing them in Watlington's fields." S. M. Ozier owned a 334+-acre tract[20] that encompassed Mound 5 (Ozier Mound), with the tract extending about 150 m west of the mound.[21] S. M. Watlington owned a large tract immediately west of Ozier's land.[22] Apparently Cisco said nothing to Myer about the presence of "breastworks" or "walls" within the Sauls tract, which encompassed Myer's "Inner Citadel" and had been owned by the same family since 1866.[23]

Thus, the only "remains of breastworks" that Cisco remembered seeing would have been part of the section shown on Buck's map and the City of Cisco map as running north to Mound 8 and extending to the final "s" in "breastworks" on the City of Cisco map, which roughly corresponds to the location of Ozier Road, the northern boundary of the Ozier estate.

A telling statement regarding what Buck actually saw came two years after he had finished his mapping work, when Myer asked him to "calculate roughly the cubic yards in the ancient walls around the old town at Pinson. These walls extended about 4 miles, counting the inner and outer wall" (Kwas 1996:101; Kwas and Mainfort 2007:146). Buck replied:

> For the wall around the Pinson Group: I am unable to give you anything but an estimate based on an assumed size of wall—Taking this as 4 feet high—with top 4 feet wide & a base of 18 feet—which is the approximate average of the

wall around #29, the yardage for the four miles is 34420.[24]

This makes clear that the extensive lines of "breastworks" shown on Buck's map and the City of Cisco map were not visible in 1917. Hence, Buck could not measure their height and width, and the only way he could provide the volumetric estimate Myer wanted was to extrapolate from the measurements he had taken on the only embankments he could see, which were those around Mound 29—the Eastern Citadel. Geophysical survey of the eastern portion of the Inner Citadel embankment found no evidence that this portion of the earthen wall ever existed. Future investigations will focus on other areas in which Buck and Myer drew embankments.

Another important concern of modern researchers at Pinson Mounds is the number of constructed earthen mounds in the complex. Myer and Buck overlooked the Duck's Nest (Mainfort 1986; Morse 1986), at least one mound (Morse 1986:99), a possible embankment or mound (Mainfort 1996:119), and perhaps others (McNutt 2005:147). Other landscape features that Myer identified as constructed mounds have proven to be natural features; others are no linger visible and their status is regarded as questionable but unknown (Kwas and Mainfort 2007; Mainfort 1996). Geophysical imaging that encompassed the locations of Mounds 22 and 23 on the City of Cisco map found no evidence of either earthwork.

Buck's map retains the partially erased representations of one mound, a curvilinear rise (northwest of Ozier Mound), and a portion of the Inner Citadel that Myer initially had Buck map. It appears that Myer changed his mind about these landforms during the course of mapping. It is also interesting to note that Buck and Myer recorded Mound 35 (located south of the South Fork Forked Deer River) as a constructed earthwork without actually seeing it.[25]

In conclusion, historical documents pertaining to prehistoric sites must be treated as the artifacts they are, subject to critical analysis and interpretation. Written and visual historical documents cannot be accepted at face value, for they are created by people and, thus, prone to bias and manipulation. Such documents must be viewed with a healthy skepticism by researchers. We have demonstrated through a detailed analysis of cartographic, photographic, and other documentary evidence, supported by the results of a gradiometry survey, that William Myer's City of Cisco map of Pinson Mounds cannot be accepted as accurately depicting the physical components of the mound complex, either as it appeared in 1917 or earlier. As noted by Burks and Cook (2011:681) for Ohio Hopewell earthworks, "This should give great pause to those using older maps for studying alignments."

Notes

1. Reprinted with minor revisions from *Southeastern Archaeology* 30(1):148–165.
2. Myer's notes on two conversations with J. G. Cisco, 1917, 1919, in William Edward Myer, "Correspondence Regarding Tennessee Archeology 1917, 1919," National Anthropological Archives, Smithsonian Institution [hereinafter, NAA], Ms. 2150-A.
3. E. G. Buck to W. E. Myer, September 24, 1917, NAA, Ms. 2150-A.
4. Buck to Myer, September 28, 1917, NAA, Ms. 2150-A.
5. Paul J. Leverone to C.[*sic*] E. Myer, September 12, 1921, NAA, Ms. 2899.
6. "Sketch of Indian Village Near Pinson, Tennessee," by E. G. Buck, NAA, Ms. 2899. The original map is fairly faint and the paper has become discolored over the years, so we have digitally enhanced the map to improve visibility for reproduction in print, especially in regard to erased segments, but our primary concern has been to preserve the integrity of the original.
7. Buck to Myer, September 28, 1917, and Myer to Buck, June 24, 1919, NAA, Ms. 2150-A.
8. Handwritten notes on the back of a letter addressed to Charlie H. McMann, NAA, Ms. 2899.
9. Buck to Myer, September 7, 1917, NAA, Ms. 2150-A.
10. Buck's "Mound 4" corresponds to a landform that Mainfort (1996a:115) erroneously identified as "Mound 1," based on a small site map by unknown author (NAA, Ms. 2899).
11. Maps to accompany letter, Porter Dunlap to J. O. Hazard, July 8, 1947, on file, Frank H. McClung Museum, University of Tennessee.
12. Peabody Museum of Archaeology and Ethnology, image 2004.29.2398. This and image 2004.29.2397 were donated by John David Canaday (1875–1955), a minister of the Methodist Episcopal Church, South, living in nearby Henderson, Tennessee.
13. Peabody Museum of Archaeology and Ethnology, image 2004.29.2397 (a view of Sauls Mound, looking south); Frank H. McClung Museum, image fhm00934 (a view of Sauls Mound, possibly looking southeast, circa winter 1935–1936).
14. Handwritten notes on the back of a letter addressed to Charlie H. McMann, NAA, Ms. 2899.

15. Topographic map (8 sheets), commissioned by Tennessee Division of Archaeology, 1981; original maps on file (two never were completed), Office of Aerial Surveys, Tennessee Department of Transportation, Nashville.
16. Aerial photograph, CSE-58A-41, June 5, 1941, U.S. Department of Agriculture, Soil Conservation Service. Copy on file, Department of Earth Sciences, University of Memphis, Memphis, Tennessee.
17. Table included with letter, Buck to Myer, September 7, 1917, NAA, Ms. 2150-A.
18. Buck to Myer, September 7, 1917; NAA, Ms. 2150-A.
19. Myer's notes on two conversations with J. G. Cisco, 1917, 1919, and undated [1919] notes by W. K. Moorehead, NAA, MS. 2150-A.
20. Madison County Courthouse [MCC], Jackson, Tennessee, 1880: Deed Book [DB] 38:367, Mrs. S. E. Hart to S. M. Ozier.
21. Topographic map accompanying letter, Porter Dunlap to J. O. Hazard, July 8, 1947, copy on file, Frank H. McClung Museum, University of Tennessee.
22. MCC 1947: DB 148:400, M. T. Lawrence, et ux. to State of Tennessee.
23. MCC 1866: DB 26:476, Patrick Sauls from Robert A. Connally.
24. Buck to Myer, July 8, 1919, NAA, Ms. 2150-A.
25. Buck to Myer, October 25, 1917, and Myer to Buck, June 24, 1919, NAA, Ms. 2150-A.

CHAPTER 4

Western Ritual Precinct

The western ritual precinct subsumes the mounds and occupation areas located west of Hudson Branch (Figures 1.2 and 1.10). These include Ozier Mound (Mound 5), the Twin Mounds (Mound 6), Mound 31, and one or more additional mounds (Mainfort 1996b:119; Morse 1986:99), as well as two identified occupation areas (the Twin Mounds sector and the Cochran site area) that are linked to ritual activities that are roughly contemporary with the nearby mounds. This area is spatially removed from what has been viewed traditionally as the "center" of Pinson Mounds (i.e., Sauls Mound) by a distance of about 1 km and by the broad, swampy declivity that encompasses Hudson Branch.

As discussed by Mainfort et al. (2011; see also chapter 3), the lengthy earthen embankment that Buck and Myer illustrated in this area never existed. Two putative mounds are shown near Ozier Mound on the City of Cisco map (Figure 2.1). The reported size of Mound 7, to the east, was only 40 feet in diameter and 1.5 feet tall (see chapter 2). The location of Mound 8, just northwest of Ozier Mound, probably is represented by a tree shown in the general area in Figure 3.6. There is no topographic evidence of either mound on the 1947 survey map of the Ozier property (Mainfort et al. 2011; chapter 3). In 1990, Rick Walling tested a low rise about 150 m west of Ozier Mound that appears to represent a previously unrecorded mound.

Ozier Mound (Mound 5)

The most pressing research problem that emerged from the initial investigations at Pinson Mounds was the age of the five flat-topped, rectangular mounds within the mound complex. This research provided suggestive evidence that the majority of the mounds were of Middle Woodland affiliation (Broster et al. 1980; Fischer and McNutt 1962; Morse and Polhemus 1963), but the presence of a wall-trench house and two very large, flat-topped mounds (Sauls and Ozier) raised the possibility that Pinson Mounds might also have been a Mississippian center (e.g., Broster and Schneider 1976:18; Faulkner 1972:39–40; Walthall 1980:198). Indeed, the night before I presented my first conference paper on Pinson Mounds (Mainfort 1980), Stephen Williams, to whom I had only just been introduced, indignantly asked why I thought the mound complex was of Middle Woodland age. Steve's skepticism was by no means unreasonable, albeit a bit unnerving to someone new to Southeastern archaeology.

Prior to 1960, no unequivocal examples of pre-Mississippian flat-topped mounds had been recognized,

despite the fact that C. B. Moore (1894, 1896, 1902) reported a number of early Weeden Island (and related) earthworks (but see Kellar et al. 1962:353). The Midwestern Taxonomic Method of the 1930s inextricably linked truncated rectangular mounds with late prehistoric Mississippian cultures, and extensive excavations during the Depression era, coupled with earlier investigations at large Mississippian sites such as Moundville, produced no examples to the contrary.

In 1962 Kellar et al. published an *American Antiquity* paper, including radiocarbon assays, about a truncated rectangular Middle Woodland mound at Mandeville, Georgia. Professional attention, however, focused on the Hopewellian artifacts from the adjacent burial mound, and evidence from the flat-topped mound was largely dismissed or ignored. Perhaps in deference to prevailing opinion, when Kurjack (1975) reported on the truncated rectangular Shorter Mound, located (like Mandeville) in the Walter F. George reservoir and excavated by David DeJarnette around the same time, he attributed the mound to the Mississippi period, even though all of the ceramics in the two initial mound stages were Woodland, and Mississippian material was limited to the tertiary construction stage.

There are now a number of recognized Middle Woodland flat-topped mounds in the Southeast, including Florence (Boudreaux and Johnson 2000), Ingomar (Rafferty 1990), Johnston (Kwas and Mainfort 1986), and Walling (Knight 1990). Knight (1990:166–172) provides an instructive summary of many others. Farther afield, a radiocarbon date for the Capitolium Mound at Marietta, Ohio (Pickard 1996), has confirmed Prufer's (1964) earlier interpretation of Middle Woodland affiliation. In fact, the age of platform mounds can be pushed back several hundred years earlier into the Tchula period, as shown by investigations of the Batesville group in Mississippi (Johnson et al. 2001). Potentially contemporary with the Batesville group is the initial construction stage of the Adena mound Jo 9 in Kentucky, a "truncated pyramid" with a base 85 feet square and a height of 5.5 feet (Webb 1942:317), which received scant comment. It seems fitting that the oldest flat-topped mounds currently known are Mounds B and E at

FIGURE 4.1. Ozier Mound, circa early spring 1963. View to south. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

Poverty Point, predating all other examples by over 1,000 years (Kidder et al. 2004). In sum, truncated rectangular mounds are no longer regarded as exclusively Mississippian, but this certainly was not the case in 1980.

In form and size, Ozier Mound (Mound 5 in Myer's [1922] numbering scheme) resembles a "classic" Mississippian substructural mound and is larger than many. Standing approximately 10 m tall, Ozier Mound is the second largest earthen mound at Pinson Mounds. A prominent ramp extends from the northeast side, though it may not reach the upper summit (Figures 4.1 and 4.2). At its base, this rectangular earthwork measures approximately 73 by 70 m, with the top roughly 36 by 31 m and a volume of nearly 26,000 m^3 (Shenkel 1986:214). The source of the soil used for constructing most of Ozier Mound is not clear. A 1947 topographic map of the Harold Ozier tract (Maps to accompany letter, Porter Dunlap to J. O. Hazard, July 8, 1947, on file, Frank H. McClung Museum, University of Tennessee) shows shallow depressed areas 100–200 m north and northeast of the mound that may be remnants of borrow pits used during some construction stages. As discussed below, the soils used for the initial construction levels likely came from the Forked Deer River bottomland.

EXCAVATIONS

For the initial excavations in 1981, my intention was to sample the central area of the mound surface where a structure (or "temple"), if present, would be fairly easy to locate. Our limited excavations and systematic testing with a posthole digger revealed no evidence of a burned structure. Rather, the upper mound fill consists primarily of about 80 cm of undifferentiated dark brown sandy loam containing sparse Middle Woodland artifacts. Below this is a layer (more accurately, multiple layers) of pale yellow sand interbedded with gray clay, averaging about 15 cm thick that marks the uppermost summit. There is no evidence that the modern surface of the mound ever was covered with sand.

The limited 1981 excavations exposed two small, roughly circular burned areas inclusive within the summit deposits. Within the matrix of one (Feature 2)

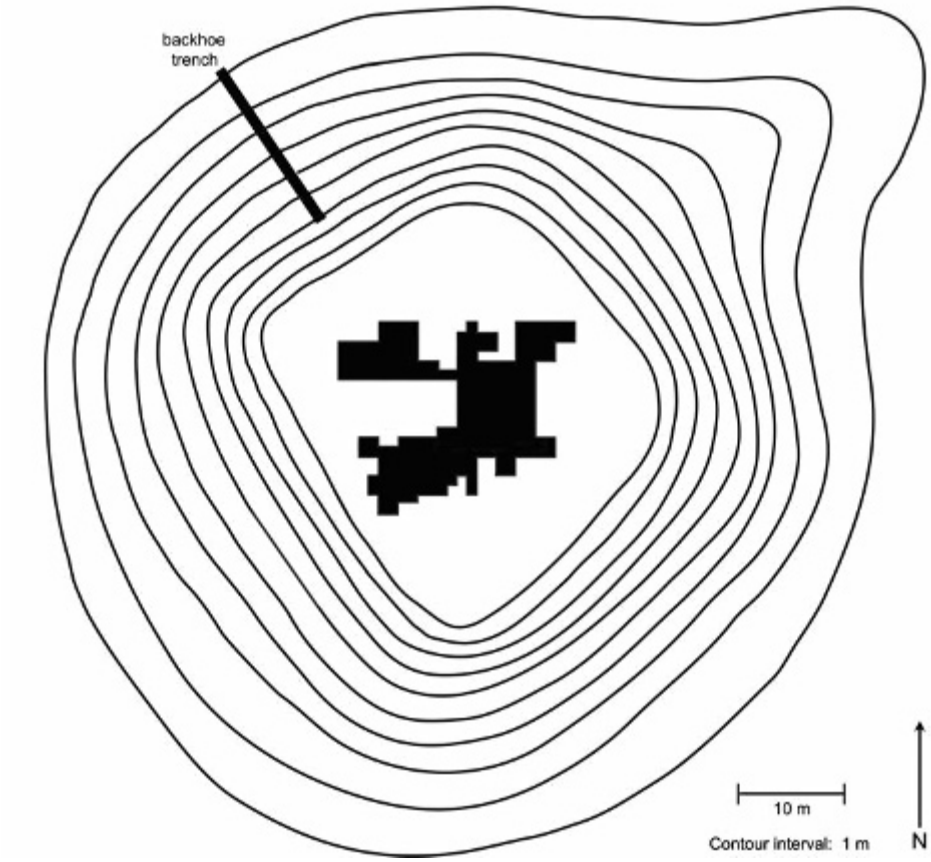

FIGURE 4.2. Topographic map of Ozier Mound showing excavation units.

was a large Furrs Cordmarked sherd (Figures 4.3 and 4.4). This, coupled with the total lack of shell-tempered pottery in the overlying mound fill, demonstrated the Middle Woodland age of Ozier Mound even without confirming radiocarbon assays (Mainfort 1986a, 1988a). We exposed only a small portion of the sand-covered summit (34 m^2). A deeper stratigraphic test conducted the following spring revealed that the fill below the summit deposits consists of rounded individual loads that were deposited horizontally (Figure 4.5).

With funding from the National Geographic Society, we undertook additional excavations on Ozier Mound in 1989 with the goal of identifying specific activities undertaken on the uppermost summit. These excavations exposed an additional 93 m^2 of the summit (Figure 4.2). Details of the excavation strategy and findings were summarized by Mainfort and Walling (1992).

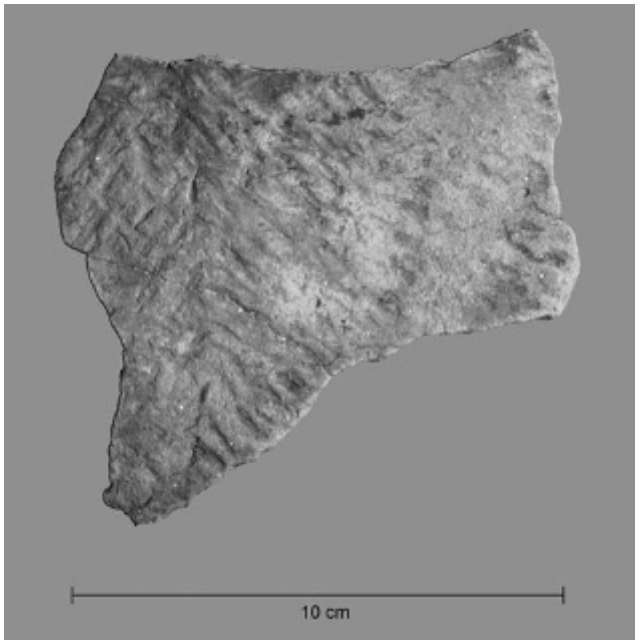

FIGURE 4.4. Furrs Cordmarked sherd from Feature 2.

FIGURE 4.3. Ozier Mound, Feature 2.

FIGURE 4.5. Profile of Ozier Mound showing uppermost summit and underlying load fill.

Within the 1989 excavation area, the summit deposits vary in thickness from 8 to 23 cm and, as noted above, consist of three to four layers of pale yellow sand interbedded with thin layers or lenses of gray clay. This clay was transported from the floodplain several hundred meters to the south (Brown et al. 1978). In contrast, pale yellow sand occurs in the upland soils in the vicinity of Ozier Mound, notably the Twin Mounds area. Thus, as in the case of the northern Twin Mound (discussed later), a construction surface of Ozier Mound was, in effect, capped using superimposed upland and lowland soils associated with forces of the upper world and lower world, respectively. Unlike the northern Twin Mound, a variety of activities seemingly were conducted on this cap (or summit), as demonstrated by the artifacts and features disclosed. These activities may account for the paucity of sand found in the southwestern portion of the summit (Mainfort and Walling 1992:117).

Although few definable features were exposed during the two field seasons, it seems clear that the summit was a specialized surface on which ritual activities were undertaken, but there is no evidence of posts, possible structures, midden deposits, or quantities of faunal and floral remains that characterize the summits of some other Middle Woodland platform mounds (e.g., Knight 1990; Ruby 1997:402–404). Artifacts from the 1989 excavations strengthen the case for ritual use of the mound summit (Mainfort and Walling 1992:116–117). Mica, one of the most common Hopewellian commodities, though underrepresented in the Midsouth (Seeman 1977), was recovered from 11 loci (consisting of single or multiple small fragments), including seven within the summit deposits. Four of the 12 bladelets (including both 1981 and 1989 assemblages) were associated with the summit, as was the single specimen of copper. Thus, the summit deposits contain artifacts and commodities that typically occur in nondomestic Middle Woodland contexts. Limited evidence from summits of the large platform mound (IU9) at the Mann site (Ruby 1997:402–404) suggests a comparable situation.

It is interesting that the density of ceramics and lithic debitage within the summit deposits exceeds that recorded for most nonmound localities at Pinson Mounds (Broster and Schneider 1976, 1977; Broster et al. 1980). Among the ceramics are several stylistically nonlocal sherds that may reflect specialized use (Knight 1990:158) and serve to document the presence of pilgrims from afar.

The summit deposits are linked to ritual use, but some artifacts and raw materials found in the overlying fill may also derive from nondomestic contexts. This is expectable because construction of mounds, as iconic warrants, were highly charged ritual events, and the soils incorporated into these earthworks were not gathered haphazardly (Byers 1987, 2004). Hopewellian exotica from the upper mound fill include three specimens of unworked galena, four mica fragments, and seven microblades. In considering the occurrence of nonlocal raw materials and ceramics in the upper fill of Ozier Mound, it bears repeating that there is presently no evidence of Middle Woodland domestic occupation within the Pinson Mounds complex. Even the premound "occupation" strata beneath Mound 12 are associated with mortuary activities (Broster et al. 1980:22–24; chapter 5).

During the 1989 field season, we recorded and partially excavated four additional features on the upper summit of Ozier Mound (Figure 4.6). Features 3 and 4 are located adjacent to each other in the north-central portion of the excavation area near the ramp. With an area of roughly 28 m^2, Feature 3 is a deposit of reddish brown sandy clay subsoil covered by a thin, dispersed layer of pale yellow sand. The thin (20 cm) feature rests on the basketloaded clays at the base of the summit deposits and a portion of the surface clearly was burned. Little cultural material was recovered from the excavated portion.

Feature 4 is an irregularly shaped basin (perhaps oblong) bounded in part by Feature 3 and is at least partially covered by the sand and clay deposit that covers much of the mound summit. The base is extensively fired, but no charcoal was found on the base, suggesting that material had been removed prehistorically. Several charcoal samples were collected within the basin. Among the few artifacts found within the feature were several scraps of mica. The bulk of Feature 4 was preserved for future research.

Feature 6 is a fairly large (45 m^2), low platform of reddish brown subsoil that is located in the southwestern quadrant of the 1989 excavations. Unlike Feature 3, which lies within the summit deposits, Feature 6 is inclusive within the overlying mound fill. In those

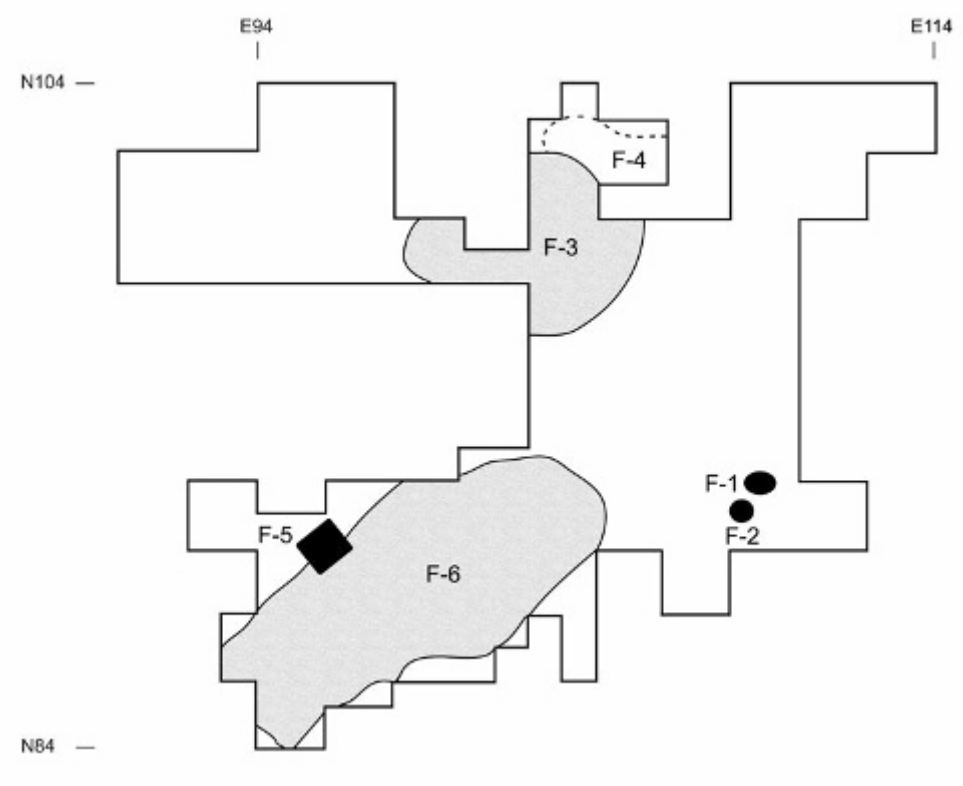

FIGURE 4.6. Plan view of excavation units and features on summit of Ozier Mound.

units with complete soil profiles that include the feature, it is about 20 to 30 cm thick, thinning toward the peripheries. The relative elevation of the upper surface remains fairly constant across the feature; near the edges there is simply more undifferentiated fill underlying the reddish brown clay. Thus, Feature 6 is rather V-shaped (albeit with a flat bottom) in profile, with the base approximately 15 cm above the top of the summit deposits. There is no evidence that the feature had been exposed to weathering. The sand and clay summit deposit is not present beneath the matrix of Feature 6, perhaps indicating that this portion of the Ozier Mound summit was functionally differentiated from the sand-covered areas.

Lithics from the excavated portion of Feature 6 include 1,421 pieces of chert debitage (almost all less than 2 cm long), a chert core, and a bladelet. The density of lithics in the feature far exceeds that from any excavated locality within the Pinson Mounds complex. Most of the small flakes have flat platforms and are products of amorphous core technology (Jay Johnson and Carol Morrow, personal communication, June 1990). Although displaying considerable variability in color, all specimens fall within the range of variability for Fort Payne chert from the western Tennessee River valley. The lithics are inclusive within the fill of Feature 6, rather than being concentrated on the surface or base. Because the feature matrix consists of subsoil, the associated lithics are unlikely to have been redeposited. The role of Feature 6 in ritual activities on Ozier Mound is unknown, but the feature is unlikely to be simply a specialized lithic reduction area on the mound summit.

A thin deposit of charcoal and burned sand was exposed beneath a portion of Feature 6 (Figure 4.6). Designated Feature 5, this deposit covers an area of about one square meter. Within the feature matrix were several small fragments of mica and numerous small bone fragments; a single white-tailed deer tooth was the only identified specimen. If this feature is related to the preparation and consumption of food in a ritual context, it was more on the order of a picnic than a feast.

As discussed in detail by Mainfort and McNutt (2004, chapter 7), there are four radiometric dates for the exposed summit of Ozier Mound. At two sigma, the calibrated average of these is A.D. 128–383. It is unlikely that this summit actually was used for over

two and a half centuries. This might be a more reasonable estimate for the use-life of the entire mound, and the associated ceramics suggest an actual age toward the early end of the range.

STRATIGRAPHIC TRENCH AND CONSTRUCTION HISTORY

The 1981 excavations and subsequent radiocarbon dates conclusively established that Ozier Mound was constructed during Middle Woodland times. An obvious research objective raised by the initial testing was to determine the complete construction history. In July 1983 we secured the services of geotechnicians from the Tennessee Department of Transportation who extracted a complete series of 3-inch, thin-wall core sections from Ozier Mound. Examination of the cores revealed the existence of seven sand-covered summits at depths of 80 cm (the summit exposed during excavations), 2.7 m, 3.9 m, 4.7 m, 5.1 m, 5.5 m, and 6.1 m; these figures are extrapolations that allow for compaction (Reed et al. 1968). Note that the thickness of mound additions above the three deepest of these is less than that overlying the later summits. Sterile subsoil was reached at a depth just over 10 m.

A few days prior to the beginning of fieldwork in 1989, a small tornado or straight-line winds uprooted a half dozen large trees on Ozier Mound, creating gaping holes. The largest hole was located on the northwest face, several meters down slope from the mound summit. Given that this area had already been damaged, we used a backhoe to excavate a stratigraphic cut 17 m long and one meter wide from the tree-fall outward to the northwestern margin of the mound and vertically to the base (Figures 4.7 and 4.8). The cut reached subsoil at a depth of about 4.5 m below the undisturbed surface of the mound (Mainfort and Walling 1992:130), providing a wealth of structural data that corroborates findings from the core sections.

Initial preparation of the surface on which Ozier Mound was built involved not simply the typical removal of subsoil, but actually removing about 20 cm of subsoil and replacing it with redeposited soil. This is suggested by two soil zones at the base of the mound that extend about 2.7 m northwest to a large pit (Figure 4.7). Northwest of the pit, the top of the subsoil is level and 20 cm higher than southeast of the pit.

Also disclosed in the stratigraphic trench was a previously undocumented construction stage or, perhaps, substage. Rather than being covered with light-colored sand, this one is marked by a thin ferric concretion that reflects a significant change in the permeability of mound fill. The soil zones covered by the concretion articulate with the large pit (and its capping soils) mentioned above. Thus, the pit probably served

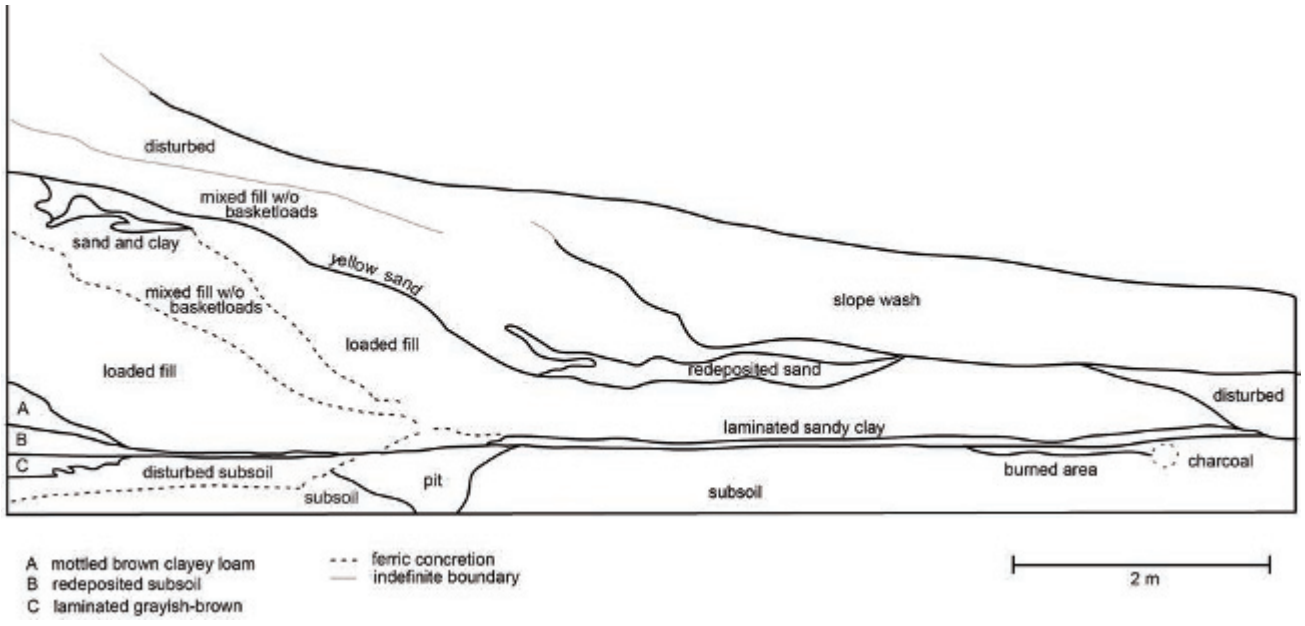

FIGURE 4.7. Ozier Mound. Profile of stratigraphic trench. See Figure 4.2 for location.

a special function associated with the construction stage. Several immediately overlying soil zones also articulate with the pit and are covered by a second thin concretion layer. These latter deposits added little to the height of the mound, but made the angle of the mound slope more acute.

As shown in Figure 4.8, the soils used in the initial construction of Ozier Mound, roughly 2 m thick, are highly contrasting, with colorations ranging from pale brown to blueish gray. These latter soils are quite unlike those seen at the surface or immediately below the surface in the vicinity, and they probably were gathered from the Forked Deer River floodplain some 300 m south (Brown et al. 1978) or perhaps from the vicinity of Hudson Branch, about the same distance to the east. Thus, initial construction of Ozier Mound may have essentially reenacted the Earth Diver creation story (Hall 1979; Leeming and Page 1998) and embodied the creation of the earth itself, i.e., a world renewal ceremony. There are two major fill episodes evident, as the soils used in the lower 1.5 m, though of variegated hues, are darker than those in the overlying 50 cm. Individual loads were placed horizontally, and there was no compelling evidence of a capping episode.

FIGURE 4.8. Ozier Mound. Detail of southeast profile of stratigraphic trench. Height of portion shown is about 2.3 m.

Termination of the final major construction episode exposed in the stratigraphic trench is shown by the presence of a thin layer of pale yellow sand (Figure 4.7), probably derived from a mound summit, that covers a fill deposit characterized by numerous brownish loam basketloads that are oriented horizontally. These soils represent a marked change in the location(s) used to procure fill for mound construction. This construction episode extended the flanks of Ozier Mound beyond the large pit, but added little height to the mound. The outer margins of this construction episode rest upon a thin layer of laminated gray clay. Based on the lowest sand-covered summit identified in the soil cores the resulting mound was at least 2.5 m tall, with a slope angle of about 27°.

Citing Jefferies (1994), Lindauer and Blitz (1997:174) state that: "Unlike most late platform mounds, new stages of early platform mounds often were added to the summit only. As a result, the mound height increased but the basal area remained the same as that established by the first stage of construction." This overstates Jefferies' (1994:82) observation that "construction techniques used to build some Woodland mounds differed from those used by most Mississippian mound builders," citing Cold Springs Mound A and Greenhouse as examples in which "the size of the mound base was established by the plan of the first stage." Jefferies also noted correctly that "a great deal of variability existed" among Woodland platform mounds. In the case of Ozier Mound, there is evidence of construction that increased both the height of the earthwork and the lateral dimensions.

About 2 m northwest of the large pit are a series of thin soil zones that appear to rest within an intentionally created depression over 2 m wide. The uppermost of these, along with the sand covering the mound flank, likely represent material redeposited from a summit, possibly the one noted above. All this sand may be material removed during renewal of a summit, but admittedly the evidence is far less compelling than, for example, the "temple dump" deposit at Towosaghy, a Mississippi period mound center in southeast Missouri (Price and Fox 1990). Redeposition of this material may be the result of natural forces, as any sand placed on or displaced from a summit onto the mound slope and left exposed would be washed off quickly. One implication of this sand is that a new layer of fill was added to the mound fairly soon after the sand was (re)deposited, probably marking the conclusion of a ritual cycle. This means that the modern upper surface of Ozier Mound represents the top of the final capping episode.

The filled depression itself may represent a walkway around the mound, similar to one inferred for the northern Twin Mound (Mainfort 1986a:55; see below). This possibility could be investigated easily by geophysical imaging and limited test excavations.

CERAMICS AND LITHICS

Table 4.1 (see also Appendix 1) summarizes all the ceramics collected from Ozier Mound during the 1981 and 1989 excavations. Because the upper 60 cm (Levels 1–3) were composed primarily of undifferentiated fill, the ceramic counts for these levels are combined. The summit deposits (Level 5) warrant separate tabulation, and the fill immediately above them (Level 4) also is treated separately. Of the 732 identifiable sherds, 128 are associated with the summit soils and 268 with Level 4.

The ceramic assemblage from Ozier Mound is generally similar to that of the Pinson Mounds site as a whole (Mainfort 1986a; Mainfort and Walling 1992), and the basic typology used throughout this volume will be laid out here. Most sherds are sandy textured and lack clay particles in the paste. They are generally indistinguishable from the Miller series ceramics characteristic of Woodland assemblages in the Tombigbee River drainage, and include the types Furrs Cordmarked, Baldwin Plain, and Saltillo Fabric Impressed (Jenkins 1981; Jennings 1941; Mainfort 1986a; Mainfort and Chapman 1994a, b). Obviously, use of the Miller ceramic type names carries the unfortunate connotation that there is some degree of cultural "relatedness" between Pinson Mounds and the Miller culture or variant (Brose 1990; Jenkins 1982; see also papers in Applegate and Mainfort [2005]).

The paste of some sherds includes both sand and baked clay particles. These are classified as Baytown Plain, *var. Tishomingo*; Mulberry Creek Cordmarked, *var. Tishomingo*; and Withers Fabric Marked, *var. Craig's Landing* (Jenkins 1981; Mainfort and Chapman 1994a, b). A minority of the ceramics at Pinson Mounds has baked clay particles as a paste component, but very little sand. Such sherds typically have a slightly chalky paste, and are classified as Baytown Plain, Mulberry Creek Cordmarked, and Withers Fabric Marked.

The most common ceramic type during the major use of Pinson Mounds was Furrs Cordmarked, followed by Baldwin Plain (Broster et al. 1980; Mainfort 1986a; Morse 1986). In noteworthy contrast, the fabric-marked wares are strongly represented in the Ozier Mound assemblage, particularly within and immediately above the summit deposits, in which fabric marking accounts for 35.8 and 28.9 percent of the identifiable sherds, respectively. Two other localities within the Pinson Mounds site have yielded significant numbers of fabric-marked ceramics—the lower strata beneath Mound 12 (Broster et al. 1980) and the portion of the Mound 14 sector tested by Morse (1986).

Stylistically nonlocal ceramics form a significant minority of the assemblage. Three check-stamped sherds have a sandy-textured paste, and two exhibit a paste containing both sand and clay particles. The check motifs are rhomboidal in shape, and the sandy-textured examples are similar to Sauty Check Stamped (Heimlich 1952:14) and McLeod Check Stamped, *var. Wilke's Creek* (Jenkins 1981:136). Few check-stamped sherds have been found at Pinson Mounds, the only other examples being from the fill of the nearby Twin Mounds (see below). The absence of check stamping in the large ceramic assemblage from the Duck's Nest sector, which may postdate both Ozier Mound and the Twin Mounds (Mainfort 1986a; chapter 5, this volume), is striking. Petrographic evidence demonstrates

that several check-stamped sherds are nonlocal products (Stoltman and Mainfort 2002:10).

None of the incised sherds are large enough to identify the motifs of which they formed a part, and only a single Basin Bayou Incised sherd can be assigned to a type. Additional petrographic analysis will be required to determine if the vessels from which these derive were produced locally. Based on surface treatment and macroscopic observation of the paste, one sherd with a plain exterior and red-filmed interior is likely to be of nonlocal origin; the paste is sandy with clay inclusions and is not similar to that of the red-filmed ceramics from the Duck's Nest Sector and Mound 10 (Mainfort 1986a; chapter 5).

Limestone-tempered ceramics, probably representing vessels produced by Woodland potters from the Tennessee River valley (though not necessarily produced there; see chapter 5), have been collected from most excavated localities at Pinson Mounds (Broster et al. 1980; Mainfort 1986a; Mainfort et al. 1997; Morse 1986). The 23 sherds from Ozier Mound include 20 examples of Mulberry Creek Plain, two Wright Check Stamped, and a sherd of Flint River Cordmarked. Cotter and Corbett (1951:20–21) report several sherds of Wright Check Stamped for the Bynum Mounds site, which dates to the first and second centuries B.C. (Mainfort and McNutt 2004; see also chapter 7), but none are known from the slightly later Pharr Mounds (Bohannon 1972; Kardwesky 1980).

Notable in their absence from the Ozier Mound ceramic assemblage are Larto Red, Swift Creek Complicated Stamped, and sherds decorated in the Marksville stylistic tradition (see Appendix 1). Granted, this might be a function of sample size and sampling error, but the lack of these types and the presence of check-stamped sherds may indicate participation in activities at Ozier Mound by groups whose composition differed from those responsible for the events that produced, for example, the Duck's Nest sector deposits.

The Ozier Mound excavations produced few diagnostic lithic artifacts (Mainfort and Walling 1992). There are two lanceolate expanded stem points similar to the Swan Lake and Bakers Creek types, a moderately large specimen similar to the Savannah River type (Cambron and Hulse 1975), and a specimen with a short, slightly rounded stem of Late Archaic/Early Woodland form.

Chert bladelets are among the more distinctive and widely distributed Middle Woodland artifacts, and specimens have been found at several localities at Pinson Mounds (Kay et al. 2003; Mainfort 1986a; Mainfort and Walling 1992; Morse 1986). The Ozier Mound excavations yielded 12 whole or fragmentary bladelets, including six from the summit deposits (Table 4.2). Four highly translucent specimens are easily identifiable as Flint Ridge chert, and five more probably were produced from this material. The remaining three are dark or mottled gray in color and resemble variants of Fort Payne chert. Six bladelets are complete.

DISCUSSION

Excavations on the upper summit of Ozier Mound produced the first unequivocal evidence for the construction of large rectangular platform mounds during the Middle Woodland period. Other flat-topped Middle Woodland mounds had been excavated previously, notably at Mandeville (Kellar et al. 1962), but the findings were largely ignored, if not disputed (Knight 1990:166–172). Not so in the case of Ozier Mound. Once the evidence was presented (e.g., Mainfort 1981, 1983; Mainfort et al. 1982), no one raised any objections. Jimmy Griffin was pleased; the data were unimpeachable and provided support for his suspicions about the age of platform mounds at Cedar Bank and Marietta in Ohio (see Mainfort 1986a:82).

The excavated summit supported a variety of activities. The few identifiable features indicate that a variety of activities took place on the summit, but precisely what these were remains elusive. There are two small hearth-like features; a fairly large zone of redeposited subsoil, part of which was exposed to fire; a small basin containing what seems to be redeposited material; and an enigmatic, low, raised clay platform containing a large quantity of chert debitage. The functions of these features and the relationships to each other are puzzling, but the mica, copper, and microblades found on the summit link the use of Ozier Mound with other ritual activity areas throughout the Pinson Mounds site, such as the Twin Mounds sector and the Cochran site area (Broster et al. 1980; Mainfort 1986a, 1996a). Notably lacking is evidence

TABLE 4.1. Ceramics from Ozier Mound excavations.

	Level 1	Level 2	Level 3	Level 4	Level 5	TOTAL
Baldwin Plain	20	19	14	29	37	119
Furrs Cordmarked	53	53	29	73	32	240
Saltillo Fabric Impressed	11	11	8	32	16	78
Baytown Plain, *var. Tishomingo*	4	9	4	30	4	51
Mulberry Creek Cordmarked, *var. Tishomingo*	6	4	1	18	6	35
Withers Fabric Marked, *var. Craigs Landing*	11	7	16	50	18	102
Baytown Plain	2	1	3	7	1	14
Mulberry Creek Cordmarked	7	1	4	4	3	19
Withers Fabric Marked	7	3	0	13	3	26
Mulberry Creek Plain	0	5	8	4	3	20
Flint River Cordmarked	0	0	0	1	0	1
Wright Check Stamped	0	0	0	0	2	2
sand-tempered check stamped	1	0	0	1	1	3
sand/grog-tempered check stamped	0	0	1	0	1	2
grog-tempered, single cord impressed	0	0	1	1	0	2
Basin Bayou Incised	0	0	0	1	0	1
sand-tempered incised	1	2	0	1	0	4
sand/grog/bone-tempered incised	0	0	1	0	0	1
sand/grog-tempered incised	0	0	1	0	0	1
incised over Furrs Cord Marked	1	0	0	0	0	1
sand/limestone-tempered cordmarked	0	2	0	0	0	2
sand/grog-tempered, red filmed interior	0	0	0	0	1	1
podal support, sand-tempered	0	1	0	2	0	3
baked clay object fragment	0	1	1	1	0	3
TOTAL	125	119	92	268	128	732

of repeated post construction and feasting, making the upper summit of Ozier Mound "in character quite unlike those reported elsewhere" (Knight 2001:313).

Ozier Mound attained its present height as the result of at least eight construction episodes, including the upper 80 cm of the mound. A covering of pale yellow sand and gray clay marks the surfaces of seven of these. This periodic renewal of the mound seems to foreshadow later Mississippian substructural mounds (e.g., Knight 1986:678; Sherwood and Kidder 2011). It would be premature to suggest a historical link, but it does demonstrate that periodic renewal of mound surfaces has a long history.

Thin deposits of light-colored sand were used to demarcate construction stages within at least two other earthworks at Pinson Mounds. Morse's (1986) excavations on Mound 29, a 3-m-tall rectangular mound located within the earthen embankment, revealed a layer of yellow sand at a depth of approximately 1.8 m below the mound surface that undoubtedly represents a summit (chapter 6). Pale yellow sand was one of four distinctive soils used to cover the flat-topped primary mound within the northern Twin Mound (Mainfort 1986a), and the sand extends down the sloping sides. Finally, a thin layer of light-colored sand placed over exposed subsoil marks the start of construction of Mound 10, a small platform mound located to the east of Sauls Mound (Mainfort 1986a; chapter 5).

There are several contexts at Pinson Mounds in which sand-covered summits might be expected, but have not been found. A complete series of solid core samples from Sauls Mound (Mound 9), by far the largest mound at the site, lacks evidence of sand-covered

summits and minimal indications of specific construction stages (Mainfort 1986a); this may in part be due to the unfortunate (though logistically necessary) placement of the cores near the disturbed area of the east side of the mound. Very limited investigation of Mounds 15 (Morse 1986:99–100) and 28, both large rectangular platform mounds, produced no evidence of sand used in their construction.

McNutt (2005:158) correctly notes the resemblance between Ozier Mound and Ingomar Mound 14, which stands about 9 m tall and has a prominent ramp extending from its east side (Rafferty 1990). Limited excavations and augering, however, indicate that the exterior similarity is not mirrored by details of construction, as to a depth of at least 4.5 m, Ingomar Mound 14 lacks evidence of sand-covered summits and compelling evidence for prepared summits of any sort.

At the Mann site in southern Indiana, at least three sand-covered summits were exposed during amateur excavations into a large platform mound. Unlike the excavated summit of Ozier Mound, midden-like deposits are associated with these surfaces (Ruby 1997:402–404, 2006:196–197).

As discussed by Mainfort and McNutt (2004; chapter 7), the four radiocarbon assays on charcoal samples collected from summit features are unsatisfying. They confirm a Middle Woodland age for Ozier Mound, but the calibrated average (cal A.D. 128–383 at 2σ) spans over 250 years. On the early end, this time span partially overlaps the calibrated average for the northern Twin Mound (see below), but it extends 140 years later. While the calibrated averages do not contradict previous notions of contemporaneity between Ozier Mound and the Twin Mounds (Mainfort 1986a:83, 1988b:169), they provide only moderate support.

The ceramic assemblage (Table 4.1), specifically the high percentage of fabric-marked sherds (about 30 percent), may be more useful for fine-grained dating of the summit. In contrast, only 8 percent of the ceramics collected from the northern Twin Mound are fabric-marked (Appendix 1). Granted, the assemblages are not strictly comparable, but the relative frequencies of fabric-marking suggests that the calibrated average date for Ozier Mound is a bit late and may indicate that the excavated summit of Ozier Mound is older than the Twin Mounds (discussed below).

South of the Twin Mounds and west of Ozier Mound are ritual activity areas that probably are linked to one or both of these large earthworks. It seems likely that similar areas were present in the more immediate vicinity of Ozier Mound, but the large area surrounding Ozier Mound was under intensive cultivation as a tree nursery from 1947 until fairly recently, and surface collections suggest that most evidence probably has been destroyed. Yet, if not for purchase of this area for use as a nursery, perhaps the mounds themselves would have been lost.

Cochran Site Area

Approximately 200 m northwest of the Twin Mounds and the same distance west of Ozier Mound, John Broster discovered an occupation area with clear ties to the Pinson Mounds complex at a locality he designated the Cochran site (Broster and Schneider 1977; Broster et al. 1980:31–36) (Figure 1.2). It is unfortunate that this area received a separate site number (40MD23), which gives the false impression that it represents something distinct from the mound group (Broster et al. 1980:31; Broster and Schneider 1977), which it is not (Mainfort and McNutt 2004:18). In fact, the Cochran site area is no farther away from the two nearest mounds than the mounds are from each other. Although this locality has been characterized as a "base camp" (Broster and Schneider 1976:23; Broster et al. 1980:31), a "center for craft specialties" (Broster et al. 1980:32), a workshop for the crafting of "'deluxe' mortuary offerings" (Broster and Schneider 1976:64), or a "regional exchange center" (Broster et al. 1980:32), current evidence suggests that it was none of these. All of these various functional interpretations were very much in keeping with the processualist views of the Hopewell phenomenon that were popular during the 1970s, however, and Broster's various characterizations were quite appropriate to the times.

The recorded extent of the Cochran site area is 100 m x 50 m (Broster et al. 1980:31), but my own observations indicate that it is a good bit larger. Within a 208-m^2 block excavation were a number of posts and 12 nonstructural features (Broster et al. 1980:31–36) (Figure 4.9). As with the possible struc-

tures in the Mound 12 sector (chapter 5), I question the interpretation of those inferred at the Cochran site area. To be sure, there are some possible arcs of post-molds that might be sections of structure walls, but comparison with the remains of circular structures at Bynum (Cotter and Corbett 1951) and the McFarland site (Faulkner 2002:195) renders the published interpretations of the Cochran site structures (Broster et al. 1980:62) suspect. The interpretation was premised in part on the assumption that one post (Feature 10) served as a "central support post" (Broster et al. 1980:35), but in fact tension-poled Middle Woodland structures had no need for such a feature. Further, the outline of the proposed structure does not approach the circular form of well-documented structures at Midsouth sites such as McFarland (Faulkner 2002:195) and Bynum (Cotter and Corbett 1951:10–13), and the number of posts involved is less than half that associated with structures at these sites. This is not to say that structures are not present in the Cochran site area, only that no complete examples have been located.

Among the nonstructural features were three large, shallow pits, each containing nonlocal Hopewellian materials. Two contained portions of sand-tempered conoidal ceramic jars, one Saltillo Fabric Impressed, the other Furrs Cordmarked. The presence of calcined bone in two features (4 and 14) raises the possibility that these may have contained human remains, but none of the burned fragments were identifiable.

The quantity of nonlocal artifacts and materials collected from the Cochran site clearly tied activities at Pinson Mounds to the pan-regional Hopewellian phenomenon (Broster et al. 1980:31). The inventory includes six pieces of mica, three quartz crystals, 16 chert bladelets (8 Flint Ridge chert, 4 probably Flint Ridge chert, 4 Fort Payne chert), a flake of Knife River flint (Mainfort 1986a:Figure 10), a rolled copper bead, a copper fragment, and a piece of polished greenstone, as well as two carved sandstone "palettes" (Broster et al. 1980:31–36) (Figures 4.10 and 4.11). The greenstone fragment is one of only two greenstone artifacts recorded at Pinson Mounds, the other being a complete "Copena" celt (Fischer and McNutt 1962:6). A Copena point of Fort Payne chert also was collected during the excavations (Figure 4.10). These materials make clear that the structural remains are not those of

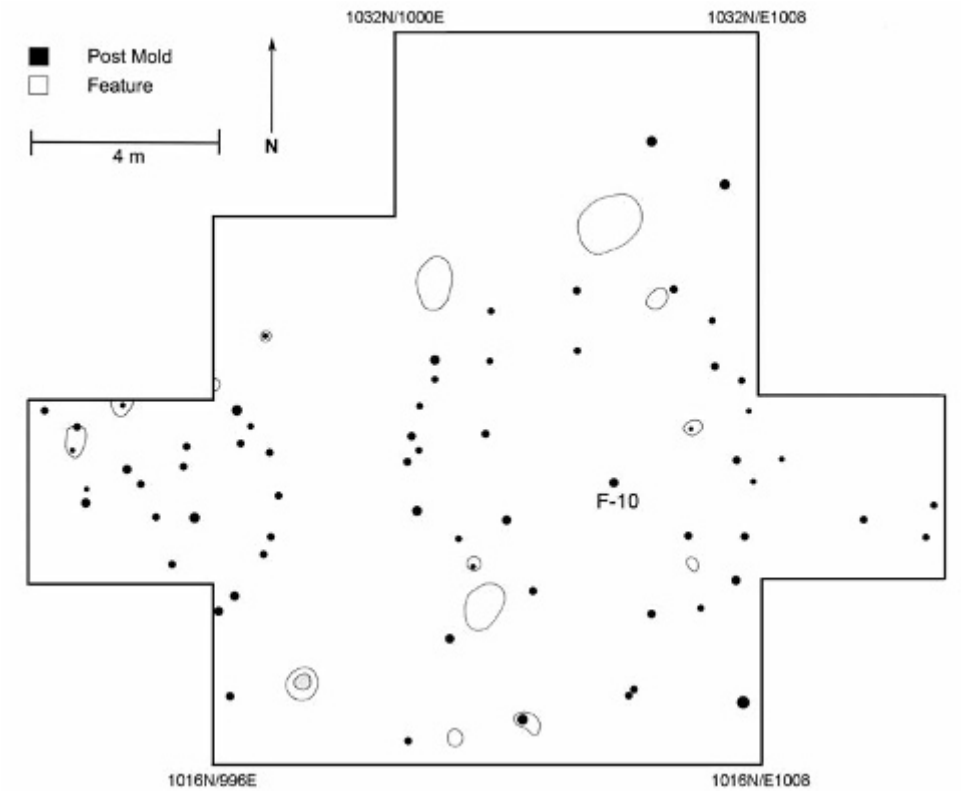

FIGURE 4.9. Plan view of structural remains at the Cochran site area.

a domestic community, but rather relate to ritual activities at the Pinson Mounds complex (Broster and Schneider 1976; Mainfort 1988a, 1996a; B. Smith 1992).

There are no stylistically nonlocal (or nonlocal based on temper) sherds in the relatively small ceramic assemblage, which includes 23 plain, 55 fabric-marked, and 93 cordmarked sherds (Appendix 1). All have a sandy paste, though about two dozen sherds contain visible particles of baked clay.

Two radiocarbon dates on charcoal from features in the Cochran site area produced an average calibrated date of A.D. 318–439 at 2σ, though artifactual evidence suggests an age several centuries earlier (Mainfort and McNutt 2004:18; chapter 7).

Especially striking among the nonlocal artifacts from the Cochran site area are the chert bladelets; the numbers given in Broster et al. (1980:33–36, 47, 87) are contradictory and not accurate. Bladelets have been collected from all excavated areas within the Pinson Mounds complex, and I will use their prominence in the Cochran site area as an opportunity to comment on bladelets throughout the mound complex.

Bladelets are one of the most distinctive and certainly the most numerous artifacts associated with Ohio Hopewell (Genheimer 1996; Greber et al. 1981).

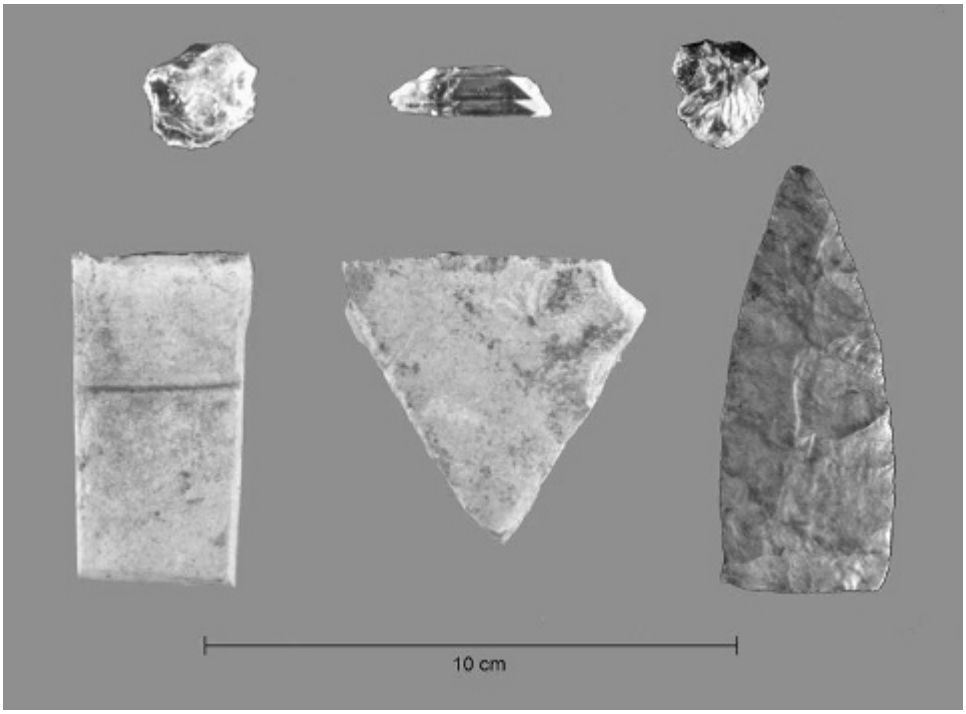

FIGURE 4.10. Selected artifacts from the Cochran site area. *Upper row,* quartz crystals; *lower row,* carved sandstone palettes and Copena point.

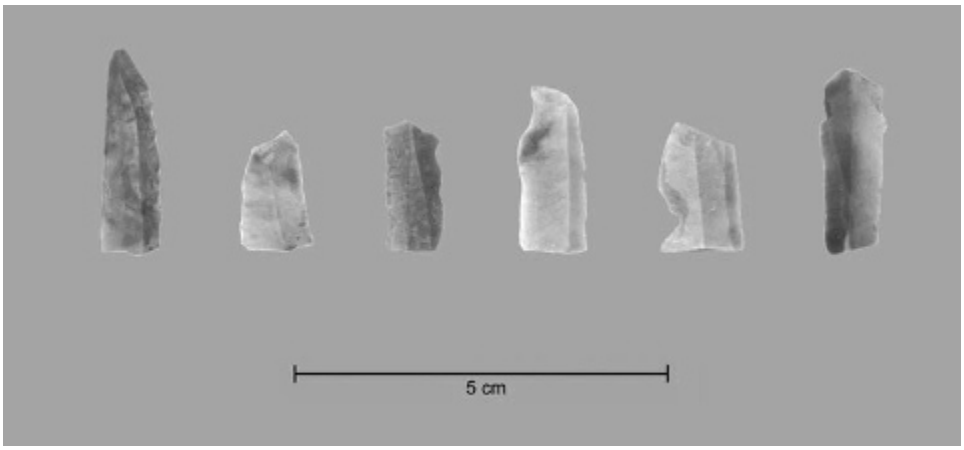

FIGURE 4.11. Bladelets from the Cochran site area.

The bladelet assemblage from Pinson Mounds (n = 128; Table 4.2) is, to my knowledge, the largest reported sample from the Midsouth and Lower Mississippi Valley. A selection of bladelets from the Cochran site area is presented in Figure 4.11. A larger sample, collected during the 1993 field school excavations in the Mound 14 sector (Norton and Mainfort 1993), is shown in Figure 4.12.

During the 1993 "View from the Core" conference at Chillicothe, Ohio (Pacheco 1996), N'omi Greber, Robert Converse, and I examined all the bladelets from Pinson Mounds that I could locate in the collections, and I recorded our observations about raw materials. Greber, David Brose, Mark Seeman, and I also examined some specimens during the 1984 Mid-South Archaeological Conference meeting at Pinson Mounds. I am solely responsible for identifying local raw materials used in bladelet production.

Specific raw materials identified are as follows: 33 Flint Ridge chert, 20 probably or possibly Flint Ridge

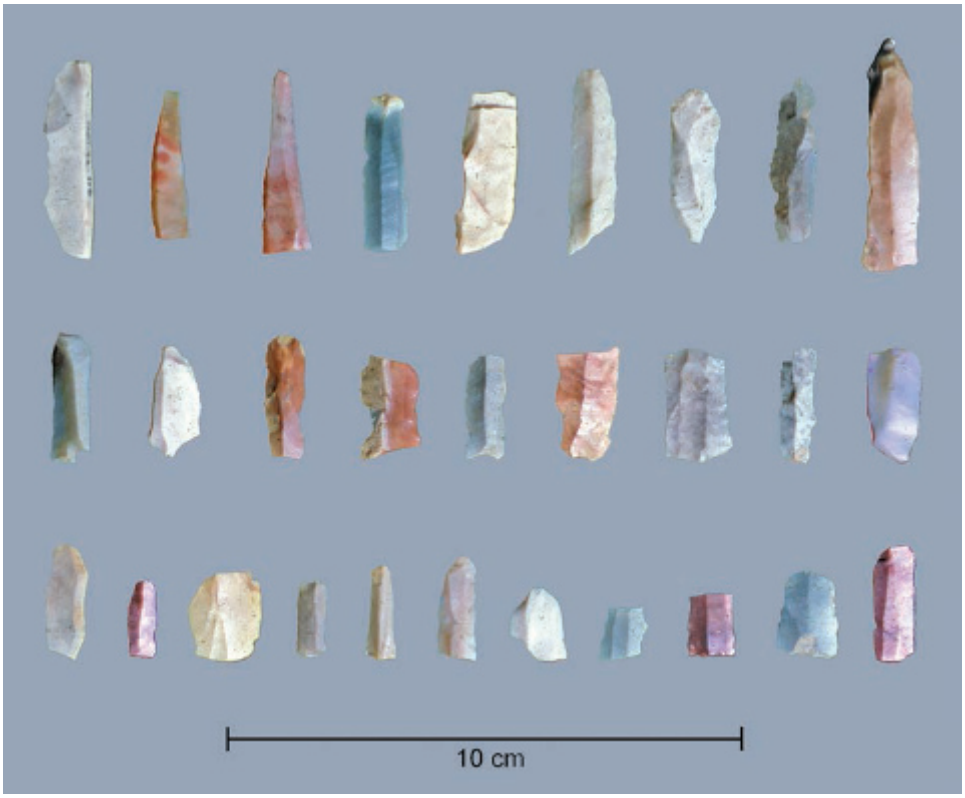

FIGURE 4.12. Bladelets from Mound 14 sector (1993 excavations).

TABLE 4.2. Bladelets from Pinson Mounds

Area	Flint Ridge	Flint Ridge?	Wyandotte	Upper Mercer	Fort Payne	Fort Payne?	UID	TOTAL
Cochran Site area	8	4			4			16
Ozier Mound	4	5			3			12
Ozier Mound sector		1			3			4
Duck's Nest sector		1			7			8
Mound 14 sector	19	2	3	2	18	13	2	59
Mound 31	2	2			3			7
Twin Mounds		2			1		2	5
Twin Mounds sector		3			11		1	15
Eastern Citadel						2		2
TOTAL	33	20	3	2	50	15	5	128

chert, 50 probably Fort Payne chert, 3 Wyandotte chert, and 2 possibly Upper Mercer chert. The remainder (n = 19) are made of cherts that generally resemble material in the debitage assemblage from Pinson Mounds (France 1985) and probably are from the local area (including the Tennessee River valley). In Table 4.2, the column labeled "Flint Ridge?" includes specimens about which one or more individuals expressed some uncertainty about the raw material. Likewise, "Fort Payne?" reflects specimens that fall within the range of materials typically seen at Pinson Mounds, but lack archetypical characteristics of Fort Payne chert.

In addition to the numerous bladelets produced from Flint Ridge chert, there are five more specimens made of materials from distant sources, namely three examples of Wyandotte chert and two of Upper Mercer chert. The lithic material used most commonly for bladelets is Fort Payne chert, the nearest deposits of which are located about 70 km to the east in the Tennessee River valley.

The Cochran site locality clearly warrants geophysical survey and probably additional excavation, which could be accomplished easily because the intact deposits occur immediately below the plowzone. Understanding the nature of this and other nonmound activity areas (e.g., the Twin Mounds and Mound 12 sectors) is a pressing research need at Pinson Mounds.

The Twin Mounds (Mound 6)

The Twin Mounds, or Mound 6 (Myer 1922), are a pair of large, conjoined conical burial mounds located about 200 m south of Ozier Mound (Figures 1.2 and 4.13). The northern mound is roughly 26 m (85 feet) in diameter and stands about 7 m (23 feet) tall, and the slightly larger southern mound has a diameter of 30 m and a height of 8 m. The height of the overlapping area between the mounds is about 4.5 m. The Twin Mounds are quite large. In volume, the Twin Mounds rank about eleventh among Middle Woodland mortuary mounds (Mainfort 1986a:47; cf. Seeman 1977:285–288; Rick Shenkel, personal communication, 1986), and there are only 18 recorded Middle Woodland burial mounds that are larger than the northern Twin Mound alone.

South and southeast of the Twin Mounds are what appear to be short-term ritual activity areas (Broster et al. 1980:4–12; Morse 1986; see "Twin Mounds

FIGURE 4.13. The Twin Mounds. View to northeast. Original photograph courtesy Mary L. Kwas.

Sector" below), perhaps used concurrently with construction of the nearby paired mounds. As discussed above, about 200 m west is a similar activity area, designated the Cochran site (Broster et al. 1980:31–36; Mainfort 1986a:12).

We selected the northern Twin Mound for excavation because on the east side there was a large depression marking an excavation conducted in the 1880s (Figure 4.14). According to William Myer, Sam Lancaster, a resident of Jackson, excavated into the mound to a depth of 10 feet, but Lancaster seemingly found nothing of interest, i.e., human remains or elaborate funerary objects (see chapter 2). Our excavations revealed that Lancaster actually reached the floor of the mound, the base of his shaft just missing several of the submound burial facilities. The handle from one of his shovels remained in the fill of his pit. Had Lancaster actually found what he sought, relic hunters probably would have extensively damaged not only the Twin Mounds, but also the other earthworks in the mound complex.

Most large Middle Woodland burial mounds were excavated long before the advent of the standardized techniques that became widespread in the 1930s (see Shetrone 1930), much less more modern techniques (e.g., Charles et al. 1988; Griffin et al. 1970). The focus of early excavators was the acquisition of the finely crafted funerary objects often found in Hopewellian mounds. Little consideration was given to the complex construction of the mounds themselves, some remnants of which remained long after the mounds were almost completely dismantled (e.g., Greber 1983).

Our major objective was to document the construction sequence of the northern Twin Mound, not to excavate human burials and find artifacts. We assumed that the mound had a very complex construction history and that any distinctive change in soil coloration, even individual basketloads with high organic content, could represent important structural features. As detailed below, the resulting construction data proved well worth the extra degree of care taken. The excavations exposed about 30 percent of the mound floor.

The excavation was undertaken in 1983, some years before the passage of the Native American Graves Protection and Repatriation Act (NAGPRA), which requires consultation with native people prior to some archaeological excavations. Before excavating a prehistoric burial mound such as the Twin Mounds, however, it seemed only right to inform the nearest group of Native Americans, who were members of the Choctaw Tribe, living in Memphis, some of whom worked at the C. H. Nash Museum–Chucalissa. The Choctaw expressed considerable interest in the pending excavation and visited Pinson Mounds several times during fieldwork.

FIGURE 4.14. Northern Twin Mound before excavation. View to west.

Based on the initial testing and systematic augering, we opened a block excavation 4 m wide on the east side of the mound corresponding to the disturbance, bounded on the west side by a line designated E4000 and on the north and south sides by the N4000 and N4004 lines, respectively (Figure 4.15). Profiles along these grid lines provide an extensive record of mound construction.

Two-meter squares were the standard unit of excavation. Vertical control was based on a system of vertical datum planes linked to a permanent marker set on the summit of the southern mound. We did not screen most mound fill, but saved the contents of possible features and prominent basketloads for flotation, as well as numerous soil samples from within the submound burial facilities described below.

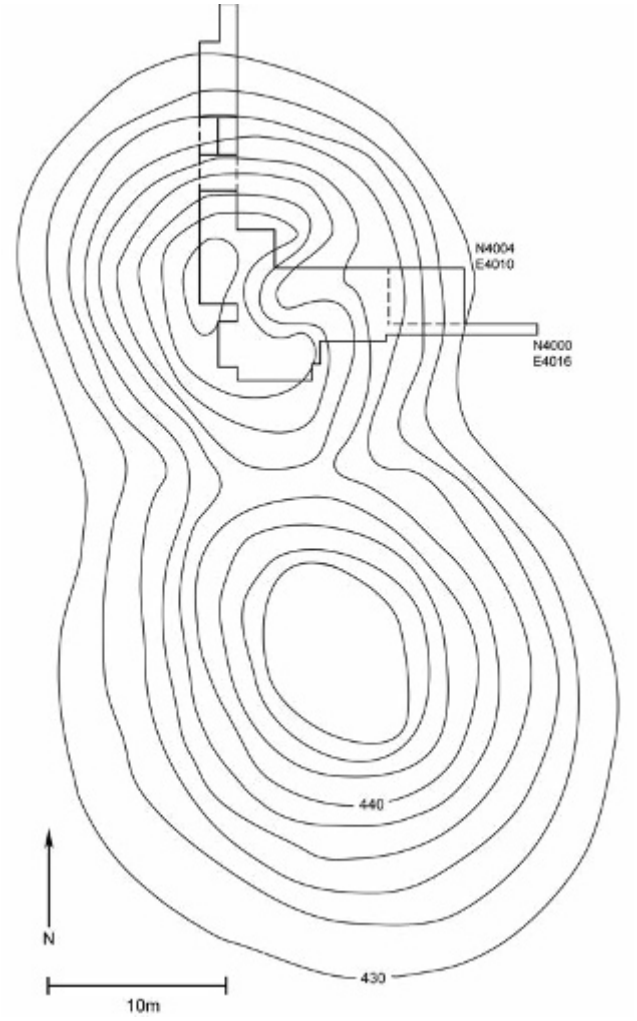

FIGURE 4.15. Topographic map of the Twin Mounds showing area excavated.

Retrospectively, the general excavation plan employed on the Twin Mounds, i.e., large block excavations and trenches, should not have been undertaken without extensive stepping or shoring (see OSHA regulations set forth in 29 CFR 1926). Fortunately, very hot and dry weather conditions during the excavations helped stabilize the standing profiles. Had the profiles shown signs of instability, we would have taken protective measures.

I should mention that my approach to testing the northern Twin Mound was premised in part on the assumption that the 1983 excavations would be a prelude to stratigraphic excavations the following year. Thus, we were excavating what were essentially guide trenches. The anticipated follow-up excavations never materialized, despite a firm offer of external funding.

CONSTRUCTION SEQUENCE

The complex stratigraphy of Mound 6 reflects five major construction stages (Figures 4.16 and 4.17). As shown in Figure 4.18, most of the individual strata are very distinctive. Not only do they vary in color and texture, but some also exhibit distinctive loading patterns. For example, the fill of Zone F2 is composed almost entirely of readily discernable individual basketloads, suggesting that the loads were added by simply dumping each load. In contrast, the overlying Zone F1 fill has a more uniform appearance with fewer identifiable loads, probably the result of broadcasting fill dirt, rather than dumping it. The major stages of mound construction are discussed below, beginning with the initial removal of subsoil at the location selected for building the mound.

Preconstruction Surface: Before starting construction of the mound, all topsoil was removed, exposing the reddish brown sandy clay subsoil, probably representing the McNairy Sand, Owl Creek, or Clayton Formation, that underlies the Pinson Mounds complex (Russell and Parks 1975:map insert; see also Parks 1975). In the 1986 monograph, I designated this surface the "premound floor." This designation was correct, but because the surface of the puddled clay floor (Construction Stage I) also is a premound floor, I have changed terminology here to clarify matters.

All definable burial facilities (Features 48, 49, 51, 53, 54, and 57) were excavated into this exposed surface, as were a number of straight-sided pits (Features

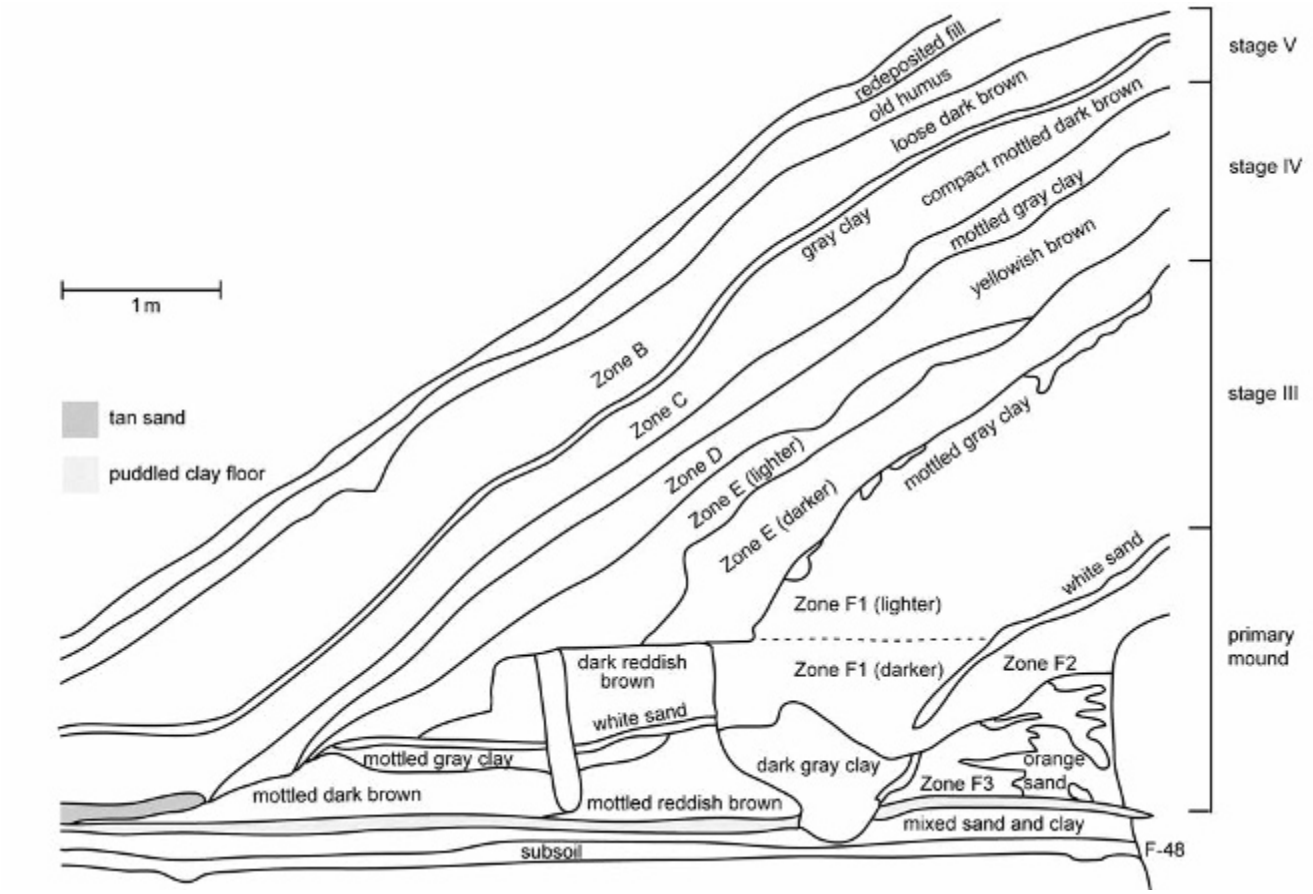

FIGURE 4.16. Profile along N4000 line.

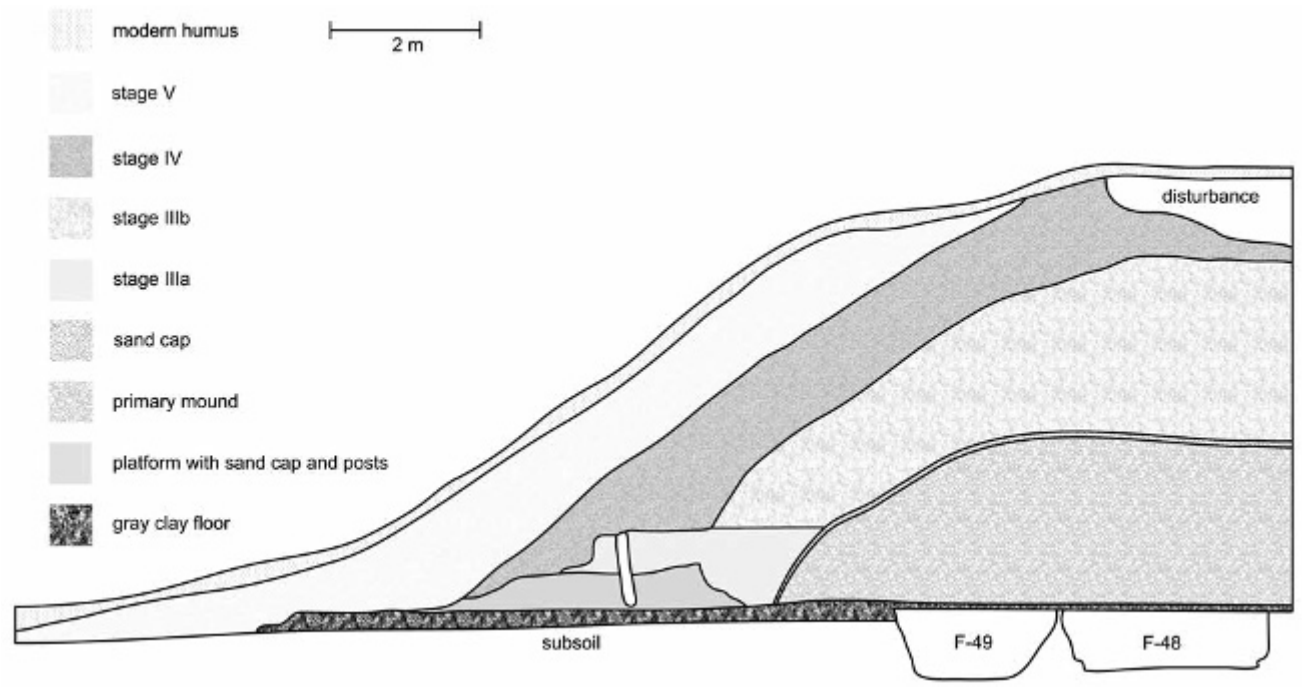

FIGURE 4.17. Schematic profile showing construction stages.

FIGURE 4.18. Photomerged image of N4000 profile.

62, 63, 66, 67, and 71) and roughly circular basins (Features 64, 65, 68, 69, 70, and 72) that contained charcoal and calcined bone. Mica fragments were present in the fill of four basins (Features 64, 65, 68, and 69). Feature 69 is located near the inferred center of the northern Twin Mound; a thin layer of sandy clay sealed Feature 65. As in the Duck's Nest sector, none of the calcined bones were large enough for identification, and the interpretation of these features as crematoria (Mainfort 1986a:51) is undemonstrated. In some instances the fill of these excavated features may have been collected elsewhere and placed within, to be carefully sealed under the puddled clay of construction stage I. A number of postholes also are associated with the preconstruction surface, some of which subsequently were filled with charcoal, calcined bone, and occasional sherds or flakes (PM 30, 31, 32, 42, 43, 53, 56, and 61); this phenomenon also is seen in Ohio Hopewell (Greber 1983, 1996:156). All of the submound features appear to be contemporary; they are illustrated in Figure 4.19.

