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Robert C. Mainfort Jr.

Tennessee. Department of Environment & Conservation.

Pinson Mounds

A Middle Woodland Ceremonial Center

Robert C. Mainfort, Jr.

TENNESSEE DEPARTMENT OF CONSERVATION
DIVISION OF ARCHAEOLOGY
RESEARCH SERIES NO. 7

PINSON MOUNDS

A Middle Woodland Ceremonial Center

by Robert C. Mainfort, Jr.

with contributions by

Lane A. Beck
Mary L. Kwas
Dan F. Morse
George W. Shannon, Jr.

Tennessee Department of Conservation, Division of Archeology, Research Series, No. 7

1986

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Cover concept and artwork by Jerry L. Maness

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For John Nuckolls, Andrew "Tip" Taylor, and Harbert Alexander

Preface

This volume presents a description of archaeological research conducted at the Pinson Mounds site between May, 1981 and March, 1984. Included as an appendix is a report on the 1963 survey and excavations conducted at the site by Dan E. Morse; this is a revised version of the unpublished project report filed with the National Park Service.

Pinson Mounds is owned by the State of Tennessee and has been developed as a State Archaeological Area under the auspices of the Department of Conservation. This archaeological park was created to preserve and protect the site, as well as to educate the public about archaeology, prehistory, and Native American lifeways. It is hoped that this volume will contribute to these goals.

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The Site 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" (Myer 1922:141).

ENVIRONMENT

The Pinson Mounds site (40MD1), so glowingly described above by William Myer, is located in western Tennessee, about 16 km (10 miles) south of Jackson, in Madison and Chester Counties (Fig. 1). Situated on a relatively flat tableland overlooking the South Fork of the Forked Deer River (now a channelized stream), the site lies within the transitional zone between the West Tennessee Uplands and the West Tennessee Plain, which are subunits of the Gulf Coastal Plain (Braun 1950; Miller 1974). Dice's (1943) Carolinian Biotic Province, which is characterized by a rich and varied faunal assemblage (Cleland 1966), encompasses most of western Tennessee, including Pinson Mounds. Presettlement vegetation was dominated by an Oak-Hickory Forest (Delcourt and Delcourt 1981). The climate of the area is temperate, albeit with pronounced seasonal variations in temperature and precipitation, and provides a minimum of 200 frost-free days per year (Brown *et al* 1978:49; Springer and Elder 1980:6-7).

While any number of factors may have led to the selection of the Pinson Mounds locality as a site at which to construct a large prehistoric ceremonial center, the ready access from the site to a wide diversity of resources was undoubtedly a major consideration. As noted by Broster and Schneider (1977), three distinct topographic and biotic zones are present in the immediate vicinity of the site. These include: (1) the river bottomland, which is dominated by a cypress swamp; (2) the mixed beech-oak slopes; (3) the oak-hickory uplands. Cypress and sweet gum are the principal trees found in the bottoms today, although cottonwood and willow were probably numerous as well in prehistoric times. Prior to channelization, the South Fork of the Forked Deer River was a meandering stream with numerous oxbow lakes and seasonal backwater ponds. This is a rich habitat for a number of edible species, including channel catfish, drum, white crappie, smallmouth bass, mallard ducks, various species of turtles, beaver, otter, and muskrat (U.S. Army Corps of Engineers 1975). White-tailed deer also frequent the river bottoms. Fish and waterfowl could be most effectively exploited during the spring, although most species would have been available to prehistoric groups during the entire year. A wide floodplain is associated with the river, being especially prominent to the south and west. Several species of seed-producing plants occur within the floodplain, notably lamb's quarters (*Chenopodium album*), knotweeds (*Polygonum sp.*), and wild bean (*Strophostyles leiosperma*). These species were intensively harvested and, in some instances, cultivated by prehistoric populations in the Midwest; their importance in west Tennessee is presently unknown. The floodplain is bounded on the north and east by steep loess bluffs, rising an average of approximately 20 m above the floodplain.

The mixed oak-beech slopes, which are primarily associated with the bluffs, are dissected by a number of tributary streams and springs that flow into the Forked Deer River. Nut-producing trees, as well as fruit-bearing shrubs and trees, are important exploitable resources in this biotic zone. These include American beech, black walnut, bitternut hickory, white and red oak, hackberry, persimmon, wild grape, blackberry, and rasberry. With the exception of the latter two, which ripen in the summer, the fruits and nuts of these species are harvestable in the fall. Mammals occurring within this biotic province include white-tailed deer, several species of squirrels and rabbits, oppossum, and raccoon. Black bear, grey wolf, elk, and mountain lions were reportedly found in the area during the early nineteenth century (Broster and Schneider 1977:62).

With the exception of certain steep slopes, the oak-hickory uplands, within which the Pinson Mounds site itself is located, have been extensively altered by agriculture and the removal of timber. This biotic zone contains many of the species previously noted within the mixed oak-beech slopes, exceptions being the occurrence of shagbark and pignut hickory, as well as sassafras, only in the uplands. Broster and Schneider (1977:63) note the greater frequency of deer and rabbits in the uplands, a situation that may well have existed prehistorically. The seasonal peaks of locally available food resources suggest that the site could have most easily sustained a large population during the fall, with spring representing a secondary peak. However, there is currently insufficient subsistence data for the Pinson Mounds site to confirm the inferred seasonal use pattern.

While the proximity of the resources discussed above was apparently an important consideration that led to the construction of the large earthworks at Pinson Mounds, another factor seems to be the specific locality itself. Virtually the entire site is underlain by a nearly flat (2 to 5 percent slope), well-drained soil designated as the Lexington Silt Loam (Brown *et al* 1978:12-13). This soil type, which has a relatively limited distribution in the vicinity of the site, is fairly acidic and is easily worked. While it is difficult to assess the desirability of these soil characteristics to Middle Woodland peoples, it is noteworthy that the nearby Johnston mound group (40MD3), a Middle Woodland platform mound site that may be antecedent to Pinson Mounds (Kwas and Mainfort 1984), is also situated on a tract of land that is dominated by the Lexington Silt Loam. At this point, it can only be stated that the soil associations at these two ceremonial sites raises some intriguing questions about the subsistence base of the populations that built and used the earthworks.

Another possible attraction of the Pinson Mounds locality to prehistoric peoples is the ready availability of a commercial grade of clay, the Porters Creek formation. Several nearby clay pits were exploited in the late nineteenth and early twentieth centuries by local stoneware potteries (Smith and Rogers 1979:117-122). A small deposit of chert cobbles occurs in the Pleistocene gravels that outcrop along the river bluffs to the south of the site (Broster and Schneider 1977:60), although most of the lithic material utilized at the site appears to have been procured from the Fort Payne formation of the Tennessee River valley, roughly 50 km to the east.

Recent surveys (Broster and Schneider 1977; Smith 1979; Jolley 1984) have demonstrated that the Forked Deer drainage supported a substantial population during the Middle Woodland period, during which time the Pinson Mounds site was constructed and utilized. Woodland ceramics occur at over 50 percent of the sites recorded in the drainage, ranging as high as 90 percent in a survey tract 25 km northwest of Pinson Mounds (Jolley 1984).

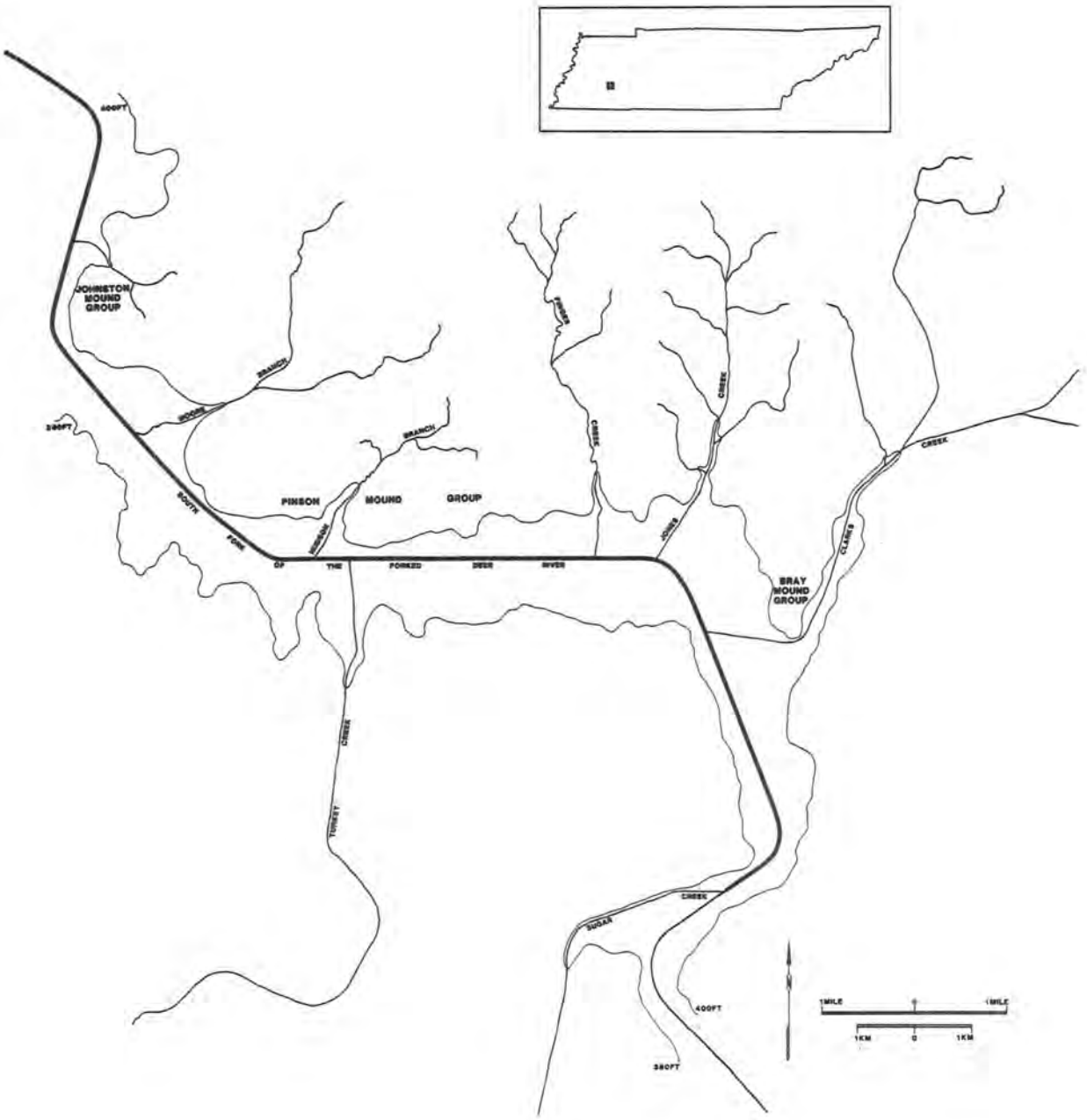


Fig. 1. Location of the Pinson Mounds site.

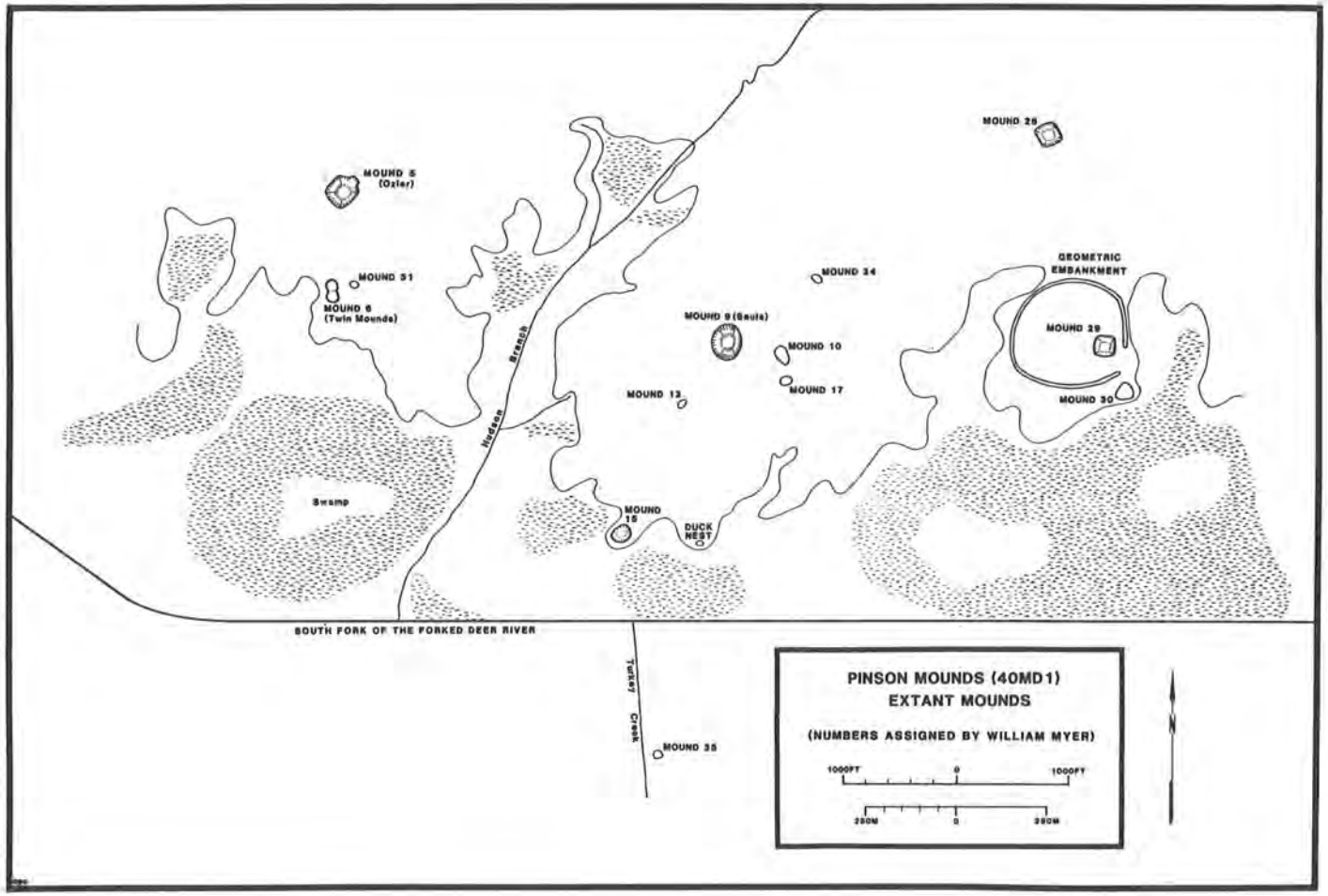


Fig. 2. The Pinson Mounds site.

THE PINSON MOUNDS SITE

The Pinson Mounds site includes at least 12 mounds, a large geometric embankment, and associated short-term habitation areas (Fig. 2). the mound complex proper covers an area of about 160 ha (400 acres). By comparison, the area ascribed to the Hopewell site is approximately 50 ha (Squier and Davis 1848:26-29), while the size of Moundville, a major Mississippian center, is estimated to be about 100 ha (Steponaitis 1983:6). Another useful means by which to compare site size, namely mound mass, has been suggested by Seeman (1977) in his comprehensive analysis of the Hopewell Interaction Sphere. The combined volume of the major platform mounds (Mounds 5, 9, 15, 28, and 29) alone at Pinson Mounds is approximately 100,000 m^3 (3,600,000 ft^3). In contrast, the largest Hopewellian (i.e., Middle Woodland ceremonial) sites noted by Seeman are Seip and the Hopewell site, with volumes of 20, 554 and 53,690 m^3, respectively (Seeman 1977:224; Squier and Davis [1848:29] estimate the total volume of the mounds and embankments at the Hopewell site to be 3,000,000 ft^3, or approximately 85,000 m^3). It should be mentioned in passing that Seeman (1977:225) relegated Pinson Mounds to the status of a fifth-order site (i.e., under 4,240 m^3), apparently because he assumed that Mound 12 was the only Middle Woodland mound within the site.

In 1917, William Myer, an archaeologist affiliated with the Smithsonian Institution, contracted with a local surveyor to map several sites in Madison County, including Pinson Mounds. Myer recorded 34 mounds at the site, as well as an extensive series of linear embankments surrounding and within the site complex (Myer 1922; see Fig. 89). Subsequent surveys and test excavations have demonstrated that Myer erroneously recorded a number of natural features as prehistoric earthworks and that large sections of his "palisaded breastworks" simply represent flights of fancy. Specifically, there is no evidence that the alleged embankments encircling the mound complex or the smaller embankment in the center of the site ever existed. Test excavations in extant sections of what Myer described as "breastworks" have revealed that all of these, with the exception of the geometric embankment dubbed the "Eastern Citadel", are natural landforms or the result of agricultural practices. Additionally, a number of the smaller mounds reported by Myer have proven to be natural features (see Mainfort [ed.] 1980 for a discussion of some of these). Other reported mounds are no longer visible today and, although the localities have not been tested, there is no evidence to suggest that they formerly supported prehistoric earthworks.

The largest at the site, Mound 9 or Sauls Mound (after the former landowner, Mr. John Sauls), is centrally located (Figs. 2 and 3). Measuring 22m (72 feet) in height and about 100 m in diameter, this platform mound contains approximately 60,500 m^3 (2,136,850 ft^3) of earth (R. Shenkel, personal communication, 1986). A recent topographic map of Mound 9 prepared by the Tennessee Department of Transportation aerial survey team indicates that the structure is essentially rectangular in shape, with the corners roughly aligned toward the cardinal directions. There has been some disagreement among researchers as to the existence of a possible ramp on the northeast side of the mound. While there is indeed a raised, linear mass of earth at this locality, similar features are present at the other "corners" of the mound, suggesting that the alleged ramp is the product of erosional slump. Moreover, Myer, who was somewhat given to overstatement, makes no mention of a ramp associated with Mound 9. Test excavations are required to resolve the matter. In June, 1982, a 23 m core section of the mound was obtained with the assistance of the Tennessee Department of Transportation. A preliminary analysis of the core samples indicates that there are no well-defined occupation floors within the mound and evidence of clear-cut construction stages is lacking. Nonetheless, it seems likely that the mound was not constructed during a single building episode and further analysis of the cores should provide additional information about the history of Mound 9.

Several smaller mounds are located in the immediate proximity of Mound 9. These include Mound 12, a small burial mound tested by John Broster in 1975 (Mainfort [ed.] 1980), Mound 10, a small platform mound that is discussed in this report, Mound 17 (apparently a damaged burial mound), and Mound 24 (see Fig. 2).

Mound 15, located about 580 m southwest of Mound 9, is one of several fairly large platform mounds within the site. Although damaged by plowing, this earthwork stands nearly 3 m (10 feet) tall and measures about 50 m square at its base. A small, circular embankment known locally as the "Duck's Nest" is located approximately 250 m east of Mound 15 (and 400 m south of Mound 9); this earthwork was not recorded by Myer (1922, n.d.a, and n.d.b). Limited test excavations, conducted in 1963 and 1982, are discussed later in this volume.

Two additional platform mounds (Mounds 28 and 29) are located to the east of Mound 9, each at a distance of approximately 1,020 m (3,350 feet) from the central mound (see Fig. 2). The placement of these earthworks can scarcely be attributed to chance and implies the contemporaneity of Mounds 9, 28, and 29. The northern and larger of these is Mound 28, which stand 4 m (14 feet) tall, with a base roughly 67 m square, and contains approximately 12,855 m^3 of fill (R. Shenkel, personal communication); Mound 28 has never been tested by professional archaeologists. Enclosed within the geometric embankment (Fig. 4), Mound 29 is considerably larger than recorded by Myer (n.d.a), as demonstrated by recent photogrammetry. The base of the earthwork measures approximately 49 m by 51 m, while test excavations by Morse (this volume) indicate that the height is about 3.6 m (12 feet). Morse's excavations revealed that Mound 29 was built in at least two stages and that the surface of the initial stage was covered by a yellow sand floor.

The enclosure that surrounds Mound 29 (Myer's "Eastern Citadel") is approximately 363 m (1,190 feet) in diameter, with walls averaging about 2 m tall (Fig. 4). About 6.7 ha (16.5 acres) are enclosed within the work, and area slightly larger in size than Mound City, Ohio. Although over half of the embankment has been destroyed by erosion and cultivation, examination of old aerial photographs, as well as recent field survey by James Marshall, indicates that for about 168° of its circumference, the work was perfectly circular, with a radius of 181.4 m (595 feet). However, on the southern and eastern sides, the embankment becomes somewhat elliptical, with its walls running to the inside of the line that would describe a perfect circle. It seems apparent that the builders of the enclosure had a sufficient command of geometry to construct a complete, perfect circle and their failure to do so is puzzling. Several openings were recorded by Myer (1922) along the east side of the embankment, but it is not known whether these represent construction features of recent erosion. In contrast to most Middle Woodland geometric works, the Pinson Mounds enclosure is largely constructed down the side of a fairly steep ravine, with the topography falling off by approximately 12 m from east to west.

It is worth noting here that geometric embankments occur very infrequently at Middle Woodland sites in the Mid-south and Lower Mississippi Valley. Although their precise cultural affiliations have yet to be conclusively demonstrated, the large hemispherical enclosures recorded at Spanish Fort, Leist, and Little Spanish Fort in the Yazoo Basin are likely of Middle Woodland age (see Phillips 1970; Stephen Williams [personal communication] feels that these may actually be of Poverty Point age), as is the semicircular embankment that surrounds much of the Marksville site (Toth 1974). A final example is the geometric work at 15FU37 in Fulton County, Kentucky. Constructed in the shape of a large tuning fork, this work and the associated mounds were recently surveyed by Kenneth Carstens (1982 and personal communication; see also Young 1910:53) and yielded a predominantly Middle Woodland artifact assemblage, including ceramics virtually indentical to the major types found at Pinson Mounds. Although a Mississippian habita-

tion site (15FU45) was recorded to the northwest of the embankment and mound complex, the artifact assemblage and the shape of the embankment argue strongly for the Middle Woodland affiliation of the site.

Just outside the embankment and to the southeast of Mound 29, and irregularly shaped mound designated as Mound 30 is situated near the edge of the bluff above the river bottomland. Believed by Myer (1922) to be a bird effigy, this mound is slightly over 2 m (7.5 feet) tall, with a diameter of roughly 24 m. Erosion seems to be responsible for the assymetric shape of this earthwork (Morse, this volume), which may be a burial mound. While all of the earthworks in the "Eastern Citadel" area date to the Middle Woodland period, the specific temporal relationships between them are not presently known.

Mound 5, or Ozier Mound, is the second largest mound in the group and is located about 1,100 m northwest of Mound 9 (Figs. 2 and 5). About 250 m to the south of Ozier Mound are the "Twin Mounds" (Mound 6), a pair of large, conjoined burial mounds (Fig. 6), and the small, conical Mound 31. Excavations at these mounds are discussed later in this volume.

The spatial arrangement of the large platform mounds (Mounds 5, 9, 15, 28, and 29) suggests the deliberate placement of these structures relative to each other. Mound 9, the largest mound, is situated at the center of the site. As noted above, Mounds 28 and 29 are equidistant from the central mound and mark the northeast and southeast corners of the mound complex, respectively. Although their placement is less exact, Mound 5 is situated at the northwest corner of the site, while the southwest corner is occupied by Mound 15. The locations of Mound 15 deviates most from the perfect geometric arrangement, but examination of Fig. 2 will show that it is located at the *topographic* southwest corner of the site. Based on their placement, the five large platform mounds seem to be contemporary, although radiocarbon determinations are presently available only for Ozier Mound.

In summary, Pinson Mounds is one of the largest and most complex archaeological sites in the southeastern United States. Despite the obvious importance of the site, only limited surveys and excavations had been conducted prior to 1981. This report describes the results of a three-year research project at Pinson Mounds that has not only greatly expanded our understanding of the site, but which also has important implications for southeastern archaeology in general.

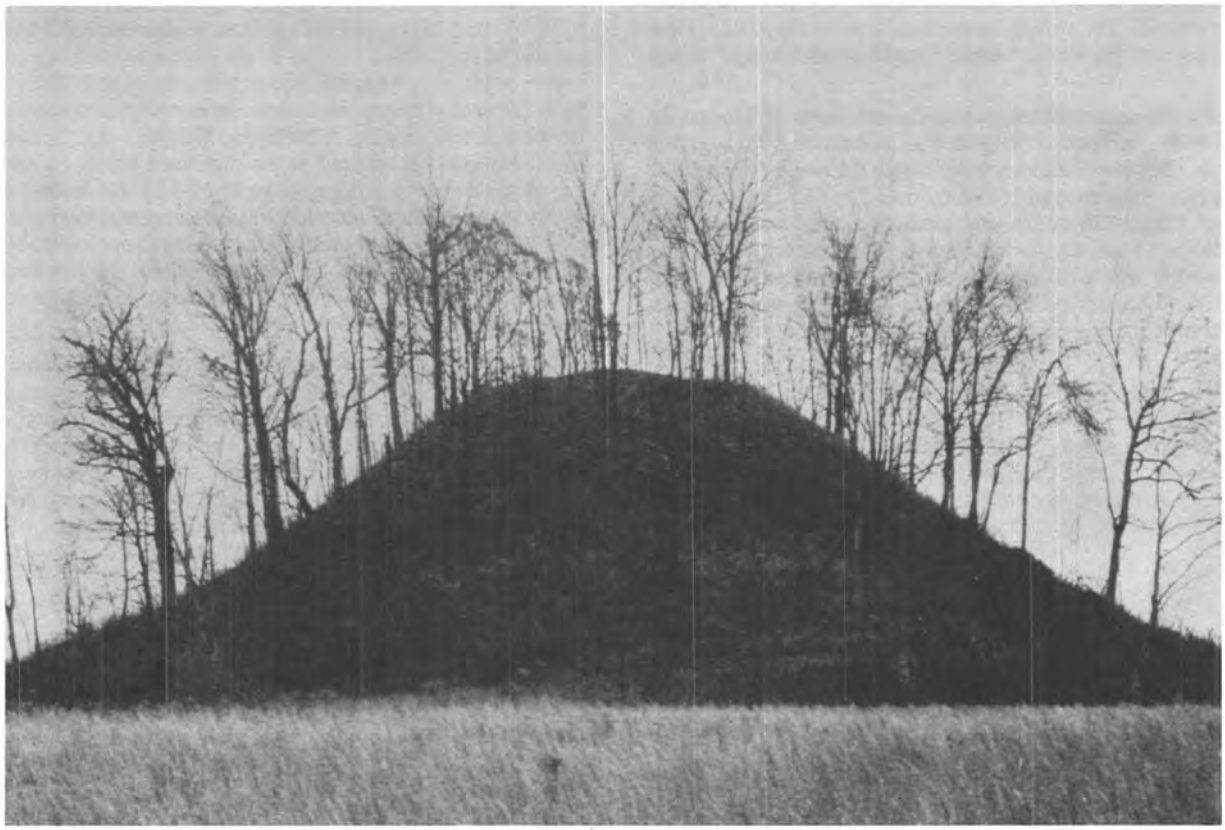


Fig. 3. Sauls Mound (Mound 9). View to south.
(Photograph courtesy of Mack Prichard.)