Construction Stage I: Initial construction of the northern Twin Mound is represented by two fairly thin strata that covered the features and postholes mentioned above. The first is a layer of striated brown clayey sand about 10 cm thick, the appearance of which was not completely uniform in profile. This deposit was capped with a layer of puddled gray Porters Creek Clay, 2 to 8 cm thick, that is very hard and exhibits a laminar structure (Figures 4.20 and 4.21). The closest reported source for Porters Creek Clay is an outcrop about 1 km west of the Twin Mounds (Whitlach 1940:240). In a general sense, the soils used in this initial construction are similar to those that Greber (1983:24) exposed at the base of the Edwin Harness Mound. In southern Ohio, such puddled clay floors are referred to as "Hopewell concrete," a term apropos to the clay floor at the base of the northern Twin Mound. If the construction sequence disclosed during the 1983 excavations is mirrored on the unexcavated west side of the mound, the area covered during this construction stage was about

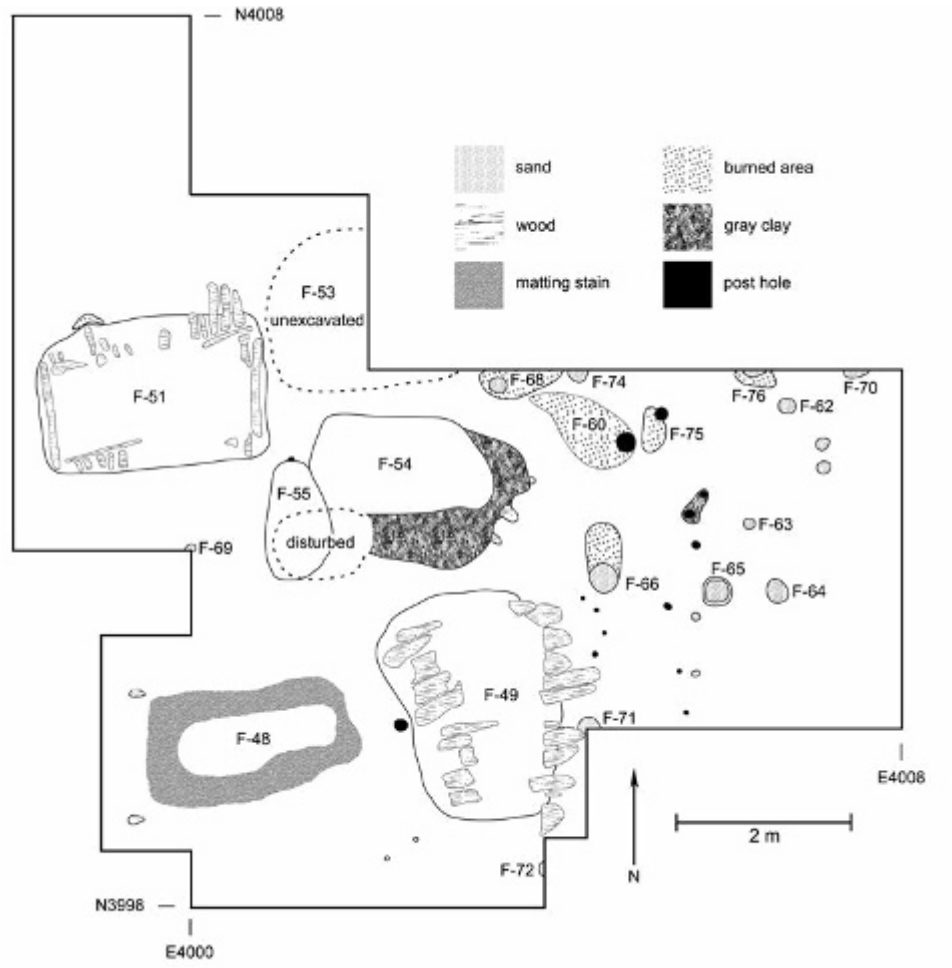

FIGURE 4.19. Mound floor showing burial facilities and other features.

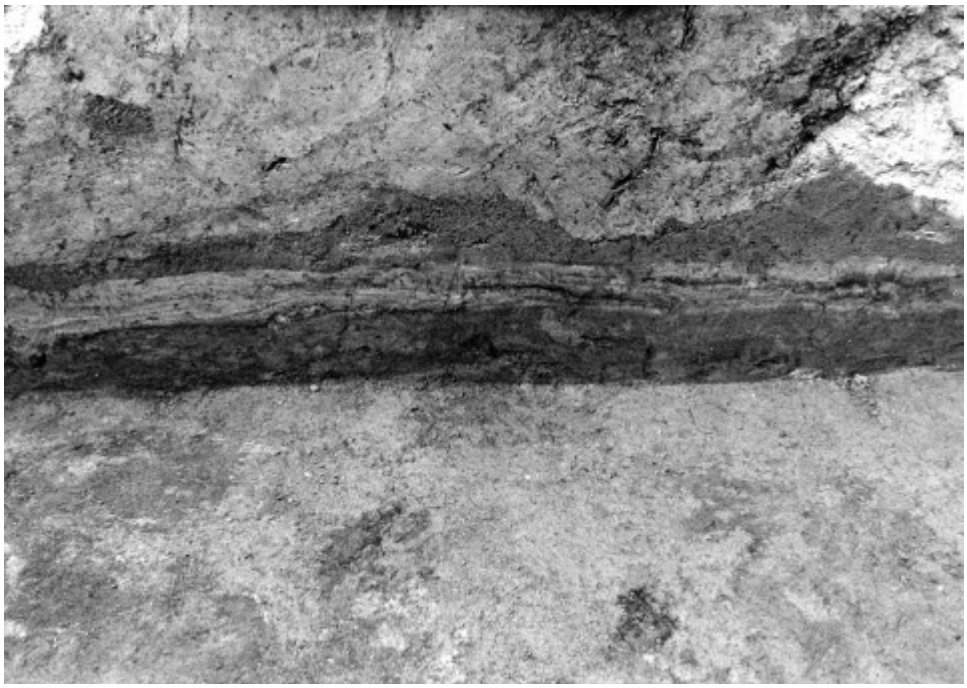

FIGURE 4.20. Profile of clay floor at base of mound. East of Feature 49; see Figure TM6 for location.

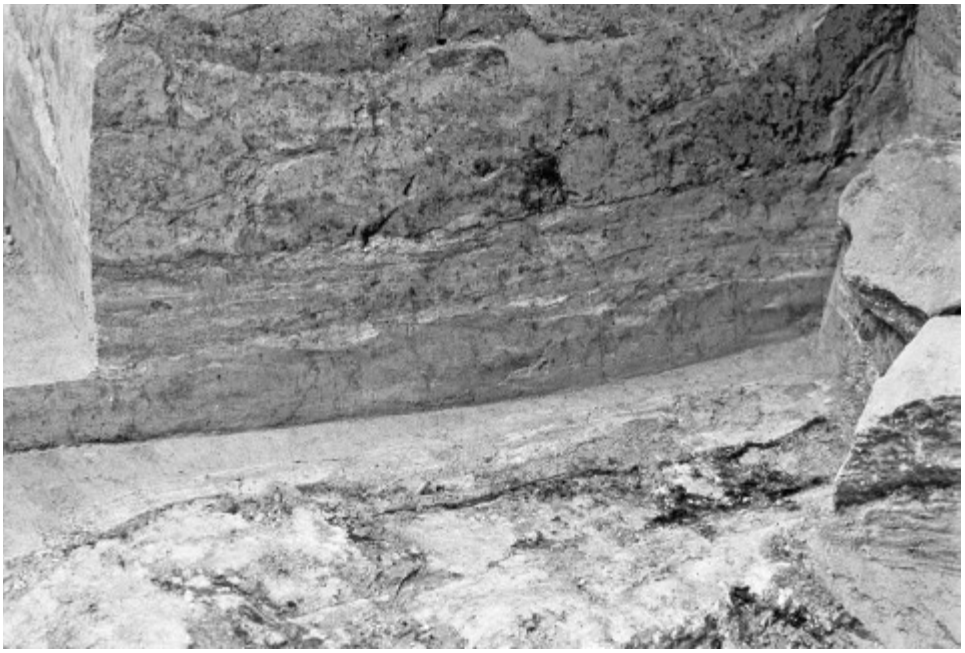

FIGURE 4.21. Detail of stratigraphy immediately above Feature 48, the top of which is in the foreground.

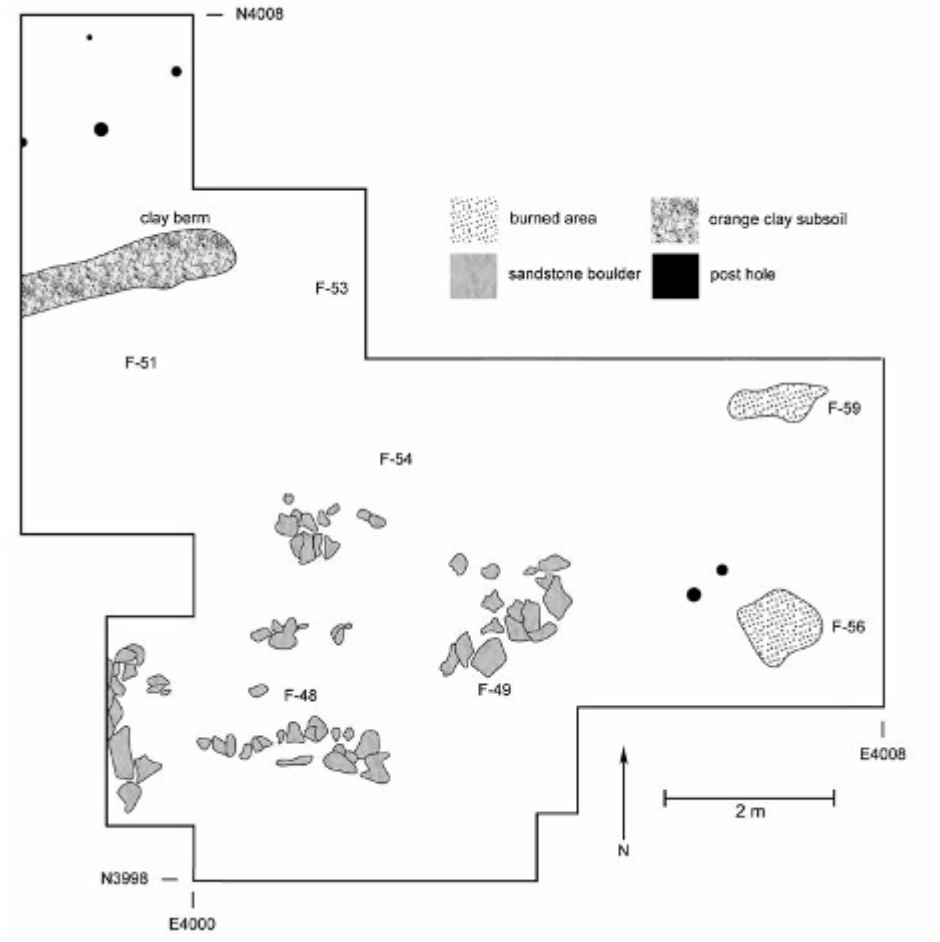

FIGURE 4.22. Plan view at top of clay floor.

24 m in diameter, a figure only slightly less than the diameter of the completed mound.

After the puddled clay had dried thoroughly, a number of the sandstone slabs and boulders were placed adjacent to and partially overlying Features 48, 49, and 55 (Figure 4.22). The area above and adjacent to Features 48 and 49 was covered with yellow sand (probably McNairy Sand), ranging from 1 to 10 cm thick; the sand did not extend over Features 51, 53, and 54. This layer is shown in Figures 4.18, 4.21, and 4.23. Yellow sand covered a hard (puddled?) clay surface of a burial mound (IU14) at the Mann site in southern Indiana (Ruby 1997:348). Adjacent to Feature 51, a reddish brown subsoil berm was constructed on the puddled clay surface. On the east side of the mound, also on the clay surface, two fires, represented by Features 56 and 59, were set (Figure 4.24); both lacked associated cultural materials.

Construction Stage IIA: Roughly contemporary with stage IIB, a raised platform, about 50 cm tall and 2 m wide, was constructed that encircled most, if not all, of the submound burial area. The platform is well documented on the east side of the mound, but it also was encountered by the limited excavations on the north side. The platform was built up using three distinctive fills. At the base is a mottled dark gray-brown sandy loam about 15 to 20 cm thick. A compact

FIGURE 4.23. Partial profile along N3998 line, south of Features 48 and 49. Notice the sand layer near the base, the sand layer covering the primary mound, and various loading patterns.

FIGURE 4.24. Feature 56 (burned area on clay floor). Notice the sand-covered platform and "walkway" in profile.

mottled brown sandy loam averaging 30 cm thick overlies this. To give the west (interior) edge of the platform greater structural support, compact reddish brown sandy clay, sloping downward to the west, was added (Figure 4.25). The platform surface was covered with a layer of white to pale tan sand, from 1 to 10 cm thick.

The low platform supported two rows of posts (Figure 4.26). The posts along the interior (west) edge averaged about 15 cm in diameter. These were accompanied by some smaller posts or poles, each about 5 cm in diameter. We observed one instance in which a smaller post was used to support the interior edge of a larger one. All of these poles and posts are angled toward the east or northeast—at about 18° in the case of the larger ones, to as much as 30° for some smaller poles. The larger posts were removed prior to the addition of the sand covering, which filled the resulting postholes. In profile, the sand-filled postholes appear to originate in this sand, and there is no

FIGURE 4.25. Partial profile along N4000 showing detail of the sand-covered platform and "walkway." Note the large post, which is shown near the E4008 line in Figure 14.

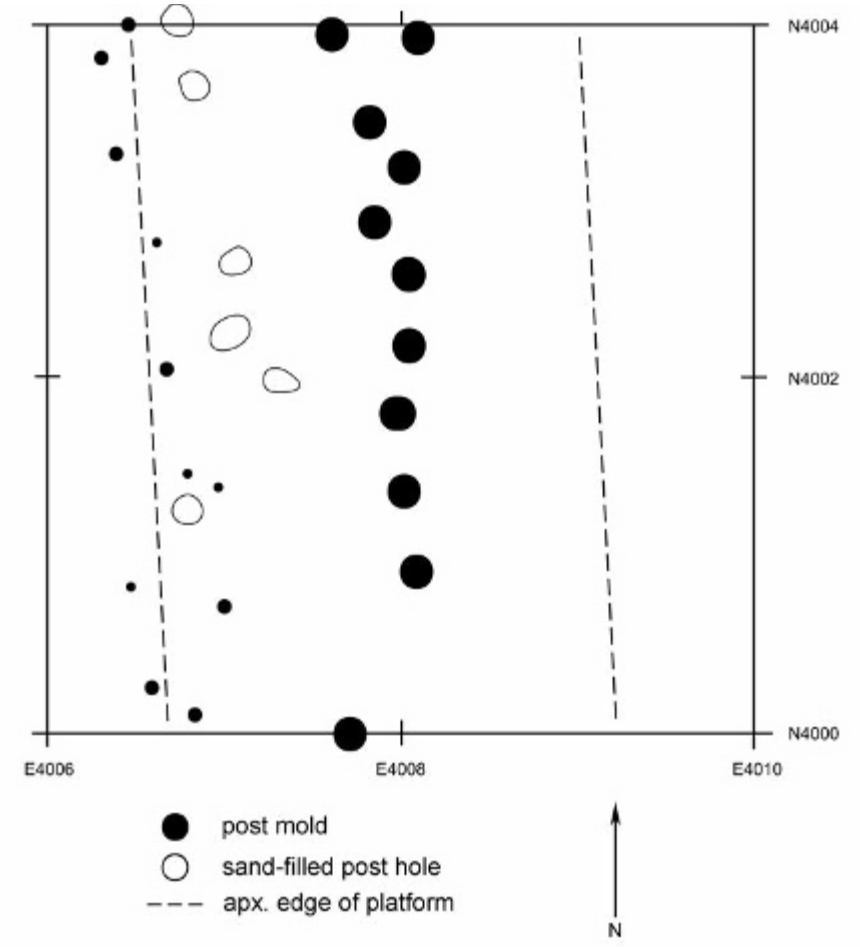

FIGURE 4.26. Plan view, top of platform showing posts and stakes.

indication of them above the top of the platform. One small posthole containing sand was exposed in profile, and the sand fill of the other small postholes likely went unnoticed during excavation due to their size and the angle at which they were set.

As shown in Figure 4.26, the second row of posts is located about 80 cm east of the interior edge posts, i.e., nearer to the outer edge of the platform. These posts are a bit larger than those discussed above, with diameters between 14 to 20 cm. There may be more than one row because several posts were exposed in the N4000 and N4004 profiles slightly to the west (i.e., toward the mound interior) of the others. All of these posts decomposed in place, as demonstrated by the resulting loose dark brown fill. They average about 80 cm in height and extend about 30 cm above the sand that covers the earthen platform (Figure 4.25). This group of posts displaced no sand, so they were set in place prior to the addition of the sand covering. Like the posts along the interior of the platform, these are angled to the east or northeast at about 18°. This outer row of posts served functionally to support the dark, loose fill that subsequently was placed on the interior portion of the platform ("dark reddish brown" in Figure 4.16; stage IIIa).

Construction Stage IIB: During this building stage, a primary mound was constructed over the submound mortuary facilities. This mound was flat on top and probably was circular at the base. As shown in Figure 4.16, there are two thick soil zones associated with construction stage IIB, designated Zones F2 and F3. Comprising the interior fill of the primary mound, Zone F3 is characterized by hard, dry, elongated loads of sandy clay and is partially covered by elongated thin linear deposits of reddish orange sand. In the vicinity of the submound burial pit designated Feature 48, Zone F3 was partially covered with a thin layer of yellow sand. Just east of this feature, near the base, the fill comprising Zone F3 includes a great deal of reddish orange sand (Figure 4.27). The fill of Zone F2 is similar in appearance, but it is much more moist, lacks sand inclusions, and individual loads of reddish brown subsoil are prominent. There is not an apron of water-sorted soil around the exposed edges of the primary mound, suggesting that it was not exposed to weathering; hence, the next construction stage followed quickly.

Numerous (we observed over 50) long, thin wooden poles, over a meter long and 5 cm in diameter, were driven into the sides of the primary mound, probably before the addition of the sand cap discussed below. That the poles actually were driven into the primary mound, as opposed to being placed during its construction, is confirmed by the displacement of mound fill observed at the bases of several poles. The poles were generally angled toward the north or

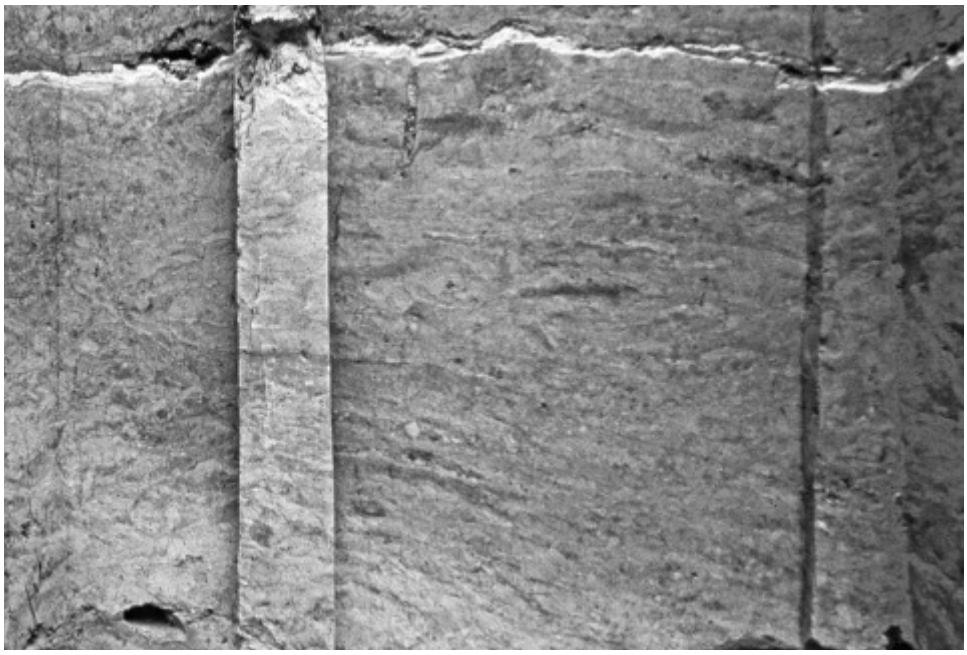

FIGURE 4.27. E4000 profile. Perspective altered from original field photo.

northeast, including those on the south side of the primary mound, and they were allowed to rot in place beneath the later mound additions. Because the poles were angled in this fashion, it took some time before we realized that the small holes continually being exposed during excavation actually were structural features of the mound, not rodent burrows. Apparently the poles were confined to the sides of the primary mound, as no pole outlines appeared in profiles through the flat top. Since few pole impressions were exposed in their entirety (see Figure 4.28), their horizontal arrangement can only be inferred, but they were spaced at intervals of about 50 cm. Similar poles are reported for Marksville Mound 8 (Fowke 1928:424) (see chapter 8).

Why do this? It is unlikely that the poles served a structural purpose, and they would have presented a logistical impediment during the next major phase of mound construction. A possible clue about the function of the poles appears among the Cherokee sacred formulas collected by James Mooney (1888:385). To drive a witch from the house of a sick person, "the shaman first prepares four sharpened sticks, which he drives into the ground outside the house at each of the four corners." Now, if the primary mound is viewed as the "home" of the honored dead buried beneath, it is reasonable to assume that some measures would be taken to protect them from evil forces, such as witches, who were known to burrow into the ground during their nighttime travels (Hudson 1976:363). Although the Cherokee formula cannot be viewed as a direct analogue for the Twin Mounds poles, there may well be general historical continuity in the use of sharpened sticks set in the ground to drive away evil or, more broadly, for the living to influence the activity of supernatural beings. Not to be overlooked is the possibility that the poles may be an example of "imitative magic to aid the spirits [of the dead] in their ascent" skyward (Hall 1997:162).

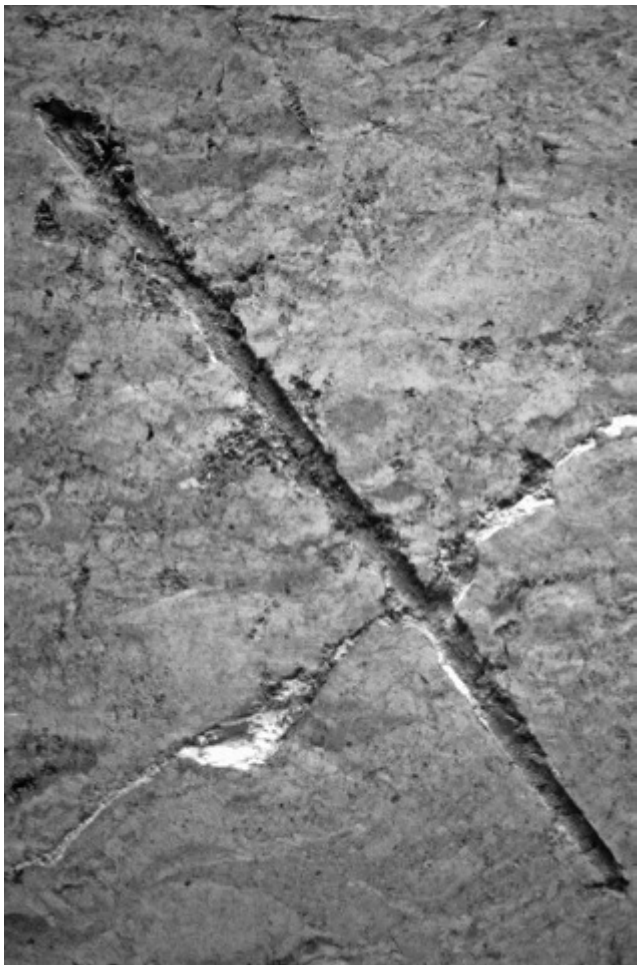

FIGURE 4.28. Pseudomorph of pole in profile. Note sand layer covering primary mound.

Covering the sides of the primary mound is a thin layer of the same white to pale tan sand used to cover the encircling raised platform (Figure 4.18). Four distinct soil layers capped the flat top of this mound, each about 4 cm thick. From bottom to top, these are a reddish orange sand, white to pale tan sand, dark gray sandy clay, and reddish brown sandy clay (Figure 4.29). The capping episode shows great attention to detail, and successfully creating the multilayered cap without mixing the various soils was quite a remarkable feat. Any misstep would have blended soils of the various fill layers that obviously were intended to remain distinct and distinctive. One way to prevent this would be to cover each soil zone with heavy matting as it was being deposited. The matting would serve to more uniformly distribute the pressure caused by walking on the mound summit. Today, we would achieve the same effect using wide boards or sheets of plywood. Upon completion of one layer, addition of the next would proceed by slowly rolling up the matting and carefully laying sand or soil on the exposed surface.

Use of contrasting colors in earthen construction is a common theme expressed in Ohio Hopewell, where the typical color palette is red, black, yellow,

FIGURE 4.29. Soil layers covering top of primary mound.

and white (Greber 2006:90). The specific hues seen in the northern Twin Mound may bend the "rules" a bit, but certainly do not grievously violate them. Gage's (1999:111) hypothesis that value (light and shade) was as important as hue to many Native American cultures may apply here.

No source for the reddish orange sand, which also was used in Zone F3, could be located in the immediate vicinity of the Twin Mounds. It probably is a variant of McNairy Sand, which underlies some, if not all, of Pinson Mounds (Russell and Parks 1975:map insert), but it may also derive from the Holly Springs (now Claiborne) Formation, which outcrops about 2 km northwest of Pinson Mounds (Whitlach 1940:240; see also Nelson [1911]:105–106). The pale sand occurs in the subsoil under the Twin Mounds and on the surface at several localities within the Pinson Mounds complex. Similar sand was used on summits of Ozier Mound and Mound 29, and also to cover the premound surface beneath Mound 10. Thin sand layers or strata are common in Ohio Hopewell burial mounds; for instance, Squier and Davis (1848:143–160) illustrate multiple examples from Mound City, as does Mills (1922:Figures 18, 28, 29).

The dark gray sandy clay must have been collected from an area in which there often was standing water, probably the nearby Forked Deer River bottomlands. Use of this material may therefore be related to the widespread Earth Diver creation myth (Hall 1979), which is "easily the most prevalent type of Native American creation story" (Leeming and Page 1998:77). This myth describes a water-covered world lacking land. One or more animals dive to the bottom of this primordial sea, and one finally succeeds in carrying up a bit of mud that grows into the earth.

The final capping layer is the local, upland reddish brown sandy clay subsoil. Symbolically, the use of subsoil as the final cap may have served to link or connect the primary mound to the soil on which the mound was constructed. It is also useful to view the relationships between these soils and their implications via a series of binary oppositions:

Upland soil (reddish clay): Floodplain soil (dark gray clay)
Uplands: Floodplain
Above: Below
Heavens: Underworld

If such complementary congruency can be established for the two clayey layers of the mound cap, it should be possible to do the same for the sand strata. The pale yellow sand unquestionably could be obtained from the upland soils immediately adjacent to the Twin Mounds. In fact some of this sand could have been collected during excavation of the submound burial facilities. The source of the darker orange sand is not known, but it is noteworthy that this sand also was part of the soil matrix used in the initial fill placed over the burial area (i.e., Zone F3).

I can use this point to claim that whatever its source, the orange sand is conceptually linked to primordial soils associated with the beginning of the world, the sequence of which was recapitulated in the construction of the Twin Mounds. Thus the congruency set forth above can be extended to the two sand layers.

At the McRae Mound in southeastern Mississippi, Collins (1926:91–92) reported a somewhat similar capping episode over what seemingly was a raised burial platform:

> The stratification consisted of a series of brilliantly colored sand layers, yellow, brown, orange, blue-gray, and pure white, from which, at the center of the mound, there suddenly arose a dome-shaped structure of compact yellow clay [i.e., the primary mound].
>
> This clay dome and the succession of colored sand strata probably had a ceremonial significance, having been placed on the floor of what had very likely been a temple, the site of which was later covered over with a mound of earth, on top of which, still later, there probably stood a temple or council house.

Upon completion, the primary mound was a flat-topped, circular structure, standing 2 m tall and measuring about 12 m in diameter. The complex and carefully executed capping episode revealed by the excavations, as well as the size of the primary mound, point to a communal construction effort overseen by strong leadership.

Between the primary mound and the platform was a seemingly open area about a meter wide (see "gray clay" below Zone F1 in Figure 4.16). If this area was open for a period of time, it was of short duration, as there are no water laid soils at the base. Its status as a "ceremonial walkway" (Mainfort 1986a:55) was and is conjectural. A digital rendering of the completed primary mound and platform is presented in Figure 4.30.

Construction Stage IIIA: This construction stage includes some deposition that formerly was included in stages III and IV (Mainfort 1986a:55–58). The initial construction event entailed filling the open area between the primary mound and the interior edge of

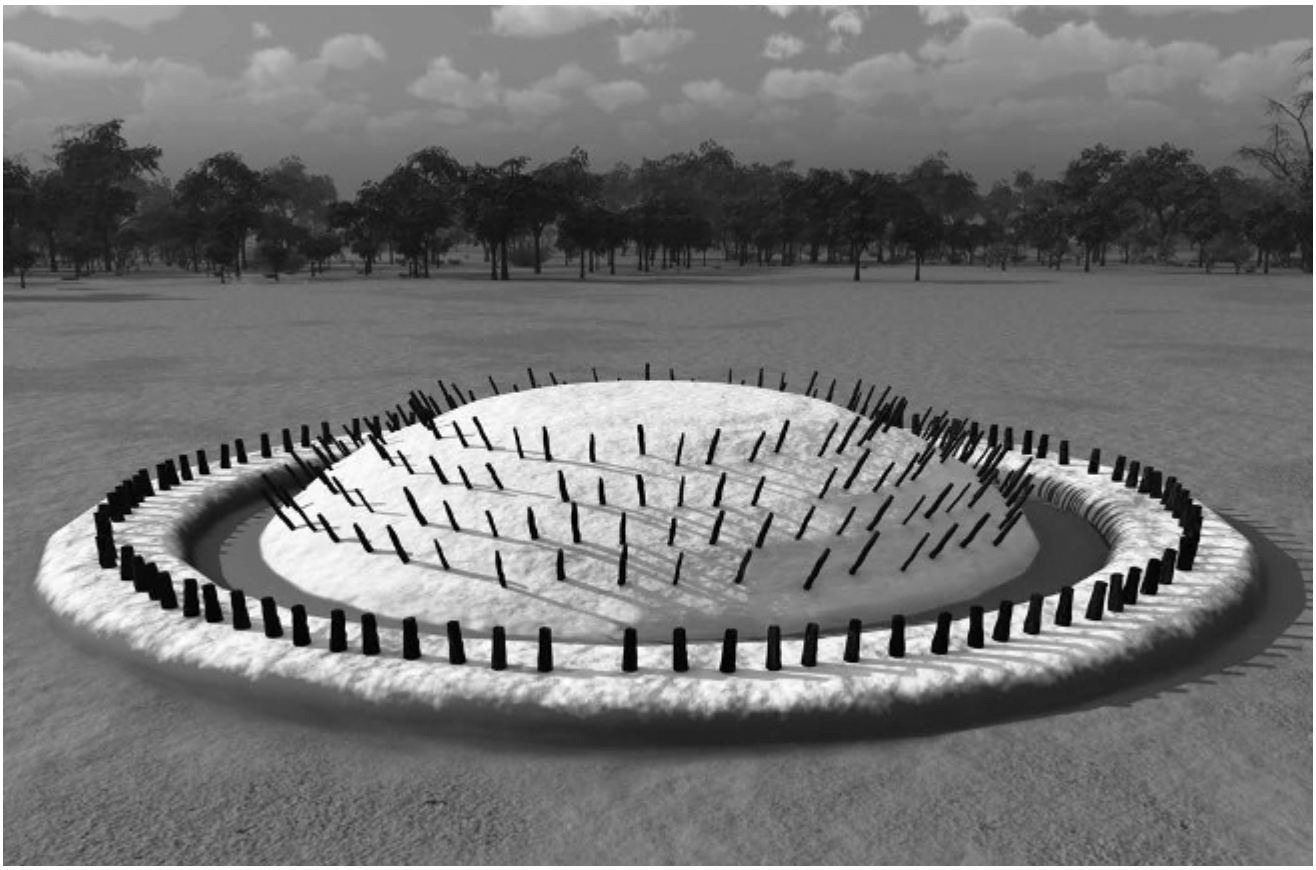

FIGURE 4.30. Completed primary mound and platform. Digital rendering by Angie Payne (Center for Advanced Spatial Technologies, University of Arkansas).

the earthen platform to a depth of about 60 cm with compact dark brown and gray silt loam (Figure 4.25). This material is similar to that resting upon the interior portion of the platform. Some individual basketloads in this deposit had been exposed to fire and were deposited while still hot; some of these contained unidentifiable calcined bone scraps. The former point is illustrated by an individual load exposed in the N4004 profile at the interior edge of the platform, the heat from which altered the color of the soil at the edge of the platform.

Most of the fill within this "walkway" area is covered with a very thin deposit of pale tan sand that represents a continuation, perhaps inadvertent, of the sand deposit covering the earthen platform. This seems to imply that the walkway fill was deposited just prior to the addition of the sand to the top of the platform. Some sand that covers the sides of the primary mound is covered by this fill event, so the sand used to cover the primary mound must predate the addition of sand to the top of the platform.

The final depositional episodes during stage IIIa were undertaken simultaneously. One entailed placing numerous dark loads containing scraps of calcined bone on the sand-covered platform to a height of over one meter. The individual dark loads average about 30 cm^3 in volume, and some unquestionably were deposited while still hot, as the surrounding matrix is hard and discolored from exposure to heat. That these loads were deposited while still hot indicates that they represent material integral to the ritual process of mound construction, not simply material that was inadvertently included in the mound fill. No human remains were identified in these deposits, the only identifiable specimens being white-tailed deer (Mainfort 1986a:58). Some stylistically nonlocal pottery sherds were included in these deposits.

As this material was being deposited, the dark fill comprising the base of Zone F1 (Figure 4.16) was placed on top of the "walkway" fill, abutting the primary mound to the west and the platform deposits to the east. As shown in Figure 4.18, the relatively flat upper surface of this fill was capped with a fairly thin layer of dark basketloads. The interface of the lower Zone F1 soils and the material deposited on the platform is nearly vertical (Figures 4.18 and 4.25), showing that the two distinct fills were deposited in tandem.

Construction Stage IIIB: During this building stage, the primary mound (but not the platform) was covered with a mantle of basketloaded fill about 1.5 m thick, bringing the height to about 5 m. This fill is designated Zone F1 in Figure 4.16. In contrast to Zone F2, fewer individual loads are discernable in Zone F1, and loads of subsoil are sparse except near the base. In contrast to the basketloads in Zone F2 and F3 (construction stage IIB), which slope down to the east, the observable basketloads at the base of stage III slope downward to the west. Limited excavation on the north side of the mound exposed a number of dark basketloads containing calcined bone resting directly on the sand-covered flank of the primary mound, but there were no comparable examples observed in the main excavation area.

A great deal of the Zone F1 fill, both darker and lighter, consists of grayish silt loam (Figure 4.18) that probably derives from gleyed bottomland alluvial soils of the Falaya and Waverly Series (Brown et al. 1978). If the linkage between the thin layer of dark soil used to cap the primary mound with the Earth Diver myth seems a bit of a reach, Zone F1 provides more compelling evidence. Covering the primary mound with 1.5 meters of soil required, in itself, considerable labor. Factor in a 7 m vertical climb into the bottomland and returning with a basketload of soil, and the effort invested in this construction stage becomes even more impressive.

The entire zone F1 mantle apparently was capped with a thin layer of light gray silt loam or clay; this was identified in the N3998 and N4000 profiles, but not in the E4000 profile. This is one of several similar deposits interlaced between successive additions to the mound (see Figure 4.16). The source of the gray clay has not been identified, but this material does not occur on the surface of the Pinson Mounds complex, nor has it been exposed during off-mound excavations, so it likely was obtained in the floodplain.

Construction Stage IV: Two thick layers of fill, designated zones D and E (Figure 4.16), were added to the mound during this stage. After material was deposited on the platform (stage IIIa), a mantle of dark, organically stained fill (Zone E) was placed over the entire mound; the base of this stratum rests partially on the sand-covered platform (Figures 4.16 and 4.18). Zone E averages about 50 cm thick and is

thinner toward the top of the mound. Although generally similar in content to the eastern (covering the platform) stage IIIa soils, the materials comprising Zone E were not deposited while still hot.

This stratum contains an abundance of calcined bone fragments, sandstone, chert and siltstone debitage, and pottery sherds, as well as some mica fragments. The sherds include moderately large fragments of several individual vessels and some stylistically nonlocal specimens. None of the calcined bone was identifiable as human; the few identifiable elements, including those of white-tailed deer and small mammals, probably are food remains. In retrospect, at least some of the soil from this stratum should have been screened, if not floated.

Obviously, Zone E represents something quite different than "mound fill." It is not simply domestic habitation midden that was incorporated into the northern Twin Mound. In general appearance and material content Zone E is analogous to the Duck's Nest sector deposit. Thus, it seems likely that Zone E is the redeposited remains of ritual activities broadly similar to those conducted in the Duck's Nest sector, but in this case the event was staged in conjunction with construction of the Twin Mounds and the material remains incorporated into the mound.

A stratum similar to Zone E apparently covered the "clay dome" (primary mound) of the McRae Mound (Collins 1926), as shown on one of the few extant photographs of the excavations (Smithsonian Institution Photo No. 83–16155). The photograph portrays a very dark soil zone covering the peak of the homogeneous soil comprising the dome and extending an unknown distance down the sides. Overlying the dark soil zone is a zone of dramatically contrasting light and dark basketloaded soils.

Near the center of the northern Twin Mound, the upper strata were disturbed by the 1880s relic hunter. Here, it appears that Zone E merges into a deposit of ashy gray clay. The immediately underlying soil is hard and baked red from exposure to heat. Because of the disturbance and the limited extent of excavation, the relationship between this burned area and the remainder of Zone E is unclear, as is the function of the burned area.

Covering Zone E is a layer of yellowish brown sandy clay (Zone D) that is fairly homogeneous over the excavated portion of the northern Twin Mound (Figures 4.16 and 4.18). Zone D is about 60 cm thick near the top of the mound and thins near the base. This stratum probably covered the entire mound, but the relic hunter pit created a discontinuity in the main profiles, so Zone D is truncated for several meters along the E4000 line. Some artifacts, including stylistically nonlocal ceramics, occur in this stratum, but are less frequent than in Zone E.

Completing construction stage IV was the addition of a layer of gray clay, 2 to 20 cm thick, which raised the mound to a height of nearly 6 m and a diameter of approximately 22 meters. The final gradient for the sides of the mound (32°) was attained during this stage.

Construction Stage V: The northern Twin Mound was completed by the addition of two strata during construction stage V. Zone C, the lower of these, is a layer of compact mottled dark brown sandy clay averaging about 40 cm thick. On the northern half of the mound, a large number of sandstone boulders (Figure 4.31) were incorporated into this stratum, forming a partial cap over the mound; these rocks do not extend over the southern part of the mound. Some weigh as much as 20 kg and, based on the difficulty of carrying

FIGURE 4.31. Portion of N4004 profile (north wall of N4002/E3998) showing rock cap.

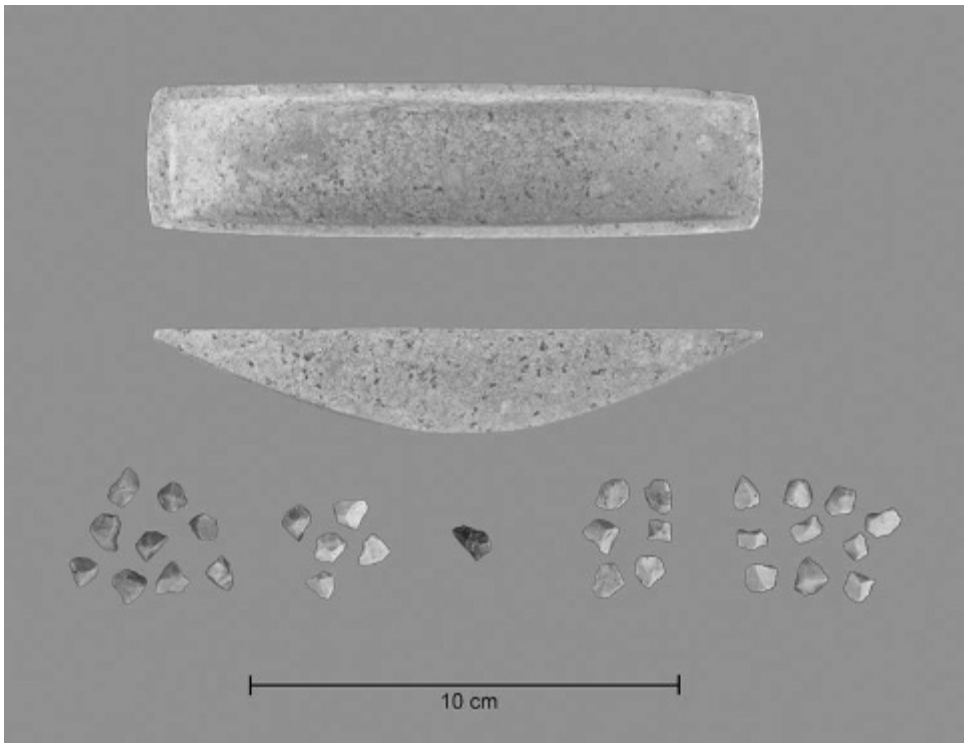

FIGURE 4.32. Boatstone and chert fragments contained within.

them down the side of the mound, the effort involved in placing them on top was considerable. Killebrew (1874:1133) observed that such sandstone occurs near the surface of the bluffs along the Forked Deer River in the southern part of Madison County, Tennessee, where Pinson Mounds is located.

Two human burials were located directly below the sandstone cap. Burial 1 is a poorly preserved young adult male, aged 24 to 35 years (Beck 1986:92), who was placed on his right side in a flexed position, head to the northeast. Both femurs were truncated at mid-shaft, probably by the relic hunter pit. On the chest was a green, speckled granite boatstone measuring 13.5 cm long and 3.3 cm wide, with sides only 2 mm thick (Figure 4.32). The interior and exterior sides are straight and exceptionally smooth. Young (1910:212) illustrates a stylistically similar piece from eastern Kentucky that is made from green banded slate, albeit with a small perforation at each end. Within the boatstone were 32 angular fragments or pebbles of Fort Payne chert of five distinct colors: light gray (n = 5), yellowish gray (n = 6), grayish pink (n = 11), gray (n = 9), and dark gray (n = 1) (Figure 4.32). Small pebbles have been found within other boatstones (e.g., McClurkan et al. 1980), but the chert fragments in the Pinson Mounds specimen are quite unlike any of these and must have served a different symbolic purpose. Several small mica fragments, possibly discs, rested against the mandibular teeth, and several molars exhibit copper staining. Some small shell beads, probably the remains of a bracelet, were located near the left wrist. Burial 2 was represented only by cranial remains, which are those of a young adult (Beck 1986:93). There were no associated funerary objects.

In the main excavation area Zone C extends somewhat beyond the limits of the puddled clay floor and there is a deposit of tan sand at the base of the stratum. On the north side of the mound, however, Zone C articulates with the edge of the clay floor and no sand is present at the base. A thin layer of gray clay covers the stratum throughout both excavation areas.

The final addition to the northern Twin Mound was a layer of loose dark brown sandy clay (Zone B). Near the top of the mound, Zone B is about 40 cm thick, but the thickness increases to about 1 m at the base, probably due to prehistoric erosion off the mound slope, bringing the height of the earthwork to about 7 m and the diameter to 26 m. On the north side of the mound, a hard mineralized deposit, similar

to those seen in the Ozier Mound stratigraphic trench, marks the interface of Zones B and C, but it was not observed in the main excavation area. A dark, old humus zone is discernable above Zone B in most profiles and is covered with spoil dirt from the relic hunter pit on most of the east side of the mound. The completed northern Twin Mound was about 7 m tall and 26 m in diameter.

Although stratigraphically complex, the northern Twin Mound appears to be the product of a continuous set of mortuary activities, a near-classic example of what Sears (1961:227) called a "fossilized ceremony." Each stage of mound construction seems to have followed in relatively quick succession, and all evidence points to the earthwork being the outcome of a set of carefully planned activities. Indeed, completion of each construction stage, each with its own distinctive fill, also marked the conclusion of a "chapter" or "act" in the renewal ceremony/story that underwrote construction of the mound and the attendant mortuary display.

The flat-topped primary mound is unique among reported Middle Woodland burial mounds, and the possibility that it essentially acknowledges the large rectangular mounds at the mound complex is intriguing, though speculative. With the obvious parallels in the use of pale colored sand in constructing the northern Twin Mound, Ozier Mound, Mound 10, and Mound 29, we see an inescapable thematic linkage. These four earthworks undoubtedly were built by people who had specific notions about appropriate material to be used in certain ways during mound construction. Moreover, this general sense was shared over the span of some generations, insofar as both Ozier Mound and the Twin Mounds probably predate Mound 10 (Mainfort and McNutt 2004).

PRECONSTRUCTION SURFACE AND MORTUARY FEATURES

Below the puddled clay floor at the base of the northern Twin Mound are a number of features used during ritual activities (Figure 4.19). These features were excavated directly into subsoil and are contemporary in the sense that they are products of a continuous set of activities. There are six large burial facilities (Features 48, 49, 51, 53, 54, and 57), pits of various sizes (Features 62, 63, 66, 67, and 71), basins (Features 64, 65, 68, 69, 70, 72), and numerous postholes, some of which were refilled with various materials, including calcined bone (PM 30, 31, 32, 42, 43, and 61). The basins are small, shallow depressions with round bottoms, distinct from the pits, which are relatively straight-sided. In fact, the latter resemble refilled postholes, save for their greater diameters.

Several pieces of evidence indicate that the basins and pits are not earlier features that were exposed after the removal of the topsoil. First, with the exception of Feature 69 (discussed below), none occur within the area bounded by the outer edges of the large burial facilities, and none of these facilities intruded into an earlier feature. Second, one basin (Feature 65) was covered by a thin layer of sandy clay that almost certainly would have been dispersed had it been associated with an earlier occupation.

Although much of the feature fill (in some cases, the entire contents) was water screened, few cultural remains were recovered. None of the calcined bone fragments from the features can be identified as human, but a number of specimens are definitely nonhuman (Lane Beck, personal communication, 1984). Thus, rather than being mortuary features, the small submound basins and pits represent elements of rituals, perhaps including funeral rites.

The fill of Features 64, 65, 68, and 69 contained mica fragments. Feature 69 is noteworthy because it is located at virtually the center of the northern Twin Mound, and it is the only small feature exposed within the central burial area. In addition to mica, Feature 69 contained a bear vertebra, the distal end of a deer ulna, a number of small unidentified bone fragments (some charred, others calcined), and a chert flake. The top of Feature 65 clearly was sealed with a thin layer of brown sandy clay while the contents were still hot. Feature 68 was surrounded by an area that had been discolored by fire.

Most pits (Features 62, 63, 66, 67, and 71) exhibit straight sides that were hardened by exposure to heat. The largest, Feature 66, is over 80 cm deep and, like Feature 68, is surrounded on the surface by a burned area. It contained part of a Furrs Cordmarked vessel, a chert flake, calcined bone, and some charcoal. Chert flakes also were found in Features 62 and 67; Features 63 and 71 contained only calcined bone and charcoal.

A number of refilled postholes were exposed on the preconstruction surface; these are shown in light gray in Figure 4.19. Most are shallow and contained

little other than calcined bone. Other postholes and several postmolds are represented by the black, circular figures. Postmolds 51 and 52 were a pair of posts of unknown function that were set into a pit and supported by gray clay fill. Associated with a shallow fired area (Feature 60), PM 56 was a large posthole (D = 20 cm) that extended 45 cm into subsoil. The upper fill contained some ash, suggesting that the surrounding area was fired after the removal of the post. There is no orderly pattern to the postholes and postmolds, so even taking into consideration the limited area exposed, it seems unlikely that some or all are the remains of a structure.

We located six submound burial facilities at the base of the northern Twin Mound, excavating four and leaving two undisturbed. All are located within the area defined by the edge of the primary mound; in our excavation area the edge of the primary mound extends more than a meter beyond the burial area. As mentioned above, all of the burial facilities were sealed beneath the puddled clay layer. The architecture of each tomb was essentially unique. Features 49 and 54 were covered with logs that were burned *in situ*. Feature 48 was covered only with split cane matting, and there was a log and pole superstructure and several layers of matting covering Feature 51.

The individuals interred in Features 48, 51, and 54 were positioned along an east-west axis, but three of the individuals in Feature 49 were oriented north-south. All burials were fully fleshed inhumations, and there is no evidence that the burial facilities served as reusable processing crypts (Brown 1979). The preserved human remains exhibit considerable sexual dimorphism and little dental attrition. As will be seen below, the demographic profile is aberrant.

Before discussing the four excavated mortuary facilities, I will suggest that viewing these features and the individuals placed within strictly from the perspective of disposal of the dead is to miss the point of the ritual process that began with selecting an appropriate place to construct the Twin Mounds and concluded at some point after the last loads of soil had been added to the earthwork. Certainly the individuals interred in the northern Twin Mound likely were important people in some sense. In fact, I suggest just that for the elderly men placed in Feature 49. But regardless of the various "social personae" that may be represented in the Twin Mounds, once the remains of these individuals were selected for incorporation into the ritual process, they became part of something greater than themselves and their social roles in life. It may have been an honor to be buried in the Twin Mounds, but this pair of mounds was not built simply to honor the dead.

Feature 48 initially consisted of a pit almost 3 m long, 1.3 m wide, and 70 cm deep. The long axis oriented east-west, and the base extends below the reddish brown subsoil into the underlying yellow McNairy Sand. Covering the base of the pit was a puddled gray clay platform, supported by six small horizontally placed logs and covered by a layer of fabric, represented archaeologically by pseudomorphs (Figures 4.33 and 4.34). Eight individuals, all apparently women in their twenties (Beck 1986), were placed in this facility in an extended, supine position along the long axis (Figure 4.35). The bodies lay atop one another, with five facing west and three facing east. Burial 13 was interred first, followed by (in order) Burials 12, 11, 8, 9, 10, 14, with Burial 7 last. With the exception of Burial 7, bone preservation was poor, which made positive age and sex assessments of Burials 12 and 14 impossible. Extensive insect boring is present on the cranial and pelvic remains. There is no evidence of traumatic death, but poor preservation may have obscured any indications thereof.

Most, perhaps all, of the individuals wore headdresses similar to the one surrounding the cranial remains of Burial 7, but the others were represented only by stains. Numerous *Marginella* shell beads, a deposit over 7 cm thick in places, formed an S-shaped pattern over the human remains. These may be the remains of long strings of beads or heavily beaded sashes that were placed in the burial facility prior to closure (Mainfort 1986a:Figure 69).

Burial 7, the final interment in Feature 48, is the best preserved. The bones are very gracile and musculature is correspondingly slight. There is little dental attrition (Beck 1986). Her head was to the east, and the remains of a fiber headdress largely surrounded the cranium. Numerous copper stains on the fiber probably are the remains of thin copper ornaments. Drs. Kathryn Jakes and Lucy Sibley (n.d.) observed that the yarn used in the headdress was made of bast fibers (probably bark) that exhibit some crimping; no twist is

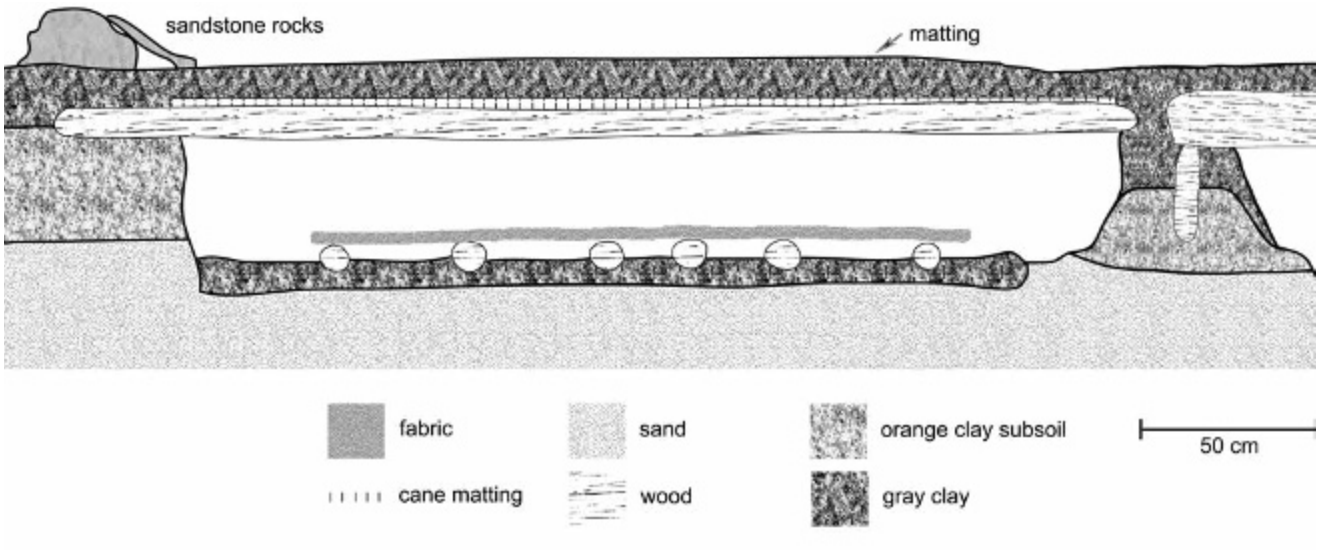

FIGURE 4.33. Feature 48, section view to north.

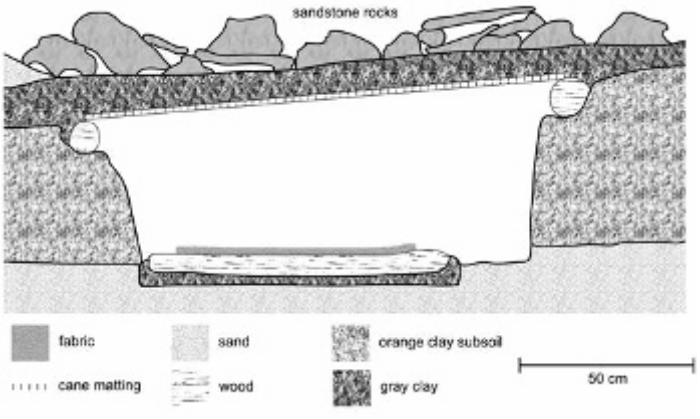

FIGURE 4.34. Feature 48, section view to east.

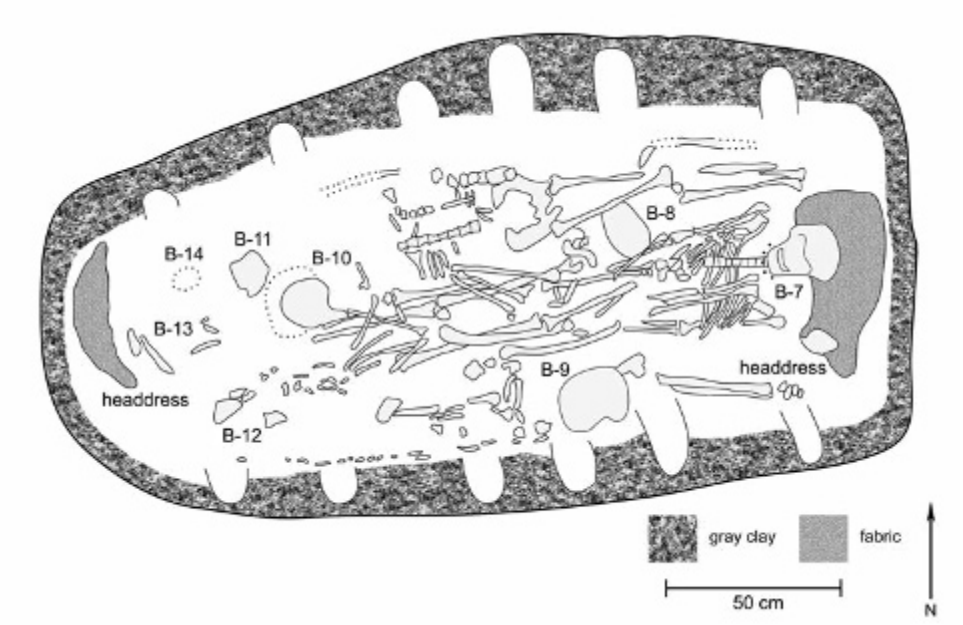

FIGURE 4.35. Feature 48, plan view.

evident. In a very broad sense, this and the other headdresses may have resembled those found at Etowah (Larson 1959). At the neck of Burial 7 was a necklace composed of at least five strands of freshwater pearl beads, with the smallest beads in back. The beads were strung on two-ply, S-twist yarn composed of bast fibers that differ in color, pliability, and configuration from the fibers used for the headdress. Copper stains and fragments at the right ear probably are remnants of a copper ear ornament.

Burial 8 was poorly preserved; her head was to the east and the remains were slightly flexed, probably due to postdepositional movement associated with decomposition. In addition to a headdress, this individual wore a thin copper neckpiece, of which only fragments and copper salts remained. A piece of copper adhered to the left portion of the mandible, and copper stains are present on the side of the cranium, one wrist, several ribs, and the spine. Two bone awls were located to the east of her skull, and a broken awl lay partially under the skull.

Burial 9 was interred with her head to the east. Preservation was very poor. Copper stains near the ears may represent ear ornaments, decomposed organic material around the head hints at the presence of a headdress. Preservation of Burial 10 is fair, and she was buried with her head to the west. Dental attrition was light to moderate. Fiber and copper stains in the cranial region likely are the remains of a headdress. In the pelvic region was a cluster of tubular shell beads, and some round shell beads were located at the ankles. Various styles of beads that accompanied the people buried in Feature 48 are illustrated in Figure 4.36.

Although Burial 11 is very poorly preserved, her bones are very gracile. Like Burial 10, her head was to the west. Copper stains in the cranial region may represent ornaments on a headdress, and there were copper stains in the chest area. Burial 12 also was interred with her head to the west. The remains of a headdress (copper stains and fiber) were observed in the cranial area, and there are copper stains on the mandible in the molar region. In the chest area of Burial 12 was a pouch or breastpiece decorated with tubular shell beads (Figure 4.37); individual rows of beads were easily discernable.

Burial 13, the first individual placed in Feature 48, rested directly on the clay platform, which made bone preservation very poor. Her head was to the west and was surrounded by a fiber headdress, of which only fragments remained. There were copper stains near the sternum and at the feet.

Represented only by gracile fragments of the pelvis, vertebrae, and lower limbs, Burial 14 was placed with the head to the west. Because the remains of this individual were very poorly preserved, identification as a female is not certain, but the gracility of the remains makes this likely. In the lumbar region was a double row of tubular shell beads, perhaps a belt, and some fragments of copper.

At the level of the mound floor, Feature 48 was covered by a layer of split cane matting, of which there were numerous fragments around the upper peripheries of the pit and the collapsed fill within. Partially supporting the mat covering were two logs set horizontally into the subsoil just below the top of the pit along the long axis (Figures 4.33 and 4.34). After the mortuary facility was sealed beneath the puddled gray clay layer (construction stage I), fiber matting was placed over the top, and sandstone boulders were arrayed around the edges. Pseudomorphs indicate that the matting consisted primarily of flat,

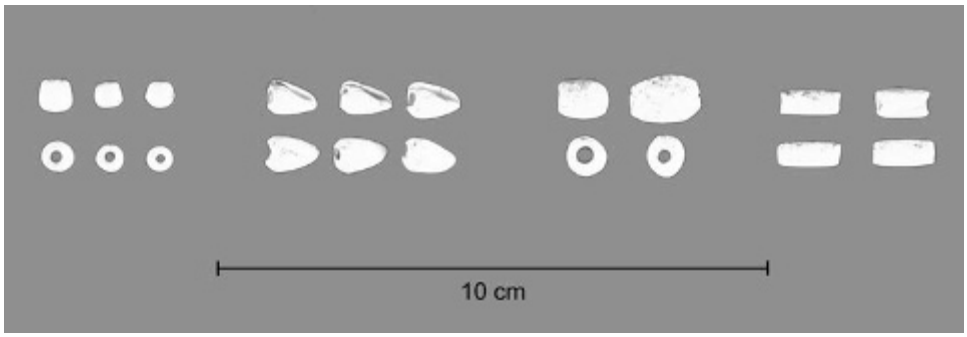

FIGURE 4.36. Styles of beads from Feature 48.

narrow fiber strips fastened together at 3 to 5 cm intervals by twisted cordage (Figure 4.38). Several fragments of gray clay with bark impressions may be the remains of bark sheets that covered the tomb. Some burned and calcined bone was found near the northeast and southeast corners of Feature 48, and the causal event may have ignited the nearby matting.

The fact that all (although the sex of Burial 14 is problematic) of the individuals entombed in Feature 48 were females of about the same age prompted Mainfort (1986:75) to suggest that this might represent an instance of "retainer burial." This suggestion was ill conceived on several counts, the most obvious being the assumption that only women would be required to serve the role of "retainer." It also assumed the existence of a Middle Woodland social order somewhat akin to that of the historic Natchez (Galloway and Jackson 2004; Swanton 1911),

FIGURE 4.37. Remains of possible beaded pouch from Feature 48.

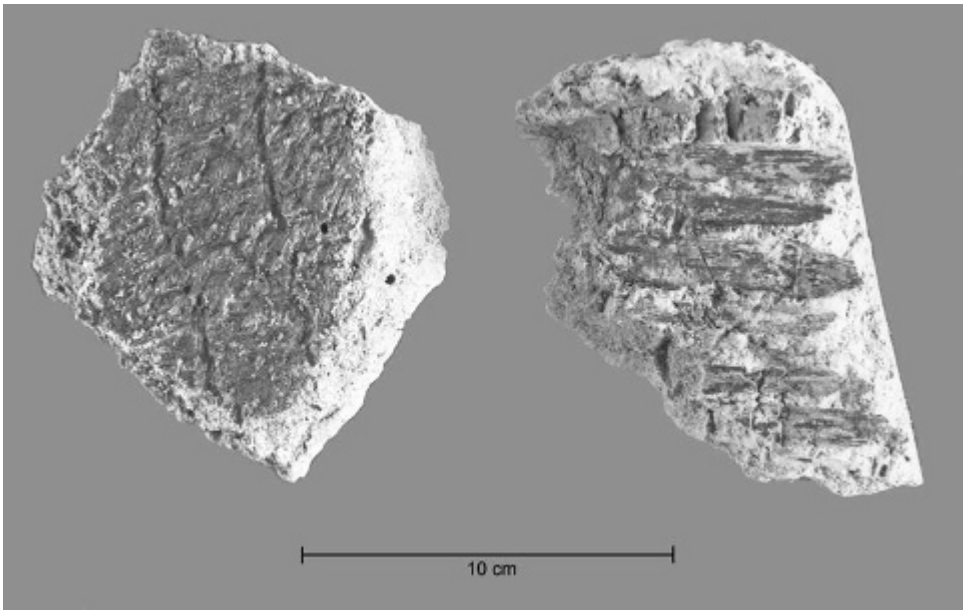

FIGURE 4.38. Pseudomorphs of fiber structures from Feature 48.

for which there is no evidence anywhere in the Hopewellian world.

Who, then, were the women interred in Feature 48? The headdresses they wore undoubtedly were symbols of authority in some sense (Brown 1981:37), but if so, *whose* authority and *what* authority were being symbolized? The representationist perspective on mortuary analysis (see Brown 1995) is of no help here. The Twin Mounds were something much more than simply a facility for disposing of deceased individuals. The carefully orchestrated construction of the mounds reflects world renewal and the creation of social memory, and seems likely that each submound interment group did so as well. The headdresses and their wearers should not be mechanically equated with social leadership roles in the traditional sense. If the intention of the survivors was to honor these women as leaders, why were they all placed in a single burial facility in which individual identities are visually de-emphasized?

A more profitable way of viewing the Feature 48 burials is as individuals to whom very important roles, perhaps mythological, were assigned at or shortly prior to death. That all of these individuals wore headdresses decorated with copper ornaments suggests that the assigned roles were associated with ostentatious head regalia that would easily be recognized by people attending the interment ceremony. Byers (2004:236–237) refers to such objects as "custodial regalia" that were symbolic warrants "for constituting important ritual offices and their related activities." In the case of the women placed in Feature 48, the "offices and related activities" may have been those associated with what Marcus (2007:64) has termed "ritual impersonators," individuals who were attired in suitable fashion to approach deities and supernatural forces. Recall that most, probably all, of these woman also wore a variety of other copper objects at the ears, neck, chest, and feet, which would have made their appearance all the more striking. In Native American communities, masks and ceremonial regalia are often intertwined with ritual practices that memorialize or express information concerning the cosmos, worldviews, or dramatic events (Pernet 1992:161). Thus, ceremonial regalia may have served as important repositories of ritual knowledge (Proschan 1983:4).

Finally, the unstated referent for my original suggestion was, of course, Mound 72 at Cahokia, at which there are several female burial groups that likely were sacrificed retainers (Ambrose et al. 2003; Fowler et al. 1999; Rose 1999). The only archaeological parallel between Mound 72 and Feature 48, however, is the interment of multiple women during a single burial event. The ceremonies reflected in Mound 72 were set against the backdrop of Cahokia's emergence, a situation drastically different from anything transpiring among Middle Woodland societies in the Midsouth. Mortuary ritual as performance likely is a common element, but in considering mortuary rites as performance or "theater," it is important to keep in mind that this was not simply a matter of stagecraft. Like the construction of mounds and embankments, such public rituals were linked to serious core beliefs, namely world renewal (Byers 2004).

Construction of Feature 49, located immediately east of Feature 48 (Figure 4.19), began with the excavation of an oval pit measuring approximately 2.5 m long, 2.0 m wide, and 80 cm deep. This is the only excavated burial facility with the long axis oriented north-south. As with Feature 48, the base of the pit extends through the sandy clay subsoil and into the underlying yellow McNairy Sand. Four old adult males were interred in Feature 49, three oriented north-south and one east-west (Figure 4.39).

Burial 3 was interred at the north end of the feature in a flexed, supine position. Consistent with an age of 50+ years, the vertebrae show signs of arthritis. Dental attrition is slight to moderate (Beck 1986). This individual wore copper ear ornaments, though all that remains are greenish stains on the parietals. Burial 4, a male aged 42 to 50 years, was placed in an extended, supine position with the head to the north. The vertebrae show signs of light osteoarthritis, and like most of the Twin Mounds burials, dental attrition was slight. Under the spine of this elderly male was a green speckled granite pendant (Figure 4.40), nearly identical in shape to specimens reported from the Miami River valley in Ohio (Squier and Davis 1848:237; 15 in Figure 136), Indiana (Lilly 1937:149), and Pennsylvania (McConaughy 2011:91–92). Other examples are recorded at Esch Mounds (Ohio) (Ohio Historical Society A 1176/000002), Philo (Ohio) (Seeman and Dancey 2000:600), Rogers Mound (Kentucky) (Seeman and Dancey 2000:599), and an unknown site in Arkansas (Peabody Museum of Archaeology and Ethnology 22–34–10/G4061). They do not occur

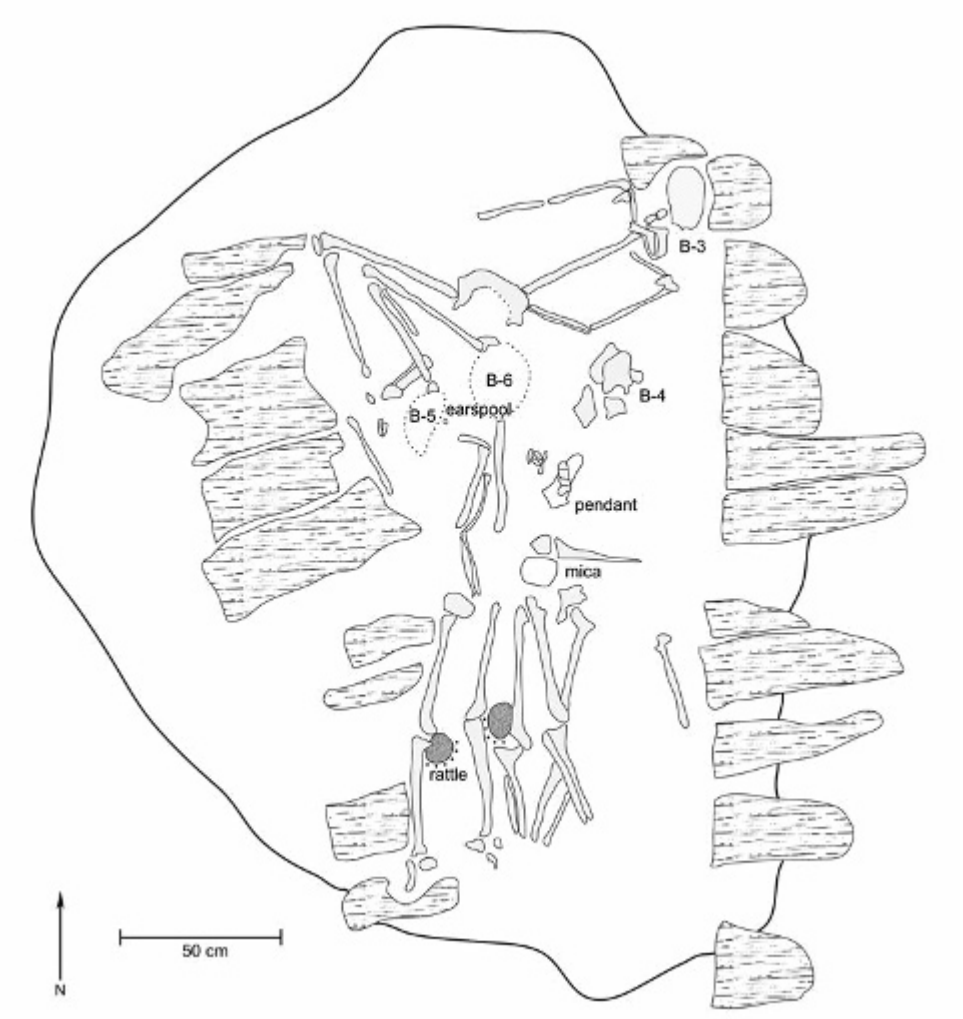

FIGURE 4.39. Feature 49, plan view.

at any of the "classic" Hopewell sites in Ohio and are thought to date to late Hopewell/early Late Woodland times there (McConaughy 2011:91–92; Mark Seeman, personal communication, 2009). The Twin Mounds specimen dates several hundred years earlier (see below).

Partially covered by Burials 3 and 6, Burial 5 was interred on the west side of Feature 49 in an extended, supine position, with the head to the north. Aged 45+ years, this individual had mild osteoarthritis. Dental attrition was remarkably slight for a person of this age. Near the left parietal were the remains of a copper ornament, but there was no trace of the expected companion on the right side. At the knees of Burial 5 were what are arguably the most distinctive objects found at Pinson Mounds, a pair of engraved rattles fashioned from human parietals (Figure 4.41). Also at the knees were several strings of ovoid shell beads that may have been suspended from the rattles.

Both rattles consisted of a pair of cut cranial segments fastened together by four thongs or strips of sinew. Within the rattles were small, yellow quartzite pebbles that produced the rattle effect. Only one of each pair of cut parietals was engraved, and these are better preserved than the accompanying plain sections. The design on one rattle (Figure 4.41, left) is a stylized bird with a curved beak. The upright tail element above the eye is broadly consistent with the representation seen on Havana and Marksville pottery vessels (Canouts 1986:219). Imagery on the other rattle (Figure 4.41, right) is more obscure, but the central element is a stylized pair of wings similar to those on the first rattle, with possible eye elements extending outward from it.

The imagery on both rattles reflects one of several widespread stylistic traditions that were important components of the Hopewell phenomenon. This was

expressed in the crafting of objects in a number of media, including ceramics, copper, stone, and/or fireclay, mica, antler, and bone. The most striking artistic parallels to the Pinson Mounds rattles are the incised human bone artifacts from the Hopewell and Turner sites in Ohio (Greber and Ruhl 1989:240–253; Willoughby and Hooton 1922), such as the pair of incised human parietals found in the "central altar" of Turner Mound 3. Willoughby (1922:56–58) refers to the objects simply as "discs," but the fastening holes on these artifacts suggest use as rattles. Rattles fashioned from paired convex disks have a long history in eastern North America, and the Pinson Mounds specimens may be the earliest dated examples. From the circa 1645 Grimsby site, Kenyon (1982:205) illustrates a rattle fashioned from European copper or brass.

Finally, consider that the rattles represent the remains of at least two individuals, i.e., production of the rattles came at the cost of at least two lives. It seems reasonable to assume that the use of human crania in fashioning the rattles, as opposed to using similarly shaped turtle carapaces, contributed to the ritual power embodied by these objects. The fact the rattles were removed from further ritual use suggests that that they were closely associated with the old man who wore them and that perhaps they were dangerous to others.

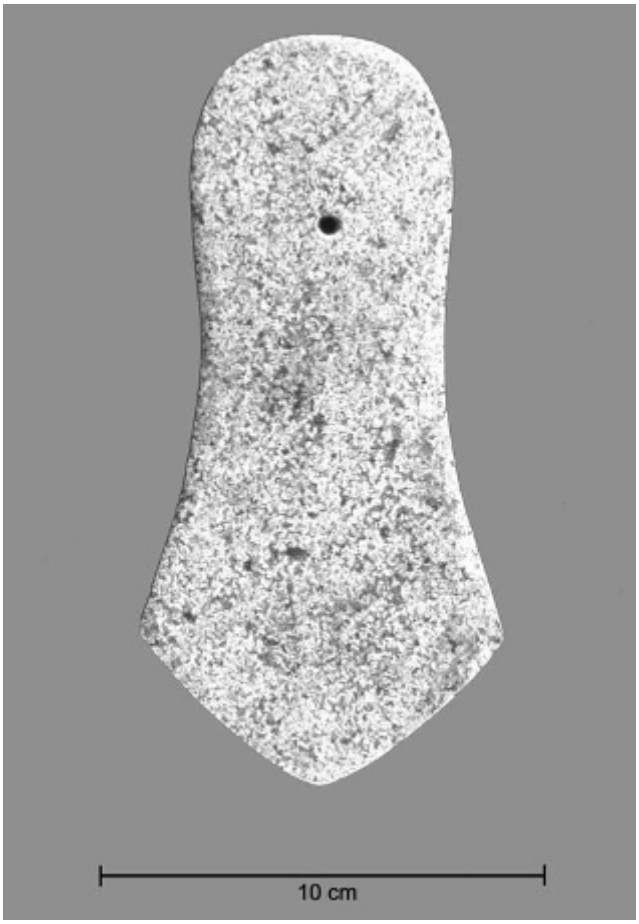

FIGURE 4.40. Pendant placed with Burial 4.

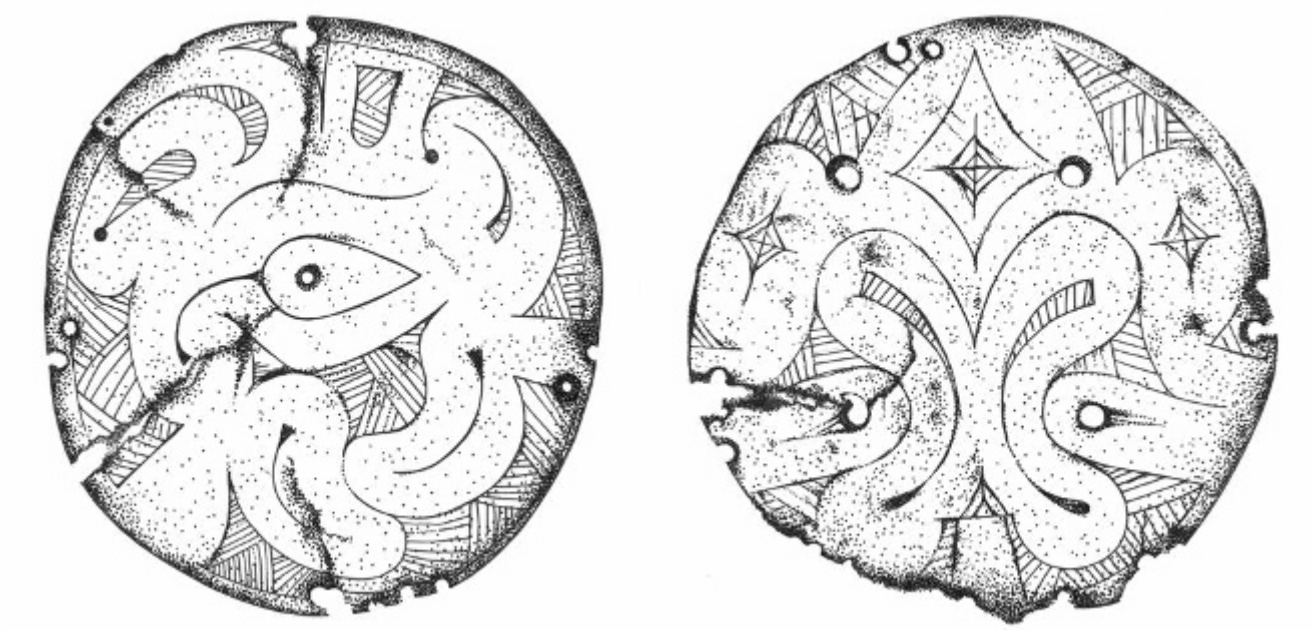

FIGURE 4.41. Incised rattles worn by Burial 5. Original artwork by Susan Estelle Kwas.

Burial 6, the most poorly preserved individual in Feature 49, was interred in an extended (though the left leg was slightly flexed), supine position in the center of the pit with his head to the north. Like the other old males in this burial facility, Burial 6 had osteoarthritis, though more widespread than the other interments, with indications on the spine, hip, knees, and elbow. Dental attrition was moderate to extreme, suggesting an age comparable to the other burials, in the absence of definitive markers (Beck 1986). A mica mirror, consisting of a sheet of mica with wooden backing, was located in the pelvic region (Figure 4.42). This object likely was used for divination (e.g., Hall 1976:361; MacDonald et al. 1989), and it seems likely that Burial 6 was an elderly shaman.

The objects buried with Burials 4, 5, and 6 and the interment of these three elderly men (along with Burial 3) in the same burial facility is very interesting. A good case can be made for Burial 6 being a shaman and the engraved human parietal rattles worn by Burial 5 suggests that he, too, was viewed as someone who possessed considerable power. The stone pendant with Burial 4 cannot be readily linked to the ritual sphere, but it belongs to a very distinctive artifact class of which relatively few examples have been reported—none in the greater Midsouth. It is certainly a labor-intensive sociotechnic object fashioned from a nonlocal material, and in a broad sense may have served as a badge of office. Unlike the women placed in Feature 48, these men were not ritual impersonators, but rather were powerful individuals who were buried with objects associated with their roles in life.

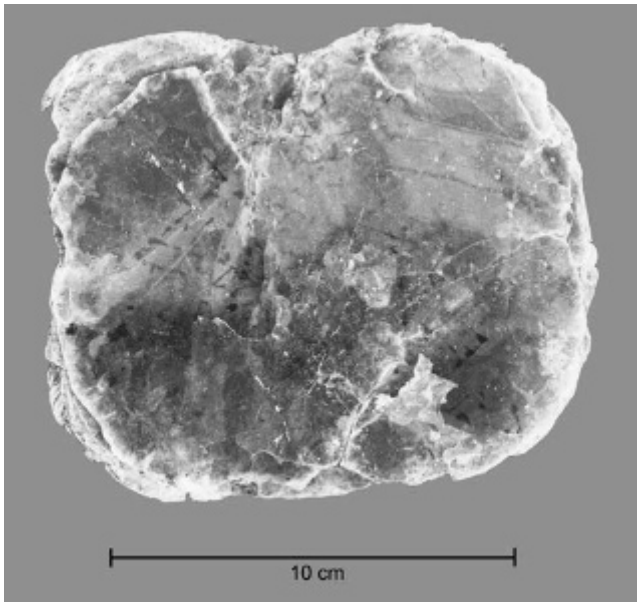

FIGURE 4.42. Mica mirror placed with Burial 6.

As shown in Figure 4.43, the earth wall separating the excavated portions of Features 48 and 49 is fairly thin, and an upright support post apparently was positioned in this area. The pit walls were partially lined with puddled gray clay similar to that used to cover the mound floor (Figures 4.43 and 4.44).

Feature 49 was completed by laying 10 logs of varying sizes (averaging about 30 cm in diameter) across the short axis of the burial pit to form a roof that subsequently was fired (Figure 4.45). Like the other burial facilities, the top of Feature 49 was sealed beneath the gray clay floor. A number of large sandstone boulders were placed on the clay floor around the edge of the feature, especially on the north and east sides. Upon collapse of the roofing logs, some of these rocks fell into the burial pit.

The contrasts between Features 48 and 49 are striking: women in their 20s vs. old men; prepared clay platform vs. none; east-west orientation vs. primarily north-south; and matting roof vs. large logs. The full implications of this juxtaposition, however, would require knowledge about all burial groups covered by the northern Twin Mound.

Located nearly 3 m north of Feature 48, Feature 51 is the largest excavated burial facility (2.5 m long, 1.3 m wide, and 1.7 m deep) but, despite its size, it contained only two burials (Figures 4.19 and 4.46). The base of the pit did not reach the underlying sand deposits, so bone preservation was very poor. Fabric remains near the cranium of Burial 15 may be remnants of matting on which both interments rested. A young male, Burial 15 was placed in an extended, supine position, head to the east. Although tooth eruption was complete there was no evidence of attrition on any of the molars. Burial 16, a young adult of unknown sex, lay on her/his right side in an extended position, with the right arm and leg slightly flexed and the head to the east. A single large freshwater pearl accompanied each individual.

In addition to its large size, Feature 51 also had the most complex architecture of the excavated submound mortuary features (Figures 4.47 and 4.48). The

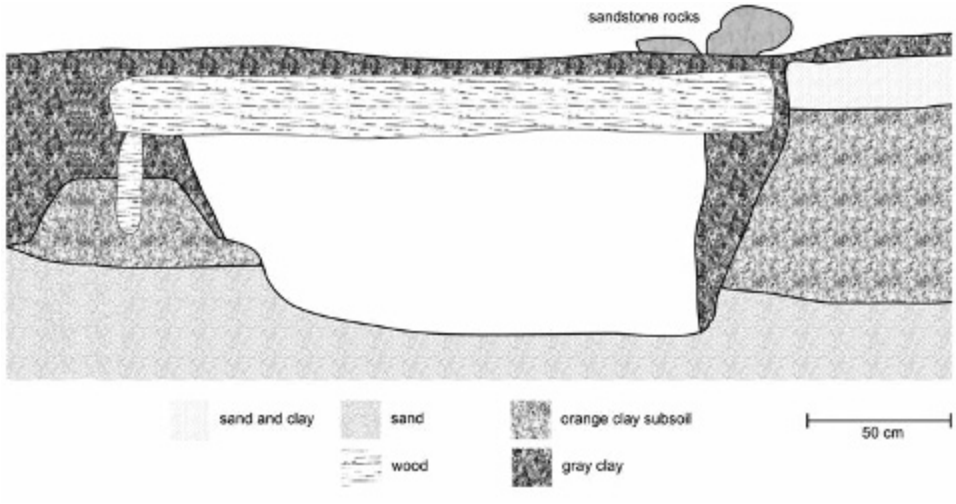

FIGURE 4.43. Feature 49, section view to north.

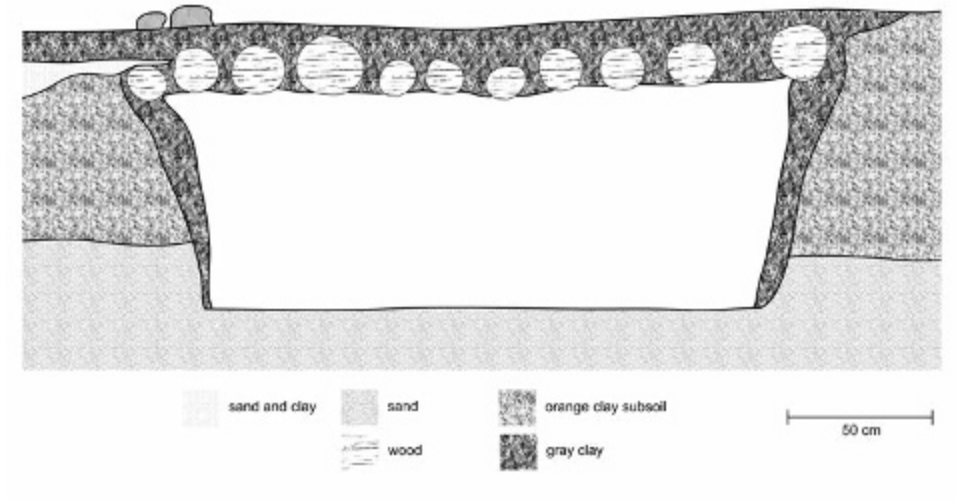

FIGURE 4.44. Feature 49, section view to east.

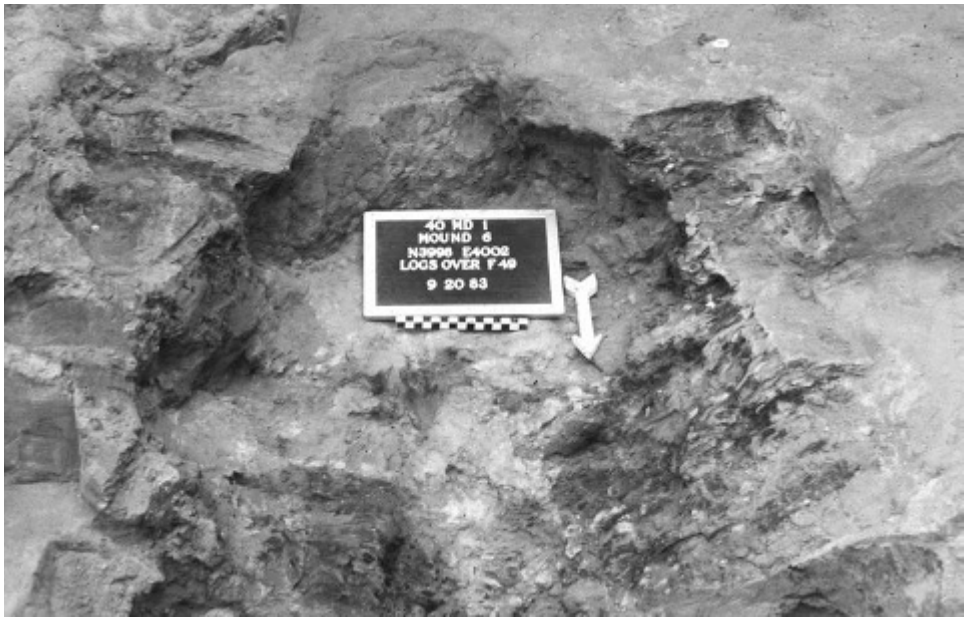

FIGURE 4.45. Burned logs covering Feature 49.

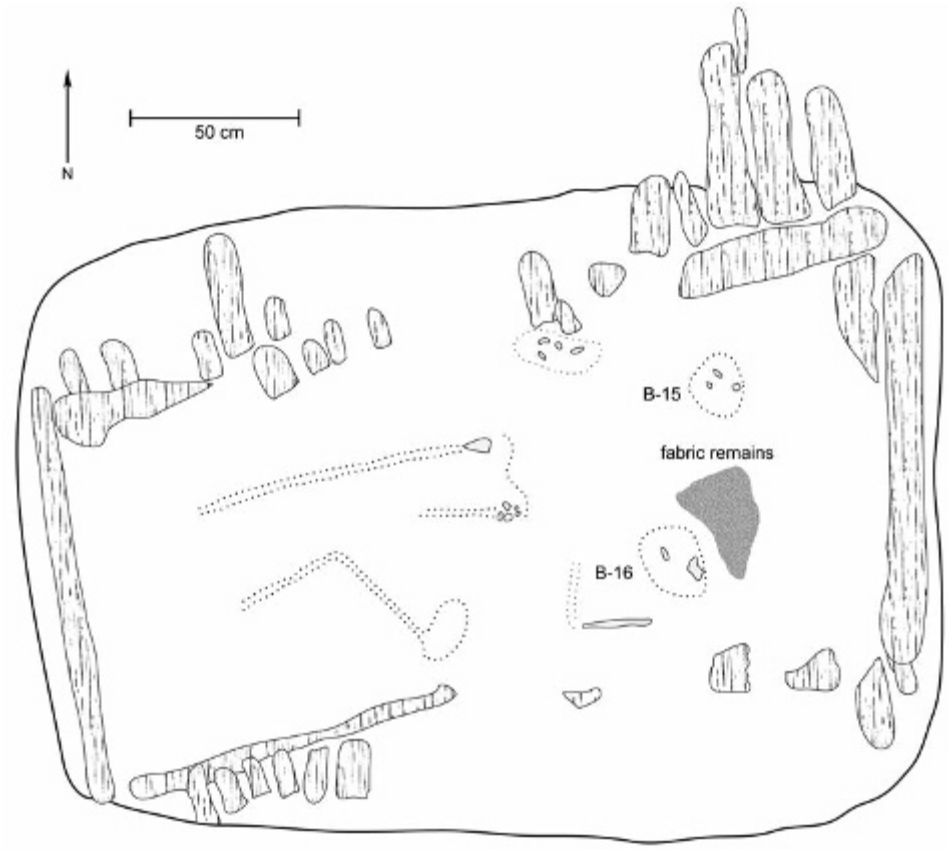

FIGURE 4.46. Feature 51, plan view.

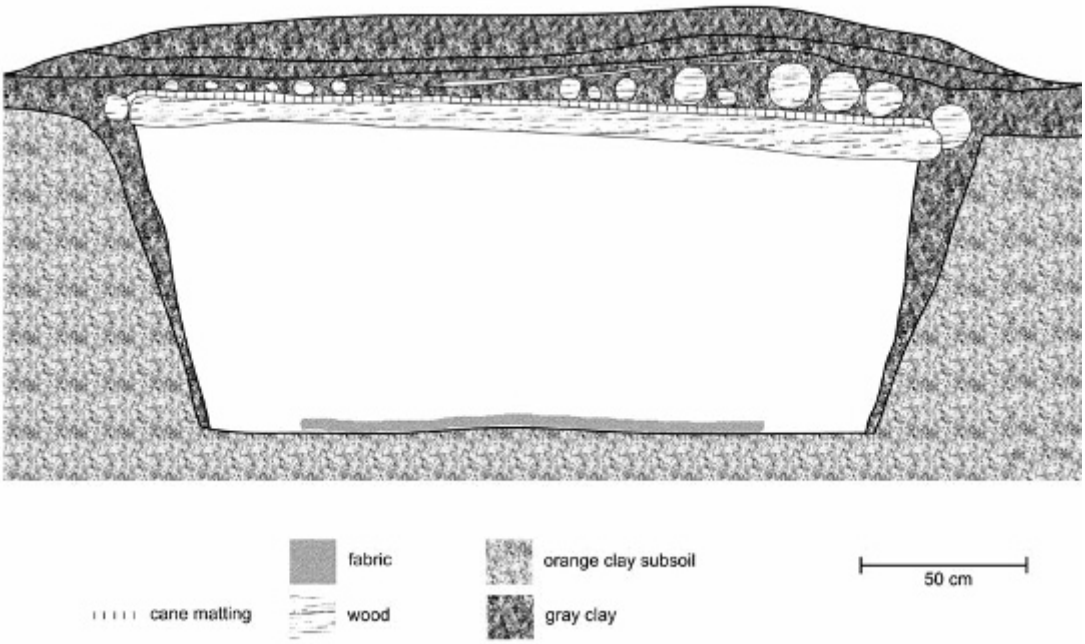

FIGURE 4.47. Feature 51, section view to north. Fiber matting represented by black lines within gray clay that covers burial facility.

interior of the pit was lined with puddled gray clay. Along the upper edges of the pit, four support logs were set, one on each side. Construction details about the pit covering were obtained from a large *in situ* block of soil from the east end of Feature 51 (see Figure 4.49) and various collapsed soil blocks bearing impressions of the materials used. After covering the top of the pit with a layer of split cane matting, logs of various sizes were placed over the matting across the short axis of the feature, and a number of small wooden poles were laid over and perpendicular to (i.e., east-west) the roofing logs.

Construction of Feature 51 was completed by covering the other roofing material with three layers of fiber matting, each individual layer of which was covered with gray or mottled gray clay. The twined structure and preservation of the upper layer of matting observed on the latter is identical to that of the lower layer of matting in the *in situ* block. All of this matting is similar to the most common type described

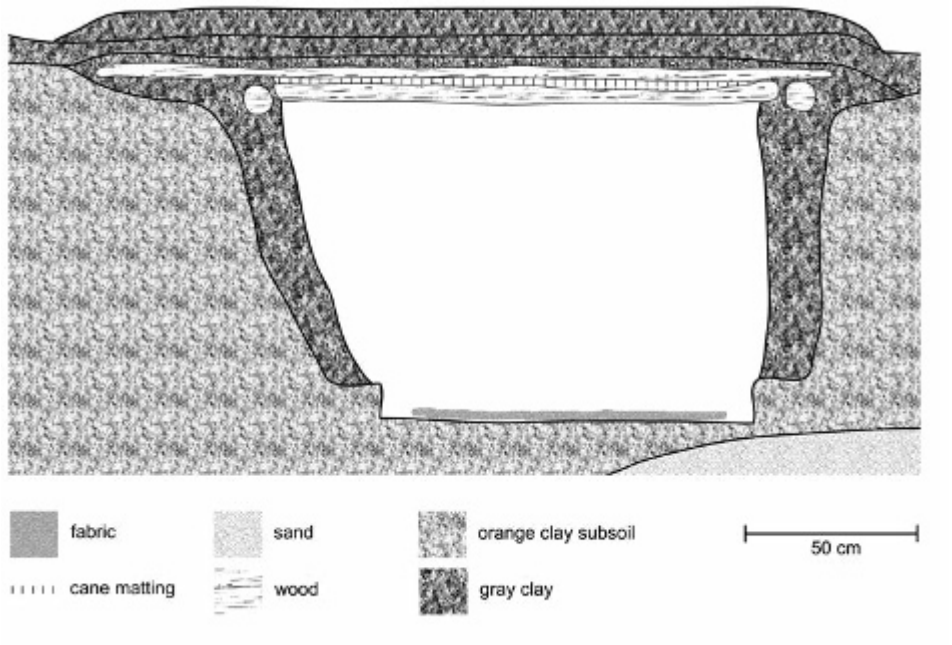

FIGURE 4.48. Feature 51, section view to east.

FIGURE 4.49. Feature 51 after excavation, view to north. Note matting impressions in lower right above log impression.

for Feature 48, i.e., thin bast fiber strips joined with twisted cordage.

Resting on the puddled clay floor and paralleling the north edge of Feature 51 was a low earthen berm of reddish brown subsoil (Figure 4.19), only part (about 2.4 m long) of which was exposed by our excavations. The significance of the berm is unknown, but its construction may tie in with the amount of effort expended in constructing Feature 51.

The final excavated submound burial facility, Feature 54 is located about a meter north of Feature 49 (Figure 4.19). Like Feature 51, it is large and deep, measuring about 2.4 m long and 1.5 m wide, with a depth of 1.7. The top was slightly disturbed, but not seriously damaged, by the 1880s excavation, and some of the sandstone boulders southwest of Feature 54 probably represent fill at the base of the relic hunter's pit.

Two adults, both lacking preserved funerary objects, were buried in the facility (Figure 4.50). Their skeletal remains were poorly preserved. Interred on the left side in an extended position, Burial 17 can only be identified confidently as an adult, though the few preserved skeletal elements are gracile, suggesting that this individual was a female. Burial 18 is an adult female, aged 38 to 50 years, placed in an extended, supine position. The skeletal remains are gracile, and musculature is slight. Dental attrition is moderate to severe. Parenthetically, the individuals buried in the northern Twin Mound exhibit a high degree of sexual dimorphism in absolute bone size, as well as degree of musculature (Beck 1986). This is in marked contrast to Middle Woodland populations living in the lower Illinois River valley, which show very little sexual dimorphism (Buikstra 1976).

The way in which the two interments were placed within Feature 54 raises the possibility, albeit slim, that this feature served as a mortuary processing crypt—the only such evidence seen in the northern Twin Mound. Specifically, it appears that Burial 17 was pushed against the south wall of the burial pit to provide more room for Burial 18 (Figure 4.50). At the very least, the positioning of the burials is peculiar and quite unlike that in any of the other excavated burial features. Lacking, of course, is any evidence of secondary burial, not only with regard to human remains within Feature 54, but also with construction of the mound itself, which appears to have been started promptly after interment of the dead.

As originally excavated, the sides of the burial pit sloped inward, but the addition of a considerable amount of puddled gray clay to the sides created a more rectangular profile (Figures 4.51 and 4.52). Some small logs oriented along the long axis formed a roof

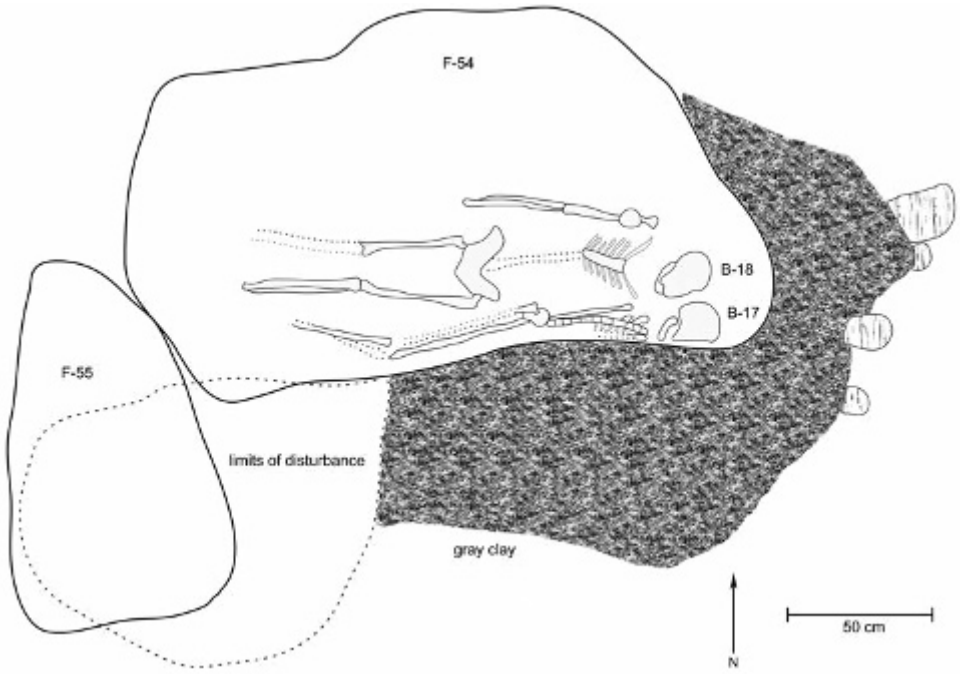

FIGURE 4.50. Features 54 and 55, plan view.

over the pit. These were set ablaze long enough to char the exteriors before being sealed under the layer of puddled clay. A possible upright buttress, also burned, was set near the southwest corner of the burial pit and may relate to Feature 55 (see below). After the puddled clay floor had dried, some sandstone boulders were placed around the south edge of Feature 54; the relic hunter displaced some of these.

Adjacent to the southwest corner of Feature 54 is a fairly deep (1.3 m), roughly oval-shaped pit designated Feature 55 (Figures 4.19 and 4.50). Its base extends into the McNairy Sand stratum, and fill (seemingly collapsed) in the feature was similar to that found in the submound burial pits. No artifacts or human remains were found within, and there was no evidence of a covering (e.g., matting) over the pit. Feature 55 is contemporary with the submound burial facilities and undoubtedly played a role in the ritual process of burial and the initiation of mound construction, but evidence for a specific function is lacking.

Two probable mortuary features at the base of the northern Twin Mound were partially exposed but not excavated. Feature 53 is an area of collapsed mound fill located east of Feature 51 (Figure 4.19), with the

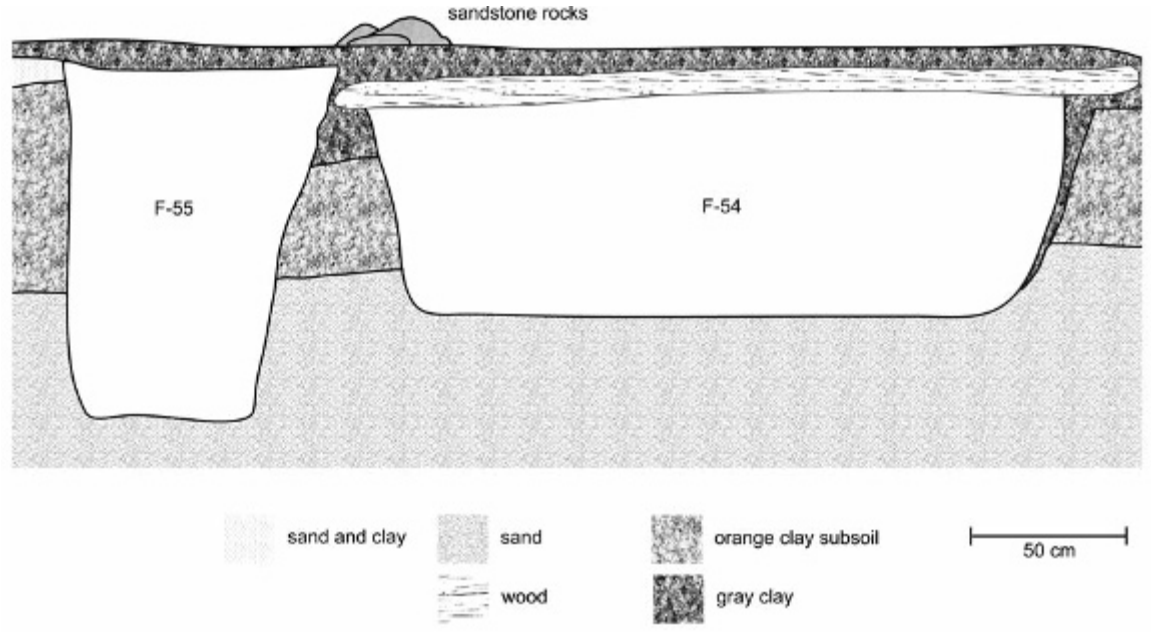

FIGURE 4.51. Features 54 and 55, view to north.

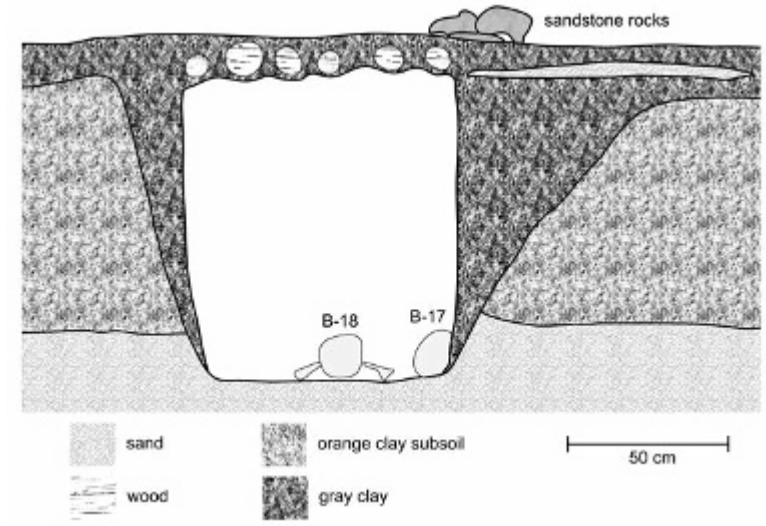

FIGURE 4.52. Feature 54, view to east.

FIGURE 4.53. Feature 57.

long axis oriented east-west. Our excavations exposed only the southern half of the feature. While excavating the west wall of Feature 48, a concentration of large tabular sandstone, designated Feature 57, was exposed (Figure 4.53). Because these rocks slope down toward the west, they are not associated with Feature 48, and most likely represent a structural feature associated with another submound burial pit.

Charcoal samples (each taken from a single log) from each of the four submound burial pits have been dated radiometrically. The dates do not differ statistically, and the 2σ calibrated average range of the four dates is A.D. 68–243 (Mainfort and McNutt 2004; chapter 7).

DISCUSSION

Burial in the northern Twin Mound was limited to adults, including Burials 1 and 2 near the top of the mound. Each submound burial pit contained the remains of individuals of the same age and sex, the eight young adult females in Feature 48 being noteworthy in this regard.

Within the limited excavation area, there are notable contrasts between the northern and southern portions. Large pieces of ferruginous sandstone placed adjacent to Features 48 and 49 (and perhaps southwest of Feature 54), and yellow sand was placed over these features; Features 51 and 54 lack these elements (see Figure 4.22). Twelve of the 16 submound burials were placed in the two southern burial facilities (Features 48 and 49), as were virtually all of the preserved funerary objects. In contrast, the northern burial pits contained only two individuals each, and the two pearl beads found with the Feature 51 interments were the only funerary objects. Further, the two northern mortuary features are larger (especially deeper) than those to the south and include structural elements that represent greater effort in their construction; the architecture of Feature 51 stands out in this regard.

The Twin Mounds are without reported parallel in the greater Midsouth. They are quite large, even by Ohio Hopewell standards, and they are the only reported example of conjoined Middle Woodland burial mounds in the region. In fact, conjoined mound sets are not common in Ohio; Greber (1991:15–16; see also 2005a) summarizes many of these and provides useful commentary.

The structural complexity revealed by excavations in the northern mound far exceeds that of other reported Middle Woodland earthworks in the region. Again keeping in mind the limited extent of excavation, it is interesting to consider what the Twin Mounds *lack* relative to other regional sites. Conspicuous among these is the absence of a low,

earthen mortuary platform reported at sites such as Bynum (Cotter and Corbett 1951), Crooks (Ford and Willey 1940), McRae (Collins 1926), Marksville (Toth 1974:18–28), Pharr (Bohannon 1972), and Womack (Koehler 1966). Although several of the Twin Mound burial facilities were covered with logs, they are quite different than the mortuary processing crypts at Helena Crossing (Ford 1963). Turning to the Tennessee River valley, elements of the Copena mortuary complex (Beck 1990), such as the extensive use of puddled clay (some quite colorful) within burial features, do not appear in the Twin Mounds.

That the Twin Mounds are unique in the Midsouth is not surprising in that Pinson Mounds as a whole is unique. At a mound complex that defies, if not confounds, the norm, such an imposing and complex earthen structure is almost to be expected. From the limited sample of ceramics collected from the mound fill (Appendix 1), it seems likely that the Twin Mounds area was visited and used by some people who lived quite some distance away. Some of those who brought with them their own ceramics (or produced ceramics in their own style at Pinson Mounds) probably participated in, or at least watched, the construction of the Twin Mounds. These people were well versed in their own local mortuary customs and undoubtedly had some familiarity with the rituals used by others. But by their mere presence, perhaps active participation, they acknowledged the ritual authority of those who, in a broad sense, scripted construction of the Twin Mounds and likewise acknowledged the "correctness" of the various structural elements.

The archaeological evidence suggests a rapid pace of construction. Thus, construction of the Twin Mounds, from initially removing the sod, to placing interments in submound pits, through the addition of distinctive layers of mound fill, was the product of a single, continuous sequence of carefully orchestrated events. Those involved in planning, participation in, and merely watching the spectacle understood that all aspects were appropriate to that particular time, at that particular location, and for whatever particular purposes.

The proximity of the Twin Mounds and Ozier Mound suggests a linkage between these large earthworks. Although the radiocarbon evidence is not compelling (cf. Mainfort and McNutt 2004:13–14; this volume), it is likely that construction of the Twin Mounds slightly postdates the upper summit of Ozier Mound. Thus, the placement of the Twin Mounds references the large platform mound, one implication of which is that the individuals responsible for planning and constructing the Twin Mounds were members of the same group that constructed and used Ozier Mound (cf. Bradley 1984:78; Garwood 1991:17), more specifically the same autonomous cult (Byers 2004:241–267).

A Note on Ceramics and Nonlocal Materials from the Twin Mounds

We did not screen most of the fill excavated from the northern Twin Mound, but selectively saved artifacts encountered during excavation. As emphasized above, the builders gave considerable thought to the soils chosen for use in constructing the Twin Mounds. Some soils clearly were obtained from localities in which exotic materials were used. As shown in Table 4.3, there were seven occurrences of mica (single or multiple fragments), including at least two from Zone E. A few badly decomposed copper fragments were found, some just above the sand cap that covered the primary mound. The galena fragment is one of the few found at Pinson Mounds; the other specimens are from the Duck's Nest sector (chapter 5) and the Mound 14 sector (Morse 1986:112). Undoubtedly far more exotic materials would have been collected if mound fill had been screened. The recovery of even these few examples underscores the fact that the soils chosen for mound construction were carefully selected and were ritually important in their own right.

Selected ceramics from the Twin Mounds were included in two technical studies (Mainfort et al. 1997; Stoltman and Mainfort 2002), but there has never been a comprehensive listing of the sherds. That shortcoming is remedied below and by Appendix 1.

Sandy-textured ("sand-tempered") wares (n = 357) represent the overwhelming majority of the Twin Mounds ceramics. Most numerous among these are Baldwin Plain (n = 91), Furrs Cordmarked (n = 226), and Saltillo Fabric Marked (n = 24). Other surface treatments and types, most of which are stylistically nonlocal, are cf. McLeod Simple Stamped (n = 1), cf.

Santa Rosa Punctated (n = 2), Basin Bayou Incised (n = 2), cf. Cormorant Cord Impressed (n = 1), red filmed (n = 1), brushed(?) (n = 1), check stamped (n = 2), and miscellaneous incised (n = 2). Both sand and clay particles are paste constituents in most of the remaining sherds. These include Baytown Plain, *var. Tishomingo* (n = 27), Mulberry Creek Cordmarked, *var. Tishomingo* (n = 72), Withers Fabric Marked, *var. Craig's Landing* (n = 16), simple stamped (n = 1), cf. Marksville Incised (n = 1), zoned incised (n = 4), curvilinear incised (n = 1), check stamped (n = 1), and miscellaneous incised (n = 2). A few sherds are predominantly clay-tempered. Types and surface treatments include Baytown Plain (n = 1), Mulberry Creek Cordmarked (n = 4), Withers Fabric Marked (n = 1), Marksville Incised (n = 2), Marksville Stamped (n = 1), and Larto Red (n = 1). Rounding out the Twin Mounds ceramic assemblage are specimens of Mulberry Creek Plain (n = 3), Flint River Cordmarked (n = 1), sand/bone-tempered cordmarked (n = 2), and sand/bone-tempered simple stamped (n = 1). Petrographic analysis (Stoltman and Mainfort 2002), which included only a few sherds from the northern Twin Mound, suggests that some sherds (one each of Marksville Stamped, untyped incised, and untyped check stamped) are nonlocal products, or were produced at the site using nonlocal paste recipes. A selection of stylistically nonlocal sherds is shown in Figure 4.54.

The overwhelming dominance of cordmarked surfaces (n = 305) and the low frequency of fabric marking (n = 41) may have chronological significance. Viewing the representativeness of this material with appropriate caution, the contrast with the ceramics from Ozier Mound, where fabric marking is far more common, is striking (Mainfort and Walling 1992:123; see above). The implication is that the Twin Mounds postdate completion of Ozier Mound (Mainfort and Walling 1992:127), though the radiocarbon evidence is, at best, equivocal (see chapter 7; Mainfort and McNutt 2004). Another contrast with the Ozier Mound ceramic assemblage is the presence of Marksville-related and red-filmed ceramics in the Twin Mounds fill. As mentioned earlier, check-stamped ceramics are presently reported only from the northern Twin Mound and Ozier Mound.

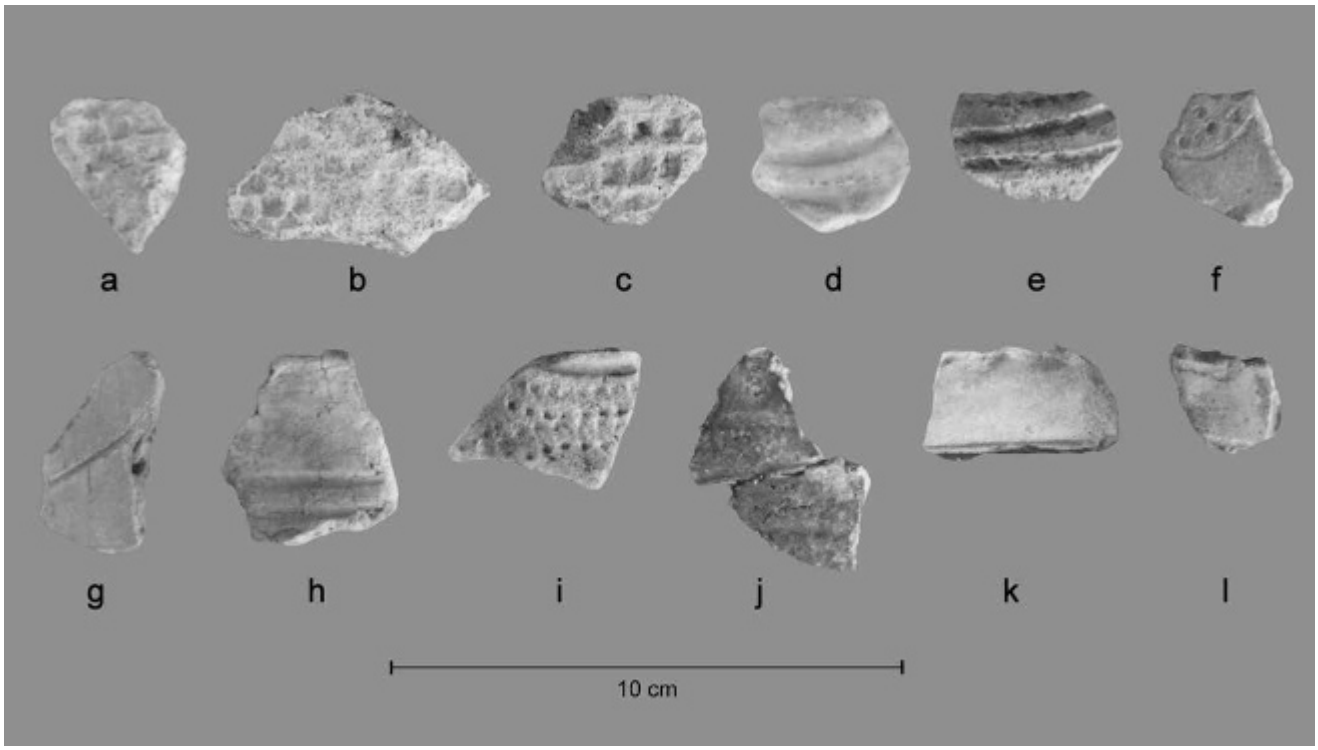

FIGURE 4.54. Stylistically nonlocal ceramics from northern Twin Mound fill. a–c, cf. McLeod Check Stamped; d–e and g–h, sand-tempered incised; f, cf. Santa Rosa Punctated; i, cf. Alligator Bayou Stamped; j–l, Marksville Incised.

TABLE 4.3 Non-local raw materials from northern Twin Mound fill.

UNIT	LEVEL/ZONE	MATERIAL
N4000/E4002	Level 13 (Zone E)	mica
N4000/E4002	Level 21	mica
N4000/E4002	Level 27	galena
N4000/E4004	Level 32	mica
N4000/E4008	Level 31 (Zone E)	mica
N4002/E4004	Level 28 (Zone E?)	mica
N4004/E4000	Level 11	mica, copper fragments
N4004/E4000	Level 23 (just above sand cap)	copper fragments
N4004/E4000	Level 25	mica

Twin Mounds Sector

The area south and southeast of the Twin Mounds, designated the Twin Mounds sector, includes an upper and lower section. The upper portion was tested in 1963 (Morse 1986:101–103) (Figure 4.55) and in 1974 (Broster et al. 1980:4–12). Additional testing in 1984 revealed that Broster's excavations actually intersected Morse's work, but this was not recognized at the time. The total area excavated on the upper portion of the Twin Mounds sector was about 115 m^2. On the composite map (Figure 4.56), all original feature numbers have been retained, so a single feature number may refer to two separate features and some features received two different numbers.

Morse (1986:101–103) uncovered an arc of 14 postmolds that he identified as the remains of an oval, bent-pole structure with a central hearth, but as with the structural remains in the Cochran site area, this interpretation is not convincing. Immediately east of this possible structure, Broster unearthed a curious feature that he interpreted as a crematory facility measuring roughly 2 m in diameter. Structural remains consisted of about a dozen posts of varying sizes that

FIGURE 4.55. Twin Mounds sector, 1963 excavations. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

apparently were set into a "wall trench" (Broster et al. 1980:8). Unfortunately, the feature was not cross-sectioned, so the actual architecture is somewhat ambiguous. The posts surrounded a burned area containing the disintegrated remains of a copper reel-shaped gorget and another unidentifiable copper object, fragments of two utilitarian pottery vessels (Baldwin Plain and Furrs Cordmarked), as well as scraps of burned bone from a partially flexed human skeleton. The copper reel is the only example recorded at Pinson Mounds, and this form of gorget is closely identified with the Copena mortuary complex of the Tennessee

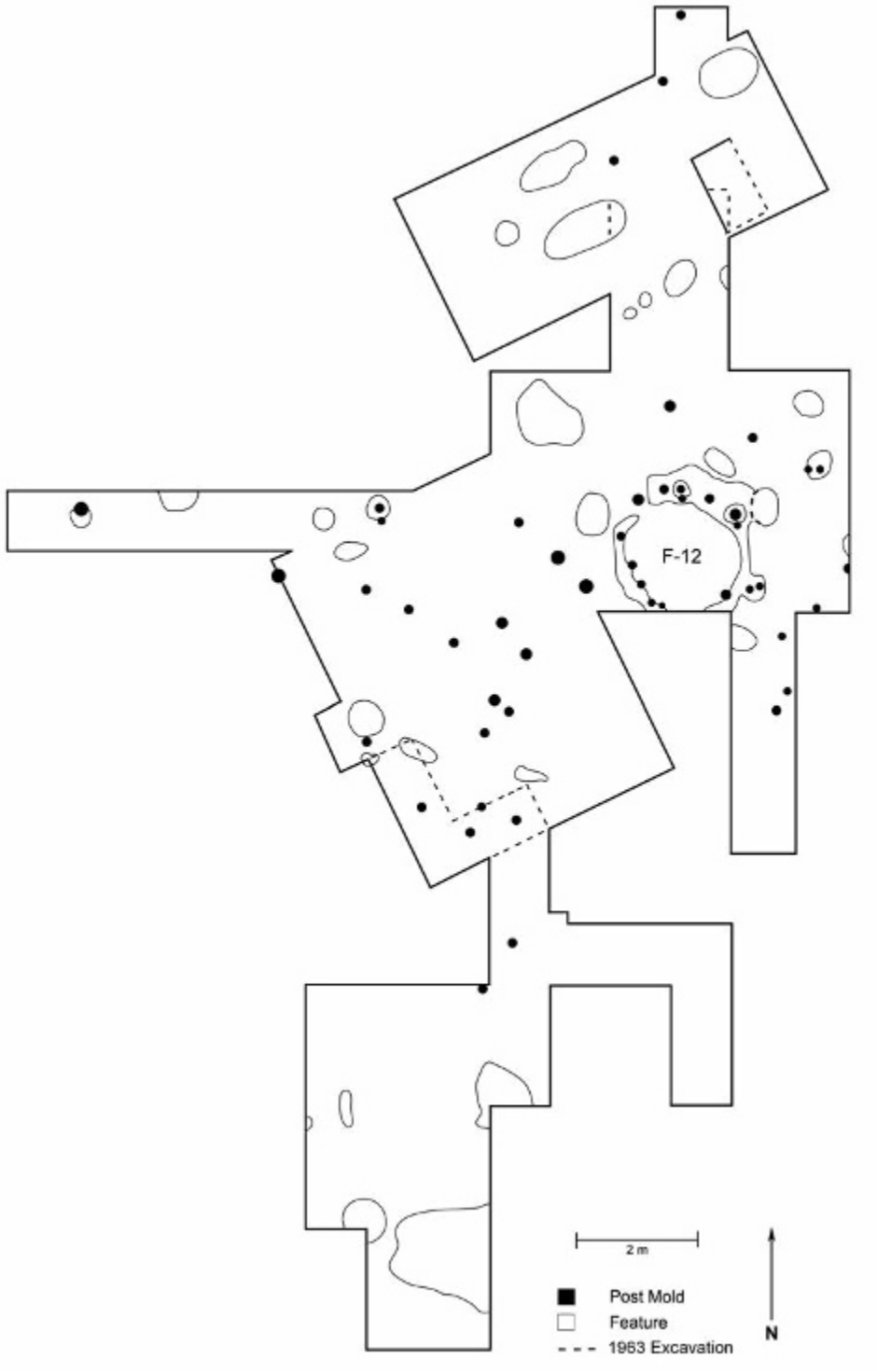

FIGURE 4.56. Twin Mounds sector. Features on upper terrace (1963, 1974, and 1984 excavations). 1963 units are those not oriented to north.

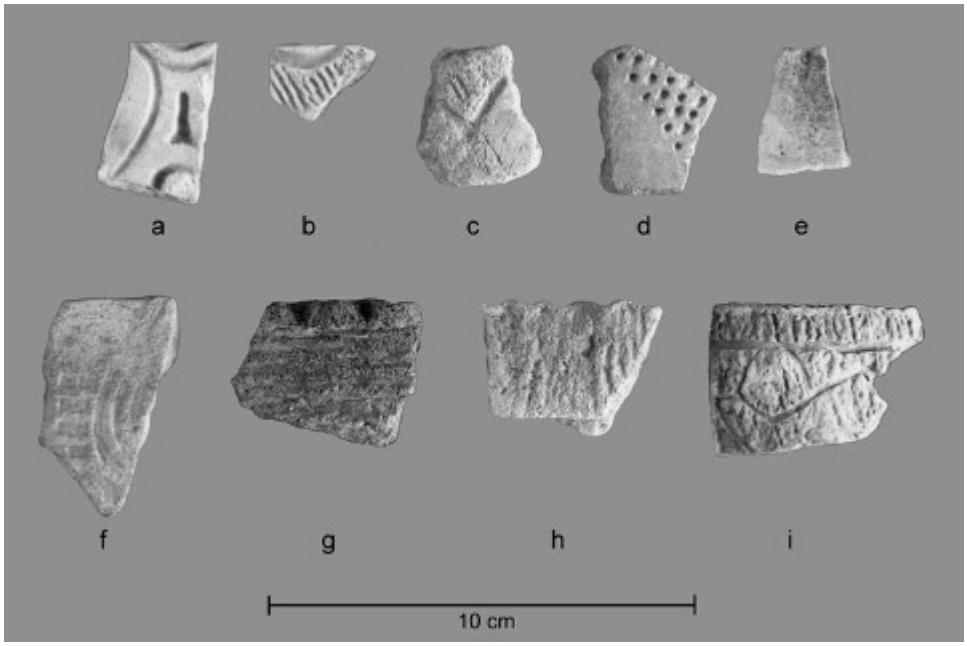

FIGURE 4.57. Twin Mounds sector ceramics. a, Marksville Incised; b–c, Marksville Stamped; d, cf. Churupa Punctated; e, Larto Red; f, Swift Creek Complicated Stamped; g–h, Furrs Cordmarked; i, incised over Furrs Cordmarked.

River valley in northern Alabama (Griffin 1979:272; Walthall 1979). A nearby feature, about a meter long, contained some unidentifiable bone fragments (possibly human), portions of two ceramic vessels (Baldwin Plain and Furrs Cordmarked), and a piece of unworked copper (Broster et al. 1980:6).

The ceramic assemblage from the upper portion of the Twin Mounds sector is overwhelmingly cordmarked (n = 828) (Appendix 1). Most of the remaining identifiable sherds (n = 250) have plain surfaces, and fabric-marking is present on only three sherds, but there are a number of stylistically nonlocal sherds (Figure 4.57). Among these are 18 Marksville Incised sherds (or sandy-textured variants thereof) and a Marksville Stamped sherd, which is the largest group of Marksville-related ceramics recorded at Pinson Mounds. As discussed later, Morse (1986:106–109) collected some Marksville ceramics from Mound 31, a short distance to the northeast. The absence of these types in the large ceramic assemblage from the Duck's Nest sector (chapter 5) is noteworthy. Other nonlocal ceramics include 12 eroded limestone-tempered sherds (Morse and Polhemus 1963:Table 2), four Larto Red sherds, and a Swift Creek Complicated Stamped sherd that was misidentified as Marksville Stamped in the 1980 monograph (Broster et al. 1980:76).

Points in the lithic assemblage are typical Middle Woodland forms that resemble well-established types such as Bakers Creek, Flint Creek, and Gary. Morse collected a single chert bladelet fragment during his 1963 excavations in the Twin Mounds sector (Figure 4.58).

A radiocarbon assay on charcoal from the circular Feature 12/14 complex has an associated calibrated date of 167 B.C.–A.D. 318 (Mainfort and McNutt 2004:14, chapter 7), which serves only to confirm that the feature complex is of Middle Woodland age and that it may be roughly contemporary with the nearby Twin Mounds.

Morse (1986:102–106) excavated two test pits in the lower section, uncovering an area of pits that contained well-preserved animal bone. In 1984, excavations conducted in this area were unsuccessful in locating other features, but did result in the recovery of 14 chert bladelets; most of these were produced using Fort Payne chert (Table 4.2).

Like the Cochran site area and the Mound 12 sector (see chapter 5), the Twin Mounds sector represents a short-term ritual activity area. All are characterized by the presence of nonlocal raw materials and ceramics, as well as mortuary features. Also present are structural remains, represented by postmolds, but there is no evidence of long-term domestic habitation.

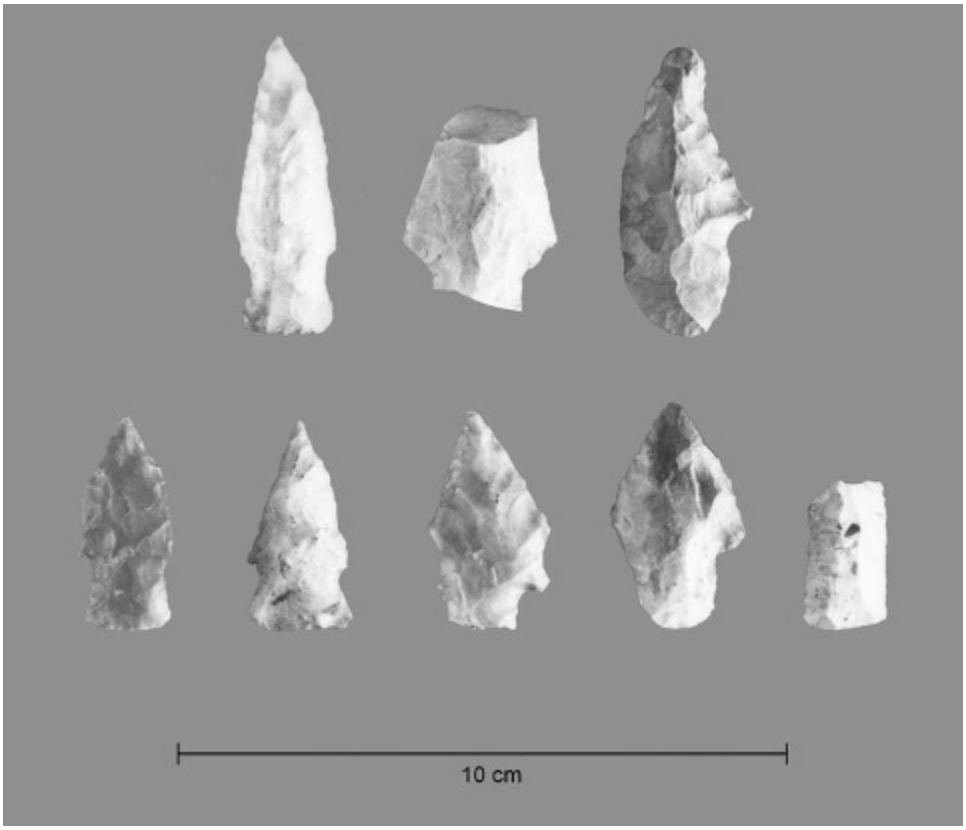

FIGURE 4.58. Twin Mounds sector lithics, 1963 excavations.

Mound 31

Located about 60 m east of the Twin Mounds (Figure 1.2), Mound 31 is the smallest confirmed mound within the Pinson Mounds complex, measuring about 10 m in diameter and 1 m tall. The present-day dimensions of Mound 31 correspond to those reported in 1917 (Myer 1919; chapter 2), but our excavations suggest that the original height was about 2 m.

In 1981 we excavated a 56 m^2 block that revealed a central burial pit, the upper surface of which was surrounded by a low, U-shaped ring of reddish orange subsoil, designated Feature 3 (Figures 4.59 and 4.60). The excavations also disclosed the north and west edges of the mound, but were not extensive enough to define the east and south sides.

In characteristic Middle Woodland fashion, prior to initiating construction, the area selected for constructing Mound 31 was stripped down to subsoil. This was followed by excavation of the central burial facility (Feature 15), which extends 50 cm into the subsoil. In plan view, the pit was rectangular, though somewhat rounded on the northeast side, and was about 3 m long and 1.2 m wide. Unlike the submound burial features in the nearby Twin Mounds, Feature 15 is oriented at an angle of about 40° east of magnetic north. The remains of an old (50+ years) male were placed within the pit in an extended, supine position, with the head to the northeast.

This man's teeth had numerous caries, and dental attrition was severe. All of the third molars were impacted, with unusual wear on the tilted edges. The left mandibular second premolar is malpositioned and turned (Lane Beck, personal communication, 1984). The skeletal remains were very poorly preserved, and we removed only the mandible, right innominate, and right femur for analysis. Based on dental attrition and high caries rate, both individuals buried in Mound 31 may belong to a different population than the individuals interred in the northern Twin Mound.

No funerary objects were preserved in the burial facility. Near the cranium and mandible were several stains produced by decomposed red ochre, along with the fragmentary remains of what may have been several shell beads; one small piece of shell adhered to the mandible. It seems likely that the deceased wore a shell

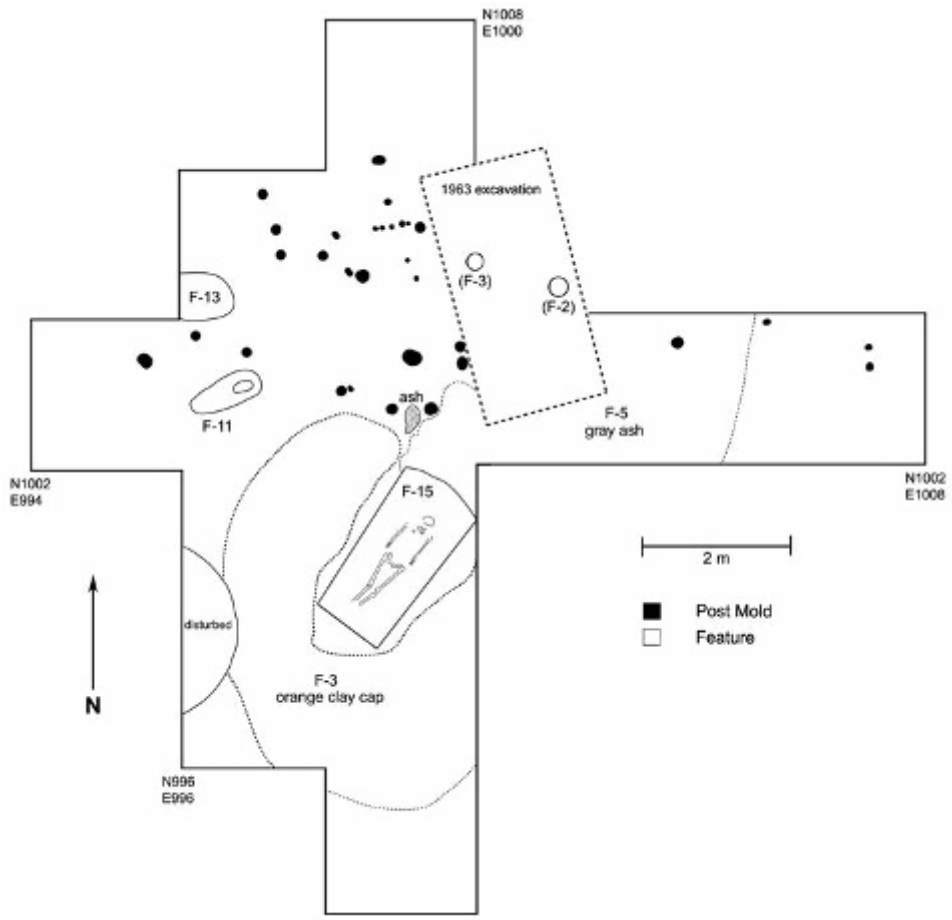

FIGURE 4.59. Plan view, Mound 31 floor.

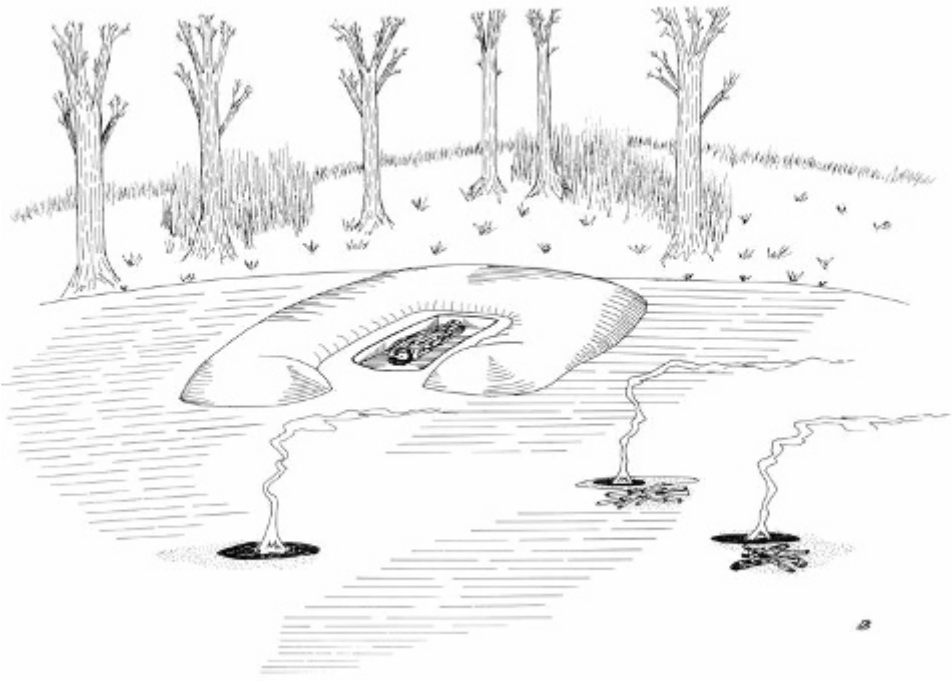

FIGURE 4.60. Artistic reconstruction of Mound 31 floor. Original graphic by Parris Stripling.

bead necklace, possibly with small pouches of ochre attached. There was also red ochre staining on the distal end of the right clavicle. A microblade fragment, possibly of Fort Payne chert, was found in the burial pit fill, as were several concentrations of unidentifiable calcined bone and ash that may represent contributions to the burial. There was no evidence of any covering over the burial pit.

Small deposits of calcined bone and other material (designated Feature 6) were placed around the periphery of the burial facility on all but the northeast side. The only identifiable fragments are those of white-tailed deer (Lane Beck, personal communication, 1986), and the earlier interpretation of these calcined remains as "cremations" (Mainfort 1986a:18) was based on the faulty assumption that burned bone found within a burial area must be from (human) cremations. Near the north edge of the burial pit was a hard, fired area. Perhaps some of the bone fragments were immolated here, but the quantities of ferruginous sandstone intermixed with the calcined bones and the lack of sandstone in the burned area suggest that processing of most burned bone occurred elsewhere. Also comingled with the bone fragments were a number of pottery sherds (Mainfort 1986a:21), lithics, several small mica fragments, and charcoal.

Nearly half of the ceramics (n = 461) collected from Mound 31 derive from Feature 6. Surface treatment on most (n = 307) was unrecognizable due to erosion. Of the identifiable sherds, over half (n = 89) are Furrs Cordmarked (Figure 4.61) and another 14 are cordmarked, but with clay particles in the paste (i.e., Mulberry Creek Cordmarked, *var. Tishomingo*). Fabric marked (n = 11) and plain (n = 18) surfaces are quite in the minority. A few sherds are compositionally or stylistically nonlocal. The former are limited to 6 limestone-tempered specimens. Of the stylistically nonlocal examples, the single small complicated stamped sherd is of greatest interest, as it broadly connects Mound 31 to the Duck's Nest sector, Mound 10, the Twin Mounds sector, and the Mound 14 sector, where complicated stamped sherds also have been found.

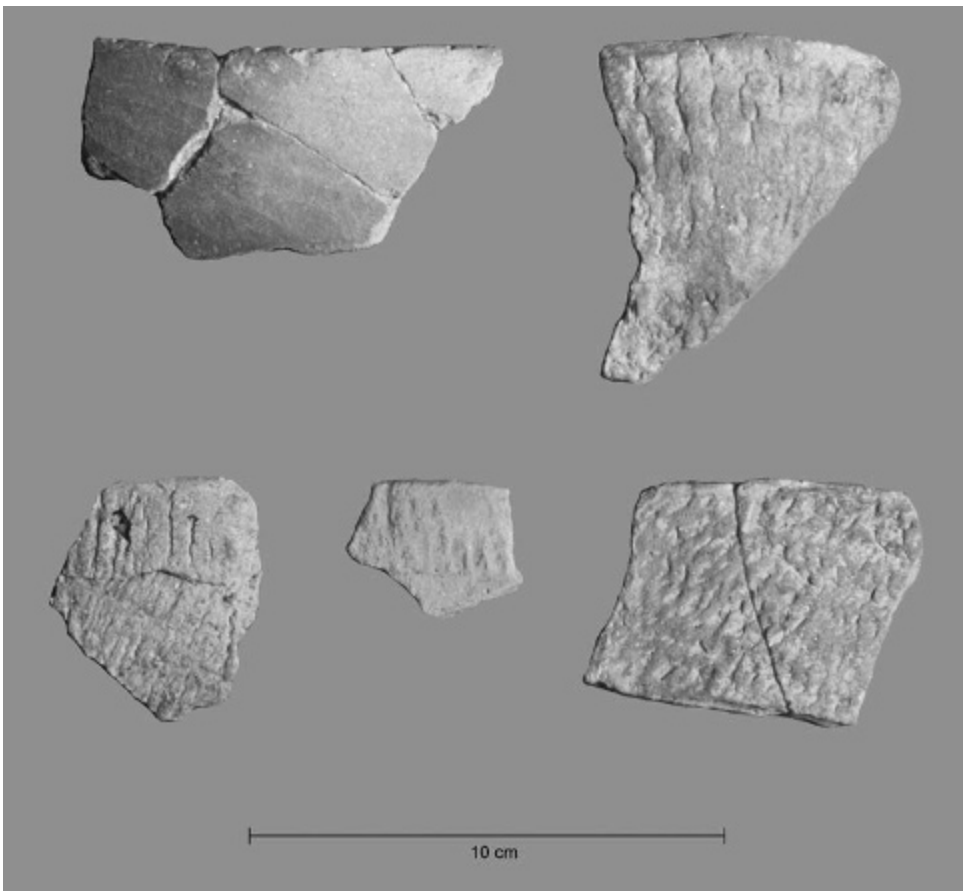

FIGURE 4.61. Mound 31 ceramics. Baldwin Plain and Furrs Cordmarked rims.

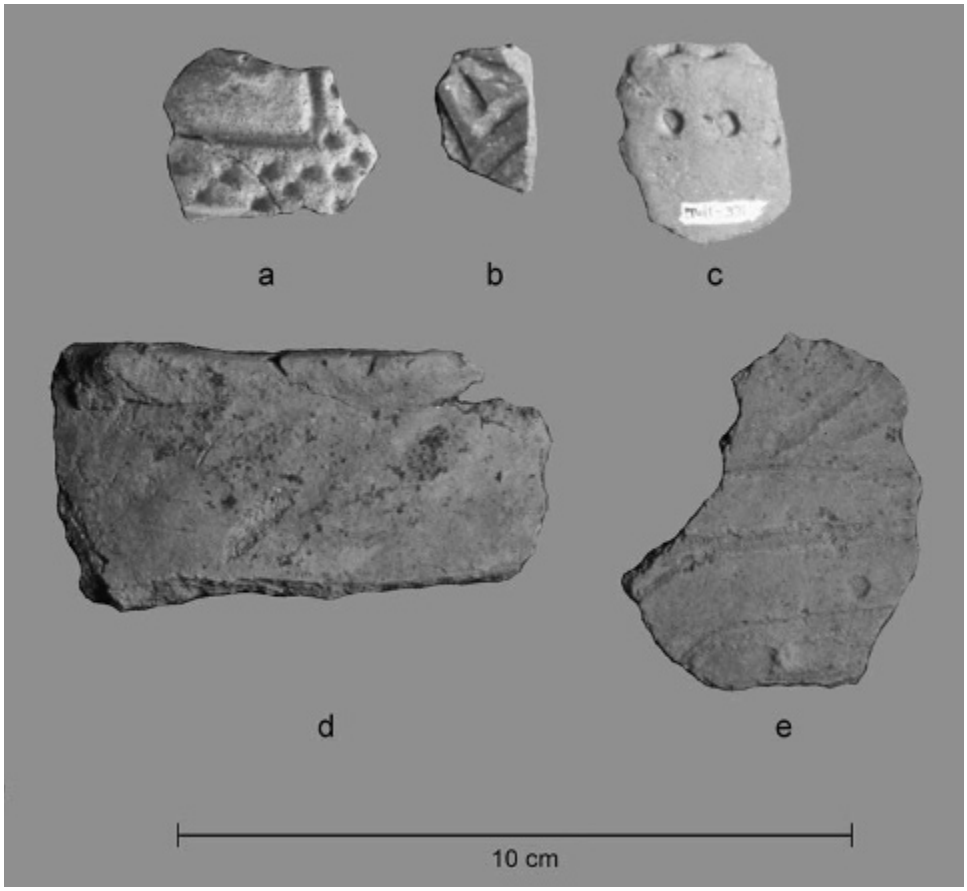

FIGURE 4.62. Mound 31 ceramics. a, cf. Santa Rosa Punctated; b, Swift Creek Complicated Stamped; c, unidentified punctated; d and e, unidentified sand-tempered bold incised (note small lugs on rim sherd).

Other nonlocal surface treatments include incising, punctations, and red filming (n = 3) (Mainfort 1986a:23; Figure 4.62) (see Appendix 1). Two podal supports were found in the Feature 6 deposits, another from the fill of the burial shaft. Among the Feature 6 lithics are three bladelet fragments, at least one of which was produced from Flint Ridge chert.

After deposition of the burned bone fragments, most of the area immediately surrounding the central burial pit was covered with a deposit of reddish orange subsoil that formed a U-shaped ring (Feature 3), open on the northeast side (Figures 4.59 and 4.60). This ring was about 30 cm thick and from 1.5 to 2 m wide. No features comparable to the clay ring are reported from Miller tradition mortuary sites to the south (Bohannon 1972; Cotter and Corbett 1951; Jennings 1941). Jefferies (1976:6–11) excavated two similar features that surrounded central burial features at the Tunacunnhee site in extreme northeast Georgia, but in neither instance did the clay rings cover calcined bone fragments or artifacts. Another example, burned in this instance, occurs at the Bullock site in the Bluegrass region of Kentucky (Schlarb 2005).

Directly north of the burial feature were two small submound pits containing charcoal and ash (Morse's Features 2 and 3). To the northwest were Feature 11-A, a small pit containing charred cane, and Feature 13, a moderately large burned area on the mound floor. Some unidentifiable calcined bone was associated with the latter; its function is unknown, but presumably it figured in the ritual activities just prior to construction of Mound 31.

Part of the mound floor north and northeast, designated Feature 5 (Morse's Feature 1), also was fired prior to construction. Unlike Feature 13, there was a moderate amount of associated cultural debris, mostly presumed utilitarian potsherds, cherts flakes, and small sandstone fragments. There were also several objects more clearly associated with the ritual sphere, namely a Flint Ridge chert bladelet fragment and several very small quartz crystal flakes.

Morse (1986) collected fragments of at least one, perhaps two or three, stylistically nonlocal pottery vessels from the northern extension of Feature 5. Four sherds are assignable to the type Alligator Bayou Stamped, *var. Sumter*, a sand-tempered counterpart of Marksville Stamped, *var. Manny* (Jenkins 1981:121–122). Nine Basin Bayou Incised, *var. unspecified* sherds (including two rims) also resemble their grog-tempered counterpart, Marksville Incised (Figure 4.63). These, along with seven polished Baldwin Plain sherds, may be part of one of the preceding vessel(s). Additional sherds belong to an unidentified sand-tempered incised or simple stamped vessel, and there are portions of several Furrs Cordmarked vessels.

A number of postmolds are associated with the mound floor, particularly in the area to the north of the central feature (Figure 4.59). There is no discernable pattern to their arrangement, though their near-absence from the area covered by Feature 5 seems significant.

The mound fill was undistinguished, lacking evidence of multiple construction stages or use of special soils. Rather, the fill consisted primarily of a mottled dark brown loam. Within the fill, however, were several deposits of ash and calcined bone. The largest of these, Feature 4, was about 1 m long, 50 cm wide, and 4 cm thick, and contained several mica fragments and calcined bone fragments. Presumably this material represents the remains of nearby activities that were contemporary with those preserved on the surface at the base of Mound 31.

At some point after Mound 31 had been completed, or nearly so, a small pit was excavated down to the fired floor of the mound northeast of Feature 15 (Morse 1986:106–109). The skull of an adult male, aged 40 to 50+ years, was placed within. Extreme malocclusion of the upper and lower jaw produced an unusual wear pattern on the teeth of this individual, and dental caries were numerous (Lane Beck, personal communication, 1984). A green soil stain at the back of the skull may have been the remains of a copper ornament.

There are four radiocarbon determinations from various Mound 31 contexts. Mainfort and McNutt (chapter 7, this volume) discuss problems with several of these and present an averaged calibrated age range of A.D. 558–643. I find this untenable and believe that the actual age is closer to circa A.D. 1–300. I base this on two factors. One is the inconsistency of the assays; two charcoal samples from material beneath the

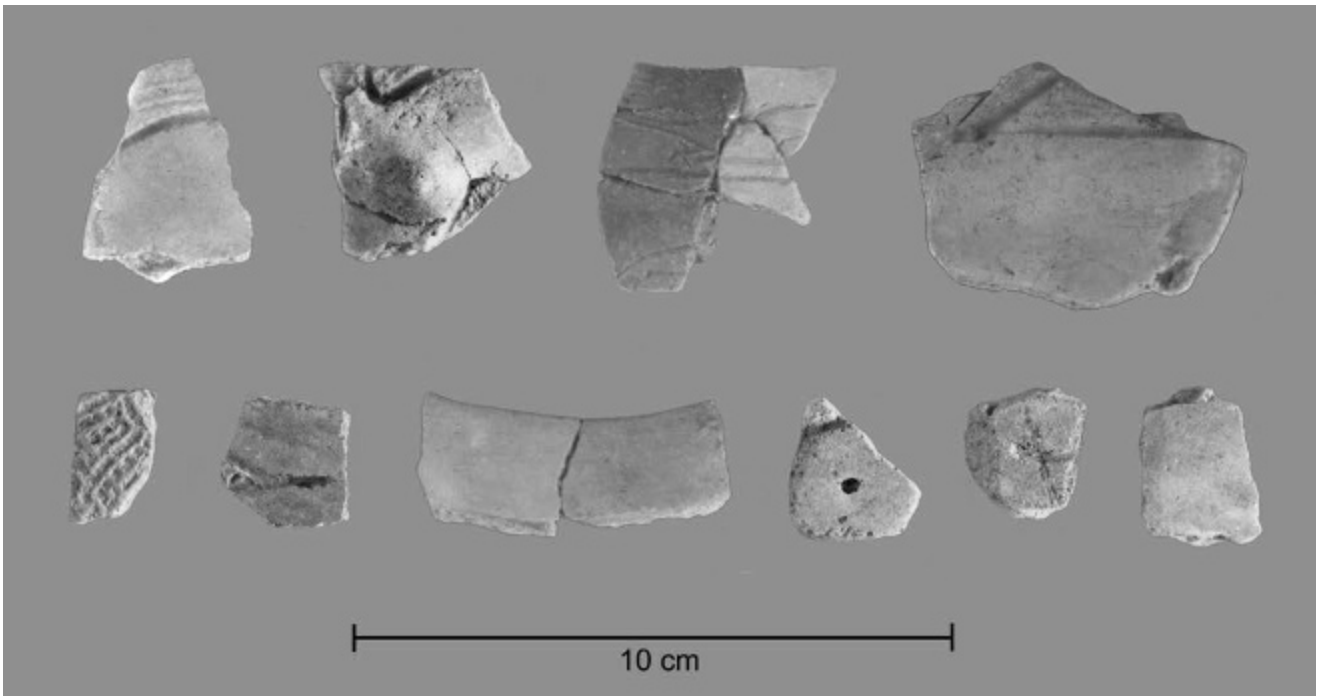

FIGURE 4.63. Stylistically nonlocal ceramics from Mound 31 (1963 testing). These are sand-tempered counterparts of Marksville Incised and Marksville Stamped.

clay ring (Feature 6) returned radiocarbon ages of 2445±155 and 1570±125 bp. The other is the smattering of stylistically nonlocal ceramics and other materials from the mound floor and features. It seems unlikely that zoned dentate stamped ceramics (a hallmark of Havana-Hopewell and early Marksville ceramics) and podal supports were being produced as late as, much less after, circa A.D. 400 (see Ford and Willey 1940:65, 73; Fortier 2006; Fortier et al. 2006:186–189; Fortier et al. 1989:558–559; Griffin et al. 1970:8; Phillips 1970:163). Nor is it likely that mica or bladelets were circulating widely in the Midsouth at such a late date. A few AMS dates on carefully selected samples might clarify matters.

Mound 31 is dwarfed by the Twin Mounds, located only a short distance to the west, and the location undoubtedly was chosen specifically to reference the large, intersecting burial mounds. It would be easy to regard Mound 31 simply as a small earthwork "constructed by a single community" (Mainfort 1986a:18). Its small size did not demand a large workforce, and the stratigraphy is not complicated. But the small artifact assemblage suggests that Mound 31 represents something more than simply a "small, local mound." A half dozen bladelets, several of Flint Ridge chert, were incorporated into various construction events; those associated with Feature 6 were quite deliberately placed. The amounts of mica and quartz crystal are paltry, but these Hopewellian materials *were* present, as was a copper object. Also present is a surprisingly wide range of stylistically nonlocal ceramics, including a complicated stamped sherd, Marksville-related wares, and 10 limestone-tempered sherds that either were made in the Tennessee River valley or made at Pinson Mounds by potters who lived in the valley. Mound 31 is small, but its size belies the participation in its making by people who lived well beyond the immediate vicinity of Pinson Mounds.

Viewing Mound 31 as a burial mound may, however, miss the intended purpose of the diminutive earthwork. The notion that the man interred in Mound 31 was an individual of social importance who was honored in death by being buried in a privileged location (near the Twin Mounds) has some appeal and may capture some of the rationale that led to his burial in this fashion at this particular location.

As a burial mound, Mound 31 is certainly unusual, if not unique, among recorded Hopewellian earthworks on several counts. First, in its original form, Mound 31 covered only a single individual. Second, there was no evidence of logs covering the submound pit. Finally, there were few preserved funerary objects placed with the deceased—the sole interment in the mound.

Accepting the proposition that Mound 31 is unusual begs the question of why this should be? As an admirer of Robert Hall's work, which seeks to link Native American religious experience with material culture found in archaeological contexts, I am struck by parallels between the central feature below Mound 31 and the pits prepared and used by historic eagle trappers on the northern Plains (Hall 1997:98, 167–168). Wilson (1928:114, 121–123) provides a description of these pits and their coverings. Eagle trapping pits were rectangular, long enough to accommodate an extended, supine man (apparently women were excluded from eagle trapping), fairly shallow, and covered with brush and grass that rested on a framework of light wooden poles. Excavation of a pit, incidentally, required the efforts of three men for about four hours.

I will not make the unqualified assertion that the single interment beneath Mound 31 symbolically embodies an eagle trapper, but this possibility permits a different perspective on the relationship between this small mound and the Twin Mounds. Rather than the simplistic "small mound built by a small community" view (Mainfort 1986a:18; 1988b:141), perhaps it is more appropriate to recognize the linkage between the eagle-sun-world renewal symbolism expressed by Mound 31 and the Earth Diver symbolism expressed during construction of the northern Twin Mound.

CHAPTER 5

Central Ritual Precinct

The area subsumed within the Central Ritual Precinct includes a goodly portion of the Pinson Mounds complex that is located east of Hudson Branch (Figures 1.2 and 1.10). This encompasses a considerable amount of real estate and probably groups together several ritual precincts. Earlier, I suggested that Mound 15, which is spatially and topographically isolated from other earthworks, might be viewed appropriately as a distinct ritual precinct. A similar argument could be made for the Duck's Nest and Duck's Nest sector.

Sauls Mound, briefly discussed earlier, visually dominates this area, as it would at almost any mound site in eastern North America. Nearby are Mound 10, a platform mound of unusual shape, and Mound 12, one of the few burial mounds in the mound complex. The Duck's Nest and Duck's Nest sector are located well to the south.

Within the area designated here as the Central Ritual Precinct, William Myer (1922) reported a number of earthworks that never existed and others whose status is at best questionable. As detailed in chapter 3 (see also Mainfort 1996b; Mainfort et al. 2011), there is no evidence—historical, archaeological, or geophysical—that the encircling embankment envisioned by Myer ever existed. Of the putative mounds attached to the embankment, archaeological excavations have demonstrated that two (Mounds 11 and 13) are not prehistoric earthworks and the status of a third (Mound 17) is problematic. Geophysical imaging failed to find any traces of two others (Mounds 22 and 23). The precise locations of Mounds 16 and 32 are unknown, but the fact that the Inner Citadel embankment did not exist renders their status as prehistoric mounds suspect. Broster tested Mound 18 and found no evidence of prehistoric construction (Broster et al. 1980:37). Myer's Mounds 21 and 25 are also natural rises (Broster et al. 1980:38; Mainfort 1996b:117).

Mound 12 Sector

In 1974 John Broster (Broster et al. 1980:15–18) excavated a 120 m^2 block about 70 m northeast of Mound 12 (Figure 1.2), an area in which Fischer and McNutt (1962) found a light scatter of ceramics. Below the plowzone, the excavations exposed a number of postmolds and eight features within the pale yellow sand subsoil. Similar sand occurs at or near the surface throughout much of Pinson Mounds, and thin layers of the sand were used to cap surfaces within and under several mounds.

Broster inferred that the bulk of the postmolds represent the remains of two structures, an interpretation I regard as untenable. As shown in Figure 5.1

(cf. Broster et al. 1980:58), there are no convincing circular patterns of postmolds; at best, there are several possible arcs of posts. In contrast, for example, the remains of circular bent-pole structures at the Bynum (Cotter and Corbett 1951:Figures 2 and 5) and McFarland sites (Faulkner 2002:195) could hardly be more apparent. The irregular arrangement of postmolds designated Feature 45 (Broster et al. 1980:58; shown in the southern part of Figure 5.1 without connecting dashes) lacks any reported counterparts in the Midsouth.

Among the features was an elongated pit about 65 cm long and 60 cm deep (Feature 40 in Figure 5.1) in which the excavators observed the decomposed remains of what may have been two human long bones (possibly a tibia and fibula). These, along with calcined bone, charcoal, and red ochre found in the pit, indicate that the feature may be a crematory basin, though none of the surviving bone fragments are large enough to be identified. Ceramics from the pit include part of a cordmarked jar and three sherds of Larto Red, the latter suggesting possible links to other localities in the mound complex such as the Duck's Nest sector.

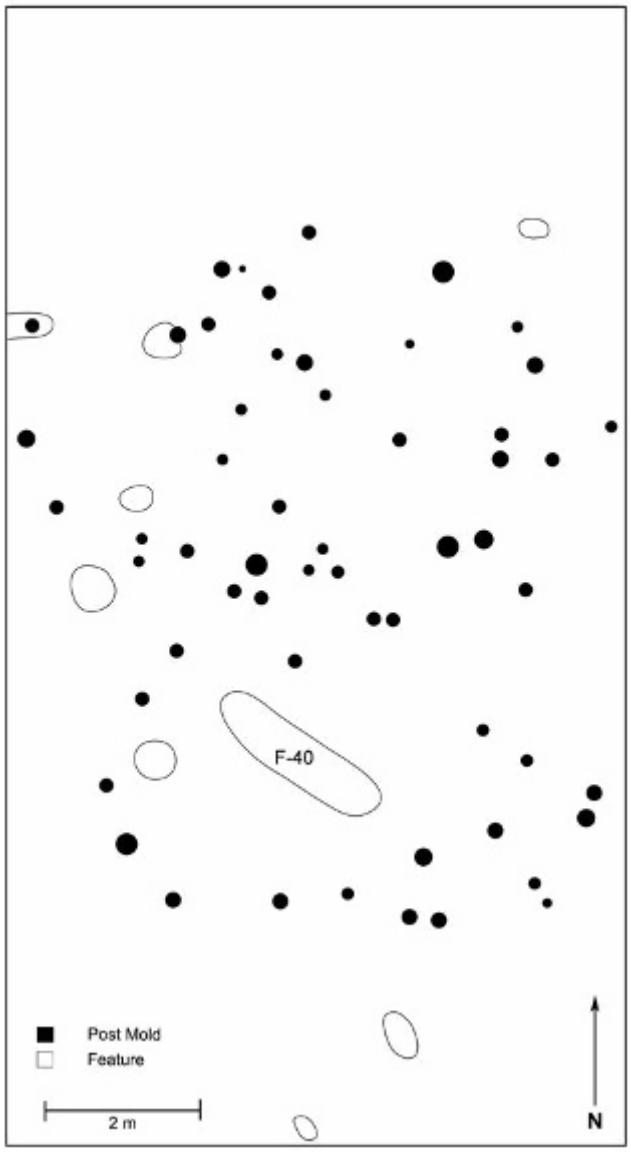

FIGURE 5.1. Plan view of the Mound 12 sector.

The artifact assemblage from the Mound 12 sector excavation is small. Of the ceramics 52 of the 72 sherds are cordmarked and 16 are plain-surfaced (Appendix 1). The only lithic tools recovered were two chert biface fragments; six cores also were collected (France 1985:32).

An important accomplishment of the Mound 12 sector excavations was obtaining a number of charcoal samples, three of which produced the first Middle Woodland period age estimates for Pinson Mounds (Mainfort and McNutt 2004; chapter 7). Additional excavation in this area, preceded by geophysical imaging, could be productive and provide a better context for the remains uncovered in 1974.

Mound 12

Mound 12 is an elliptical earthwork located about 200 m southwest of Sauls Mound (Figures 1.2 and 5.2). With lateral dimensions of approximately 24 m by 17 m, it was constructed on a sandy knoll, perhaps to create the impression of greater height. As shown in Figure 5.3, the lateral extent of the knoll is greater than that of Mound 12. Excavations conducted in 1975 demonstrated that the constructed mound was about 1.5 m tall at the peak.