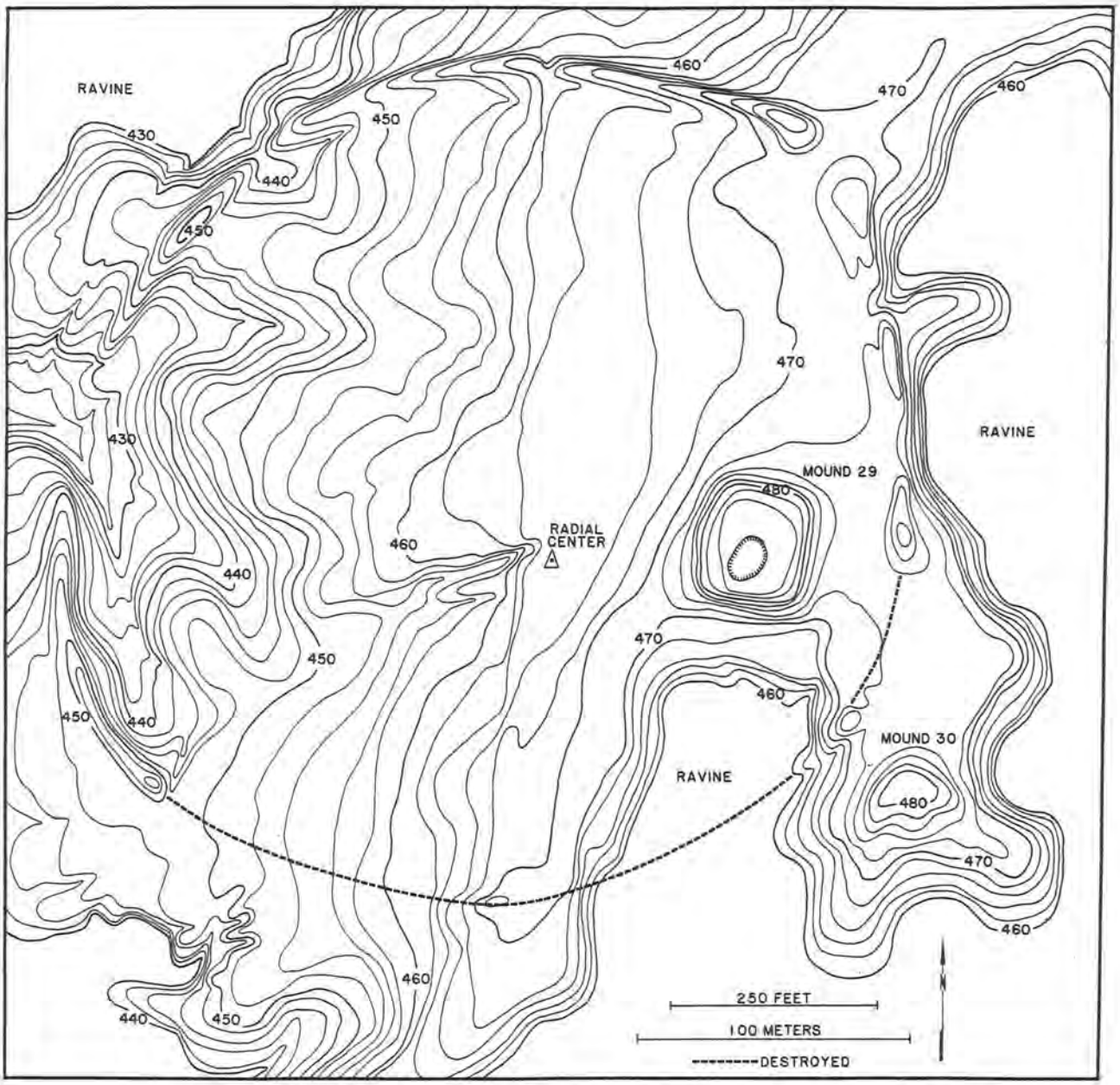


Fig. 4. Geometric embankment, Mound 29, and Mound 30. Based on photogrammetry by the Tennessee Department of Transportation and field survey by James Marshall.

History Of Investigations

ANTIQUARIAN DESCRIPTIONS

The Pinson Mounds site derives its name from a member of the first surveying team to enter the region in 1820. Although Joel Pinson is popularly credited with the discovery of the site (e.g., Broster and Schneider 1976:19), the relevant historical records indicate that Pinson and his party actually found what is known today as the Johnston site (40MD3), which is located several miles to the north of the Pinson Mound group (Howard 1902:61). By 1823, the site had been brought to the attention of Judge John Haywood, who published the following description in his *Natural and Aboriginal History of Tennessee.*

> 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 mound, are trees as high and large as any in the surrounding country; but no trees are immediately on the top. The 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 of small mounds, one of which is an oblong figure, about 50 feet in length, 15 or 20 in width, and from 12 to 15 in height (Haywood 1823:136-137).

Haywood's account contains several probable inaccuracies. The enclosure measuring 250 yards square is almost certainly a reference to the geometric embankment on the eastern edge of the site, which is approximately 275 yards in diameter (see Fig. 2). There is no reason to believe that the height of the largest mound (Mound 9) was 87 feet in 1823, a figure 15 feet in excess of the height as measured around 1880 and again in 1917. Haywood also states that the largest mound was located within the enclosure, near the south wall; this is actually the location of Mound 29. It is worth noting that the Pinson Mounds site was one of the few mound groups that Haywood found worthy of description.

Some 20 years later, Dr. Gerard Troost, State Geologist of Tennessee, published a brief discussion of the site:

> The most remarkable (mound) 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 in diameter, and is surrounded by circumvallations. I have been able to ascertain from the 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 of 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 on it (Troost 1845:364-365).

Troost more or less confirms Haywood's estimate of the height of Mound 9 and of particular interest is his mention of an excavation into the mound. Prior to the recent development of the site as a state park, there was a substantial hole (approximately 3 m deep; see Morse, this volume) in the top of the mound, apparently resulting from the excavation discussed by Troost. The hole was re-filled during site development to control erosion. If this excavation actually reached the base of the mound (which seems unlikely), it probably did not extend very far into the side of the earthwork, since the core samples mentioned earlier seem to derive primarily from undisturbed deposits.

In 1875, E.H. Randle, the president of McKenzie Male and Female College, which was located about 60 miles north of Pinson Mounds, received an appropriation of $25 from the Smithsonian Institution for the purpose of exploring some mounds in west Tennessee. Randle gives the following account of his visit to the site in August, 1875:

> 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 square 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 feet square at base 120 feet square on the top & 37 feet high -*beautiful* one 90 ft. high 60 ft. square on the top covering 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 but up on the side and the group eventually began to sound hollow which frightened them away. To go into it will require regular mining operations & skill. Mr. W.P. Harris a man of wealth and honor who mined thirteen years in Cal. will undertake the work for me. He is a man of energy and 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 the expense 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 desire & 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 (E.M. Randle to Joseph Henry, Smithsonian Institution Archives, RU 26, Office of the Secretary).

Unfortunately, the outgoing press copy of the Smithsonian's reply is inaccessible due to its deterioration, but it seems apparent that Randle never received the additional funds that he requested. Further, no records pertaining to his other proposed excavations have been located. Several weeks after visiting the site, Randle published a short account in a local newspaper (Randle 1875) in which he states that during the construction of the nearby Gulf, Mobile, and Ohio Railroad, one of the railroad surveyors measured the height of Mound 9 at about 90 feet. This represents the best evidence in support of the possibility that this mound was formerly much taller than its current 72 feet. The large mound measuring 37 feet tall that is mentioned near the beginning of

Randle's letter is a reference to Mound 5, which is now known to be 33 feet tall; there is no evidence that the upper surface has been significantly altered.

Several years after Randle's visit, in 1879, J.G. Cisco, a Jackson, Tennessee newspaperman and antiquarian, published the following short description of the site:

> There are more or less mounds in every district in the County; but those to which I refer are known as the "Peirson (*sic*) Mounds", near the village of Pinser (*sic*), in the south-east corner of the County, two miles from the Mobile and 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 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 (Cisco 1879:259-260).

Although Cisco follows the tradition of ascribing a height of about 90 feet to Mound 9, within a year or so of writing his account, he and a professor from a local college (perhaps Mr. Randle?) measured the height of the mound at 72'2" (Myer n.d.b; see also Goodspeed 1887:801, which also uses the 72 feet figure).

After Mr. Cisco's departure from Jackson around 1890, interest in the site apparently waned. However, in 1916, William Myer, an employee of the Smithsonian Institution who lived in Carthage, Tennessee (some 60 miles east of Nashville), contacted Cisco, now a resident of Nashville, and was sufficiently impressed by Cisco's description of the Pinson Mounds site that, the following year, he visited the site and arranged to have it mapped by a local surveyor (Myer n.d.b). The survey of Pinson Mounds, as well as several other Madison County mound groups, was completed by E.G. Buck, a professional civil engineer, between 1917 and 1919 (E.G. Buck to William Myer, National Anthropological Archives, Ms. 2150-A). Published by Myer in 1922, Buck's map is generally quite accurate (as are his measurements of the individual mounds), although Ozier Mound (Mound 5) is placed about 100 m too far to the east and the rendering of the geometric embankment is not quite true (see Fig. 89). Myer or Buck also made some scale drawings of a number of the larger mounds. Apparently intended for inclusion in Myer's "Stone Age Man in the Middle South" (Myer n.d.a), they are illustrated in Fig. 7. These drawings provide a valuable reference for assessing the degree of damage incurred by the mounds since the time of Myer's work. Presumably based on his meeting with Cisco, Myer also recorded that Mound 9 "...had an excavation sunk to a depth of 15 feet on the eastern edge of the summit by a local teacher about 1870. He found nothing." (Myer n.d.a). This may be a somewhat garbled reference to Randle's visit to the site in 1875. Myer also reported that the northern Twin Mound had been disturbed by a local relic hunter in 1888 (Myer n.d.b), as discussed later in this report. Myer (1922) published a brief description of the site, including a map, and this article stood as the most comprehensive published report on the site until the 1960's. One final excerpt from Myer's unpublished field notes is worth quoting, because it provides some useful insight into one of the reasons that the Pinson Mounds site has escaped the kinds of ravages inflicted on most other major archaeological sites in the country.

> 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 arrowheads 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. 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 (Myer n.d.b).

PRIOR ARCHAEOLOGICAL INVESTIGATIONS

Incredibly, no systematic evaluation of Pinson Mounds by professional archaeologists was undertaken until 1961. During the late 1950's, a number of prominent Jackson, Tennessee residents - many of them avocational archaeologists - began a major push for the protection of the site and the creation of an archaeological park. Perhaps inspired by the development of Chucalissa (the T.O. Fuller mounds), the interest of these citizens prompted several limited professional investigations of the site.

In December, 1961, Charles McNutt and Fred Fischer, both affiliated with the University of Tennessee, spent three days at Pinson Mounds, conducting surface collections, as well as limited tests excavations (Fischer and McNutt 1962). Their surface collections confirmed that "Middle Woodland occupations were responsible for most, if not all, of the impressive earthworks at the Pinson Site" (Fischer and McNutt 1962:11), a conclusion substantiated by the new data presented in this volume. Ironically, the single area in which they conducted more than cursory subsurface testing produced evidence of a wall-trench house. Now demonstrated to represent an isolated farmstead (Mainfort, Broster, and Johnson 1982), this structure, which was subsequently dated to about A.D. 1000 (see discussion in Faulkner 1967), caused many archaeologists to assume that the large platform mounds at the site were constructed during the Mississippian period (e.g., Faulkner 1971).

By 1963, support for the establishment of a park was peaking and the primary question seemed to be whether the site would be administered by the state or federal government. The National Park Service allocated sufficient funds for the University of Tennessee to conduct more intensive investigations at Pinson Mounds and in March and April, 1963, Dan Morse directed a three week program of survey and test excavations at the site (Morse and Polhemus 1963). The research undertaken by Morse provided the most significant body of data about the site prior to the excavations described in this report and a revised version of his report is included here as Appendix 3.

Morse and his crew conducted test excavations at a number of mounds (Mounds 15, 29, 30, and 31), the geometric embankment, the Duck's Nest, some of Myer's (1922) alleged "breastworks", and several habitation areas. 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 Mound 5 and 9 were of Mississippian origin (Morse and Polhemus 1963:60). Morse's conclusions about Mound 5 and 9 notwithstanding, it is difficult to comprehend why the archaeological community did not take note of the fact that Pinson Mounds was a Middle Woodland site

Fig. 5. Ozier Mound (Mound 5). View to southwest.

Fig. 6. Mound 6 (Twin Mounds). View to northeast.
(Photograph courtesy of Mary L. Kwas; reproduced courtesy of Midcontinental Journal of Archaeology).

Fig. 7. Sketches of largest mounds ca. 1920. These were to have appeared in Myer's "Stone Age Man in the Middle South."

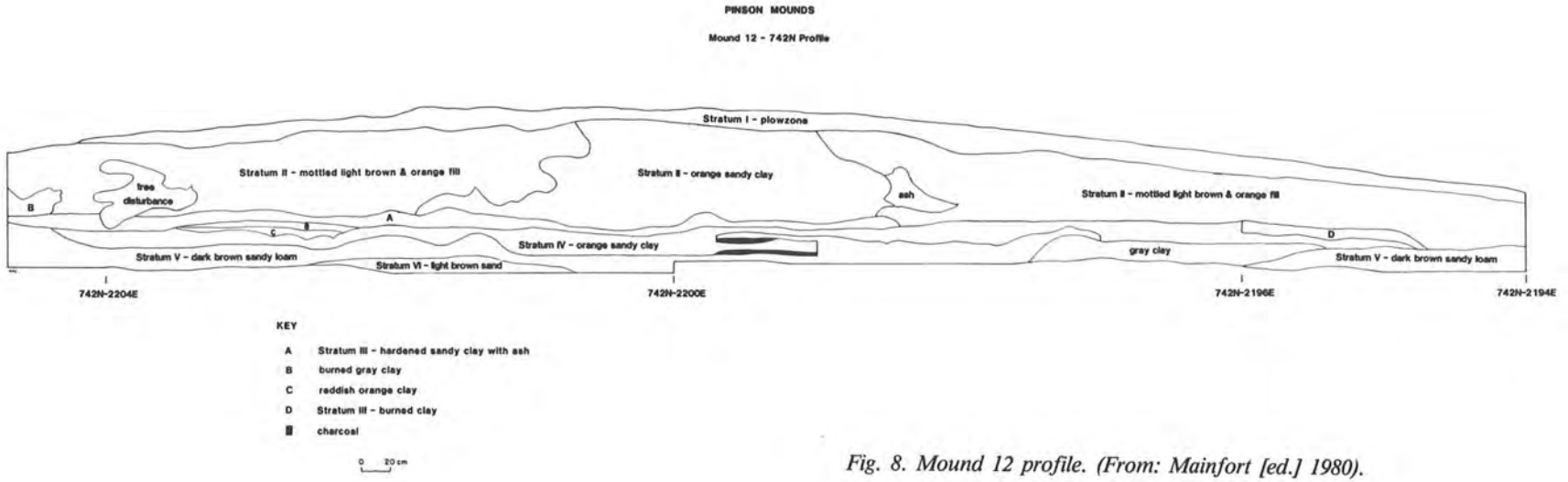


Fig. 8. Mound 12 profile. (From: Mainfort [ed.] 1980).

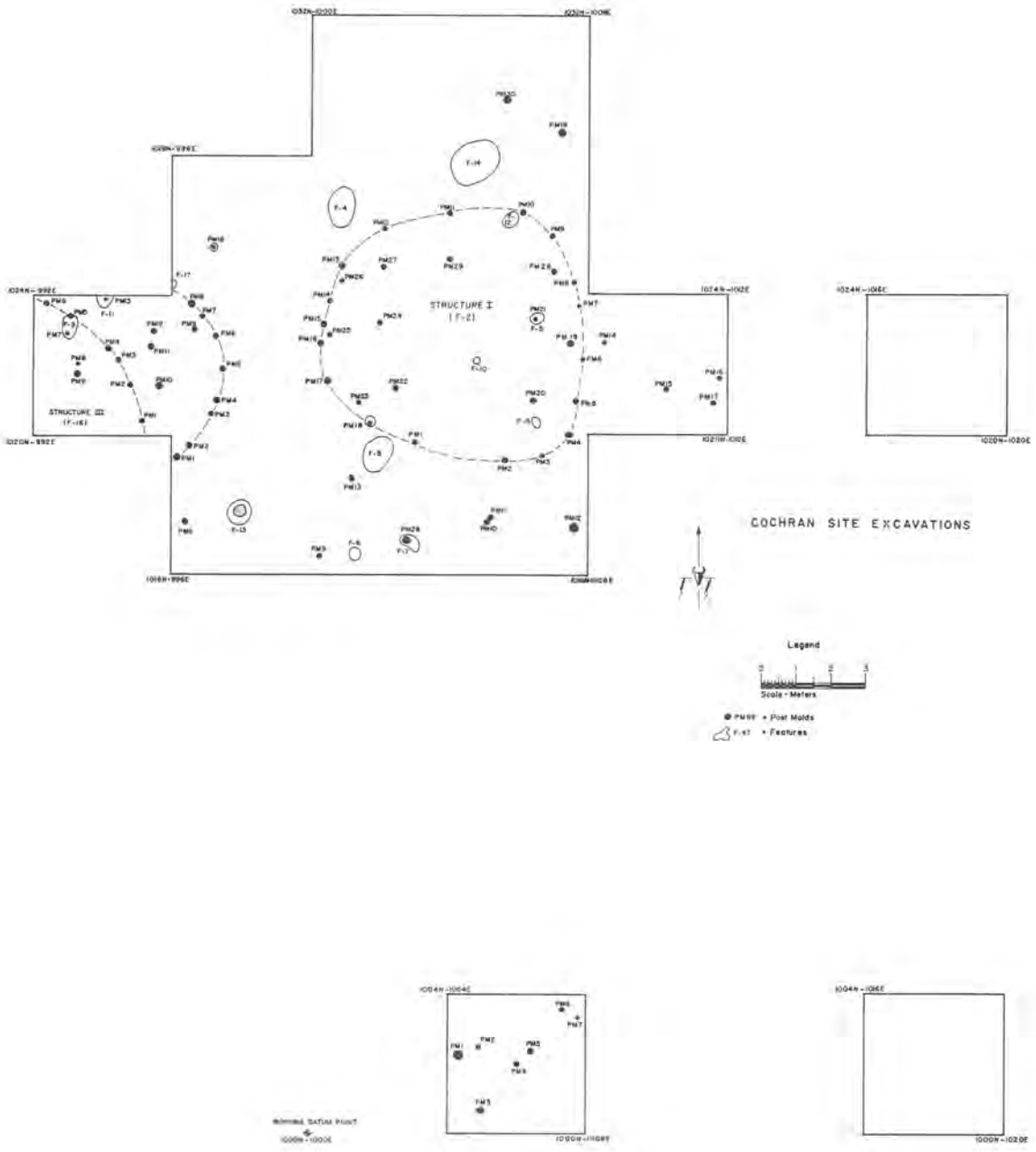


Fig. 9. Ovoid structure at the Cochran site. (From: Mainfort [ed.] 1980).

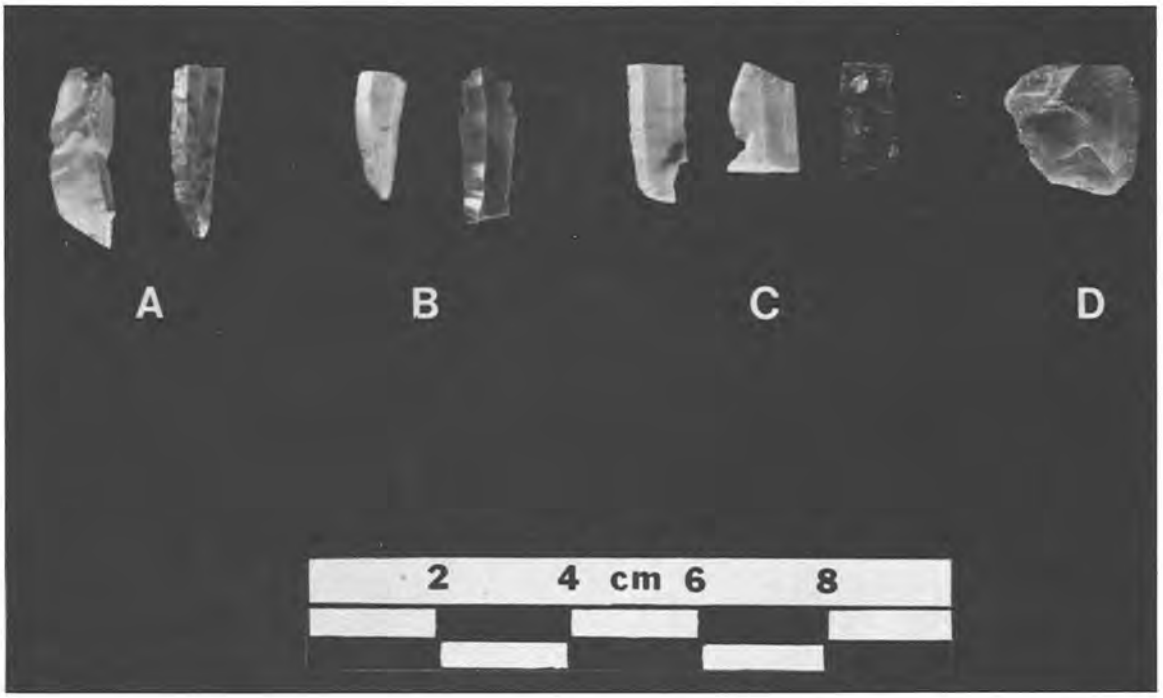


Fig. 10. Non-local lithics from the Cochran site. a: possibly Flint Ridge flint. b: probably Flint Ridge flint. c: Flint Ridge flint. d: Knife River flint

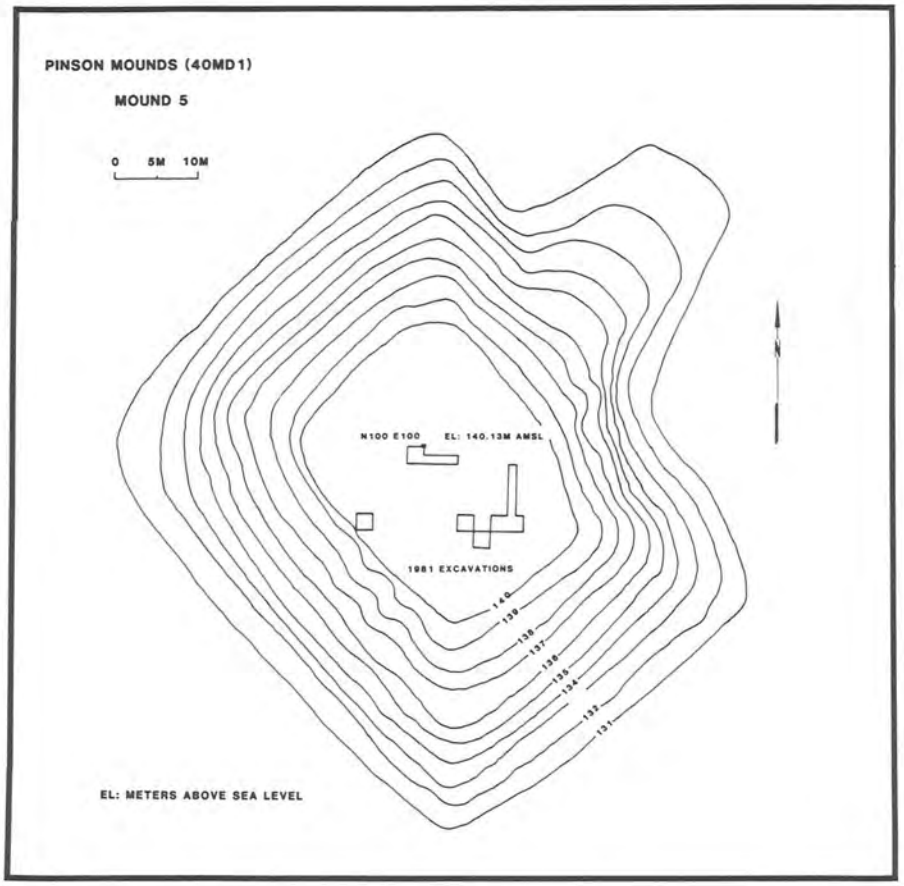


Fig. 11. Mound 5, showing excavation units.

with a number of large platform mounds. Perhaps this can be attributed to the limited distribution of Morse's report and the relative obscurity of the article by Fischer and McNutt (1962).

By 1974, the Pinson Mounds park had become a reality and in that year John Broster, of the Tennessee Division of Archaeology, began a two-year testing program at the site (Broster and Schneider 1976; Mainfort [ed.] 1980). Although some of his efforts were directed toward testing areas that might be impacted by park development, Broster was able to undertake significant research at a number of localities at the site. Excavations south of the Twin Mounds revealed the presence of a complex Middle Woodland mortuary processing site, while the Mound 12 sector yielded evidence of several ovoid Middle Woodland mortuary structures and produced the first Middle Woodland radiocarbon dates for the site. Work the following year focused on Mound 12, a small burial mound constructed over a low crematory platform (Fig. 8). Subsequently dated to about A.D 460, this earthwork was constructed several hundred years after the peak usage of the Pinson Mounds site (Mainfort, Broster, and Johnson 1982). A second major accomplishment of the 1975 field season was the discovery of several large ovoid structures at a mortuary camp (the Cochran site) several hundred meters west of the Twin Mounds (Fig. 9). Associated with the floors of these structures were a number of exotic materials, including mica, quartz crystals, copper, and microlithic blades fashioned from Flint Ridge Flint and other non-local cherts (Fig. 10), leading Broster to interpret the area as a craft specialty center associated with the Middle Woodland ceremonialism at the site (Mainfort [ed.] 1980:31-36).

Although Broster's research firmly established the site's importance as a Middle Woodland mortuary site that was occupied only on a intermittent, short-term basis (Broster and Schneider 1976:23; Mainfort, Broster, and Johnson 1982:18), the cultural affiliation of the largest platform mounds remained inadequately demonstrated. This was the principal question addressed by the recent excavation program that is the focus of this report.

Mound 5

DESCRIPTION OF EXCAVATIONS AND FEATURES

Previous research had amply demonstrated that the majority of the mounds at the Pinson Mounds site were of Middle Woodland affiliation (Fischer and McNutt 1962; Morse and Polhemus 1963; Mainfort [ed.] 1980), but the presence of very large platform mounds (Mound 5 and 9), as well as the wall-trench house discovered in the 1960's, suggested that the site may also have functioned as a major Mississippian center. Unfortunately, a number of references to the site have presented the assumed Mississippian affiliation of the largest mounds as fact, which, in addition to being erroneous, resulted in the site remaining relatively obscure because of the failure to recognize its unique nature (Faulkner 1971; Walthall 1980:197-198; Mainfort *et al* 1982). Resolution of this problem stood out as the single most critical question to address in the recent research program. Since, in form and size, Ozier Mound (Mound 5) appeared to be an almost classic Mississippian temple mound, we felt that this question could be readily answered by conducting limited test excavations on top of the mound. This, in fact, proved to be the case, although the answer was not the one anticipated by most archaeologists who were familiar with the site.

The second largest structure within the mound complex, Mound 5 was constructed in the form of a truncated pyramid, with a ramp extending from its northeastern side (Figs. 11 and 12). Interestingly, the ramp is oriented within a few degrees of the position of the rising sun on the summer solstice. In 1917, the size of the mound was reported as follows: height, 9.82 m (32.2 feet); base, 73.17 m by 70.12 m (240 feet by 230 feet); top, 30.49 m square (100 feet square) (Buck to Myer, NAA ms. 2150-A). These figures are in essential agreement with recent measurements, although the actual height of the mound is 10.06 m (33 feet). Mound 5 contains approximately 25,920 m^3 (976,000 ft^3) of earth (R. Shenkel, personal communication).

Using a WPA benchmark on top of the mound as the source, a base line oriented toward magnetic north was established and several series of east-west excavation units were laid out. Those selected for investigation were excavated as either 2 meter squares or as 1 by 2 meter units (Fig. 11). Our intention was to sample the central area of the mound surface where we felt that a structure, if present, would be encountered. Units were designated by the coordinates of the southwest corner, with the benchmark designated as N100/E100. Once it became clear that the uppermost definable occupation level lay nearly a meter below the present mound surface, further systematic sampling the upper fill was undertaken with a post hole digger. These tests followed the grid system and proved useful in establishing the basic stratigraphic sequence of the mound to a depth of about one meter. Due to lack of time and personnel, excavations were generally halted at, or just below, the yellow sand layer that we came to recognize as representing the upper intact occupation level of the mound. One unit (N92/E109) was taken down approximately 100 cm below this layer without encountering another occupation floor.

Although no evidence of structures was revealed, the test excavations exposed two cultural features associated with the yellow sand floor. The sand floor was recorded in all but one of the excavation units and in half of the 28 post hole digger tests. Represented by a layer of McNairy Sand about 5 cm thick, the floor was generally encountered at a depth of between 70 and 80 cm below ground surface. Two features (Features 1 and 2), both of which were hearths, were found in N90/E108 and were associated with the sand floor and consisted principally of burned sandstone fragments within a matrix of sand and charcoal. The matrix of Feature 2 was contained within what appeared to be a prepared basin (Fig. 13). A large Furrs Cord Marked sherd was recovered from Feature 2, while only sandstone and charcoal were present in Feature 1. Two radiocarbon determinations have been received on charcoal samples obtained from the features. The uncorrected date for Feature 1 is 20 B.C. $\pm$ 110 (UGa-4543), while Feature 2 was dated at A.D. 190 $\pm$ 160 (UGa-4174). These dates overlap between A.D. 30 - 90 and are consistent with the presumed age of the sherd found in association with Feature 2.

The stratigraphy of the upper levels of Mound 5 may be briefly summarized as follows. Below the humus zone lies a brown sandy loam that extends to a depth of approximately 80 cm below the surface; no evidence of basketloads was observed and this layer is uniform in appearance, although the lower 30 cm have a more mottled appearance. Few cultural remains, consisting of eroded sand and mixed sand/clay tempered (i.e., *var. Tishomingo* paste) pottery sherds and lithic debitage, were recovered from this stratum. Several historic artifacts were found in the upper fill. The upper fill presumably supported a sand floor similar to the one encountered during the excavations, but traces of this feature, if present, have been lost to erosion. The yellow sand layer occurs at a depth of about 80 cm below the mound surface and averages about 5 cm in thickness. Below the sand floor is a stratum of well-defined basketloads of multi-colored clays and loam that extends to a depth of about 270 cm (see Fig. 14); in some instances, the sand layer was encountered just below the apparent surface of this stratum, possibly as the result of subsequent disturbance.

With the assistance of geotechnicians from the Tennessee Department of Transportation, a complete series of thin-wall soil samples was obtained from Mound 5 to a depth of 10.67 m below the mound summit. A minimum of six construction phases, each represented by a sand floor approximately 5 cm thick, was revealed. These occur at depths of 0.8 m (the layer exposed during our excavations), 2.7 m, 3.9 m, 4.7 m, 5.1 m, and 5.5 m. Additional phases of construction may be reflected in the observed textural changes, particularly the compact organic zone that begins at 7.6 m below the mound surface. The lower 1.5 m of the mound are composed of a compact sandy loam that contains a considerable amount of charcoal. Sterile subsoil occurs at a depth of 10.06 m. It should be noted that the measurements presented above have been extrapolated. Obviously, a certain degree of compaction occurs during coring and this varies according to the structural properties of the various strata encountered (see Reed *et al* 1968). To compensate for this, the compaction rate for each 2.5 foot sample (the constant sampling unit) was calculated and actual depths were computed by multiplying the observed depths of strata in the samples by the compaction rate for each sample.

Regretably, our limited testing did not shed any light on the stratigraphic association of the ramp. However, the size of the mound and the lack of Mississippian artifacts in the upper fill argue strongly for the ramp being a Middle Woodland feature, rather than a later addition.

SIGNIFICANCE OF MOUND 5

Little can be said about the function of Ozier Mound at this time beyond the obvious. Clearly the mound was constructed and used for ceremonial purposes. These ceremonies may have related to mortuary rituals, although the mound does not seem to have been used for burials. Importantly, it appears that no buildings were constructed on the uppermost sand floor. The multiple construction stages, each capped by a floor of "pure" whitish sand (Hudson 1976:226-235), are reminiscent of the later Mississippian platform mounds. The complete exposure of the uppermost intact floor of Mound 5 should be given the highest priority in future research plans, as this would afford an opportunity to gain valuable insights into non-mortuary Middle Woodland ceremonialism.

Fig. 12. Ramp on northeast side of Mound 5. View to southeast.

Fig. 13. Mound 5, Feature 2. Note sand floor.

Fig. 14. Mound 5 upper profile showing basket loads. Sand floor near center of profile.

It is not only remarkable that a structure of the form and size of Ozier Mound was constructed and used around A.D. 100, but also that there are at least five earlier construction stages evident, the earliest of which is represented by a structure approximately 4.5 m tall. If each successive construction stage was occasioned by the death of a principal religious figure, a reasonable supposition based on the ethnohistoric accounts of the Natchez, it can be postulated that the mound was built over a time period in the order of 100 years. The use of yellow sand caps or floors has been documented for two other mounds at the Pinson Mounds site. Limited testing of Mound 29 (Morse, this volume), the large platform mound within the geometric enclosure, disclosed a yellow sand floor approximately 2 m below the surface. Additionally, the flat-topped primary mound within the northern Twin Mound (Mound 6) was covered with sand, as discussed in detail later.

Large platform mounds are not generally regarded as Middle Woodland features (see especially Griffin 1973:376), but Ozier Mound is not an isolated example of this phenomenon. About 5 km (2 miles) to the north of Pinson Mounds is the Johnston mound group (40MD3), which includes a platform mound approximately 6 m tall. Surface collections suggest that the Johnston site is slightly older than Pinson Mounds and may represent the precursor of the larger mound complex (Kwas and Mainfort 1984). A large, ramped platform mound of probable Middle Woodland age has been reported at the Ingomar site in northeastern Mississippi (Rafferty 1983, 1984) and the platform mound at the Leist site in the Yazoo Basin also appears to date to the Middle Woodland period (Phillips 1970:368-369). Additional discussion regarding Middle Woodland platform mounds appears later in this volume.

DESCRIPTION OF FEATURES

Feature 1

Location:	N90/E108, N92/E108
Stratigraphic placement:	Top of upper occupation stratum.
Defining characteristics:	Irregular concentration of charcoal, ash, and burned sandstone.
Dimensions:	Diameter, apx. 140 cm; depth, 20 cm.
Artifacts present:	50 pieces burned sandstone, charcoal sample.
Interpretation:	Ceremonial hearth in upper occupation stratum. Radiocarbon date of 20 B.C. ± 110 obtained for this feature.

Feature 2

Location:	N90/E108
Stratigraphic placement:	Within upper occupation stratum.
Defining characteristics:	Oval basin containing pottery, burned sandstone, and charcoal. Base showed clear evidence of firing.
Dimensions:	Width, 55 cm; length, apx. 60 cm; depth, 20 cm.
Artifacts present:	1 sherd Furrs Cord Marked, 11 pieces sandstone, charcoal sample.
Interpretation:	Prepared ceremonial hearth associated with upper occupation stratum. Radiocarbon date of A.D. 190 ± 160 obtained for this feature.

Feature 16

Location:	N88/E106
Stratigraphic placement:	Intrudes through upper occupation stratum.
Defining characteristics:	Presence of brown sandy loam within pit outline.
Dimensions:	Diameter, 44 cm (not completely exposed); depth, 42 cm.
Artifacts present:	None.
Interpretation:	Function unknown; may represent animal disturbance.

Feature 17

Location:	N98/E98
Stratigraphic placement:	Below upper occupation stratum.
Defining characteristics:	Presence of brown ashy fill within possible clay basin.
Dimensions:	Diameter, 26 cm (not completely exposed); depth, 49 cm.
Artifacts present:	None.
Interpretation:	Possible hearth.

Mound 31

A second objective of the 1981 field season was to investigate Mound 31, a small earthwork tested by Morse (this volume) in 1963. Morse's excavation exposed two circular fire basins, one of which contained several non-local incised and stamped sherds. Stratigraphic evidence suggested that, in contrast to Mound 12 (Mainfort [ed.] 1980), Mound 31 was constructed over a central, sub-floor mortuary feature. Clearly the mound warranted further investigation.

Located about 60 m east of the Twin Mounds (see Fig. 2), Mound 31 measures about 10 m (35 feet) in diameter and 1 m in height. Although the mound does not seem to have suffered significant damage since it was mapped in 1917 (Myer n.d.a), our excavations suggest that it was originally about 2 m high. The top of the mound has been reduced to virtually the same height as the surrounding area and further excavations will be necessary to determine its exact size.

Using a nearby monument set by the Tennessee Department of Conservation as the source, a grid system oriented toward magnetic north was established over the mound. A series of 14 contiguous 2 meter excavation units was removed. Our initial work consisted of re-excavating Morse's test pit in order to confirm the soil zones and probable construction sequence that he had defined (see Appendix 3). This was followed by the excavation of several units along the E998 grid line. the U-shaped orange clay ring encircling the central feature (see Fig. 15) initially proved difficult to interpret in the field and received two separate feature designations (Feature 3 and Feature 9); the former has been retained in the description below.

The initial phase of mound construction was the removal of topsoil in the area selected for the earthwork. After the excavation of the central burial pit (Feature 5), a number of cremations were deposited around the periphery of the pit (Feature 6) on all but the northeast side. A hard, fired area near the north edge of the burial pit suggests that at least some of the cremations were *in situ*. Associated with the cremations were numerous pottery fragments (primarily Furrs Cord Marked), lithics (including numerous pieces of ferruginous sandstone), some fragmentary deer bones, several small fragments of mica, and charcoal. Although a large quantity of calcined bone was also recovered, none of the pieces were large enough to permit identification. A complete tabulation of the artifacts included in Feature 6 appears in the feature description. A cap of orange clay subsoil (Feature 3) was placed over the cremations, encircling the burial pit. Features similar to Feature 3 (albeit lacking underlying cremations) were recorded by Jefferies (1976) at the Tunacunnhee site in northern Georgia.

Several cremations (Feature 13 and Morse's Features 1 and 2) were located to the north of the central burial pit in association with the mound floor. Feature 11-A may be a ceremonial firepit, rather than a mortuary feature, as it contained a large quantity of burned cane. A number of post molds were also associated with the mound floor, particularly in the area immediately to the north of the central feature. These undoubtedly represent the remains of a charnel house and/or scaffolding, but further excavation will be necessary to define these structures. As previously noted by Morse (this volume), at least part of the mound floor was fired prior to the constructions of Mound 31. This event is represented by Feature 5, which, curiously, contained several very small quartz crystal flakes.

Mound fill consisted primarily of a mottled dark brown loam and included several redeposited cremations (Features 4, 7, and 14). Additional cremations (including Feature 14) were present in the fill directly above Feature 15. The northern edge of the mound is probably represented by soil zone B (dark brown loam) in N1004/E996 (see Fig. 16b); this appears to be an old humus zone. A comparable stratum was recorded in the E996-998 section of the east-west mound profile (Fig. 16a). Possible edges on the east and south sides of the mound are evident in the profiles, but the continuation of Feature 5 (gray ash) beyond these makes the evidence equivocal.

The central burial feature within Mound 31 (Feature 15) consisted of a rectanguloid pit measuring approximately 2.9 m long and 1.2 m deep that had been excavated into sterile subsoil to a depth of about 50 cm below the surrounding mound floor. Maximum width occured at the northeast (i.e., head) end, which, unlike the other sides, was slightly curved. No evidence of logs or other covering over or within the burial pit was observed. Feature 15 was oriented at an angle of 40° east of magnetic north. The remains of a single individual - an adult male aged over 50 years - were interred in the pit in an extended, supine position with the head to the northeast; this was a fleshed inhumation. The skeletal remains were in a very poor state of preservation and only the mandible, right innominate, and right femur were removed for analysis in the lab. In contrast to the individuals recovered from the Twin Mounds, dental attrition was severe. Several small stains of red ochre were observed near the mandible, as were the fragmentary remains of what may be several shell beads. No other grave goods were present, although several probable cremations (including Feature 14) that were observed in the pit fill may represent grave contributions. A reconstruction of the mound floor, including Feature 15 and the clay ring, is presented in Fig. 17.

Three radiocarbon determinations have been obtained for Mound 31, none of which are particularly statisfying. The most reasonable of these, A.D. 380 ± 125 (UGa-4214), dates a charcoal sample collected from Feature 6, the layer of cremations underlying the U-shaped subsoil ring. A date of 595 B.C. ± 115 (UGa-4176) was produced by a second sample from Feature 6; this date is clearly too early. A sample of burned cane from Feature 11 produced a date of A.D. 740 ± 160 (UGa-4213), which probably post-dates the construction of Mound 31 by several hundred years.

The small size of Mound 31, as well as the dearth of Hopewell Interaction Sphere materials, suggests that the earthwork was constructed by a single community, a hundred or more years after the completion of the major earthworks at the Pinson Mounds site. The ceramic assemblage, notably the incised and stamped sherds recovered by Morse (this volume), supports a later Middle Woodland age for the earthwork, as does the most acceptable radiocarbon date. Finally, the proximity of Mound 31 to the Twin Mounds (Mound 6) is unlikely to be coincidental and raises the possibility that the social group responsible for the construction of Mound 31 had, a hundred or more years earlier, participated in the elaborate mortuary ceremonialism commemorated by the Twin Mounds.

DESCRIPTION OF FEATURES

Feature 3

Location:	N996/E998, N998/E996, N998/E998, N1000/E996, N1000/E998, N1002/E996, N1002/E998
Stratigraphic placement:	Above Feature 6
Defining characteristics:	U-shaped ring of orange clay subsoil
Dimensions:	Length, apx. 260 cm; maximum width, 100 cm; maximum thickness, 45 cm.

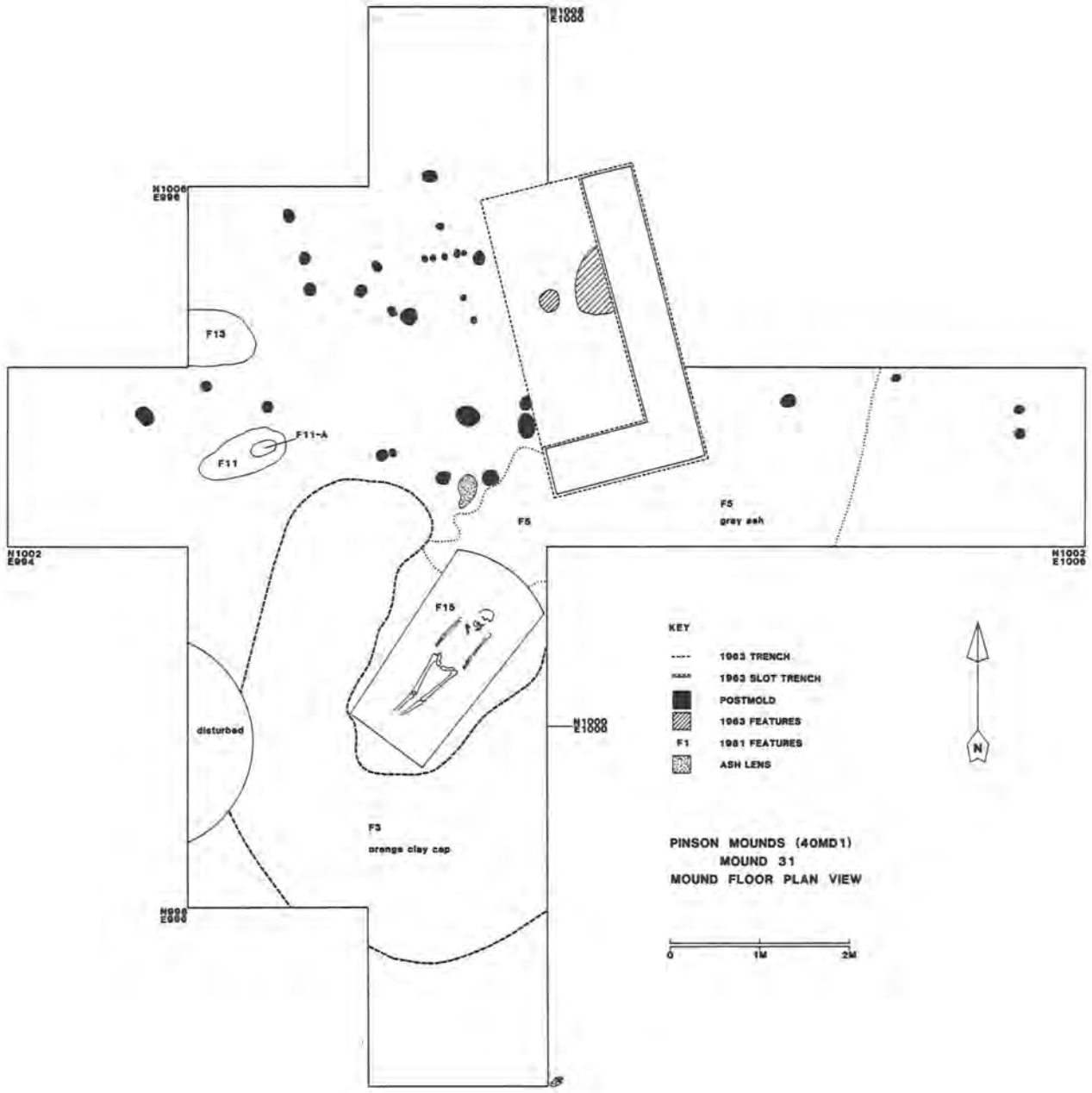


Fig. 15. Mound 31. Plan view at subsoil.

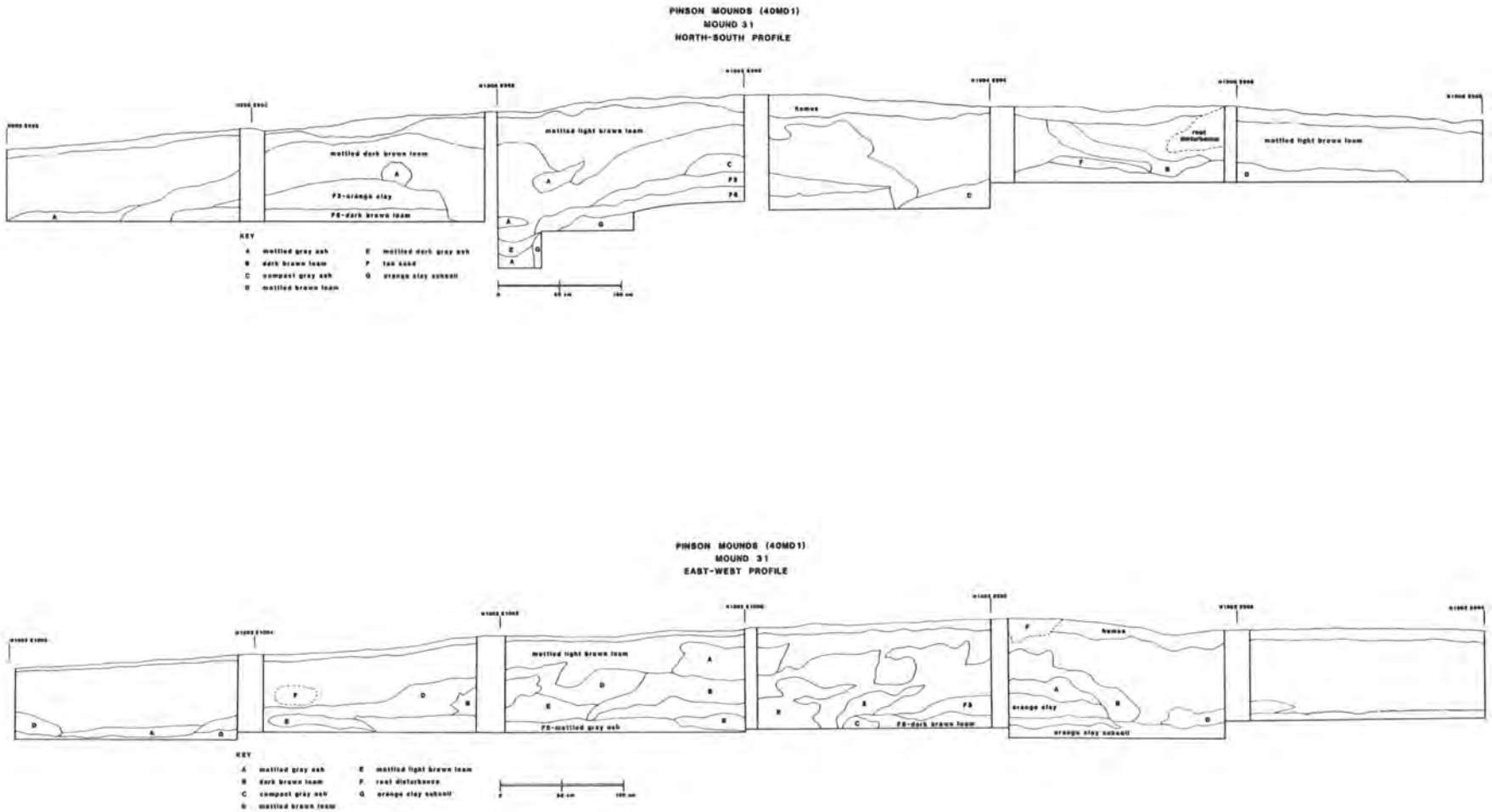


Fig. 16. Mound 31 profiles. East-west profile: top; north-south profile: bottom.

Artifacts present: 4 Furrs Cord Marked sherds, 4 sand tempered eroded sherds, 1 sand and clay tempered (*var. Tishomingo* paste) eroded sherds, 1 clay tempered (Baytown paste) eroded sherd, 5 flat flakes, 1 microblade, 1 fragment siltstone, 2 pieces sandstone.

Interpretation: Cap of subsoil covering redeposited cremations (Feature 6).

Feature 4

Location: N1002/E998

Stratigraphic placement: General fill above mound floor.

Defining characteristics: Irregular concentration of charcoal and calcined bone.

Dimensions: Maximum length, 105 cm; maximum width, 52 cm; thickness 4 cm.

Artifacts present: 1 sand and clay tempered incised sherd, 1 sand tempered eroded sherd, 5 sand and clay tempered (*var. Tishomingo* paste) eroded sherds, 2 core trim flakes, 1 piece chip shatter, 1 piece sandstone, mica fragments, unidentified calcined bone.

Interpretation: Redeposited cremation included in mound fill.

Feature 5

Location: N1002/E1000, N1002/E1002

Stratigraphic placement: Mound floor.

Defining characteristics: Irregular concentration of gray ash.

Dimensions: Length, 200 cm; maximum width, 54 cm; maximum thickness, 8 cm.

Artifacts present: 12 Furrs Cord Marked sherds, 2 sand tempered incised sherds, 4 Mulberry Creek Cord Marked *var. Tishomingo* sherds, 23 sand tempered eroded sherds, 9 sand and clay tempered (*var. Tishomingo* paste) eroded sherds, 1 clay tempered (Baytown paste) eroded sherd, 8 core trim flakes, 1 piece chip shatter, 16 flat flakes, 1 microblade, 27 pieces sandstone, 2 rocks, 3 flakes quartz crystal, charcoal.

Interpretation: Surface fire or cremation.

Feature 6

Location: N996/E998, N998/E996, N998/E998, N1000/E996, N1000/E998, N1002/E996, N1002/E998

Stratigraphic placement: Immediately below Feature 3.

Defining characteristics: U-shaped concentration of charcoal, ash, and calcined bone below Feature 3.

Dimensions: Length, apx. 260 cm; maximum width, 110 cm; maximum thickness, 13 cm.

Artifacts present: 8 Baldwin Plain sherds, 4 Saltillo Fabric Impressed sherds, 89 Furrs Cord Marked sherds, 5 sand temperd incised sherds, 3 sand tempered red filmed sherds, 1 sand tempered punctate sherd, 8 Baytown Plain *var. Tishomingo* sherd, 1 Withers Fabric Marked *var. Twin Lakes* sherd, 7 Mulberry Creek Cord Marked *var. Tishomingo* sherds, 2 Baytown Plain *var. unspecified* sherds, 7 Withers Fabric Marked *var. Withers* sherds, 6 Mulberry Creek Cord Marked *var. unspecified* sherds, 2 clay tempered incised sherds (possibly Marksville Incised), 1 clay tempered complicated stamped sherd, 8 clay tempered plain sherds (Smith's [1979:75-76] "Tchefuncte" paste), 1 clay tempered cord marked sherd ("Tchefuncte" paste), 1 limestone tempered punctate sherd, 226 sand tempered eroded sherds, 59 sand and clay (*var. Tishomingo* paste) eroded sherds, 17 clay tempered (Baytown paste) eroded sherds, 5 limestone tempered eroded sherds, 32 core trim flakes, 18 pieces chip shatter, 51 flat flakes, 1 microblade, 1 utilized flake, 1 bifacial implement, 13 fragments siltstone, 70 pieces sandstone, 2 rocks, unidentified calcined bone, charcoal.

Interpretation: Group of cremations (most redeposited). Radiocarbon dates of A.D. 380 $\pm$ 125 and 595 B.C. $\pm$ 115 obtained for this feature; the latter is clearly unacceptable.

Feature 7

Location: N1000/E998

Stratigraphic placement: Top of Feature 3

Defining characteristics: Irregular concentration of dark gray ash.

Dimensions: Length, 42 cm; width, 29 cm; thickness, 4 cm.

Artifacts present: 1 Furrs Cord Marked sherd, 2 sand tempered eroded sherds, 1 fragment slate.

Interpretation: Redeposited ash concentration.

Feature 8

Location: N1000/E998

Stratigraphic placement: Above Feature 3.

Defining characteristics: Concentration of compact gray ash.

Dimensions: Length, 116 cm; width, 56 cm; thickness, 14 cm.

Artifacts present: None.

Interpretation: Redeposited ash concentration.

Feature 9

Location: N1000/E998

Stratigraphic placement: See Feature 3.

Defining characteristics: See Feature 3.

Dimensions: See Feature 3.

Artifacts present: See Feature 3.

Interpretation: Continuation of Feature 3, southeast of Feature 15.

Feature 10

Location: N1000/E998
Stratigraphic placement: Below Feature 9.
Defining characteristics: See Feature 6.
Dimensions: See Feature 6.
Artifacts present: See Feature 6.
Interpretation: Continuation of Feature 6, southeast of Feature 15.

Feature 11

Location: N1002/E996
Stratigraphic placement: Fill above mound floor.
Defining characteristics: Concentration of ceramics within matrix of gray ash.
Dimensions: Length, 105 cm; width, 52 cm; thickness 8 cm.
Artifacts present: 18 Furrs Cord Marked sherds (at least 5 sherds part of a small bowl), 1 Mulberry Creek Cord Marked *var. Tishomingo* sherd, 1 sand and clay tempered (*var. Tishomingo* paste) eroded sherd, 2 sand and clay tempered (*var. Ozier,* i.e., very chalky) eroded sherds, 1 clay tempered (Baytown paste) eroded sherd, 1 core trim flake, 1 piece chip shatter, 2 flat flakes, 5 pieces sandstone, 1 rock.
Interpretation: Cremation and/or ash deposit associated with Feature 11-A.

Feature 11-A

Location: N1002/E996
Stratigraphic placement: Intrudes into mound floor.
Defining characteristics: Concentration of burned cane within pit.
Dimensions: Diameter, 10 cm; depth, 14 cm.
Artifacts present: Charred cane.
Interpretation: Ceremonial fire pit. Radiocarbon date of A.D. 740 ± 160 is probably several hundred years too recent.

Feature 12

Location: N1004/E996
Stratigraphic placement: Mound floor.
Defining characteristics: Ring of mottled brown loam surrounding Feature 13.
Dimensions: Maximum width, 24 cm; thickness, 4 cm.
Artifacts present: 1 Furrs Cord Marked sherd, 3 sand tempered eroded sherds, 2 pieces chip shatter, 1 core fragment, 1 piece sandstone, unidentified calcined bone.
Interpretation: Edge of Feature 13.

Feature 13

Location: N1004/E996
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of burned red clay and calcined bone.
Dimensions: Length, 82 cm; width, 52 cm; thickness, 8 cm.
Artifacts present: 3 sand tempered eroded sherds, 1 piece sandstone, unidentified calcined bone.
Interpretation: Surface cremation.

Feature 14

Location: N1000/E998
Stratigraphic placement: Fill within Feature 15.
Defining characteristics: Concentration of dark gray ash and calcined bone.
Dimensions: Diameter, 35 cm; thickness, apx. 14 cm.
Artifacts present: Unidentified calcined bone.
Interpretation: Redeposited cremation.

Feature 15

Location: N988/E996, N998/E998, N1000/E998
Stratigraphic placement: Intrudes into mound floor.
Defining characteristics: Presence of rectanguloid pit containing skeletal remains.
Dimensions: Length, 290 cm; width, 115 cm; depth, 45 cm.
Artifacts present: 4 Baldwin Plain sherds, 6 Furrs Cord Marked sherds, 15 sand tempered eroded sherds, 3 sand and clay tempered (*var. Tishomingo* paste) eroded sherds, 47 core trim flakes, 23 pieces chip shatter, 77 flat flakes, 4 microblades, 1 utilized flake, 1 bifacial implement, 17 fragments siltstone, 122 pieces sandstone, 5 rocks, red ochre, shell fragments, skeletal remains, unidentified calcined bone.
Interpretation: Central burial feature. Several redeposited cremations included in pit fill.