Prior to mound construction, sod and topsoil were removed from the surface of the rise, exposing a surface upon which various ritual activities were conducted during a fairly short period of time. These activities produced cultural deposits, nearly 20 cm thick in some places that included lithic debris, fire-cracked rock, and over 760 potsherds. Most of this material was collected from two adjacent 2 x 2 m excavation units located in the southwest quadrant of the excavated area. In the 1980 report, these deposits

were treated as two distinct strata (Strata 5 and 6) based on the "burned" appearance of the upper 8 cm (Broster et al. 1980:24). This division seems arbitrary.

Broster et al. (1980:22, 24) and I (Mainfort 1986b) have incorrectly characterized the premound deposits as the product of domestic habitation. Among the associated artifacts are stylistically nonlocal ceramics, including Larto Red (n = 5), Marksville Incised (n = 1), and zoned punctated (n = 3) sherds (Figure 5.4), as well as eight freshwater pearls, three pieces of mica, a chert microblade (which could not be located), a Copena Triangular point of Dover chert, and some red ochre fragments. These artifacts, like those collected in the Twin Mounds sector and the Cochran site area, are associated with the ritual sphere, not domestic habitation. Moreover, there is no evidence of domestic houses and ancillary features such as hearths and storage pits. Among the utilitarian ceramics, over half (n = 388) are fabric-marked (Figure 5.5), 114 sherds are plain, and 251 are cordmarked (Appendix 1). The high frequency of fabric marking suggests that the premound deposits and features beneath Mound 12 predate most other areas excavated at Pinson Mounds, which are characterized by very low frequencies of fabric-marked ceramics (see Jenkins 1981:20–24; Johnson 1988; Walling et al. 1991). Also from the premound deposits were 10 limestone-tempered sherds, probably representing pilgrims from the

FIGURE 5.2. Mound 12. View to north with Sauls Mound in the background. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

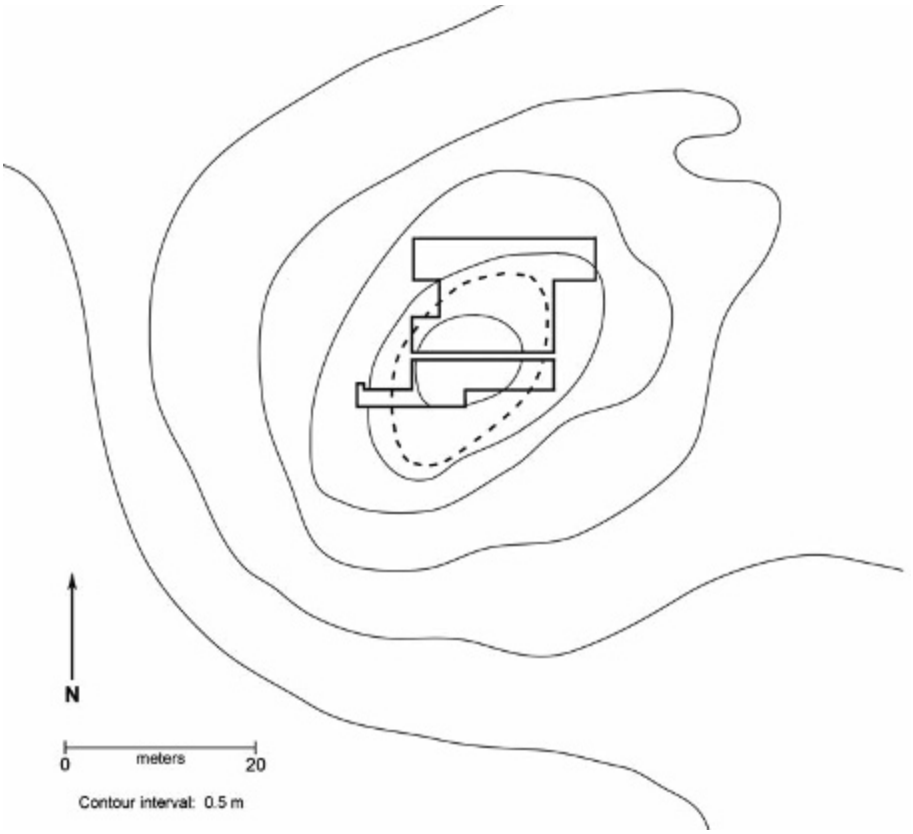

FIGURE 5.3. Topographic map of Mound 12 showing area excavated. Approximate area of Stratum 3 indicated by dotted line.

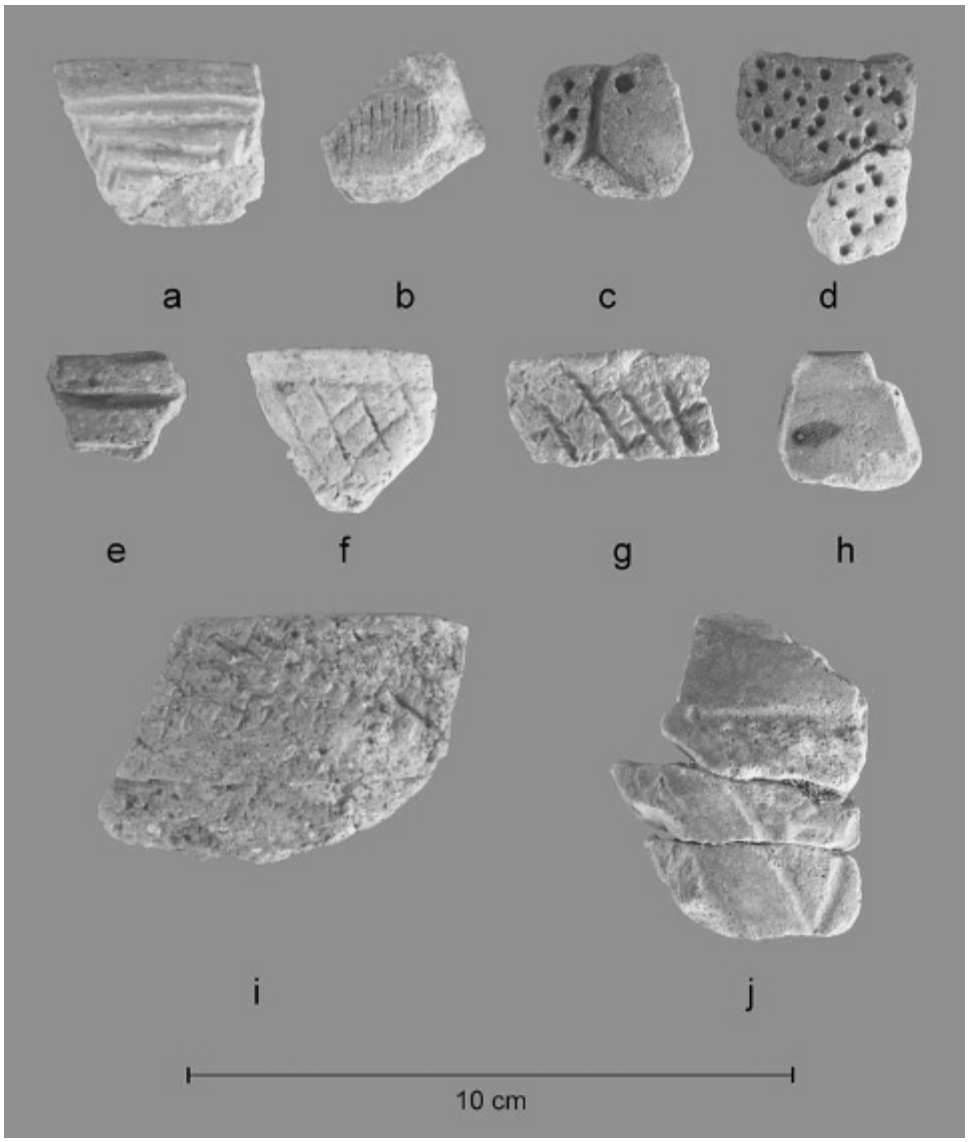

FIGURE 5.4. Stylistically nonlocal ceramics from Mound 12. a, Marksville Incised; b, sand-tempered incised; c, sand-tempered zoned punctated; d, sand-tempered punctated (probably part of same vessel as c); e, sand-tempered incised rim (possibly part of same vessel as c and d); f–g, cf. Cormorant Cord Impressed (tabulated in the 1980 report [Broster et al. 1980:40–41] as "net impressed"); h, burnished Baldwin Plain rim; i, unidentified simple stamped; j, Marksville/Alligator Bayou Stamped. All sherds except i and j from upper portion of premound deposits; i from Stratum 3, j from Stratum 2.

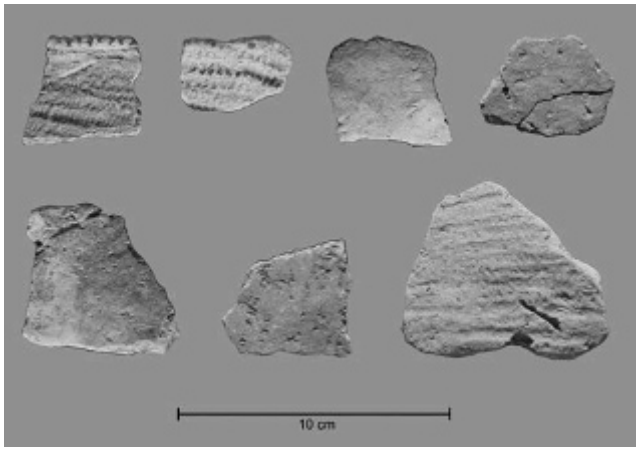

FIGURE 5.5. Fabric-marked ceramics from Mound 12. Note the smoothing on some sherds.

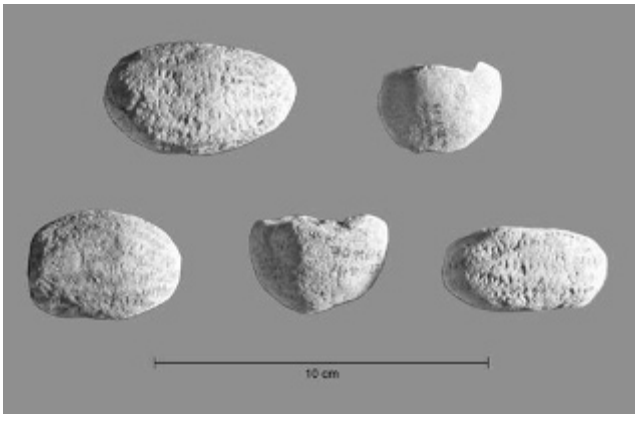

FIGURE 5.6. Baked clay objects from Mound 12.

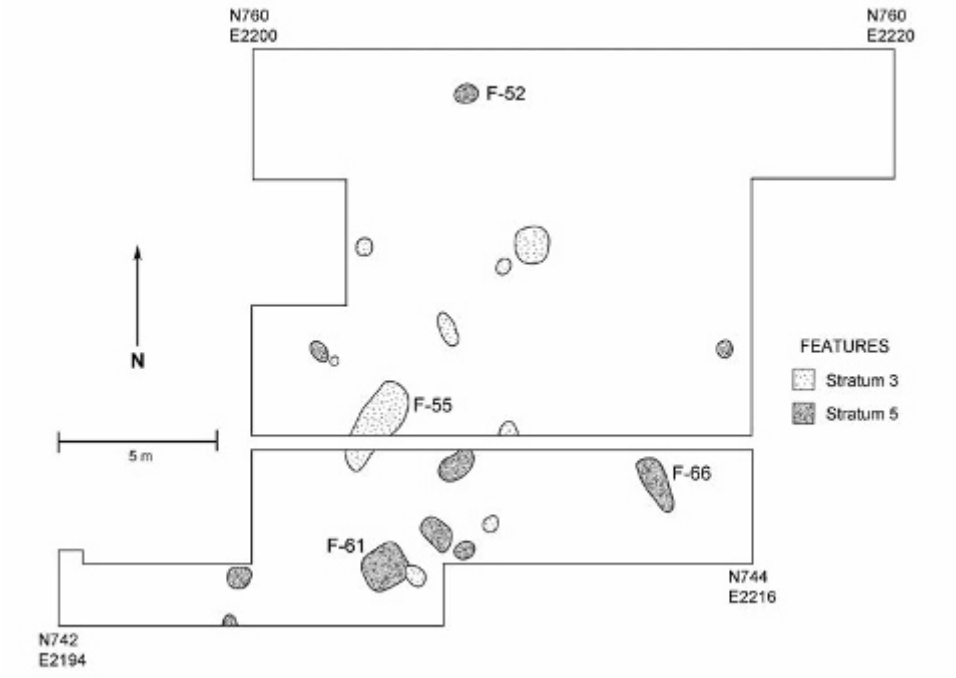

FIGURE 5.7. Features associated with Strata 3 and 5.

Tennessee River valley, and 21 whole and fragmentary ellipsoidal fabric-marked baked clay objects (Mainfort 1986b) (Figure 5.6).

The excavators identified 11 features, almost certainly contemporary, within the premound deposits, most within a limited area beneath the southern portion of the mound (Figure 5.7). Among these was a long shallow pit (F-66) containing the completely decomposed remains of an extended burial accompanied by a Withers Fabric Marked jar. There were five shallow circular or oval burned areas, at least one of which was capped with a layer of gray clay (F-61). Artifacts associated with these fired areas included scraps of mica, several Marksville Incised (Figures 5.4 and 5.8) and Larto Red sherds, along with sherds from utilitarian ware vessels (i.e., Baldwin Plain, Furrs Cordmarked, and Saltillo Fabric Impressed). Parenthetically, the two Marksville Incised rim sherds (Figures 5.4a and 5.8) lack stylistic counterparts from other excavated localities at Pinson Mounds. Two shallow basins were lined with puddled clay; a cut mica disc fragment was found in one of these (F-52).

Radiometric assays on charcoal from two premound features (F-61 and 66) produced dates that are not very informative because of large standard deviations. The 2σ calibrated average of these is B.C. 258–A.D. 429, with the actual age probably falling in the 100 B.C.–A.D. 260 range. Two samples of unidentified charcoal obtained from non-feature contexts within "Stratum 5" (the upper 8 cm of the premound deposits) also were assayed. At 2σ, the calibrated ages of these span over 500 years. This broad time range has helped create a false impression of longer-term premound activities atop the knoll on which Mound 12 was constructed. As mentioned above, there is no evidence of domestic habitation, and the stratigraphic record offers no indication that the top of the knoll was used repeatedly over a period of hundreds of years. Based on the artifacts collected from Stratum 5, an age between about A.D. 1 and 200 seems likely for

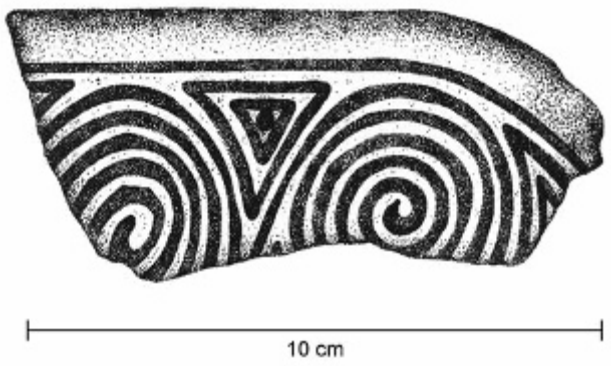

FIGURE 5.8. Marksville Incised rim sherd. Original graphic by Susan Estelle Kwas.

the premound deposits (see Mainfort and McNutt 2004; chapter 7).

The somewhat limited stratigraphic evidence suggests that initial mound construction started very shortly after completion of the activities on the cleared surface of the rise. The premound features were not left exposed to the elements for a lengthy period. Soils in Madison County, Tennessee, are prone to severe erosion (Lyman et al. 1907:695; Maddox 1915), but there is no evidence of redeposited water-sorted soils or signs of erosion, which would be expected given the sandy character of the knoll on which Mound 12 was built. Further, there is no evidence of humus development or of some early earthen construction that was removed prior to construction of Mound 12.

Construction of Mound 12 apparently began with the placement of a thin layer of sterile sandy clay (Stratum 4) over the upper slopes of the knoll to create a level surface (Broster et al. 1980:23). An oval area encompassing about 330 m^2 was then covered with a layer of puddled gray clay (Stratum 3) about 6 cm thick. This clay does not outcrop in the vicinity of Mound 12 and may have been obtained from an exposure of Porters Creek Clay located about 1.5 km northwest of Mound 12 (Whitlach 1940:240) or from the floodplain of the South Fork Forked Deer River. Near the center of the puddled clay surface was a burned area (Feature 55) upon which the remains of one or two individuals were completely immolated; there were no associated funerary objects. At 2σ, the calibrated average range of two radiocarbon assays on charcoal from this feature is A.D. 427–656, with the actual date probably falling between A.D. 541 and 621 (see chapter 7). As discussed below, I now question the accuracy of these dates. Two other burned areas, one containing unidentified calcined bone, also were identified on this clay surface.

Before the central cremation area had cooled, a thin layer of sand was placed over the puddled clay surface, including the cremated human remains, and a second layer of puddled clay was added, completely covering the initial prepared surface. There were several shallow, burned basins on the surface. Several of these have been interpreted as cremation facilities (Broster et al. 1980:26–28), but no identifiable human remains were found with them, and few artifacts were found on this surface. The two layers of puddled clay with burials "sandwiched" between is broadly analogous to the treatment of the initial interments at the base of Mound A at the Miller site, in Lee County,

FIGURE 5.9. Mound 12, N754 profile. View to south.

FIGURE 5.10. Mound 12, N748 profile. View to southwest. Feature 55 located near signboard. Reproduced courtesy Tennessee Division of Archaeology.

Mississippi (Jennings 1941:194), though in this instance the burials were not cremated.

The clay surface was covered with one or more mantles of loaded fill. The original description of this construction phase (Broster et al. 1980:23) suggests a simplicity that is not born out by field photographs. Evidence for "basketloads" is limited to the western side of Mound 12. The stratigraphically related fill to the east lacks clearly defined loads, and at least one moderately large disturbance is evident.

With some reluctance, I feel compelled to offer some more specific comments about the stratigraphy of Mound 12 based on the few available profile photographs. The best of these shows the N754 line (Figure 5.9), which was near the north side of the excavated area (Figure 5.3). The light area in the foreground is Feature 52, and the dark deposits at the base of the profile represent Stratum 5. The lighter zone above these includes Strata 3 and 4; a thin, darker band probably marks the base of the former. Located immediately to the right of the signboard are several apparent "basketloads" that rest atop Stratum 3. A few small disturbances are evident to the left of the board.

The other two available images of Mound 12 profiles were taken at oblique angles, and the exposures are suboptimal. Both required digital editing, and I also adjusted the perspective to better show the soil zones. The N748 profile (Figure 5.10) shows stratigraphy down to Stratum 3 and includes a section of the E2200 profile, as well. Feature 55 is located near the signboard. Loaded fill is evident in the N748 profile beginning immediately west of Feature 55, but the fill to the east is undifferentiated. This is one of several pieces of evidence that suggest to me that some of the mound stratigraphy is more complex than suggested in the original report (Broster et al. 1980:22–24).

Most of the N742 line, which marked the southern extent of excavation, is shown in Figure 5.11a. Figure 5.11b shows my interpretation of the stratigraphy, which differs a bit from the profile drawing that I prepared for the 1980 report (Broster et al. 1980:Figure 10). Two distinct fill episodes are apparent. The lighter deposit, which is roughly centered on N742/E2200 and contains an "ash deposit" about 80 cm to the right of this grid point, appears to cover a thin prepared surface that may be a southern continuation of Stratum 3. Fill to the east (left) of the lighter deposit is darker and seemingly undifferentiated; some individual loads are visible to the west, a situation also seen in the N748 profile (Figure 5.10). The eastern edge of the prepared surface appears to terminate just west of the signboard; to the west (right), it continues to the edge of the photo, its appearance becoming progressively lighter. Below the prepared surface is a layer corresponding to Stratum 4—the initial mound construction stage. It is not clear from the photo how far

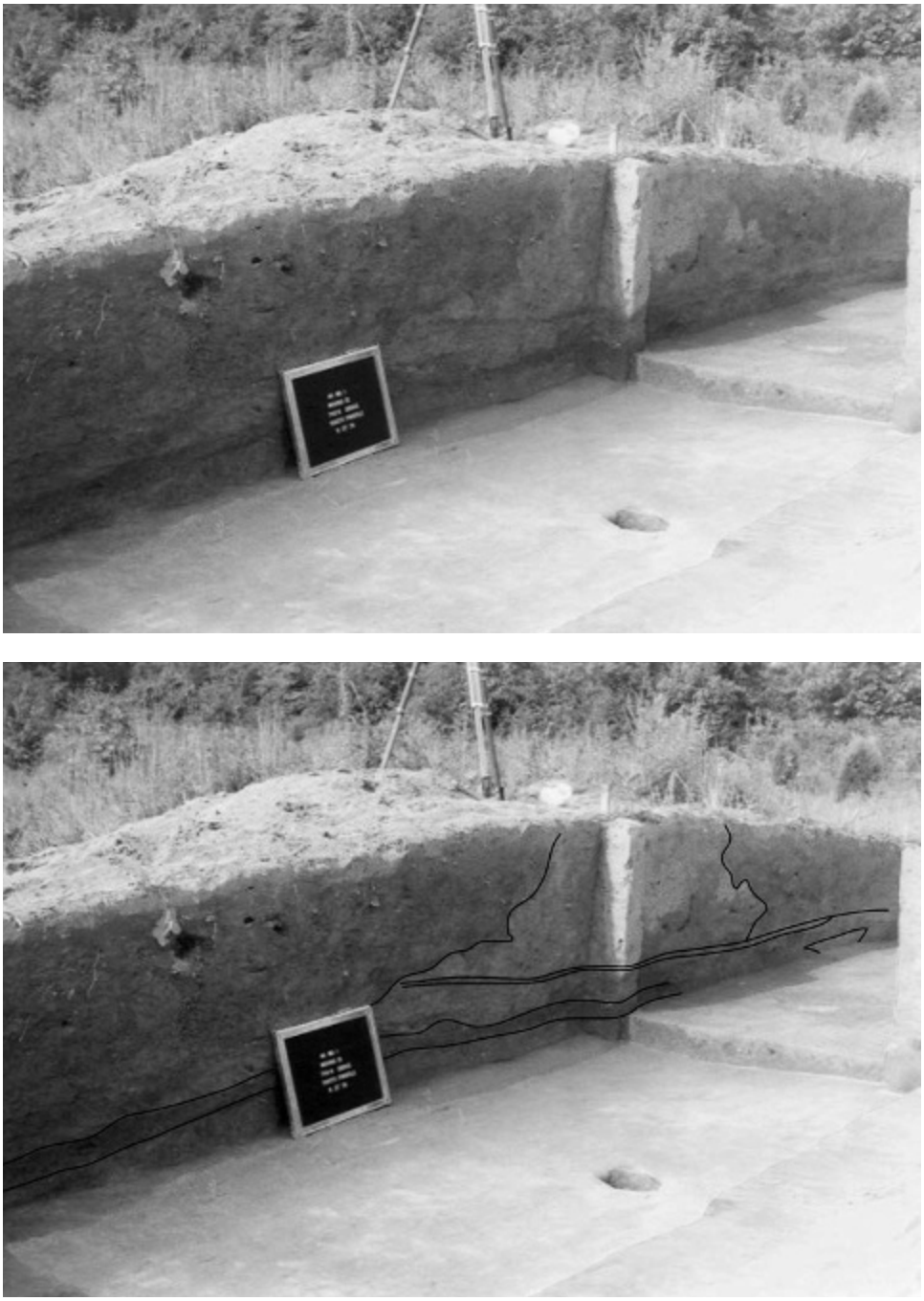

FIGURE 5.11. Mound 12, N742 profile. View to southwest, with perspective altered. a, original photograph; b, photograph with interpretation of stratigraphy. Reproduced courtesy Tennessee Division of Archaeology.

this continues to the east; the western extent appears to be interrupted by an intrusive disturbance about 50 cm west of N742/E2200. What is probably the upper, "burned" portion of Stratum 5 is readily apparent in the eastern half of the photo, a few centimeters above the base of the excavation.

Broster et al. (1980:23) state that there were subsequent additions to Mound 12 that utilized distinctive blue-gray clay (presumably from the floodplain some distance to the south), as well as intrusive "cremation" features. The profile photographs neither support nor rule out these possibilities. Re-excavation of surviving profiles might clarify matters.

The dates for the cremation feature on the clay surface (Feature 55) were the first obtained for an earthwork at Pinson Mounds (Mainfort et al. 1982:17–18). For decades I regarded these as two of the strongest radiocarbon assays for the mound com-

plex and used them as an anchor for the Pinson Mounds developmental timeline I have repeated several times (e.g., Mainfort 1986a, 1988a, b; Mainfort and McNutt 2004). I now question them. More specifically, I do not think that they provide an accurate age estimate for Feature 55.

If the radiocarbon assays accurately date the cremation feature, the clay platform was built at least 100, if not 300, years after the initial flurry of mortuary and other ritual activities at the Mound 12 locality. As outlined above, the stratigraphic evidence contradicts this scenario and suggests that little time elapsed between completion of the premound ritual activities, construction of the clay platform, and the mortuary event represented by Feature 55. An actual age in the A.D. 1–300 range seems likely. Ceramics provide support for this assertion, namely the fabric-marked sherds associated with Feature 55 (Broster et al. 1980:26), as well as, and perhaps more importantly, the Marksville/Alligator Bayou Stamped sherd (Figure 5.4j) and the three rocker-stamped sherds found in the upper fill of Mound 12 (Broster et al. 1980:41). Neither the Marksville/Alligator Bayou Stamped sherds nor the rocker-stamped sherds are likely to postdate A.D. 200 (e.g., Fortier et al. 1989:558–559).

Mound 10

Located about 110 m east of Sauls Mound (Figure 1.2), Mound 10 is the smallest flat-topped earthwork at Pinson Mounds (Figure 5.12), and its shape is unlike that of the other platform mounds. Surveyor E. G. Buck's circa 1919 sketch of Mound 10 portrays the sides as more linear than they appear today, giving the mound a somewhat polygonal shape (Figure 2.17). The more recent topographic map (Figure 5.13) presents more of a teardrop appearance. A comparison of the two drawings suggests that Mound 10 did not suffer a great deal of damage from plowing during the intervening 60 years, but there has been some erosion along the western edge. Importantly, neither Buck's drawing nor the topographic map offer any hint that Mound 10 was originally rectangular in shape. The earthwork is approximately 61 m (200 feet) long, with a maximum width of 40 m (131 feet). As shown by excavation, its present height is 1.3 m (4.3 feet) above subsoil (Mainfort 1986a:26).

The 1982 excavation strategy was designed to provide data about the function of the mound and delineate its construction history with a minimum amount of disturbance. Most excavation units were placed in the northern half of the mound and were oriented along the main axes. The limited excavations demonstrated that mound construction was preceded by the removal of the humus zone from the top of a small knoll that was selected as the site of the earthwork. A thin (6 cm) layer of yellow sand was then placed over the exposed subsoil (Figure 5.14). In southern Ohio, Shetrone (1925:154–163) exposed a sand-covered surface at the base of the flat-topped Ginther Mound—another possible link between Pinson Mounds and the Hopewell "core." The sand-covered surface has obvious parallels with the summits on Ozier Mound and Mound 29, but in the case of Mound 10 the sand was used as a basal stratum that served to prepare the ground surface of the locality selected for constructing the mound. The repeated use of yellow sand indicates that this material was part of the standard architectural repertoire associated with Middle Woodland platform mounds, at least in some areas, and suggests that the individuals engaged in planning and constructing Mound 10 were aware of its use elsewhere at Pinson Mounds.

In the lower Illinois River valley, light-colored sand or silt often was used as the initial layer of mound construction (Buikstra et al. 1998; Charles et al. 2004), which typically entailed excavating the material. The source of the sand at the base of Mound 10 is unknown, but it could have been obtained easily from the locality designated Mound 17, a low, sandy rise a short distance to the south.

Mound construction proceeded with the addition of a 12 cm thick layer of gray sandy clay that contains numerous mineral concretions, an indication of its impermeability. The remaining mound fill consists primarily of mottled brown sandy loam. With the exception of several redeposited hearths or similar features, few individual basketloads are apparent in the fill. There were few prehistoric artifacts in the mound fill, most of which was not screened. The ceramic assemblage includes examples of several nonlocal ceramic types, including four Swift Creek

FIGURE 5.12. Mound 10. View to south.

Complicated Stamped sherds, a Larto Red sherd similar to specimens from the Duck's Nest sector (discussed below), and an Evansville Punctated rim sherd (Figure 5.15) (see Appendix 1).

Near the center of Mound 10, a fairly large hearth, or rather a basin built to contain fires, was discovered immediately below the plowzone. It was roughly ovoid in plan view, with a maximum diameter of about 2 m and a depth of about 60 cm, and was not lined with clay. The fill consists of reddish brown sandy loam containing charcoal (including several concentrations), pottery fragments, unidentifiable calcined bone, and several pieces of lithic debitage. Designated Feature 21, a substantial portion of this feature was preserved for future excavation. Three charcoal samples from the feature were selected for conventional radiocarbon dating, producing a calibrated average range of A.D. 128–421 at two sigma (Mainfort and McNutt 2004; chapter 7). The discovery of Feature 21, coupled with the relatively flat mound summit and the lack of burials, established that Mound 10 is a platform mound.

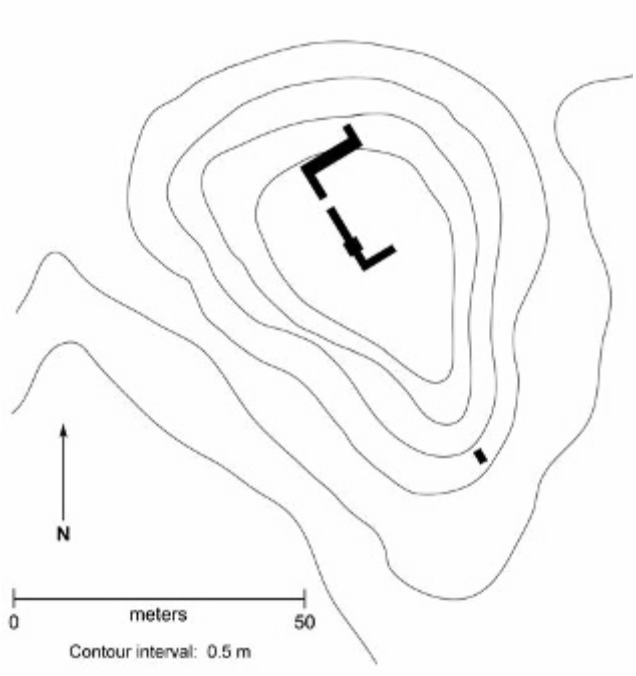

FIGURE 5.13. Topographic map of Mound 10 showing excavation units.

Mound 10 testing also revealed a large excavation unit near the center of the mound (several meters east of Feature 21) that had been excavated at some time in the unrecorded past. The pit is over a meter wide, fairly straight sided, and extends into subsoil. Neither William Myer's notes (see chapter 2), nor interviews with former landowners, provided a clue about the identity of the excavator or the date of the work. The placement of the hole suggests that the excavator was well versed in the burial mound exploration techniques of the late 1800s.

FIGURE 5.14. West profile, N2982/E3000, showing sand layer at base.

While compiling the Mound 10 topographic map in 1982, it became apparent that the oddly shaped south end of the mound had either been created by modern agricultural practices or that it represented a graded ramp (see Figure 5.13). To evaluate this portion of the mound, a test pit was placed near the southern extremity of the possible ramp. The issue quickly was settled, as immediately below the plowzone is a layer of mottled brown sandy loam representing loaded fill. Underlying this is a continuation of the gray sandy clay recorded near the base of the northern portion of Mound 10, mentioned above, but there was no trace of the yellow sand layer seen in the northern units. Nonetheless, it is clear that the south end of the mound was constructed prehistorically. Making a conclusive case for identifying some or all of this entire locality as a ramp would require well-conceived additional excavations.

Mound 10 was the second earthwork at Pinson Mounds demonstrated to be a flat-topped mound of Middle Woodland age. Obviously, the irregular shape and relatively small size of this earthwork contrast markedly with the large rectangular platform mounds elsewhere on the site, leading Mainfort (1986a:26) to comment in jest that the odd shape resulted from "the lack of a ritual specialist who was familiar with the proper shape of such structures" (see also Kwas and Mainfort 2007:147); to my chagrin, at least one researcher actually took this seriously (McNutt 2005:151).

The location of Mound 10 within the mound complex also is puzzling. Why build a relatively small platform mound in the shadow of the largest mound (Sauls Mound) in the mound complex? Why the strange shape? Mound 10 may have been constructed after the Twin Mounds and Ozier Mound; is time perhaps a factor in its shape and placement? These questions probably can be answered only by further excavations, but geophysical survey of Mound 10 and the immediate surrounding area could potentially provide some important clues.

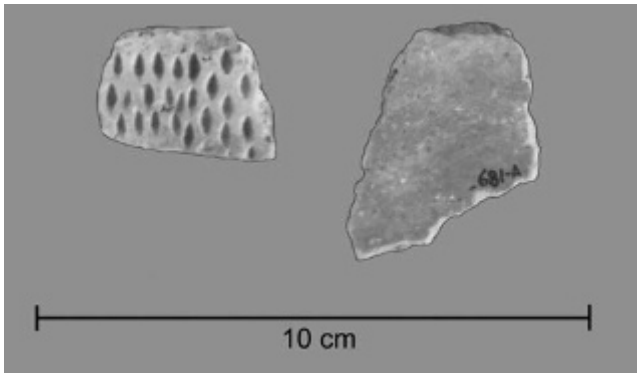

FIGURE 5.15. Ceramics from Mound 10. *Left,* Evansville Punctated rim sherd; *right,* Larto Red.

Mound 14 Sector

In December 1961 Fischer and McNutt (1962) partially excavated a wall-trench house and other features about 500 m southwest of Sauls Mound and 150 m northwest of Mound 15. The entire house was completely excavated by Dan Morse and his field crew in April 1963 (Morse 1986; Morse and Polhemus 1963) (Figure 5.16). Two radiocarbon determinations suggest that the house was constructed between around A.D. 1000–1150 (see chapter 7).

The rectangular, open-corner structure measured about 21 x 17 m and was superimposed on an early Middle Woodland occupation area. With the exception of the wall trenches and associated posts, almost all of the features and numerous posts shown in Figure 5.15 are associated with Middle Woodland use, and all of the artifacts collected during the excavations were of Middle Woodland age. Most of the ceramic assemblage consisted of typical sandy-textured utility wares—55 each with plain and fabric-marked surfaces and 92 cordmarked. Other material collected includes five bladelets (one of Flint Ridge chert, four of dark gray chert that may be Fort Payne), two crude points, two end scrapers (Figure 5.17), a small piece of galena, seven limestone-tempered sherds, and a few stylistically nonlocal pottery sherds (Larto Red and Swift Creek Complicated Stamped). As with other off-mound activity areas at Pinson Mounds, these latter artifacts indicate that Middle Woodland use of the Mound 14 sector was linked to the ritual sphere.

John Broster tried unsuccessfully to relocate this area in 1974 (Broster et al. 1980:20). From the mapped location of his work (Broster et al. 1980:55), it appears that Broster tested an area located about 50 m west of Myer's Mound 14 and roughly 150 m east of the excavated Mississippian house. He exposed three superimposed features, two of which had prepared bases. Among the artifacts collected from the feature complex were three chert bladelets (one of Flint Ridge chert), a worked quartz crystal, over 100 stylistically local sherds (cordmarked and plain), two Larto Red sherds, and seven Swift Creek Complicated Stamped sherds (see Figure 5.34, bottom row, left and

FIGURE 5.16. Mississippian house and Woodland features. View to west. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

center), as well as some calcined bone. Although Broster interpreted these features as earth ovens (Broster et al. 1980:21), the artifact assemblage suggests to me that they represent repeated nondomestic use of this locality, perhaps over a short period of time.

In 1993 I directed a Memphis State University field school during which we relocated the wall-trench house and excavated a number of Middle Woodland features a short distance to the south. The records and artifacts from this work remain unanalyzed (I relocated to Arkansas about 18 months after the excavation), but I can report that the artifact assemblage included a remarkable number of chert bladelets (n = 54) (see Figure 4.12). Of these, there are at least 20 examples of Flint Ridge chert and three of Wyandotte chert (Kay et al. 2003). The concentration of bladelets, many fashioned from nonlocal cherts, strengthens the case for short-term (though perhaps repeated) use of the Mound 14 sector for ritual activities.

Additional fieldwork in this area is justified not only because of the excellent research potential, but also because intact deposits along the low bluff immediately to the west and south are being eroded away.

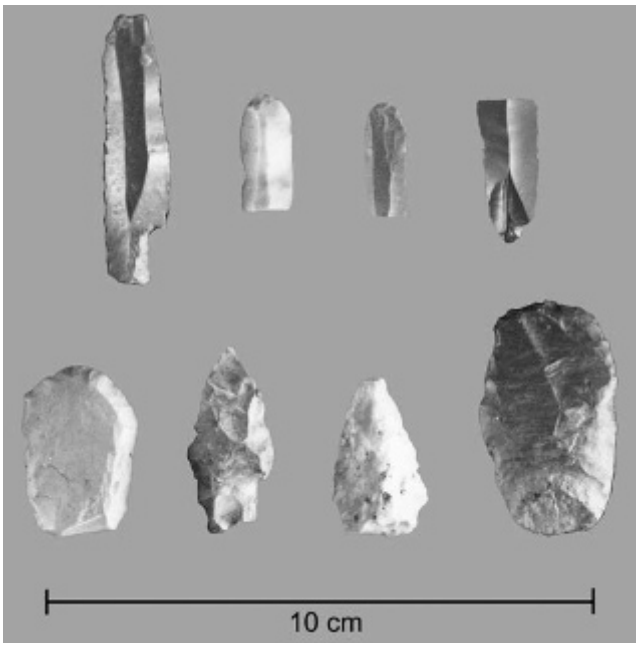

FIGURE 5.17. Lithics from 1963 excavation in the Mound 14 sector. Second bladelet from left made from Flint Ridge chert, the others perhaps from Fort Payne chert.

Duck's Nest

The small, nearly circular embankment known as the Duck's Nest is located on a low bluff overlooking the South Fork Forked Deer River floodplain approximately 550 m south of Sauls Mound and 150 m south of the Duck's Nest sector (Figures 1.2 and 5.18). With a diameter of about 13 m, the earthen wall is about 2.5 m wide and less than 1 m tall (Figures 5.19 and 5.20). The west side in particular appears to have lost some height due to erosion.

In 1963 Dan Morse (1986:112–114) excavated a stratigraphic cut through the embankment, which was constructed in three stages. Construction began by depositing a stratum of light brown sand about 3 m wide and 50 cm high. This was followed by a 70-cm-thick layer of dark brown sand. Morse notes that neither of these strata extends to the center of the small enclosure, but we neglected to confirm his interpretation in subsequent testing. The addition of dark brown clayey sand, about 50 cm thick, completed construction of the embankment. Morse found a complete Furrs Cordmarked jar within this stratum (Figure 5.21).

In 1982 I excavated two units within the Duck's Nest to determine the relationship of this curious feature to the extraordinary deposits and ceramic assemblage found to the north. This objective was not achieved. In the northern unit, the upper 30 cm was a brown clayey sand. This was followed stratigraphically by a 20-cm zone of light brown clayey sand containing very few artifacts. Below this, at 50 cm below ground surface, was a stratum of sterile tan sand, as reported initially by Morse (1986). This stratum is about 50 cm thick and covers a light brown sandy clay subsoil.

The adjacent unit exposed the large fire basin recorded by Morse at the top of the tan sand stratum, about 50 cm below surface. This feature was circular, with a diameter of about 2 m (Figure 5.22). Most feature fill was an ashy gray clayey sand approximately 30 cm thick that contained few cultural materials. At the top of the feature (designated Feature 18), near the center, was a shallow concentration of charcoal that proved to be of modern origin. Below the gray ashy fill was a 12-cm zone of reddish brown sand containing a number of pottery sherds that comprise about half of a

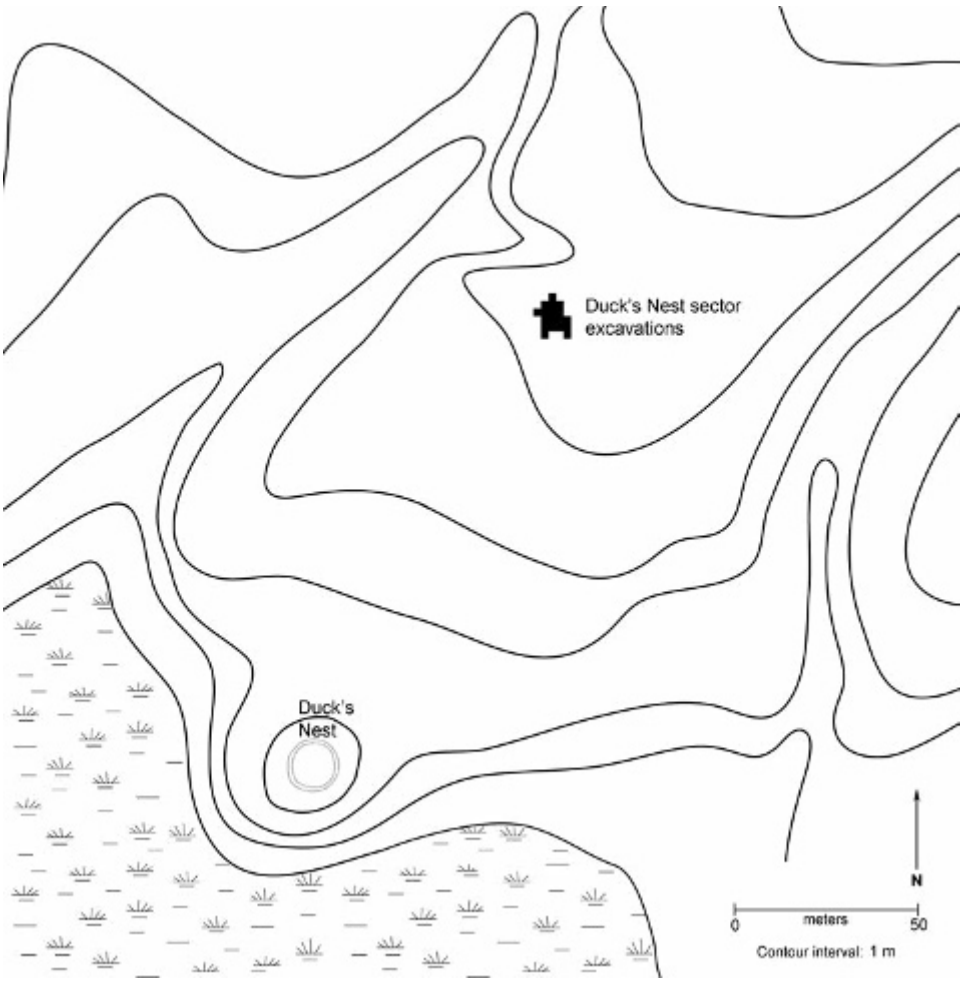

FIGURE 5.18. Location of Duck's Nest and Duck's Nest sector.

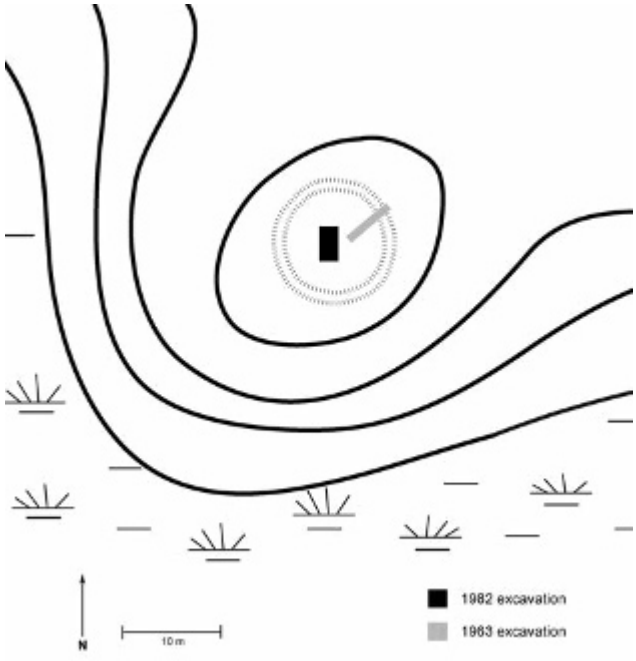

FIGURE 5.19. The Duck's Nest, showing excavation units.

conoidal Furrs Cordmarked vessel (Figure 5.23). At the base of the feature was a deposit of sand, discolored by exposure to heat, that covered a heavy concentration of charcoal. The total depth of the feature was 50 cm.

None of the pottery sherds show signs of exposure to intense heat, and no charcoal adhered to them. Thus, the partial vessel, which probably broke after being dropped into the basin, was deposited after the large fire had burned out and the hot embers were covered with sand. The walls of the feature were not fired to a hard consistency, raising the possibility that the Duck's Nest was used for only a single ceremony.

The three radiocarbon assays on large charcoal samples from the base of the fire pit are quite variable, and the age of the Duck's Nest remains ambiguous (Mainfort 1986:27; Mainfort and McNutt 2004:14–17, chapter 7). A Swift Creek Complicated Stamped sherd collected from the surface (Figure 5.34, middle

FIGURE 5.20. The Duck's Nest. View to south. Reproduced courtesy Tennessee Division of Archaeology.

FIGURE 5.21. Furrs Cordmarked jar *in situ* within Duck's Nest embankment. View to southwest. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

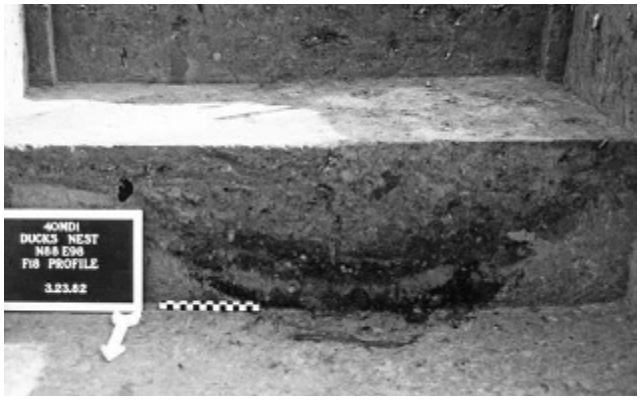

FIGURE 5.22. Profile of Feature 18. View to south.

FIGURE 5.23. Partially reconstructed Furrs Cordmarked jar from Feature 18.

row, far right) raises the possibility of contemporaneity with the Duck's Nest sector to the north, as do the two limestone-tempered sherds and the incised sherd found by Morse (1986:114).

The function of the Duck's Nest is unknown. Morse's suggestion that the small embankment is a "dance circle" (Morse and Polhemus 1963:11) is interesting, but this cannot be evaluated with the presently available data.

Duck's Nest Sector

The Duck's Nest sector is located on a low rise about 150 m north of the Duck's Nest and 400 m south of Sauls Mound (Figure 5.18). In 1963, Morse (1986:100) discovered a possible midden deposit in this area, and former landowner John Sauls reported the presence of "dark soil" and artifacts here. Systematic shovel testing and a two-meter test pit (the offset unit in Figures 5.24–5.26) revealed a dark soil horizon approximately 20 cm thick that contained numerous ceramics, lithic tools and debitage, flecks of calcined bone, and sandstone. Because this was (and is) the only midden-like deposit identified at Pinson Mounds, the Duck's Nest sector was an obvious choice for more extensive excavation.

During the summer of 1982, we excavated eighteen 2 x 2 m units in the Duck's Nest sector. The excavation grid used a concrete benchmark designated N100/E100 as its source. Readers may notice, quite correctly, inconsistency in the grid numbering schemes used in different excavation areas. This is because we did not have the luxury of a master grid system at Pinson Mounds. At our (i.e., myself and Mary Kwas) request, a Tennessee Department of Conservation survey team began setting permanent markers in 1981, but only placed about two dozen before the crew was reassigned. Our ad hoc solution was to use a local grid system in each excavation area.

The dark soil horizon (designated Zone C) is continuous throughout the Duck's Nest sector excavation area, but was lighter in color and thinner to the south and east. Profiles of the western excavation units exhibit a lighter, apparently undisturbed stratum (Zone B) below the plowzone and overlying Zone C that are not present along most of the eastern profile (Mainfort 1986a:33). In the northwest quadrant of the excavation area, Zone B yielded a substantial quantity of lithic material, but few ceramics. Zone B may represent the remains of additional prehistoric activities in the Duck's Nest sector or simply material redeposited by erosion to the north of our excavations.

It is surprising that no features, other than a burned post, were identified in the subsoil below Zone C, and we could define only one other cultural feature within the entire excavated area. Feature 20 was a roughly oval concentration of charcoal and artifacts centered near the N108/E104 grid marker (Figures 5.24–5.26). It was essentially inclusive within Zone C, but there were two deeper components (designated 20-A and 20-B) in unit N108/E102. Both were shallow basins about 50 cm in diameter that had burned sides and extended into subsoil. They contained large quantities of charcoal, but there were far more artifacts in Feature 20-A than in 20-B, including over 50 ceramic sherds, a broken chert drill, and an edge fragment of a projectile point/knife. To the north of the other components, Feature 20-C was a concentration of sandstone and sherds located on the E104 grid line. The calibrated average range of three conventional radiocarbon assays on charcoal samples collected from Features 20-A and 20-B is A.D. 132–415 at two sigma, with a high probability that the actual date is between A.D. 237 and 345 (Mainfort and McNutt 2004, this volume; see also Mainfort 1999).

In quantity and kind, the Duck's Nest sector artifact assemblage differs markedly from material found in other excavated areas within the Pinson Mounds complex. Ferruginous sandstone, probably related to burning activities, ranged in quantity from 250 g in N112/E106 to 3,851 g in N110/E102 (Figure 5.24). Chert debitage is numerous (n = 883), as are (for Pinson Mounds) chert tools (n = 56), many of which are broken fragments. Prior to the 1982 field season, only a single piece of galena had been collected at Pinson Mounds (Morse 1986:112), but the Duck's Nest sector produced three specimens, all unworked. Calcined bone fragments occurred in every excavation unit, but none were large enough to identify.

The ceramic assemblage from the Duck's Nest sector is especially noteworthy. There are 2,174 ceramic

sherds from a minimum of 48 vessels, as well as several hundred sherds not assignable to any one of these. Most vessels are represented only by small unrestorable fragments, but more extensive restoration was possible with several. Based on style, temper, petrography, and chemical composition, 13 vessels can be characterized as nonlocal in a broad sense.

The artifact assemblage, along with the abundance of calcined bone and the dearth of features, indicates that the Duck's Nest sector does not represent habitation or refuse debris, but rather a specialized activity area. In the original site monograph, I suggested that "the deposits appear to reflect mortuary activities that included cremations, interment of funerary vessels, and the intentional dispersion of the cremation remains and ceramics throughout the area" (Mainfort 1986a:31). This is questionable, insofar as we did not find any cremation features and not a single fragment of bone could be identified as either human or an animal species. The total lack of dental elements further militates against the original interpretation, as does the paucity of burned clay fragments. Despite the lack of bioarchaeological evidence, the cremation scenario has been accepted uncritically by some researchers (e.g., Carr 2005:472). This interpretation cannot be ruled out completely, but neither can feasting, less formal ceremonial food consumption, and a host of other alternatives. Whether the product of cremation, feasting, or something else, the very small size of all the calcined bone indicates that the activities that produced these remains almost certainly did not occur within the excavated portion of the Duck's Nest sector. Rather, the tiny size of the bone suggests that this material underwent at least two episodes of processing (e.g., consumption of food, followed by immolation and rendering of the bones that were byproducts) elsewhere prior to final deposition.

The ritual activities—it seems safe to consider them as such—conducted at the Duck's Nest sector seemingly were centered in and around Feature 20. As shown in Figure 5.25, the two excavation units in which most of this feature occurred (N108/E102 and N108/E104) produced not only the largest quantities of ceramics (n = 654 or 30 percent of the total), but also sherds from 34 of the 48 identifiable vessels. There also was a great deal of sandstone (3,557 g) in the same units, but the greatest quantity (3,851 g) came from N110/E102, just to the north of Feature 20 (Figure 5.24). Two small, shallow basins located along the eastern edge of this unit contained charcoal,

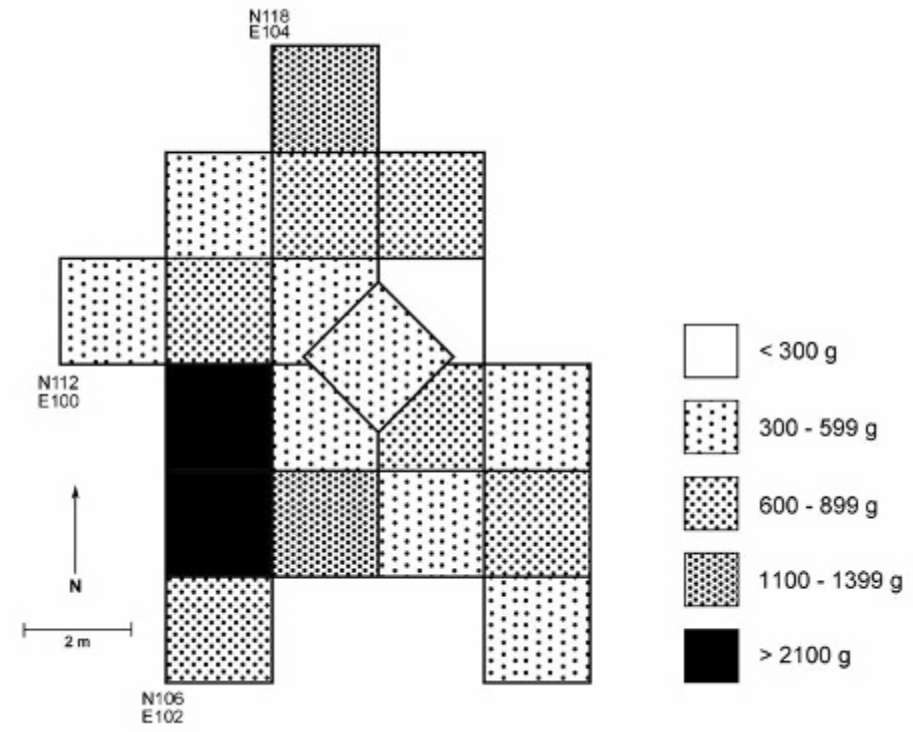

FIGURE 5.24. Distribution of sandstone in the Duck's Nest sector.

calcined bone, and a small quantity of lithics and ceramics, but most of the sandstone derives from an area about 70 cm in diameter near the center of the square that had been disturbed by tree roots. One of the three lumps of galena also came from this area.

Lithic tools were concentrated in the immediate vicinity of Feature 20, with the three units discussed above producing 19 of the 56 tools recovered, and chert debitage numbered 102 and 92 specimens, out of more than 1,000 specimens, in squares N108/E104 and N110/E102 (Figure 5.26).

LITHIC ARTIFACTS

Throughout Pinson Mounds, the frequency of chert tools and debitage is low (see chapter 2 for a historical perspective), in part because the mound complex was not used for long-term habitation, but also perhaps due to the lack of a good local chert source (France 1985). The quantity of stone tools in the Duck's Nest sector exceeds that of any other area within the mound complex, and the amount of debitage is surpassed only by that contained within the raised clay feature on the summit of Ozier Mound (chapter 4).

The Duck's Nest sector excavations produced 1,112 chert flakes, of which 883 derive from the midden-like deposit (Zone C) and below it. As at other localities at Pinson Mounds, Fort Payne chert is the predominant raw material in the lithic assemblage. Flakes produced from this material typically lack cortex and range in color from light gray to blue (France 1985:14–15). Many chert flakes are thermally altered, indicated by a pinkish, glossy cast, possibly by activities conducted in the Duck's Nest sector. Much less common are flakes with a range of brownish colors, a few with water-worn cortex (France 1985:15–16). These probably are local gravel cherts, collected from the Pleistocene gravels that occur along the bluffs flanking the north side of the bottomlands (cf. Broster and Schneider 1977:60; see also Russell and Parks 1975:map insert). There are no identified examples of Burlington or Cobden chert, both of which occur at Middle Woodland sites in the upper Sunflower River area of western Mississippi (Brookes 1988).

About 29 percent of the chert flakes from the Duck's Nest sector are thermally altered (France 1985:32), and as seen throughout the Pinson Mounds site (France 1985:31), core flakes (78 percent of the total) far outnumber bifacial flakes. Thus, there is nothing unusual about the chert flake assemblage from the Duck's Nest sector. There are also 143 chert cores,

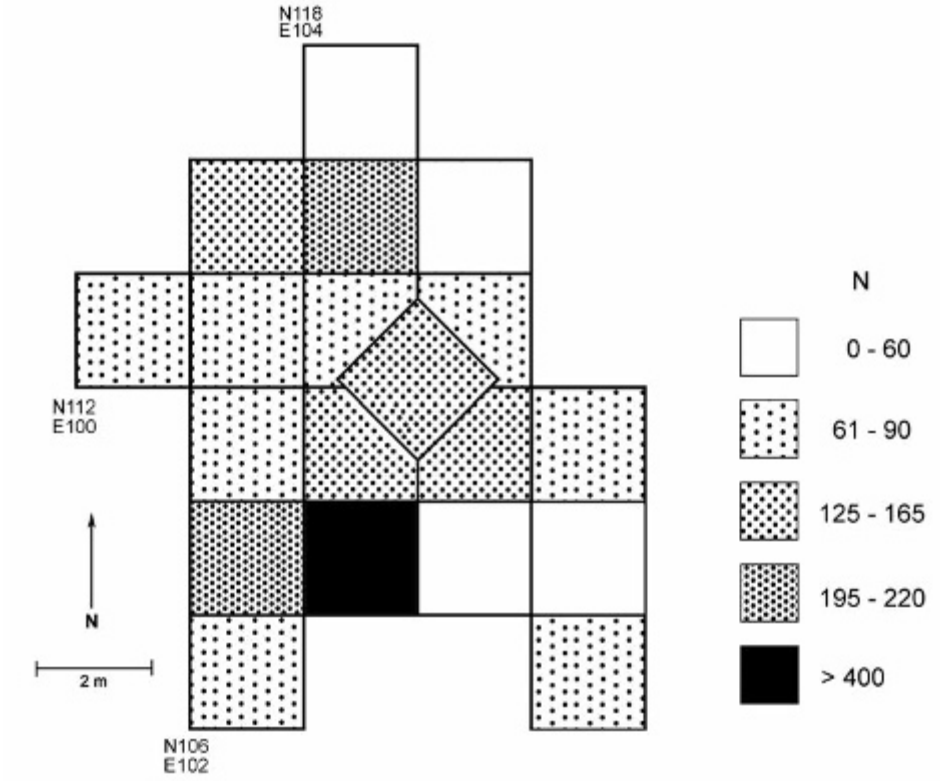

FIGURE 5.25. Distribution of ceramics in the Duck's Nest sector.

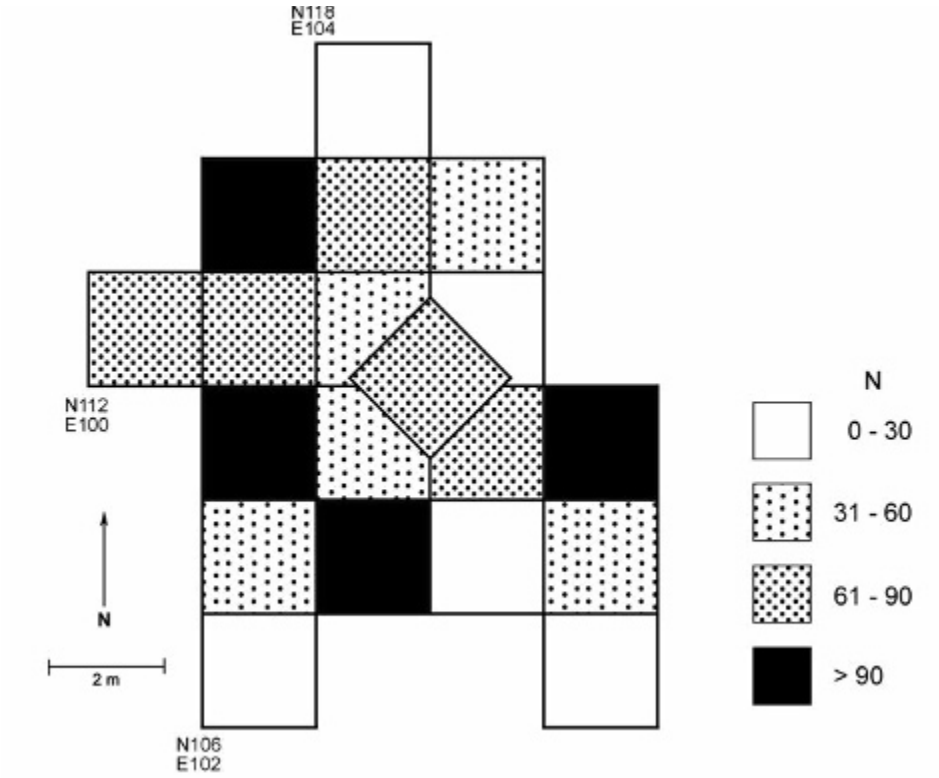

FIGURE 5.26. Distribution of chert debitage in the Duck's Nest sector.

most of which are badly fragmented and small (France 1985:27, 32); about 40 percent are thermally altered. None are bladelet cores.

Siltstone flakes also are numerous (n = 467), with over 25 percent from the vicinity of Feature 20. This readily available material was employed frequently in lieu of chert at Pinson Mounds and other Middle Woodland sites in the general vicinity.

Most of the bifacial chert tools from the Duck's Nest sector are broken; these include 16 bifacial edge fragments, 8 midsections, 8 distals, and 6 basal fragments. Presumably these artifacts were utilized in activities at the Duck's Nest sector, but the specific tasks that produced the breakage have not been identified. Nine complete or broken projectile points from Zone C are assignable to types. Four are non-Middle Woodland types, including two Dalton variants manufactured from a banded light orange to light red chert, and a reworked Big Sandy (Mainfort 1986a:Figure 29). The frequency of pre-Middle Woodland points may indicate the presence of an Early Archaic component in the immediate vicinity of our excavations, but it seems more likely that these artifacts were reused by Middle Woodland peoples. The five Middle Woodland points are variants of the types Flint Creek and Gary (Cambron and Hulse 1975; Futato 1977).

There are eight chert bladelets in the Duck's Nest sector lithic assemblage, two of which are complete. One specimen may be made of Flint Ridge chert, but the remainder probably were produced from Fort Payne chert (n ≥ 2) or local gravels. The low frequency of Flint Ridge chert contrasts with other areas of Pinson Mounds, notably the upper summit of Ozier Mound, the Mound 14 sector (Norton and Mainfort 1993), and the Cochran site area, but is comparable to the Twin Mounds sector. Four bladelets are burins, and another likely was used for butchering and hide working.

A pair of large, bifacially worked concretionary siderite (iron carbonate) objects (Figure 5.27) seem out of character for the assemblage, but presumably these were used in the activities responsible for deposition of the other artifacts. They were found together in the southeast corner of N112/E100. Some smoothing is evident on the larger object, while the other exhibits only flake scars. These artifacts resemble the greenstone "digging tools" found at a number of Copena sites (Walthall 1973; Webb and DeJarnette 1942) and

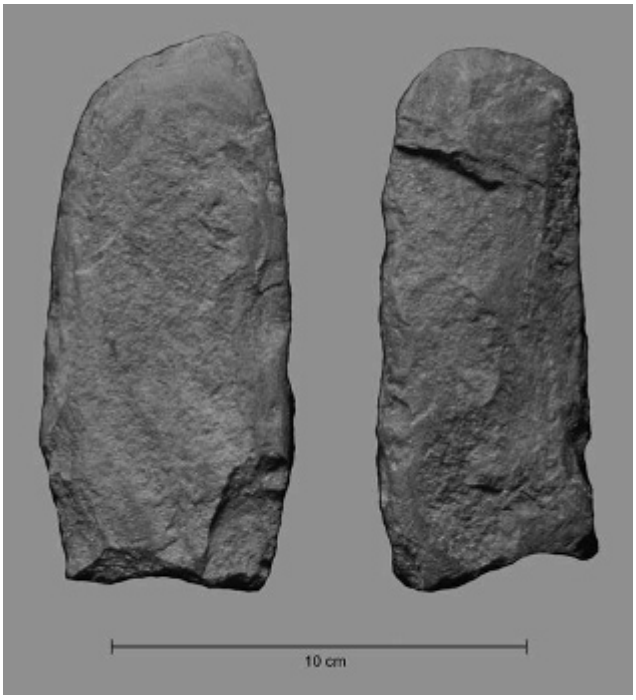

FIGURE 5.27. Bifacially worked objects of concretionary siderite.

also are similar to an object found at the Pharr Mounds (Bohannon 1972:108), although the latter has been more extensively ground.

None of the three pieces of galena from the Duck's Nest sector have been modified. In the Mound 14 sector, Morse (1986:112) found a small, worked galena artifact in association with a sherd of Swift Creek Complicated Stamped pottery, a distinctive ceramic type represented in the Duck's Nest sector. Notably absent within the excavated area were mica, copper (which preserves poorly at Pinson Mounds), and shell.

CERAMIC ASSEMBLAGE

The Duck's Nest sector ceramic assemblage is an interesting sample of Midsouth and Southeastern pottery, circa A.D. 300. During the analysis of this material, I benefited greatly from visits by, among others, Jimmy Griffin, Dan Morse, Jim Brown, Steve Williams, Sam Brookes, David Brose, Ned Jenkins, Jay Johnson, Ian Brown, and Janet Rafferty, none of whom is in any way responsible for any missteps in the 1986 monograph or in the material that follows below. The 1984 Mid-South Archaeological Conference at Pinson Mounds (Mainfort 1988) provided an opportunity for about 100 archaeologists to view and comment on this and other collections from the site, with an encore viewing at the 1990 meeting (Mainfort and Walling 1996).

The vast majority of the ceramics (1,356/2,174 sherds from 19/48 vessels) are variants of the type Furrs Cordmarked (Jenkins 1981; Jennings 1941), which is the dominant Middle Woodland ceramic type throughout much of West Tennessee (Mainfort and Chapman 1994a, b). Specimens from Pinson Mounds and nearby sites are generally indistinguishable from the Furrs Cordmarked sherds found along the Tombigbee River to the south (Ned Jenkins, personal communication, 1984). The paste of Furrs Cordmarked and its companion types, Baldwin Plain and Saltillo Fabric Marked, is sandy textured and often abrasive to the touch. The sand inclusions may occur naturally in the clay sources, rather than representing additives.

All Furrs Cordmarked vessels seem to be conoidal jars, though there are few basal fragments in the Duck's Nest sector assemblage. The bases of Middle Woodland vessels are typically the thickest portion and therefore very unlikely to have been missed during excavation. The implication seems to be that vessel bases were deposited or discarded elsewhere. One vessel salvaged from the Grand Gulf Mound in Mississippi (Brookes 1976) lacked its base (Sam Brookes, personal communication, June 2009).

Inferred diameters for the Furrs Cordmarked jars range from about 18 to 34 cm. Most vessels were too fragmentary to permit depth measurements. Instrumental neutron activation analysis (INAA) demonstrated that the chemical composition of the clay used to make two Furrs Cordmarked vessels (FCM #1 and #3) differs from that of all other analyzed specimens, suggesting that it is nonlocal (Mainfort et al. 1997:47, 50). At best, I understated the significance of this in the 1997 article (Mainfort et al. 1997:62–64), as I was very surprised that the clays used to make most of the stylistically nonlocal vessels from the Duck's Nest sector were of local origin. More than a decade later, I am struck by the fact that the only two vessels from the Duck's Nest sector that are likely to have been produced elsewhere (though the clay used for them could have been brought to Pinson Mounds) are mundane in appearance. Yet someone or some social group deemed it important to have these used in the ritual activities represented by the Duck's Nest sector deposits. Visually unimpressive, these pots nonetheless are a statement by nonlocal social groups.

The largest Furrs Cordmarked vessel (FCM #3; Mainfort 1986a:Figure 31a) is represented by 329 sherds, all but two of which were found within or immediately adjacent to Feature 20. The limited dispersal of sherds from this vessel contrasts markedly with the spatial distribution of sherds from most other identified vessels (Table 5.1). A possible explanation is that the vessel was one of the last to be deposited in the Duck's Nest sector. This seemingly utilitarian, but nonlocal, jar has a conoidal base and a diameter of about 24 cm. The rim features an applied exterior reinforcing strip ("folded rim"), a treatment common on vessels of this type from Pinson Mounds and other Middle Woodland sites in the region (Mainfort and Chapman 1994a:170).

The thin walls (3.9–5.5 mm) of the Furrs Cordmarked vessel shown in Figure 5.28 (FCM #6), which includes 86 sherds, may indicate a nonutilitarian design, though it is otherwise undistinguished. Half the excavation units yielded sherds from this vessel. Another possible nonutilitarian vessel, represented by 301 sherds, also has thin walls, and the cord impressions on many sherds have been completely obliterated by smoothing (FCM #14:Mainfort 1986a:Figure 31b). The vessel has a straight rim, a slightly rounded lip, and an inferred diameter of about 20 cm. Over half the sherds (n = 172) were found in N114/E102 and N114/E104, but sherds from the vessel occurred in almost every unit (Table 5.1).

Sherds from another Furrs Cordmarked vessel exhibit a carefully applied surface treatment (FCM #13; Mainfort 1986a:Figure 33) that includes a complex pattern of perpendicular overstamping and possible fingernail punctations that were applied over the cord impressions, while others are primarily smooth. The interior of this vessel is covered with a thick, shiny deposit of unidentified carbonized material. The sherds were dispersed throughout nine units (Table 5.1). Rim sherds from some other Furrs Cordmarked vessels are illustrated in Figure 5.29f–i.

There are only 193 sherds of Baldwin Plain (Jenkins 1981; Jennings 1941) from six vessels in the Duck's Nest sector assemblage. Vessel form is unknown, but several thick basal fragments derive from one or more flat-bottomed jars or large beakers. The best made of these (BP #4; Figure 5.30) has a smoothed and burnished interior and exterior, though these surfaces are eroded on many sherds; the diameter is about 22 cm. The largest (estimated D = 40 cm) partially restored Baldwin Plain vessel (BP #3) has a somewhat irregular exterior, with numerous visible tooling marks. Numerous closely spaced, albeit irregularly placed,

TABLE 5.1 Spatial distribution of selected vessels from the Duck's Nest sector.

Vessel	N116/E104	N114/E102	N114/E104	N114/E106	N112/E100	N112/E102	N112/E104	N112/E106	TP1	N110/E102	N110/E104	N110/E106	N110/E108	N108/E102	N108/E104	N108/E106	N108/E108	N106/E102	N106/E108
Furrs Cordmarked #3											75		2	1	251				
Furrs Cordmarked #4		2	1				1	8	60			5		2	2		2	1	2
Furrs Cordmarked #6	6	7	13		10	7	5			6				19				13	
Furrs Cordmarked #7			1				10		13	19	6	21		20	14	2		1	
Furrs Cordmarked #13	6	1	6	12			1	34	9		1	10	34						
Furrs Cordmarked #14		78	94	1	45	1		3	9	7	1	20	6	17	4	2	3	10	
Baldwin Plain #4		2				4				3		1		40	3			8	
Withers Fabric Marked	6	6	4	2	1	21	10	1	27	7	5		9	6	1	1		1	9
McLeod Simple Stamped		1		4			1		3	3	3		1	1	4	1	1		
Larto Red #1					1									7				6	
sand-tempered cordmarked	2	4				1				1	10			25	8			1	
limestone-tempered cordmarked		1		1		9		2		6	1			5	1				
limestone-tempered plain	1	5	18	3	18		1	3	7	1				8				2	1
Swift Creek Complicated Stamped		4			1	4	4			5	18	5		22	6	2	1	1	1
grit-tempered cordmarked									4		4	4		7	65	1			

notches decorate the rim of one Baldwin Plain vessel (BP #1:Mainfort 1986a:Figure 39d).

The sample of fabric-marked ceramics in the Duck's Nest sector assemblage is small (n = 179 sherds), but given the age of the deposits, it is perhaps surprising that this surface treatment is represented at all (see Walling et al. 1991). Most sherds (n = 117) are fragments of a Withers Fabric Marked, *var. Twin Lakes* vessel with an applied rim strip (Figure 5.29a). Much of the roughened surface was smoothed over before firing. Sherds from this vessel were present in almost every excavation unit (Table 5.1). A fragmentary Saltillo Fabric Impressed vessel has a slightly everted rim (Figure 5.29j).

Fifty-two sherds from eight units are assignable to the fragmentary jar shown in Figure 5.31, which has a sandy-textured paste. Surface decoration began by malleating the pot with a cord-wrapped paddle. This was followed by the application of individual cord impressions oriented about 45° relative to the initial decoration, as well as some fingernail punctations. This vessel does not correspond to existing type definitions and may have been produced specifically for ritual use.

There are 22 sherds representing two Baytown Plain, *var. Tishomingo* vessels, one of which has an everted rim. Scarcely more numerous (n = 24) are sherds from two Mulberry Creek Cordmarked, *var. Tishomingo* vessels. The paste is comparable to specimens from West Tennessee (Mainfort and Chapman 1994a, b) and the North Central Hills region of Mississippi (Jay Johnson, personal communication, 1984). Some sherds from these vessels are shown in Figure 5.32.

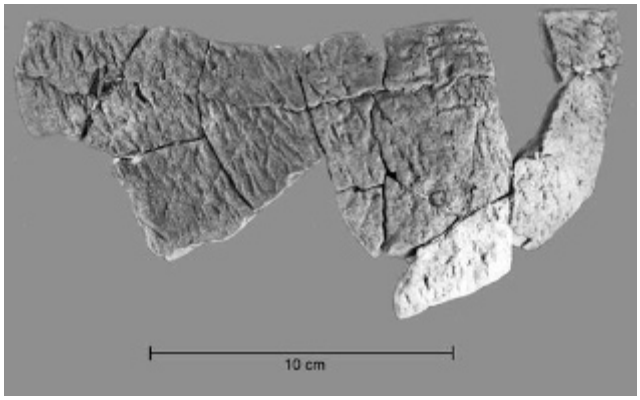

FIGURE 5.28. Partially reconstructed Furrs Cordmarked vessel.

In the 1986 monograph, I asserted that: "While the possibility of nonlocal manufacture has been suggested for some of the ceramics discussed above, 10 fragmentary vessels in the Duck's Nest sector assemblage are unequivocal examples" (Mainfort 1986a:35). Neutron activation and petrographic analyses, neither of which was limited to sherds from the Duck's Nest sector, conducted since that publication reveal a more complicated situation (Mainfort et al. 1997; Stoltman and Mainfort 2002).

As mentioned above, two Furrs Cordmarked vessels that I had assumed to be local products were made using nonlocal clays, bringing to a dozen the candidates for nonlocal status. To that can be added the additional burnished vessel identified by INAA, raising the total to 13.

The limestone-tempered plain (cf. Mulberry Creek Plain; Figure 5.33a–b) and cordmarked (cf. Flint River Cordmarked; Mainfort 1986a:Figure 44b) vessels, represented by 68 and 26 sherds, respectively, are not products of the West Tennessee ceramic tradition (Stoltman and Mainfort 2002:9), and in fact there are no limestone outcroppings in the vicinity of Pinson Mounds (Russell and Parks 1975). Limestone temper is, however, characteristic of Middle Woodland ceramics in the Tennessee River valley (Walthall 1979), but INAA demonstrates that local clays were used to produce the Pinson Mounds vessels (Mainfort et al. 1997:53). It seems likely, therefore, that this pottery was produced at Pinson Mounds by people from the valley who brought crushed limestone to the mound complex with them. Thus, INAA provided an opportunity to move beyond a traditional view of the vessels simply as "trade ware," though I did not fully appreciate the implications while writing the 1997 article (cf. Mainfort et al. 1997:65).

Virtually all of the limestone has been leached out of the sherds. Petrographic analysis of one plain sherd revealed that some of the resulting cavities are consistent with biogenic (perhaps plant) material (Stoltman and Mainfort 2002:10–11). At Pinson Mounds, limestone-tempered pottery has been found at all tested localities, including Ozier Mound (Mound 5) (Mainfort and Walling 1992:132), Mound 31 (Mainfort 1986:23), the Mound 14 sector (Morse 1986:111), the Twin Mounds sector (Morse 1986:104), the Duck's Nest (Morse 1986:114), and the fill of the Twin

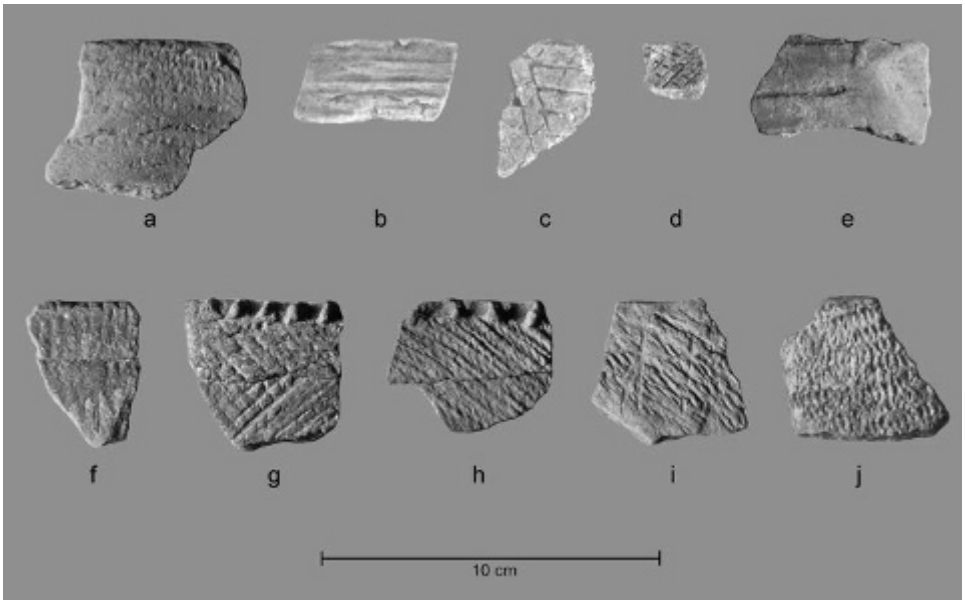

FIGURE 5.29. Miscellaneous sherds. a, Withers Fabric Marked, *var. Twin Lakes*; b, grog-tempered bold linear incised; c–d, grog-tempered crosshatched; e, grog-tempered bold incised; f–i, Furrs Cordmarked; j, Saltillo Fabric Impressed.