Table 1. Distribution of Ceramics in Mound 31

Ceramic Types	F-3	F-4	F-5	F-6	F-7	F-11	F-12	F-13	F-15	Gen. Fill	Total
Sand Tempered											
Baldwin Plain				8					4	5	17
Saltillo Fabric Impressed				4						5	9
Furrs Cord Marked	4		12	89	1	18	1		6	68	199
Incised			2	5						2	9
Red Filmed				3							3
Punctate				1							1
Eroded	4	1	23	226	2	1	3	3	15	196	474
Subtotal	8	1	37	336	3	19	4	3	25	276	712
Sand and Clay Tempered											
Baytown Plain *var. Tishomingo*					8					5	13
Mulberry Creek Cord Marked *var. Tishomingo*			4	7						8	20
Withers Fabric Marked *var. Twin Lakes*					1					12	13
Incised		1									1
Zone Punctate						1					1
Eroded (*var. Tishomingo* paste)	1	5	9	59					3	61	138
Eroded (*var. Ozier* paste, i.e., very chalky)						2				3	5
Subtotal	1	6	13	75		4			3	89	191
Clay Tempered											
Baytown Plain				2						3	5
Withers Fabric Marked				7						1	8
Mulberry Creek Cord Marked				6							6
Incised				2							2
Complicated Stamped				1							1
Poorly made ("Tchefuncte" paste) plain ware				8							8
Poorly made ("Tchefuncte" paste) cord marked				1							1
Eroded (Baytown paste)	1	1	1	17		1				13	34
Eroded ("Tchefuncte" paste)										17	17
Subtotal	1	1	1	44		1				34	82
Limestone Tempered											
Plain										1	1
Punctate				1							1
Eroded				5						5	10
Subtotal				6						6	12
Grit Tempered											
Eroded										1	1
Subtotal										1	1
TOTAL	10	8	51	461	3	24	4	3	28	406	998

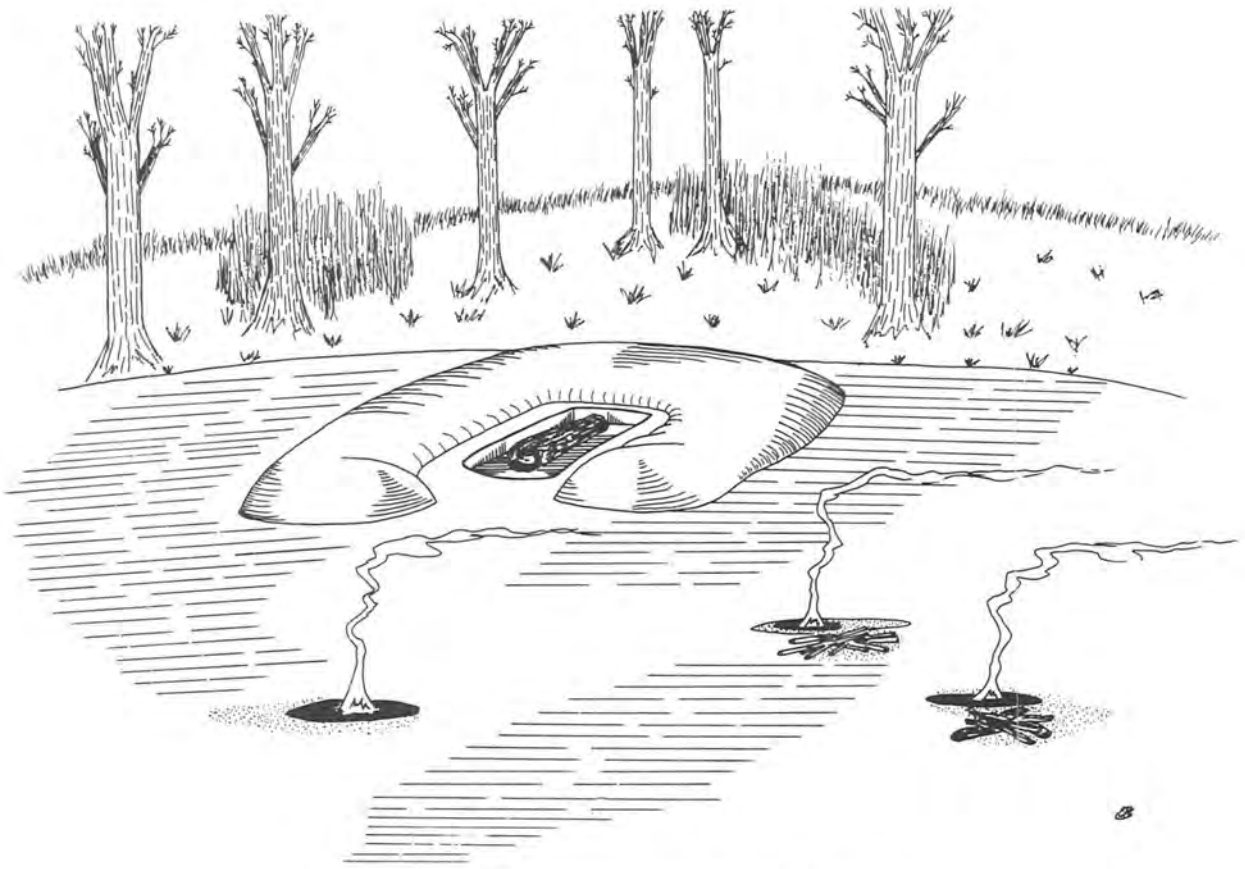


Fig. 17. Mound 31. Reconstruction of mound floor.

Fig. 18. Mound 10. View to south.

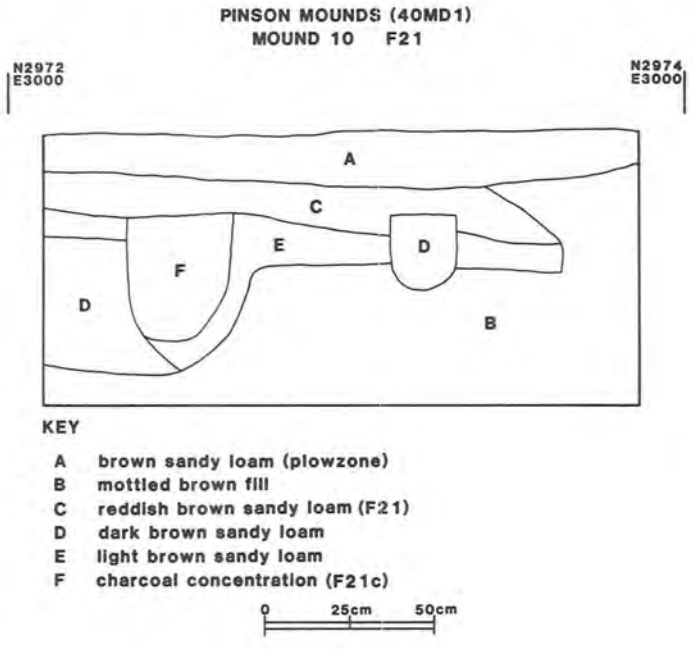


Fig. 20. Mound 10, Feature 21.

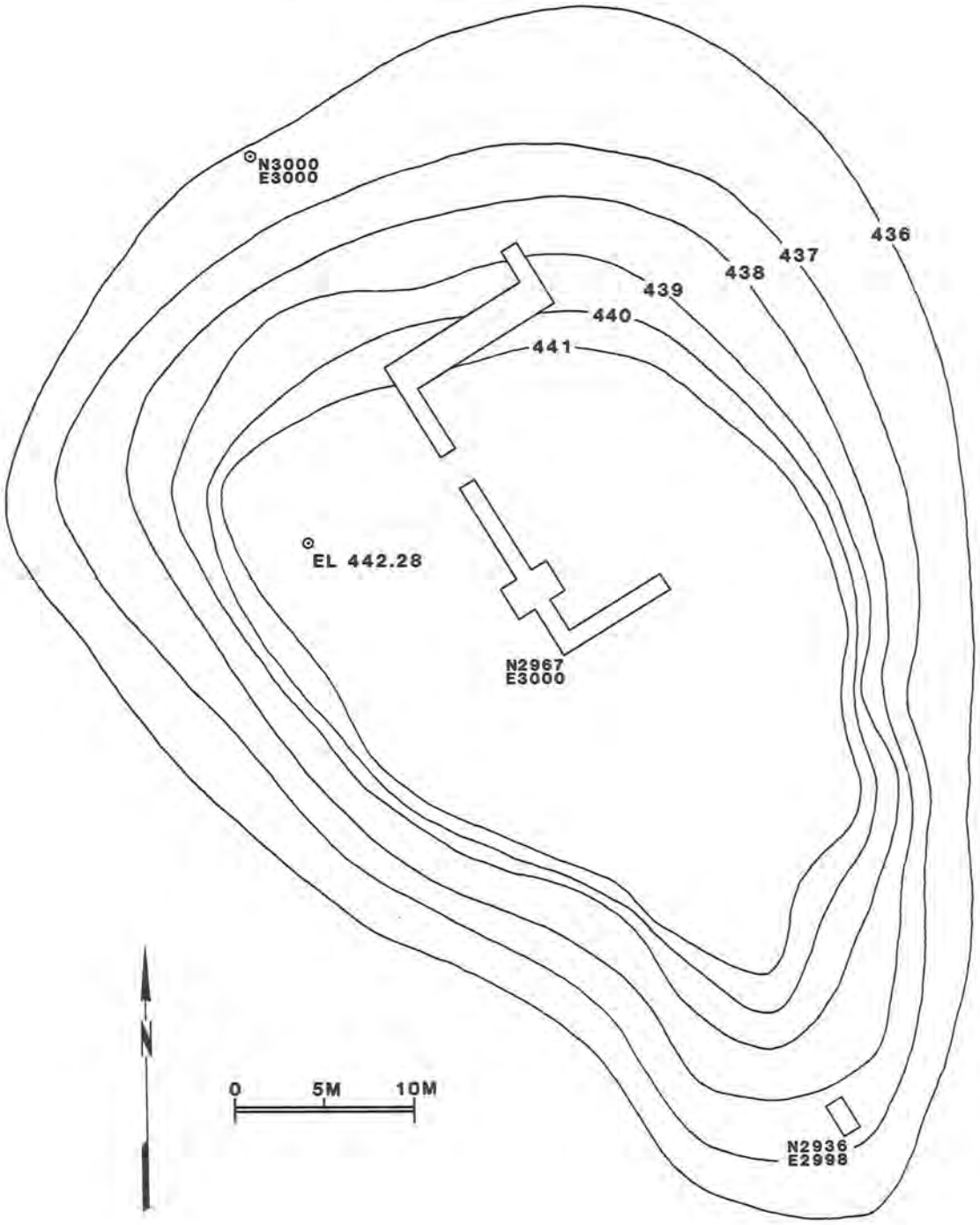


Fig. 19. Mound 10. showing units.

Mound 10

DESCRIPTION OF EXCAVATIONS AND FEATURES

Mound 10 (Fig. 18), a somewhat polygonal earthwork located approximately 110 m east of Sauls Mound (Mound 9), was selected for excavation during the 1982 field season primarily because it appeared to represent a large Middle Woodland burial mound, an assumption that proved incorrect. Additionally, the proximity of the mound to the park museum allowed the excavations to be utilized as an important aspect of the park interpretive programs. Mound 10 is approximately 61 m (200 feet) long, with a maximum width of 40 m (131 feet); excavations indicate that its present height is 1.3 m (4.3 feet). A comparison of the recent topographic map of the mound (Fig. 19) with Myer's (n.d.a) *circa* 1920 sketch (see Fig. 7) suggests that Mound 10 has not suffered a great deal of damage from plowing, although some erosion is noticeable along the western edge. Since there was insufficient time and personnel to completely excavate the structure, we selected an excavation strategy that would ascertain the function of the mound and delineate its construction sequence with a minimum amount of excavation. The excavation units, which are illustrated in Fig. 19, consisted principally of a series of 1 by 2 meter blocks oriented along the main axes of the mound.

A grid, marked by a concrete benchmark and designated as N3000/E3000, was established immediately to the north of Mound 10. The grid system was aligned along the main axis of the mound (33° west of north). Vertical control was derived from a Tennessee Department of Conservation benchmark (elevation: 442.28 feet amsl) located on top of the mound near the northwest side. With the exception of feature fill, excavated material was generally not screened.

Our excavations disclosed that mound construction was preceded by the removal of the humus zone from the top of a small knoll that had been selected for constructing the earthwork. A layer of yellow McNairy Sand approximately 6 cm thick was placed over the exposed subsoil. This was followed by the addition of a layer of gray sandy clay averaging 12 cm in thickness; this zone contained numerous mineral concretions, an indication of its impermeability. Mound fill consisted primarily of mottled brown sandy loam and contained relatively few artifacts. With the exception of several redeposited hearths, few idividual basketloads were observed in the fill; an Evansville Punctated rim sherd was recovered from a basketload in N2982/E3000. Several other examples of non-local ceramics were recovered from the general mound fill, including four Swift Creek Complicated Stamped sherds and a clay tempered red-filmed sherd, similar to specimens from the Duck's Nest sector (discussed later).

Near the center of the mound, a large hearth designated Feature 21 was discovered immediately below the plow zone. This feature was roughly ovoid in shape, with a maximum diameter of about 2 m and, as illustrated in Fig. 20, reached a maximum depth of 62 cm below the plow zone. A substantial portion of Feature 21 was preserved for future excavation. Represented by reddish brown sandy loam containing charcoal, pottery fragments, and several pieces of lithic debitage, the upper fill was very distinct from the light brown sandy loam surrounding it. As excavation progressed, several definable charcoal concentrations were observed within the feature matrix; these were given component designations (Features 21-A, B, and C), each of which were excavated as separate units. Recovered cultural materials include five chert flakes, four Furrs Cord Marked sherds, 16 sand tempered eroded pottery sherds, and a quantity of unidentified calcined bone. In addition to saving most of the feature fill for flotation, several large charcoal samples were retained for radiocarbon dating. The samples, which consisted of burned wood fragments from Features 21-B, produced uncorrected dates of A.D. 65 $\pm$ 130 (UGa-4679) and A.D. 270 $\pm$ 85 (UGa-4680). Feature 21 (and the construction of Mound 10) should therefore date to approximately A.D. 190.

Testing also revealed that a large excavation unit had been placed near the center of the mound (several meters east of Feature 21) at some time in the unrecorded past. This pit was over a meter in width, fairly straight sided, and extended into the subsoil at the base of the mound. Neither William Myer's (n.d.b) notes, nor interviews with former landowners, provided a clue as to 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 1800's.

During compilation of the Mound 10 topographic map, it became apparent that the oddly shaped south end of the mound had either been created by recent agricultural practices or that it represented a graded ramp (see Fig. 19). The discovery of Feature 21 demonstrated that Mound 10 was a platform mound and necessitated limited testing in this part of the earthwork, so a single excavation unit (N2936/E2998) was placed near the southern extremity of the mound. Immediately below the plow zone, a layer of mottled brown sandy loam representing loaded fill was encountered. Underlying this layer, a continuation of the gray sandy clay previously recorded near the base of the mound was observed. In contrast to the other units, however, no yellow sand layer was present below the gray clay. Nonetheless, the test unit established that the south end of the mound is an aboriginal feature and strengthens the case for a ramp, although this remains to be conclusively demonstrated.

SIGNIFICANCE OF MOUND 10

Mound 10 is the second earthwork within the Pinson group demonstrated to be a platform mound of Middle Woodland age. It is interesting to note that the irregular shape and relatively small size of this earthwork contrast markedly with the large rectangular platform mounds elsewhere on the site. Further, the location of Mound 10 (see Fig. 2) does not correspond to the apparent plan of the other platform mounds, i.e., at the center and four "corners" of the site. These anomalies suggest the participation of a smaller social group in the construction of Mound 10 than that represented by the other platform mounds and the irregular shape of the earthwork may indicate the lack of a ritual specialist who was familiar with the proper shape of such structures. It seems likely, therefore, that Mound 10 is not contemporary with the larger platform mounds at the site, a hypothesis supported by the average radiocarbon date for the mound (A.D. 190), which suggests that Mound 10 was constructed about 100 years after Ozier Mound and the Twin Mounds. The occurrence in the general mound fill of non-local ceramics similar to specimens from the Duck's Nest sector suggests that Mound 10 may also post-date the former area, despite the fact that the average radiocarbon dates for both areas are virtually identical. Only extensive further excavations can answer the intriguing questions raised by our limited testing of Mound 10.

Duck's Nest

DESCRIPTION OF EXCAVATIONS AND FEATURES

The Duck's Nest is a small, nearly circular embankment that is located on a small bluff overlooking the Forked Deer River bottoms, approximately 550 m south of Sauls Mound. The embankment measures about 13 m (41 feet) in diameter, with the wall standing less than 1 m in height (Figs. 21 and 22). Although there is no indication that the immediate area has ever been plowed, erosion has reduced the height of the work, particularly on the west side.

The Duck's Nest was tested by Morse in 1963 (see Appendix 3) and he encountered, but did not excavate, a large hearth in the center of the embankment. Our objective in testing the Duck's Nest was to establish the temporal and functional relationship of this feature to the cremation burial area some 150 m to the north (the Duck's Nest sector; see Fig. 25). These efforts met with limited success. A north-south baseline was established through the center of the embankment, using a concrete marker to the north (N100/E100) as a datum point. The test excavations were limited to a pair of contiguous 2 meter squares placed near the center of the depression within the embankment. The northern unit was excavated first, in order to define the stratigraphy prior to examining the hearth located by Morse. The upper 30 cm consisted of a brown clayey sand containing a few redeposited artifacts, including an Early Archaic Lost Lake projectile point. Below this was a zone of light brown clayey sand that was nearly devoid of artifacts. At 50 cm below the ground surface, the tan sand reported by Morse (this volume) was reached. No artifacts were recovered from this stratum, which, based on the occurrence of numerous lamelliae, may represent a water-laid deposit. A light brown sandy clay subsoil appeared at a depth of 100 cm below surface, at which point excavation was terminated.

In the second excavation unit, N88/N98, the large fire basin recorded by Morse was encountered at the top of the tan sand stratum, about 50 cm below the surface. Designated as Feature 18, the basin was essentially circular, with a diameter of almost exactly 2 m (Fig. 23). The bulk of the feature fill consisted of an ashy gray clayey sand approximately 30 cm thick. Few cultural materials were recovered from this matrix and the inventory was not substantially increased by water screening large samples of the fill. A concentration of charcoal was located at the top of the feature near the center and extended about 10 cm into the upper fill. A large sample of this charcoal was submitted for radiocarbon dating and proved to be of modern origin (UGa-4544). Below the gray ashy fill was a 12 cm thick zone of reddish brown sand containing occasional charcoal flecks. A number of pottery sherds, comprising about half of a conoidal Furrs Cord Marked vessel, were recovered from this zone, with the bulk being concentrated near the center of the feature (see Figs. 23 and 24). A deposit of reddish orange sand, that had obviously been exposed to considerable heat, covered the heavy charcoal concentration at the base of the feature. The base of the feature, which rests on the light brown sandy clay subsoil mentioned earlier, was reached at a depth of 50 cm below the level at which the feature was defined (i.e., the top of the tan sand).

Interestingly, none of the pottery sherds exhibit signs of exposure to intense heat, nor did any charcoal adhere to them. These facts have important implications for the depositional history of Feature 18. Since most of the charcoal in the feature was concentrated in the base, it seems reasonable to infer that the fire that produced the charcoal was allowed to burn down to glowing coals. A layer of brown or tan sand was then placed over the hot coals, causing the sand to turn a reddish orange hue. After this sand had cooled somewhat, part of a small ceramic vessel was thrown into the basin, where it broke. Additional sand was then added, filling the basin to a depth of approximately 25 cm. The upper fill of Feature 18 may represent ash and sand that had been removed from the basin earlier and subsequently redeposited on top of the reddish brown sand. In conjunction with the fact that the walls of the feature were not fired to a hard consistency, the evidence suggests that the Duck's Nest was used for only a single ceremony.

PROBLEMS WITH DATING AND INTERPRETATION

Unfortunately, the interpretation offered above is not supported by the three radiocarbon determinations for Feature 18, all of which were derived from large samples of charcoal obtained from the base. The uncorrected dates are as follows: 125 B.C. ± 90 (UGa-4542), A.D. 415 ± 65 (UGa-4681), and A.D. 605 ± 135 (UGa-4910). There are several factors that might account for the wide discrepancies between these dates. First, it could be argued that Feature 18 was used repeatedly over a period of several hundred years. However, this is militated against by the absence of hardening at the base, the paucity of artifacts recovered, and the use of a single pottery vessel is the context of an apparent "closing" ceremony. Additionally, the sand tempered pot is likely to pre-date at least the most recent date obtained for the feature. A more likely explanation for the range of dates is the possibility that one or more of the samples was contaminated. One potential source of contamination is the concentration of modern charcoal near the top of Feature 18. Water percolating down through this material could conceivably have caused some degree of contamination to the charcoal at the base of the feature. The logistics of excavating Feature 18 provide another possible source of contamination. Since the excavations were conducted in the early spring, inclement weather, including rain, caused several interruptions in the work. Although the excavation units and the feature itself were covered with polythylene sheeting during these times, water found its way into the units on several occasions. In this regard, it is interesting to note that the earliest and most acceptable date for Feature 18 (125 B.C.) was obtained from a charcoal sample recovered during the initial exposure of the feature. The A.D. 415 date pertains to a sample collected several weeks later, while the sample dated A.D 605 was recovered two weeks after the second. The latter two dates might, therefore, be discounted because of the possibility of contamination. Although solid evidence to support such an assertion is lacking, a date of somewhere in the A.D. 1 to 300 range is suggested as a reasonable age for Feature 18 and the Duck's Nest itself. This temporal range allows for the not unlikely contemporaneity of this small embankment and the cremation burial area to the north.

The function of the Duck's Nest remains somewhat uncertain. The possibility that the structure represents a semi-subterranean house, as suggested by several visiting colleagues, can be ruled out on the basis of our excavations and those of Morse, as can the belief by some local residents that the Duck's Nest represents the remains of an historic trading post. Morse's (1963:11) suggestion that the embankment may be a "dance circle" cannot be confirmed or rejected, although the size of the fire implied by Feature 18 might have prohibitive to such activities. An attractive hypothesis is the possibility that the Duck's Nest is functionally related to the mortuary area to the north. Extensive excavations are required before a satisfactory conclusion can be drawn.

Fig. 21. Duck's Nest. View to south.

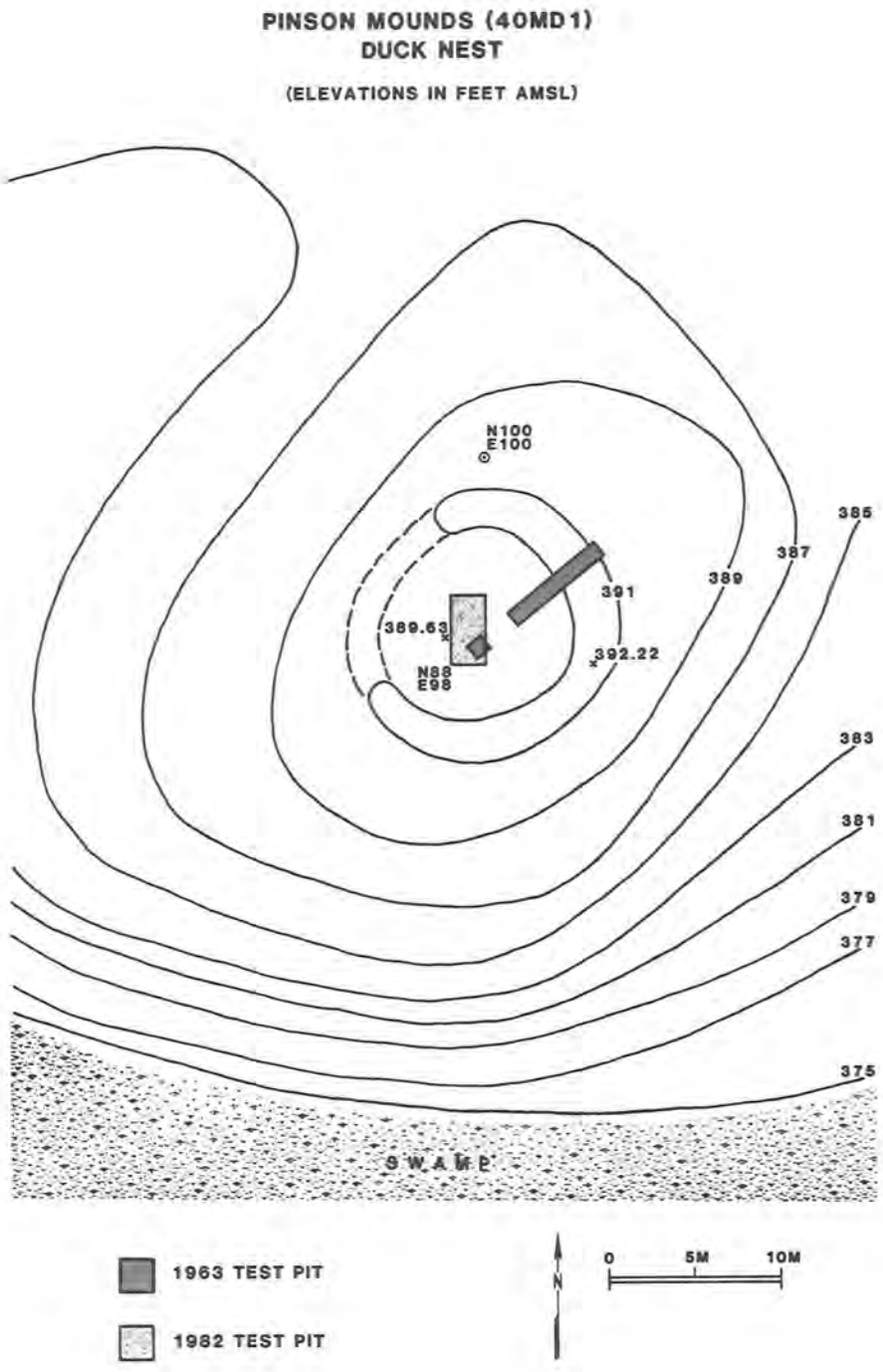


Fig. 22. Duck's Nest, showing excavation units.

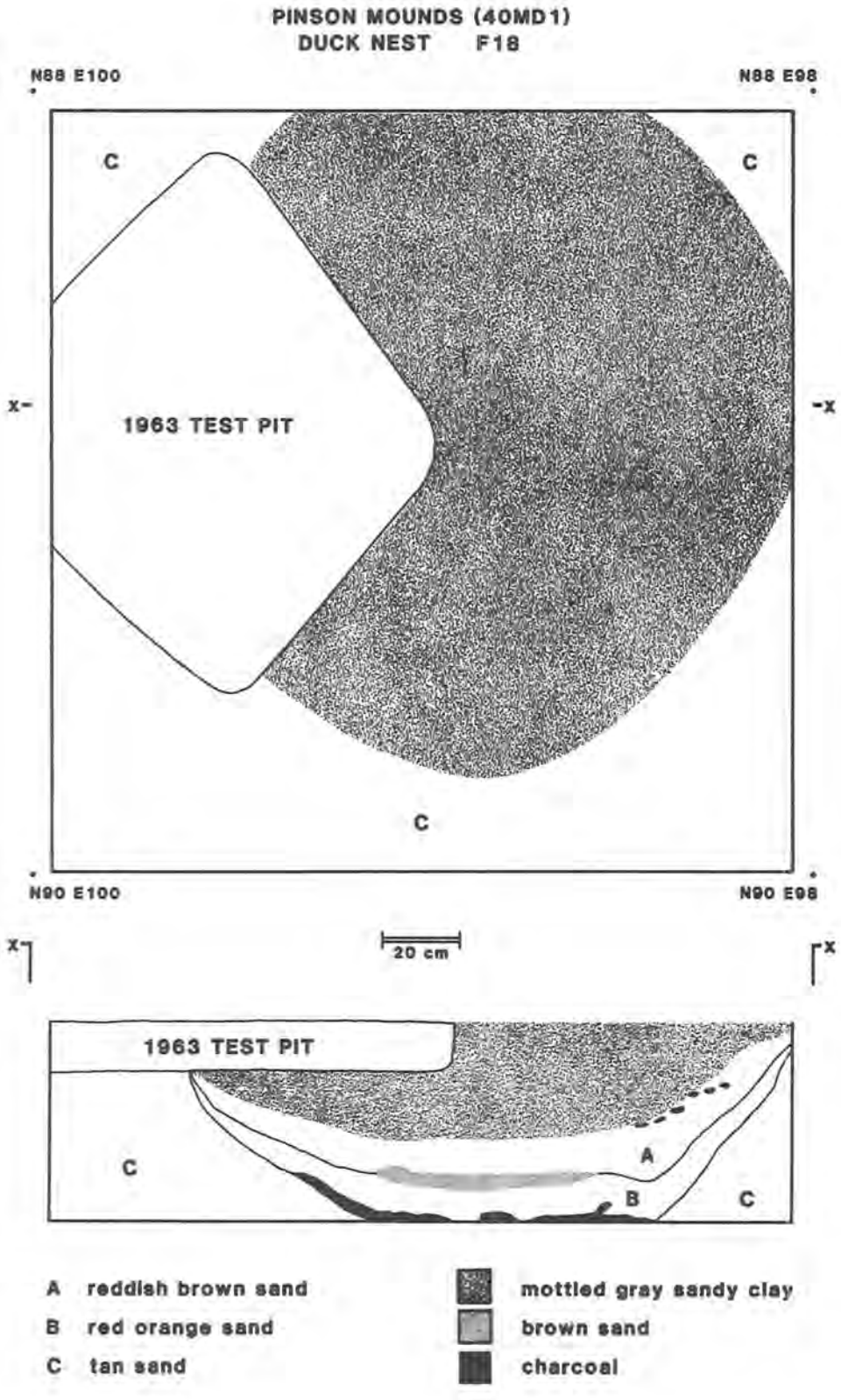


Fig. 23. Duck's Nest, Feature 18. Plan view: top; profile: bottom.

Duck's Nest Sector

DESCRIPTION OF ARCHAEOLOGICAL DEPOSITS

The Duck's Nest sector is located on a small rise about 150 m north of the Duck's Nest (Fig. 25). The need for test excavations at this locality was suggested by the discovery of a midden deposit or house floor in 1963 (Morse, this volume) and by reports of "dark soil" and artifacts by the former landowner. The presence of an apparent midden was confirmed by systematic shovel testing and the excavation of a two meter square test pit (the offset unit in Figs. 27 and 28). The test excavations revealed the presence of a dark soil horizon approximately 20 cm thick immediately below the plow zone. Associated with this deposit was a heavy concentration of ceramics, lithic tools and debitage, and sandstone. Numerous flecks of calcined bone were also observed.

The Duck's Nest sector was extensively excavated during the summer of 1982. A grid system aligned toward magnetic north was laid out over the area using a concrete benchmark designated N100/E100 as its source. A total of 18 two meter squares, which encompassed the initial test pit, were excavated. The dark soil horizon (Zone C) was found to be continuous throughout the area, but was noticeably lighter in color and thinner to the south and east (Fig. 26). Profiles of several of the western excavation units indicate the presence of a lighter, apparently undisturbed straturn below the plow zone and overlying Zone C; this stratum was not present along most of the eastern profile. In the northwest quadrant of the excavation area, the intermediate stratum (Zone B) was found to contain a substantial quantity of lithic material, but ceramics were rare throughout the deposit. Zone B may represent additional prehistoric activities in the Duck's Nest sector or materials redeposited as the result of erosion to the north of our excavations, but further testing will be required to interpret this stratum. Significantly, no features (with the exception of a burned post) were encountered in the subsoil below Zone C and only a single cultural feature could be defined within the entire excavated area.

Feature 20 was an ovoid concentration of charcoal and artifacts with its center roughly corresponding to our N108/E104 grid marker. The feature was essentially contained within Zone C, but two deeper components (Features 20-A and 20-B) were observed in square N108/E102. The components consisted of shallow basins about 50 cm in diameter that had been excavated into the subsoil to depths of 10 and 30 cm, respectively. Both exhibited burned sides and contained large quantities of charcoal, but artifacts were much more numerous in Feature 20-A. These included over 50 ceramic sherds, a broken chert drill, and a edge fragment of a projectile point/knife. A third related component, Feature 20-C, was defined for a concentration of sandstone and sherds located on the E104 grid line, slightly to the north of the other components. The two uncorrected radiocarbon dates for the Duck's Nest sector were obtained from charcoal samples collected from Features 20-A and 20-B. These are A.D. 125 $\pm$ 105 (UGa-4677) and A.D. 245 $\pm$ 70 (UGa-4678), respectively, indicating that the activities represented by the Duck's Nest sector deposits took place around A.D. 200.

The Duck's Nest sector excavations produced an artifact assemblage markedly different from other excavated areas at the Pinson Mounds site and the quantity of artifacts recovered greatly exceeds the norm. Sandstone, which is associated primarily with crematory basins at the site, was heavily concentrated in this locality, ranging from 250 g in N112/E106 to 3851 g in N110/E102 (see Fig. 27a; the weights are only for material recovered from Zone C). Pieces of chert debitage were numerous (N = 883) and a total of 56 chert tools was found within Zone C. Many of the latter are broken fragments. Three pieces of galena and a pair of large, bifacially worked ferruginous siltstone objects were also recovered. Numerous fragments of calcined bone were collected from virtually every excavation unit, but none were large enough to permit identification. Finally, the excavations yielded 2174 ceramic sherds from 47 minimal vessels (as well as several hundred sherds not assignable to one of these vessels), including a number of vessels (N = 10) that are demonstrably non-local in their origin. Most vessels are represented only by small restorable fragments, but more extensive restoration was possible with several.

The artifact assemblage from the Duck's Nest sector, as well as the abundance of calcined bone and the dearth of features, indicates that this locality does not represent a habitation or refuse disposal area, but rather a specialized activity area. Specifically, the deposits appear to reflect mortuary activities that included cremations, interment of funerary vessels, and intentional dispersion of the cremation remains and ceramics throughout the area.

The ritual activities at the Duck's Nest sector appear to have been centered in and around Feature 20 and its components. As shown in Figs. 27 and 28, the two excavation units in which most of this feature occurred (N108/E102 and N108/E104) yielded not only the largest quantities of ceramics (654 sherds or 30 percent of the total), but also contained sherds from 34 of the 47 identifiable vessels represented in the assemblage. These squares also exhibited very heavy concentrations of sandstone (a combined total of 3557 g), but the greatest quantity (3851 g) was recovered from N110/E102, just to the north of Feature 20. Two small basins measuring about 26 cm in diameter and 14 cm deep, that contained charcoal, calcined bone, and small quantity of lithics and ceramics, were located near the eastern edge of the latter unit, but most of the sandstone was recovered from an area about 70 cm in diameter near the center of the square that had been extensively disturbed by tree roots. This may have been a feature similar to Feature 20, although relatively few pottery sherds and only a small amount of charcoal occurred in the deposit. 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 (34 percent) of the tools recovered. Chert debitage numbered 102 and 92 specimens in squares N108/E104 and N110/E102, respectively, but only 36 flakes were found in N108/E102. It should be noted that N110/E108 contained high frequencies of both lithic tools (N = 5) and chert debitage (N = 96), but relatively little sandstone (434 g) and pottery (76 sherds). Additional excavations in the Duck's Nest sector will be required to satisfactorily interpret these and other distributional patterns presented in Figs. 27 and 28.

LITHIC ARTIFACTS

The frequency of chert tools and debitage throughout the Pinson Mounds site is generally quite low, probably because the site was not a locus for long-term habitation and due to the lack of an adequate chert source within a least a 40 km radius of the site. The large quantity of debitage and tools in the Duck's Nest sector is without parallel at the site, but, as at other localities, Fort Payne chert is the predominant raw material represented in the assemblage. Many flakes have been thermally altered, but it is not clear if the alteration took place prior to their deposition in the Duck's Nest sector. Siltstone flakes were also numerous (N = 467), with more than 25 percent of these recovered from the area of Feature 20. It seems likely that this readily available material was frequently employed in lieu of chert at Pinson Mounds and other Middle Woodland sites in the Forked Deer River drainage.

With regard to the chert tools, the high incidence of broken specimens, including bifacial edge fragments (N = 16), midsections (N = 8), distals (N = 8), and basal fragments (N = 6), is a particular interest. These artifacts were presumably employed in mortuary activities at the Duck's Nest sector, but it is not possible at this time to identify the specific

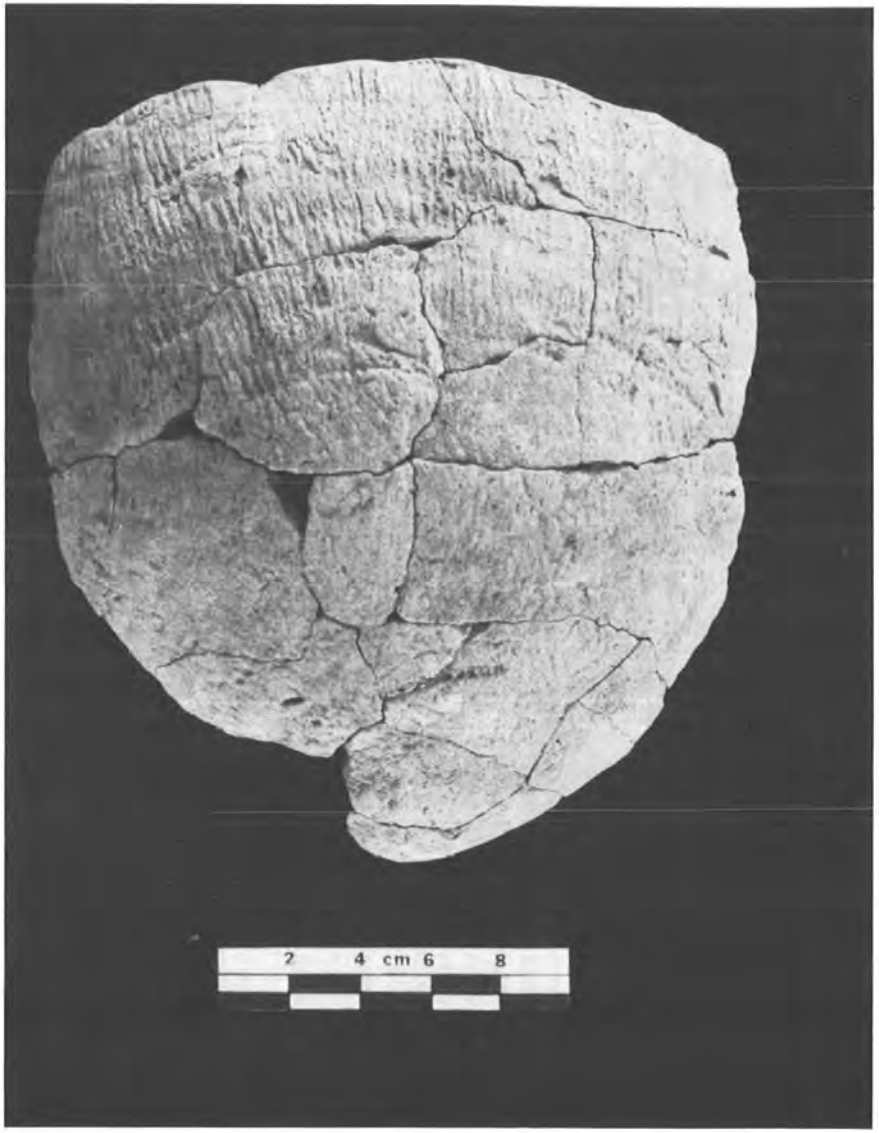


Fig. 24. Partially restored ceramic vessel from Feature 18.

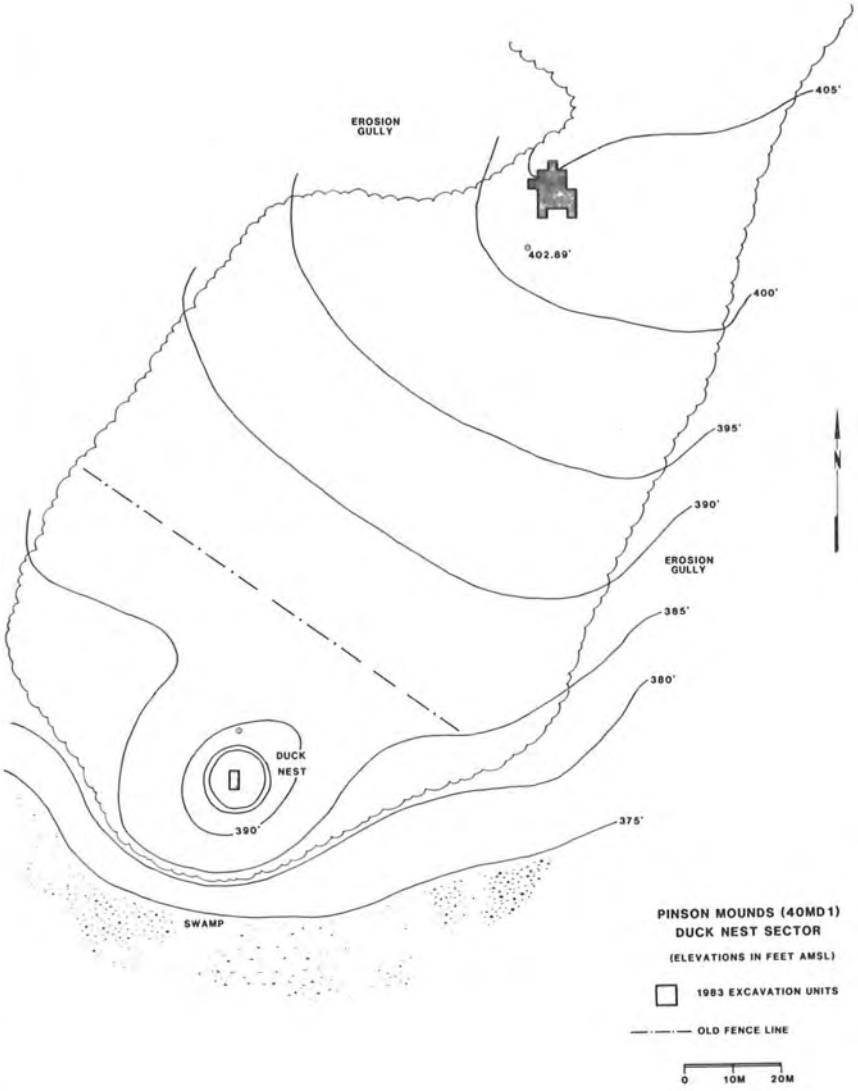


Fig. 25. Duck's Nest sector.

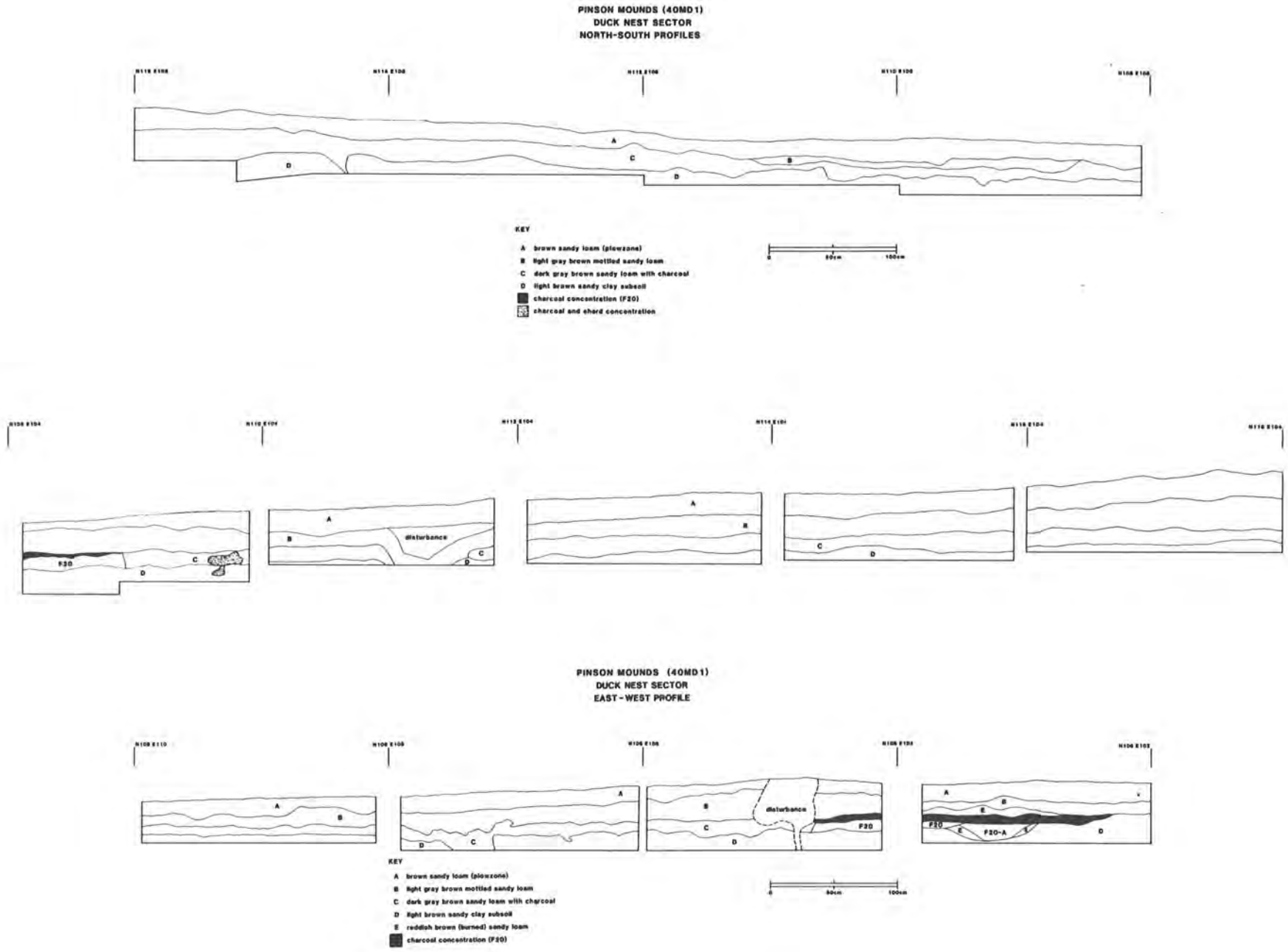
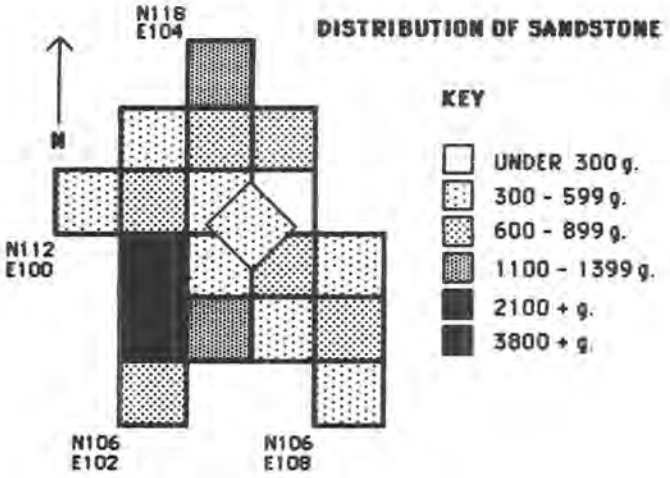
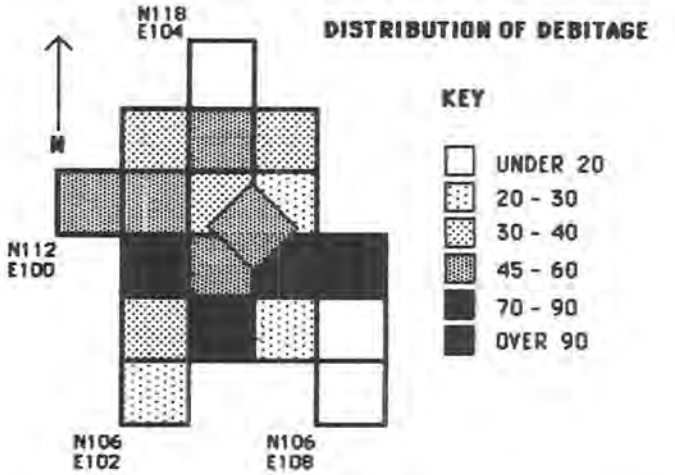


Fig. 26. Duck's Nest sector profiles.





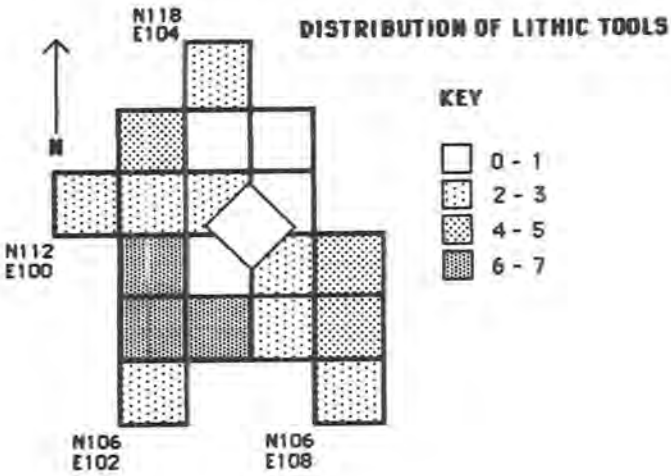
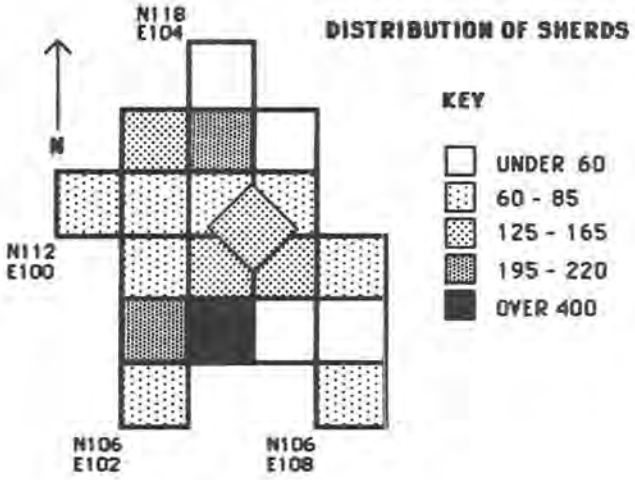


Fig. 27. Duck's Nest sector. Distribution of lithics.



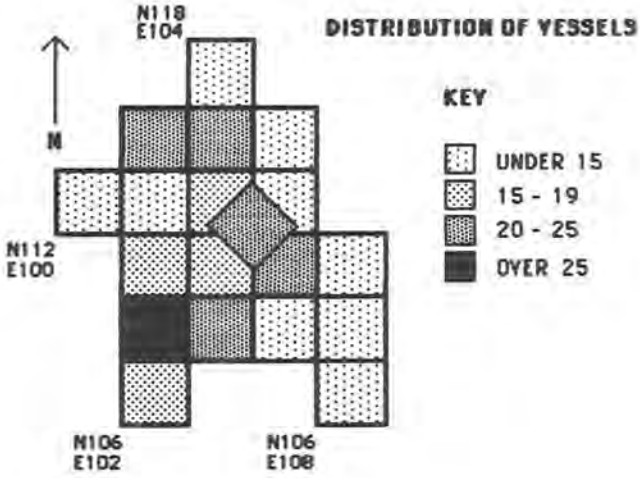


Fig. 28. Duck's Nest sector. Distribution of ceramics.

tasks that produced the breakages. Nine identifiable complete or broken projectile points were recovered from Zone C during our excavations, of which four sepcimens are non-Middle Woodland types; these include several Dalton variants (two of which were manufactured from a banded light orange to light red chert) and a reworked Big Sandy (see Fig. 29). The frequency of pre-Middle Woodland points may indicate the presence of an Early Archaic component in the immediate vicinity of our excavations, although it seems likely that these artifacts were re-used by Middle Woodland peoples. Points attributable to the Middle Woodland period are variants of the types Flint Creek and Gary (Cambron and Hulse 1975; Futato 1977).

The large, bifacially worked siltstone objects (Fig. 30) were found together in the southeastern corner of square N112/E100; there was no indication of a feature. A limited amount of smoothing is evident on the larger specimen, while the other exhibits only flake soars. These artifacts resemble the greenstone "digging tools" found at a number of Copena sites (Walthall 1973; Webb and DeJarnette 1942) and are also similar to an object recovered from the Pharr Mounds (Bohannon 1972:108), although the latter has been more extensively ground.

Three pieces of galena were recovered from the Duck's Nest sector, none of which have been modified. These objects range in weight from 2.4 to 19.1 grams. Morse's (this volume) excavations in the Mound 14 sector yielded a small, worked galena artifact, that was found in associated with a sherd of Swift Creek Complicated Stamped pottery, a ceramic type that is also represented in the Duck's Nest sector.

CERAMIC ASSEMBLAGE

Zone C (the dark soil horizon) appears to be the product of a single cultural event and the ceramic assemblage can be viewed as a cross-section (not necessarily representative) of mid-south and southeastern pottery at the *circa* A.D. 200 horizon. The vast majority of the ceramics (1356 sherds from 19 vessels) are decorative variants of the type Furrs Cord Marked. This is the dominant Middle Woodland ceramic type throughout much of west Tennessee and the examples from Pinson Mounds are generally indistinguishable from the Furrs Cord Marked sherds found along the Tombigbee River to the south (Ned Jenkins, personal communication). However, several of the Duck's Nest sector vessels exhibit paste, temper, and decorative treatments that suggest that they were not produced in the general vicinity of the Pinson Mounds site.

The largest Furrs Cord Marked vessel (Fig. 31a) is represented by 313 body sherds and 16 rims, most of which were found in association with Feature 20 in N108/E104. This appears to be a utilitarian jar with a conoidal base and has a diameter of about 24 cm. The folded rim is a treatment quite common on vessels of this type from Pinson Mounds. The Furrs Cord Marked vessel illustrated in Fig. 32 includes 73 body and 13 rim sherds. Measuring about 22 cm in diameter, this pot is generally similar to the previous example, but its thin walls (3.9 - 5.5 mm) suggest that it may have been manufactured as a mortuary offering. Another possible funerary vessel, represented by 294 body and seven rim sherds, is illustrated in Fig. 31b. The walls are extremely thin (3.2 - 5.4 mm) and the cord impressions have been completely obliterated by smoothing on many sherds. A fairly small vessel with a diameter of approximately 20 cm, this example has a straight rim and a slightly rounded lip.

The burnished interior and careful application of the cord impressed decoration virtually perpendicular to the rim suggest that the partial vessel shown in Fig. 31c was also produced specifically as a mortuary offering. Although both the interior and exterior surfaces are extremely prone to erosion, 107 sherds (including 14 rims) were assignable to this pot. Portions of another probable Furrs Cord Marked ceremonial vessel are illustrated in Fig. 33. Some sherds exhibit a complex pattern of perpendicular overstamping, while all decoration has been smoothed over in some areas. Possible fingernail punctations were applied over the cord impressions on several illustrated sherds and the interior is covered with a thick, shiny deposit of carbon, presumably from charred food remains. The remaining Furrs Cord Marked vessels are illustrated in Figs. 34 through 38. Of note are the thin-walled vessel decorated with fine (1.1 mm diameter) cord (Fig. 34d), the rim notches on the example shown in Fig. 34b, the thick walls (5.5 - 11.9 mm) of the vessel illustrated in Fig. 35a, and the application of individual cord impressions over the paddle applied decorations on the fragmentary vessel in Fig. 36a. All of the Furrs Cord Marked vessels seem to be conoidal jars, although basal fragments are not well represented in the assemblage. Diameters average approximately 24 to 28 cm, but range from 18 to 34 cm. Most vessels were too fragmentary to permit depth measurements.

Baldwin Plain, the plain surfaced companion type to Furrs Cord Marked (Jennings 1941; Jenkins 1981), was represented by only 193 sherds from six vessels in the Duck's Nest sector assemblage. The best-made of these (Fig. 39b) was smoothed and burnished on both the interior and exterior; these surfaces are extensively eroded on most sherds. The diameter of this vessel is approximately 22 cm. Measuring approximately 40 cm in diameter, the largest partially restored example of Baldwin Plain is illustrated in Fig. 40. Although smoothed, the exterior is slightly irregular and numerous tooling marks are visible. A series of irregularly spaced notches decorate the rim of a single Baldwin Plain vessel (Fig. 39d); this is believed to be a non-local decorative technique. Several thick basal fragments from one or more flat-bottomed jars have been grouped together as a minimal vessel, although these may actually be fragments of one of the other vessels. The remaining Baldwin Plain vessel rims are illustrated in Figs. 39a and 39c.

The Duck's Nest sector yielded a small sample of fabric marked ceramics. Most of the sherds (N = 117) are fragments of the Withers Fabric Marked *var. Twin Lakes* vessel in Fig. 41b; the folded rim of this vessel is of interest. A narrower, undecorated folded rim is exhibited by a Saltillo Fabric Impressed vessel (Fig. 41d). The surface of this example is especially rough and is similar to a specimen illustrated by Jenkins (1981, Fig. 42D). Fig. 41a illustrates a slightly everted Saltillo Fabric Impressed rim. The two remaining examples, one of which is illustrated in Fig. 41c, exhibit partially smoothed over decoration.

The sand tempered jar in Fig. 42 is represented by 46 body and six rim sherds; it does not correspond to existing type definitions and is probably not of local manufacture. Decoration began by malleating the pot with a cord-wrapped paddle. This was followed by the application of a series of individual cord impressions at an angle of about 45° to the initial decoration. Some fingernail punctations were also applied.

Two very fragmentary Baytown Plain *var. Tishomingo* vessels were identified, one of which (Fig. 43b) exhibits an everted rim. No rim sherds were recovered from the other Baytown Plain *var. Tishomingo* (Fig. 43a) example or the Mulberry Creek Cord Marked *var. Tishomingo* vessel (Fig. 43c), which are represented by nine and 17 sherds, respectively. A fragment of another possible Mulberry Creek Cord Marked *var. Tishomingo* vessel is illustrated in Fig. 43d. The temper is composed of coarse sand, up to 2.4 mm in diameter, and fragments of fired clay (not broken sherds). Jay Johnson (personal communication) reports finding similar ceramics in the North Central Hills region of Mississippi. The sand and bone tempered plainware vessel (not illustrated) consists of only five fairly small sherds, leaving open the possibility that the calcined bone was not intentionally used as a tempering agent.