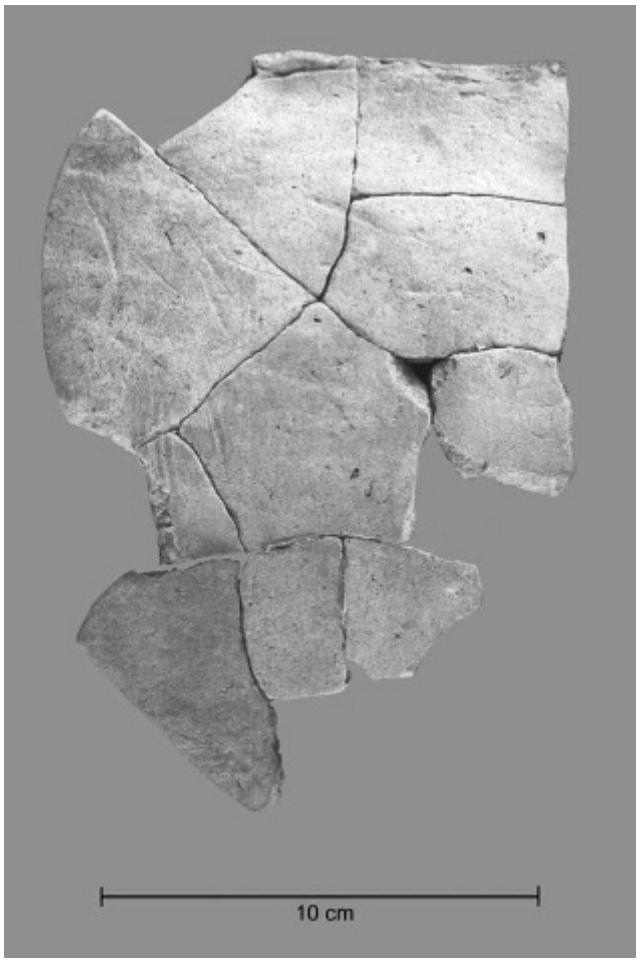

FIGURE 5.30. Partially reconstructed Baldwin Plain vessel.

FIGURE 5.31. Partially reconstructed sand-tempered cord-impressed vessel.

Mounds (chapter 4) (see Appendix 1). Limestone-tempered pottery occurs sparingly at sites in the vicinity of Pinson Mounds (e.g., Smith 1979:31), including a collection I examined from the Elijah Bray mound group southeast of Pinson Mounds (Mainfort 1988b:136) (Figure 1.14). The limestone-tempered wares from Bynum Mounds (Cotter and Corbett 1951) and Pharr (Bohannon 1972; Kardwesky 1980) also are not products of a local ceramic tradition and, like the comparable Pinson Mounds material, may have been brought from the Tennessee River valley or produced on site by potters from that area.

A few sherds of Early Swift Creek Complicated Stamped were found during the 1974 excavations in the Mound 14 sector (Broster et al. 1980:41, 73; Mainfort 1986a:43), but the design elements on these (Figure 5.34, bottom row, left and center) are quite different from those on the 74 sherds (probably representing a single vessel) from the Duck's Nest sector (Figure 5.33d–e and Figure 5.34, top rows). A specimen from the Twin Mounds sector (Figure 5.34, bottom right), incorrectly identified as Marksville Stamped in the 1980 report (Broster et al. 1980:76), is stylistically similar to the Duck's Nest sector examples; the motif on the tiny sherd from Mound 31 (Figure 4.62b) is unrecognizable. One Swift Creek Complicated Stamped sherd was collected from the surface of the Duck's Nest (Figure 5.34, center row, far right), and this sherd may be more useful for dating the small embankment than the radiocarbon assays (Mainfort and McNutt 2004, this volume).

INAA indicates that the paste of the analyzed Swift Creek sherds is chemically similar to the local compositional group (Mainfort et al. 1997:50). Petrographic analysis raised the possibility that one sherd is a nonlocal product, but because all sherds probably derive from one vessel (Mainfort 1986a:46; Stoltman and Mainfort 2002:15), this does not seem likely. The INAA also included six Swift Creek Complicated Stamped sherds from sites in Georgia that were identified as compositional outliers (Mainfort et al. 1997:47).

Given that Pinson Mounds is located far from the traditional Swift Creek area, how did these sherds (perhaps more appropriately, this vessel) come to be at Pinson Mounds? Stoltman and Snow (1998) have demonstrated convincingly that the carved paddles used to produce the characteristic designs circulated widely among Swift Creek communities, and Broyles's (1968) observation that some sherds from the Mann site in Indiana have designs identical to some documented at Mandeville and Halloca Creek suggests that some paddles were carried for great distances. The design motifs on the Pinson Mounds sample have not been matched to sites in Georgia, but neither the designs nor the tradition of carved paddle-stamped curvilinear decoration are indigenous to western Tennessee.

It is appropriate to mention here the "Southeastern Series" (i.e., complicated stamped and simple stamped) sherds from the Mann site in southern Indiana (Ruby and Shriner 2006), which are fairly common at that site. Like Pinson Mounds, the Mann site is large, complex, and unusual within its local Middle Woodland

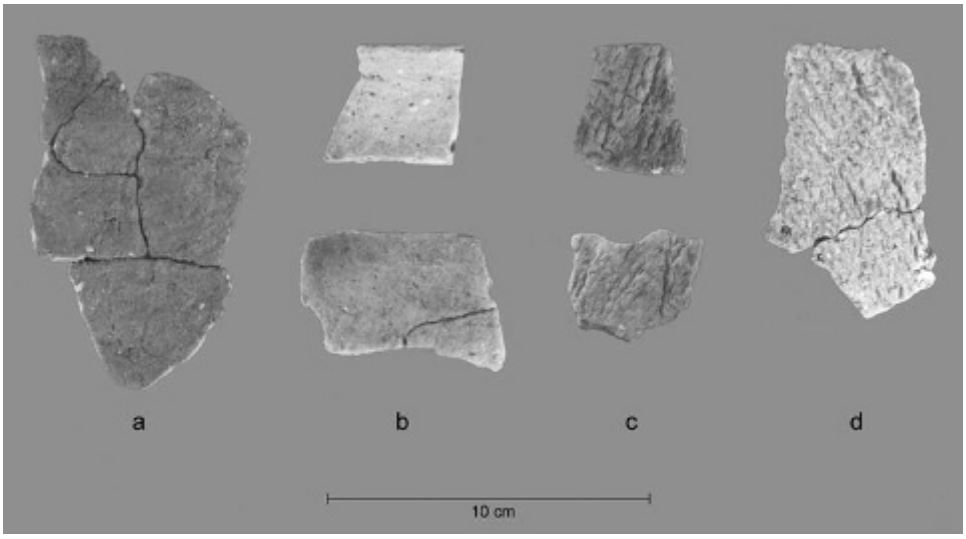

FIGURE 5.32. Ceramics with sand-and-grog-tempered paste. a–b, Baytown Plain, *var. Tishomingo*; c–d, Mulberry Creek Cordmarked, *var. Tishomingo*.

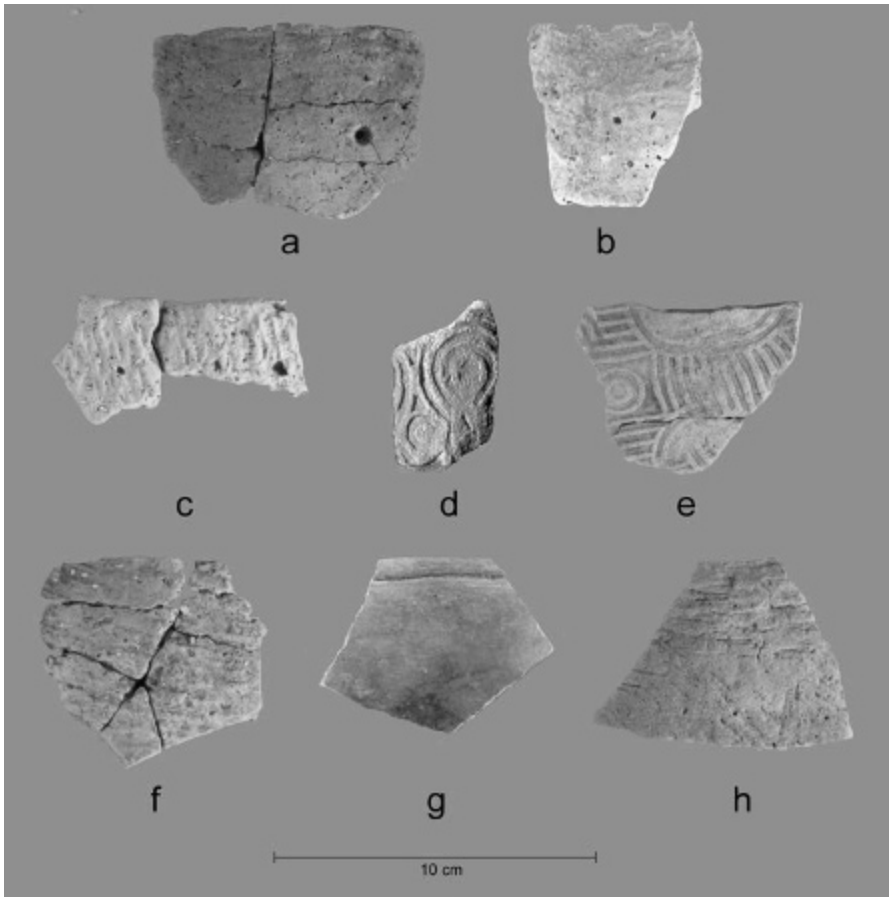

FIGURE 5.33. Nonlocal ceramics. a–b, limestone-tempered plain; c, Turkey Paw Cord Marked; d–e, Swift Creek Complicated Stamped; f, thick grit-tempered cordmarked; g, Larto Red; h, McLeod Simple Stamped.

FIGURE 5.34. Swift Creek Complicated Stamped. See text for provenience. Original graphics by Susan Estelle Kwas except middle row, far right and bottom row, far right.

context. As at Pinson Mounds, compositional studies of a limited number of stylistically nonlocal pottery sherds show that most probably were produced locally, but some simple-stamped sherds originated in the Appalachians of East Tennessee and western North Carolina.

In the 1986 monograph, I noted the presence of a burnished vessel, possibly red-filmed and with fine sand inclusions in the paste (Mainfort 1986a:46 and Figure 46c). In fact, among the 57 reddish orange sherds assigned to this vessel, there are actually two vessels represented, as revealed by INAA (Mainfort et al. 1997:51–52). The paste of the second vessel includes both sand and clay particles. It remains true that except for the temper, these vessels are very similar to some Weeden Island ceramics (David Brose, personal communication, 1984). I have not seen comparable sherds in collections from West Tennessee, but I regard the possible Weeden Island connection as tenuous. The paste of both analyzed sherds is chemically similar to the INAA local group. Petrographically, the paste of the sandy-textured vessel could be considered local (Stoltman and Mainfort 2002:11).

I have not found any typological matches for the thick grit (quartzite)-tempered cordmarked vessel illustrated in Figure 5.33f, which is represented by 84 sherds, 71 of which were found within and immediately adjacent to Feature 20 in units N108/E102 and N108/E104 (Table 5.1). The fairly coarse temper is similar to that of the Pigeon series (Keel 1976:256–260), but not quite as coarse as that used in the production of Watts Bar ceramics (Lewis and Kneberg 1957:7–9). No comparable sherds, or even sherds with comparable temper, have been reported in West Tennessee. A sherd from this vessel was included in the INAA study; it has low probability membership in the local reference groups (Mainfort et al. 1997:55, 59), which raises the possibility that it was made with nonlocal clay. The temper and thickness of this vessel more clearly mark it as nonlocal (see Stoltman and Mainfort 2002:9–10), and pilgrims from the Appalachians may have produced it.

Jenkins (1981:158–161) defined the bone-tempered ceramic type Turkey Paw Cord Marked for the Gainesville Reservoir, and he confirmed identification of 10 sherds of this type in the Duck's Nest sector assemblage (Ned Jenkins, personal communication, 1984) (Figure 5.33c). A few baked clay particles also are present in the paste. There is no evidence of a bone-tempered pottery tradition in West Tennessee (Mainfort and Chapman 1994a), but calcined bone is hardly an exotic temper, and some other examples have been reported in the region (Mainfort and Chapman 1994b:71–72). My earlier assertion (Mainfort 1986a:35, 46) that these sherds were "unequivocal examples" of nonlocal pottery from the Duck's Nest sector was overstated, but they remain plausible candidates for nonlocal status. Five small sherds from a cordmarked vessel have sand and calcined bone fragments, but no visible grog, in the paste; the lack of baked clay particles (or crushed sherds) in the paste distinguishes these sherds from the type Turkey Paw Plain (Jenkins 1981:161–162).

Specimens of McLeod Simple Stamped (Jenkins 1981:136–138; Wimberly 1960:132–133), associated with the McLeod Deptford period in the lower Tombigbee River drainage, have been found at several locations within the Pinson Mounds complex. The Duck's Nest sector assemblage includes 23 sherds from a single vessel (Figure 5.33h); a rim sherd from a second McLeod Simple Stamped vessel, ignored in the 1986 monograph (Mainfort 1986a:46), was recovered from the plowzone. Simple stamping has not been documented elsewhere among Woodland ceramics from western Tennessee, but both INAA and petrography characterize this vessel as a local product, again raising the possibility of on-site production by visitors.

There are portions of at least two, perhaps three, red painted vessels in the collection from the Duck's Nest sector. The paste of these is robustly tempered with fragments of baked clay (grog) (Stoltman and Mainfort 2002:9–11). The most complete vessel (Figure 5.33g), represented by only 14 sherds, is a conoidal jar with a straight rim. Surface coloration has been extensively altered due to exposure to fire. There are also two thickened and outslanting rims, and five body sherds, from one or more additional red painted vessels. All these ceramics resemble Larto Red, a Lower Mississippi Valley type (Phillips 1970:99–100). In the Lower Mississippi Valley, the type is not well represented in Early Marksville assemblages outside the northern Yazoo Basin (Belmont and Williams 1981; Toth 1988), being more characteristic of later occupations. Identification as Larto Red is supported

by rim morphology, which strongly resembles some published examples (Phillips 1970:99) and specimens I have personally examined. All rims of this type from the Duck's Nest sector are stylistically similar, but they appear to derive from two distinct vessels.

A specimen virtually identical to several sherds from the Duck's Nest sector was collected during late-nineteenth-century explorations at the Ingomar site in northern Mississippi (Rafferty 1987:155). At Pinson Mounds, Larto Red sherds also have been found at Mound 10 (Mainfort 1986a:26; Figure 5.15), the Twin Mounds sector (Broster et al. 1980:76; Morse 1986:103), the Mound 14 sector (Broster et al. 1980:21; Morse 1986:111), the Mound 12 sector. and in the upper occupation zone below Mound 12 (Broster et al. 1980:42). Petrographic analysis of one Larto Red sherd revealed that the temper is grog that is itself tempered with grog (Stoltman and Mainfort 2002:9–11). Comparable temper and surface treatment are not characteristic of Woodland ceramics in the West Tennessee interior (Mainfort and Chapman 1994a, b) or the Tombigbee River headwaters (Jenkins 1982). Neutron activation analysis demonstrated that the paste of the sherd included in the petrographic study contains local clay (Mainfort et al. 1997:52), so this may be another case of pilgrims producing stylistically nonlocal pottery on site. Stoltman's ongoing petrographic studies of Middle Woodland pottery suggest that the sherd reported by Stoltman and Mainfort (2002) could be part of a vessel produced at the Mann site in southern Indiana (James Stoltman, personal communication, 2009).

Four vessels that may be nonlocal based on surface treatment and grog temper are represented by only a single sherd each, and none has been subjected to compositional analysis. These are a rim sherd with bold horizontal incising (Figure 5.29b), two crosshatched sherds (Figure 5.29c and d), and an incised sherd from what may have been a modeled vessel (Figure 5.29e).

Although the Duck's Nest sector deposits contained a diversity and quantity of ceramics unmatched within the excavated portions of the Pinson Mounds complex, several nonlocal styles collected from other localities are not represented. Checked-stamped wares are present, albeit in very small numbers, in the assemblages from Ozier Mound and the northern Twin Mound, but no examples have been found in the Duck's Nest sector. Also lacking are Marksville-related sherds, of which a moderate number were recovered from the Twin Mounds sector and Mound 31, as well as a few from the northern Twin Mound, Mound 12, and the Eastern Citadel (Appendix 1). I do not want to overstate the significance of this, but it seems worthwhile to consider the possibility that these spatial distributions reflect participation in events that produced the Duck's Nest sector deposits by different groups (in the broadest sense) than those involved in activities at the localities noted above.

DISCUSSION

The horizontal distribution of individual ceramic vessels in the Duck's Nest sector shows some interesting trends (Table 5.1). As mentioned above, 34 of the 48 minimal vessels from sub-plowzone deposits were represented in units N108/E102 and N108/E104, but sherds from most vessels, especially the larger ones, were strewn throughout six or more excavation units. This distribution is not the result of speculative minimal vessel identification. It was often possible to cross-mend sherds found some distance apart, and a number of vessels are sufficiently distinctive that incorrect attribution is unlikely. There also are some concentrations of sherds representing single vessels. For example, Feature 20 contained over 75 percent (251/329) of the sherds attributed to one Furrs Cordmarked jar (FCM #3; Mainfort 1986a:Figure 31a), and another 75 sherds were found in the unit immediately to the north. Similarly, 64 sherds from the "grit-tempered" cordmarked jar were concentrated in the feature, with most of the remaining 20 sherds located in nearby units.

Some vessels seem not to have been processed through Feature 20. Over half of the sherds assigned to the thin-walled Furrs Cordmarked jar (FCM #14) were found in units N114/E102 (n = 78) and N114/E104 (n = 94), and sherds from this readily identifiable vessel were strewn throughout almost the entire excavation area, including Feature 20. Three more Furrs Cordmarked vessels (#5, 10, and 13) are most strongly represented in more northerly excavation units and are poor candidates for processing through Feature 20. Finally, sherds from the five fabric marked vessels were concentrated in Test Pit 1, N112/E102, N112/E104, and N110/E106, but sherds

from the Withers Fabric Marked vessel were present in almost every unit.

The dispersed distributions of most vessels and the fact that over 70 percent of all vessels are represented in the immediate area of Feature 20 suggests that many vessels (or fragments thereof) were deposited initially in this feature and then intentionally dispersed throughout the Duck's Nest sector deposits. This scenario is consistent with the distribution pattern, but the unprepossessing size and appearance of Feature 20 seems at odds with such a seemingly important function. Some vessels apparently were not processed through the Feature 20 area, raising the possibility of additional features that went unrecognized due to root or rodent disturbances.

Finally, I must reiterate the fragmentary nature of the ceramic vessels identified; not the obvious fact that they are broken, but rather that evidence suggests that only portions of vessels were deposited. The dearth of basal sherds is striking (n = 12, of which five are from the same vessel), as is the number of vessels represented by only a few sherds. There are several implications. First, the vessels saw other unspecified use prior to deposition; what and where are unknown. Preparation of foodstuffs seems to be ruled out by the absence of carbonized residues on all but a single vessel. Second, complete vessels were not necessary for successful completion of the ritual that produced the Duck's Nest sector deposit, and deposition of even a small fragment of a vessel was considered adequate. Fourteen of the 48 identified vessels are represented by a dozen or fewer sherds, and only five vessels by more than 100 sherds.

We did not completely excavate the Duck's Nest sector deposit. Though I believe that the 1982 excavations encompassed the highest concentration of artifacts, the dark soil zone (Zone C) continues to the east, west, and south. The constraints on interpretation are obvious. For example, the basic issue of whether deposition of ceramics in the Duck's Nest sector involved whole or partial vessels cannot be answered conclusively. Based on distributional data, I favor the latter, but with appropriate caution.

Between roughly A.D. 250 and 350, the Duck's Nest sector was the focal point of one or more Middle Woodland ceremonies conducted within a fairly short span of time. There is no indication that the locality was reused during later Middle Woodland times, and the dark soil horizon and its contents can be regarded essentially as the product of a single staged event. Calcined bone occurred throughout the excavation area. Unfortunately, none could be identified, but this material was integral to the activities that created the Duck's Nest sector deposit.

Pinson Mounds attracted pilgrims over a period spanning hundreds of years, so it might be reasonable to expect deposits comparable to the Duck's Nest sector elsewhere at the site. None have been located, but the soil zone designated Zone E in the northern Twin Mound may be analogous. As detailed in chapter 4, this dark-colored stratum of mound fill has a high organic content, including charcoal and calcined bone. Within the stratum, the contents of which were not screened, were hundreds of potsherds, some of which have nonlocal surface treatments and/or aplastic paste inclusions. Among these are several concentrations attributable to individual vessels. Numerous chert flakes, quantities of sandstone, and several pieces of mica also were found in Zone E. This stratum is not the product of domestic habitation, and it bears striking similarity to the Duck's Nest sector, save for the obvious fact that it was carefully redeposited as a distinctive layer of mound fill.

The ceramic assemblage from this small area excavated in the Duck's Nest sector is unique among Middle Woodland sites and includes a minimum of 13 chemically, petrographically, or stylistically nonlocal vessels. Unlike many of the objects and materials that circulated during Middle Woodland times, ceramic vessels are fairly large, heavy, easily broken, and made of a widely available material (Drennan 1984:29). Middle Woodland pottery, which was open-fired at a fairly low temperature (Morse and Morse 1983:142), would be especially susceptible to breakage. Nonetheless, it is apparent that ceramics were transported both locally (e.g., Carr and Komorowski 1995; Fie 2006, 2008) and over great distances (e.g., Ruby and Shriner 2006), though the number of vessels appears to be fairly small (e.g., Seeman 1977:195–198). Although a number of the Duck's Nest sector vessels can be considered nonlocal based on surface treatment and/or aplastic paste inclusions (Mainfort 1986a; Stoltman and Mainfort 2002), INAA (Mainfort et al. 1997) demonstrated that almost all of

the vessels sampled were made using local clay, i.e., clay found within a few kilometers of Pinson Mounds (see Arnold 2005, 2006; Arnold et al. 1991). This suggests that local clay sources, probably alluvial clays from the South Fork Forked Deer River floodplain, were available for use to all visitors, including those traveling from afar.

The use of exotic tempers (limestone, grit, and grog) may indicate that some pilgrims visiting Pinson Mounds chose to follow their own "cultural recipes" for pottery (cf. Mainfort et al. 1997:65), even if long-distance transport of their own clays was impractical. Knowledgeable potters who relocate, albeit temporarily in this instance, are able to adapt their technical skills to locally available raw materials (Sillar 1997:12–13), but in the Andes, itinerant potters may transport their own pottery clay to locations 100 km or more distant where they make, fire, and exchange their vessels before returning home (Sillar 1997:7). These potters use llamas or trucks to haul the clay, though the practice may predate the availability of wheeled vehicles or pack animals. The important point, however, is that there is some ethnographic support for the notion that potters from distant areas brought their own raw materials, in this case tempering agents, with them to Pinson Mounds.

The potential geographic range represented by the Duck's Nest sector ceramic assemblage encompasses a great deal of the Southeast. The limestone-tempered wares probably are products of the Tennessee River valley ceramic tradition, even if they were made on site. The valley can be reached by traveling about 65 km due east from Pinson Mounds (see Figure 1.1), but there is no reason to think that pilgrims to the site came only from the closest point along the river. Fort Payne chert from the Tennessee River valley is a common raw material at Pinson Mounds (France 1985), so the presence of pottery reflecting that region's ceramic tradition is expectable, and the pieces of galena may hint at ties to the Copena heartland to the southeast. If anything, it is the small number of limestone-tempered sherds that is a bit surprising.

Of the stylistically nonlocal sherds in the assemblage, those identified as Early Swift Creek Complicated Stamped have attracted the greatest interest among researchers (e.g., Anderson 1998; Elliott 1998; Mainfort 1999; Stoltman and Mainfort 2002). As mentioned above, these could have been produced at Pinson Mounds using paddles carved in southern Georgia, roughly 600 km distant. The distribution of Swift Creek Complicated Stamped between the type's heartland and Pinson Mounds is not continuous (Elliot 1998), and there can be no doubt that the sherds reflect a nonlocal decorative tradition.

McLeod Simple Stamped is indigenous to the lower Tombigbee River drainage and Mobile Bay area, making the potential transport distance (or simply the distance traveled by pilgrims who produced the pottery at Pinson Mounds) roughly comparable to that of the Swift Creek ceramics. McLeod Simple Stamped is very rare in the Tombigbee River headwaters area, and although the type was not described formally until long after the Miller (Jennings 1941) and Bynum (Cotter and Corbett 1951) excavations, it is unlikely that the distinctive surface treatment would have been overlooked by early investigators at these sites. It occurs as a minority type in the Gainesville Reservoir area, farther to the south along the Tombigbee (Jenkins and Krause 1986:71).

Accepting the grit-tempered vessel as a representative of an Appalachian ceramic tradition, it was made by pilgrims residing at least 400 km east of Pinson Mounds. The Larto Red sherds were made by potters from the lower Mississippi Valley or southwestern Indiana, although the clay used to produce at least one sherd is chemically similar to that used for sherds of local origin (Mainfort et al. 1997:52).The valley is about 110 km west of Pinson Mounds, with the northern Yazoo Basin a bit farther; southwestern Indiana lies about 400 km north of the mound complex. Notably lacking in the Duck's Nest sector are incised and zoned stamped ceramics of the lower Mississippi Valley Marksville tradition (Phillips 1970; Toth 1988) or their sandy-textured counterparts (e.g., Basin Bayou Incised and Alligator Bayou Stamped), all of which occur sparingly at Pinson Mounds (e.g., Broster et al. 1980:42; Mainfort and Walling 1992:124, 132; Morse 1986).

The archaeological remains disclosed in the Duck's Nest sector are an example of what Moore (1982; see also Pollard 2001) deemed "structured deposition." They also may be viewed as a "special" deposit, insofar as the deposit contains distinctive materials (Brudenell and Cooper 2008:16). Some researchers have formulated very specific criteria for

identifying structured deposits (see Brudenell and Cooper 2008:18–19), though imposing rigid criteria is of questionable value (Brudenell and Cooper 2008:33). In the case at hand, all of the pottery sherds are rather small. Very few exceed 8 cm in maximum dimension, and most are half that size or smaller (cf. Mainfort 1986a:37–45). Applying Hill's (1995:39) criteria for "exceptional" pottery deposits, which entails plots of mean sherd weight versus number of sherds, the Duck's Nest sector ceramic assemblage would not pass muster, yet it is highly unusual within the Middle Woodland world.

Given the structured, intentional nature of the Duck's Nest sector deposit, it may be viewed as the product of performance that was part of a process of signification. That is, the material remains and the way in which they were deposited served, in part, to negotiate relationships between people and between social groups (Pollard 2001). The ceramic assemblage suggests that some of these groups traveled quite some distance to reach Pinson Mounds, and formal deposition of select items of material culture representing different communities (e.g., nonlocal styles of pottery) would be one means for invoking and expressing a sense of friendship, certain shared beliefs, and common purpose at the mound complex. Such public rituals obligate participants to their acceptance of a broader social contract, setting aside potential vagaries of personal feelings (Rappaport 1979:196–197), and it is not too great a leap to expand this concept to the level of local social groups.

The deposition and mixing of stylistically diverse vessels (and two cordmarked vessels made with nonlocal clays) calls to mind the blurring of individual group identities in favor of overarching unity shown by participants in the Feast of the Dead (e.g., Callender 1979; Hall 1997:40; Heidenreich 1978:374–375; Hickerson 1960; Kinietz 1940:109–117) and similar rituals throughout the Eastern Woodlands (Mainfort 1986a:46). Importantly, the participation of what might be called ethnically diverse groups in common ritual necessarily implies that the participants broadly shared a similar worldview that included organizational principles that formed the basis for interactions at Pinson Mounds.

CHAPTER 6

Eastern Ritual Precinct (The "Eastern Citadel")

Robert C. Mainfort Jr., Andrew M. Mickelson, and Robert Thunen

The Eastern Ritual Precinct consists of an earthen geometric enclosure that encircles a large rectangular platform mound, and a somewhat conical mound just southeast of the embankment. These earthworks are located on a peninsula in the southeastern portion of the Pinson Mounds complex (Figures 1.2, 6.1, and 6.2). The relative isolation of this group of earthworks suggests that it is a distinct ritual precinct. The name "Eastern Citadel," bestowed by William Myer (1922), with its obvious reference to the presumed defensive nature of the embankment, has a certain antiquarian charm, and we use it occasionally below.

The landform selected for construction is bordered on the east and west sides by deep, wide ravines, while on the south side the bluff slopes steeply down to the floodplain of the South Fork Forked Deer River. The City of Cisco map (Figure 2.2; see also Figure 3.4) shows a "spring branch" within the western ravine that is no longer active, but which may have factored into siting the enclosure. Immediately east of the large ravine flanking the eastern side of the landform, the topography abruptly becomes quite hilly and rolling (Figure 1.11), which serves to emphasize not only a sense of place for the Eastern Citadel area, but also the relatively flat terrain utilized for construction of the Pinson Mounds complex as a whole.

The embankment wall (Figure 6.3) averages about 2 m tall and surrounds an area of 6.7 ha, which is roughly comparable to that of Mound City, Ohio (Squier and Davis 1848:54–55). There are a number of gaps in the embankment, but it is not clear if these are architectural features or products of relatively modern land management (Kwas and Mainfort 2007:148–149; Mainfort et al. 2011:158–159). E. G. Buck's detail map of the Eastern Citadel shows four gaps in the earthen wall (Figure 6.4). The opening labeled "Y" is located along a former property boundary and is therefore a good candidate for being of recent origin. Gap "X" gave former landowners access to the eastern half of the enclosed area, which was cultivated until the early 1960s, and this opening, too, likely is a modern alteration. The large gap north of Mound 30 lacks analogs among Ohio Hopewell enclosures. A field road formerly passed through this gap in two places (see Morse 1986:115), and we suspected that this opening was not part of the original design of the embankment. A recent gradiometry survey of the area, however, found no evidence that the embankment formerly continued across the modern-day opening (Mickelson 2010).

It is curious that gaps V and W did not appear on Buck's standalone map of the Eastern Citadel, though a hint of the latter is shown on his draft map of the

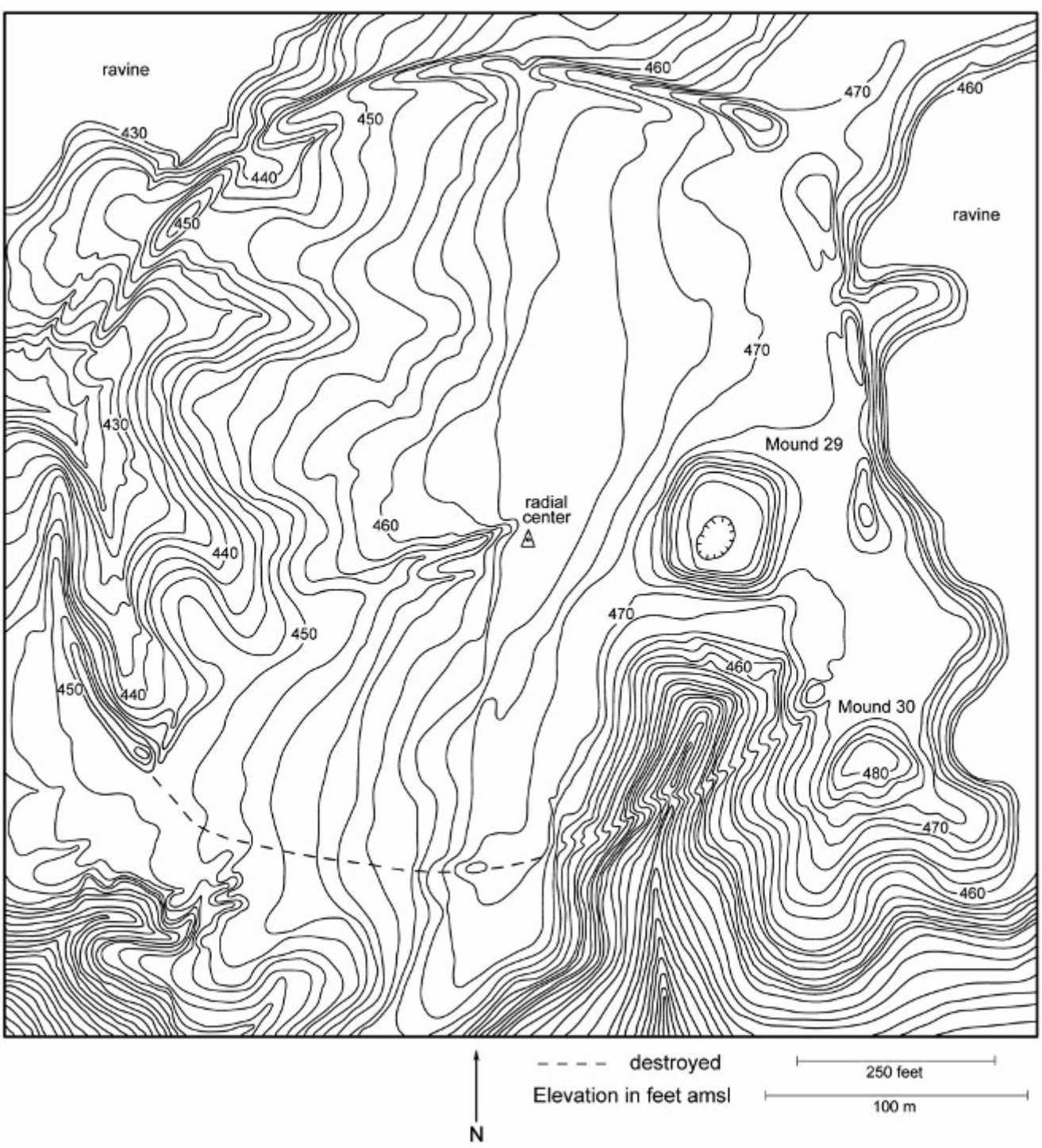

FIGURE 6.1. Topographic map of the Eastern Citadel area.

entire mound complex (Mainfort et al. 2011). William Myer correctly noted the presence of both openings (Kwas and Mainfort 2007:149), but their status as prehistoric architectural features is suspect.

For approximately 140° of its circumference (not 168° as stated by Mainfort [1986:4]), the embankment forms an arc describing a true circle with a radius of about 181 m (Thunen 1998:57) that comprises much of the northern and western portions. The radial center for this arc is located about 50 m west of Mound 29[1] (Figure 6.1). The southern and eastern sides of the enclosure do not conform to a geometric figure. The eastern portion essentially follows the edge of a bluff above a deep ravine that drains into the South Fork Forked Deer River, and the southern section falls well inside the projected arc of a true circle. Much of the southwestern portion of the embankment was destroyed between 1917 and 1940, as demonstrated by a 1941 aerial photograph (Figure 6.5).

The platform mound, Mound 29, is located at the head of a steep ravine in the southeastern portion of the enclosed area (Figures 6.1 and 6.2). Measuring 3.6 m tall and about 49 by 51 m at the base, Mound 29 is the fifth largest mound at Pinson Mounds. The east and west sides of the mound are aligned to approximately 10° east of true north (McNutt 2005:147; see also Kwas 1996:100). Mound 30 is an irregularly shaped earthwork situated outside the enclosure on the high bluff above the floodplain. As discussed below, its vaguely bird-like appearance (Myer 1922) probably was produced by historic disturbance and erosion, rather than original architectural design.

The earliest published reference to the earthen enclosure appeared in the first published reference to Pinson Mounds, John Haywood's 1823 classic *The Natural and Aboriginal History of Tennessee* (see chapter 2), and it is interesting that this earthwork trumped Sauls Mound for mention in the lead sentence about the site:

> On the South Fork of the Forked Deer River, in that part of the state of Tennessee which is between the Tennessee and Mississippi rivers, is the appearance of what the people there call an ancient fortification. It is 250 yards square. The wall is made of clay, and is now 8 feet above the common surface. Trees as large as any in the country, are growing on the sides and top of the wall. There is no appearance of any intrenchment. Within this wall is an ancient mound, 87 feet high by actual measurement. It is circular except the top, which is square at the

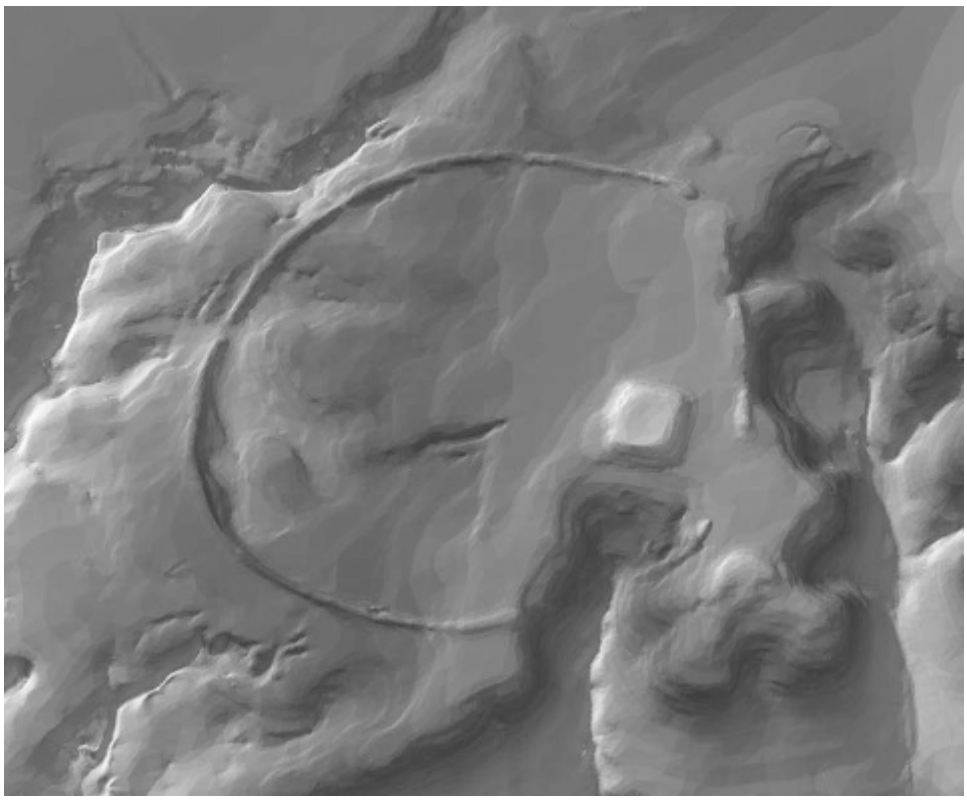

FIGURE 6.2. Digital surface model of the Eastern Citadel area with destroyed southwestern portion of embankment added. Original image by Andrew Mickelson.

FIGURE 6.3. Portion of the earthen embankment. View to south-southeast.

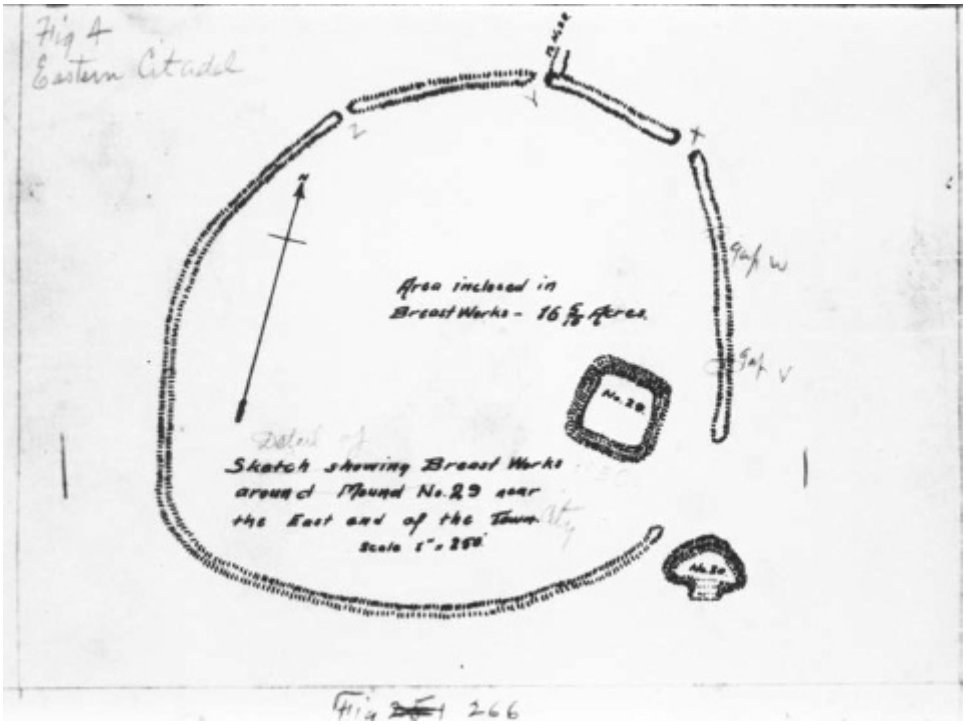

FIGURE 6.4. Buck field map showing Inner Citadel area.

> sides, and level at the top. The top is 50 feet square. It is accessible only on one side. On the sides and edges of the mounds are trees as high and as large as any in the surrounding country; but no trees are immediately on the top. This mound is on the area within the wall, near the south side. Other small mounds of different sizes and descriptions are also within the enclosure. (Haywood 1823:136–137)

Though rather garbled, it is apparent that Haywood's informant (there is no evidence that Haywood actually visited Pinson Mounds) was describing the earthen embankment now known as the Eastern Citadel. The embankment is actually more circular than square and the diameter is considerably larger than Haywood stated. The most egregious error is the placement of Sauls Mound (with its size inflated) within the embankment, though the location of a large mound (actually Mound 29) "within the wall, near the south side" is basically correct, as is the lack of an "intrenchment." Although other embankments may once have been present at Pinson Mounds, the Eastern Citadel is the only surviving example, and it may be the only one that ever existed (see chapter 3; Kwas and Mainfort 2007; Mainfort et al. 2011).

In 1961, Fischer and McNutt (1962:3) inspected the Eastern Citadel area and collected a few artifacts from the surface. Two years later, Dan Morse's (1986; Morse and Polhemus 1963) investigation included a general surface collection, as well as test excavations into Mounds 29 and 30, the embankment, and several locations within the interior of the enclosure. Between 1986 and 1989, Thunen (1990, 1998) conducted more extensive, though limited, soil probe testing and test excavations within the eastern ritual precinct as part of his dissertation research.

Repeated surface collections and general observations under a variety of field conditions have shown that artifact density within the eastern portion of the enclosure, as at the Pinson Mounds complex as a whole, is very light, and no concentrations of material suggestive of subsurface features have been identified. Surface collections within several Ohio Hopewell enclosures have also revealed very low artifact density (Burks and Gagliano 2009; Burks and Pederson 2006). The western half of the enclosure has been covered by vegetation for at least 50 years and has not been investigated at all, except for two soil probe transects (Thunen 1998:61–62). This area presents an excellent opportunity for geophysical investigations.

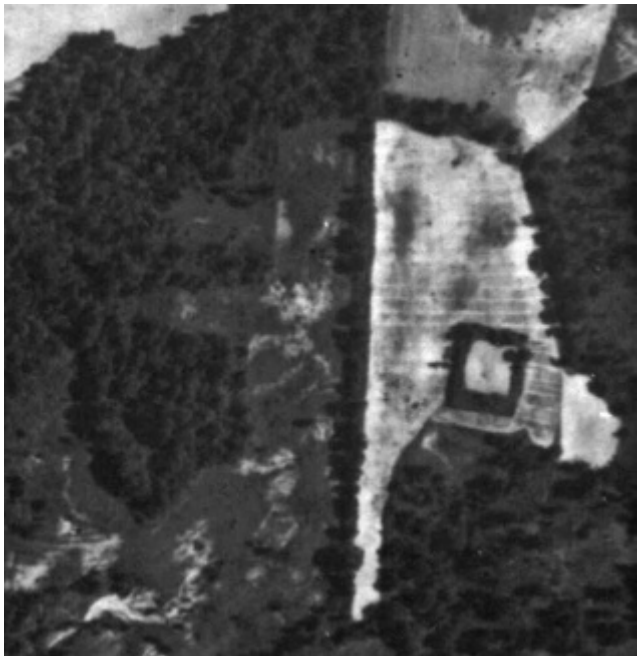

FIGURE 6.5. 1941 aerial photograph of the Eastern Citadel area. Excerpted from U.S. Department of Agriculture photo no. CSE-58A-41.

Earthen Embankment Excavations

The test trenches that Morse (1986) and Thunen (1990, 1998) excavated into the eastern side of the embankment produced complementary findings. There are no traces of organically stained soil at the base of the embankment, and it appears that sod and topsoil (and probably the top of the B horizon) were removed along the projected course of the earthwork prior to starting construction. Investigations of Hopewell embankments in Ohio have demonstrated that this practice was common among Middle Woodland people (see various papers in Lynott 2009).

The embankment fill includes contrasting loads of light to dark grayish brown sandy loam (Figure 6.6). Within the embankment soils there is no evidence of water-worn or redeposited surfaces, implying that the tested sections of the embankment were built during a single construction event. The excavated fill contained few artifacts, most small, including a chert bladelet fragment (Thunen 1990:125) and some Middle

Woodland pottery sherds (primarily fabric-marked) (Morse and Polhemus 1963:Table 9) (Appendix 1). Though paltry, the artifact assemblage conclusively demonstrates that the Eastern Citadel embankment is not of Poverty Point age as suggested by Steve Williams (1984; see also Williams and Brain 1983:396–397).

Immediately below the embankment fill is a light gray soil horizon, tentatively identified as a Bw horizon, that developed at the interface of the subsoil and embankment fill. This horizon corresponds to Morse's (1986:114) "light gray silty clay occupation zone." It is unlikely that this represents an "occupation zone" *per se*, as it contains very little cultural material, and the few artifacts actually may have derived from the base of the embankment fill. This soil zone grades into the yellowish red soils of the B horizon. A soil core taken from the embankment southeast of Mound 29, just west of the opening discussed above, revealed a similar profile.

The embankment test excavations are perhaps most notable for what was *not* observed, namely pre-embankment posts, rock-covered surfaces, and strongly contrasting soils used as construction fill, all of which have been observed at Hopewell embankments in southern Ohio (e.g., Greber and Shane 2009; Lynott and Mandel 2009). To date, excavations into the enclosure wall have been limited to the eastern portion. It would be useful to extract soil cores from other parts of the embankment, especially the arcuate section and the portion within the ravine south of Mound 29, to compare the deposits to those seen in the eastern section (see Lynott and Mandel 2009:177).

Enclosure Interior Excavations

Morse (1986:100, 115; see also Morse and Polhemus 1963:14, Figure 5) excavated four test pits within the eastern portion of the Eastern Citadel and one immediately outside the northern portion of the embankment. In all instances, he encountered sterile subsoil immediately below a shallow plowzone. Morse's findings were corroborated by Thunen (1990:119–122; 1998:62), who sampled the interior of the enclosure using a soil probe along a series of transects. With the exception of the area immediately west of Mound 29 (see below), his tests revealed a shallow plowzone resting on sterile subsoil.

This limited testing, coupled with the paltry number of artifacts found during surface collections (Fischer and McNutt 1962:397; Morse 1986:114; Morse and Polhemus 1963:14, Table 9; Thunen 1990:122), suggest it is unlikely that any major structural remains or specialized activity areas are preserved within the eastern portion of the enclosure.

FIGURE 6.6. Profile of earthen embankment. Original photograph by Robert Thunen.

FIGURE 6.7. Mounds 29 and 30. View to south. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

Gradiometry imagery from an 80 x 60 m area north of Mound 29 revealed a number of anomalies that may be prehistoric features, but none have been ground-truthed to date (Mickelson 2010).

Mound 29 Excavations

Morse and Thunen also tested Mound 29, the large platform mound within the enclosure (Figures 6.7 and 6.8). No borrow pits have been identified in the vicinity, and the source of the mound fill is unknown.

Morse's stratigraphic test pit near the northern edge of Mound 29 exposed a profile 2.9 m deep, with soil auger tests extending to subsoil. His key finding was that Mound 29 was built in at least two stages. The initial stage, the base of which rests directly on subsoil, is about 1.6 m tall and consists of dark brown clayey loam containing a few sherds and lithics. The flat upper surface of this mound is covered with a layer of brown clayey sand and a layer of pale yellow McNairy Sand (Figure 6.9), which was disclosed in this and Morse's other test unit discussed below. These mound summit deposits are comparable to the excavated summit on Ozier Mound (chapter 4), where light-colored sand interbedded with clayey soils covered the upper surface of a basketloaded construction stage. Given that Morse's excavation was located near the northern edge of Mound 29, it seems likely that the initial mound stage had roughly the same lateral dimensions as the mound does today, i.e., the subsequent addition to the mound increased only its height. Construction of Mound 29 was completed by the addition of 1.8 m of basketloaded fill, generally of lighter color than the soils used for the initial mound.

Morse excavated a second test unit to investigate the remains of a historic house that was built on top of Mound 29 in the 1800s. The house does not appear on the 1877 Beers and Lanagan map (Figure 2.11), prompting Mainfort (1996b:118) to speculate that

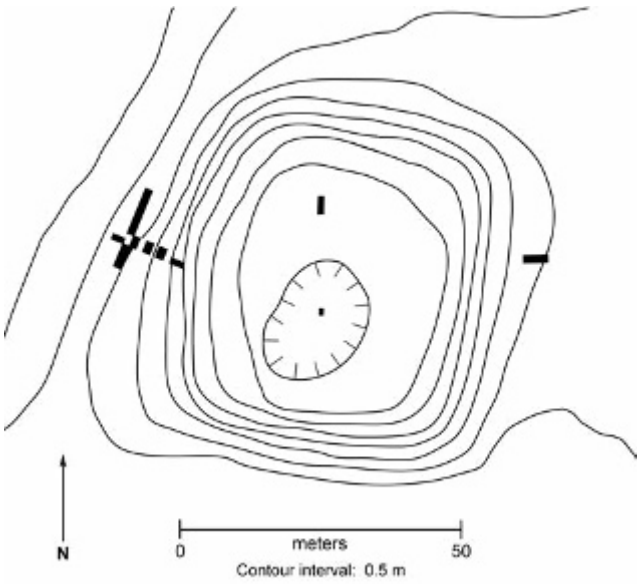

FIGURE 6.8. Topographic map of Mound 29, showing locations of excavation units.

it may have been built in the 1820s by Thomas Henderson. As shown by Kwas in chapter 2, this is incorrect.

Thunen's excavations focused primarily on the west side of Mound 29, where a series of soil probes showed that a low ridge extending from the side of the mound was constructed prehistorically. Subsequent testing revealed a layer of contrasting light and dark loaded soils (Figure 6.10) that comprise a ramp at least 8 m wide and 7 m long, extending outward to the west (Thunen 1990:122–127; 1998). These soils are comparable to those seen in the earthen embankment, but the individual loads are generally thinner and more elongated than those in the embankment or the

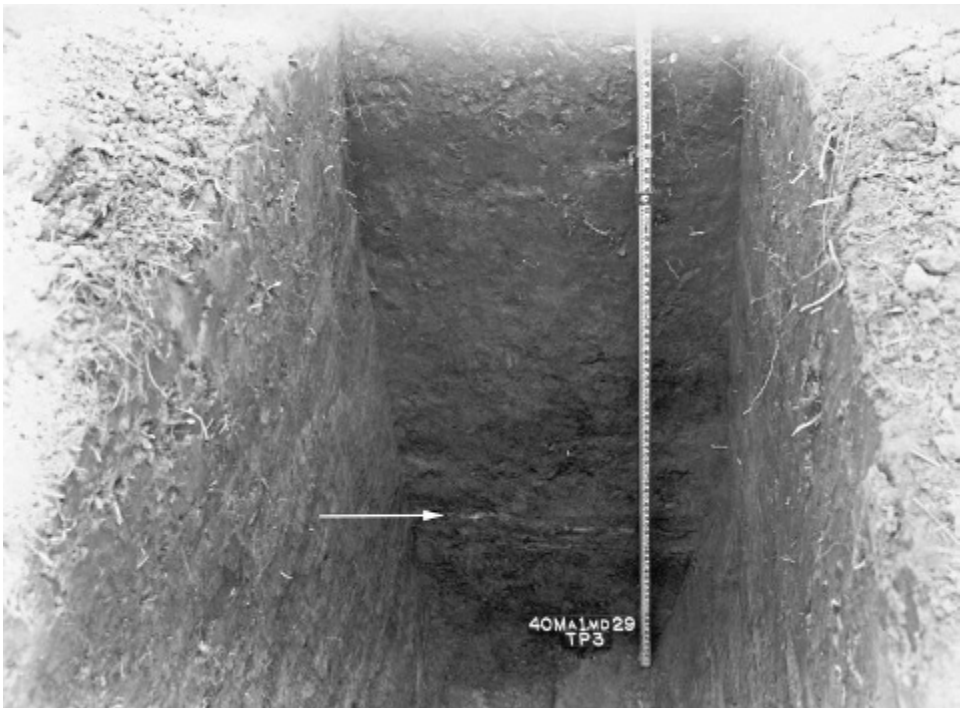

FIGURE 6.9. Mound 29. Profile of 1963 test unit. Arrow marks sand-covered summit. Original photograph by Dan Morse. Presented courtesy of Frank H. McClung Museum, The University of Tennessee.

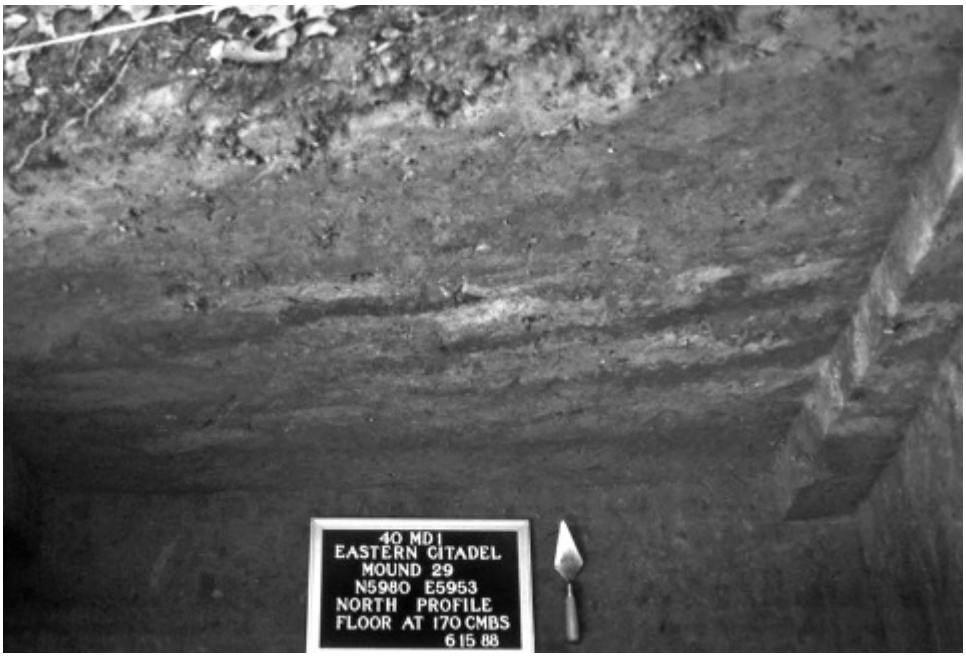

FIGURE 6.10. Mound 29. Profile of excavation units in ramp. Original photograph by Robert Thunen.

penultimate construction stage of Ozier Mound (Figure 4.5). This fill contains a light density of prehistoric artifacts and rests on subsoil from which the A horizon had been stripped. The source of the contrasting soils used during initial construction of the ramp has not been identified, but the darker soils in particular do not occur within the Eastern Citadel area today. The lighter soils are similar to those also used to construct Mound 30 and the embankment. The ramp was built during the first stage of mound construction and undoubtedly was viewed as advantageous by the early settler who built a house atop the mound.

Ramps are prominent features of Mississippian substructural mounds, but they also are reported for some truncated pyramidal Middle Woodland mounds, notably Marietta (Squier and Davis 1848:73–77), Cedar Bank (Squier and Davis 1848:52–54), Ingomar (Rafferty 1990), and Ozier Mound (chapter 4). The multiple ramps associated with mounds at the two Ohio sites suggest that it would be worthwhile to investigate the possibility of additional ramps on Mound 29 and perhaps Mounds 15 and 28, as well.

Mound 30 Excavations

Mound 30 is located on a small finger of land southeast of Mound 29 and overlooking the floodplain of the South Fork Forked Deer River some 90 m below. In the winter, this locality offers an impressive viewscape to the south. The mound is roughly 2 m tall at its highest point, with a diameter of perhaps 35 m. In plan view, the shape is irregular (Figure 6.11), particularly on the south side, which led to William Myer's (1922:142) fanciful interpretation of Mound 30 as a bird effigy:

> Mound No. 30, just beyond the line of walls of the eastern citadel, stands on the summit of the high river bank. It was probably devoted to sacred ceremonial purposes and supported some sacred building. It appears to somewhat resemble a bird with outstretched wings. The thunder bird and other sacred birds played an important role in the religious rites of stone-age man in the Southern states.

In fact, like the so-called Eagle Mound at the center of the Fairgrounds Circle at Newark (Lepper 1998:124–125), Mound 30 lacks any definitive avian attributes. In 1941, the mound was overgrown (Figure 6.5), but it must have been mostly cleared of trees and undergrowth when Myer visited Pinson Mounds in 1917 for him to have observed the odd shape of Mound 30. In 1963 a field road encircled the earthwork (Morse 1986:115), and the last private landowners used Mound 30 as a garden plot (Thunen 1990:95–96), both of which contributed to soil erosion. We suspect that the field road and use of the mound for gardening predated Myer's visit by many years.

In 1963, Morse (1986:117) excavated a test unit just north of the center of Mound 30, exposing a profile (Payne and Kroll 1969:39) that is consistent with those seen in Thunen's later excavation, albeit with more traces of sand. In 1989 Thunen excavated seven contiguous units and one unit 2 meters to the west that were oriented east-west across the southern slope of Mound 30. Within these units the height of the mound surface above subsoil ranged from 130 cm (within the west "wing") to as little as 45 cm within the area between the wing and "tail." A major goal of his work was to obtain stratigraphic data that would permit evaluation of Myer's assertion that Mound 30 was a bird effigy.

Reanalysis and digital enhancement of the field photographs has caused us to revise Thunen's

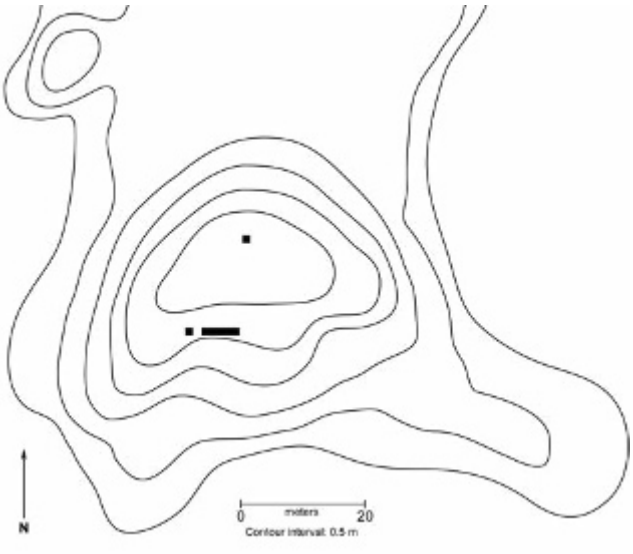

FIGURE 6.11. Topographic map of Mound 30, showing locations of excavation units.

FIGURE 6.12. Mound 30. South profile, N5881/E6033. Note the gray clay floor exposed in the slot trench. Original photograph by Robert Thunen.

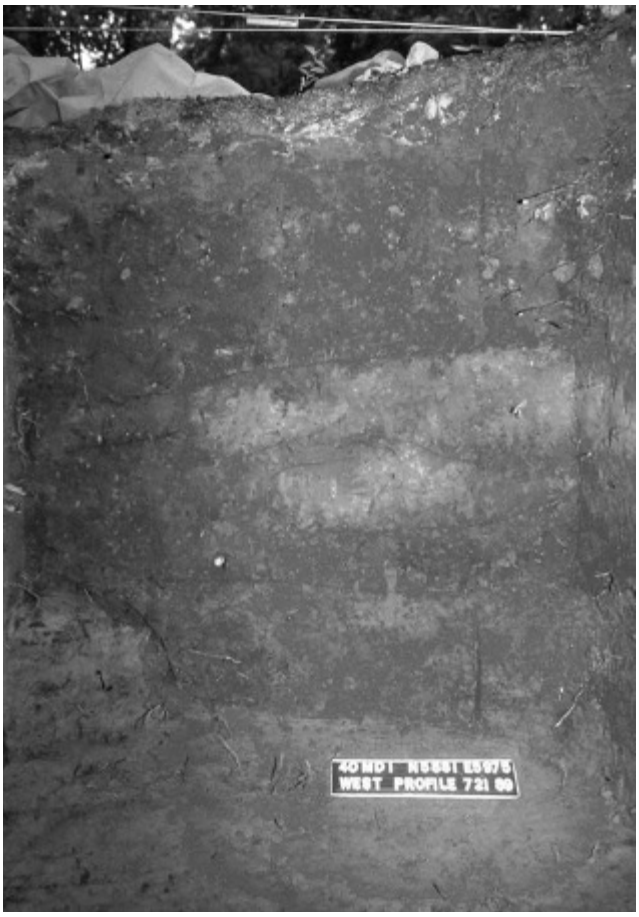

FIGURE 6.13. Mound 30. West profile, N5881/E6025(5975). Note raised berm in lower left. Original photograph by Robert Thunen.

(1990:129–135) original interpretation of mound stratigraphy and construction. A key element of the current view is the recognition that within the area Thunen excavated, Mound 30 had been subjected to considerable disturbance, which produced the homogenous soils that Thunen (1998:64) identified as "undifferentiated fill."

Prior to construction, the mound area was stripped to reddish brown subsoil. A layer of light gray clay (not puddled) was placed upon the exposed subsoil (Figure 6.12). This layer has a granular structure and was present in all units. Although the light gray soil zone could be a leached E horizon, the curb feature (discussed below), coupled with granular structure, tip the balance in favor of it being a construction zone. It is unlikely to represent gleyed bottomland alluvial soils (Brown et al. 1978) because a few artifacts were inclusive.

In the westernmost of the contiguous units, initial construction included fashioning a low narrow ridge or "curb" of unknown function (Figure 6.13). Constructed using the same light gray clay used for the basal mound stratum, this feature extended diagonally across the excavated area and may represent a portion of a prepared surface (Thunen 1998:64).

Three excavation units spanned the topographically lower area between the western "wing" and the

"tail." Here, there are some areas of undisturbed fill, particularly the darker soils, but most of the soil is a homogenous brown color (Figure 6.12). Compelling evidence that the latter represents disturbed soil is provided by the westernmost of the contiguous excavation units, in which the western half of the profile exhibits contrasting dark and light loaded fills broadly similar to that seen in the far eastern units, but this is abruptly truncated by homogenous soils (Figure 6.14). We believe that historic disturbance, which exacerbated erosion, produced the topographically lower area between the "tail" and the west "wing."

In the two units placed near the center of the "tail," subsequent fill episodes were marked by contrasting soil zones—a layer of dark loaded fill, covered by a thinner layer of light gray clay, which in turn was covered by another layer of dark loaded soils. There is evidence of some disturbance, though not

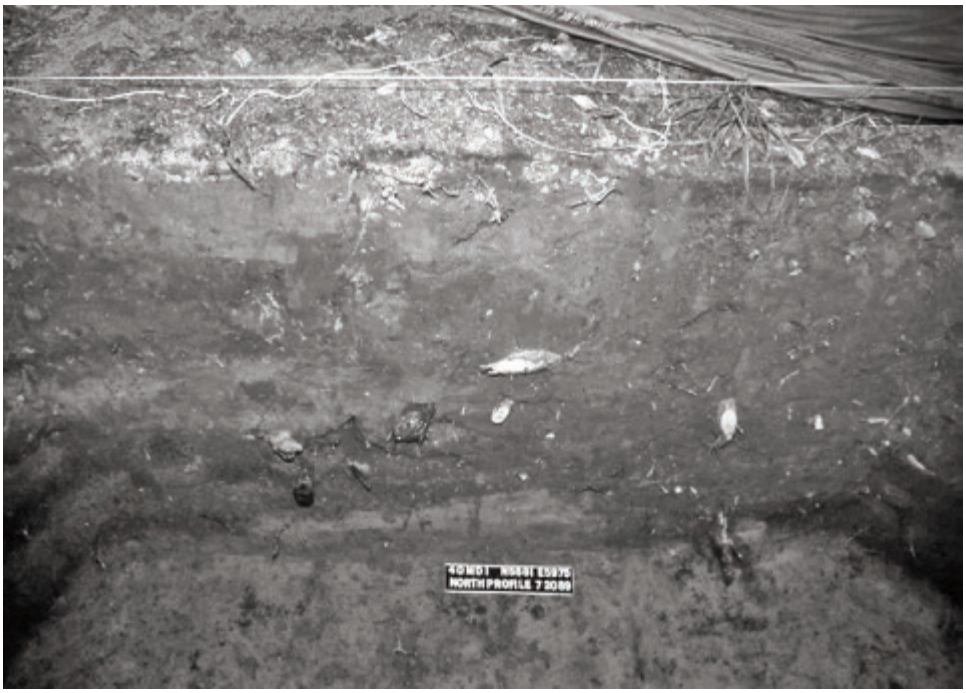

FIGURE 6.14. Mound 30. North profile, N5881/E6025(5975). Note transition from loaded fill (*left*) to homogenous disturbed soil (*right*). Original photograph by Robert Thunen.

FIGURE 6.15. Mound 30. South profile, N5881/E6037. Note shallow disturbance in center that interrupts dark band of fill. Original photograph by Robert Thunen.

to the base of the mound, in the easternmost unit (Figure 6.15).

The contrasting dark brown and lighter gray soils in the undisturbed Mound 30 profiles are generally similar to those observed in Mound 29 and the tested portion of the earthen embankment. Neither of these soils occur today on the surface of the Pinson Mounds complex, nor have they been exposed during off-mound excavations. Unlike some of the darker soils used in constructing the northern Twin Mound (chapter 4), the dark soils used to construct Mound 30 contain very few artifacts.

Thunen's (1998:66) suggestion that gold and white sands were used "as 'decoration/markers' for construction stages and/or use" in Mound 30 cannot be sustained based on the available data. Although his excavations, like Morse's (1986:117), disclosed some patches and lenses of light-colored sands, there is no evidence of distinctive sand strata comparable to those seen at Ozier Mound, the Twin Mounds, Mound 10, or Mound 29. Additional excavations, particularly in the western and northern portions of Mound 30, are necessary to definitively evaluate Thunen's suggestion.

In sum, the small scale of the excavations greatly limits interpretation, but we feel that the stratigraphic evidence indicates that the appearance of a western wing and a tail was produced by historic disturbance and erosion, as suggested by Morse (1986:100) some 50 years ago. Geophysical imaging, followed by selective testing, could lead to a much better understanding of Mound 30.

Artifact Assemblage

The Eastern Citadel has perhaps the lightest artifact density of any area within the Pinson Mounds complex (cf. Morse 1986:114), but the small artifact assemblage includes a few items that suggest the presence of pilgrims from other regions. The most compelling are six small, plain sherds from a single vessel that are tempered with sharply angular grit that may be crushed quartz (Thunen 1990:117) (Figure 6.16a). These were collected during Thunen's test excavation into the east side of Mound 29. The temper is unlike that of any other sherds from Pinson Mounds and clearly is not local to West Tennessee. We speculate that these sherds derive from a vessel produced by potters from East Tennessee.

An Alligator Bayou Stamped sherd found near the west side of Mound 29 is stylistically nonlocal (Thunen 1990:121) (Figure 6.16c). Marksville-style zoned stamping is rare at Pinson Mounds, but Morse (1986:106–109) collected a few sherds from Mound

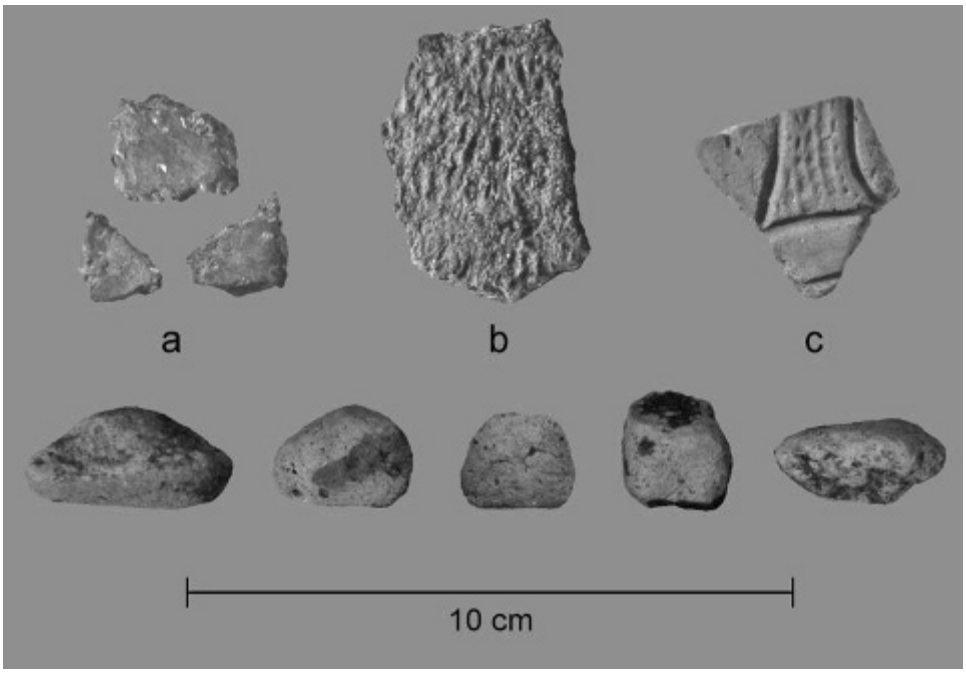

FIGURE 6.16. Ceramics from the Eastern Citadel.

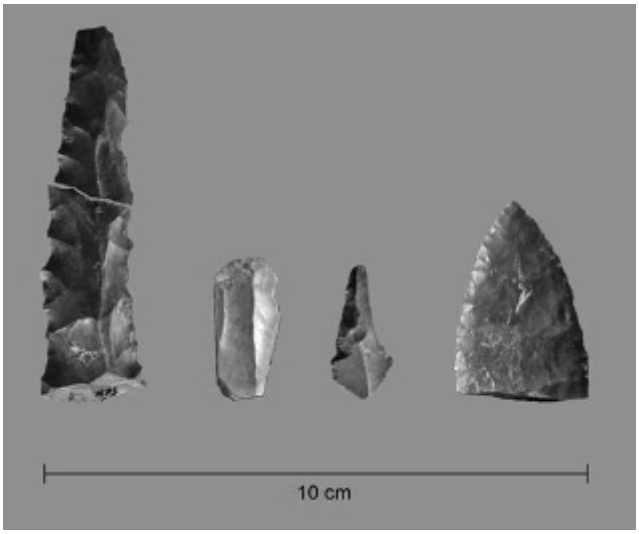

FIGURE 6.17. Lithics from the Eastern Citadel.

31 and three (not originally identified as such) were found in the fill of Mound 12 (see Figure 5.4 and Appendix 1). As discussed in previous chapters, limestone-tempered pottery is ubiquitous throughout the mound complex, and a single plain sherd was found in the fill of Mound 30 during Thunen's excavations.

The Furrs Cordmarked sherd illustrated in Figure 6.16b is from Mound 30 and is one of the largest sherds collected in the eastern ritual precinct. The irregularly shaped baked clay objects shown in the bottom row of Figure 6.16 are a sample of some two dozen specimens found near the base of two of the deepest Mound 29 excavation units.

Identifiable ceramics from Morse's test of the embankment (Morse and Polhemus 1963:Table 9) and Thunen's (1990:125) excavations on the west side of Mound 29 are overwhelmingly fabric-marked (Appendix 1). In other localities within the Pinson Mounds complex, fabric marking is a minority surface treatment. Small sample sizes (n = 72 and 71, respectively) notwithstanding, the high percentages of fabric-marked pottery from these two Eastern Citadel excavations hints that the soils used to construct the embankment and Mound 29 derive from one or more locations that were used contemporaneously.

The lithic assemblage from the eastern ritual precinct is small and not particularly informative. From the surface of the enclosure interior, Morse (1986:144) collected a complete expanded stem point and five point fragments, including a corner-notched base and an expanded stem base. The combined totals from Mound 29 (Morse and Polhemus 1963:Table 9; Thunen 1990:125) include 87 chert flakes, an Early Archaic Lost Lake point, and a point fragment. Morse did not collect any lithic artifacts from Mound 30, but Thunen found a long biface fragment and a graver (both of the same dark gray chert), a nicely worked point tip, a bladelet, and 78 chert flakes (Figure 6.17) (Thunen 1990:134). Excavations in the embankment produced a chert bladelet fragment (Thunen 1990:115), two end scrapers, a graver, a hammerstone, and 43 chert flakes (see Morse and Polhemus 1963:Table 9).

Architectural, Spatial, and Topographic Considerations

Thunen (1990, 1998) emphasized that the builders of the enclosure and associated mounds chose to construct these earthworks on a peninsula of land that provides a sense of physical separation, isolation, and restricted access, all of which were enhanced by construction of the embankment. This ties in with Renfrew's (2001:19) observation that important ceremonial centers are sometimes located in isolated places, which is apropos to the entire Pinson Mounds complex (cf. Brose 1988:156).

Mickelson's digital surface model of the enclosure area (Figure 6.2), produced using the original TDOT photogrammetric topographic maps, portrays the physical isolation of the Eastern Citadel and the rugged terrain selected for construction of the western portion of the embankment far more vividly than a topographic map (Figure 6.1). The landform somewhat resembles topographically the locales typically associated with the Ohio hilltop enclosures. It is worth noting that the Eastern Citadel occupies the highest area within the Pinson Mounds complex, with a base elevation of about 470′ amsl near Mound 29 versus about 425′ amsl near Sauls Mound to the west.

Thunen (1990:147, 1998:66) raised two important points regarding the placement of Mound 29. First, this platform mound is not located within the circular arc portion of the surrounding embankment. Second, the center of the mound is essentially due east of the embankment's radial center. To these design considerations can be added the asymmetric location

of Mound 29 within the enclosure. Not addressed by Thunen or Mainfort was perhaps the most striking aspect of the mound's placement, namely that the south side is situated only a few meters north of the mouth of a deep ravine, the width of which is roughly the same as the east-west axis of Mound 29 (Figure 6.1).

Importantly, the ravine existed in essentially its modern form during Middle Woodland times, as demonstrated by the preserved embankment section that extends into and across the entire ravine (Figures 6.1 and 6.4). This portion of the embankment does not appear on earlier, published modern topographic maps of the Eastern Citadel (e.g., Mainfort 1988a, Thunen 1998). Only a small portion of it is discernable on the TDOT photogrammetric topo map of the Eastern Citadel area, a modified version of which is shown here as Figure 6.1. E. G. Buck mapped the ravine section of the enclosure wall in 1917 (Mainfort et al. 2011; Myer 1922), albeit without showing the prominent ravine it passes through.

Why was this section of the embankment constructed through the deep ravine? It would have been less costly in labor to construct this section of the embankment just north of the ravine. Thus, the placement of both Mound 29 and the southern portion of the embankment suggest that the ravine itself, or some quality ascribed to it, held importance for the builders.[2]

The likely referent here is the underworld and its associated forces. At this specific locality, the embankment begins in the blufftop upland (i.e., the upper world), descends into the underworld, and returns to the upper world. Like the upland section of the embankment, this section of the embankment exhibits a KS-profile (i.e., there is no associated ditch; Byers 1987:55–57, 2004:26) and therefore must be constructed of surface-scraped soil of the upper world. We return to this point below. Mound 29 is an upper world feature constructed by people. As such, it effectively, both symbolically and as an erosion control measure, holds back underworld forces.

Now, if the ravine portion of the embankment serves to mediate underworld forces via intervention of upper world forces, then the entire embankment, as an iconic warrant (Byers 2004:70), must participate in that mediation. Indeed, much of the western portion of the embankment (which includes part of the circular arc) descends into terrain of lower elevation that perhaps was associated with the underworld, though in less dramatic fashion. In the same vein, most of the eastern section of the embankment is an upper world feature, symbolically linked to Mound 29.

Preservation of the embankment section in the ravine is surprising. As discussed in chapter 1, the sandy character of West Tennessee soils, such as those in the Pinson Mounds area, makes them prone to severe erosion (Brown et al. 1978:12–13; Lyman et al. 1906, 1907; Maddox 1915). Thunen (1990:90–93) mentioned modern erosion problems and noted that prehistoric land clearing at Pinson Mounds may have exacerbated erosion, but he did not pursue the issue. The ravine section of the embankment makes clear that the topic requires more consideration, not just for this specific location, but also for the embankment as a whole.

One implication of the embankment section preserved within the ravine is that the Middle Woodland builders did not cut all the trees in the ravine or even all the trees between the top of the ravine and the embankment. Had they done so, it is unlikely that much, if any, of the embankment would have survived. The slope angle within the ravine averages about 16° along the course of the embankment (and steeper to the immediate south) and in the absence of groundcover, the soil would erode rapidly. This is, unfortunately, amply demonstrated by the large gap in the western section of the embankment (Figure 6.1), which was not present in 1917 when E. G. Buck surveyed the embankment (see Figure 6.4). Between the time of Buck's visit and 1941 (Figure 6.5), much of the western portion of the enclosure was cleared, an opening was cut through the embankment wall, and the southwest section of the embankment was destroyed. After the State of Tennessee acquired the Eastern Citadel area around 1963 (Morse and Polhemus 1963:13), vegetation was reestablished within the western half of the embankment, which controlled erosion. The slope angle east of the contemporary gap in the embankment is only about 5°, but even this mild slope was sufficient to produce considerable erosion after the area was cleared during modern times.

Given the effects of twentieth-century erosion on the western portion of the embankment, it is unlikely that much of this area or the ravine outside it was

cleared during Middle Woodland times. Had there been extensive clearing, the embankment would not have survived largely intact until 1917—certainly not if the embankment interior and the embankment itself were kept clear of large vegetation for decades. It seems safe to assume that the builders of the embankment were familiar with the general properties of the soil at Pinson Mounds. We are therefore fairly certain that prehistoric clearing was limited to the eastern half of the enclosure, a small portion of the western half (the easternmost), and to the actual course of the embankment along much of its circumference. This also means that the arcuate section of the enclosure wall was not laid out by holding one end of a rope at the radial center, stretching the rope, and walking at a fixed distance with the other end. Rather, the process involved establishing a series of points, each at the end of a ray, and essentially connecting the dots to define the course of the embankment.

If we are correct, a fair amount of the embankment would not have been visible from within the fairly level eastern half of the enclosure. The elevation around the base of Mound 29 is about 470′ amsl, but drops to 430′ amsl on the lowest portion of the embankment to the west. If mature or even fairly young hardwoods were growing within the area surrounded by the western half of the enclosure, most of the embankment could not have been viewed from the eastern half.

Mainfort (1986:4; see also Thunen 1998:65) has referred to the horizontal plan of the enclosure as "puzzling" because for over a third of its diameter, the embankment follows the arc of a perfect circle, yet the builders chose not to construct a complete circle. Thunen (1998:64–65) provided a partial explanation by correctly noting that the peninsula selected for the enclosure was, itself, viewed as important by the builders. But he went on to suggest that the true arc portion of the embankment was, in essence, the original, most critical portion and that the earthen walls on the east and south sides were later additions (Thunen 1998:65–66). Although this was a more nuanced view of the horizontal plan (and one that could be tested archaeologically), it did not address the overall architectural plan of the Eastern Citadel, which has a possible analog in Ohio.

The horizontal plan of the Eastern Citadel, except for its size and the lack of an associated square, is nearly identical to that of the irregular circular portion of the composite Milford embankment complex, as portrayed by Squier and Davis (1848:94, Figure 34–1). Milford is located about 430 km (270 miles) northeast of Pinson Mounds in the Little Miami drainage, north of Turner in southwestern Ohio. *If* the Squier and Davis map is fairly accurate[3] (which unfortunately is no longer possible to confirm), the congruence of these embankments (Figure 6.18) is remarkable, though the comparable portion of the Milford enclosure is about 1.5 times larger than the Eastern Citadel.

As mapped, the key features of the roughly circular portion of the Milford enclosure are precisely those that have caused Mainfort and Thunen to view the design of the Eastern Citadel as peculiar, namely the arc of a projected true circle to the west and flattened curvilinear portions on the south and east sides. This architectural plan is unique in Ohio Hopewell, although there are, of course, arcuate and semi circular earthen embankments. No Middle Woodland enclosures in the greater Midsouth resemble the Eastern Citadel (Thunen 1988, 1990:159–175; see chapter 8).

Squier and Davis (1848:94) comment that "inspection of this work [Milford] shows clearly that the irregularity of the great circle is due to the nature of the ground," but as with the Eastern Citadel, the builders could have laid out a complete "perfect" circle easily by either shifting the location slightly or by constructing a smaller embankment. They did neither. A circular arc coupled with a nongeometric curvilinear embankment section was the desired outcome at both Milford and Pinson Mounds.

Also like the Eastern Citadel, the Milford embankment seemingly lacked an associated ditch or borrow pits, an example of what Byers (1987:55–57; 2004:26) designates a KS-profile; i.e., the fill used for construction was surface-scraped earth, as opposed to soil obtained from deeper excavations. No borrow pits were visible within the embankment or anywhere in the vicinity. Byers (1987:313–314; 2004:8–9, 132–135) makes the case that surface-scraped soil is linked to the surface stratum of the world, hence to the powers of the above world, as opposed to soils obtained through deeper excavation, which are correspondingly linked to powers of the underworld. As discussed above, test excavations into the embankment wall

confirm that the soils used for construction were obtained from surface deposits that contained a few artifacts. No distinctive floodplain soils were used, at least in the tested eastern section of the embankment (see Morse 1986:114; Thunen 1990:110–115). Initial construction of Mound 29 also utilized surface soils containing a small amount of occupation debris (Morse 1986:114; Thunen 1990:123–127).

In his seriation of geometric embankments in Ohio, Byers (2004:486, 535) concludes that Milford dates near the end of the Hopewell episode, sometime after A.D. 300, though there are no radiometric dates

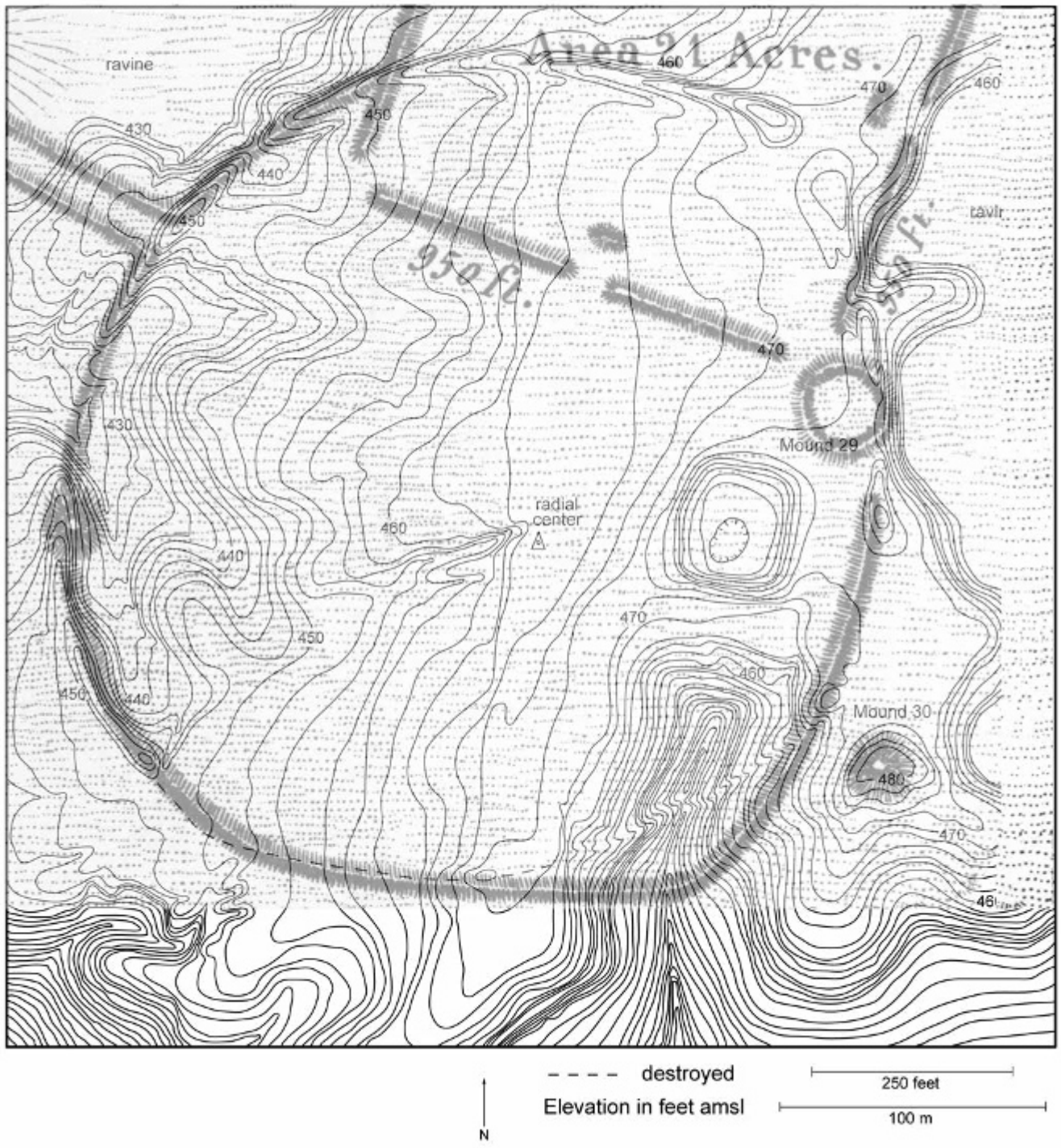

FIGURE 6.18. Topographic map of Eastern Citadel with Squier and Davis map of Milford superimposed.

for the earthwork. I suspect that Byers's age estimate is a bit late; it almost certainly is for the Eastern Citadel.

If the Eastern Citadel is a smaller version of a portion of the Milford embankment complex, the recreation of the Ohio enclosure at Pinson Mounds may represent an attempt to combine the charisma and power embodied by both ritual centers (cf. Coleman and Elsner 1995:208)—an example of how "monuments feed off the associations, not only of places, but also of other monuments" (Bradley 1993:129).

In discussing the Mann site in southern Indiana, Ruby (1997:401) states that:

> the striking correspondence in scale and design between the square enclosure (IU 3) [at the Mann site] and several Ohio Hopewell examples points to a uniquely close culture-historical relationship between Mann phase populations and Hopewellian populations in Ohio. No other earthen enclosure outside of the Ohio area evidences a similarly close relationship.

We feel confident in stating that the Eastern Citadel stands as a second example. As discussed in chapter 8, a third is found on the bluffs northeast of Hickman, Kentucky.

There remains the issue of why the builders chose to construct an earthen enclosure that in plan view is about 40 percent circular and 60 percent irregular. The answer, in part, may be that the Eastern Citadel and the Milford enclosure was viewed conceptually on some level as actually being a true circle or, restated, was seen as equivalent to a true circle for the purpose of fulfilling the ritual purpose for which the enclosure was created. In short, it was sufficient for the purposes at hand simply to demonstrate that the builders *could* create a true circle.

Construction Sequence

Thunen (1998:66) postulated a construction sequence for the eastern ritual precinct as follows:

> Construction of the Eastern Citadel began with the location of the radial center. From that center the arc and
> platform mound (Mound 29) were laid out and defined. Mound 30 was also started within the same time framework, with the use of gold and white sands as "decoration/markers" for construction stages and/or use. During the arc embankment construction the bluff wall sections could also have been constructed or those could have been added later. To construct those wall sections no reference to the radial center was required. Indeed, measuring off the radial center would have been impossible for the east section—Mound 29 blocked the view and/or use of measuring devices. The second phase of construction was the addition of layers both on Mounds 29 and 30.

Based on the material presented above, it is appropriate to reconsider Thunen's interpretation. Mounds 29 and 30, as well as the embankment, were built using surface-scraped soil that contains a few artifacts. The soil was not obtained within the abutting ravines or the floodplain, and although the possibility that some soil was obtained from the area that now is within the enclosure cannot be ruled out, it is unlikely that much was. The most likely source area lies to the north of the Eastern Citadel. As originally constructed, the enclosure probably did not have any gaps in the northern portion; those that exist today are almost certainly of modern origin. Thus, if the arcuate portion of the embankment was the first phase of construction, it would have been necessary for people transporting the soil used for Mounds 29 and 30 to walk repeatedly over the earthen wall. This makes no sense logistically and, perhaps more importantly to the builders, would have caused significant damage to the embankment. Add to that the recognition that the ravine south of Mound 29 was important to the builders, and a case can be made that both stages of Mound 29 and probably Mound 30 were built prior to at least the northern section of the enclosure wall.

Thunen was quite correct, however, to call attention to the potential importance of the radial center of the arc, and this location should be a prime candidate for future geophysical imaging (see Thunen 1990:157). We are intrigued that the point chosen for its location is near the western edge of the fairly level eastern portion of the enclosure. West of the radial center the topography falls off, eventually reaching an elevation roughly 30 m lower than that of the radial center.

The relative timing of construction within the eastern ritual precinct is, of course, conjectural, and even if radiocarbon dates from good contexts were available, it is doubtful that the issue could be resolved (see Mainfort and McNutt 2004 and chapter 7). The

only historical event that is certain is that a substantial addition was made to Mound 29 at some point.

Concluding Remarks

The revised perspective presented above alters earlier interpretations of the Eastern Ritual Precinct (e.g., Thunen 1990, 1998), and with the recognition that the horizontal plan of the enclosure (regardless of whether the earthwork truly is an effort to recreate part of Milford) probably derives from southern Ohio, the entire Pinson Mounds complex (e.g., Mainfort 1986, 1988a). If at times we have veered into realms that appear too speculative, we have done so to tentatively offer a window into the generative structures that underlie site selection and architectural design, and how these were implemented by people to create the earthworks as seen today. Obviously we think that these ideas are interesting and that they advance understanding of the Eastern Citadel, but we also view these as providing a focus for future research.

Notes

1. For reasons unclear to us, McNutt (2007:152–153) questioned the accuracy of the location of the radial center as calculated by professional engineer James Marshall after several weeks of field survey, and suggested an alternate placement. We will note for the benefit of future researchers that the UTM of the radial center, as determined by Marshall, is N412,480 E1204,654.
2. Few Hopewell earthen embankments in Ohio descend into a deep ravine. Perhaps the best example occurs at the earthwork complex that Squier and Davis (1848:78–80) identify as "Portsmouth Works—Group A." Here, the walls of the southwest aggregation element descend into a ravine over 100 m wide and continue for some distance beyond. The walls of the northeast aggregation element, however, run "to the very edges" of two ravines, but do not actually continue through these declivities.
3. Squier claimed authorship of the 1848 map of the Milford earthworks. An 1823(?) map of the earthwork complex that is curated by the National Archives and Records Administration (Record Group 77, 114.20), attributed to Maj. Isaac Roberdeau, is quite similar to Squier's map, including the arcuate portion and the "flattened" portion near the edge of a "high bank." This is the source for the map published in 1834 by American geographer David Bailie Warden, who acknowledges Roberdeau and dates the map to "18 julliet 1823."

CHAPTER 7

Calibrated Radiocarbon Chronology for Pinson Mounds and Related Sites

Robert C. Mainfort Jr. and Charles H. McNutt

In 2004 we published a paper entitled "Calibrated Radiocarbon Chronology for Pinson Mounds and Middle Woodland in the Midsouth" (Mainfort and McNutt 2004). This chapter largely follows that paper with a few differences, including the use of OxCal plots (Bronk Ramsey 1995, 2005) and an explicit assessment of the traditional view of Pinson Mounds chronology (e.g., Mainfort 1986, 1988a, 1988b). As in the earlier paper, we also consider radiocarbon dates from several roughly contemporary mound sites in northern Mississippi.

Chronology at Pinson Mounds

A long-term research focus at Pinson Mounds has been establishing site chronology. There are presently 39 radiocarbon determinations, including multiple assays for all intensively investigated localities (Mainfort 1980, 1986, 1988a, 1996; Mainfort et al. 1982; Mainfort and McNutt 2004), making Pinson Mounds perhaps the most extensively dated Middle Woodland site in North America (see Greber 2003). All assays are conventional radiocarbon dates. Below we present sample descriptions, calibrated ages of all assays, calibrated average dates for several localities, and some discussion regarding the reliability of certain specific dates. In all cases, we have checked the original sample submission form and/or laboratory report to ensure accuracy in reporting.

Initial surveys and limited test excavations at Pinson Mounds (Fischer and McNutt 1962; Morse 1986; Morse and Polhemus 1963) found some evidence of Mississippian occupation, but the researchers correctly inferred that major use of the site occurred during the Middle Woodland period. Excavations in 1974 and 1975 confirmed this interpretation, producing Middle Woodland artifacts and several samples for radiocarbon assays (Broster et al. 1980). More extensive investigations in the 1980s produced compelling evidence, including radiocarbon determinations from mound contexts, that all the earthworks at Pinson Mounds were constructed during Middle Woodland times (Mainfort 1986, 1988a, 1996; Mainfort and Walling 1992; Thunen 1990, 1998).

Conventional radiocarbon ages are reported as central tendency values (means) with uncertainty values (standard deviations), which typically are given at 1σ. The latter means that 67 percent of the possible dates are accounted for by the value. Uncertainty values reflect limitations of lab procedures and counting errors in specific radiometric dating techniques. The magnitude of the uncertainty values essentially meas-

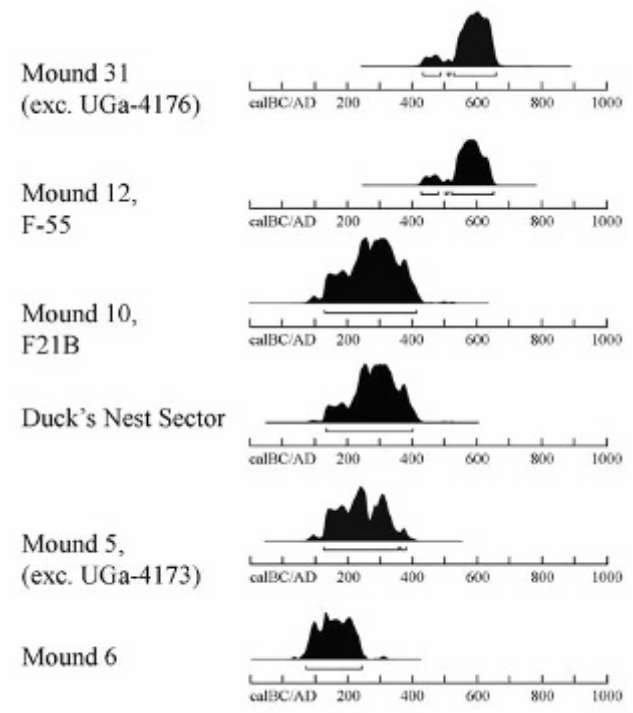

FIGURE 7.1. OxCal probability plots for averaged dates from selected localities.

ures the precision of the associated radiocarbon age; smaller uncertainty means greater precision.

Precision and accuracy (whether or not a radiocarbon age encompasses the actual age of the material being dated) clearly are desirable, but are of little benefit unless the sample being dated clearly is associated with the event that a researcher wishes to date (see Arundale 1981). For example, in dating the summit of a platform mound, carbonized material from a well-defined feature is more likely to be associated with use of the surface than charcoal collected from mound fill. Most of the dated samples from Pinson Mounds, including all of those collected from 1981 onward, were selected because they could be linked confidently to a specific event.

Calibrations, sample testing, and averaging were performed with CALIB 5.0 (Stuiver and Reimer 1993; Stuiver et al. 2005). In instances where there are multiple samples from a given provenience (e.g., the two dates from Ozier Mound, Feature 4), we assessed contemporaneity using the technique developed by Ward and Wilson (1978), which is incorporated into CALIB. If statistically warranted at the 95 percent level, we computed their average. All 39 conventional radiocarbon ages, calibrated dates, and various averages from Pinson Mounds are presented in Table 7.1, with the calibrated averages for key excavated loci shown in Figure 7.1. The accompanying 2σ calibrated probability plots (95 percent probability) were generated with OxCal 3.10 (Bronk Ramsey 1995, 2005).

In the tables and text, calibrated dates are presented as 2σ age ranges. For each calibration, the relative area under the radiocarbon curve for specific date ranges also is given, along with the requisite variation to obtain this area; this measure often provides the likelihood for a more restricted date.

Although we present some new material in this chapter, the major conclusion of our 2004 paper (Mainfort and McNutt 2004) remains valid, namely that earthwork construction at Pinson Mounds continued for at least a century longer than initially thought (e.g., Mainfort 1986, 1988a, 1988b).

OZIER MOUND

Radiometric assays on charcoal samples from Ozier Mound (Mound 5) provided the first unequivocal evidence for the construction of large rectangular platform mounds during Middle Woodland times (Mainfort 1986, 1988a, 1996; Mainfort and Walling 1992; *contra* Prufer 1996:422). As detailed in chapter 4, Ozier Mound stands approximately 10 m tall and was constructed in at least six stages. Excavations have been confined largely to the upper summit. Among the sparse features were several small hearths and a low, raised clay platform.

All five radiocarbon assays for Ozier Mound derive from unidentified wood charcoal. Both dated samples obtained during the 1981 excavations are from hearth-like features, Features 1 and 2, and were run as UGa-4542 and UGa-4174, respectively. TX-6602 and TX-6603 date charcoal obtained in 1989 from Feature 4, "a poorly defined, irregularly-shaped basin" (Mainfort and Walling 1992:118). A burned tree root system above portions of Feature 4 caused Mainfort and Walling (1992:120) to propose that TX-6603 should be disregarded. There is no statistical basis for doing so, but the time span represented by the two dates and the amorphous nature of the feature are troubling. A charcoal concentration in a "basketload" just below the upper summit provided

TABLE 7.1 Radiocarbon assays for the Pinson Mounds complex.

Feature/ Lab No.	Provenience	Material	^{14}C age B.P	Calibrated 2σ range	Relative Area, Significance	Reference
OZIER MOUND (MOUND 5)						
UGa-4174	Mound 5, F-2	wood charcoal, 10.5 g.	1760±160	B.C. 91-A.D. 638	A.D. 76-432 1.000, 1σ	Mainfort et al. (1982)
UGa-4173	Mound 5, N98/E98, L 48	charcoal, 20 g.	2275±180	B.C. 803-A.D. 81	BC 796-AD 31 0.993, 2σ	Mainfort (1986)
UGa-4543	Mound 5, F-1	charcoal, 9.85 g.	1970±110	B.C. 347-A.D. 320	B.C. 113-A.D. 134 0.932, 1σ	Mainfort (1986)
TX-6603	Mound 5, F-4	wood charcoal, 12 g.	1660±70	A.D. 237-556	A.D. 321-440 0.741, 1σ	Mainfort and Walling (1992)
TX-6602	Mound 5, F-4	wood charcoal, 12 g.	1850±80	B.C. 36-A.D. 383	A.D. 74-247 0.962, 1σ	Mainfort and Walling (1992)
	Mound 5, F-4 Average		1801±41	A.D. 91-340	A.D. 126-264 0.761, 2σ	
	Mound 5 average (excluding UGa-4173)		1784±46	A.D. 128-383	A.D. 128-360 0.977, 2σ	
TWIN MOUNDS(MOUND 6)						
UGa-4911	Mound 6, F-51	charcoal, 14 g.	1780±95	A.D. 28-434	A.D. 131-344 0.966, 1σ	Mainfort et al. (1985) (incorrectly listed as F-54)
UGa-4909	Mound 6, F-49	charcoal, 16 g.	1925±80	B.C. 93-A.D. 317	B.C. 111- A.D. 258 0.984, 2σ	Mainfort et al. (1985)
TX-6965	Mound 6, F-54	wood charcoal, 14 g.	1870±70	B.C. 36-A.D. 337	A.D. 82-245 0.991, 1σ	
TX-6966	Mound 6, F-48	wood charcoal, 14 g.	1840±70	A.D. 24-380	A.D. 82-245 0.991, 1σ	
	Mound 6 average		1858±39	A.D. 68-243	A.D. 125-219 0.991, 1σ	
TWIN MOUNDS SECTOR						
TX-6605	Twin Mounds sector, F-12/14	wood charcoal, 9 g.	1940±90	B.C. 167-A.D. 318	B.C. 44-A.D. 135 0.875, 1σ	
MOUND 10						
UGa-4680	Mound 10, F-21B	charcoal, 10.5 g.	1680±85	A.D. 132-560	A.D. 243-437 0.972, 1σ	Mainfort (1986)
UGa-4679	Mound 10, F-21B	charcoal, 10 g.	1885±130	B.C. 196-A.D. 424	B.C. 1- A.D. 258 0.885, 1σ	Mainfort (1986)
TX-6607	Mound 10, F-21B	charcoal, 7+ g.	1790±110	BC 36 (AD 240) AD 531	AD 126-360 0.938, 1σ	
	Mound 10, F-21B average		1756±60	AD 128 (257, 302, 318) 421	AD 221-362 0.918, 1σ	
DUCK'S NEST						
UGa-4544	Duck's Nest, F-18, upper concentration	charcoal, 10 g.	Modern			Mainfort (1986)
UGa-4542	Duck's Nest, F-18, lower concentration	charcoal, 16 g.	2075±90	BC376 (89,78, 57) AD 125	BC 200-AD 24 0.994, 1σ	Mainfort (1986)
UGa-4681	Duck's Nest, F-18, lower concentration		1535±65	AD 399 (539) 651	AD 461-853 0.815, 1σ	Mainfort (1986)
UGa-4910	Duck's Nest, F-18, lower concentration	charcoal, 14 g.	1345±135	AD 426 (664) 983	AD 597-830 0.815, 1σ	Mainfort (1986)
	Duck's Nest, F-18 average (UGa-4618 and 4910)		1498±60	AD425 (563, 590, 596) 659	AD 530-641 0.921, 1σ	
DUCK'S NEST SECTOR						
UGa-4678	Duck's Nest sector, F-20B	charcoal, 12 g.	1705±70	AD 133 (343, 372, 377) 533	AD 208-443 0.875, 2σ	Mainfort (1986)
UGa-4677	Duck's Nest sector, F-20A	charcoal, 12 g.	1825±105	BC 42 (AD 219) AD 427	AD 78-325 0.965, 1σ	Mainfort (1986)
TX-6606	Duck's Nest sector, F-20B	wood charcoal, 11 g.	1770±90	AD 34 (245, 310, 315) 434	AD 53-345 0.880, 1σ	
	Duck's Nest sector, F-20B Average		1729±56	AD 133 (261, 278, 324, 331, 336) 427	AD 208-425 0.936, 2σ	
	Duck's Nest sector average		1750±50	AD 132 (258, 284, 287, 300, 320) 415	AD 237-346 0.880, 1σ	

continued on next page

TABLE 7.1 Radiocarbon assays for the Pinson Mounds complex. (continued)

Feature/ Lab No.	Provenience	Material	^{14}C age B.P	Calibrated 2σ range	Relative Area, Significance	Reference
COCHRAN SITE						
UGa-3602	Cochran site, F-10	charcoal, 13 g.	1650±70	AD 240 (412) 560	AD 239-562 0.998, 2σ	Mainfort et al. (1982)
UCLA-2341D	Cochran site, F-14, L 2	charcoal, 4 g.	2365±500	BC 1682 (402) AD 661	BC 1045-AD 133 1.00, 1σ	Mainfort (1986)
	Cochran site average		1664±71	AD 236 (404) 556	AD 318-439 0.739, 1σ	
MOUND 12						
UGa-3600	Mound 12, F-55	Charcoal, 11 g.	1475±60	AD 431 (601) 663	AD 527-660 0.811, 2σ	Mainfort et al. (1982)
UGa-3601	Mound 12, F-55	Charcoal, 8 g.	1495±60	AD 426 (564, 569, 579, 588, 597) 660	AD 531-642 0.938, 1σ	Mainfort et al. (1982)
	Mound 12, F-55 average		1484±44	AD 437 (599) 656	AD 541-621 0.941, 1σ	
UGa-3715	Mound 12, Stratum 5, L1	charcoal, 5 g.	1695±80	AD 132 (357, 368,381) 540	AD 208-536 0.94, 2σ	Mainfort et al. (1982)
UGa-3716	Mound 12, Stratum 5, L 2, below F-61	charcoal, 5.5 g.	2155±115	BC 404 (198, 188, 180) AD 77	BC 409-AD 84 0.996, 2σ	Mainfort et al. (1982)
UCLA-2341C	Mound 12, F-66	charcoal, 5.5 g.	1870±250	BC 403 (AD 129) AD 660	BC 119-AD 421 0.960, 1σ	Mainfort et al. (1982)
UCLA-2341A	Mound 12, F-61	charcoal, 4 g.	1950±200	BC 400 (AD 34, 34, 61) 536	BC 180-AD 258 0.924, 1σ	Mainfort et al. (1982)
	Mound 12, F-61/66 Average		1918±156	BC 258 (AD 79) 429	BC 95-AD 258 0.961, 1σ	
MOUND 12 SECTOR						
UGa-977	Mound 12 sector, F-39	wood charcoal, 200 g.	1680±70	AD 219 (388) 539	AD 256-431 1.000, 1σ	Broster et al. (1980)
UGa-976	Mound 12 sector, F-35	wood charcoal, 150 g.	1660±70	AD 237 (407) 556	AD 321-440 0.741, 1σ	Broster et al. (1980)
UGa-978	Mound 12 sector, F-37	wood charcoal, 120 g.	1175±135	AD 620 (1064) 1159	AD 764-984 0.868, 1σ	Broster et al. (1980)
UGa-980	Mound 12 sector, F-48	wood charcoal, 200 g.	1825±65	AD 32 (219) 382	AD 126-257 0.879, 1σ	Broster et al. (1980)
	Mound 12 sector average (excluding UGa-978)		1725±41	AD 235 (262, 277, 337) 418	AD 256-361 0.856, 1σ	
MOUND 31						
UGa-4214	Mound 31, N998/E998, F-6	charcoal, 10 g.	1570±125	AD 221 (442, 448, 468, 482, 530) 685	AD 382-620 0.968, 1σ	Mainfort et al. (1982)
UGa-4213	Mound 31, F-11A	burned cane, 20 g.	1210±160	AD 540 (781, 793, 802) 1162	AD 682-905 0.779, 1σ	Mainfort (1986)
UGa-4176	Mound 31, F-6	wood charcoal, 15.5 g.	2545±115	BC 916 (785) 394	BC 805-518 0.989, 1σ	Mainfort (1986)
TX-5486	Mound 31, F-2	wood charcoal, 16 g.	1480±60	AD 429 (600) 663	AD 537-664 1.00, 1σ	Mainfort (1988)
	Mound 31 average (excluding UGa-4176)		1466±53	AD 438 (603) 663	AD 558-643 0.943, 1σ	
MOUND 14 SECTOR						
UGa-979	Mound 14 sector, F-46	wood charcoal, 25 g.	1890±380	BC 806 (AD 91, 98, 126) AD 942	BC 235-AD533 0.931, 1σ	Broster et al. (1980)
M-1362B	Mound 14 sector, wall-trench house		1100±120	AD 665 (904, 910, 976) 1209	AD 778-1028 1.000, 1σ	Crane and Griffin (1966:270)
M-1362A	Mound 14 sector, wall-trench house		820±120	AD 990 (1221) 1398	AD 1001-1327 0.942, 2σ	Crane and Griffin (1966:270)
	Mound 14 sector house, average		960±85	AD 896 (1034) 1260	AD 1005-1165 1.000, 1σ	

the sample run as TX-4173. The resulting radiocarbon age and calibrated date are far older than all other assays for Ozier Mound, which serves to underscore the importance of sample provenience in radiometric dating. In computing the average of calibrated dates for the mound summit, we excluded the latter date.

The calibrated average date of the other four assays is A.D. 128–383, which is later than that proposed by Mainfort and Walling (1992:127) based on assays from the 1981 excavations. Obviously the 2σ variation cannot be viewed as representing actual use of the upper summit on Ozier Mound; for this, and reasons set forth by Mainfort in chapter 4, we favor the older end of the age range.

TWIN MOUNDS

The Twin Mounds (Mound 6), located about 200 m south of Ozier Mound, are a pair of intersecting conical mounds, each about 7 m tall and 25 m in diameter. Partial excavation of the northern Twin Mound disclosed the structural complexity of this large Middle Woodland burial mound (chapter 4). The mound was constructed during a very short period of time.

The four radiocarbon assays for the Twin Mounds were obtained on wood charcoal samples from individual logs associated with each of the four excavated submound burial facilities (Features 48, 49, 51, and 54). The two oldest dates were run by the Center for Applied Isotope Studies at the University of Georgia; the Radiocarbon Laboratory at the University of Texas-Austin assayed the other two. The dates do not differ statistically, and the 2σ calibrated average is A.D. 68–243, with the actual age likely to fall between A.D. 125 and 219 (Table 7.1). Average dates from the Twin Mounds and Ozier Mound do not differ significantly.

TWIN MOUNDS SECTOR

The area immediately south of the Twin Mounds was tested in 1963 and 1974 (Broster et al. 1980:4–12; Mainfort 1986; Morse 1986). The ceramic assemblage includes the largest number (though by no means abundant) of Marksville-related sherds found at Pinson Mounds (chapter 4). Charcoal from the circular Feature 12/14 complex provided the material assayed as TX-6605. Two badly decomposed copper objects—one a reel-shaped gorget—were found within the feature complex, as were the cremated remains of a flexed human burial (Broster et al. 1980:7–8). The associated calibrated date of 167 B.C.–A.D. 318 is not very helpful, but it suggests general contemporaneity with the Twin Mounds. Additional dates are needed to confirm or reject this possibility.

MOUND 10

Limited testing of Mound 10, an oddly shaped, flat-topped earthwork located about 100 m east of Sauls Mound, exposed a large hearth-like feature (Feature 21) just below the plowzone near the mound center (chapter 5). Three charcoal samples from the feature have been assayed radiometrically (Table 7.1). The conventional radiocarbon dates do not differ statistically, and at 2σ, the calibrated average is A.D. 128–421. The actual age is likely to fall between A.D. 221 and 362. This supports, but does not confirm, previous interpretations of Mound 10 as postdating the Twin Mounds. Although the calibrated averages from Mounds 6 and 10 do not differ significantly at the 95 percent level, the later probable date range for Mound 10 supports, but does not confirm, previous interpretations.

DUCK'S NEST

The Duck's Nest is a small, nearly circular embankment located south of Sauls Mound on a low bluff above the floodplain of the South Fork Forked Deer River (chapter 5). Near the center of the embankment and just below ground surface were the remains of what proved to be a relatively modern fire; a charcoal sample was assayed as UGa-4544. About 40 cm below this fire, at the base of a large pit, was a deposit of charcoal, from which three additional samples were selected for radiometric dating.

Two of the three dates, UGa-4681 and UGa-4910, are statistically different from the third (UGa-4542), but not from each other. The average calibrated date of these is A.D. 425–659. As shown in Table 7.1, the three dates for the Duck's Nest are quite variable, if not contradictory. They could be used to argue that the Duck's Nest is either one of the earliest features at Pinson Mounds (circa first century B.C.), one of the latest features (late sixth century A.D.), or both. Mainfort (1986:27) suggested that the two more recent dates should be dismissed because the dated

samples were obtained two to four weeks after the first and could have been contaminated by material from the modern fire above. Reexamination of the original sample submission forms shows that the samples assayed as UGa-4542 and 4681 were collected on two sequential days, but UGa-4910 dates a sample collected over a month later. The age of the Duck's Nest remains ambiguous, but the discovery of an early Swift Creek Complicated Stamped sherd on the surface within the embankment may indicate contemporaneity with the Duck's Nest sector deposits to the north.

DUCK'S NEST SECTOR

About 150 m north of the Duck's Nest is a ritual activity area designated the Duck's Nest Sector, which is noteworthy for producing fragments from a number of stylistically nonlocal ceramic vessels. Among these are examples of Swift Creek Complicated Stamped, McLeod Simple Stamped, limestone-tempered wares from the Tennessee River valley, and several other vessels with no known local counterparts (chapter 4; Mainfort et al. 1997; Stoltman and Mainfort 2002). Within the 72 m^2 excavation area, only a single recognizable feature (Feature 20) was recorded. Three samples of wood charcoal from the feature have been assayed (Table 7.1). The resulting dates do not differ statistically, and the 2σ calibrated average date is A.D. 132–415, with the actual age likely falling between A.D. 237 and 346. This supports, but does not confirm, past interpretations of the Duck's Nest sector as contemporary with Mound 10 and postdating the Twin Mounds, but again, statistical confirmation of significant differences between the averages for the Duck's Nest sector and Twin Mounds is lacking. We are impressed by the differences in the ceramic assemblages between the Twin Mounds and Ozier Mound on the one hand, and the Duck's Nest sector on the other.

COCHRAN SITE

Located about 200 m west of Ozier Mound, the Cochran site received a separate site designation largely because it lay just beyond the "breastworks" shown on William Myer's (1922) map of Pinson Mounds (see chapter 4) (Broster et al. 1980:31–36). Excavations at the Cochran site exposed portions of several oval, bentpole structures, as well as a number of nonlocal materials and artifacts. Designation of this area as a separate site was, in hindsight, unfortunate because this area can be understood only in the context of the western ritual precinct, if not the entire Pinson Mounds complex, as a whole (Mainfort and McNutt 2004).

Charcoal from Feature 10, incorrectly interpreted as the "central support post" (Broster et al. 1980:35) for an oval structure (see chapter 4 for reinterpretation), was assayed as UGa-3602 and produced a calibrated age of A.D. 240–560 at 2σ. The standard deviation associated with UCLA-2341D is too large (±500) for the date to be of any interpretive value, but statistically it can be used to compute an average calibrated date for the Cochran site area (Table 7.1), which is A.D. 318–439 at 2σ. The Flint Ridge chert bladelets and fabric-marked ceramics found in the excavated area suggest to us that this date is several centuries later than actual use of the area and that an age in the A.D. 1 to 300 range is more reasonable. Additional excavations here would be useful on several counts, including dating.

MOUND 12

Pinson Mound 12 was constructed on a natural knoll that had been used for mortuary rituals prior to mound construction (chapter 5; see also Broster et al. 1980:22–30; Mainfort 1988a). Several human burials were exposed within the premound cultural deposits, designated Strata 5 and 6, which also yielded over 800 pottery sherds and some mica fragments. Stratum 5 was excavated in two arbitrary levels that exhibit differences in the frequencies of key ceramic types (Broster et al. 1980:24).

Mound 12 has produced evidence of both the earliest and most recent use of Pinson Mounds as a Middle Woodland ceremonial center. There are two radiocarbon assays on samples of unidentified charcoal from non-feature contexts within Stratum 5. UGa-3176 is associated with the lower portion of the stratum. The 2σ calibrated range falls within the first several centuries B.C., which is consistent with the predominance of fabric-marked ceramics in the arbitrary excavation level. Cordmarked wares are more numerous in the upper arbitrary level of Stratum 5, from which the charcoal sample run as UGa-3175 was collected. At 2σ, the calibrated range suggests an age of between A.D. 132 and 540. Two mortuary features

found within Stratum 5, Features 61 and 66, have been dated, but the small sample sizes and conventional (not AMS) dating resulted in correspondingly large standard deviations. On both statistical and stratigraphic grounds, the dates can be averaged, and the resulting 2σ calibrated range of the two dates is B.C. 258–A.D. 429, with the actual age probably falling between about 100 B.C. and A.D. 260 (Table 7.1).

Mound 12 was built over a low clay platform, in the center of which was a probable crematory facility (Feature 55) containing the calcined remains of one or two individuals (Broster et al. 1980:22–26). The 2σ calibrated average of the two nearly identical radiometric dates on charcoal from this feature is A.D. 437–656, with the actual date probably in the A.D. 540–620 range (Table 7.1). Mainfort (chapter 5) now questions the accuracy of these dates based on ceramic evidence (including the occurrence of rocker-stamped sherds in the upper mound fill) and the fact that there is no stratigraphic evidence that the clay platform was constructed hundreds of years after the earlier cultural deposits.

MOUND 12 SECTOR

Excavations northeast of Mound 12 exposed a number of posts, a possible crematory basin, and other cultural features, but very few artifacts (Broster et al. 1980:15–18, 58; chapter 5). Among the pottery sherds are three specimens of stylistically nonlocal Larto Red. The four assays on large samples of unidentified wood charcoal from features in this area (Table 7.1) were the first Middle Woodland radiocarbon ages for the Pinson Mounds site. UGa-978, associated with a post (Feature 37), is a statistical outlier. At 2σ, the calibrated average range of the other three samples is A.D. 253–418, which is consistent with the presumed age of the small artifact assemblage. This area has good research potential, including providing a better context for the existing dates.

MOUND 31

A small burial mound, Mound 31 is located about 100 m east of the Twin Mounds (chapter 4). Near the center of the mound was a roughly rectangular pit in which an elderly adult male was interred. Numerous fragments of unidentified calcined bone, some small mica fragments, and ceramic sherds were located around the periphery of the pit and covered with a U-shaped ring of subsoil.

There are four radiocarbon determinations from various contexts in Mound 31 (Table 7.1). UGa-4176 is a statistical outlier and we excluded it in averaging the dates. The dated material was a combination of small charcoal samples from several excavation units. The resulting assay is the earliest date for the Pinson Mounds site. UGa-4213 is problematic because the dated sample consisted of charred cane and the assay was not corrected for isotopic fractionation, but there is no statistical basis for dismissing the date. In principle, the sample assayed as TX-5486 (cal A.D. 429–663) may be the most reliable for Mound 31 because, in contrast to UGa-4214, the dated material consisted of large charcoal pieces.

The 2σ calibrated average of three of the four dates from Mound 31 is A.D. 438–663, with the actual age probably in the A.D. 558–643 range (Table 7.1) (cf. Mainfort 1986, 1988a; Mainfort and Walling 1992). Based on the artifact assemblage (chapter 4), Mainfort is not convinced that the calibrated average accurately reflects the age of Mound 31. Rather, he believes that Mound 31 was constructed much earlier, circa A.D. 1–300, within the range of the Twin Mounds dates.

MOUND 14 SECTOR

For years, many archaeologists assumed that most earthworks at Pinson Mounds dated to the Mississippi period (see Faulkner 1967, 1972; Mainfort 1986, 1988a). Certainly the presence of large, rectangular, flat-topped mounds is quite at odds with traditional concepts of Woodland culture. The notion that the mound complex was Mississippian was supported by the discovery of a wall-trench house during the first professional excavations at the site (Fischer and McNutt 1961; Morse 1986; Morse and Polhemus 1963), which we rediscovered (see Broster et al. 1980:20) during the 1993 University of Memphis field school at Pinson Mounds. Subsequent excavations and surface collections have produced virtually no additional evidence of Mississippian occupation at Pinson Mounds, and the wall-trench house probably is an isolated farmstead or part of a small cluster of dwellings (Mainfort 1986; Mainfort et al. 1982). Two charcoal samples from the structure produced a calibrated average age of A.D. 896–1260 at 2σ (Table 7.1).

Until recently, with the exception of the excavated structures at the Obion site (Garland 1992), this was the only completely excavated Mississippi period house in the West Tennessee interior.

DISCUSSION

Calibration and averaging of the available dates does not clarify issues of internal chronology at Pinson Mounds. Rather, it demonstrates that the chronology is not so straightforward as suggested in earlier publications. The results of this exercise do, however, cast doubt on the possibility that nearly all the earthen construction and other ritual activities at Pinson Mounds occurred within a period of only 200 years or less (cf. Mainfort 1986:83; 1988b:140–141).

As shown in Figure 7.1, the calibrated average dates from various localities decrease very gradually from the first through the third century A.D. Three later calibrated averages (including the vexing Duck's Nest dates) cluster around A.D. 600; Mainfort considers these suspect. Because of the gradual changes, no two (or three, or four) adjacent dates differ significantly, and the calibrated averages from the first through third centuries do not differ significantly as a group.

In the concluding paragraph of the 1986 monograph, Mainfort presented a chronology of site use and mound construction at Pinson Mounds that stood essentially unchallenged until the early 1990s (see Mainfort 1988a, b):

> The extensive body of radiocarbon dates for the Pinson Mounds site provides a basis for reconstructing the internal chronology over a period of approximately 500 years. Although the inception of earthwork construction at the Pinson Mounds site has not been precisely dated, stratigraphic evidence, as well as the ceramic assemblage from the site, indicates that it post-dates the Miller I occupation stratum below Mound 12, which has been dated to *circa* 200 B.C. (Mainfort, Broster, and Johnson 1982). Radiocarbon dates from Ozier Mound (Mound 5) and the Twin Mounds indicate that these large earthworks were completed by A.D. 100–150 and the stratigraphic sequence recorded for Ozier Mound implies a construction period of at least 100 years. Several lines of evidence suggest that Mounds 9, 15, 28, and 29 are contemporary with Mounds 5 and 6 and, therefore, the major construction period at Pinson Mounds may be tentatively dated to the period 50 B.C. to A.D. 150. Mound 10, dated to approximately A.D. 200, apparently post-dates construction of the larger mounds, an inference supported by its anomalous shape, location, and size. The mortuary ceremony represented in the Duck's Nest sector also dates to *circa* A.D. 200, indicating that the site was still of importance to a number of diverse groups throughout the southeast at that time, despite the curtailment of large mound construction. Around A.D. 300, the mortuary camps recorded by Broster at the Cochran site (about 200 m northwest of the Twin Mounds) and the Mound 12 sector were constructed (Mainfort [ed.] 1980; Mainfort, Broster, and Johnson 1982). Although the proximity of these habitation loci to burial mounds seems to imply a functional relationship, radiocarbon dates indicate that the Cochran site was used over 100 years after construction of the Twin Mounds, while Mound 12 post-dates the nearby temporary structures by about 150 years. Mound 31, a small burial mound located slightly east of the Twin Mounds, seems to have been built between A.D. 300 and 400 and the central burial feature of Mound 12 has been reliably dated to A.D. 460 (Mainfort, Broster, and Johnson 1982). These latter earthworks were clearly constructed by small, local social groups and it appears that the Pinson Mounds site ceased to function as a supralocal Middle Woodland ceremonial center around A.D. 300. (Mainfort 1986:82–83)

In 1991, Mainfort and Walling (1991) performed an initial calibration of many of the Pinson Mounds radiocarbon assays. Their major conclusion was that the calibrated dates supported the 1986 chronology, but that the calibrated dates postdated the conventional dates by about a century. They did not compare calibrated averages for dated localities, which probably would have tempered their conclusion a bit, as well as Mainfort's continued belief that all of the large mounds predated the Duck's Nest sector and Mound 10 (see also Mainfort 1996).

In our 2004 article (Mainfort and McNutt 2004), we did not specifically critique the key points of the traditional chronological scheme, but we feel that it is important to do so here as an adjunct to the reinterpretations of Pinson Mounds presented in the preceding chapters.

> (1) [A]ll of the large mounds were probably constructed during the first century A.D. (Mainfort 1988b:140–141)

The only large mounds for which there are radiocarbon assays are Ozier Mound and the Twin Mounds. Mounds 15, 28, and 29, as well as Sauls Mound and the earthen enclosure, are as yet undated. Predictably,

calibration shifts the ages of the dated large mounds into the second century A.D. Mainfort (chapters 1 and 4) now views the western mounds as comprising a distinct ritual precinct and suggests that Ozier Mound and the Twin Mounds may have been the first earthworks constructed within the Pinson Mounds complex.

> (2) Pinson Mounds continued to function as an important regional ceremonial center until at least A.D. 200, as indicated by the ceremony represented in the Duck's Nest Sector. However, mound construction seems to have been severely curtailed by this time, as the small size and asymmetrical shape of Mound 10 suggest that it was built by a relatively small social group. (Mainfort 1988b:141)

Calibration shifts the Duck's Nest sector and Mound 10 about a century forward in time to circa A.D. 250–350. As discussed in chapter 5, the odd shape of Mound 10 is more likely related to a special function, not to construction by a "small social group."

> (3) The large ovoid houses encountered in the Mound 12 sector and the Cochran site locality date to approximately A.D. 300, and it is difficult to assess their relationship to mound construction at the site, as they were apparently built long after the major mounds. (Mainfort 1988b:141)

The calibrated average of the Mound 12 sector dates is A.D. 253–418, which seems reasonable, but as we discussed above, the two Cochran site locality dates (one with a huge standard deviation) are suspect. The actual age probably is in the A.D. 100–400 range. Additional dates for the Cochran site and the Twin Mounds sector would be helpful.

> (4) Mound 31, which was probably constructed during the fifth century A.D., represents a good example of the sort of earthwork that a small social group might build . . . (Mainfort 1988b:141)

Setting aside the questionable assertion that Mound 31 was built by a "small social group" (see chapter 4), the radiocarbon evidence suggests that the actual age of the mound is in the A.D. 558–643 range. Based on the associated artifact assemblage, Mainfort disputes the dates and feels that an age of roughly A.D. 1–300 is more reasonable.

> (5) Mound 12 [was] . . . built around A.D. 460 which seems to mark the terminal Middle Woodland use of the site. (Mainfort 1988b:141)

For over two decades Mainfort used the dates on a cremation within an initial construction stage of Mound 12 to anchor the late end of Pinson Mounds chronology (e.g., Mainfort 1986, 1988a, 1988b). Calibration places these dates in the A.D. 540–620 range. As Mainfort points out in chapter 5, artifactual and stratigraphic evidence supports his claim that the actual age is several centuries earlier.

McNutt insisted upon calculating the calibrated average for the entire mound complex, which is A.D. 180–335, with the age probably falling between A.D. 230 and 320 (Table 7.1). The mere fact that so many dates from diverse contexts do not differ statistically calls attention to an important point made by Fortier et al. (2006:199), namely that radiocarbon dating can be "less useful in resolving tight chronological increments." This is precisely the situation we face at Pinson Mounds, where we are attempting to determine chronological relationships between specific historical events (e.g., construction of the Twin Mounds and the ritual conducted in the Duck's Nest sector) that occurred during a period of perhaps 400 years and perhaps involving several autonomous regional cults (see Byers 2004).

Chronology at Other Middle Woodland Sites in the Midsouth

The Pinson Mounds ceramic assemblage is similar in both paste and surface treatments to ceramics characteristic of the Miller 1 and 2 complexes of northeastern Mississippi (Jenkins and Krause 1986; Mainfort 1980, 1986; Mainfort and Walling 1992). Below we consider dates from the Bynum, Pharr, Miller, and Ingomar sites (Rafferty 1990; Walling et al. 1991) to place these and the dates from Pinson Mounds in a broader regional context. The sites themselves are discussed in more detail in the concluding chapter of this volume.

The southernmost of the Mississippi sites discussed here, Bynum, includes six conical mounds and an early Middle Woodland occupation area within an

area of about 8 ha. Cotter and Corbett (1951) excavated five mounds and part of the occupation area in the late 1940s. Among their findings were the remains of a charnel house beneath one mound, a concentration of nonmound structural remains, and some Hopewellian artifacts.

As reported by Walling et al. (1991), there are two dates associated with a charnel house beneath Bynum Mound B (TX-6481 and Beta-33591), for which the 2σ calibrated average is 361 B.C.–A.D. 2. Charred wood/bark from a log at the base of Bynum Mound A produced a 2σ calibrated date of 407 B.C.–A.D. 210 (TX-6482). The three Bynum dates do not differ statistically, and their calibrated average is 358 B.C.–A.D. 1 at 2σ, with the actual age probably in the 295 B.C.–A.D. 1 range (Table 7.2). In the early 1950s the University of Chicago assayed a sample of "vegetal material" from the Mound B charnel structure, which produced a conventional radiocarbon age of 1267 ± 150 years (UC-INS 154; see Griffin 1952:367). This obvious outlier was not used in computing the calibrated average for Bynum.

TABLE 7.2 Radiocarbon assays for Middle Woodland mound groups in the Midsouth.

Site Lab Number	Provenience	Material	^{14}C age	Calibrated 2σ range	Relative Area, Significance	Reference
BYNUM						
TX-6481	Mound B, F-10	wood charcoal?	2010+100	B.C. 352-A.D. 236	B.C. 121-A.D. 83 0.870, 1σ	Walling et al. 1991
TX-6482	Mound A, F-3	wood charcoal or bark	2110+130	B.C. 403-A.D. 133	B.C. 405-A.D. 137 0.986, 2σ	Walling et al. 1991
Beta-33591, ETH-5910 AMS	Mound B, F-8	persimmon seed	2200+85	B.C. 403-2	B.C. 377-195 0.80, 1σ	Walling et al. 1991
Bynum average			2117+58	B.C. 359-A.D. 16	B.C. 202-49 0.960, 1σ	
PHARR						
TX-6459	Mound E, F-10	charcoal	1930+100	B.C. 170-336	B.C. 3-A.D. 181 0.801, 1σ	Walling et al. 1991
TX-6460	Mound E, F-11	charcoal	1940+90	B.C. 167-A.D. 318	B.C. 44-A.D. 135 0.875, 1σ	Walling et al. 1991
TX-6461	Mound E, F-11	charcoal	1830+70	A.D. 27-384	A.D. 122-256 0.855, 1σ	Walling et al. 1991
Md E F-11 average			1880+38	A.D. 31-238	A.D. 58-236 0.994, 2σ	
Pharr average			1886+49	A.D. 5-241	A.D. 21-242 0.997, 2σ	
MILLER						
TX-6455	Mound B	charcoal	1680+80	A.D. 134-556	A.D. 208-542 0.958, 2σ	Walling et al. 1991
TX-6456	Mound B, F-2	charcoal	1720+110	A.D. 68-596	A.D. 211-430 0.895, 1σ	Walling et al. 1991
TX-6457	Mound B, posthole	charcoal	1720+60	A.D. 134-432	A.D. 206-431 0.933, 2σ	Walling et al. 1991
TX-6458	Mound B, above old humus	charcoal	1800+70	A.D. 68-409	A.D. 130-261 0.775, 1σ	Walling et al. 1991
Miller average			1734+38	A.D. 224-412	A.D. 245-344 0.913, 1σ	
INGOMAR						
Beta-23197	Mound 14, F-9	wood charcoal	1740+80	A.D. 84-527	A.D. 117-441 0.962, 2σ	Rafferty 1990
Beta-23198	Mound 10, base		1940+110	B.C. 199-A.D. 339	B.C. 201-A.D. 342 0.999, 2σ	Rafferty 1990
Ingomar average			1810+66	A.D. 67-392	A.D. 73-365 0.977, 2σ	
THE PINSON CENTROID						
			1781+18	A.D. 180-335	A.D. 230-320	1.000, 2σ

About 90 km northeast of Bynum is the impressive Pharr site, which encompasses about 30 ha and includes eight conical mounds (Bohannon 1972). Several mounds were constructed over low earthen platforms, reflecting a multistage mortuary program. A few Hopewellian artifacts were found in the mounds. As at Bynum, most of the ceramics from Pharr are sand-tempered plain or fabric-marked (Walling et al. 1991).

There are three dates from Pharr, all on charred material from Mound E (Walling et al. 1991). TX-6460 and 6461 date Feature 11, which earlier had produced a questionable conventional radiocarbon age of 2345 ± 90 bp (Bohannon 1972:78). The calibrated average date of the two more recent assays is A.D. 9–317, and the calibrated average of all three dates reported by Walling et al. (1991) is A.D. 22–240, with an associated probability of 1.00 (Table 7.2).

The type site of the "Miller culture" (Jennings 1941, 1944) is also the smallest (3.5 ha) of the northern Mississippi sites discussed here, but the Miller site includes two fairly large conical burial mounds and a substantial occupation area. At the base of one mound were the burned remains of a possible charnel house (Walling et al. 1991:59). Some copper scraps found in a relic hunter's pit atop one mound are the only examples of Hopewellian commodities. The ceramic assemblage is dominated by cordmarked and plain surfaces, with a meager representation of fabric-marked wares, suggesting that the Miller site postdates Bynum and Pharr.

The four radiocarbon determinations for the Miller site are from Mound B contexts. These ages vary by only 120 years, so the entire group can be averaged. At 2σ, the average calibrated date is A.D. 227–406, with an associated probability of 1.00 (Table 7.2).

Bynum, Pharr, and Miller are located in the Tombigbee River drainage, but Ingomar lies a few kilometers west of the Tombigbee-Mississippi River divide. The site includes as many as a dozen mounds, including a large ramped platform mound and several conical burial mounds, within an area of about 20 ha (Rafferty 1990).

Ashy basketloads located about 30 cm below the surface of Ingomar Mound 14 included "numerous small pieces of wood charcoal." A combined sample of these (Rafferty 1990:100) produced a 2σ calibrated date of A.D. 84–530. Burned material from two ashy basketloads at the base of Mound 10 returned a calibrated date of 336 B.C.–A.D. 343, with the actual age probably in the 203 B.C.–A.D. 343 range. The two dates do not differ significantly. Neither actually date defined features associated with mound construction or use; we rejected a date from Ozier Mound (see above) from a context similar to that of the dated Ingomar samples.

The available dates suggest that the earliest Hopewellian activities in the region occurred at the Bynum site, followed by Pharr, Ingomar, Pinson, and Miller. Because of the markedly early calibrated average date for Bynum, the averages for the five sites differ significantly. In fact, the averages of Bynum and its nearest chronological neighbor (Pharr) differ significantly ($p < 0.05$). The Pharr, Ingomar, Pinson, and Miller sites are suitable for averaging, however, producing a calibrated date of A.D. 141–323. This indicates rather intense Middle Woodland ceremonial activity in the uplands east of the Mississippi River valley and west of the (western) Tennessee-Tombigbee Rivers in the second and third centuries A.D.

Finally, we will mention that the averages for Bynum and Pharr are roughly comparable with the average date for Helena Crossing Tomb C in the Mississippi Valley (Ford 1963; McNutt 1996; Mainfort 1988b, 1996), which is 171 B.C.–A.D. 83. The Bynum and Helena Crossing dates in particular support our earlier conjecture about the temporal priority of Hopewellian manifestations in the Midsouth over those in the lower Illinois River valley (Mainfort and McNutt 2004:22).

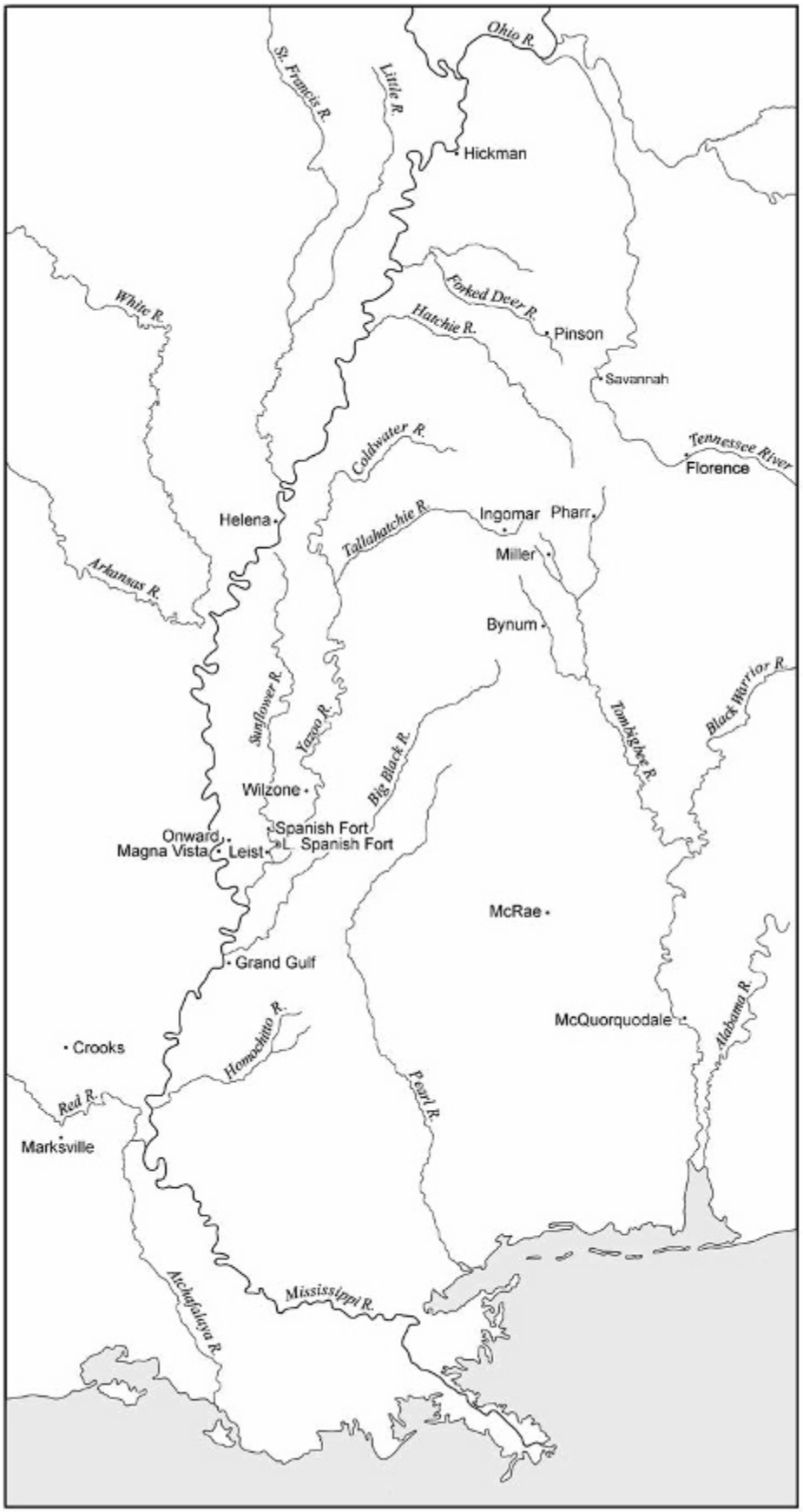

FIGURE 8.1. Selected Middle Woodland earthwork sites in the Midsouth and Lower Mississippi Valley.

CHAPTER 8

Pinson Mounds and the Middle Woodland Period in the Midsouth and Lower Mississippi Valley

In the Midsouth and Lower Mississippi Valley, there has traditionally been less research or antiquarian interest in Middle Woodland than in Illinois and Ohio. There are several obvious reasons for this. First, there are fewer Hopewellian burial mounds in the South than there are in these two northern states, and those few that have been excavated have yielded comparatively few exotic materials and artifact forms. Second, in contrast to Ohio and Illinois, there are many Mississippian mound sites in the South, and these have attracted a great deal of archaeological attention.

Not surprisingly, the relative importance of Hopewellian studies in the two areas is reflected in the numbers of resulting publications. For example, in 1967 there were published reports of some sort on roughly 140 Hopewellian mounds in Illinois (Brown 1968). By the same year, there were reports available on only about two dozen Marksville period mounds in the Midsouth (excepting the Copena area) and Lower Mississippi Valley (cf. Seeman 1979:Table 1).

Particularly in the Lower Mississippi Valley, Middle Woodland studies have emphasized ceramics and relative chronologies (Seeman 1977:71) to such an extent that the earthen mounds and embankments at important sites have received rather cursory, sometimes dismissive, treatment. This situation is perhaps epitomized by the Wilzone site in the lower Yazoo Basin, originally recorded by Ford (1936:158–159), who collected a small sample of sherds and apparently did not notice the large Middle Woodland embankment and ditch (discussed below) that surrounded his collection area.

Most of this chapter is an overview, including some new interpretations, of key Middle Woodland mound centers in the Midsouth and Lower Mississippi Valley (Figure 8.1). This material serves to underscore the rich nature of Middle Woodland in the region and places Pinson Mounds within a broader cultural context. The chapter concludes with some thoughts about unique expressions of Hopewell in the greater Midsouth and the importance of Pinson Mounds within this region and the Hopewellian world in general.

Marksville and Crooks

Any overview of Middle Woodland in the Midsouth and Lower Mississippi Valley has to begin with Marksville (Toth 1979, 1988). The mound and embankment complex of the same name, from which the Middle Woodland period in the region also takes its name (Phillips 1970:16–17; Toth 1979:189), is located on a prairie terrace near the confluence of the

Red and Mississippi Rivers in Avoyelles Parish, Louisiana (Figures 8.1 and 8.2). The site area (depending on how the limits are defined) may be as much as about 80 ha (200 acres).

The Marksville site includes at least three earthen embankments (two possible embankments remain unconfirmed [McGimsey et al. 1999:83]), eight mounds, and an unknown number of "rings" (McGimsey 2003). In recent years, 15 radiocarbon dates have been obtained for the site, and though the cultural context of most is uncertain, these assays generally support the traditional interpretation that peak use of Marksville occurred during the first several centuries A.D. (McGimsey et al. 1999:89–90).

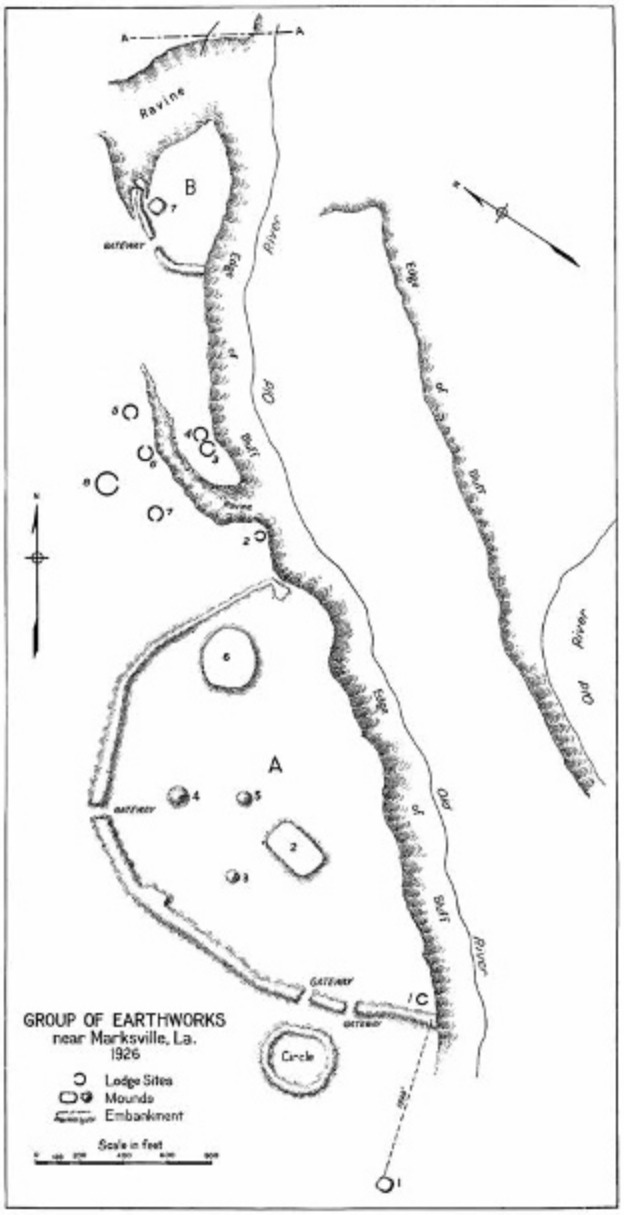

FIGURE 8.2. The Marksville site (from Fowke 1928:Plate 64).

In plan view, the largest embankment is a C-form (Byers 1987) with an exterior ditch (Jones and Kuttruff 1998; McGimsey et al. 1999). With a diameter of about 640 m, this earthwork was constructed in a single episode and surrounds an area of about 17 ha (42 acres). There are three or four openings ("gateways") in the embankment, at least one of which is aboriginal. Within the enclosure are five mounds, with heights ranging from 1 to 6 m. Two of these have flat summits—Marksville Mound 2, which is rectangular in outline, and the roughly circular Mound 6 (Figure 8.3).

Adjacent to the southern portion of the large embankment is a small earthen enclosure, about 100 m in diameter, with an exterior ditch (Jones and Kuttruff 1998:53). A hyphenated linear embankment, approximately 150 m long and with an exterior ditch, restricts access to a 1.6 ha projecting section of the blufftop prairie terrace about 200 m north of the large enclosure. Within this area is a rectangular platform mound (Mound 7) of uncertain age and function.

The largest conical mound, Mound 4, was almost completely excavated in the 1920s and 1930s. Fowke (1928; see also 1927) published a description of his initial excavation, but provided no drawings. Setzler and Ford did not publish the promised report (see Ford 1936:231; Ford and Willey 1940:137, 146) on their 1933 excavations into Mound 4, and this work was documented primarily through the efforts of Alan Toth (1974), some 30 years after the fact. The description that follows is a bit lengthy in order to highlight the complexity of this mound, which is not widely known.

Marksville Mound 4 was built over a rectangular clay platform about 8 m square and 1.5 m tall. Earthen mortuary platforms are characteristic of Middle Woodland in the region under consideration (Mainfort 1996a), but the Mound 4 example was more than a simple platform. A large, square pit, or "vault," was excavated into the platform surface. Near the center of the vault was a smaller pit in which "Successive fires had been made" (Fowke 1928:421). This smaller pit and its ashy contents were covered by "many layers of silt," indicating that it was exposed for some period of time.

The vault and central fired pit were "covered with rafters topped with several layers of cane and clay" (Ford and Willey 1940:32). This description, as well as photographs, suggests the presence of a lightly framed structure (perhaps a charnel house), the walls of which were supported by small upright poles (Toth 1974:22–27). A number of burials, both children and adults, were placed on the level floor of the vault (Fowke 1928:420), and "scattered burials were also made in small individual vaults on the surface of the platform" (Ford and Willey 1940:32). One adult "had been laid between two small logs" (Fowke 1928:420), a practice documented at other mound groups discussed below.

A primary mound composed of "buckshot" clay covered the platform and charnel house. Inclusive in this building episode were a number of specific burial events using several interment modes. Not far south of the platform were at least five burials, including at least two children, that were inclusive in the lower portion of the primary mound. One child was placed on a layer of "bark" (perhaps matting) within a shallow basin, then covered with a thick layer of clay and another layer of bark. Another individual was placed between two layers of bark, and several burials may have simply been laid on a temporary mound surface (Fowke 1928:419).

Once the primary mound was complete, or nearly so, two large pits about a meter deep were excavated near the mound center. One, containing the remains of four adults, was lined and covered with wood or bark. The upper portion of the pit was "filled with a sticky, blackish mud, mixed with white clay, as if taken from a swampy place" (Fowke 1928:417). The remains of a single adult were uncovered in the other large pit. In this instance, the pit walls were lined "with white ashes in which some charcoal was mingled" (Fowke 1928:418). Like the other large pit, it was filled with swampy soils. The use of black organic muck as burial pit fill is seen in Illinois Hopewell (e.g., Griffin 1945; Kelly and Cooper-Cole 1931:326–327), though by no means limited to that region (e.g., Ohio). As Hall (1979:259–261) points out, use of such soils relates to the Earth Diver creation myth that was pervasive throughout the eastern Woodlands. On the surface of the primary mound were the bundled remains of two children wrapped in bark (Fowke 1928:418). A final layer of fill brought the mound to its final height.

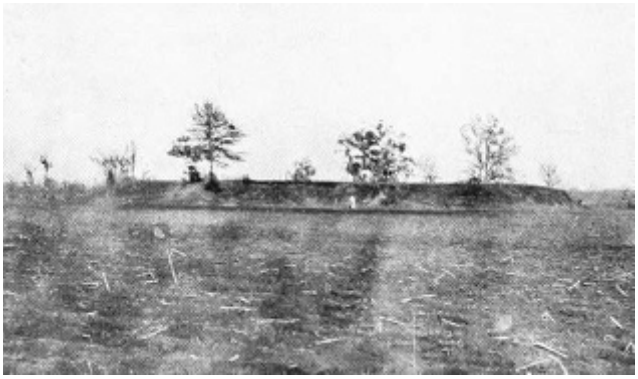

FIGURE 8.3. Marksville Mound 6, view to east (from Fowke 1928:Plate 60).

Fowke (1928:423–425) also excavated a trench into Marksville Mound 8, a conical blufftop mound north of the northern enclosure. At the base were seven burial facilities, excavated into subsoil. In the bottom of one circular pit were "scraps of bone burned almost to a cinder," but the pit walls were not fired. The pits, and perhaps the entire submound burial area, were covered with cane and oak matting. At least one burial, a child, was wrapped in bark and buried in mound fill just above the base (Fowke 1928:425). Funerary objects were limited to four ceramic vessels and some small gastropod shells (possibly beads). It seems appropriate to note here that the importance of ceramic vessels as funerary objects is also seen in Illinois (but not Ohio) Hopewell.

Fowke's most important discovery in Marksville Mound 8 was not human burials or pottery vessels, but rather a number of upright poles similar to those recorded on the northern Twin Mound at Pinson Mounds (chapter 4). The description is worth quoting in full:

> At intervals, near the center, were casts of carbonized twigs and small sticks which seemed to have been set leaning outwardly at an angle of 45 degrees. They were not continuous, yet seemed to be purposely placed as if to enclose or protect something. (Fowke 1928:424)

Given the crude excavation techniques and sketchy field records of the day, it is remarkable that Fowke noticed and reported the discovery of these "small sticks." With, now, two reported examples at sites separated by about 570 km (360 miles), it is possible that the use of angled poles set into the surface

of a primary burial mound was part of the general Hopewellian burial mound repertoire in the Midsouth and Lower Mississippi Valley. A third example would greatly strengthen the case.

Similarities, particularly with regard to ceramics (Figure 8.4), between Marksville and the Hopewell earthworks of Ohio and their contents were first noted in print by Setzler (1933, 1934b) a few years after Fowke's work at Marksville. Charles Willoughby, who knew the Ohio Hopewell material better than Setzler, referred to Marksville as "an isolated outpost of this Hopewell Culture . . . which may have answered the purpose of a trading post, and it helps to explain the occurrence of material from the Gulf region with burials, especially in the graves of the Hopewell Group" (Willoughby 1935:304).

Marksville was not the first Hopewell horizon site to be excavated in the greater Midsouth. For example, in 1904, Charles Peabody reported on some material that now would be regarded as Early Marksville from the Dorr site in Coahoma County, Mississippi. C. B. Moore (1908) found Marksville material at Anderson Landing in the lower Yazoo Basin, as well as Saline Point and Mayer Place in the lower Red River region (Moore 1912) (Figure 8.5). Moore also tested, with negative results, the site later known as Crooks (Ford and Willey 1940; Moore 1909:103).

The Crooks site (Ford and Willey 1940), about 35 km north of Marksville, is the best-documented mound site within the Marksville phase core area (Figure 8.1). My observation that "Crooks Mound A represents a mortuary situation unparalleled anywhere

FIGURE 8.4. Ceramic vessels from the Marksville site. *Upper row:* U.S.N.M. No. 331688 (from Setzler 1934b:Plate 1), U.S.N.M. No. 331694, U.S.N.M. No. 331700 (from Setzler 1934b:Plate 3); *lower row:* U.S.N.M. No. 369002, U.S.N.M. No. 369004, U.S.N.M. No. 369003 (from Setzler 1934a:Fig. 46).

FIGURE 8.5. Marksville vessels excavated by C. B. Moore. *Left and center,* Anderson Landing (from Moore 1908:587); *right,* Saline Point (from Moore 1912:499).

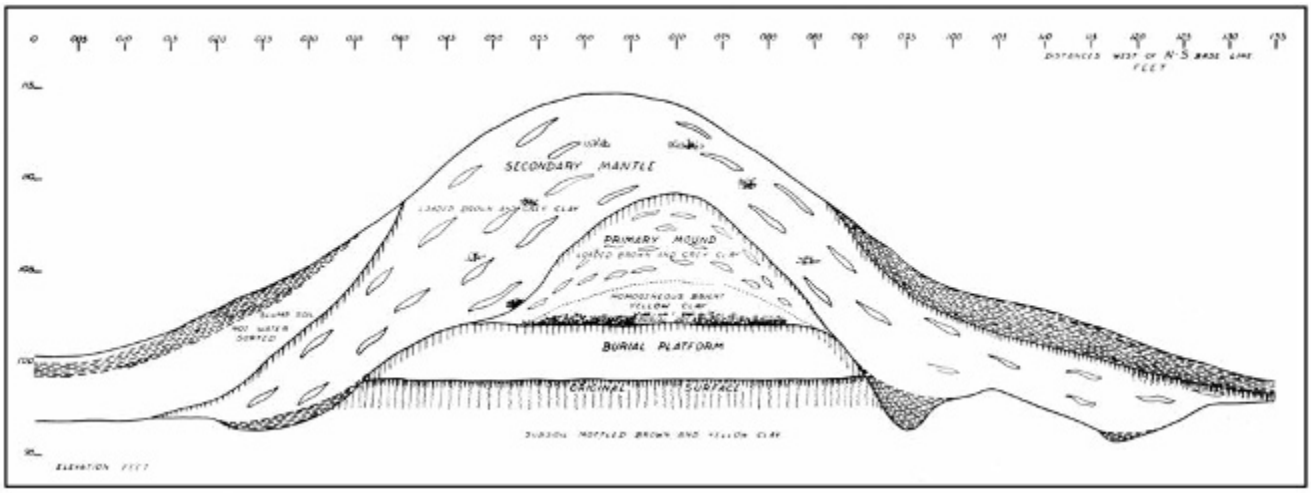

FIGURE 8.6. Crooks Mound A, east-west profile (after Ford and Willey 1940:Figure 8).

within the Hopewellian world" (Mainfort 1996a:374) seems to have struck a chord with other interested researchers (e.g., Kidder 2002b:76).

Crooks Mound A stood about 6.5 m tall (Ford and Willey 1940:14) and was built over a low earthen platform measuring about 12 m by 20 m (Figure 8.6). One hundred sixty-eight human burials—a number without precedent in the Lower Mississippi Valley—were interred within the upper portion of the platform. There was some weathering on the upper surface, suggesting that the platform was allowed to stand exposed for a short time or perhaps that a torrential rainstorm interrupted activities. An additional 214 interments subsequently were placed on the platform. A primary mound, in which the remains of 270 individuals were buried, was built over the platform. On the east side, a series of log steps extended up the primary mound (Ford and Willey 1940:27–28). The log steps may be unique among reported Middle Woodland mounds.

Covering the primary mound was a secondary mantle containing an additional 503 burials, most located on the south and east slopes (Ford and Willey 1940:35). The secondary mantle almost certainly represents more than a single construction event because it contained both Marksville and a few Plaquemine artifacts (cf. Ford and Willey 1940; Gibson and Shenkel 1988:15; cf. Griffin 1973:377), but there is no reason to think that more than a small percentage of the 1,146 or so burials (Ford and Willey 1940:37) postdate the Marksville period. Placing the number of interments within Crooks Mound A in broader perspective, only 102 individuals were recorded on the floor of Hopewell Mound 25—the largest of all Hopewell mounds (Greber and Ruhl 1989:52) and 505 individuals were excavated from 13 mounds and a natural knoll at the Klunk-Gibson mound group in Illinois (Braun 1979).

In my earlier discussion of Crooks Mound A (Mainfort 1996a) I neglected to emphasize that there are at least four major episodes of burial represented. As Mark Seeman pointed out to me (personal communication, May 17, 2012), four rounds of burial deposits in a single location may be the greatest number of such superimposed "events" in the Hopewell world.

The human remains from Crooks are reported only cursorily (Ford and Willey 1940:40–41). The overwhelming majority of the interments were adults and only 4 infants, 17 children, and 24 juveniles. Burial treatments in Crooks Mound A included 435 flexed (n = 435), 223 isolated skulls (many placed adjacent to more complete skeletons), bundled (n = 137), semiflexed (n = 88), partially disarticulated (n = 55), and extended (n = 5); position could not be determined for 216 interments (Ford and Willey 1940:37). The bundled and partially articulated remains obviously were processed—the question is, where? Perhaps a charnel facility was located at or near the Crooks site (Brown 1979:219), but the large number of secondary burials (n > 448) seemingly demands that many individuals were brought to the Crooks site from elsewhere, and that Crooks Mound A served as a regional burial facility for some years.

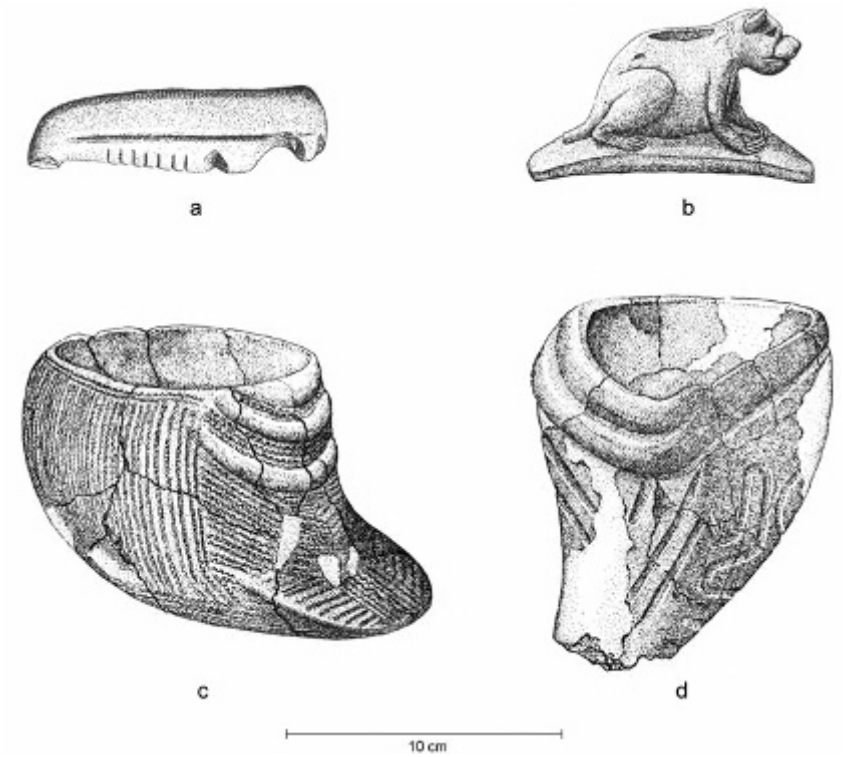

FIGURE 8.7. Artifacts from Crooks Mound A (after Ford and Willey 1940). a, cannel coal grasshopper(?) effigy; b, ceramic platform pipe; c–d, unusual ceramic vessels.

The Crooks ceramic assemblage—over 80 whole or partially restorable vessels, including more than 40 decorated specimens—is by far the largest group of Marksville period vessels and is a valuable source of data on vessel form and decorative motifs. Vessel forms include tubby pots, beakers, and hemispherical bowls, almost all produced with a characteristic "chalky" paste. Broad-billed and hook-billed birds, some highly stylized, are portrayed on a number of vessels (Canouts 1986; Ford and Willey 1940; Toth 1988). Considering the enormous number of burials, examples of Hopewellian exotica are scant. These include six copper earspools of the single concavo-convex disc style, cylindrical copper beads, a copper bracelet, several galena beads, freshwater pearl beads, and a number of quartz crystals. A few funerary objects from Crooks Mound A, including two unusual ceramic vessels, are shown in Figure 8.7.