While the possibility of non-local manufacture has been suggested for some of the ceramics discussed above, 10 fragmentary vessels in the Duck's Nest sector assemblage are unequivocal examples. The limestone tempered plain (Fig. 44a) and cord marked (Fig. 44b) vessels, represented

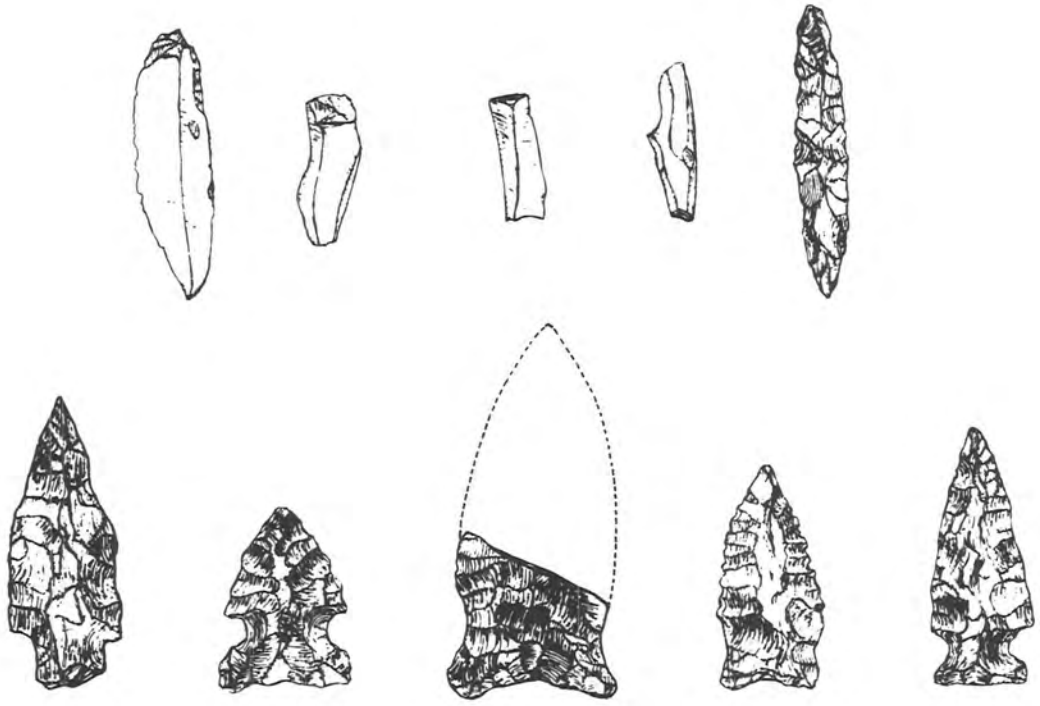


Fig. 29. Duck's Nest sector. Selected lithics.

Fig. 30. Duck's Nest sector. Bifacially worked siltstone objects

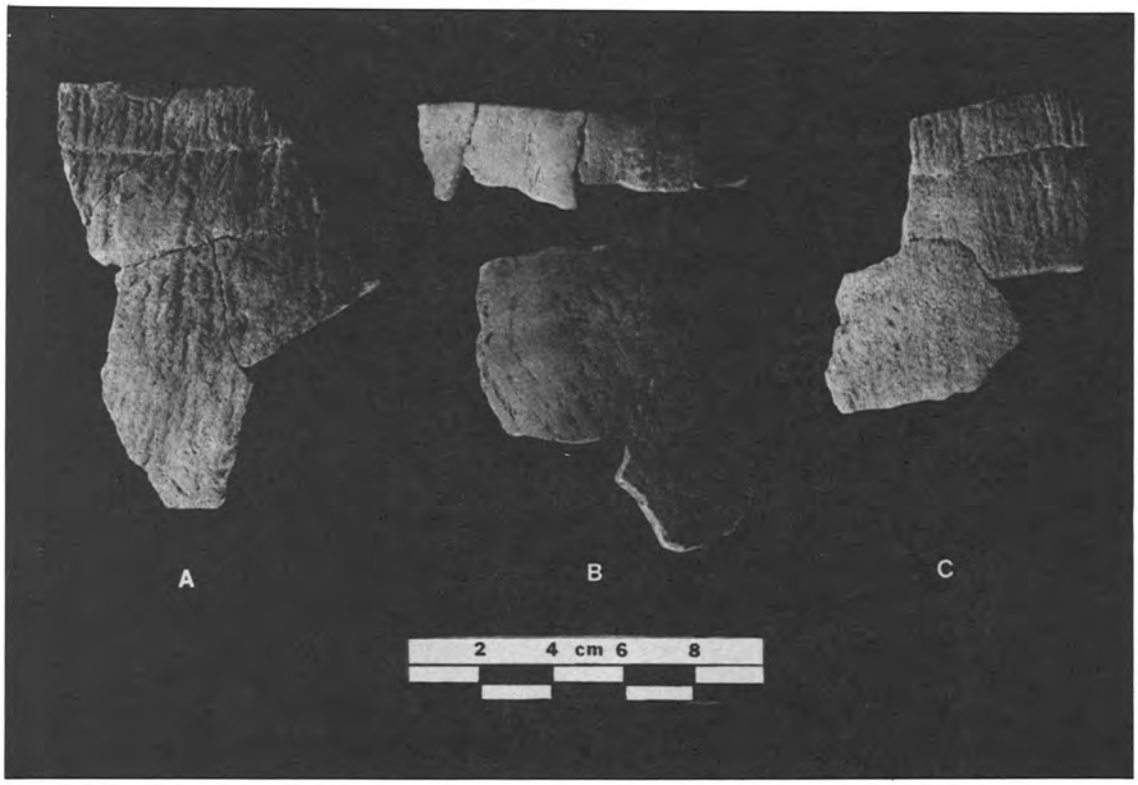


Fig. 31 a-c. Duck's Nest sector. Furrs Cord Marked ceramics.

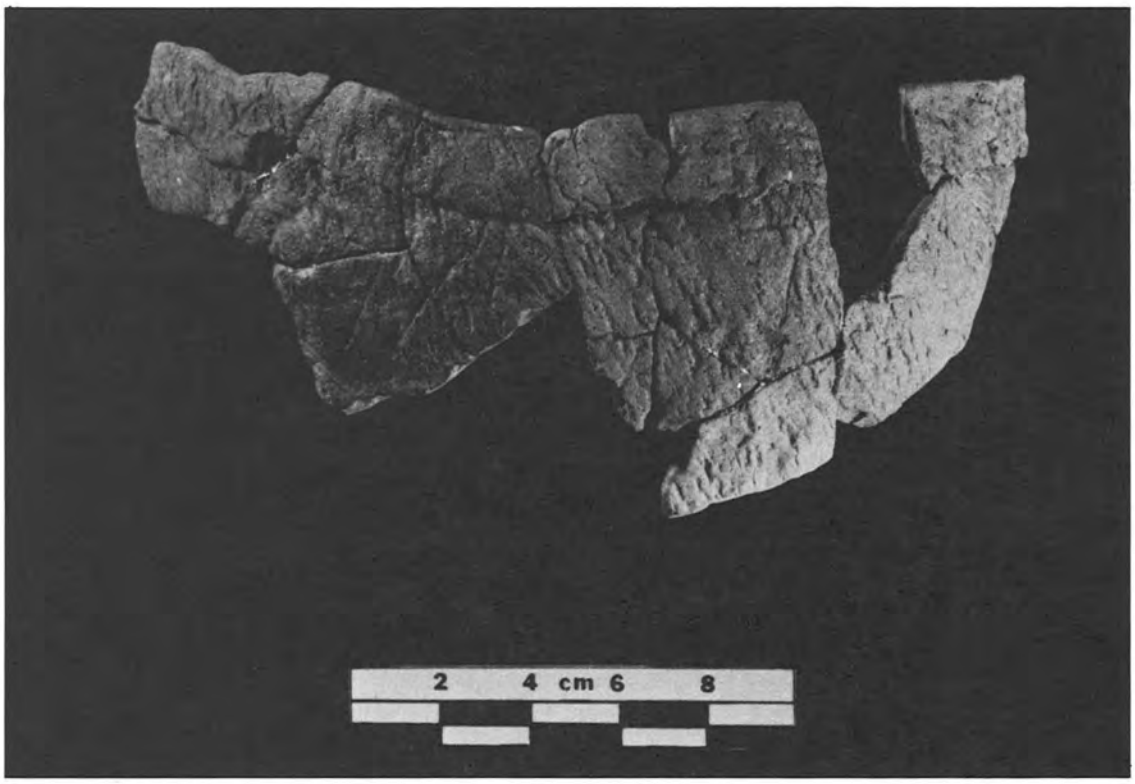


Fig. 32. Duck's Nest sector. Partially restored Furrs Cord Marked vessel.

Fig. 33. Duck's Nest sector. Partially restored Furrs Cord Marked vessel.

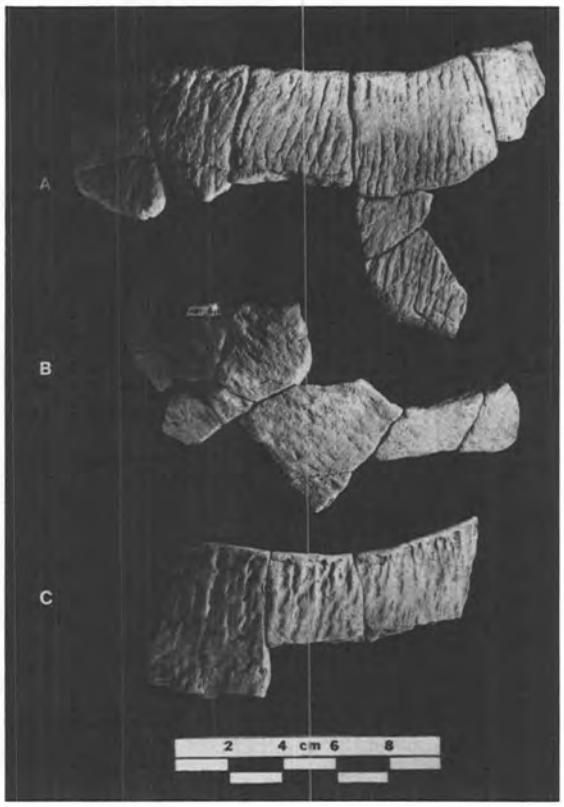


Fig. 35 a-c. Duck's Nest sector. Furrs Cord Marked ceramics.

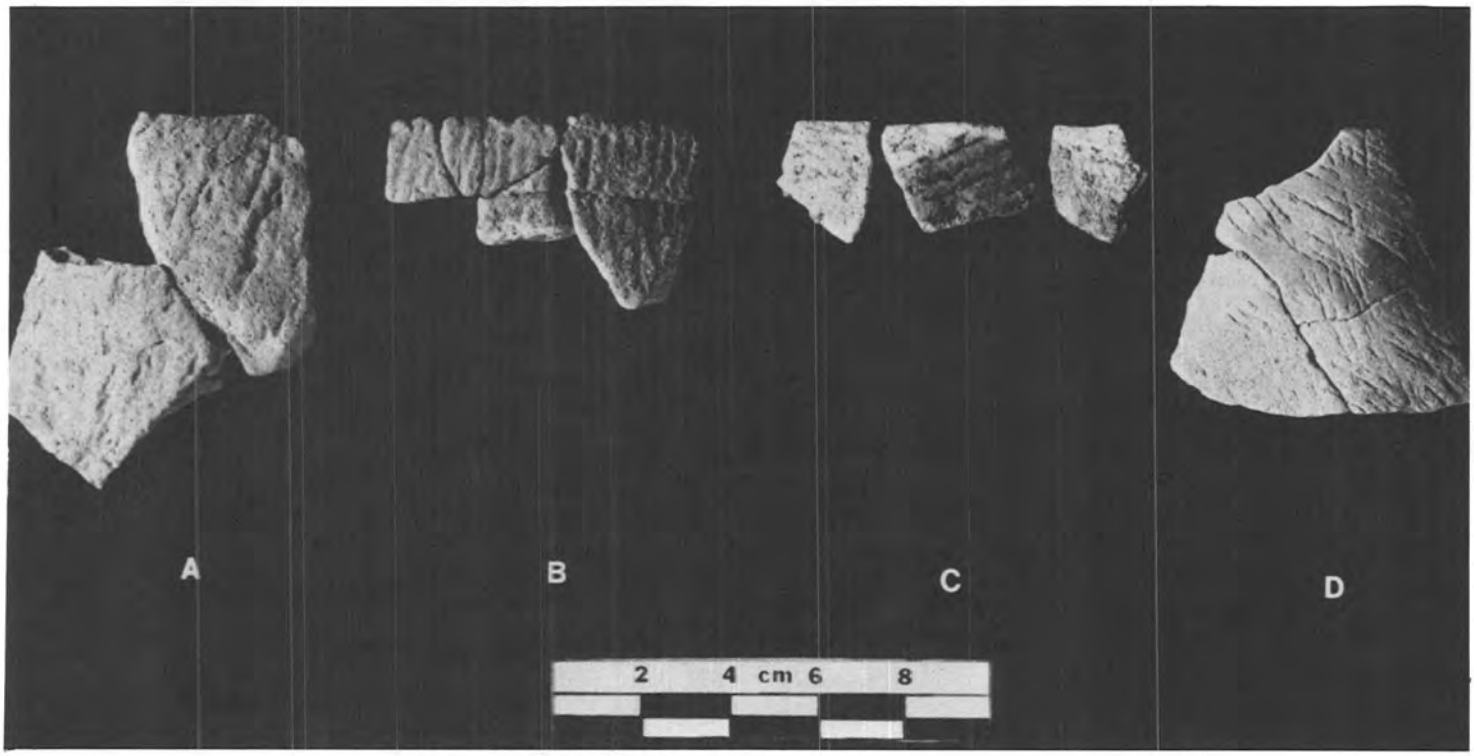


Fig. 34. a-d. Duck's Nest sector. Furrs Cord Marked ceramics.

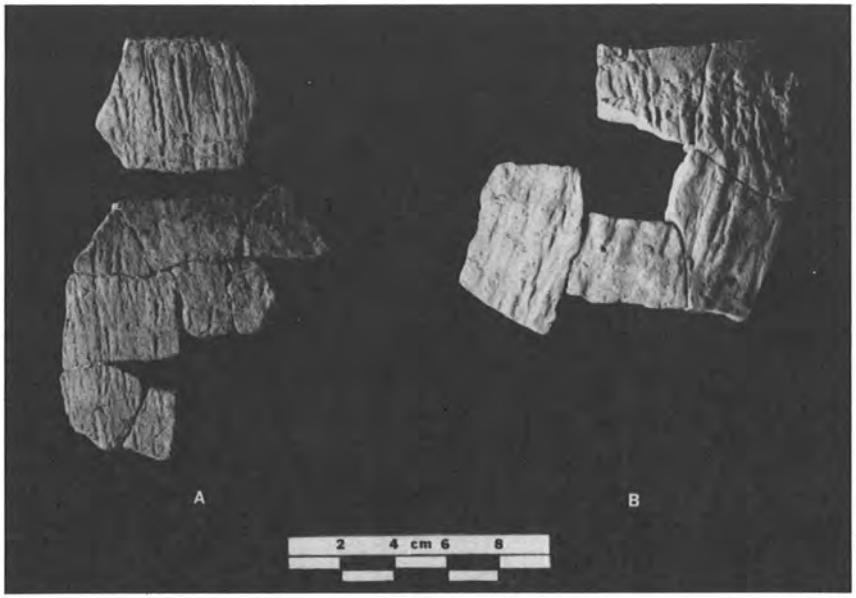


Fig. 36 a-b. Duck's Nest sector. Furrs Cord Marked ceramics.

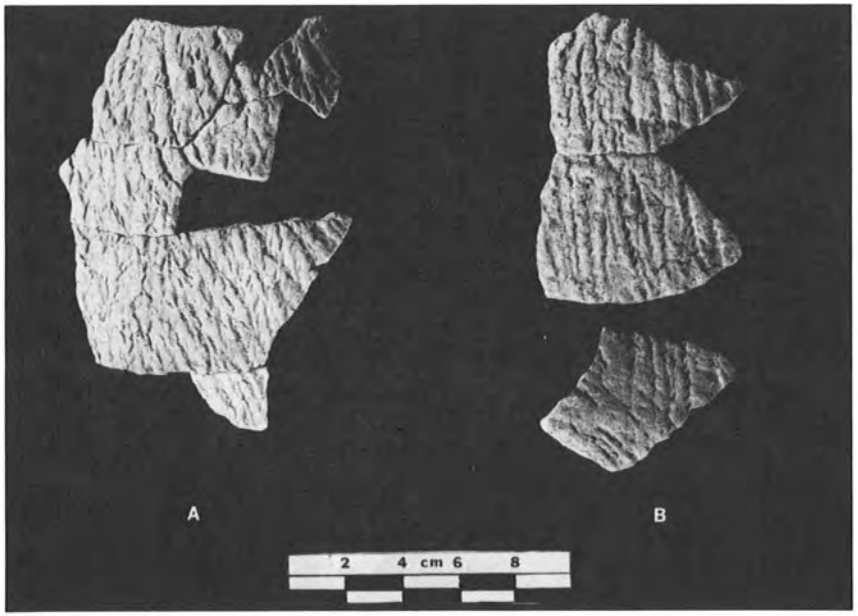


Fig. 38 a-b. Duck's Nest sector. Furrs Cord Marked ceramics.

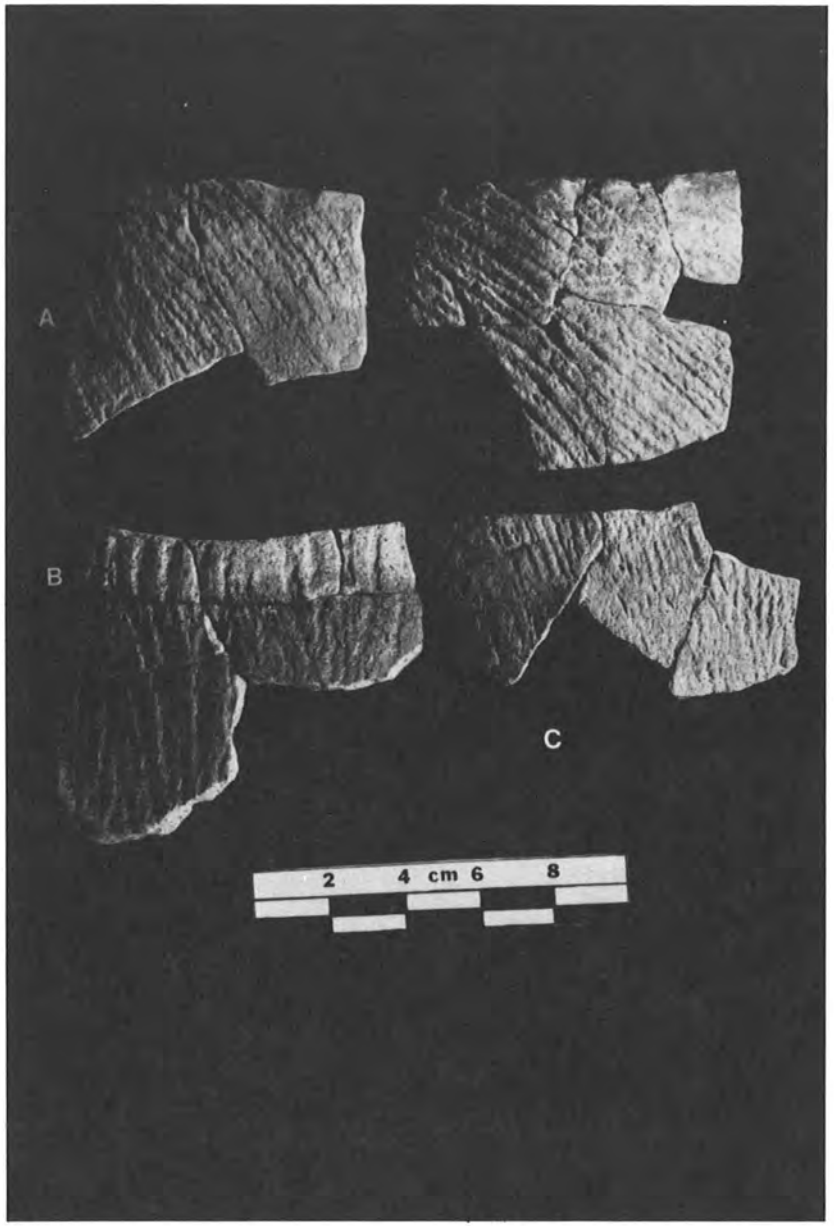


Fig. 37 a-c. Duck's Nest sector. Furrs Cord Marked ceramics.

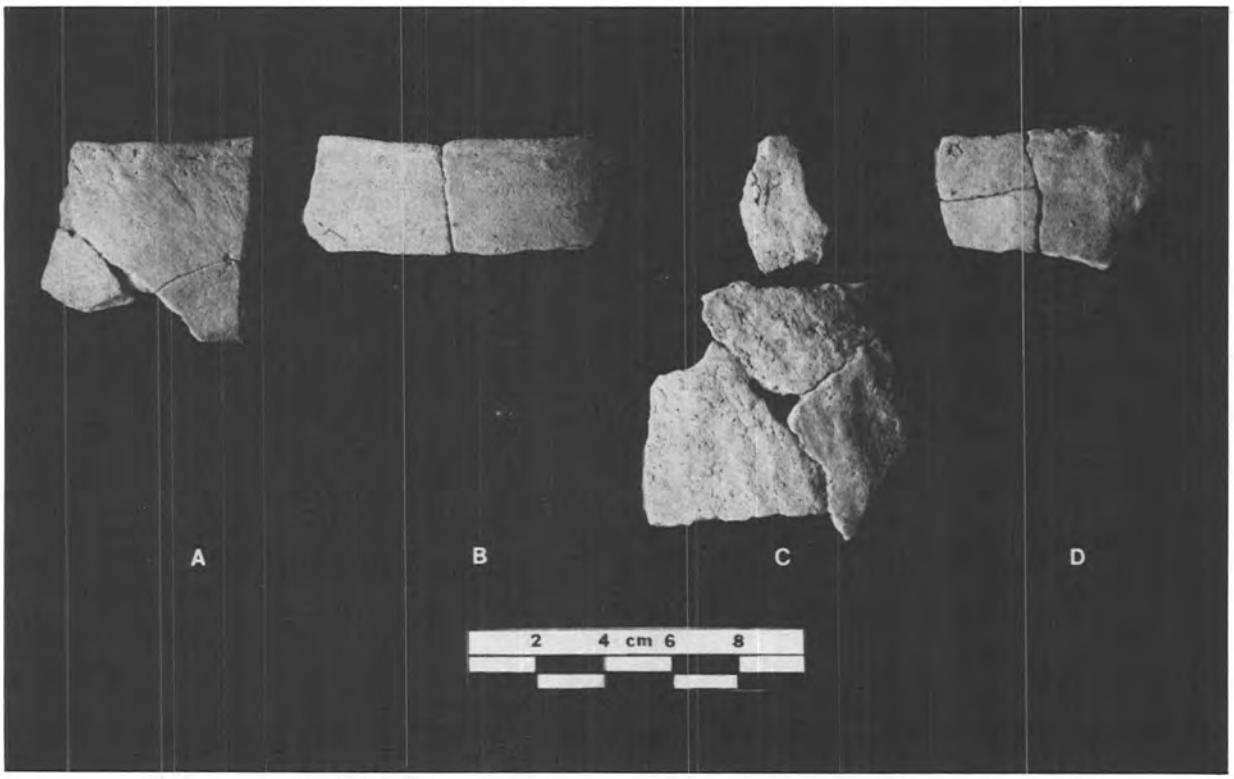


Fig. 39 a-d. Duck's Nest sector. Baldwin Plain ceramics.

Fig. 40. Duck's Nest sector. Partially restored Baldwin Plain vessel.

Fig. 41 a-d. Duck's Nest sector. Fabric marked ceramics.

Fig. 42. Duck's Nest sector. Partially restored sand tempered cord marked vessel.

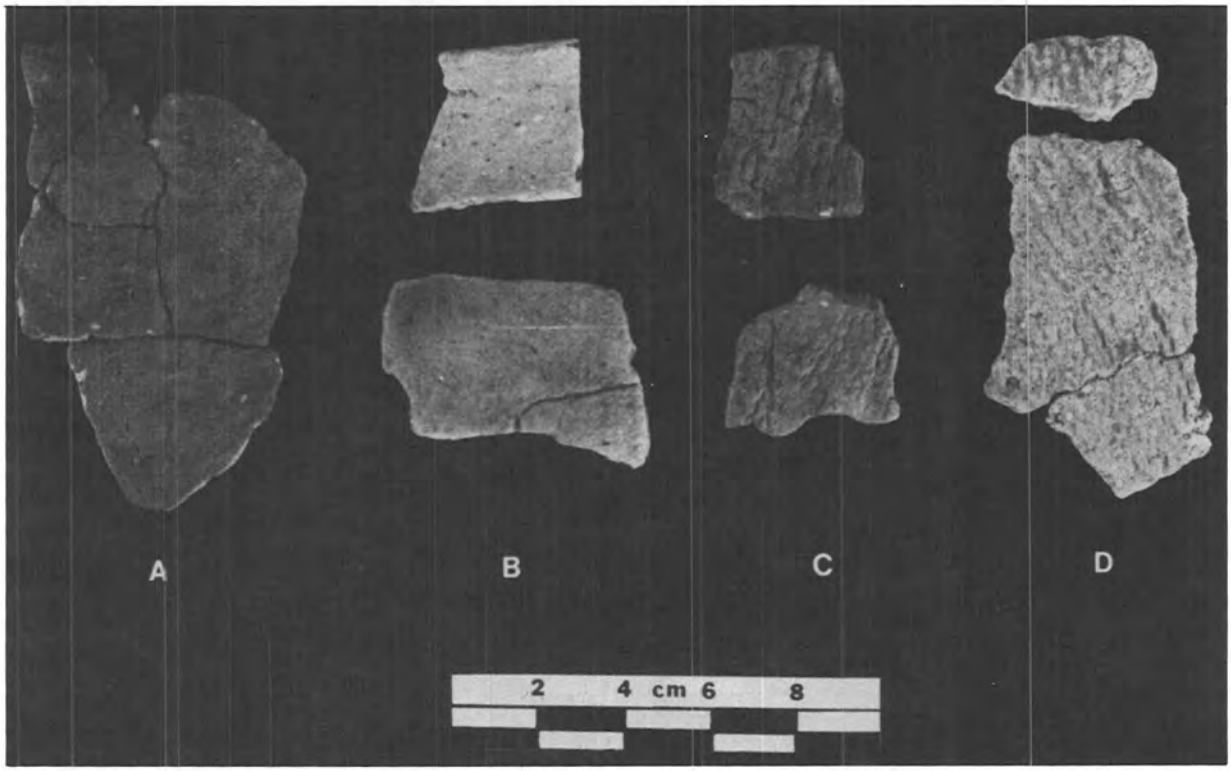


Fig. 43 a-d. Duck's Nest sector ceramics. a,b: Baytown Plain var. Tishomingo. c,d: Mulberry Creek Cord Marked var. Tishomingo.

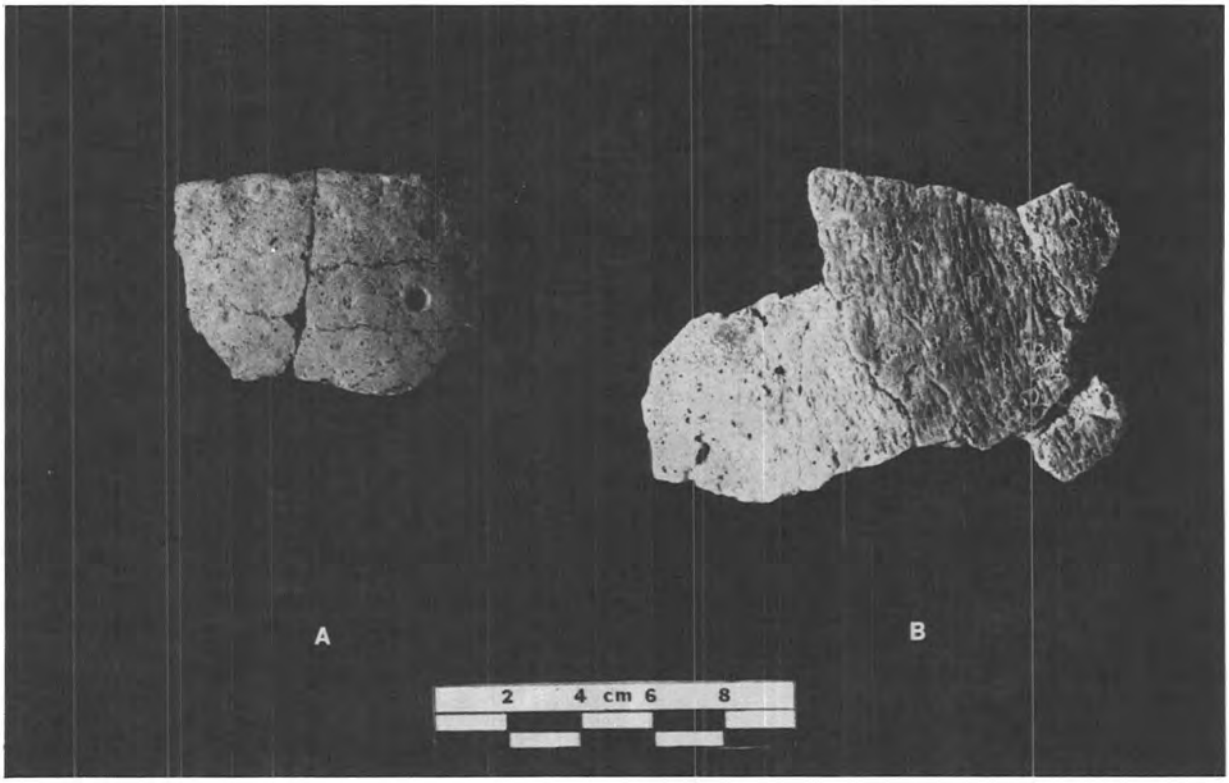


Fig. 44 a-b. Duck's Nest sector. Limestone tempered ceramics.