The time-worn adage "raises more questions than it answers" certainly is apropos to Crooks Mound A. Why were so many Middle Woodland people buried here? Turning first to the "here," Crooks is a small, unimposing site. It lacks an earthen embankment and does not occupy a particularly distinctive landform. Marksville, by far more impressive architecturally, is located only 35 km to the south. Yet the Crooks site was selected for construction of a major burial facility. As to why so many interments, the answer may never be known, but the suggestion that the large burial population was drawn from a number of geographically scattered communities potentially could be tested using mitochondrial DNA (Bolnick 2005; Bolnick and Smith 2007; Mills 2003).

The Yazoo Basin Enclosures

In the southern Yazoo Basin of Mississippi are (or were) six semicircular earthen embankments of Middle Woodland age (Figure 8.1). Two were identified only in the last few years: Wilzone (Sam Brookes, personal communication, 2008) and an enclosure west of Onward. At least four—Spanish Fort, Little Spanish Fort, Wilzone, and Leist Landing—are surrounded by an exterior ditch (Jackson 1998; Mainfort 1996a; Phillips 1970; Thunen 1988; Williams and Brain 1983). In his major synthesis, Phillips (1970:534–538) basically ignored these distinctive earthen embankments in formulating his "Anderson Landing phase," within which they are geographically subsumed (see

also Toth 1988:152; Toth considered discussion of the cultural and temporal affiliations of the enclosures to be a "waste of ink").

This is very revealing about the way in which Phillips operationally conceived of archaeological phases. His phases, quite clearly, were all about artifacts, specifically ceramics (see also Toth 1988). Such an approach to constructing archaeological phases perpetuated a key shortcoming of the Midwestern Taxonomic System that Willey and Phillips (1958) sought to replace, namely that the degree of similarity or dissimilarity among archaeological units is dependent on the traits chosen for comparison and their relative weighting (see Brown 2005; Mainfort 2005). With Leist Landing, Little Spanish Fort, and Spanish Fort (the Onward and Wilzone enclosures were as yet not identified), Phillips had three obviously similar sites located within a restricted geographic area—a seemingly ideal situation for creating a traditional culture-historical unit. Yet, the earthen architecture was trumped by handfuls of "diagnostic" ceramics. Finally, even in the absence of good data, Phillips seems to have felt that it was important to populate the archaeological landscape with phases simply to fill in areas.

Wilzone (21-N-19), the northernmost of the embankments, is situated on the west bank of Wolf Lake, an abandoned channel of the Yazoo River (Figure 8.8), about 27 km south of the Jaketown site (Ford et al. 1955). Across the lake to the east is the Slate site (Lauro and Lehmann 1982). Ford (1936:158) made a small collection of sherds at the site, but overlooked evidence of the enclosure. The embankment is about 510 m in diameter. A slough along the northern portion of the wall suggests the presence of an exterior or interior ditch. There is a moderately large mound within the enclosure (Ford 1936:158; Sam Brookes, personal communication, September 2008). The south end of the enclosure is largely destroyed. Ford's (1936:158–159) minuscule (n = 27) sherd collection contained no classic Marksville sherds, but the form and location of the embankment leave little doubt about cultural affiliation. This and the other Yazoo Basin embankments provide a fine dissertation opportunity.

Spanish Fort is located on a bend of the Big Sunflower River, about 30 km southwest of Wilzone (Figure 8.1). This earthen embankment is quite large, about 590 m in diameter (Walling and Roemer 1993; James Marshall, personal communication, 1993; cf. Phillips 1970:306–307), and at one time there were four openings, or "gates," in the wall (Brown 1926:71) (Figure 8.8). There are (or were) at least two mounds in close proximity to the embankment, one on each side (Brown 1926:71–72; Moore 1908:589). A fairly large artifact collection from the surface and a single test pit produced artifacts ranging in age from Poverty Point to Mississippian times, including early Marksville (Phillips 1970:305–315; Toth 1988:152).

Jackson's (1998) investigations at Little Spanish Fort support my earlier interpretation of Spanish Fort as a Middle Woodland (Marksville) earthwork (Mainfort 1996a). Located 8 km south of Spanish Fort (Figure 8.1), Little Spanish Fort is misnamed, as its enclosure is actually larger than the former earthwork (Figure 8.8). With a diameter of roughly 640 m (Jackson 1998), the Little Spanish Fort enclosure is comparable in size to the large embankment at Marksville (Jones and Kuttruff 1998; McGimsey et al. 1999). The earthen wall may have been constructed in two stages, with the first stage covered by a clay cap (Jackson 1998:207). Near the southern end of the embankment is a roughly circular mound 2 m tall; its flat top may be the result of historic house construction. Limited testing of the embankment, mound, and a "midden" area produced five wood charcoal samples that were assayed using AMS (n = 3) and conventional radiocarbon dating. The dates do not differ statistically, and their 2σ calibrated average is 180–45 B.C., with an associated probability of 1.00. In chapter 7, McNutt and I called attention to the "early" dates from Bynum and their potential implications. The Little Spanish Fort also dates quite early.

A modest sample of characteristic Marksville sherds provides supporting evidence. The presence of ceramics within the embankment fill, in itself, demonstrates that the enclosure was not constructed during Poverty Point times (*contra* Williams and Brain 1983:352, 396–397).

The Leist Landing site is situated within a "narrows" between the Yazoo and Little Sunflower Rivers about 3.5 km southwest of Little Spanish Fort (Figure 8.1), and includes at least three mounds and an earthen embankment (Phillips 1970:370–373). With a diameter of about 470 m (Walling and Roemer

1993:109; James Marshall, personal communication, November 1993), the enclosure is one of the smaller semicircular embankments in the region; the scale in Phillips (1970:368) is erroneous. This earthwork opens to the east and faces the Yazoo River, and there is a small conical mound in the southern portion (Figure 8.8). Outside the embankment, near the middle of the narrows, is a presumably conical mound about 9 m tall. Abutting the bank of the Little Sunflower River to the west is a large flat-topped mound about 5 m tall, including the small conical mound surmounting the top near the southern edge. A small collection from cultural deposits below the mound includes Early Marksville sherds (Walling and Roemer 1993:105; personal inspection of collections).

Another semicircular embankment of possible Middle Woodland age in the Yazoo Basin is Magna Vista (Mainfort 1996a:375–377; Phillips 1970:514–515). Within the enclosure, the diameter of which is about 440 m (James Marshall, personal communication, November 1993), is a mound of Mississippian affiliation, but the embankment itself is unlikely to be contemporary. Phillips's (1970:514) map of the enclosure is inaccurate, particularly the rendering of the east side. The graphic included in Figure 8.8 is based on digital enhancement of the same aerial photograph that Phillips used in preparing his map. Attribution of Magna Vista to the Middle Woodland period is perhaps bolstered by the occurrence of a second previously unreported semicircular embankment 12 km to the northeast and about 2 km west of Onward, Mississippi, on a prominent bend along Black Bayou. This enclosure, readily apparent on aerial photos and the Onward topographic quadrangle, has a diameter of about 400 m (Figure 8.8).

The Yazoo Basin embankment sites are unique in the Lower Mississippi Valley and the Midsouth (Mainfort 1996a), and represent a distinctive local

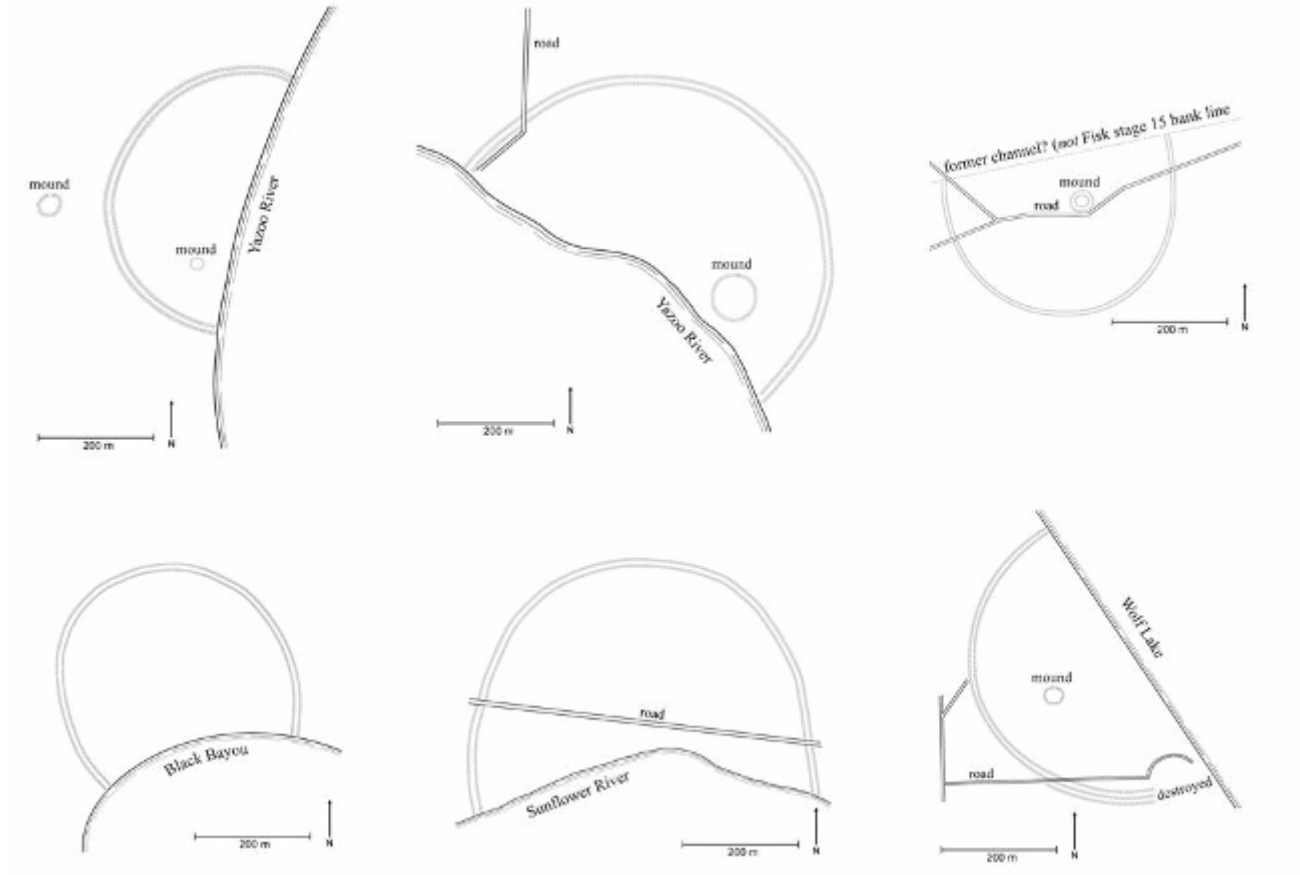

FIGURE 8.8. Earthen enclosures in the lower Yazoo Basin. *Upper row, left to right:* Leist, Little Spanish Fort, Magna Vista. *Lower row, left to right:* Onward, Spanish Fort, Wilzone.

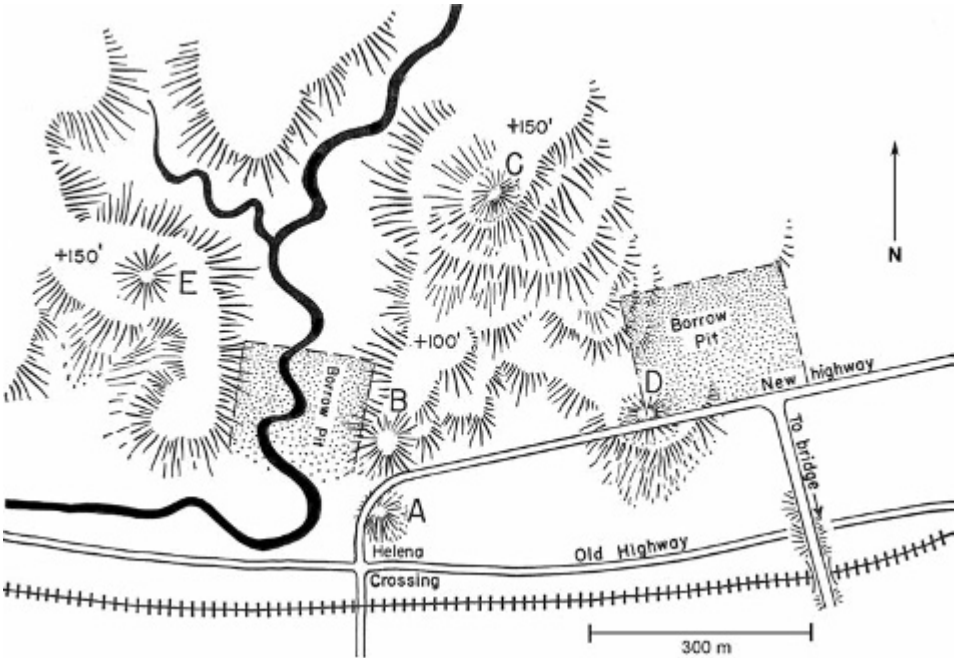

FIGURE 8.9. The Helena Crossing site (after Ford 1963:Figure 1).

tradition. These enclosures seem to mimic meanders, both active and cut-off, of the floodplain rivers. In outline, they are nearly identical, which, coupled with their proximity, suggests that they were constructed and used by people who shared very specific ideas about the importance of building geometric embankments, the appropriate form these should take, and the specific geographic region appropriate for their construction. Three of the six enclosures have an exterior ditch, and a fourth, with its interior ditch, may reflect temporal variation (Byers 1987:112–172).

There are also quite a number of conical mounds of probable or possible Marksville affiliation in the lower Yazoo Basin. Toth (1988:145–159) mentions 14 conical mounds (some sites have more than a single mound) of probable Marksville age, and Phillips (1970:250–515, Figures 244 and 245) identifies 19 more. Williams and Brain (1983:Table11.1) list five Marksville mounds not mentioned by Toth or Phillips, bringing the total of probable Marksville mounds to 38. Toth (1988:145–159) also notes nine conical mounds of uncertain age, to which can be added an additional 28 undated conical mounds that I located in the LMS site files (Steponaitis et al. 2002: rla.unc.edu/archives/lms1 [accessed November 9, 2011]). Some, likely many, of these date to the Marksville period. In addition to these 75 mounds, Prentice (2000:370–389) lists about 130 more mounds (i.e., excluding those enumerated above) of uncertain age in the lower Yazoo Basin counties (Holmes, Humphreys, Issaquena, LeFlore, Sharkey, Sunflower, Washington, and Yazoo). If even a quarter of these date to the Marksville period, the total rises to more than 100. Clearly, a very small segment of the Yazoo and lower Sunflower Rivers held special importance for Middle Woodland people.

Helena Crossing

Located on the southeastern end of Crowley's Ridge in eastern Arkansas (Figure 8.1), the Helena Crossing site consisted of five conical burial mounds occupying "a commanding position at the terminus of the ridge with fine view of the river and valley" (Ford 1963:5) (Figure 8.9). This locality is a classic example of Chapman's (1981) notions about the placement of large mortuary facilities in prominent locations. The mounds were between 4 and 6 m tall and about 30 m in diameter. By Illinois Hopewell standards, the mounds at Helena Crossing were quite large—larger than, for example, Klunk Mounds 1 and 2 (Perino 1968) and the two largest mounds at the Elizabeth site (Charles et al. 1988). The size of these earthen tumuli suggests that their construction involved the efforts of more than a single community (Bullington 1988), but

virtually nothing is known about Middle Woodland settlement in the area (Toth 1988:83–89).

James Ford (1963) excavated Helena Crossing Mounds B and C, two other mounds having been destroyed a few years prior to his work. These investigations were the first undertaken at a Marksville period mound site in the Lower Mississippi Valley since the 1930s (Ford and Willey 1940; Toth 1974; Vescelius 1957).

Ford's work at Helena Crossing and the resulting detailed report were (and are) important for several reasons: the discovery of Hopewellian exotica (copper earspools and a panpipe) in the Lower Mississippi Valley; detailed descriptions of mound structure; and perhaps most important for Ford's contemporaries, the first radiocarbon dates on Hopewellian mounds in the region. I have discussed some issues regarding the four radiocarbon assays for Helena Crossing (Mainfort 1996a). Basically, Mound C was constructed in the cal A.D. 63–263 range (at 2σ), and the single date for Mound B is a bit more recent. A reanalysis of the human remains from Helena Crossing by Giles et al. (2010) provides important new perspectives on the age and sex of the mortuary population, pathology, trauma, and postmortem treatment of the deceased.

Mound B, located on the lower slope of the ridge, was constructed of "bottom-land clays" (Ford 1963:41), an important contrast with Mound C. At the base of Mound B, Ford (1963:43–45) exposed two features. On the original ground surface near the center of the earthwork was a group of four large logs. East of the logs was a submound mortuary crypt measuring 5 m by 3 m. At least two of the interior walls were supported by one small and one large log, and the floor and walls were lined with split-cane matting. Covering the facility were four logs over 1.3 m in diameter. Interred within the crypt were the remains of an adult (probably female) of undetermined age and an adult aged 35–50 years (Giles et al. 2010:329). More careful (i.e., nonmechanical) excavation of Mound B may have revealed some important structural correlates.

Upland loess soil was used to build the slightly larger Mound C. Thus, Mound C may be linked to the

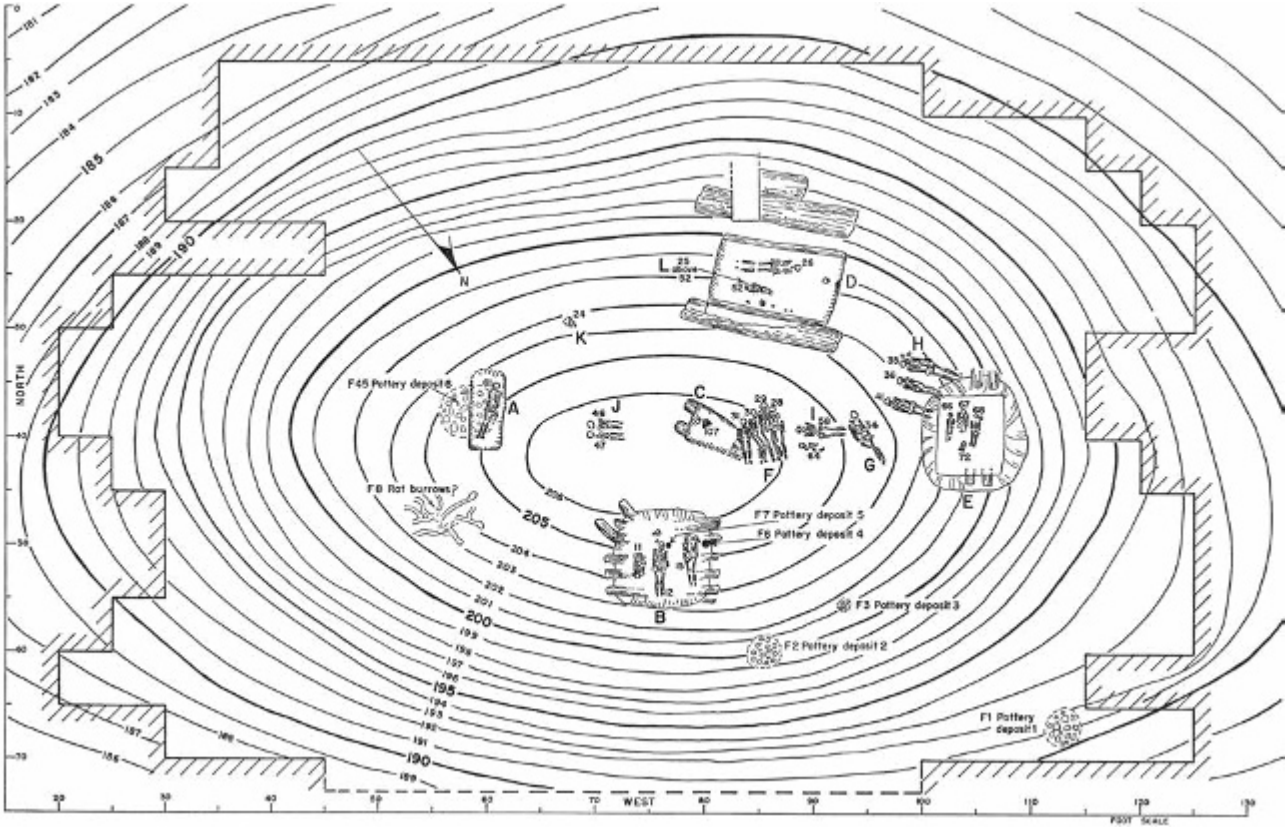

FIGURE 8.10. Plan view, Helena Crossing Mound C (after Ford 1963:Figure 2).

uplands and forces of the upper world, with Mound B tied to the lowland and forces of the underworld. Alternatively, Mound B may represent a manifestation of the Earth Diver creation myth mentioned earlier.

At the base of Mound C were three large mortuary crypts and an individual tomb (Figure 8.10). All four facilities were covered with logs, some of which were quite large, that were fired prior to being covered by the primary mound. A fourth large crypt (Tomb E), also log covered, was excavated into the primary mound. A small log-covered individual tomb was constructed within the primary mound as it was being built. Several groups of primary burials were placed on the surface of the primary mound.

Among the objects placed with the dead at Helena Crossing were a copper panpipe, copper earspools, several large conch shells, a mica sheet, a copper ferrule, Wyandotte flint bladelets, and numerous *Marginella* shell beads (see Mainfort 1988c). Ford also found a number of whole and partial ceramic vessels, almost all from deposits within Mound C, including tubby pots, beakers, and hemispherical bowls. Among these was a distinctive vessel of U-shaped form (Ford 1963:37–38) (Figure 8.11). There are only two other reported examples of this vessel form. C. B. Moore (1902:Figure 155) excavated one from a mound near Apalachicola, Florida; the other was found in McKinstry Mound 2 in Minnesota (Stoltman 1973; Wilford 1941). Many of the Helena Crossing vessels have soft, chalky paste (Ford 1963:31 and *passim*), which may indicate a relatively early date for the mound group (cf. Toth 1988:85–87).

As overstated by Mainfort (1996a:377), McNutt (1996:212), and, especially, by Toth (1988:40–42), the Helena Crossing mortuary facilities are similar to roughly contemporary structures in Illinois. Not only did Toth (1988:40–41) see "strong" parallels between Helena Crossing and Klunk Mounds 1 and 2 in Calhoun County, Illinois (Perino 1968:16–51), he went so far as to speculate that "The close correspondence between Helena and Illinois Hopewell—especially with the Bedford phase—suggests that some element of the Illinois population may have been present at the site to supervise construction" (Toth 1988:42), though this element "did not include females" (Toth 1988:86). Toth specifically cited the use of large logs, burial pits excavated into subsoil,

FIGURE 8.11. Ceramic vessel from Mound C. Courtesy Old State House Museum.

comparable size of burial facilities, and ramps associated with these. Of these, the first three are so general as to be meaningless—a classic example of the misguided trait list approach of the Midwestern Taxonomic Method. Ramps are another matter and warrant some comment.

The profile of Tomb D (Figure 8.12), one of the Helena Crossing burial crypts, documents the existence of a raised earthen ramp at both ends. Ramps encircling the central burial feature are characteristic of many Middle Woodland bluff-top burial mounds in the lower Illinois River valley (Charles et al. 2004:52) and typically are paired with above-ground "central features." Tomb D is a submound feature, and the ramps were confined to the ends across the short axis (Figure 8.13). The large logs flanking the other two edges of the pit would not be out of place in southern Illinois (e.g., Perino 1968:16–51), but lack ramps. Ramps are not associated with any other large burial facilities at Helena Crossing. Evidently Toth's (1988:42) putative Illinois overseers had fairly lax architectural standards.

Overlooked by Toth, insofar as he was searching for Illinois connections, is the presence of large, intrusive crypts at both Helena Crossing Mound C (Tomb E) and Klunk Mound 1 (Perino 1968:16–40). But if a trait list comparison is carried further, many differences also could be cited. Perhaps the most glaring of these is the number of burials within and on the ramps of Klunk Mound 1, as well as the number of

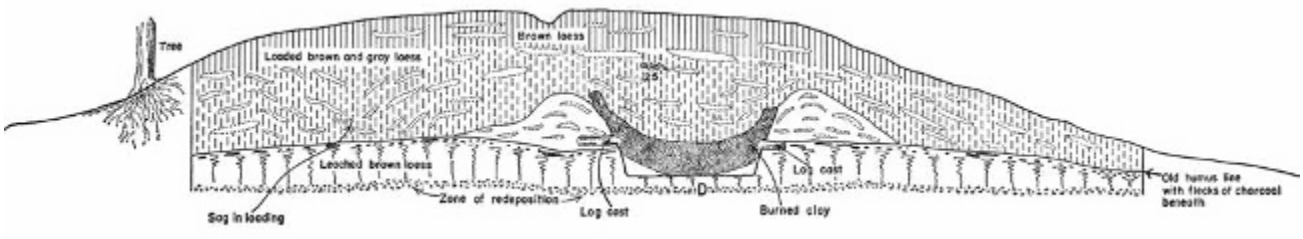

FIGURE 8.12. Profile of Helena Crossing Mound C (after Ford 1963:Figure 6). Tomb D, flanked by earthen ramps, is shown just right of center.

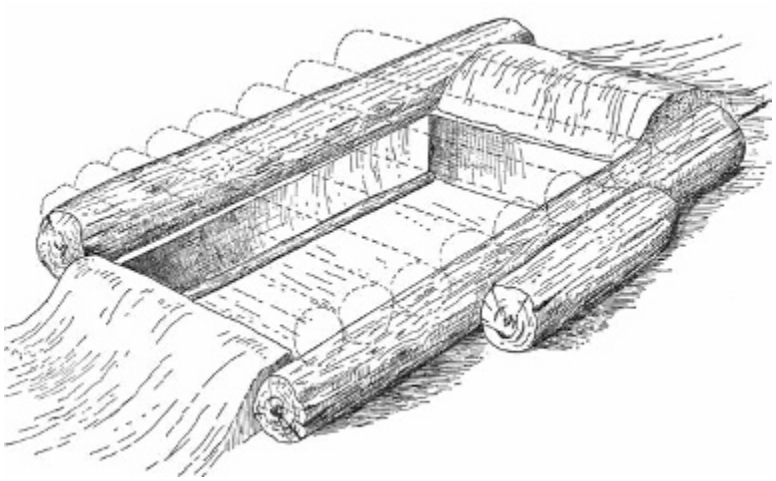

FIGURE 8.13. Reconstruction of Helena Crossing Tomb D (after Ford 1963:Figure 19).

peripheral burials, all of which are lacking at Helena Crossing. Also missing at the latter is the use of limestone slabs to line and cover burial pits (a "minor difference," according to Toth [1988:40]), and the use of pottery vessels as funerary objects. I am certainly not advocating a trait-based approach in searching for similarities and differences. Toth (1988), however, did just that, and in doing so, he should have acknowledged the obvious differences—you can't have it both ways.

In fairness to Toth, he was, in part, highlighting differences between the mortuary program at Helena Crossing and that seen at Marksville (Toth 1974) and Crooks (Ford and Willey 1940). Indeed, there are pronounced differences, but at the same time, there are also major differences between Marksville Mounds 4 and 8 and Crooks. That said, the Middle Woodland mortuary record for the Lower Mississippi Valley is very limited, making intersite comparisons rather problematic. Moreover, it is useful to bear in mind that considerable variability is characteristic of burial mounds within Ohio (e.g., Greber 1976; Seeman 1977) and Illinois Hopewell (e.g., Bullington 1988).

Toth's (1988:42) suggestion that "some element of the Illinois population may have been present at the site to supervise construction" at Helena Crossing also requires some comment. Toth (1988:73) was convinced that "The early Marksville phases were influenced by Illinois Hopewell peoples." Yet, he seems never to have seriously considered the converse; namely, that "Illinois Hopewell peoples" were "influenced" by their southern neighbors. After all, there is nothing comparable in Illinois to, for example, the Marksville or Pinson Mounds sites.

Of course, it is almost certain that Middle Woodland folks from the Lower Mississippi Valley traveled to Illinois and vice versa. Such excursions occurred during the eighteenth century (Walthall 1992) and undoubtedly had been going on for millennia. Further, people from these two areas shared canons of design regarding the use of bird motifs on Middle Woodland pottery vessels (Canouts 1986). But the suggestion that Marksville people required supervision from northerners while building burial mounds probably says more about Toth himself than about the dynamics of Hopewellian interaction.

Ford's Helena Crossing site report lacks any attempt to relate the mound group to the Hopewellian phenomenon in general, although in closing he does state:

> For some years it has been clear that Hopewell must in some way be related to the Middle American "Formative" and to the basic culture of the Andean region of South America. The radiocarbon dates available at present make it appear that these influences entered the Mississippi Valley from the south. (Ford 1963:47)

In his later years, Ford became increasingly fascinated with Middle American Formative cultures, culminating in his largely discredited Smithsonian volume (Ford 1969), in which he postulated that Hopewell was "a several centuries delayed efflorescence of the Olmec-Chavín religio-political stimulus" (Ford 1969:193).

The Tombigbee Drainage and Ingomar

In discussing the regional context of Pinson Mounds, some researchers have emphasized similarities between its ceramic assemblage and the ceramics viewed as indigenous to the "Miller culture" of northeastern Mississippi (e.g., Broster et al. 1980). In fact, Jenkins and Krause (1986:114–116) go so far as to suggest that the Miller culture was established via migration of people from the Pinson Mounds area, about whom virtually nothing is known. The primary evidence they offer is the sandy-textured pottery—plain, fabric-marked, and cordmarked—characteristic of both areas. These surface treatments are hardly unique to the areas in question, nor is the use of sandy clays (or sand tempering) for pottery production. Moreover, there are very few structural similarities between Pinson Mounds and any of the Miller area mound sites. Setting aside the question of relatedness, there are several important Middle Woodland mound sites in the upper Tombigbee watershed that lie along the Natchez Trace.

Perhaps the best known of these is the Bynum mound group, located in the Pontotoc Hills near a minor tributary of the Tombigbee River (Figures 8.1 and 8.14), which was the subject of a detailed monograph (Cotter and Corbett 1951). Within an area of about 8 ha were six conical burial mounds ranging in height from about 1.5 m to 4 m and an extensive early Middle Woodland activity area.

Within the latter (identified as a "village area"), Cotter and Corbett (1951:11–14) uncovered the remains of several oval bent-pole houses, and some partial house patterns are evident among the numerous postmolds (Figure 8.15). The large size of the excavated structures (diameters > 20 m), coupled with the lack of associated hearths and storage pits, indicates that they represent not typical dwellings, but rather specialized, short-term houses associated with ritual activities (Mainfort 1996a; Smith 1992). This interpretation is supported by some of the artifacts found within the "village area," which included a

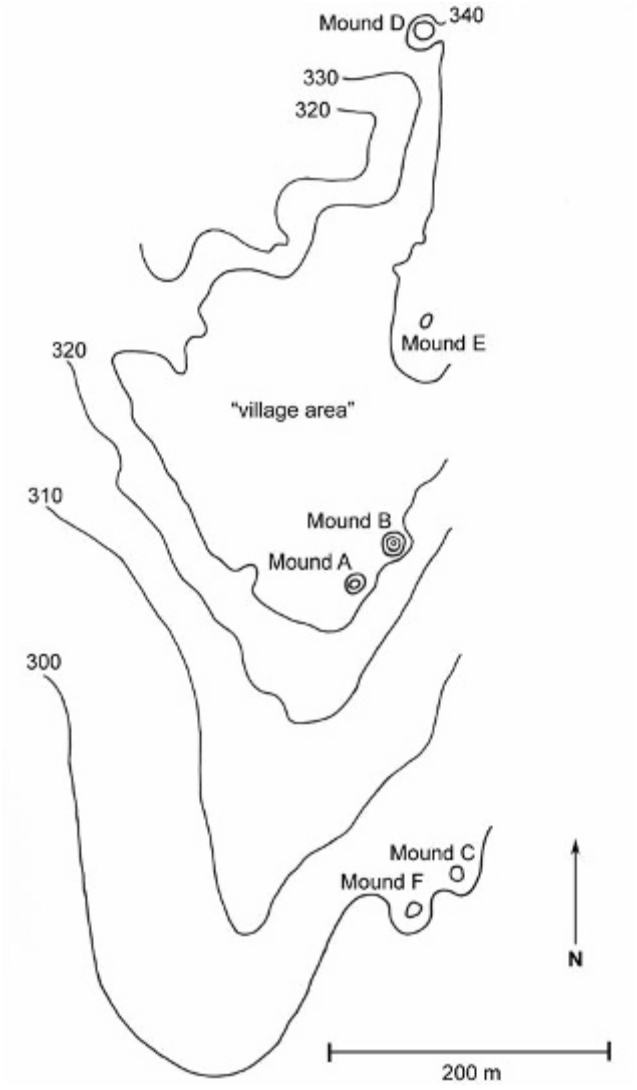

FIGURE 8.14. The Bynum mound group. Elevation in feet AMSL.

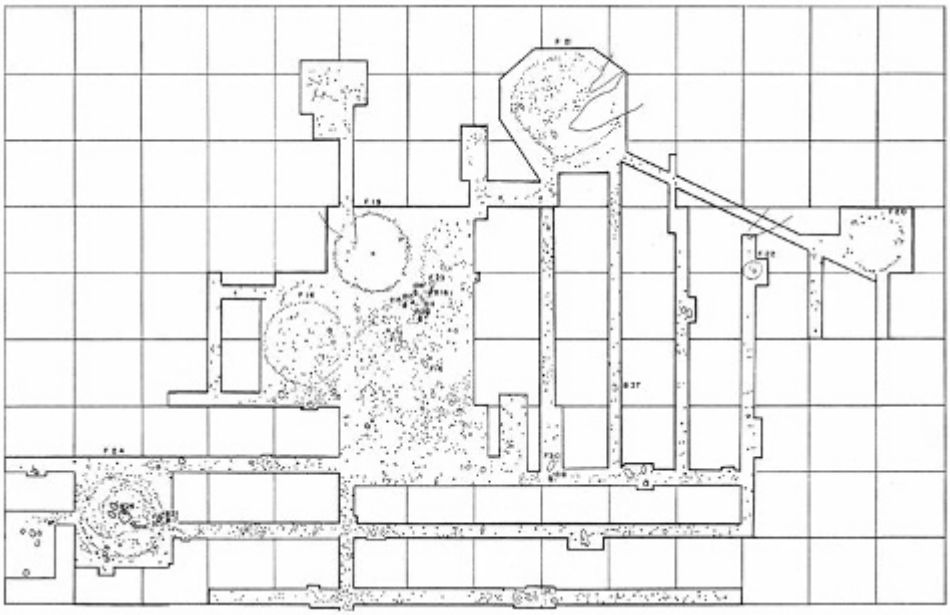

FIGURE 8.15. Middle Woodland and historic Chickasaw activity area at Bynum (after Cotter and Corbett 1951:Figure 2).

small piece of copper, several lumps of galena, and a Marksville Stamped, *var. Marksville* bird motif vessel (Figure 8.16) (Cotter and Corbett 1951:20, 39, 73; Toth 1988:134).

Bynum Mound A, standing about 3 m tall, covered the remains of a low, earthen platform. No human remains or funerary objects were found on the platform, but below the platform, at the base of the mound, was a layer of clay that supported a mortuary feature consisting of two parallel burned oak logs, each about 6.5 m long and lying 3 m apart. These flanked the remains of an extended adult female with a bicymbal copper earspool at each wrist, as well as the cremated remains of two slightly flexed adults and a child, all lacking associated funerary objects (Figure 8.17).

FIGURE 8.16. Partial Marksville Stamped bird pot. Note the repair holes near the rim. Courtesy U.S. National Park Service, Southeast Archeological Center.

With a height of 4.2 m and a diameter of about 20 m, Mound B was the largest earthwork at Bynum. At the base of the mound were the remains of a burned charnel house measuring approximately 11.5 m by 9 m (Figure 8.18). The structure had a sunken floor, and the exterior of the floor was lined with small saplings. Within the depression were 16 large posts, the postmolds from which all slant in the same direction, suggesting that the structure sagged and collapsed. The posts were set only about 70 cm into subsoil, rendering them unsuitable to support a heavy roof—certainly not for an extended time (Walling et al. 1991:56). The depressed floor, within which were horizontal log molds that the excavators interpreted as the remains of a rectangular framework, was covered with ash. Near the center of the building was a shallow pit with a burned interior that may have served as a crematory facility (Cotter and Corbett 1951:6–9). This structure is unique in the Midsouth or Lower Mississippi Valley (see also Brown 1979:218).

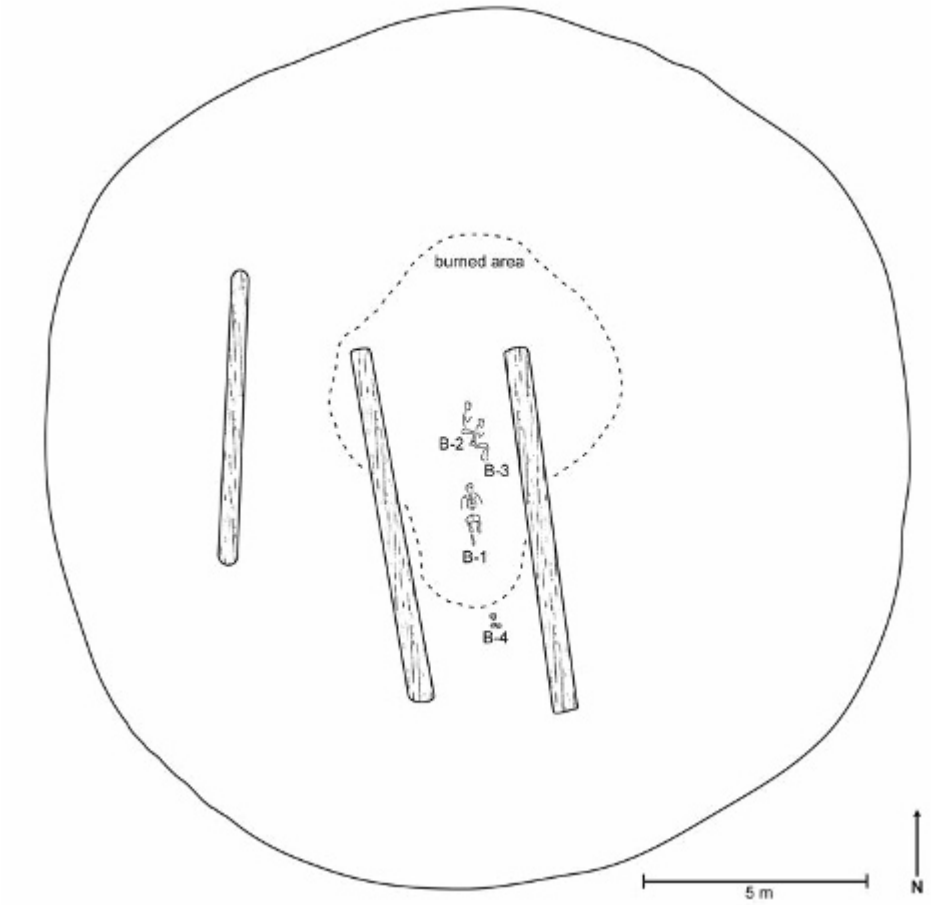

FIGURE 8.17. Plan view, Bynum Mound A.

After the structure burned and cooled, three secondary human cremations, the remains of an extended adult male, two pairs of copper bicymbal earspools (Figure 8.19), two fragments of *Busycon perversum* shell, 19 Gibson or Norton projectile points (probably produced in the Illinois River valley; Griffin 1979:270), and 29 greenstone celts were arranged linearly on top of the ash deposit. A piece of galena was uncovered below the exterior saplings and outside the sunken floor of the charnel house.

Mound D, a conical earthwork less than 2 m tall and 14 m in diameter, was constructed over what appears to be a smaller, less complex version of the mortuary structure beneath Mound B. This was represented archaeologically by a rectangular sunken floor with a large, fired pit near the center. The corners of the structure were marked by four large, deeply set posts demarcating an area about 3.5 m square. Some small sapling or log molds were exposed on the western side, and Cotter and Corbett (1951:9) interpreted the structural remains as those of a rectangular canopy covering the fired pit. Just below the rim of the pit, were several fragments of human tooth enamel, a rolled copper bead, and a copper earspool; a greenstone celt was located on the floor of the structure.

Radiocarbon evidence indicates that Bynum Mounds A and B were roughly contemporary and date to the first several centuries B.C. (Mainfort and McNutt 2004, this volume; Walling et al. 1991).

One of the largest Middle Woodland sites in the Southeast, the Pharr mound group is located about 90 km northeast of Bynum in the headwaters of the Tombigbee River (Figure 8.1). The mound group covers about 47 ha and includes eight conical mounds (Figure 8.20), four of which were excavated to varying degrees in the late 1960s to provide information for an "exhibit-in-place" (Bohannon 1972:iv). Use of heavy equipment during excavation, unconscionable at a federally owned site, resulted in the loss of key data. Excavations into Mounds A and H were of limited extent, but like the other two excavated earthworks at Pharr, both were constructed over earthen platforms

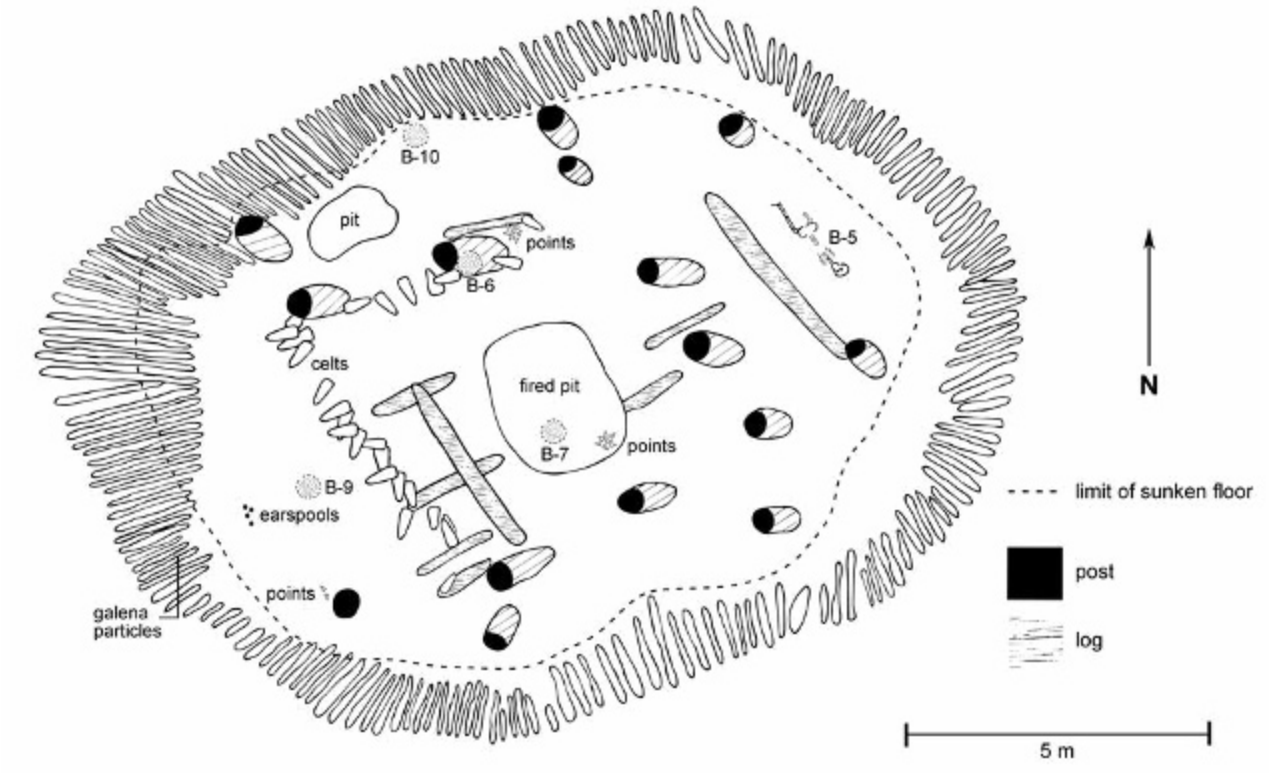

FIGURE 8.18. Plan view, Bynum Mound B.

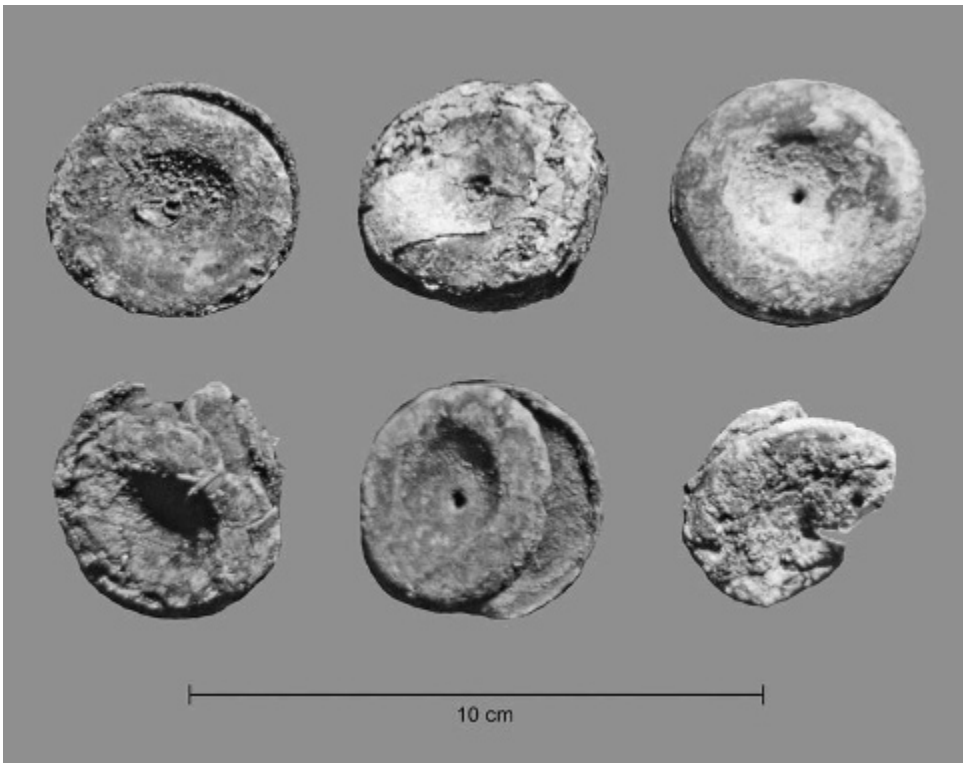

FIGURE 8.19. Copper earspools from the Bynum site (several silver plated). Courtesy U.S. National Park Service, Southeast Archeological Center.

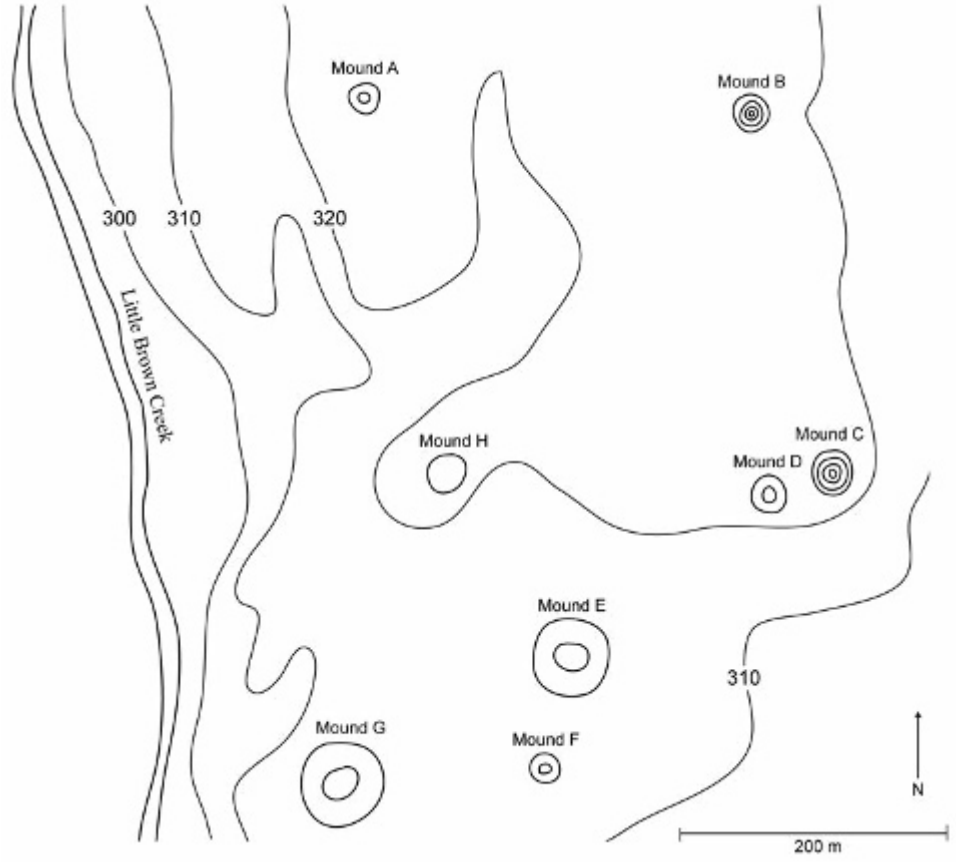

FIGURE 8.20. The Pharr mound group. Elevation in feet AMSL.

like those described below. A platform pipe "of beautifully ground and polished greenstone" (Bohannon 1972:62) was found at the base of the latter mound (Figure 8.21). Unlike Bynum, at Pharr there is little evidence of a ritual activity area with structures (Kardwesky 1980). Agricultural use and severe erosion may account for the paucity of nonmound features.

Pharr Mound D was an impressive earthwork standing about 4.6 m tall and 27 m in diameter. At the base was a low, oval earthen platform measuring about 10.5 x 13 m. Located on the platform were a rectangular burned area and an oval concentration of flat sandstone slabs. A broken copper earspool and some unidentified bone fragments were found within the burned area. The earthen platform was covered by a primary mound. Some human skull fragments and a pair of copper earspools were found on the original ground surface near the primary mound. A final layer of additional soil covered these remains and the primary mound.

Pharr Mound E, with a mean diameter of 52 m and a height of 2.4 m, also was built over an earthen platform. Excavation disclosed three possible mortuary features on the surface of the platform. A shallow, fired depression contained a small Marksville Incised vessel that probably was produced in the Lower Mississippi Valley (Toth 1988:134). Within a small pit excavated into the platform surface, three stemmed points, four preforms, and two pieces of galena were found. Adjacent to the sides of a larger pit were three

FIGURE 8.21. Platform pipe from Pharr Mound H. Courtesy U.S. National Park Service, Southeast Archeological Center.

logs, suggesting use as a mortuary crypt, but no human remains or funerary objects were found. Artifacts located on the platform surface included two small pottery vessels, the remains of a silver-plated panpipe, a rectangular piece of wood covered with copper, and some fragments of decayed bone (Bohannon 1972:14–21). More careful excavation likely would have provided a more nuanced understanding of activities on this surface.

Covering the platform was a primary mound of uncertain dimensions, into which two rectangular pits were excavated. One contained two small pottery vessels: a nonlocal, tetrapodal Flint River Brushed jar and a compound Alligator Bayou Stamped vessel (Figure 8.22). In form, the compound vessel is one of only two known examples; the other was found at the Marksville site (Jenkins 1982:75–76, 79; Toth 1974:49). Around the edges of the primary mound were deposits of water-sorted soils, indicating that the mound had been exposed to weathering prior to being covered by a final layer of fill. A large pit containing a sheet of mica, a greenstone labret, sandstone grinding pallet, and a large lump of galena was intrusive through all three construction stages (Bohannon 1972:20).

FIGURE 8.22. Compound Alligator Bayou Stamped vessel. Courtesy U.S. National Park Service, Southeast Archeological Center.

The paucity of identified human remains at Pharr is striking and suggests that the mortuary facilities were intended primarily for processing the dead, with final interment generally made elsewhere. This ties in with Charles's (1985) observation that construction of the mounds as monuments may have been equally or more important than the associated mortuary functions.

All three acceptable radiocarbon assays for Pharr were obtained from Mound E contexts. The 2σ calibrated average of these (Mainfort and McNutt 2004; chapter 7) suggests that the mound probably was constructed during the first two centuries A.D. It seems unlikely that all the mounds are strictly contemporary, but this time range seems appropriate for the mound group as a whole (Walling et al. 1991).

The earthen mortuary platforms at Bynum, Pharr, and other Marksville period sites in the Midsouth and Lower Mississippi Valley are distinctive and could be considered as "normative" for this general region, as log-covered mortuary crypts are for southern Illinois (Brown 1979). In addition to Pharr, examples are reported at Bynum (Cotter and Corbett 1951; see above), Crooks (Ford and Willey 1940), Grand Gulf (Brookes 1976), Marksville (Toth 1974), McQuorquodale (Wimberly and Tourtellot 1941), McRae (Blitz 1986), Pinson (Broster et al. 1980:22–30), and Womack (Koehler 1966).

As is always the case with matters Hopewellian, however, things are not quite so simple. Similar mortuary features have been reported, most rather sketchily, as far distant as Florida (Brose 1979). Nor are earthen platforms confined to the southern states. Walker (1952) briefly describes two examples at Dickison (*not* Dickson) Mounds, Illinois. In both cases, classic Illinois burial crypts were excavated into the platforms, but this was not the sole reason for their construction. On the surface of one, there was a fire pit containing ash; a number of bundle burials were placed on the other. Low earthen mortuary platforms also occur within Ohio Hopewell, e.g., Seip (Shetrone and Greenman 1931:480–490).

Toth's (1988:42) "northern overseer" scenario was mentioned above in the discussion of Helena Crossing. Given the common occurrence of mortuary

platforms in the Midsouth and Lower Mississippi Valley, it would follow logically from Toth's speculation that southerners were on hand to direct activities at Dickison Mounds. But, no. Toth (Brookes 1976:16) apparently felt that "there were some individuals from the Illinois Valley present in the population that constructed the [Grand Gulf] mound," with its earthen platform. In a similar vein, perhaps he could have invoked relatives of the Ohio Hopewell people who built a low earthen platform at the Wright mound group in Franklin County, Ohio, just east of the Scioto River (Shetrone 1924:346). Here, a number of secondary burials on the platform surface were covered with large limestone slabs prior to final mound construction.

It is important to keep in mind that these earthen platforms were not used in precisely the same ways, beyond their general association with mortuary ritual (but see Sears 1982:198). Diversity is a Hopewellian hallmark, and this is reflected by variation among the mortuary platforms of the Midsouth and Lower Mississippi Valley. Thus, Crooks Mound A (Ford and Willey 1940) differs markedly from Pharr Mound E (Bohannon 1972), which in turn is quite different from the McQuorquodale mound (Wimberly and Tourtellot 1941). Of course, these examples are widely separated, but diversity also is evident on a much more restricted spatial scale. For example, there is nothing truly comparable to Crooks Mound A at the nearby Marksville site (Toth 1974). At the intrasite level, there are pronounced differences between Pharr Mounds D and E.

The type site of the Miller "culture" or "variant," the Miller site is located about 65 km north of Bynum (Jenkins 1982:67–115; Jenkins and Krause 1986:48–85; Jennings 1941:214–216, 1944) (Figure 8.1). Within an area of about 3.5 ha are two conical burial mounds and a substantial habitation midden (Figure 8.23) (Jennings 1941). Four radiocarbon assays on samples from Mound B demonstrate that it was constructed between about A.D. 220 and 410 (Mainfort and McNutt 2004, chapter 7; see also Walling et al. 1991).

Miller Mound A was an accretional earthwork about 4.6 m tall and 26 m in diameter. As seen in Figure 8.24, the mound had been subjected to earlier, undocumented excavation. The ground surface was not scraped prior to construction; rather, the mound was built on a humus layer containing habitation debris. At the base of the mound, two extended adult primary burials were interred between two layers of light-colored clay. The clay covered an area somewhat larger than that occupied by the two interments, a situation similar to Feature 55 in Pinson Mound 12 (Broster et al. 1980:22–30; chapter 5). A crude limestone platform pipe and a conch shell cup accompanied one interment. About 30 individuals, all adults, were buried in pits within the uniform mound fill that covered the initial burials. Among these were 11 or 12 extended interments, three semi-flexed, and two multiple burials (Jennings 1941:194).

Miller Mound B was a bit smaller and exhibited some important differences with Mound A, though like the larger earthwork, it was constructed over habitation deposits. The base of the mound was not completely excavated, but the excavator's report suggests that there was a burned structure, about 6.7 m in diameter (Jennings 1941:205), in the southeastern quadrant (see Jennings 1941:192). Several lines of evidence suggest that it was a special-use structure rather than a dwelling associated with the village. First, prior to erecting the structure, the ground surface in the immediate area was scraped down to subsoil, as is seen more commonly in Middle Woodland mound construction. Second, Jennings (1941:192) states that "the house was abandoned a relatively short time before mound building began." Third, the diameter of this bent-pole structure was larger than several structurally similar houses disclosed during the village excavations. The building undoubtedly played a role in the ritual process that led to the construction of Miller Mound B, but identification of it as a charnel house (Walling et al. 1991:59) exceeds the limitations of the evidence.

Also at the mound base, but near the center, were three rectangular submound pits, and others may have been present (Jennings 1941:192). One contained a human skull and a utilitarian jar, and a single tooth cap was found in another. The limited amount of human remains suggests that the submound pits were mortuary processing crypts. About 1.5 m above the pits were three flexed adults and a crushed Baldwin Plain vessel that may have been placed on the surface of a primary mound (cf. Jennings 1941:195).

At the Miller site, mound burial was reserved for adults. At least three burial tracks are suggested by the

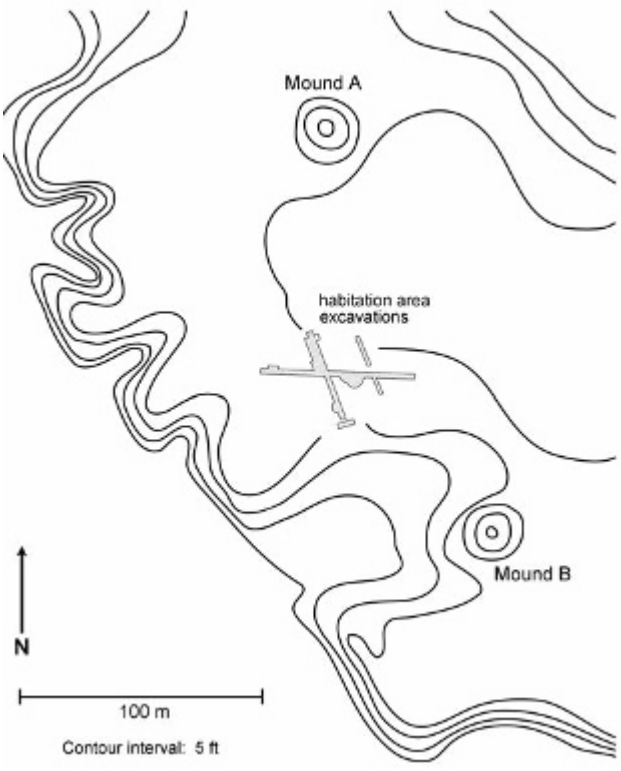

FIGURE 8.23. The Miller mound group. Based on field map by Albert Spaulding, provided courtesy U.S. National Park Service, Southeast Archeological Center.

data. These include interment between layers of clay, secondary burial involving a processing facility, and primary interment. The absence of disarticulated burials suggests that final interment often occurred at another locality.

The Ingomar mound group is located in northeastern Mississippi, west of Pharr, in the Little Tallahatchie River drainage (Figures 8.1 and 8.25). Ingomar may have included as many as 14 mounds within an area of 16 ha (Rafferty 1987, 1990), but many are no longer visible and some small rises were mistaken for mounds. Mound 14, the largest earthwork at Ingomar, is an impressive 8-m-tall ramped platform mound, similar in appearance and size to Ozier Mound at Pinson Mounds (chapter 4). Limited testing, as well as a radiocarbon assay on charcoal from an ashy basketload, confirms a Middle Woodland age. A second assay on charcoal from a mound remnant also falls within the Middle Woodland period (Rafferty 1990:100).

Two conical burial mounds in the Ingomar group were partially excavated in the late 1800s in conjunction with the Smithsonian Institution's landmark mound study (Mainfort 1996a; Rafferty 1987;

FIGURE 8.24. Miller Mound A; view to southeast. Original photograph by Albert Spaulding. Courtesy U.S. National Park Service, Southeast Archeological Center.

Thomas 1894:267–278). Despite the primitive excavation techniques and incomplete reporting, the data from these document a range of mortuary activities and reveal some contrasts with Bynum, Miller, and Pharr.

Ingomar Mound 1, about 4.3 m tall and 19.5 m in diameter, differed markedly from the excavated burial mounds at Bynum, Miller, and Pharr. Only adults were interred within the excavated portion, and all but one of the burials were disarticulated or incomplete.

At the base of the mound were two burned features, one capped with a thin layer of red clay subsoil, and a shallow basin containing the lower skeleton of an adult male and a scapula. On the east side, also at the base, were the remains of a small mortuary structure, represented by a large, shallow basin with four large "postholes" filled with wet gray clay (probably from a lowland area). A human skull fragment was found in one hole. The loose fill above the holes, along with the mound profiles, suggests that the portion of the mound above this feature complex collapsed and later was repaired (Rafferty 1987:150–151; cf. Thomas 1894:269–271).

Ingomar Mound 1 was constructed in at least three stages (Mainfort 1996a; Rafferty [1987] offers a somewhat different interpretation). Most of the submound features, perhaps including the inferred mortuary structure, were covered by a low, asymmetrical primary mound. On or within the primary mound was an extended adult male with quartz pebbles under the skull and the fragmentary remains of four other individuals. On the south side of the primary mound, a small, rectangular pit containing a group of disarticulated human bones extended through the primary mound to the mound floor. The loose fill suggests that a covering over the pit, which may have been a mortuary processing feature, had collapsed. Found with human remains were some galena particles (adhering to the skull) and a variety of shell beads.

Three small pits lined with puddled clay were excavated into the secondary mound fill. All were filled with loose soil, again suggesting the presence of coverings. The incomplete, partially articulated remains of an adult accompanied by a shell bead bracelet were located in one pit; no human remains were preserved in the other two (Thomas 1894:272). On the east side of Mound 1, a portion of the secondary mantle was capped by a thin layer of red clay that was, in turn, capped by a layer of puddled gray clay—a situation reminiscent of the northern Twin Mound at Pinson Mounds (chapter 4). The final major construction event was the addition of fill to the east side of the mound, covering the depression and postholes described above.

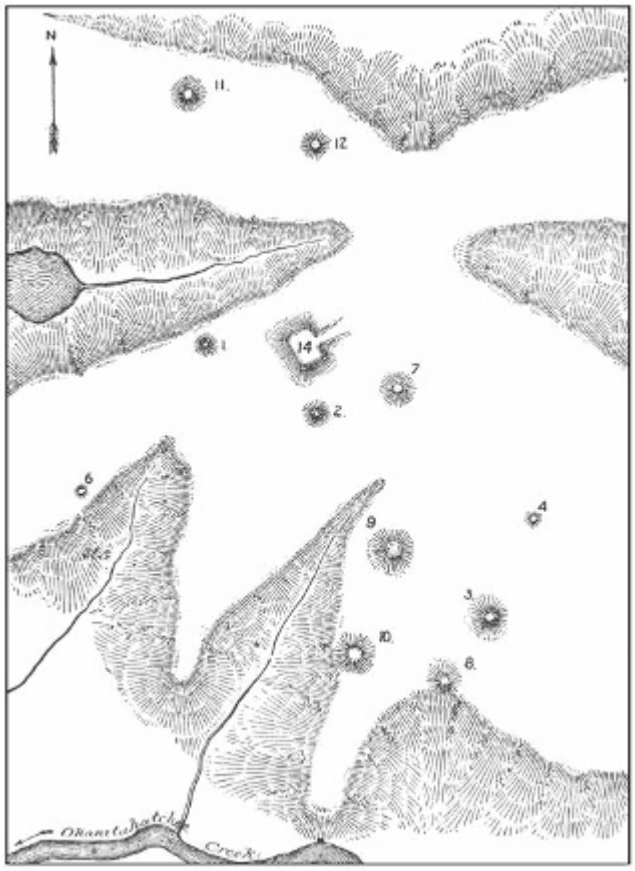

FIGURE 8.25. The Ingomar mound group (after Thomas 1894:Figure 165).

Limited excavation of Ingomar Mound 5 exposed the remains of 13 individuals near the center. This small earthwork was located about 800 m east of the mound group proper (Thomas 1894:275) and was just over a meter tall and 15 m in diameter. Thomas's (1894:275) brief description suggests that it was an accretional earthwork, with burials occurring at three distinct levels—the mound base, 60 cm above the base, and 1.2 m above the base. All interments were disarticulated, secondary burials. Unlike Mound 1, there were "persons of different ages, from the child whose first teeth were beginning to appear, to the aged individual whose teeth were worn to gums." Thus, not

only did the two burial mounds at Ingomar differ in their structural features, but also in mandated access to mound burial.

As at Pinson Mounds, there is no evidence of a substantial occupation area at Ingomar (Andras 2004). The ceramic assemblage includes a grog-tempered, red-slipped sherd identical to specimens collected from several localities at Pinson Mounds (Rafferty 1987:155). This and seven additional red-slipped sherds are good candidates for nonlocal status, as are three limestone-tempered and three check-stamped specimens.

Copena and the Tennessee River Drainage

Outside southern Ohio and the Illinois River valley, the most extensive body of data on Middle Woodland mortuary practices comes from the Copena complex, which includes 51 burial mounds representing 27 sites along about 120 linear miles (190 km) of Tennessee River and its tributaries, primarily in northern Alabama (Beck 1995:172–173). Beck (1990) conducted a comprehensive analysis of all excavated Copena mounds, to which readers are referred for detailed information. Mortuary variation is reflected primarily by addition of foreign clays to the area surrounding the interred body. Individual graves typically contain few funerary objects, and exotic raw materials are limited primarily to copper, galena, greenstone, and shell. Beck's (1990, 1995) analysis of mortuary variation led to the recognition of a geographic division between eastern and western Copena.

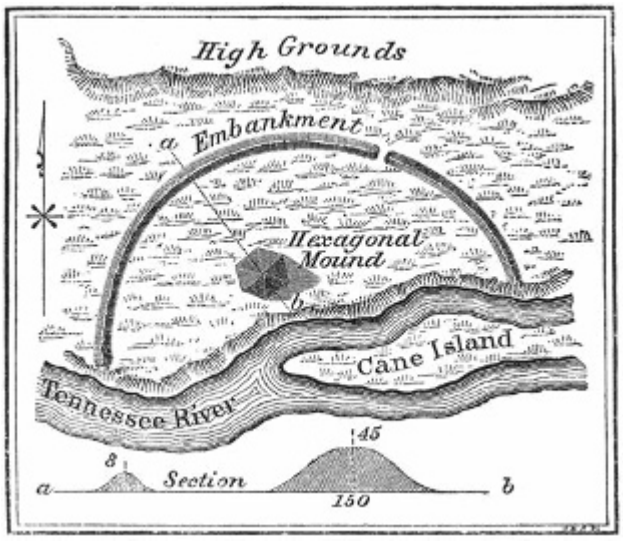

FIGURE 8.26. Florence Mound and embankment (from Squier and Davis 1848: Figure 21).

Two Middle Woodland platform mounds have been identified within the Copena area. The Walling Mound (Knight 1990), located in the central portion of this area, is a roughly rectangular earthwork standing about 1.5 m tall. Summit features include a variety of postholes, ranging in size from small to massive, as well as hearths and pits. Evidently activities atop the Walling Mound summits were quite different from those undertaken at Ozier Mound (see chapter 4).

In the western Copena area, within the town of Florence, Alabama, is a Middle Woodland platform mound that stands about 12 m tall (Boudreaux and Johnson 2000; Squier and Davis 1848:109). The four corners are aligned toward the cardinal directions, and the mound is surrounded by a (roughly) semicircular embankment (Figures 8.1 and 8.26). An associated midden area does not seem to be tied specifically to ritual activities. A smattering of nonlocal sherds (i.e., not limestone-tempered) may reflect visitation by people beyond the Tennessee River Valley.

Just north of the western Copena area is the large (28 ha) mound complex at Savannah, Tennessee (Welch 1998) (Figure 8.1). At least one of the 17 mounds is of Middle Woodland age, and an antiquarian collected three copper bicymbal earspools from the site. Two conventional radiocarbon dates obtained from one earthwork, the Higginbottom mound, produced a calibrated average age of A.D. 423–602 at 2σ, which suggests a Late, rather than Middle, Woodland age (*contra* Welch 1998). An assay on charcoal from an off-mound pit calibrates to 361 B.C.–A.D. 381. This is another major site that is sorely in need of long-term investigation.

Hickman Earthworks

At the northern periphery of the area considered here is the Hickman Earthworks complex, located atop the loess bluffs overlooking the Mississippi River floodplain, northeast of Hickman in southwestern Kentucky (Mainfort 1996c:82–83; Mainfort and Carstens 1987; Figures 8.1 and 8.27). One factor that must have been

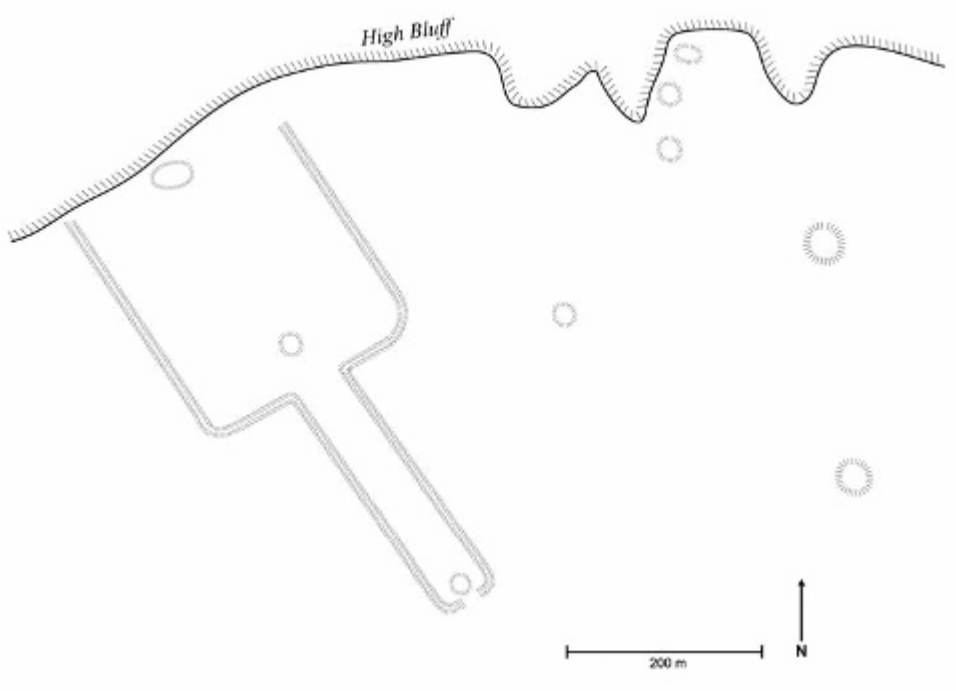

FIGURE 8.27. Hickman Earthworks.

considered by Middle Woodland peoples in choosing the locality for an enclosure is the fact that at Hickman the floodplain on the east side of the river is particularly narrow and broadens considerably to the north and south. In this sense, this locality is more distinctive topographically than that occupied by Pinson Mounds.

The most prominent features of this embankment and mound complex is an open-sided rectangular enclosure, similar to Cedar Bank (Squier and Davis 1848:Plate XVIII), and a long aggregation element, somewhat similar to those at Portsmouth A (Squier and Davis 1848:Plate XXVIII) and Turner in southern Ohio (Willoughby and Hooton 1922:Plate 1). Both of the Hickman embankments are oriented about 36° west of true north, and the overall configuration resembles a large tuning fork. The open rectangle is about 240 m wide and encloses about 6.5 ha (16 acres), roughly equivalent to the interior of the Eastern Citadel at Pinson Mounds. Like the open-sided rectangular embankment at Cedar Bank (Squier and Davis 1848:Plate XVIII), the open side faces a bluff overlooking the bottomland of a river. The aggregation element is about 265 m long, 60 m wide, and is open at both ends. There is no evidence of ditches associated with any of the embankments (Loughridge 1888:174–176); as at Pinson Mounds, surface-scraped soil was used to construct the embankments.

There is a conical mound at the southern end of the aggregation element, and a second mound lies within the rectangular enclosure. To the northwest, near the bluff edge, is a mound-like natural rise that is aligned with the two mounds and probably was incorporated into the site design. A short distance east of the enclosure complex are several more conical mounds, from which local collectors report the discovery of some copper celts. Based on their proximity to the enclosure and associated ceramics, they are likely to be Middle Woodland structures, but this inference has not been demonstrated (Mainfort and Carstens 1987:58).

None of the earthen construction features have been dated. If Byers's (2004:514–535) proposed seriation and dating of the Ohio enclosures is correct, the Hickman Earthworks embankments should date to roughly A.D. 150–300, which accords well with the estimate presented by Mainfort and Carstens (1987:60).

Mainfort and Carstens (1987:60) proposed that the form and complexity of the Hickman Earthworks suggest "direct contacts with southern Ohio," an assertion that seems likely (cf. Ruby 1997:401). No other embankments of similar form have been recorded within the Midsouth (Thunen 1990), and large-scale investigation of the Hickman Earthworks complex remains a pressing research need.

Marksville Origins

The discovery of "pottery of the Hopewell type" (Setzler 1933, 1934b) at the Marksville site, as well as a few bladelets of nonlocal (Cobden?) chert, copper, and ceramic figurine fragments in the Lower Mississippi Valley (Toth 1979:199; 1988:186–187), soon gave rise to speculations about relationships between Marksville and northern Hopewell—specifically Ohio Hopewell. Excavations at Crooks in 1938–1939 (Ford and Willey 1940), which yielded similar pottery, along with a greater array of characteristic Hopewell exotica (copper earspools and beads, a copper bracelet, and freshwater pearl beads), also contributed to the discussion.

In comparing the Lower Mississippi Valley sites to northern Hopewell, the researchers who were most familiar with the Marksville and Crooks material felt that the southern sites were antecedent to northern Hopewell, and that a "basic complex" of traits spread to the north and gave rise to Ohio Hopewell (Ford and Willey 1940:141–142, 1941:340–341; Setzler 1940:263; Setzler and Strong 1935:306; see also McKern 1931:239). The specific traits involved were "The building of the burial mounds in two or more stages and the erection of large, functional earth enclosures around mound groups," as well as distinctive stylistic motifs used in decorating pottery vessels (Ford and Willey 1941:338). As discussed below, many years later Toth (1988:29–73) used essentially the same data to argue that Marksville was the product of "Hopewell intrusion" (from Illinois) into the Lower Mississippi Valley.

Not long after Ford and Willey published their ambitious overview, Griffin (1946) published somewhat of a counterpoint in which he argued that Marksville was at least contemporary with northern Hopewell and derived its local Hopewellian traits from the north. As a result of his work at Poverty Point, Ford reversed his earlier view that basic Hopewell originated in the south and spread north. Rather:

> The preceramic Poverty Point culture may possibly represent an early southward thrust of the mid-continental Hopewellian culture. Perhaps the rather sophisticated bearer of this culture invaded the Lower Mississippi Valley in small numbers, conquered the local Archaic peoples, and set up a class-structured society with themselves as the ruling class. (Ford et al. 1955:155; see also Ford and Webb 1956:129–130)

Greengo (1964:88) agreed with the northern origin hypothesis, but his interpretation was rather less militaristic and did not invoke Poverty Point:

> When it is realized that all of these highly specific traits [e.g., "burial on low earth platform covered by a conical earth mound," "bird motif," "cross-hatched rims," etc.] suddenly appear as a complex in the Lower Mississippi Valley, it appears to me that we have little choice but to postulate a direct migration from the Ohio Valley.

Meanwhile, Ford had completed his work at Helena Crossing, the results of which caused him to guardedly revert to his original position, namely, that basic elements of Hopewell originated in the Lower Mississippi Valley (Ford 1963:47). He also commented that the question of priority was "one of the principal questions in North American archaeology" (Ford 1963:47).

Phillips (1970) did not specifically address the issue of Marksville origins, but in 1977 Harvard graduate student Alan Toth completed an ambitious synthesis of Marksville that focused on ceramics (Toth 1988; see also Toth 1979). Toth's major substantive conclusion was that Marksville developed as a result of visitation by "small groups representing the contemporaneous Bedford, Ogden, and Utica phases of the Illinois Valley" (Toth 1988:72; see also Williams and Brain 1983:402–403).

One reason that Toth (e.g., 1988:48–50) believed that Marksville was later than Illinois Hopewell was that there was "no evidence that early Marksville ceramics precede the introduction of Hopewell style [e.g., crosshatched rims and bird motifs] in Illinois." This statement was correct for the time in which Toth was writing (i.e., the late 1970s), but it would have been more accurate to say the data (especially the lack of radiocarbon dates for the Marksville area) provided no basis for assigning temporal priority to Illinois or the Marksville area. Since that time, additional data from the South call into question the assumed earlier age for Hopewell in Illinois.

A few years after Toth completed his dissertation, Shenkel (1984) reported the occurrence of bird motifs

on ceramics from the Big Oak Island ossuary that may date to the second century B.C. The associated radiocarbon dates, which have moderately large standard deviations and other potential issues, are not entirely convincing, but the occurrence of Tchefuncte and Marksville ceramics mixed together within the mass of human remains seems to support a relatively early date for this material. The dates for Bynum (Walling et al. 1991; chapter 7) suggest a pre-A.D. 1 age for the mound group. None of the dates is associated with the structure in which the partial Marksville Stamped vessel was found (Figure 8.16), but one sherd of Marksville Stamped was collected from the floor of the charnel house beneath Mound B (Cotter and Corbett 1951:63). Finally, the dates from Little Spanish Fort (Jackson 1998), none of which is directly and unequivocally associated with Marksville ceramics, predate the appearance of bird motifs and crosshatched rims in Illinois.

Toth (1988:49) cites the absence of "pure Havana style" pottery in Tchefuncte contexts as additional evidence that Marksville ceramics appeared later than stylistically similar Havana Hopewell wares. The lack of large samples of Tchefuncte pottery from impeccably dated contexts makes this argument suspect, as do the ceramics from Big Oak Island and the lack of clear precedents for Hopewell-style ceramics in Illinois (cf. Fortier 2001 and Fortier et al. 2006:186–189). Also worth mentioning in this regard is the lack of an Illinois counterpart to Marksville Incised, which is contemporary with Marksville Stamped, and evidence of a ceramic continuum between late Tchefuncte and early Marksville (Ford and Quimby 1945; Hays and Weinstein 2010:116–117).

Strong similarities in the execution of the bird motif often used as a surface treatment on ritual ware ceramic vessels from Illinois and the Lower Mississippi Valley certainly suggest that these regions "shared the same basic stylistic information" (Canouts 1986:277). This is an important observation, and it is based upon a detailed, explicit analysis of design motifs rather than the intuitive approach used by Toth (e.g., 1988:49). Finally, it is useful to keep in mind Griffin's (1973:378) comment that he was "at least as impressed with the ceramic differences" between Marksville and the Illinois area "as with the similarities."[1]

Toth's Notion of Marksville Inferiority

A second major theme that appears in Toth's work is that Marksville, as a regional expression of the Hopewell phenomenon, did not merely lack "many of the fully developed traits of northern Hopewell" (Setzler and Strong 1935:306; see also Setzler 1934b:8), but was markedly inferior to Illinois Hopewell. So many barbs to this effect appear in his publications that it is difficult to imagine how Toth mustered any enthusiasm for his research (e.g., Toth 1979:199). Although Toth's research was overwhelmingly focused on ceramics, which he considered inferior to Hopewellian ceramics in Illinois (Toth 1988:48; but see Kidder 2004:548), Toth felt compelled to comment on mortuary practices, as well:

> In short, most elements of the mortuary procedures found in various combinations in the early Marksville mounds of the Lower [Mississippi] Valley can be traced to Hopewellian contexts in the Illinois Valley—but only in disjointed bits and pieces, not as a unified whole (Toth 1988:41).