Fig. 45. Duck's Nest sector. Swift Creek Complicated Stamped ceramics (lower two sherds from 1974 excavations).

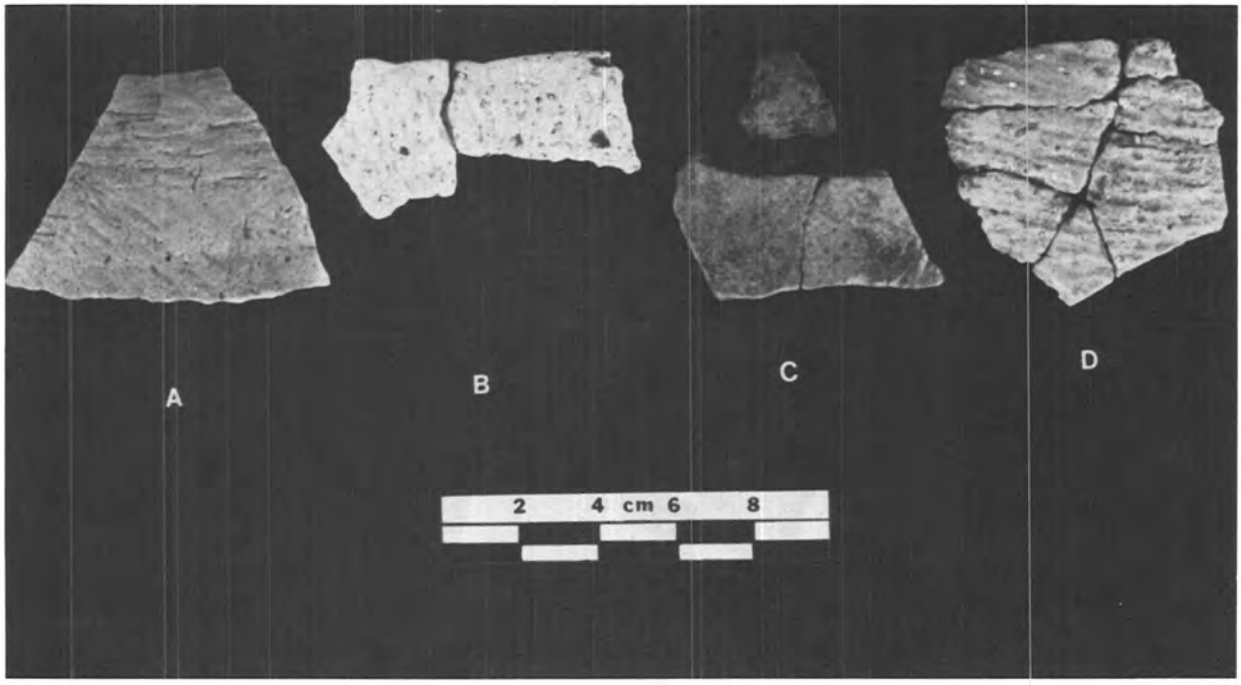


Fig. 46 a-d. Duck's Nest sector ceramics. a: McLeod Simple stamped. b: Turkey Paw Cord Marked. c: burnished plainware. d: grit tempered cord marked.

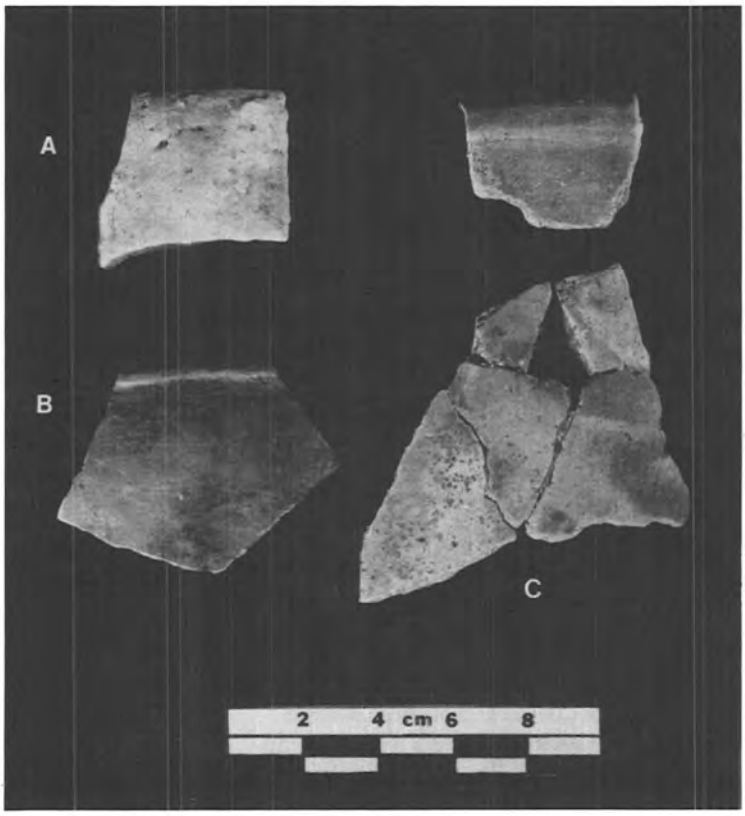


Fig. 47 a-c. Duck's Nest sector. Red filmed ceramics.

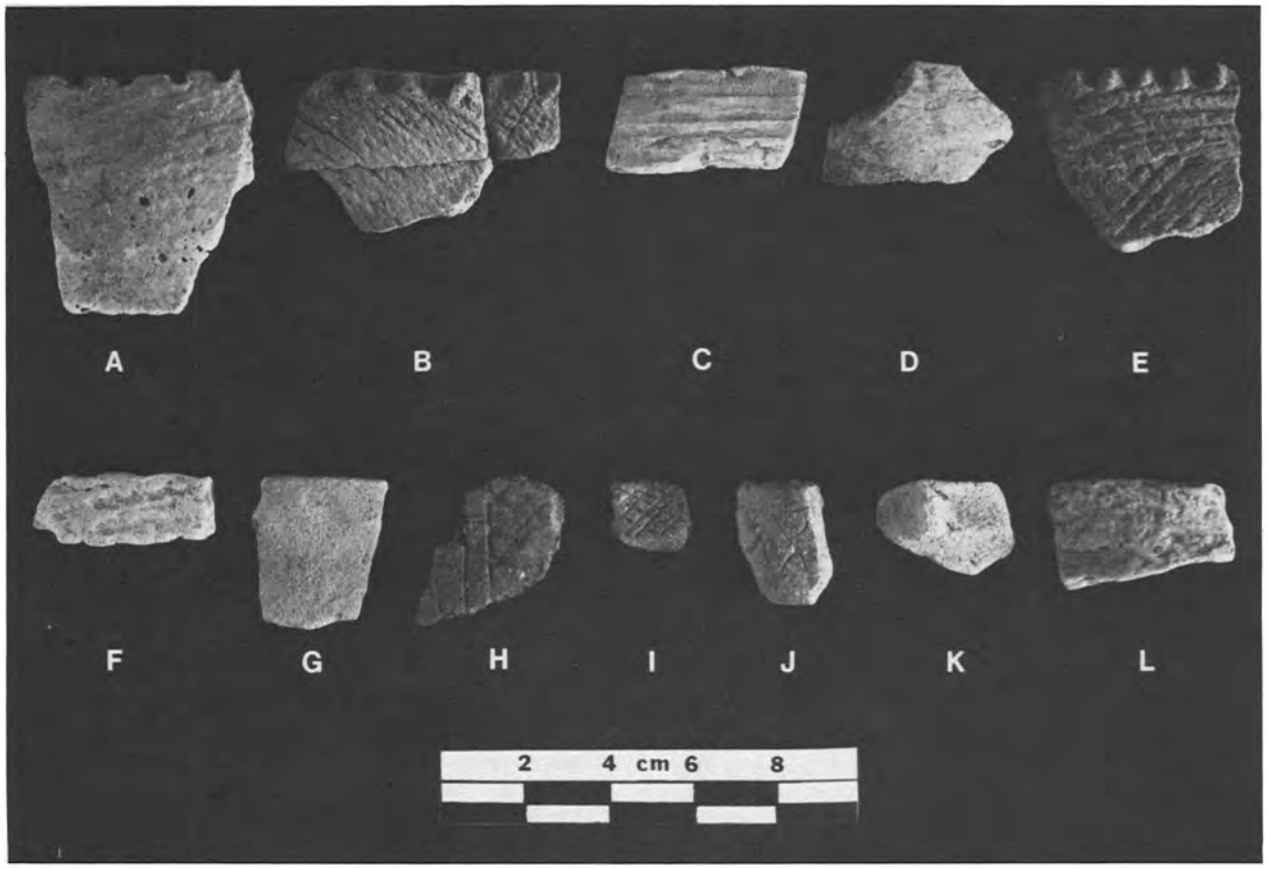


Fig. 48 a-l. Duck's Nest sector ceramics. a: sand and limestone tempered cord marked. b,e,f: non-local (?) Furrs Cord Marked. c: possibly Carrabelle Incised. d,g: Baldwin Plain. h,i: possibly Keith Incised. j: sand tempered pipe fragment. k: sand tempered lug. l: Mulberry Creek Cord Mark var. Tishomingo.

by 68 and 26 sherds, respectively, were probably produced in the Tennessee River valley area. Several sherds of Early Swift Creek Complicated Stamped were recovered from a feature in the Mound 14 sector during the 1974 field season, but the design elements on these sherds (Fig. 45, bottom) contrast markedly with those exhibited by the 74 sherds (representing one or two vessels) from the Duck's Nest sector (Fig. 45, top rows). A single specimen from the Twin Mounds sector, incorrectly identified as Marksville Stamped, is similar to the Duck's Nest sector examples (Mainfort [ed.] 1980:76).

The sand tempered burnished plain vessel (Fig. 46c) may have been red filmed, but the surface has been altered by exposure to fire. Most of the 57 attributable sherds are reddish-orange in color. Except for the temper, this vessel is very similar to some Weeden Island ceramics (David Brose, personal communication). Represented by 84 sherds (no rims), the thick (7.5 - 13.0 mm) grit tempered cordmarked vessel illustrated in Fig. 46d may be related to the Watts Bar series from east Tennessee, although its place of origin is uncertain. It was clearly not manufactured in the Pinson Mounds area. Jenkins (1981:158-161) has recently defined the bone tempered ceramic type Turkey Paw Cord Marked for the Gainesville Reservoir and 10 sherds, including two rims, of this type were identified in the Duck's Nest sector assemblage (Fig. 46b). Twenty-three sherds, including six rims, comprise part of a McLeod Simple Stamped vessel (Fig. 46a), a type originally described by Wimberly (1960:132-133) for the McLeod Deptford period in the Lower Tombigee.

At least two, and perhaps three, red filmed or painted vessels are represented in the collection from the Duck's Nest sector; all are tempered with fragments of baked clay. The most complete of these (Fig. 47a) is a conoidal jar with a straight rim; 14 sherds from this vessel were recovered. Surface coloration has been extensively altered due to exposure to fire. The remaining sherds consist of two thickened and outslanting rims (Fig. 47b-c) and five body sherds. Although the rims are similar in style, they appear to derive from two distinct vessels. These red filmed ceramics are similar to some Middle Woodland wares from northern Florida (David Brose and Stephen Williams, personal communications), but may also be variants of Larto Red. A virtually identical specimen was found at the Ingomar site, a Middle Woodland platform mound site in northern Mississippi (Rafferty 1984) and, at Pinson Mounds, additional examples have been recovered from Mound 10, the Twin Mounds sector, the Mound 14 sector, and in the upper occupation floor below Mound 12. Miscellaneous rim and body sherds are illustrated in Fig. 48. Included among these is a fragment of a sand tempered incised pipe (Fig. 48j).

The horizontal distribution of individual vessels in the Duck's Nest sector warrants some comment (see Fig. 28). As noted earlier, 34 of the 47 minimal vessels were represented in squares N108/E102 and N108/E104. However, sherds from most vessels (especially the larger ones) were distributed throughout six or more excavation units. While this might raise questions about the accuracy of minimal vessel identification, it was often possible to reassemble sherds found several meters apart. Concentrations of sherds representing single vessels were not infrequent, however. For example, Feature 20 contained over 75 percent of the sherds attributed to the Furrs Cord Marked vessel illustrated in Fig. 31a and the thick grit tempered pot (Fig. 46d). In contrast, 57 percent of the sherds assigned to the thin walled Furrs Cord Marked jar (Fig. 31b) were found in squares N114/E102 and N114/E104, but sherds from this readily identifiable vessel occurred in almost every excavation 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 argue for the processing of most vessels through this feature and their intentional dispersal throughout the Duck's Nest sector deposits. However, a limited number of vessels were apparently not processed through this locality, raising the possibility of additional features that may have been unrecognizable due to root and rodent disturbances.

SIGNIFICANCE OF THE DUCK'S NEST SECTOR

Seeman (1977:195-196) has recently noted the relative paucity of non-local ceramics recovered from Middle Woodland mortuary contexts and the occurrence of 10 unquestionable non-local vessel fragments in the Duck's Nest sector appears to be unique. Whereas in the past, the presence of non-local ceramics at Pinson Mounds might have been viewed as evidence of "influences" from southern Georgia, the Lower Tombigbee, and so forth, a consideration of how these vessels came to be deposited and their implications for the role and function of the site leads to more useful, albeit still rather speculative, conclusions.

During the period from roughly A.D. 1 to 300, Pinson Mounds was the largest ceremonial site in the southeast, if not all of eastern North America, and it is virtually certain that the existence of the site was known to peoples within a radius of at least several hundred miles. Further, the size of the site and even some of the individual mounds points to the mobilization of a work force far beyond the capacity of the population inhabiting the general vicinity (i.e., within a 50 km radius). Historic accounts contain numerous references to exceptionally long journeys embarked upon by Native Americans, for example, flotillas of canoes travelling from Green Bay, Wisconsin to Montreal, Canada - a distance of over 700 miles! It would not be unreasonable to suggest, therefore, that people travelled considerable distances to Pinson Mounds for the purpose of assisting in mound construction and/or participating in rituals at the site. Returning to the non-local ceramics from the Duck's Nest sector, these could have found their way to the site through trade or by being brought to Pinson Mounds by the societies that produced them for the specific purpose of employing the vessels in mortuary ceremonialism. Several points argue against the former, including the data from Seeman (1977) cited above.

The unique occurrence of a substantial number of non-local vessels from several different geographic areas suggests that these do not simply represent "trade ware", as does their fragmentary condition. Trade involving fragmentary ceramics seems rather unlikely. A better case can be made for these vessels being transported to the site by their makers as funerary offerings for individuals whose cremated remains are represented in the Duck's Nest sector deposits. The vessel fragments interred may be portions of whole vessels that were used in earlier phases of mortuary ritual, either at Pinson Mounds or elsewhere. The interment and mixing of the remains and mortuary offerings of a number of individuals from widely separated localities calls to mind the spirit of unity evinced by participants in the Feast of the Dead (e.g., Quimby 1966) and similar rituals throughout the eastern woodlands.

The Duck's Nest sector appears to have been the focal point of an important Middle Woodland mortuary ceremony. There is no indication that this locality was re-used during the Middle Woodland period and the dark soil horizon (Zone C) and its contents can be regarded essentially as a single feature. The quantity and number of ceramic types in the assemblage is reminiscent of Feature 45 in Mound C at Helena Crossing, which contained portions of 17 ceramic vessels, as well as numerous small fragments of calcined bone (Ford 1963:33-38). Galena, of which three pieces were recovered, is a relatively common mortuary item in the Tennessee River valley and elsewhere. The presence of calcined bone throughout the excavation area points to the deposition of a considerable quantity of cremated remains. Feature 20 and its three components imply that at least some cremation was actually taking place at the Duck's Nest sector, but the absence of other features is rather enigmatic.

It is known that the dark, artifact-bearing soil zone extends at least 20 m to the east of our excavations and for undetermined distances to the south and west. The assumed relationship between this area and the Duck's Nest remains problematic, partly because of the inconsistent radiocarbon assays obtained for the latter. While the area excavated in 1982 seems to encompass the most intensive use of the area, further investigation of the Duck's Nest sector may provide important evidence of additional features relating to mortuary ceremonialism.

Mound 6

The Twin Mounds, Mound 6 in William Myer's (1922) numbering scheme, are a pair of large conjoined conical burial mounds located about 200 m south of Ozier Mound (Figs. 2 and 6). The northern mound is 26 m (85 feet) in diameter and stands 7 m (23 feet) tall, while the southern mound appears to be slightly larger, with a diameter of 30 m and a height of 8 meters. The height of the overlapping area between the mounds is about 4.5 m (Figs. 6 and 49). Using the formula $V = \pi r^2 h/2$ (the volume of a parabaloid), volumes of 1857 m^3 (65,654 $feet^3$) and 2826 m^3 (98,009 $feet^3$) are obtained for the north and south mounds, respectively. Allowing for the volume of the overlap, the total volume of the earthwork is approximately 4000 m^3, making Mound 6 the ninth largest Middle Woodland burial mound recorded (see Seeman 1977:285-288; his figures should be multiplied by .91 to make them comparable to the volume formula used here). In fact, there are only 16 Middle Woodland burial mounds that are larger than the northern Twin Mound alone.

To the south of Mound 6 is a ceremonial habitation site that has been tested by Morse (this volume) and Broster (Mainfort [ed.] 1980). A second ceremonial habitation area or mortuary camp, the Cochran site (40MD23), is located about 200 m west of the Twin Mounds. Both of these areas date to the Middle Woodland period and the former appears to be associated with the mortuary events represented by the Twin Mounds.

Our excavations were confined to the northern mound. Approximately 930 m^3 of fill were removed between June 1 and October 19, 1983, resulting in the exposure of about 30 percent of the mound floor. A summary of the excavations is presented in the following sections.

EXCAVATION STRATEGY

The excavation strategy employed on Mound 6 was premised upon a number of considerations regarding the antiquity, function, internal structure, and contents of the mound. Test excavations immediately to the south of the Twin Mounds had revealed evidence of intense ceremonial use of the locality during the Middle Woodland period (Mainfort [ed.] 1980) and the nearby Mound 31 had also proven to be of Middle Woodland age. It was assumed, therefore, that the Twin Mounds were, if not contemporary with these features, at least constructed during the same general time period.

Since the ceramics recovered from Pinson Mounds have their greatest typological affinity with the assemblage associated with the Miller I and II phases to the south (Fischer and McNutt 1962; Mainfort [ed.] 1980; Jenkins 1981:82-83), it seemed likely that Mound 6 would be structurally similar to some of the excavated Miller burial mounds. These exhibit considerable structural variability and reported features include a large crematory platform at Pharr Mound E (Bohannon 1972), a charnel house underlying Bynum Mound B (Cotter and Corbett 1951), accretional burials at Miller Mound A (Jennings 1941), and several variations on these themes. The proximity of Pinson Mounds to the Copena cultures of the Tennessee River valley and the Helena Crossing mounds (Ford 1963) suggested other possible structural features that might be encountered during our excavations.

While the size of the Twin Mounds and the nature of the site as a whole strongly hinted at the presence of an elaborate central feature, probably surrounded by additional tombs, we felt constrained to proceed under the assumption that the mound would exhibit a very complex history and that any distinctive change in soil coloration, including dark, organic basketloads, could represent significant structural features. While this strategy obviously limited the amount of excavation that could be completed the construction data obtained was well worth the extra degree of care taken.

Since the Twin Mounds represent the only large burial mounds at the Pinson Mounds site, their excavation was and is critical to an understanding of the societies that built and used the site. However, it was never our intention to completely excavate the northern member of the earthwork during the course of a single field season, nor did we necessarily anticipate the removal of any large mortuary features. Rather, the principal objective was to make a general evaluation of the mound that would serve as a basis for more intensive excavations at a later date. The specific research goals were as follows: (1) to document the age and function of the mound; (2) to determine the construction sequence within the mound; (3) to make a preliminary evaluation of the mortuary program represented; (4) to utilize the evidence gleaned from the mound in formulating hypotheses about the socio-political structure of the societies that participated in ceremonial activities at Pinson Mounds.

The northern Twin Mound was selected for excavation because it is the smaller of the pair and because it had suffered an unknown amount of damage at the hands of a relic hunter. According to William Myer (n.d.a), who apparently received his information from J.G. Cisco, a local antiquarian and newspaper publisher, a local resident by the name of Sam Lancaster excavated a hole in to the east side of the mound to a depth of 10 feet in the 1880's, but there is no report as to what he found. The paucity of information about Lancaster's work suggests that he must not have encountered anything of particular interest to him (i.e., skeletal remains or elaborate artifacts), as does the fact that the southern mound remained untouched. Parenthetically, it should be mentioned here that our excavations revealed that Mr. Lancaster actually reached the floor of the mound, but, much to our good fortune, he missed the log covered tombs and found only the hard puddled clay cap over the floor and a concentration of large sandstone boulders. The handle from one of his shovels was found in the fill of his pit.

A rather large depression in the eastern side of the northern mound, approximately 3 m wide and as much as 2 m deep, gave testimony to Lancaster's industriousness (Fig. 50) and we planned our excavation strategy so as to take advantage of his efforts. An initial objective, therefore, was to level the interior of the depression to the depth of the disturbance reported by William Myer and to clean up the upper walls of the old excavation in order to ascertain the upper stratigraphy of the mound. At the same time, the lower stratigraphy was investigated by means of a slot trench 2 m wide into the north side of the mound at the base.

Supplementary stratigraphic information was obtained by a systematic series of auger tests along the mound's meridian and base line. Auger holes were place along these axes at two meter intervals and were excavated to a maximum depth of 2 m, or until the pre-mound ground surface was reached. Tests were conducted with a hand-held split spoon soil auger with a diameter of 3 cm and a tube length of 20 cm. Soil columns were recorded by texture, composition, and color. Records were made by a single individual in order to maintain consistency. Although the auger tests did provide us with some useful information regarding the stratgraphy of the mound, perhaps their greatest contribution lay in the demonstration that the mound almost certainly represented a single construction event, rather than an accretional structure.

The results of these initial testing operations determined the subsequent excavation strategy. A block excavation 4 m wide was opened on the east side of the mound in the general area of Lancaster's disturbance, bounded on the west side by the E4000 line (see below) and on the north and south sides by the N4004 and N4000 lines, respectively (Figs. 51 and 52). Additionally, the two meter trench begun on the north face of the mound along the E3998 line was continued south to within

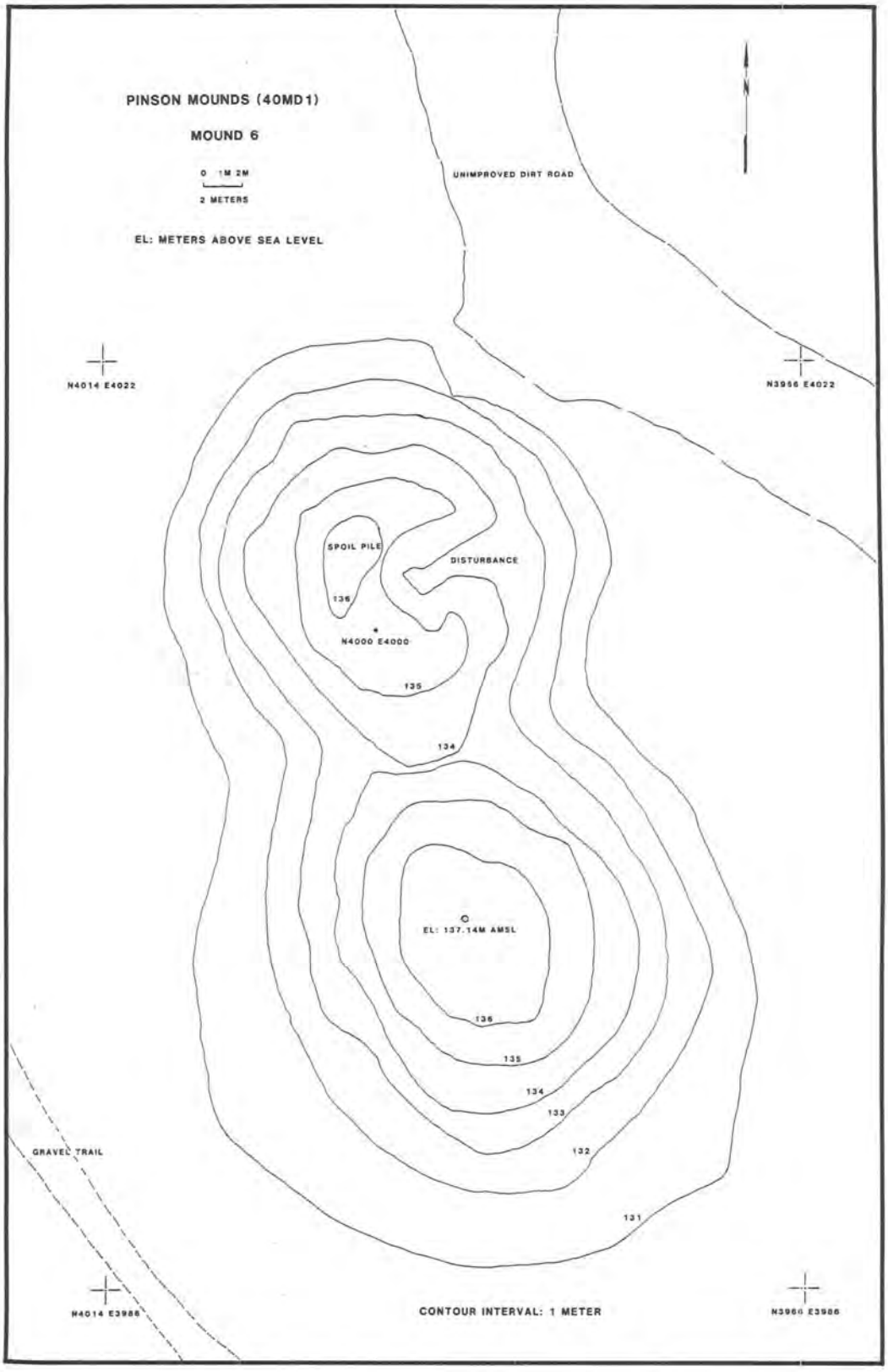


Fig. 49. Mound 6 (Twin Mounds).

Fig. 50. Northern Twin Mound after clearing. View to southwest.

Fig. 51. Twin Monds excavation area. View to west.

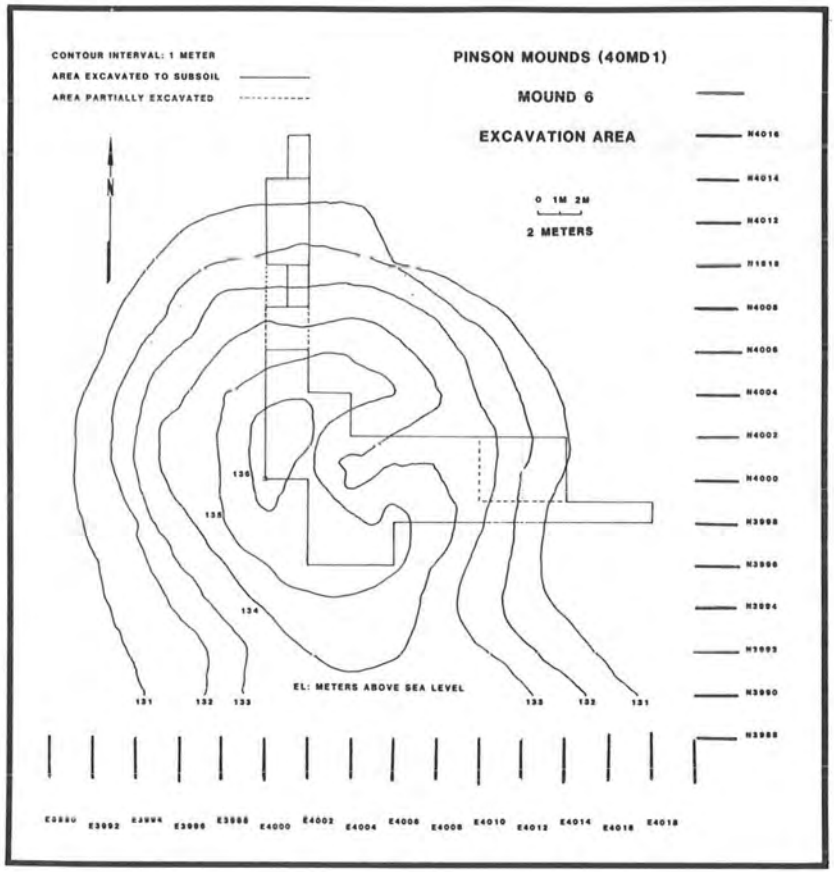


Fig. 52. Twin Mounds excavation area (Reproduced courtesy of Midcontinental Journal of Archaeology).