This statement is seriously flawed on a number of counts. First, it implies uniformity—an essentialist ideal—of Middle Woodland mortuary practices in the Illinois River valley that simply does not exist (e.g., Bullington 1988:238–240; Griffin 1979:272). Second, from the mouth of the Ohio River to Baton Rouge, Louisiana, the Lower Mississippi Valley is roughly 725 miles (1,160 km) long (U.S. Army Corps of Engineers 2011). The combined length of the lower (Ruby et al. 2005:126) and central Illinois River (Farnsworth 2004:26–31) valley is about 120 miles. Not surprisingly, the Middle Woodland burial mounds along this segment of the Illinois River exhibit more structural similarities than do contemporary mounds along the lower Mississippi River, which is roughly six times longer.

Third, some of the comparisons that Toth offers are specious; others misconstrue or misrepresent the Illinois data he cites. For example, in attempting to find Illinois analogues for the "rafter-covered burial vault at the base of Marksville Mound 4," Toth puts forward Klunk Mound 7, Dickison Mound 477, and "several of the Weaver mounds" (Toth 1988:41). Klunk Mound 7 covered a mortuary pit that lacked

evidence of roofing logs (Perino 1968:67–93). At the base of Dickison Mound 477 was a clay platform, into which a log-covered crypt was excavated. Within the mortuary crypt were six extended and six bundle burials, and there was at least one large ash-filled basin on the platform (Walker 1952:16–18). Beneath Weaver Mound F°910 (Wray and MacNeish 1961:31–32) was a central pit containing two burials. A double line of posts surrounded this feature, and there were 25 secondary burials on the ground surface at the base of the mound. The central crypt below Weaver Mound F°234 (Wray and MacNeish 1961:33–35) also was surrounded by a double row of posts, as well as a low wall of limestone and shale slabs. There was also a low wall of rock slabs within the crypt. None of these examples is remotely similar to the structure covered by Marksville Mound 4.

Some years ago I called attention to three other critical pieces of archaeological evidence that demonstrate that Toth's notion of Marksville inferiority is seriously flawed (Mainfort 1996a:388). The first of these is the fact that a tradition of mound construction began in the greater Midsouth over two millennia prior to the earliest evidence of mounds in Ohio (e.g., Gibson and Shenkel 1988; Saunders et al. 2005) and continued, though perhaps in reduced numbers, during the immediately pre-Marksville Tchula period (e.g., Ford 1990). The other two, Marksville earthen enclosures and platform mounds, warrant more detailed discussion, which follows below.

Middle Woodland Earthen Enclosures in the Midsouth

As discussed above, in the greater Midsouth, Middle Woodland (Marksville) earthen enclosures have been documented at Hickman (Kentucky), Marksville (Louisiana), Florence (northwestern Alabama), the lower Yazoo Basin (Mississippi), and Pinson Mounds (West Tennessee). The importance of these features was known and recognized not only by Middle Woodland people within the local areas in which they were built, but also by their contemporaries living across a broad area. Strictly in terms of the labor involved, participation by more distant groups would have been necessary to complete such large architectural projects. But perhaps more importantly the act of participation (whether in actual construction or in later rituals) constitutes acknowledgment and acceptance of certain core beliefs concerning the importance of monuments by people drawn from locales well beyond the immediate location of the works (cf. Rappaport 1979:196–197).

Setzler and Strong (1936:306) published the first formal acknowledgment that the earthen enclosures at the Marksville site were similar to those seen in Ohio Hopewell and of roughly the same age, and Setzler (1940:258–260) later included Marksville in his concept of "the Hopewellian phase," noting the association of "earthworks" with mound groups as a characteristic trait. The same year, two of Setzler's associates, Ford and Willey (1940:139), also listed "earth-wall enclosures" among traits shared by Marksville and northern Hopewell, and the following year suggested that "the erection of large, functional earth enclosures around mound groups" originated in the South (Ford and Willey 1941:338).

As seen above, Ford's research at Poverty Point (Ford and Webb 1956) caused him to revise his earlier views about Hopewell origins, including the earthen enclosure at Marksville:

> The earthworks at Marksville and other sites of the Marksville Period are defensive works and are not geometrical. An exception may be the Spanish Fort Site in Sharkey County, Mississippi, where an embankment forms a geometrically perfect semicircle. (Ford and Webb 1956:130, fn 2)

Moreover:

> Geometrical earthworks similar to those at Poverty Point were unknown [in post-Poverty Point times] and, so far as we know, nothing resembling the Hopewell earthworks was ever again constructed in the Lower Mississippi. (Ford and Webb 1956:130)

In the published version of his doctoral dissertation on Issaquena ("late" Marksville), Greengo (1964:88) correctly stated that the large embankment at the Marksville site probably was, in fact, of Middle Woodland age and saw this as more evidence of "some sort of historical connection" between Marksville and Ohio Hopewell. Willey, in his 1966 synthesis volume, reiterated his earlier position that the "enclosure-type

earthworks" at Marksville were, like the excavated burial mounds, Middle Woodland structures (Willey 1966:291).

The focus of Phillips's (1970:544–545) lengthy and detailed study of the lower Yazoo Basin was ceramics and chronology, but he offered the tentative suggestion that the earthen enclosures at Leist, Little Spanish Fort, and Spanish Fort dated to the Issaquena (late Marksville) period, and that the embankments at Marksville were a bit earlier. He also noted: "Relationship to the rings at Marksville—and with the striking geometrical figures of Adena-Hopewell phases in the north—seems probable, but first the authorship of the Yazoo works must be ascertained" (Phillips 1970:966). Phillips felt that these earthen embankments were defensive in nature, and he was puzzled by the lack of evidence for substantial settlements within the enclosures (Phillips 1970:308, 381). This may reflect some input from Griffin, who for many years called attention to the presence of "habitation" debris within Ohio Hopewell enclosures (e.g., Griffin 1952:359; 1967:183; 1996), but the notion that there were large domestic settlements within the enclosures has largely been rejected by more recent researchers in Ohio (e.g., Pacheco 1996; various papers in Dancey and Pacheco 1997).

Phillips (1970:966) clearly recognized the importance of the Yazoo Basin enclosures, noting that they "constitute another special problem," and pointed the way forward for future research, but Alan Toth did not follow Phillips's lead. Toth conducted no fieldwork at the enclosure sites (or the enclosure at Marksville), but rather caustically dismissed even the possibility that embankments were built by Marksville people (Toth 1988:152; see also Toth [1974:1] and [1979:196]). Presumably influenced by the work of Ford cited above, Toth (1979:196; 1988:152) suggested that the enclosures were of Poverty Point age.

This was, at best, silly on several counts. Few Ohio Hopewell enclosures have been excavated, yet there has never been the slightest reluctance to attribute them to Ohio Hopewell (excepting, of course, the small G-form Adena earthworks). Moreover, earthen embankments of Poverty Point age are unique to the Poverty Point site itself. There is also the obvious architectural fact that the Marksville enclosures are integral to the earthwork complex as a whole.

For many years I wondered why Toth was so vehement in his rejection of earthen enclosures as components of the Marksville cultural system. Certainly he was influenced by the work of Ford and the ongoing work of Williams and Brain (1983) (discussed below), but why the retreat from Phillips's cautious interpretation? I discovered the answer while rereading Toth's (1979:196) contribution to the Chillicothe conference volume, in which he states: "All other Marksville-Hopewell parallels point not to Ohio but to the Illinois Valley, where earthworks are uncommon during the time frame under examination." A splendid example of a tautology, that. In short, Illinois Hopewell people did not construct earthen enclosures (which is true), and insofar as these same people, according to Toth, "introduced" Hopewell into the Lower Mississippi Valley, the Lower Valley enclosures could not be of Hopewell age.

Williams and Brain (1983:352, 397, see also Table 11.2) also speculated that the Spanish Fort, Leist, Little Spanish Fort, and Marksville enclosures were of Poverty Point age and did not offer even the possibility of Middle Woodland affiliation (Williams and Brain 1983:368, 401–403). With regard to the Yazoo enclosures, Williams and Brain (1983:352; see also Phillips 1970:308, 382) presented as evidence their observation that "the earthworks are quite out of proportion to the observed areas of [Marksville era] occupation." This is, however, premised on the false assumption that there were large domestic habitation sites within Hopewellian enclosures; there are not.

Testing of the earthen enclosures at Pinson Mounds (Thunen 1990, 1998; see chapter 6) and Little Spanish Fort (Jackson 1998) made clear that these architectural features were constructed during Middle Woodland, not Poverty Point, times. The Little Spanish Fort enclosure is nearly identical in form to five others in the lower Yazoo Basin (Figure 8.8), which undoubtedly are of the same general age. Although untested, the Hickman Earthworks enclosure has clear ties with Ohio Hopewell, and the enclosures at Marksville cannot seriously be viewed as unrelated to the mounds found within.

At best, there are only two possible examples of Middle Woodland enclosures in Illinois. The mounds at Ogden-Fettie are partially surrounded by a ditch (but not an embankment) (Munson 1967; Van Nest

2006:422–425). At the Golden Eagle site are two ditch and embankment segments (Van Nest 2006:420), but Griffin (1979:268) does not think that the site is Middle Woodland. The existence of a number of earthen enclosures in the greater Midsouth is quite at odds with Toth's assertion that Marksville developed as a result of the arrival of Illinois Hopewell people in the Lower Valley. The same can be said of platform mounds.

Middle Woodland Platform Mounds in the Midsouth

Within the area under consideration here, Middle Woodland platform mounds occur at Johnston and Pinson Mounds (West Tennessee), Ingomar (northeast Mississippi), Florence (northwest Alabama), Walling (north-central Alabama), Marksville (east-central Louisiana), and perhaps Leist (lower Yazoo Basin). Knight (1990:169) lists other examples farther afield, not all of which are Middle Woodland, but it is clear that platform mounds occur across the Southeast and were viewed as appropriate elements of Middle Woodland ceremonialism.

Perhaps the first researcher to explicitly address the issue of Middle Woodland platform mounds was Griffin (1952b:190), who stated that the truncated pyramidal mounds at Marietta (Ohio) and the enclosure surrounding them were of Fort Ancient (Mississippian) age. A few years later, Vescelius (1957:419) presented evidence, albeit indirect, that Marksville Mound 2 "was a rectangular or ovate platform erected during Burial Mound II—or Marksville—times" and referred to the mound as "an intriguing anomaly" (Vescelius 1957:420).

As discussed earlier, publication in 1962 of a paper on the Mandeville site provided solid evidence that Middle Woodland people constructed flat-topped mounds (Kellar et al. 1962), but judging by the lack of citations over the next decade, this finding was widely met with skepticism. For example, several years later Greengo (1964:89–90) dismissed Vescelius's conclusions and suggested, on the basis of far less evidence, that Marksville Mound 2 dated to post-Marksville Coles Creek or Plaquemine times. In marked contrast, that same year Prufer (1964:81–82) cited Kellar et al. (1962) to bolster his assertion that the platform mounds at Ohio Hopewell sites such as Marietta and Newark were built by Middle Woodland people. He also observed, quite correctly, that these mounds are "integral parts of the earthworks" (Prufer 1964:81), as are, parenthetically, Mounds 2 and 6 at Marksville.

In his lower Yazoo Basin synthesis, Phillips (1970:544) offered the modest suggestion that the large platform mound at Leist was constructed during Issaquena ("late" Marksville) times. But neither this nor the findings at Mandeville seem to have influenced Toth (1974:92), who disagreed with both Vescelius and Greengo and suggested that "the major portion of [Marksville] Mound 2 was erected during the Tchefuncte or, more probably, Poverty Point period." While not stating it directly, he clearly thought that the other platform mound, Mound 6, also predated the conical burial mounds at Marksville (Toth 1974:94). This ties in with his later claim, discussed above, that the earthen enclosures at Marksville were built during Poverty Point times.

To my knowledge, no Middle Woodland platform mounds have been reported in Illinois, but several are known from Ohio (e.g., Pickard 1996). Again, the presence of platform mounds at a half dozen or more sites in the greater Midsouth is counter to Toth's view of Marksville origins, and I suspect that as was the case for earthen enclosures, he probably rejected a Middle Woodland age for the platform mounds at Marksville in part because there are no platform mounds associated with Havana Hopewell.

Final Thoughts

In his ambitious synthesis of earthen architecture in the Lower Mississippi Valley, Prentice (2000:117, 201–203) states that within the states of Arkansas, Louisiana, and Mississippi, and West Tennessee, there are 84 mounds and embankments that can "be assigned to the Middle Woodland substage with some level of confidence." His study area encompasses approximately 159,277 square miles (414,120 sq km), and although there are issues of data quality (Prentice 2000:16–17) and sampling error, this figure suggests that relatively few mounds were constructed in this large region during Middle Woodland times (see also

Seeman [1979:Table 1] and discussion above under "Yazoo Basin Enclosures").

Prentice's numerical estimate supports the oft-stated notion that Hopewellian manifestations in the Southeast are modest relative to those in Ohio and Illinois (e.g., Griffin 1967:186; Jenkins 1979:180; Setzler 1934b:7–8; Toth 1979:199). For example, near the confluence of Paint Creek and the Scioto River in southern Ohio, an area of about 778 square miles (2,016 sq km), there are or were at least 98 earthen mounds of probable Hopewell affiliation (Seeman and Branch 2006:112, 116). Within the Lower Illinois River valley, which comprises about 2,818 square miles (7,300 sq km) (Ruby et al. 2005:127), there are about 92 burial mounds that probably date to Middle Woodland times (Charles 1985:195; 1992:187). In both of these relatively small areas there are more mounds identified as Middle Woodland than in the entirety of Prentice's (2000) vast study area.

In West Tennessee, with an area of 10,649 sq mi (27,582 sq km), there are only 20 mounds that I can identify confidently as Middle Woodland (see also Prentice 2000:202–203). This includes 13 or so at Pinson Mounds, three at the Johnston site, and two at the Elijah Bray site. The other two are a pair of unexcavated conical mounds at site 40LA20 in the Mississippi River bottomlands of Lauderdale County. This brings into sharper focus the unique nature of the Pinson Mounds site and the short stretch of the South Fork Forked Deer River (about 10 miles) along which this mound complex, the Johnston site, and the Elijah Bray group are located. This small area evidently was viewed as being vested with considerable power, and it held special significance not just for people of the immediate area, but also far beyond West Tennessee, as did the specific locales selected for constructing mounds (Bradley 1993:44, 1998:17).

The scale of the Pinson Mounds complex is difficult to appreciate from a map or digital model. The linear distance between the Twin Mounds and Mound 30, the easternmost mound, is over 3 km. The areal extent of the earthworks was a factor in my deconstruction of Pinson Mounds into several distinct ritual precincts, each one of which constitutes a notable earthwork complex in its own right. The physical division of the large mound complex into eastern and western portions by the wide bottomland flanking a small stream (Hudson Branch) is obvious (Figures 1.2 an 1.10). I identified the western portion, which includes Ozier Mound, the Twin Mounds, Mound 31, the Cochran site area, and at least one additional mound, as the western ritual precinct. The eastern ritual precinct (or Eastern Citadel area), which includes the geometric enclosure, Mound 29, and Mound 30, occupies a small, topographically isolated peninsula of land. The relative isolation and bluff-top location of Mound 15 make it and the immediately surrounding area another candidate for ritual precinct status. Sauls Mound and the nearby Mounds 10 and 12 might be considered a fourth ritual precinct, perhaps Mound 28 and immediate environs a fifth.

The total volume of earth represented by only three of the mounds—Mound 28, Ozier Mound, and Sauls Mound—is greater than that of all but four Mississippian sites (Muller 1997:274; Shenkel 1986:214). Construction of some individual mounds, such as Sauls Mound, likely required a workforce well beyond the capacity of the population inhabiting the general vicinity (see Bernardini 2004), which site survey data suggest was not large. Construction projects on the scale of Sauls Mound by small, dispersed populations are difficult to imagine, but can perhaps be better understood with reference to ethnographic examples such as the biannual Mapuche *ñguillatun* ceremony, which is attended by as many as 8,000 people and includes earthen monument construction (Dillehay 1990).

Sauls Mound was the tallest earthen mound constructed by Middle Woodland people, and it has by far the greatest volume (see Ruby 1997:400).[2] In fact, its volume exceeds that of all but five Mississippian mounds (see Muller 1997:273). Very large mounds, such as Sauls Mound, Miamisburg Mound (Fowke 1902:300; MacLean 1904:59–60; Reeves 1936:107), the Grave Creek mound[3] (Hemmings 1984; Squier and Davis 1848:168–170), and the great mound at Troyville (Walker 1936), clearly were more than large piles of earth, albeit carefully selected and deposited. They were objects of architectural wonder. Gerard Fowke (1902:300) had it right in stating that "Such mounds . . . are so far beyond the ordinary that they must be excluded in giving figures that shall fairly represent the usual dimensions." But more important, Sauls Mound (and other unusually large mounds) was

an extraordinarily large sacred iconic warrant that correspondingly embodied and manifested great power.[4] As such, it beckoned pilgrims from afar.

By spending some time and participating in appropriate rituals in the presence of Sauls Mound, pilgrims sought to obtain some of that power not just for themselves, but the substance of power was "ritually disseminated to the entire community" upon their return (Gill 1982:105; see also Carmichael 1994:91; Du Bois 1935:80; Swan 1988). This by no means denies the importance of the other earthworks within the Pinson Mounds complex and the locality itself as a place of power, but Sauls Mound clearly stands apart as special—within the mound complex, within the Midsouth, within the Southeast, perhaps within the Eastern Woodlands.

The few surviving early maps produced by Native Americans demonstrate remarkably wide-ranging knowledge of distant peoples and places (e.g., Waselkov 1989). Between about 100 B.C. and A.D. 350, Pinson Mounds was the largest mound complex in the Southeast, and there can be no doubt it was known to and visited by people who lived hundreds of miles away. These pilgrims[5] were drawn to this locality (or, rather, one or more of the ritual precincts that together comprise what we now call the Pinson Mounds complex) by a body of shared beliefs—a similar worldview—that transcended local social groups and included organizational principles that formed the basis for interactions at Pinson Mounds.

Following Silverman (1994:2–3), the Pinson Mounds complex can be viewed not so much as a "ceremonial center," which services and is maintained by a local population (cf. DeBoer and Blitz 1991), but as a "pilgrimage center" that drew visitors from a large area who wanted to access the powers manifested there. As such, the mound complex was "able to accommodate pilgrims from many cultures and social stations," and made "divine powers accessible to far larger and more varied numbers of adherents" (Coleman and Elsner 1995:208).

Ceramics provide the best evidence for the participation of pilgrims from distant regions in ritual activities at Pinson Mounds. Stylistically nonlocal ceramics have been found in "virtually every tested locality" (Mainfort 1996a:386), with a major concentration in the Duck's Nest sector. Based on surface treatment and temper, a large portion of the Southeast is represented by the ceramic assemblage. Among the regional ceramic traditions are those of the Tennessee River valley, the southern Appalachians, the southern Tombigbee River area, the Yazoo Basin, and southern Georgia, and neutron activation analysis has shown that some stylistically undistinguished pottery was transported to Pinson Mounds from some distance (see chapter 5).

Moreover, the ceramic data provide hints that the composition of groups participating in activities at specific loci within the Pinson Mounds complex varied. Evidence of pilgrims from the Tennessee River valley, represented by their limestone-tempered ceramics, has been found at almost all investigated areas; only the small collections from Mound 10 and the Cochran site area lack limestone-tempered wares.

As to differences between localities, checked-stamped sherds, though few in number, are recorded only in the assemblages from Ozier Mound and the northern Twin Mound. The absence of check-stamping in the large ceramics collection from the Duck's Nest sector is conspicuous, as is the lack of Marksville-related sherds, which have been recovered from the Twin Mounds sector, Mound 31, the northern Twin Mound, Mound 12, and the Eastern Citadel. Swift Creek Complicated Stamped is fairly well represented in the Duck's Nest sector, with a few specimens from the Twin Mounds sector, Mound 31, the Mound 14 sector, and Mound 10, but there are no examples from Ozier Mound or the northern Twin Mound. Finally, Larto Red is nearly ubiquitous at Pinson Mounds, but no sherds of this type were found during excavations at Ozier Mound (Table 8.1 and Appendix 1).

Participation by people from distant regions in large-scale architectural projects such as Sauls Mound and Ozier Mound—even the Twin Mounds—might be viewed as almost expectable. Certainly, a great deal of labor was required to complete these earthworks, which implies, rather obviously, that labor requirements were taken into account in planning the work to be done, and therefore planning had to include people living well beyond the immediate location of the monument. But labor was not the only factor that drew pilgrims to Pinson Mounds. Even in the case of the diminutive Mound 31, which covered the final resting

TABLE 8.1 Distribution of selected ceramics and bladelets.

	Swift Creek Complicated Stamped	Marksville-related	limestone-tempered	Larto Red	check-stamped	Flint Ridge bladelets
Ozier Mound	0	0	23/725	0	X	X
Twin Mounds	0	X	4/499	X	X	X?
Cochran Site	0	0	0	0	0	X
Twin Mounds Sector	X	X	12/1089	X	0	X?
Mound 31 (features)	X	X	6/219	0	0	X
Mound 12	0	X	10/770	X	0	0
Mound 14 Sector	X	0	7/214	X	0	X
Ducks Nest Sector	X	0	94/2008	X	0	X?
Mound 10	X	0	0	X	0	0
Eastern Citadel	0	X	1 (Mound 30)	0	0	0

place of a single individual, ceramic evidence suggests that it was important for some nonlocal groups to participate in some fashion, or at least to have their connection with the associated ritual established via use of material culture representative of the groups. The ritual activities in the Duck's Nest sector are not directly linked to a mound at all, yet the deposits there contained a remarkably diverse ceramic assemblage that reflects participation of people from hundreds of miles away in several directions.

Notwithstanding the frustratingly ambiguous radiocarbon evidence (Mainfort and McNutt 2004; chapter 7), it seems apparent that the Pinson Mounds complex was constructed and used for hundreds of years. Ozier Mound attained its present height as the result of a minimum of seven construction episodes, and Mound 29 was built in at least two stages. The abundance of fabric-marked ceramics from Ozier Mound and the premound activity surface on which Mound 12 was constructed suggest that these localities (and perhaps the Eastern Citadel embankment) predate other investigated areas by 100 years or more. Presumably additions to Sauls Mound continued for many years, if not generations, but the stratigraphic evidence is equivocal; a few Furrs Cordmarked sherds collected from the surface of the mound may indicate that at least some construction postdates the upper preserved summit of Ozier Mound.

The locality chosen for building a remarkable number of mounds, some quite large, and an earthen enclosure had been recognized as a special place—a place of power—before the first mound was constructed. As objects of power in their own right, their power was enhanced by their construction at such an important place and, as time passed, by their associations with the other mounds (Bradley 1993:129).

After around A.D. 350, earthen construction at Pinson Mounds stopped, and the ceramic evidence suggests that the mound complex was no longer a pilgrimage destination. There is no evidence of Late Woodland occupation within the mound complex. For at least five centuries the area encompassing Pinson Mounds was essentially abandoned. Was this because the mound complex still inspired awe, long after specific knowledge about its importance had faded from memory? Or perhaps the locality was still known as a place of power, but that power was no longer accessible to people and was dangerous.

Between about A.D. 1000 and 1100 a few Mississippian families built their houses in what we now call the Mound 14 sector—an area that was used centuries earlier for short-term occupation and ritual activities contemporary with the great mounds. In building their houses these Mississippian people undoubtedly found artifacts, including pottery with unusual designs and Flint Ridge chert bladelets, from pilgrims who came to Pinson Mounds during its halcyon days. What must they have thought? Perhaps the Mississippian farmers, like modern-day archaeologists, made the connection between the interesting objects they found and the silent mounds they lived among.

Notes

1. Griffin (1986:616) was not convinced by Toth's claim that the introduction of Havana Zoned-stamped pottery from Illinois contributed to the "shift from Tchula-Tchefuncte to Marksville."
2. Shenkel (1986) calculated the volume of Sauls Mound (about 60,500 m^3) using a formula from limnology for volumes of irregular masses. Ruby used Seeman's (1977:288) volumetric estimate for Hopewell Mound 25, which has by far the greatest volume of any Middle Woodland mound other than Sauls Mound. But Seeman (1977:279) calculated volumes by treating mounds as geometric solids, which, as Shenkel demonstrated, is quite inaccurate, typically (but not always) inflating the true volume by 30 percent or more.
3. Miamisburg and Grave Creek are attributed to that nebulous entity called Adena and presumably predate Sauls Mound and the large mound at Troyville.
4. The *source* of this power is, of course, unknowable to archaeologists. I have mentioned earlier in this volume the power of place that seemingly was attributed to a short stretch of the South Fork Forked Deer River, the area selected for constructing the Pinson Mounds complex, and the locations chosen for specific mounds. Not to be overlooked is the possibility that Sauls Mound (and perhaps other earthen monuments within the mound complex) embodies and manifests power derived from the historical events that transpired there.
5. "Pilgrims" carries a great deal of cultural and historical baggage, particularly with regard to organized religions. The diversity seen in the archaeological remains of Hopewellian ritual events, along with the lack of social complexity, make clear that visitors to Middle Woodland mound and embankment complexes were not pilgrims in that sense.

Appendix I

Ceramics from Pinson Mounds

Missing from both this volume and the 1986 monograph is a comprehensive chapter on ceramics. The primary reason for this is that the overwhelming majority (for example, 94 percent in the case of collections from Ozier Mound) of ceramics from Pinson Mounds have surfaces that are plain, cordmarked, or fabric-marked and a paste that is fairly sandy and sometimes includes particles of baked clay. The corresponding types and type-varieties are well established in the literature (e.g., Cotter and Corbett 1951; Jenkins 1981; Mainfort and Chapman 1994a, b; Mainfort and Walling 1992), and rehashing the fine points of sorting criteria seems unnecessary. In truth, this material contributes little to the story of Pinson Mounds. Sherds with one or more characteristics that mark them as nonlocal (e.g., surface treatment, temper, or chemical composition), however, figure prominently in some chapters, but with rare exceptions there are so few specimens assignable to various types that a compendium of type descriptions would say little more than something along the lines of "Type originally described by Phillips et al. 1951:73." With a nod to my late friend Jimmy Griffin, a comprehensive, though not exhaustive, tabulation of ceramics from all areas excavated is presented below.

Types/surface treatments are organized by macroscopic temper (or aplastic paste inclusions) group. Some unusual sherds that are unique to the Duck's Nest sector are not included, nor are sherds with eroded surfaces, with the exception of limestone-tempered specimens, which are not products of the local ceramic tradition. Proveniences are listed in the order in which they appear in the text. Summary counts of common surface treatments appear at the bottom of the table (next page).

	Ozier Mound	Cochran Site	Twin Mounds	Twin Mounds Sector-upper (Morse)	Twin Mounds Sector-upper (Broster)	Twin Mounds Sector-lower (Morse)	Mound 31 (features)	Mound 12 sector	Mound 12 Stratum 6	Mound 12 Stratum 5	Mound 10	Mound 14 Sector (Morse)	Duck's Nest Sector	E. Citadel embankment (Morse)	Mound 29 west side (Thumen)	TOTAL
Baldwin Plain	119	20	91	100	97	87	9	8	6	76	1	42	193	5	14	868
Furrs Cordmarked	240	77	226	519	214	535	131	13	10	174	10	79	1356	2	6	3592
Saltillo Fabric Impressed	78	53	24		1		4		78	249		45	62	39	47	680
Basin Bayou Incised	1		2													3
McLeod Check Stamped	3		2													5
McLeod Simple Stamped			1										23			24
sand-tempered cf. Cormorant Cord Impressed			1							4						5
sand-tempered incised	4		2				7			1		3				17
sand-tempered punctated							1			2						3
sand-tempered red filmed			1				1									2
sand-tempered brushed?			4				4									8
incised over Furrs Cordmarked	1					1										2
Baytown Plain, *var. Tishomingo*	51	3	27	28	23	23	8	9		22			22	14	2	232
Mulberry Creek Cordmarked, *var. Tishomingo*	35	16	72	49	19	35	11	39	2	63			24	3		368
Withers Fabric Marked, *var. Craigs Landing*	102	7	16	1	1	2	1		9	52	1		117	9	2	320
Swift Creek Complicated Stamped					1		1				4	1	74			81
cf. Santa Rosa Punctated			2				1			3						6
sand/clay-tempered check stamped	2		1													3
sand/clay-tempered simple stamped			1													1
sand/clay-tempered zoned incised			4													4
sand/clay-tempered curvilinear incised			1													1
sand/clay-tempered incised	1		2				1									4
sand/clay-tempered red filmed	1		1													2
Baytown Plain	14		1				2					13				30
Mulberry Creek Cordmarked	19		4				6			2		13	7			51
Withers Fabric Marked	26		1				7					10				44
Marksville Incised			2	18			9		1	1						31
Marksville Stamped			1	1			4									6
Larto Red			1	3	1			3		5	1	1	21			36
clay-tempered incised							2									2
clay-tempered punctated				1							1					2
clay-tempered single cord impressed	1															1
sand/bone-tempered cordmarked			2										5			7
sand/bone-tempered simple stamped			1													1
sand/clay/bone-tempered cordmarked													10			10
sand/clay/bone-tempered incised	1															1
Mulberry Creek Plain	20		3							1		2	68			94
Flint River Cordmarked	1		1										26			28
Wright Check Stamped	2															2
limestone-tempered punctated							1									1
limestone-tempered eroded				12			5			9		5				31
podal support	3		1				3									7
TOTAL	**725**	**176**	**499**	**732**	**357**	**683**	**219**	**72**	**106**	**664**	**18**	**214**	**2008**	**72**	**71**	**6616**
plain	184	23	119	128	120	110	19	17	6	98	1	55	283	19	16	1130
cordmarked	294	93	302	568	233	570	148	52	12	239	10	92	1428	5	6	4011
fabric marked	206	60	41	1	2	2	12	0	87	301	1	55	179	48	49	1044

Appendix II

Politics and Prehistory: The Making of Pinson Mounds State Archaeological Area

Mary L. Kwas

The creation of an archaeological park is a process separate from, although certainly related to, the archaeological site around which an archaeological park is formed. Not every site—not even every important site—is preserved on public land or developed for public visitation. In the Southeast and Midwest, highly visible monumental architecture in the form of mounds and embankments is more likely to be the focus of park development than, for example, a Paleoindian hunting camp or Woodland village. Examples of such mound-based archaeological parks include Cahokia, Illinois; Moundville, Alabama; Poverty Point, Louisiana; Toltec Mounds, Arkansas; and Serpent Mound, Ohio. Visibility alone is not enough to ensure that a given mound site becomes an archaeological park. Factors that contribute to selection for acquisition and development may include site importance, proximity to population centers, availability of funds, need for green space, economic development, and community support. Not the least of those, community support—often led by a small group of dedicated and persevering individuals—may be the decisive factor. In the case of Pinson Mounds, it took 25 years from the first spark of interest in 1956 to opening to the public in 1981. It was a rough road that supporters traveled, maneuvering through changes in governors and capricious levels of interest. There were successes to celebrate along the way, but perhaps even more disappointments to discourage the resolve of the supporters.

The history of the development of Pinson Mounds as an archaeological park provides an interesting study of the process that transforms an archaeological site into a public park. Information about that process for most archaeological parks is apt to be quickly forgotten once success is achieved and is not part of the story told in the visitor center, yet such history provides a seldom-tapped resource into the workings of local politics and community activism. The story also provides insights into the perceptions and expectations of archaeological parks to the community, concepts that change through time. Archaeological parks have always been odd ducks in state parks systems developed with a focus on outdoor recreation and preservation of natural areas. Arguably better suited to management under state historical agencies or museums, archaeological parks found their home in state parks because of their acreage, but the uncomfortable fit left them struggling with a need for archaeologists, curators, historians, and educational staff, none of which is common among state parks staffing (Kwas 1986; Woodiel 1986). Understanding the process that both creates and limits archaeological parks can lead to better management for the future.[1]

Inspiration and Grass Roots: 1956–1958

The Middle Woodland period site of Pinson Mounds, located in Madison County, Tennessee, about 10 miles from the county seat of Jackson, was known to antiquarians and archaeologists since the beginning of settlement in West Tennessee in the early 1800s. It was not until 1923, however, that the first suggestion to turn the site into a public park was made by archaeologist William E. Myer in a concluding sentence about Pinson Mounds in his final manuscript (Myer 1923). Since the manuscript was never published, no one would have read Myer's suggestion or been inspired by it, and Pinson Mounds remained in private ownership until 1947.

In May of that year, the State of Tennessee purchased the R. L. Ozier estate from M. T. Lawrence in order to develop a West Tennessee tree nursery for the

state Division of Forestry. The 310 acres chosen for the new nursery, with soil suitable for seedling production and a central location in the western section of the state, just happened to be the "Western Mound Group" of Pinson Mounds.[2] The most prominent archaeological features on this property include Ozier Mound (Mound 5), a 32-foot-tall, flat-topped ceremonial mound; the Twin Mounds (Mound 6), an elaborate double burial mound; and Mound 31, a small burial mound. The prehistoric earthworks highly visible on the grounds of the new nursery apparently were of no concern to the state at that time. Until recently agricultural buildings were nestled near the base of Ozier Mound and fields were cultivated nearby.[3] Nonetheless, state ownership of at least part of the site certainly did not hurt chances for future development.

The catalyst for that development came in the person of John B. Nuckolls, M.D., a urologist who, despite being a longtime Jackson resident, first visited Pinson Mounds in early 1956 on a Boy Scout field trip with his son. By his own admission, Nuckolls was astonished to see such a large and impressive mound complex virtually in Jackson's backyard and recognized the site's importance as an archaeological treasure and a tourist attraction[4] (Nuckolls ca. 1963).

Little time elapsed before Nuckolls paid a visit to Robert P. Mahon Jr., associate editor of the local daily paper, the *Jackson Sun*, where they discussed the possibility of persuading the State of Tennessee to purchase the site. Undoubtedly both realized that support for such a proposal would have to come from a larger section of the local community, and they wasted no time in rounding up supporters. One of the most influential of those was Judge Andrew T. "Tip" Taylor, who served on the circuit court and had political contacts as well as aspirations. Among other outstanding supporters in the early years were Judge Leroy Pope; Seale Johnson, member of the Tennessee Historical Commission; and Dean Marvin Eagle of Lambuth College, who is credited with naming the feature known as the Duck's Nest (Nuckolls ca. 1963).

The supporters met for working lunches, where they solidified their ideas and developed a plan of action. Their goal was to persuade either the state or federal government to purchase the site of Pinson Mounds, sections of which were held by a number of different landowners, and to develop it into a public park. To accomplish this goal, they needed support from three sectors: (1) professional archaeologists to provide statements acknowledging the importance of the site, (2) government officials and legislators to appropriate funds for purchase and development, and (3) the community at large to provide the constituency necessary to convince politicians of the worthiness of the cause.

A letter-writing campaign was commenced that targeted noted archaeologists and government officials. Taylor and Pope dealt with state government and planned the strategy necessary to wend through convoluted bureaucratic channels. Johnson worked with the Tennessee Historical Commission to build support. Mahon saw to it that the *Jackson Sun* generously covered events, visits by officials, and reports of legislative successes or failures. Supporting editorials and articles appeared frequently. Nuckolls and Eagle gave talks to every community club and service organization that would have them. Nuckolls also handled much of the correspondence and wrote articles to build support throughout the state (Nuckolls ca. 1963).

By April 1956 Nuckolls received a reply from University of Tennessee archaeologist T. M. N. Lewis, stating that he had visited Pinson Mounds in 1938. Lewis offered some suggestions for development, which included building stairs to the top of the tallest mound (Sauls Mound), excavating a burial area, and conducting a two-week archaeological survey.[5]

By January 1957 Nuckolls had organized the Jackson Archaeological Society, which met the first Sunday of each month in the Nuckolls's home. The club was a family affair, with spouses and children welcome. Highlights of the meetings included book reviews, discussions of members' artifact collections, and field trips. Nuckolls served as president, John Dyer as vice president, and Elizabeth Etheridge as secretary. New members included the teenage Harbert Alexander, who would later become influential in Jackson banking and a strong supporter of Pinson Mounds.[6]

In the meantime Taylor contacted state representative William Barry and state parks director Gordon Turner about appropriating $75,000–$85,000 for the purchase and preservation of archaeological sites. Responses were not encouraging, and it was suggested

that Taylor pursue the idea through the Division of Forestry so that more land could be added onto the already existing nursery.[7]

The only archaeological park in Tennessee in 1957 was Chucalissa, part of T. O. Fuller State Park in Shelby County near Memphis. The site had been discovered during construction of a swimming pool prior to World War II, and the University of Tennessee had been involved in initial excavations. When interest in the site was revived in the early 1950s, T. M. N. Lewis encouraged plans for site development and recommended Charles Nash to head the project. In 1955 Governor Frank Clement approved funds for the work and Nash began excavations. Within a year the site was opened to visitors who were provided tours by Nash and his assistant, and within two years thousands of people had visited the site. In 1957 Nash was appointed state parks archaeologist, so it was natural for Nuckolls to contact him regarding plans for Pinson Mounds[8] (McNutt 1969:172–173). Nash visited the site with Nuckolls in November 1957 and was excited about the possibilities for development, becoming an active supporter. He would later contribute ideas to the master plan for development. Reporting on Nash's visit, the *Jackson Sun* also announced that state park status was now being sought for Pinson Mounds.[9]

Nash was not the only archaeologist that Nuckolls was pursuing for endorsements, and he was pleased when one came from Matthew Stirling of the Smithsonian Institution, Bureau of American Ethnology. Through J. H. Gilbert, a friend of Nuckolls and a former Jacksonian then employed in the federal government in Washington, D.C., the cause to develop Pinson Mounds as a park became known to Stirling, who added his encouragement to the effort.[10] Also National Park Service regional archaeologist John Griffen visited Pinson Mounds in March 1958. Immediately following his visit Griffen contacted the Tennessee commissioner of conservation, endorsing state development of the site.[11]

In the meantime the Jackson Archaeological Society compiled a booklet containing copies of book and newspaper articles, letters of support, and photos of the site. The unpublished booklet was called "History of Pinson Mounds Near Jackson Tennessee," and was undoubtedly used to promote their cause (Jackson Archaeological Society ca. 1957). Nuckolls also submitted two articles about Pinson Mounds to statewide periodicals, both of which were published in 1958. "The Pinson Mounds" appeared in *Tennessee Archaeologist*, the official journal of the Tennessee Archaeological Society, and covered the history and importance of the site (Nuckolls 1958:1–8). "West Tennessee Indian Mounds Draw Tourists," which appeared in the Tennessee Department of Conservation's house periodical *Tennessee Conservationist*, added information on state park aspirations for the site and encouraged the conservation-minded readers to support the project (Nuckolls 1959:14–15).

In late January 1958 T. M. N. Lewis, and probably his partner Madeline Kneberg, paid a visit to Nuckolls and his wife, Nell. Lewis and Kneberg were actively involved with the Tennessee Archaeological Society (TAS), a statewide amateur archaeology association, and it was probably during this visit that they persuaded Nuckolls to affiliate with TAS. By March, the Jackson Archaeological Society officially had become the Jackson Chapter of the Tennessee Archaeological Society. Each fall TAS held an annual meeting. In 1958 it was held in Chattanooga. Nuckolls and Taylor attended and, from the results, must have taken the meeting by storm. The results were (1) TAS adopted a resolution to encourage the state to purchase Pinson Mounds and develop the site into a park, (2) Nuckolls was elected president and Taylor first vice president for 1959, and (3) the 1959 annual meeting was to be held in Jackson[12] (Nuckolls ca. 1963). The following year over 100 people attended the TAS meeting, headquartered at the New Southern Hotel, where they listened to speakers Madeline Kneberg and Alabama's James Cambron. And, of course, they toured Pinson Mounds.[13]

Nuckolls also continued to pursue the Pinson Mounds project through agencies of Tennessee state government. At that time the Tennessee Historical Commission (THC) was the main state institution charged with affairs of a historical nature. In early 1958 Nuckolls contacted them for help with the project, and THC suggested that the supporters make a formal request to them to purchase the site. Later in the year Nuckolls sent a letter to Seale Johnson of the THC proposing purchase of the John Sauls property (which held the largest mound) and suggested a figure of $75,000.[14] By the end of 1958, local papers

reported that the Jackson Chamber of Commerce was throwing its support behind the project and that the THC now officially endorsed state ownership of Pinson Mounds.[15]

Since 1956, when interest in developing Pinson Mounds as a state park had begun, Frank Clement was serving the last years of a six-year term as governor. Evidently, the Jackson supporters did not directly approach Clement about the Pinson Mounds project during this time, although he did veto funds for the project approved by the legislature, despite his earlier support of Chucalissa.[16] As it happened in 1958 with Clement's administration coming to an end, an even more interesting political scene was developing. Pinson Mounds supporter Judge Andrew "Tip" Taylor made a run for governor.[17] Unfortunately for the development of archaeological parks in Tennessee, he lost to Buford Ellington.

Ellington Administration: 1959–1962

In previous years the project to purchase and develop Pinson Mounds had focused on the archaeological importance of the site and the need to preserve a valuable piece of the state's heritage, but by late 1958 Nuckolls had added the attractive argument of economic benefits to be gained by a major tourist attraction. The site was located just a few miles from U.S. 45, which at that time, in pre-interstate days, was a major route to Florida carrying tourists from as far north as Chicago. Nuckolls contacted Lewis Copeland of the University of Tennessee Department of Statistics for numbers on the tourism traffic in West Tennessee.[18]

In the meantime the Jackson supporters had been scouting out property, mostly agricultural and bottom land, in the Pinson Mounds vicinity and had even gotten options on some of the land from the landowners. In May 1960 Nuckolls again contacted the THC, requesting their support of the project and advising them that John Sauls had offered to accept $60,000 for his land.[19] Although money was still unavailable for purchase and development, THC began to take a more active role in investigating the merits of the project. Initiated by a suggestion from Madeline Kneberg, THC contacted archaeologist James Ford of the American Museum of Natural History to see if the museum would be interested in conducting a survey of the site. THC even offered some funds toward that end.[20]

The Jackson supporters decided it was time for a boost to the project, so sponsored a dinner and rally at the New Southern Hotel on December 2, 1960. State and local politicians and other persons of influence were invited. Charles Nash attended from Chucalissa, as did Walter Criley, who was with the Tennessee Department of Conservation, Division of Planning, and who would figure prominently in later years of the site's development. Those in attendance were told that twice in recent years Governors Frank Clement and Buford Ellington had vetoed funds appropriated by the state legislature for purchase and development of Pinson Mounds and explained the current efforts underway.[21]

After the rally, state senator Keith Short wasted no time in getting a letter off to Governor Ellington again requesting funding for the project. Ellington advised him that the state budget had already been allocated to areas of prime responsibility but suggested he work through the THC, which did receive appropriated funds for such projects. At about the same time, the Tennessee Department of Conservation contacted the Jackson supporters stating that the department had no funds to finance the Pinson Mounds project.[22] Senator Short, however, continued to argue his case for Pinson Mounds to Governor Ellington. When the Miscellaneous Appropriation Bill designated for Pinson Mounds land purchases came across the governor's desk in the spring of 1961, Ellington again considered vetoing it, but Senator Short was determined. Governor Ellington finally gave in and signed the bill, allocating $50,000 for land purchases to be administered through the THC.[23]

A well-deserved celebration was held at the Nuckolls's residence. In attendance were Judge Taylor, Judge Leroy Pope, Seale Johnson, Robert Mahon Jr., John B. Tigrett, and E. L. Morgan. The celebrants decided to take the preliminary steps to form the "Committee of 100 for the Development and Preservation of the Pinson Mounds," targeted to include civic, business, and political leaders of West Tennessee.[24] In August the supporters met with Dr. William Alderson of the THC to discuss how to proceed. Alderson outlined three tasks for which the Jackson supporters would be responsible: (1) have the

land surveyed by a competent civil engineer, (2) get three separate independent appraisals of the value of the land as farmland, and (3) have the owners give an option on their land.

Besides handling these specifics, there was also the matter of who would be responsible for the money. The supporters hashed the matter over for months, but could not come up with a solution. They felt that the Jackson Chapter of TAS didn't really have the authority to handle the funds and that an organization more representative of the community at large should be responsible. They finally decided to ask the Jackson Chamber of Commerce to take responsibility. THC was agreeable with this solution, emphasizing it was "absolutely necessary that there be a group within the area which can assume responsibility," as it was THC's policy to work entirely through local groups and organizations.[25] Although Nuckolls felt quite strongly that the Jackson Chapter could not be the organization responsible for dealing with the THC, the chamber of commerce must have proved slow to respond to Nuckolls's request. In September 1961 he sent an urgent telegram to Seale Johnson asking him to prevail upon THC to release $1,000 of the money to the Jackson Chapter to get the project underway. THC complied.[26]

During these years Nuckolls was troubled with health problems that in 1961 finally forced him into early retirement from the Urology Clinic he had founded. The medical community's loss was undoubtedly archaeology's gain, for at only 53 Nuckolls had time on his hands to be readily filled by the Pinson Mounds project.[27]

By this time Nuckolls must have realized that state ownership of Pinson Mounds was about all he could expect to get from Governor Ellington, who was not likely to support the funding necessary to develop and maintain an archeological park. Nuckolls then contacted U.S. secretary of the interior Steward L. Udall, briefed him on the project and the allocated funds, and suggested Tennessee might be willing to turn over the land to the National Park Service for development if they were interested.[28]

Nuckolls was delighted when University of Tennessee archaeologists Charles McNutt and Bill Fischer arrived during Christmas vacation in 1961 to do some preliminary testing of the site. He invited them to his home and accompanied them into the field. McNutt and Fischer had had their interest piqued by hearing about Pinson Mounds from Lewis and Kneberg and the general discussion of the site around the anthropology department. They decided to take some of their own time to see what might be there, spending December 20–23 at the site and becoming the first professional archaeologists to actually test the site.[29] With very limited time available to them, they asked Houston Cochran, John Sauls's son-in-law, to point out areas of likely archaeological interest and chose one of these to excavate. As fate would have it, they located a Mississippian-period wall-trench house, the only feature of that age ever recorded at Pinson Mounds. Because of the house and what appeared to be typical Mississippian flat-topped mounds, the site quickly became identified with this period.

McNutt and Fischer, however, were not so quick to assign a Mississippian date to Pinson Mounds. They had found artifacts that looked earlier and believed the house could be earlier as well. They suggested a Middle Woodland date of about A.D. 550–850. Despite their interpretation of the features and artifacts, most archaeologists began thinking of Pinson Mounds as a Mississippian-period site. It would take another 20 years or more to change their minds, but Pinson Mounds would prove to be Middle Woodland after all.[30] After completing their four-day project, McNutt and Fischer returned to Knoxville and completed a report of their investigations, which was published in *Tennessee Archaeologist* (Fischer and McNutt 1962:1–13). The *Jackson Sun* also published an article about their work, and information on their results was made available to the National Park Service (NPS), allowing NPS to place the site into their scheme of historic properties.[31]

Following McNutt and Fischer's testing, in 1962 Charles Nash brought archaeologist James Ford of the American Museum of Natural History to Pinson Mounds. They examined a portion of the wall-trench house and put two slot trenches in the ground (Morse and Polhemus 1963). In the meantime, interest in Pinson Mounds was also growing at Tennessee's universities and at NPS. During the summer, the University of Tennessee (UT) contacted Nuckolls and outlined a proposal of understanding between the Jackson supporters and the Department of

Anthropology. UT planned to conduct test excavations at the site with funds from NPS, but the university wanted title to the land, expected the locals to build a museum, and would not commit to developing any recreational facilities.[32] The proposal did not sit well with Nuckolls, who expected more from UT.

Nuckolls then contacted Charles Nash to see if Memphis State University might offer a better deal, while representatives of the National Park Service arrived to look at the site. Along with Rex Wilson of NPS, UT archaeologists Alfred Guthe, Dan Morse, and J. B. Graham also came for a viewing.[33] Nuckolls believed NPS was more interested than they let on.

A means to spend the money allocated for land purchases was still in limbo. Despite Nuckolls's desire for the Jackson Chamber of Commerce to serve as the local sponsor working with the THC, by late spring of 1962 the situation still had not been resolved. A compromise was finally worked out to form a separate nonprofit organization under the sponsorship of the chamber of commerce. The "Pinson Mounds Historical and Recreational Association" was founded May 1, 1962, for the purpose of promoting the site and arranging for purchases of land. Charter members were Nuckolls, Taylor, and Judges Leroy Pope and Walter Baker Harris. In June the chamber of commerce provided a policy statement recognizing the importance of Pinson Mounds and committing to promotion of the site.[34]

Nuckolls pushed forward the work of the new association to get the land purchased, and finally in early September they closed a deal on the Sauls's property. Consisting of 190.8 acres and the largest mound, the land was purchased for $40,000.[35] The logjam over land purchases and fiscal responsibility had finally been broken, but perhaps the most important advance for the Jackson supporters was that 1962 was the last year of Governor Ellington's administration. The supporters sincerely hoped the next governor would be kinder to their cause.

Clement Returns: 1963–1966

Frank Clement, the governor who had funded the development of Chucalissa, returned to serve a second term beginning in 1963. The next four years of his administration would be busy and productive ones for the Jackson supporters of Pinson Mounds. Nuckolls started off the new term by meeting with U.S. senator Albert Gore Sr., while members of the community contemplated developing the site as a garden or arboretum. In January 1963 the supporters also spent the remaining $10,000 of the original allocation to purchase the 47.34-acre tract belonging to Tommie Williams.[36]

Unfortunately, Nuckolls was still experiencing problems with the Jackson Chamber of Commerce. Rumors led him to believe the chamber not only was not interested in the project but was actually against it. Nuckolls contacted the chamber president who reassured him the chamber was, in fact, very supportive. Nonetheless, several months later Nuckolls wrote to Alfred Guthe at UT complaining about "our almost complete lack of cooperation on this project."[37]

By the end of March 1963, however, activities at Pinson Mounds should have been interesting enough to keep Nuckolls's mind off problems. UT received funding from NPS to conduct preliminary testing of the site and sent archaeologists Dan Morse, who served as principal investigator, James Polhemus, and J. B. Graham to conduct work over a three-week period from March 21 to April 13. The goals of the research design were "(1) to prepare an up-to-date map of the site and (2) to test as much of the site as possible with regard to archaeological potential and cultural affiliation" (Morse 1986:97). It was a tall order for only three weeks.

The crew headquartered at the Thunderbird Motel on the south side of Jackson and worked like a whirlwind across the site. They tested the Duck's Nest, the Eastern Citadel embankment, the Twin Mounds sector, the Mound 14 sector, Sauls Mound, and Mounds 13, 15, 29, 30, and 31. Despite the limited amount of time, the work was carefully executed and provided answers to several longtime questions. The researchers determined (1) that the earthen embankment had no evidence of posts in it, indicating it was not a defensive feature, (2) that other putative embankments were historic fencerows, (3) that the Duck's Nest was of aboriginal origin, not a historic trading post, and (4) that a late-nineteenth- or early-twentieth-century house had once sat atop Mound 29 (Morse 1986:97; Morse and Polhemus 1963).

At the end of the project, Morse met with the local supporters at Nuckolls's home to discuss the results of his investigations. In attendance were Judge Taylor, Seale Johnson, Judge Leroy Pope, H. H. Hawks, soon-to-be Jackson mayor George Smith, and Dr. and Mrs. Jamie Towne, who would later leave their large collection of West Tennessee artifacts to the Pinson Mounds museum.[38] At about this time a compilation entitled "Documentary Evidence Supporting the Movement for Establishing a State Park or Historical Monument at Pinson Mounds Near Jackson, Tennessee," probably put together by Nuckolls, made its appearance. The work included photographs, a report of the Morse and Polhemus excavation, and excerpts from letters, books, and newspaper articles promoting the preservation and development efforts (Nuckolls ca. 1963).

On January 28, 1964, a telegram from U.S. senator Albert Gore Sr. arrived, announcing that Pinson Mounds had been designated eligible for status as a National Historic Landmark.[39] Plans were immediately initiated to find a suitable time for a ceremony to accept the certificate and bronze plaque that accompanied the honor. When it happened that Tennessee Department of Conservation (TDOC) commissioner Donald McSween would be at the Pinson Nursery in September to address a council of the Tennessee Federation of Garden Clubs, the local supporters decided this was a perfect opportunity for the presentation ceremony. McSween agreed and the date was set for September 16.[40] Jackson mayor George Smith proclaimed the date as Pinson Indian Mound Day, and another rebirth of the support group occurred, this time called the Great Pinson Mounds Development Association. Harbert Alexander served as president.[41]

The Pinson Mounds Dedication took place at 1:00 p.m. on September 16, 1964, in one of the nursery's agricultural buildings. A photograph of the event shows a makeshift stage in front of a huge stack of baled hay. Ben H. Thompson, assistant director of NPS, presented the certificate and plaque to Donald McSween. Other persons on the program were Harbert Alexander; Judge Leroy Pope; Edward Neeman, conservation editor of Scripps-Howard Newspapers; and Lawrence Quist, superintendent of Stones River National Battlefield in Murfreesboro.

Assistant state forester Tom Markham conducted tours of the nursery, while Dr. Marvin Eagle of Lambuth College led those of the mounds. Special guests included Nuckolls, Judge Taylor, Brooks Shaw, Robert Mahon, Tom Rainey, E. L. Morgan, and Seale Johnson—all members of the Pinson Mounds Association—and Jackson mayor George Smith, TDOC parks naturalist Mack Prichard, THC president Sam Smith, West Tennessee Historical Society president Buford Utley, state historian Robert White, and Jackson Chamber of Commerce manager J. W. Perry.[42]

The prestige Pinson Mounds gained by being named a National Historic Landmark appeared to do much to encourage support among state officials. In early 1965 the Tennessee Senate appropriated $100,000 for development,[43] followed two months later by Governor Clement officially establishing the site as a state park. Clement announced that an unspecified amount of money had been included in the budget to purchase "as much land as may be needed" to develop the site. McSween told reporters that the authorization for acquisition of the remaining land had been done "on the personal motion" of the governor, who had shown a keen interest in the site and was convinced of its merits and importance.[44] The new park was placed under the management of the Tennessee Department of Conservation. Walter Criley, the director of the Division of Planning, was assigned to coordinate development plans with the project's supporters. One of his first requirements was to arrange for a survey of the land.[45]

Although much of the property that encompassed Pinson Mounds was already in state ownership, several smaller tracts, mainly around the periphery of the site, remained to be purchased. Despite the enthusiasm now being shown by local supporters and government officials, not all the landowners were eager to part with their property. The most essential parcel of land still needing to be acquired was that owned by attorney James Dempster and farmed by his uncle, N. C. Weeks. The land was located between Sauls Mound and the Eastern Citadel. Dempster was not particularly interested in parting with the property, prompting a discussion of condemnation procedures. Dempster finally settled in July 1966, accepting $97,500 for the 334-acre tract. This was the largest

tract purchased and the highest price paid for a single tract.[46] That left virtually nothing of the $100,000 appropriated by the Senate, forcing the supporters to delay purchase of the remainder of the land.

By the close of 1966, the TDOC Division of Planning had hired consultants Hansen, Schneeman and Associates, Inc., of Chicago to produce a development plan for the new park. Unfortunately the end of 1966 also marked the last months of Governor Clement's term, but so much had been accomplished in the last four years that it appeared there would be no stopping the Pinson Mounds project now. The new governor, however, was their old nemesis Buford Ellington.

Second Ellington Administration: 1967–1970

Despite the trepidation the supporters must have felt when Ellington was reelected, the work already in progress did carry over into the new administration. In fact, in June of the first year of Ellington's second tenure, the state legislature authorized $10 million above the $4.5 million requested by Ellington for development of state parks. The state also expected to receive additional federal money for park development, bringing the available total up to $20 million. Criley related to Taylor that "The governor has made it clear that he wants to see the existing parks and the announced new parks including Pinson developed to a high standard."[47]

In February 1967 the Chicago consultants delivered their preliminary report on the Pinson Mounds development. Their recommendations included acquisition of additional land, construction of a museum and archaeology workshop, a road network to provide an automobile tour of the site, tent and trailer camp sites, picnic areas, residence and maintenance buildings, development of exhibits, and continued archaeological investigations. Charles Nash contributed specific recommendations on the archaeology. Costs for development were estimated to be $1,861,955, with an annual operating budget of $124,200. The consultants proposed a staff of 36 full-time and seasonal employees, including archaeologists, park rangers, tour guides, and clerical and maintenance personnel—more than three times the number of employees at the park today (Hansen, Schneeman and Assoc., Inc. 1967).

After the report was released, the consultants met with the Jackson support group to discuss details of the development plan, then prepared a final draft for the group to review, and finally released the report of the master plan in July 1968 (Hansen, Schneeman and Assoc., Inc. 1968). The information contained in the final report was presented in greater detail and included photos, maps of the proposed development, and graphs and charts of estimated usage. The basic recommendations were essentially the same as in the preliminary report. Charles Nash contributed the archaeological information and the research proposal. Sadly, Nash died in February of that year, and a full-page dedication to him was included in the report.

The consultants recommended a five-phase development that would begin in 1968. They proposed that the site and museum be open to the public at the end of the fourth phase in 1975. Annual expenditures for that year were estimated to cost $130,400, with revenues from camping, concessions, and admissions expected to reach $92,450. Within five years of opening, the consultants estimated that over 300,000 people would visit the site each year, an overestimation by about 10 times the actual figures reached in the 1980s (Hansen, Schneeman and Assoc., Inc. 1968:15, 25, 28). The total cost of the five-phase project was expected to be $2,054,580, with all phases to be completed by 1977—a date much too far away to suit Nuckolls.[48]

Shortly before the Jackson supporters began reviewing the final draft, the unthinkable occurred. In April of the second year of his administration, Ellington shelved any further development of Pinson Mounds, giving as his reason that the "people of Tennessee have not demonstrated a sufficient interest in developing the Pinson Indian Mound State Park."[49] One can imagine the Jackson supporters must have been flabbergasted by Ellington's remark. Perhaps Ellington really believed that the Jackson supporters were too small a group and not sufficiently representative of the larger community, or perhaps he felt that $2 million was just too much to spend during his administration. One cannot help wonder, however, if Judge Taylor's run for governor against Ellington in 1958 had not left some hard feelings.

For Nuckolls this development must have been devastating indeed. More than once he had hoped the Pinson Mounds project had reached a point where it could sustain itself on its own energy, allowing him to end his leadership and pursue other interests, especially in light of his continued ill health. Nonetheless, Nuckolls made a resurgent effort to campaign for the proposed park. In one of probably many speeches, he addressed the Exchange Club of Jackson stressing that the park would be educational in purpose and should not be compared with other recreational parks in the area. One could not blame him, however, for the bitterness expressed in his explanation that the "apathy of the Jackson area is a large factor in the lack of development of the park."[50] To add insult to injury, another development plan recommended to TDOC that the early Indian history of West Tennessee be the central theme for a new park at Paris Landing,[51] a proposal that seems ludicrous considering the archaeological importance of Pinson Mounds and the long years of efforts by the Jackson supporters.

The only other development—of questionable value—during this period was the publication of *Mounds in the Mist*, a semi-factual, near-novelization that featured Pinson Mounds as its focus[52] (Payne and Kroll 1969). Despite having access to manuscripts and published articles that Nuckolls had compiled as well as photos and field notes from Morse's excavations, the authors produced a work that, at best, was inaccurate and misleading and, at worst, seriously offensive.

The second Ellington administration certainly proved to be lean years for the Pinson Mounds development, with virtually no further action beyond receipt of the master plan. Very late in the term, Senator Lowell Thomas managed to persuade Ellington to reconsider his position on Pinson Mounds, and the governor gave his approval for appraisals on the remaining unpurchased properties. But no further purchases or developments were made (Nuckolls ca. 1963).

Dunn Administration: 1971–1974

In 1971 Winfield Dunn succeeded Ellington as governor. Dunn's major goal for his administration was the development of tourism in Tennessee—no goal could have been better suited to the plans for Pinson Mounds. Dunn wasted no time initiating the development of a fine park system for the state, one that would include Pinson Mounds. By September of his first year, the *Jackson Sun* announced that land acquisition was begun and that the park might open as early as 1975.[53]

Dunn was proactive for Tennessee's archaeological heritage in other ways as well. He established the Tennessee Division of Archaeology (TDOA) as a subunit of TDOC and appointed Mack Prichard as the first state archaeologist.[54] Although Prichard was a naturalist from TDOC's Division of Parks and Recreation, his enthusiasm and support for the state's heritage and his organizational skills were instrumental in ensuring a healthy beginning for TDOA. In addition, he was excited about the possibilities for the new park.

In early 1972 the Federal Bureau of Outdoor Recreation approved a matching grant of $82,102 for TDOC to purchase additional parcels of land for the Pinson Mounds development. On January 14 TDOC purchased 184.15 acres from Jeff Cochran for $64,000 and 84.95 acres from C. L. Knight for $8,910. Additional land was added throughout the year, including 66.57 acres from Tommie Williams for $34,789; 47.96 acres from Lessie Watlington for $26,400; and 13 acres from John Sauls for $26,500, which included his residence at the entrance to the park.[55]

At the time of the January sale, conservation commissioner Will Jenkins requested Phase I development funds from the state legislature to be included in the FY 1972–73 budget. In February Dunn asked the legislature for $18 million for development of the state park system as a whole. Archaeological sites covered in the proposal included Red Clay, Chota, Bone Cave, Sellers Farm, Harpeth Mounds, Brick Church Mound, Duck River Temple Mounds, Dover Flint Quarries, Old Stone Fort, Obion Mounds, and Reelfoot Mounds. Although not all the above sites were acquired by the state or developed as parks, Dunn's foresight in preserving Tennessee's archaeological heritage was outstanding.[56]

In late 1973 Prichard hired John Broster to serve as the West Tennessee regional archaeologist to begin archaeological investigations at Pinson Mounds. An

old farmhouse on the site served as field office and living quarters. Broster commenced work by conducting archaeological surveys of the land in and around the site. With $10,000 allotted for initial excavation, he contacted Memphis State University (MSU) archaeologists to propose a cooperative field school.[57] Broster also met with Nuckolls to discuss plans for the site and encouraged him to reactivate the Jackson Chapter of TAS. By this time, however, Nuckolls's failing health had forced him into the periphery of the Pinson Mounds movement.[58]

On January 25, 1974, Pinson Mounds, as a registered National Historic Landmark, was automatically placed on the newly formed National Register of Historic Places. In April conservation commissioner Granville Hinton announced that architects for the project had been selected. Charles Stanfill of the Jackson firm Thomas, Ross, and Stanfill would design the buildings for the new park.[59]

In the same month, a new generation of supporters gathered to form the West Tennessee Archaeological and Geological Society. Charles Allen, program director with WBBJ-TV in Jackson, was elected president. Allen had recently produced a video on the Pinson Mounds development entitled "Tribes That Slumber," after the Lewis and Kneberg book (Lewis and Kneberg 1958:78). The video included interviews with Judge Taylor, Harbert Alexander, John Broster, and Nuckolls, in obvious failing health.[60] Mrs. John Van Den Bosch was elected bylaws chairman of the new archaeological society, and Harbert Alexander accepted the position of vice president in charge of programming. Broster spoke to the group in July, at which time they voted to affiliate with TAS, thus becoming the second Jackson Chapter. The Jackson Area Chamber of Commerce backed the group to help promote the continued development of the site as a park.[61]

Broster's first excavation at Pinson Mounds, which served as the MSU field school, ran from June 1 to August 30, 1974, funded by TDOC. The field school tested areas east of Ozier Mound near the nursery irrigation pond and south of Mound 11, both of which were being considered as potential locations for the park museum. They also tested an activity area near the Twin Mounds, an area near Mound 12, and a small section in the Mound 14 sector in an attempt to relocate Fischer and McNutt's Mississippian-period house. Following the field season, an in-house report of limited distribution was prepared (Broster 1975). In the summer of the following year, Broster again headed the MSU field school, spending most of the time excavating Mound 12. The year's investigation was funded by TDOC and NPS (Broster and Schneider 1975a).

Completing analysis of the two season's work, Broster concluded that the majority of the mounds, the earthen embankment, and the mortuary encampments were all of Middle Woodland origin. A report of the excavations was prepared, intended to be No. 1 of the TDOA research series, but lack of funds prevented publication. Broster did, however, distribute 100 copies of the report at his own expense (Broster and Schneider 1975a; Mainfort 1980:iii). He further disseminated information on his investigations with articles appearing in the *Tennessee Conservationist* (Broster and Schneider 1975b), *Central States Archaeological Journal* (Broster and Schneider 1976), TAS *Newsletter* (Broster and Shneider 1976), and *Journal of Alabama Archaeology* (Broster and Schneider 1977). Broster's association with Pinson Mounds, however, was short lived. With the completion of his research report in late 1975, he resigned his position to accept another with the Bureau of Land Management in New Mexico.

Blanton Administration: 1975–1978

There is no doubt of the importance of the Dunn administration specifically to Pinson Mounds and generally to Tennessee archaeology. When Ray Blanton succeeded him as governor in 1975, the Pinson Mounds development was already well along and apparently Blanton made no effort to slow progress. Nonetheless, things moved forward in fits and starts.

TDOC requested $900,000 from the legislature to begin construction of park facilities for FY 1975–76 and anticipated that work could begin in the fall of 1975, but it was not to be. By late 1976 the State Building Commission approved the transfer of $25,341 to funds for preplanning the park development, and it was predicted construction would begin

in 1977. But still no. In 1976 a new set of development guidelines was prepared, this one greatly reduced from the costly and development-intensive plan proposed by Hansen, Schneeman and Assoc.[62] (Tennessee Department of Conservation 1976). In early 1977 Governor Blanton asked the state legislature for $2.6 million to begin Phase I development. Everything was ready to go but lack of funding continued to hold up the project. Finally, in February 1978 the legislature approved $2 million for the project. Forcum-Lannom Construction Co. of Dyersburg won the contract and groundbreaking was set for June.[63]

John Nuckolls did not live to see it. Throughout the preceding 20 years, Nuckolls had worked diligently to promote the preservation and development of Pinson Mounds. He had organized support groups, conferred with archaeologists, published articles, pleaded with government officials, and talked his cause to anyone who would listen. Now after 20 years of high hopes and disappointing setbacks, this final success would be just short of his grasp. On September 16, 1976, Dr. John Nuckolls died. Thanks to his leadership, however, Pinson Mounds would become a park.[64]

On Wednesday, June 21, 1978, at 2:00 in the afternoon, the groundbreaking ceremonies began. A speaker's platform was set up near Sauls Mounds, and the 30th Armored Brigade of the Tennessee National Guard presented the colors. Judge Taylor was master of ceremonies. Joseph Benthall, who replaced Mack Prichard as state archaeologist, gave a brief history of the site, and Thomas Markham, retired assistant state forester, spoke about the Pinson nursery. Governor Blanton had been invited to give the principal address, but had to be in Washington, so TDOC commissioner Buck Allison did so.[65]

About 200 people attended the ceremony, among them representatives of area institutions and longtime supporters of the Pinson Mounds movement. Guests included Judges Walter Baker Harris and Harold Garland, Jackson mayor Robert Conger, Henderson mayor Gene Record, county commissioners Ben Langford and John Parham, Senator Lowell Thomas, and presidents of the area colleges. Five persons assisted in the official groundbreaking. They were Mrs. John (Nell) Nuckolls, Commissioner Buck Allison, Senator Lowell Thomas, Judge Andrew "Tip" Taylor, and George Thomas, who was representing Congressman Ed Jones. As the shovel was plunged into the ground on that very hot afternoon, the participants must have thought back over the more than 20 years of hard work that brought them to this day.

The spark that had been ignited by Dr. John Nuckolls so many years ago had finally blazed forth into concrete form. Pinson Mounds would become an archaeological park to provide an educational experience and preserve a special piece of Tennessee's heritage for many generations to come.

Looking to the Future

For Pinson Mounds the groundbreaking was a bridge. It joined the development efforts of the past that culminated in the ceremony itself with the birth of a future as a public archaeological park. It did not mean that work and growth was finished. On the contrary, still ahead were construction of park buildings, hiring of staff, initiation of archaeological research, and development of museum exhibits and programs.

In late 1980 I was hired as the first historical area supervisor—what TDOC was then calling managers of historic and archaeological parks. In early 1981 construction was completed on the museum building and it was accepted by TDOC. Shortly afterward, the site opened to the general public, although completion of the exhibits was still several years away and the park offices were still without furniture. In May of that year, Robert C. Mainfort Jr., who had replaced John Broster as the West Tennessee regional archaeologist, began the first excavation season of a several-year project to investigate the archaeology of the site. Over the next several years, the staff began work to develop a research library, audiovisual collection, educational program, and special events. Furniture, office equipment, and grounds maintenance equipment were gradually added, as were new staff members. Finally in May 1985 work on the exhibits was completed, and their premier marked the official grand opening of Pinson Mounds State Archaeological Area.

One would think the investment to turn an archaeological site into a state-owned archaeological park would be sufficient to ensure its proper management and survival into the future, but this is not

necessarily so. For example, Chucalissa, which early on served somewhat as a model for Pinson Mounds, suffered deterioration over the years and faced a battle against closure in the 1990s.[66] Pinson Mounds, after the first site manager, has never had another professionally trained archaeologist in the position. Much of the problem stems from the public development of archaeological sites through state parks systems rather than through state historical agencies or state museums, which predetermines the kinds of staffing and programs considered appropriate. As noted in the introduction, archaeological parks find an uncomfortable fit within state parks systems, but this is a circumstance not unique to Pinson Mounds or Tennessee (e.g., Hoffman, Kwas, and Silverman 2002; Kwas 1994; Kwas and Mainfort 1996).

Archaeological and historical parks need facilities, staff, and programs different from recreational and nature parks, and require that managers understand and protect the in-ground and archival record, which they often do not. Some areas of state parks systems have improved over time, especially in the professionalization of park interpreters. But archaeological and historical parks' requirement for museums and interpretive centers, supervised earth-moving activities, education programs beyond interpretation, curators, and continuing research are still concepts not well understood nor well funded within state parks.

At the same time, too many professional archaeologists have been ignorant of the problems, while failing to recognize the importance of archaeological parks to public education and public outreach. These park-sites provide a unique, and generally underutilized, opportunity for archaeologists to share with the public what archaeology is, why it is done the way it is done, and why it is important to preserve and protect the past. If the message delivered to the public at archaeological parks is to be accurate and properly reflect the ethical concerns of professional archaeology, then archaeologists must participate in the management and oversight of archaeological parks.

Archaeologists, however, are not the only people with a stake in the management of archaeological parks. Native Americans, descendants of landowners, teachers and students, and community members with their diverse interests all require a voice, which in turn creates a vested interest in the park. One solution to broadening the oversight of archaeological parks is to organize a board of advisors to provide guidance for careful and appropriate growth and utilization, develop educational and interpretive programs based on sound archaeology, and set goals for the future. It is time for state parks systems to recognize the irreplaceable heritage they hold in archaeological parks and end their insular management. Pinson Mound's 40-year history of alternating advancements and regressions stands as an example of what archaeological parks face. There is no doubt that Pinson Mounds and all archaeological parks would benefit by a board of advisors to protect them from the whims of individuals and the capriciousness of politics.

John Nuckolls, in his vision of what Pinson Mounds could be, wrote: "there will come a time when no one in America will consider his education in Anthropology or Archaeology complete without having spent some time in study at the laboratory and on the field at the Pinson Indian Mound State Park" (Nuckolls ca. 1963). While that may not be necessary, the idea behind it that understands the need to protect and care for America's archaeological parks certainly is.

Notes

1. This slightly revised chapter was first published in 1997 in *Tennessee Anthropologist* (Kwas 1997). At the time, all primary documents cited in the original article were on file at Pinson Mounds State Archaeological Area, Pinson, Tennessee.
2. *Jackson Sun* [Tennessee], May 5, 1947.
3. In 2006 an agreement between the Tennessee Department of Agriculture, Division of Forestry, and the Tennessee Department of Environment and Conservation was made to transfer jurisdiction of the Western Mound Group from nursery operations to the state park. On-line at http://www.tncia.org/pinsonmounds.html (accessed May 26, 2009).
4. Charles Allen, "Tribes That Slumber" video (Jackson, Tenn.: WBBJ-TV, 1973).
5. Letter, T. M. N. Lewis, University of Tennessee, Department of Anthropology, to J. B. Nuckolls, April 25, 1956.
6. *Jackson Sun,* June 30, 1957.
7. Letter, A. T. Taylor to William L. Barry, House of Representatives, Nashville, March 18, 1957; Letter, A. T. Taylor to Gordon Turner, Director, Division of State Parks, April 2, 1957; Letter, G. Turner to A. T. Taylor, April 2, 1957.
8. Letter, C. H. Nash to J. B. Nuckolls, September 26, 1957.

9. *Jackson Sun,* November 4, 1957, November 5, 1957.
10. Letter, M. W. Stirling, Smithsonian Institution, Bureau of American Ethnology, to J. H. Gilbert, November 14, 1957; *Jackson Sun,* November 21, 1957.
11. *Jackson Sun,* March 13, 1958, April 22, 1958; Letter, J. Griffen, Regional Archaeologist, National Park Service, to Commissioner of Conservation, April 1, 1958.
12. *Jackson Sun*?, October 1958?
13. *Jackson Sun,* October 25, 1959, October 26, 1959.
14. Letter, J. P. Lawrence, Tennessee Historical Commission, to J. B. Nuckolls, January 5, 1958; Letter, J. B. Nuckolls to S. Johnson, Tennessee Historical Commission, December 4, 1958.
15. [Memphis, Tennessee] *Commercial Appeal*, December 14, 1958; *Jackson Sun,* December 14, 1958.
16. *Commercial Appeal*, December 3, 1960; *Jackson Sun,* December 4, 1960.
17. *Jackson Sun*, January 17, 1990.
18. Letter, L. Copeland, University of Tennessee, Department of Statistics, to J. B. Nuckolls, October 17, 1959.
19. Letter, J. B. Nuckolls to S. Johnson, Tennessee Historical Commission, May 5, 1960.
20. Letter, William T. Alderson, Executive Secretary, Tennessee Historical Commission, to J. Ford, American Museum of Natural History, July 5, 1960.
21. *Commercial Appeal*, December 3, 1960; *Jackson Sun,* December 4, 1960.
22. Letter, Gov. B. Ellington to Sen. Keith Short, December 8, 1960; Letter, E. D. Chappell, Director, Tennessee Department of Conservation and Commerce, to A. T. Taylor, December 20, 1960.
23. Letter, Gov. B. Ellington to J. B. Nuckolls, April 18, 1961.
24. *Jackson Sun,* April 23, 1961.
25. Letter, J. B. Nuckolls to Bill Perry, Secretary, Jackson Chamber of Commerce, August 3, 1961; *Jackson Sun,* August 7, 1961; Letter, W. Alderson to J. B. Nuckolls, August 10, 1961.
26. Letter, W. Alderson to J. B. Nuckolls, September 14, 1961.
27. Nell Nuckolls, personal communication, 1980s.
28. Letter, J. B. Nuckolls to S. L. Udall, U.S. Secretary of the Interior, September 16, 1961.
29. Charles McNutt, personal communication, 1980s.
30. Fred W. Fischer and Charles H. McNutt, field notes, University of Tennessee, Department of Anthropology.
31. *Jackson Sun,* February 11, 1962; Letter, E. M. Lisle, Acting Regional Director, National Park Service, to A. T. Taylor, April 24, 1962.
32. Letter, E. J. Boling, Vice President for Development, University of Tennessee, to J. B. Nuckolls, August 9, 1962.
33. Letter, J. B. Nuckolls to C. H. Nash, September 8, 1962.
34. *Jackson Sun,* May 1, 1962; Jackson Chamber of Commerce Policy Statement, June 18, 1962.
35. *Jackson Sun,* September 6, 1962.
36. *Jackson Sun,* January 13, 1963, January 18, 1963, January 28, 1963, January 29, 1963.
37. Letter, J. B. Nuckolls to A. Guthe, University of Tennessee, Department of Anthropology, March 4, 1963; Letter, J. Nuckolls to A. Guthe, July 8, 1963.
38. *Jackson Sun,* April 12, 1963.
39. Letter, A. Gore to *The Jackson Sun*, January 28, 1964; Letter, A. Gore to L. Pope, January 29, 1964.
40. Letter, L. Pope to Mr. Bob, September 1, 1964.
41. *Jackson Sun*?, September 1964.
42. Pinson Mounds Dedication Program, Pinson Mounds Acc. # PM83-174B.
43. *Jackson Sun,* March 19, 1965.
44. *Jackson Sun,* May 19, 1965.
45. Letter, W. Criley to A. T. Taylor, December 14, 1965.
46. Letter, J. Dempster to A. T. Taylor, December 9, 1964; Letter, A. T. Taylor to D. McSween, January 31, 1966; Property Records, Pinson Mounds Acc. # PM83-155B; *Jackson Sun,* July 18, 1966.
47. Letter, W. Criley to A. T. Taylor, June 7, 1967.
48. Letter, J. B. Nuckolls to W. Criley, May 8, 1967.
49. *Jackson Sun,* April 16, 1968.
50. *Jackson Sun,* January 27, 1970.
51. *Commercial Appeal*, May 16, 1969.
52. The authors were English professors at the University of Tennessee-Martin, and Kroll was known locally for his books of racy historical fiction. Kroll died during preparation of the manuscript and Payne completed the work, contributing to the book's inconsistencies. Although intended for a popular audience, the racist stereotypes of Native Americans, the sexual innuendo rampant throughout, and the many inaccuracies make the book of minimal value.
53. *Jackson Sun,* September 22, 1971.
54. *Jackson Sun,* October 10, 1971.
55. *Commercial Appeal*, January 7, 1972; *Jackson Sun,* January 14, 1972; Land Records, Pinson Mounds Acc. # PM83-155B.
56. *Jackson Sun,* January 14, 1972, February 22, 1972.
57. *Jackson Sun*, November 30, 1973; Letter, J. Broster to W. Criley, April 11, 1974.
58. *Jackson Sun*, December 12, 1973; Letter, J. Broster to Mack Prichard, November 10, 1973.
59. *Jackson Sun*, April 11, 1974.
60. Charles Allen, "Tribes That Slumber" video (Jackson, Tenn.: WBBJ-TV, 1973).
61. *Jackson Sun*, June 5, 1974, July 11, 1974.
62. *Jackson Sun*, January 8, 1975, September 20, 1976.
63. *Jackson Sun*, February 2, 1977, February 9, 1978, March 22, 1978, May 23, 1978.
64. *Jackson Sun,* September 16, 1976, September 19, 1976.
65. Letter, B. R. Allison to Gov. Blanton, May 25, 1978; Letter, J. Jiran, Information Officer, to Deputy Commissioner Emmet Guy et al., May 26, 1978; *Jackson Sun*, June 22, 1978; Ground Breaking Ceremonies, Pinson Mounds Acc. # PM83-174B.
66. *Commercial Appeal*, July 6, 1994; July 7, 1994, July 14, 1994.

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