Fig. 53. The "archeoslide".

2 m of the north edge of the main excavation area. The resulting master profiles provide a nearly complete record of the various construction stages of the mound, while the position and size of the main excavation area allowed for a preliminary evaluation of the centrally located mortuary features.

Horizontal control was provided by a grid system originating from an arbitrary point on the northern mound. In order to maximize our use of Mr. Lancaster's labor, the grid was oriented N 0° 50' 00" E. Two meter squares were the standard unit of excavation, although smaller units were also employed as required. Two concrete markers provided permanent auxilliary reference points for the grid. A vertical sequence of datum planes was initiated from a Tennessee Department of Conservation benchmark that was set on the summit of the southern mound. Each datum plane, or level, consisted of a 20 cm increment. Until the stratigraphy of the mound was well understood, excavations proceeded in arbitrary 20 cm levels, with all recovered materials bagged by square and level. Elevations were initially maintained through the use of a transit and line levels from the top of the mound, but it later became necessary to establish supplementary datum points within the main excavation area.

Since Mound 6 is situated within a protected setting and there was no need to "salvage" it, the use of heavy machinery to remove mound fill was clearly inappropriate. All excavation was accomplished by hand, although the assistance of a tractor was necessary in the removal of several large stumps. General mound fill was not screened for content, although all cultural material encountered during excavation was saved and its provenience recorded. Fill from apparent features and prominent basketloads in the upper levels of the mound was generally retained for flotation. Extensive soil samples were taken from within the burial crypts.

Lacking a WPA work force and/or heavy machinery to assist in soil removal, the excavation of the large mound presents a number of logistical problems. One of the most severe of these is the fact that it is impossible to safely remove loaded wheelbarrows from the higher parts of a large mound. Our solution to this problem was the design and construction of a wooden trough approximately 10 m long that was lined with aluminum flashing to reduce friction (Fig. 53). The "archeoslide", as it came to be known, allowed excavators near the top of the mound to dump loaded wheelbarrows into the slide, the top of which was positioned at an elevation approximating the base of Lancaster's pit. Wheelbarrows were kept at the base of the slide, where they could be easily moved to the spoil pile as they became filled.

The general excavation plan employed on the Twin Mounds, i.e., large block excavations and trenches, could not normally have been accomplished without extensive stepping of the excavation area. However, previous excavations at the Pinson Mounds site had demonstrated that the loess soil which comprises the bulk of mound fill is exceptionally stable and not subject to caving in, even when deep profiles have been exposed. Additionally, the extremely hot and dry weather conditions during the course of the excavations contributed to the stability of exposed surfaces. It was therefore possible to keep stepping to a minimum, while the walls were constantly monitored for the appearance of stress lines. It should be emphasized that different soils and weather conditions would have required standard stepping procedures.

Field record books were maintained by all crew members; these were compiled and reviewed on a weekly basis. This information was supplemented by a field specimen catalog, a transit log, extensive color and black and white photographs, feature and soil sample forms, and several master profile drawings. A substantial amount of videotape footage was also shot, in conjunction with the production of an interpretive film for park visitors.

The excavation strategy proved to be successful in achieving all of the research goals of the results are presented in the succeeding pages.

STRATIGRAPHY

The stratigraphy of Mound 6 is complex and reflects five major construction stages (Figs. 54, 55, and 56), all of which were observed in the control profiles (N4000, N4004, and E4000). These stages, as well as the individual strata subsumed within each stage, exhibit a high degree of continuity between the eastern and northern excavation areas. This suggests that all major construction episodes have been documented by our excavations. A schematic view of the construction stages is presented in Fig. 55, while a 7 m section of the N4000 profile (Fig. 56) illustrates the individual stratigraphic components of the mound. The fact that most of the strata are very distinctive relative to each other suggests that a high degree of planning and organization was necessary to construct the mound. Not only do the strata vary in color and texture, but some of them also exhibit distinctive loading patterns. An excellent example of this is provided by the contrast between Zones F1 and F2. The fill of the latter is composed almost entirely of individual basketloads that are readily discernable (suggesting that the loads were added by simply dumping each basketload), while the fill of the former is more uniform with fewer identifiable loads (probably as a result of throwing fill dirt, rather than dumping it). The major stages of mound construction are discussed below, beginning with the initial removal of subsoil at the mound site.

Sub-mound floor: Prior to initiating construction, the area selected for the mound was stripped of all topsoil, exposing the reddish brown sandy clay subsoil of the Ripley Formation (Wells 1933) that underlies the entire site. The top of this stratum seems to have been deliberately flattened by the builders. All of the recorded tombs (Features 48, 49, 51, 53, 54, and 57) were excavated directly into the subsoil, as were a large number of large and small cremation pits (Features 64, 65, 68, 69, 70, and 72), and several post holes, some of which were subsequently used for depositing cremated remains (PM 30, 31, 32, 42, 43, 53, 56, and 61). All of the sub-mound features are apparently contemporary. The only identifiable bone fragments from the cremation features are non-human, raising the possibility that many of these features were used for the ritual cremation of animal remains in conjunction with the mortuary ceremonies. Detailed descriptions of the features follow in a later section, while the spatial arrangement of the sub-mound floor is illustrated in Fig. 67.

Construction stage I: After the completion of the mortuary ceremonies represented by the features on the mound floor, the base of the mound was covered with a layer of striated dark brown clayey sand, averaging about 10 cm in thickness. This deposit was then capped with a layer of puddled gray Porter's Creek Clay, ranging in thickness from 2 to 8 cm, that is very hard and exhibits a laminar structure. The area covered during this construction stage measures approximately 24 m in diameter, a figure only slightly less than the diameter of the completed mound. A number of features are associated with construction stage 1, most notably the sandstone slabs and boulders adjacent to and partially overlying Features 48, 49, and 55 (see Fig. 57). The southern half of the central burial area (i.e., the area above Features 48 and 49) was covered with a layer of yellow McNairy Sand that ranged in thickness from approximately 1 to 10 cm; this deposit did not extend over Features 51, 53, and 54. The reddish brown clay berm adjacent to Feature 51 was also placed on the stage 1 surface. On the east side of the mound, two large burned areas (Features 56 and 59) were observed on the gray clay surface; no cultural materials were associated with either of these features.

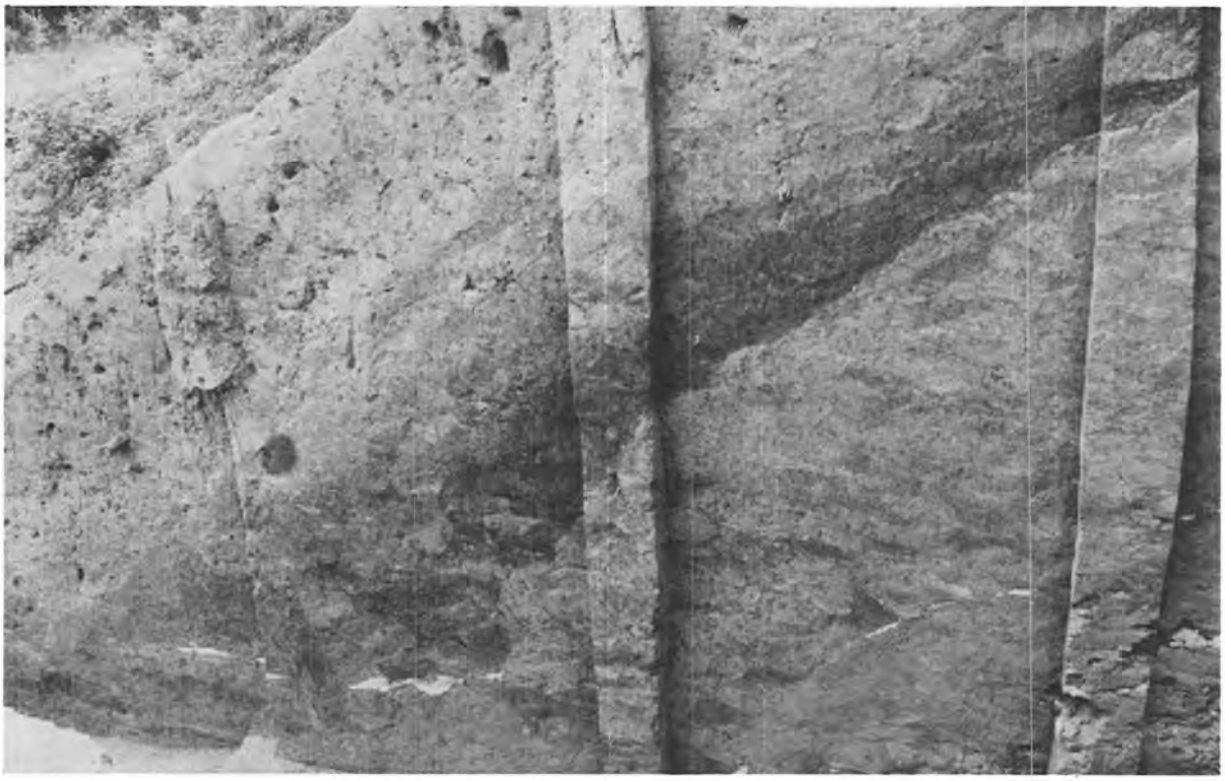


Fig. 54. Twin Mounds. South end, N4000 profile.

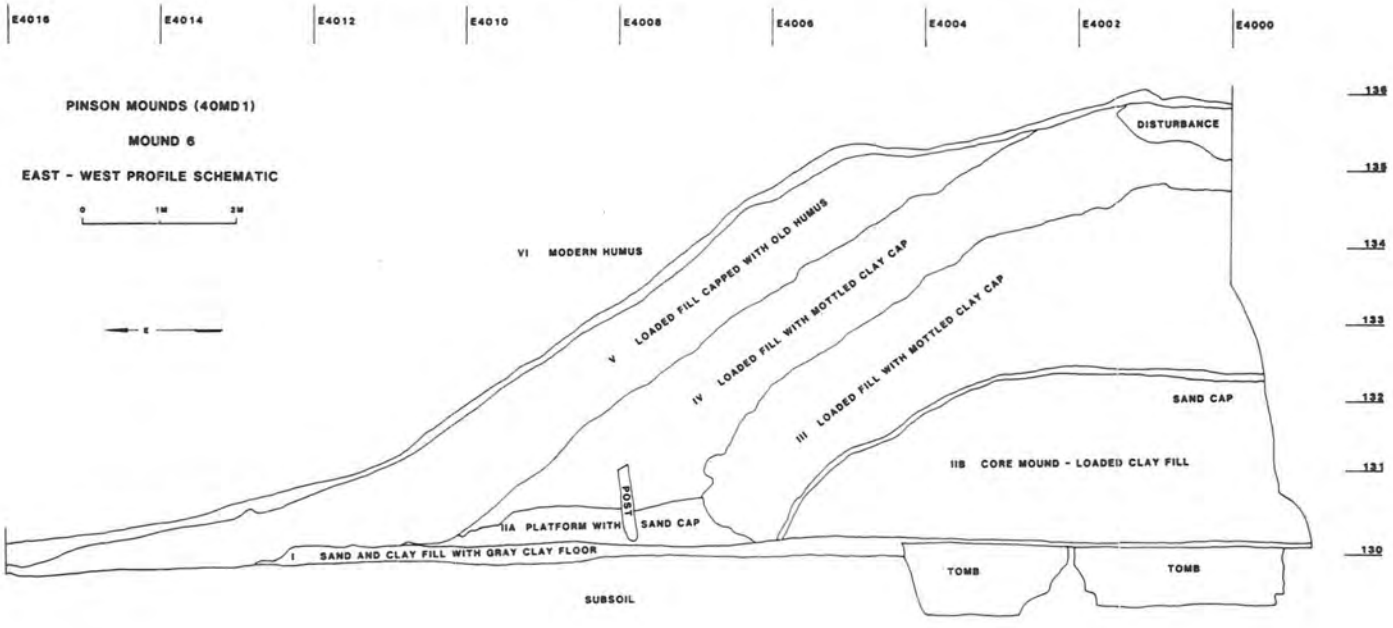


Fig. 55. Twin Mounds construction stages. Schematic of N4000 profile (Reproduced courtesy of Midcontinental Journal of Archaeology).

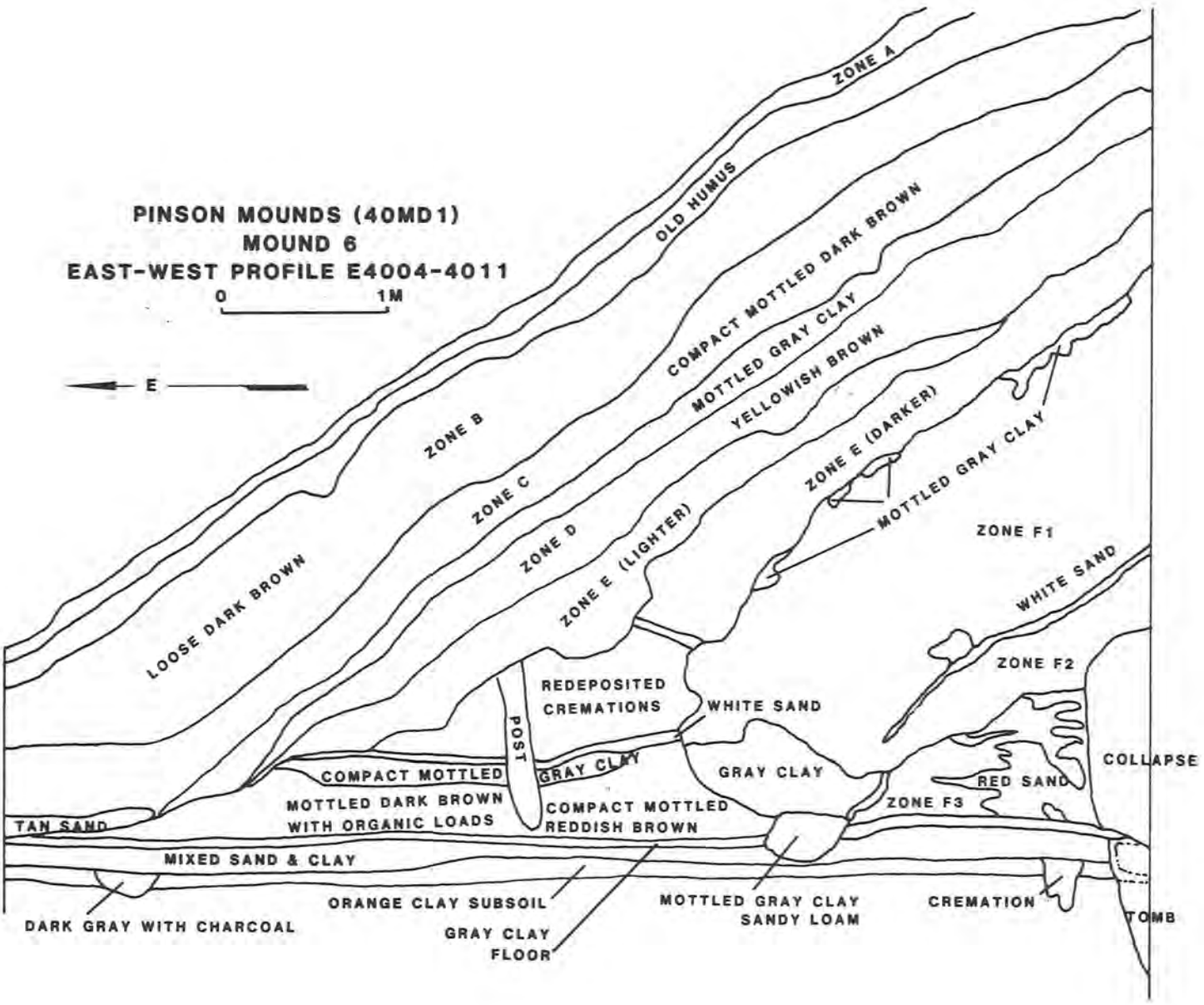


Fig. 56. Twin Mounds. Detail of N4000 profile (Reproduced courtesy of Midcontinental Journal of Archaeology).

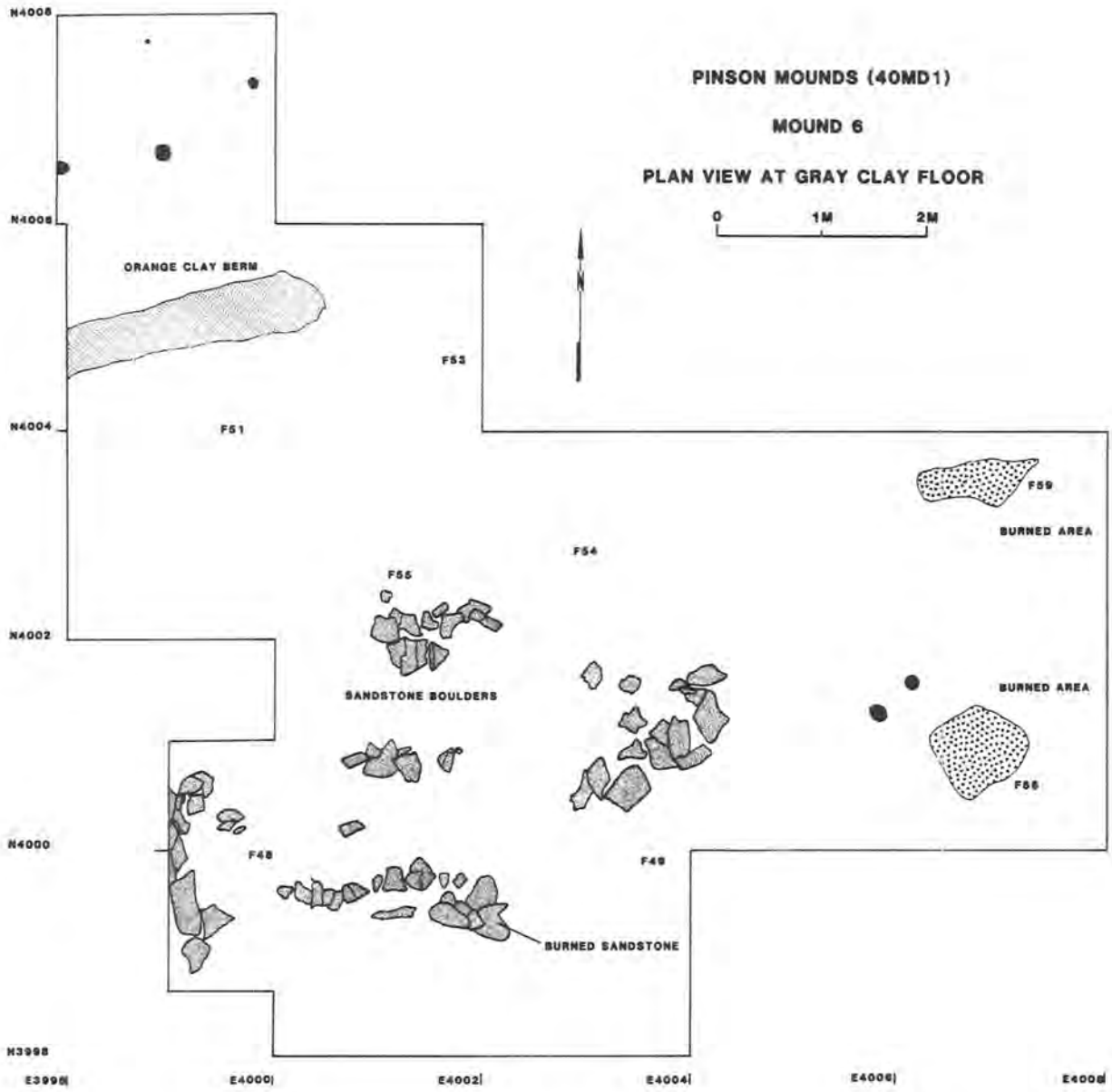


Fig. 57. Twin Mounds. Plan view at gray clay floor.

Construction stage IIA: This construction stage, which is roughly contemporary with stage IIB, is represented by the construction of a raised platform approximately 50 cm tall and 2 m wide that apparently encircled most, if not all, of the central burial area. The platform is best documented on the east side of the mound, but an edge of it was clearly visible in one of the northern units (N4020/E3998) as well. Unfortunately, time did not permit the excavation of square N4008/E3998, which would have provided much more information about the north side of the platform. Three distinct soil zones are included in the platform fill. The base of the platform consists of a mottled dark brown sandy clay measuring about 15 to 20 cm thick. This is overlain by a deposit of compact mottled brown sandy clay that averages 30 cm in thickness. The west or interior edge of the platform was given greater structural support by the use of very compact reddish brown sandy clay. The platform was covered with a layer of white to pale tan sand, ranging in thickness from 1 to 10 cm.

Two rows of posts are associated with the platform (Fig. 58). The interior edge of the platform was partially supported by a number of fairly large posts, each about 15 cm in diameter, as well as some smaller posts or poles, averaging 5 cm in diameter. In at least one instance, a smaller post was used to support the interior edge of a larger one. All of the interior edge posts, both large and small, were angled toward the east or northeast, at about 18° in the case of the larger, as much as 30° for some of the smaller posts. All of the larger post holes were filled with the same pale tan sand used to cover the platform (Fig. 59). A single small post hole containing sand was observed in profile and it is likely that the sand fill of the other small post holes went unnoticed during excavation due to their small size and the fairly acute angle at whicch they were set. While the interior posts are clearly associated with the raised platform, the sand fill makes it apparent that they were removed just prior to the deposition of the pale tan sand and there is no indication of them above the top of the platform.

A second row of posts is located about 80 cm to the east of the interior edge posts. These range in diameter from about 14 to 20 cm. The possibility that more than one row may be present is suggested by th fact that several posts are visible in the N4000 and N4004 profiles slightly to the west (i.e., toward the mound interior) of the remaining posts. All posts in this row or rows were allowed to rot in place, as demonstrated by their loose dark brown fill. Averaging about 80 cm in height, the posts extend about 30 cm above the pale tan sand that covers the platform (Fig. 60). This series of posts was set prior to the addition of the sand covering, as indicated by the fact that no sand was displaced by the posts during construction. Like the large posts along the interior of the platform, these are angled to the north or northeast at about 18°. The eastern row of posts served functionally to support the loose fill containing redeposited cremations and/or burned animal remains that were placed on the interior portion of the platform, as discussed later.

Construction stage IIB: The construction of a core, or primary, mound over the central burial area was completed during this building stage. This mound was probably circular at the base and was flat on top. Two thick soil zones, as well as complex sand cap, are associated with construction stage IIB. The major soil zones, designated as Zones F2 and F3 (see Fig. 56), grade into each other, rather than being distinct entities. Zone F3 comprises the interior of the core mound and is defined by the presence of hard, dry basketloads of sandy clay that contains and is partially covered by elongated lenses of reddish orange sand. The fill of Zone F2, while also consisting of compact sandy clay basketloads, is much more moist and lacks sand inclusions; basketloads of reddish brown subsoil are prominent. There is no evidence of an apron of water sorted soil around the edges of the primary mound, suggesting that it was not exposed to weathering. The sides of the primary mound were covered by a thin layer of white to pale tan sand, similar to the material used to cover the raised platform. However, the cap over the top of the mound is composed of four distinct, thin layers, that evidence great attention to detail on the part of the individuals responsible for planning and building the mound (see Fig. 61). These layers are each about 4 cm thick and consist of, from bottom to top, reddish orange sand, pale tan sand, dark gray sandy clay, and reddish brown sandy clay. The use of these colors, particularly those that are reddish and nearly white, readily brings to mind later southeastern ethnographic correlates. While the actual significance of these colors may never be known, there can be little doubt that they held great symbolic importance to the people involved in the construction of the mound. A similar cap over what appears to have been a raised burial platform was recorded by Collins (1926: 91-92) at the McRae Mound, a Middle Woodland burial mound in eastern Mississippi:

> 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 - *ed.*).

Collins makes it clear that this platform was a flat-topped structure:

> 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.

A large number (at least 50) of long, thin wooden poles, averaging over a meter in length and 5 cm in diameter, were driven into the sides of the core mound, presumably prior to the application of the sand cap, although the evidence is equivocal at this point. No evidence of poles was encountered on the flat top of the core mound. The poles were generally angled toward the north or northeast (including those on the south side of the core mound) and they were allowed to rot in place beneath the later mound additions. Since few pole impressions were exposed in their entirety (see Fig. 62), we can only infer the horizontal arrangement of the poles, but they seem to have been spaced at intervals of about 50 cm. The poles do not appear to have served a structural purpose and, in fact, would have been something of a logistical problem during the next phase of mound construction. It is possible that ritual paraphernalia or totemic symbols were attached to the poles, but it is unlikely that evidence for this could be recovered archaeologically.

When completed, the core mound was a circular structure with a relatively flat top, standing 2 cm tall and measuring about 12m in diameter. Between the core mound and the platform was an open area approximately one meter wide (see "gray clay" below Zone F1 in Fig. 56). This may have served as a ceremonial walkway around the core mound. The sand cap is a very unusual construction feature and is reminiscent of the classic Hopewell mounds in Ohio. No analogues for poles associated with this construction stage have been recorded elsewhere.

Construction stage III: During this stage, the core mound was covered with a thick mantle of basketloaded fill that averages over 150 cm in thickness. The first construction event within stage III consisted of filling the area between the core mound and the interior edge of the raised platform (the inferred walkway area) to a depth of about 60 cm with compact dark brown and gray fill, as well as some probable cremations that were deposited while still hot. Evidence for the latter shows very clearly in the N4004 profile at the interior edge of the platform where the heat from a redeposited cremation altered the color of the soil at the edge of the platform. Observable basketloads slope downward to the west, in contrast to the loads in Zone F2 and F3 (construction stage IIB), which slope down to the east. Most of the fill associated

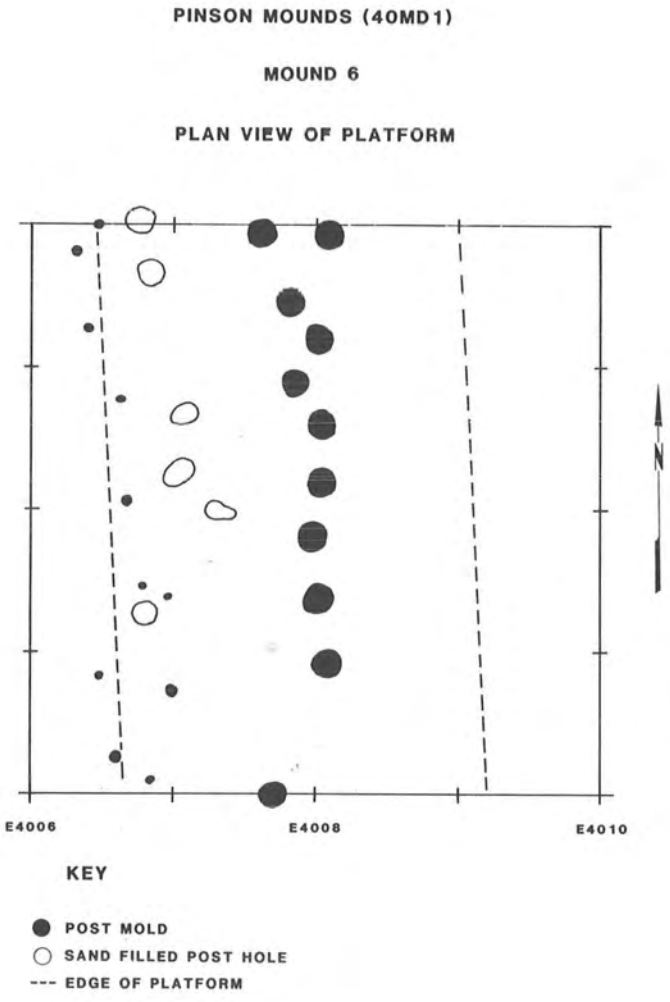


Fig. 58. Twin Mounds. Plan view of platform.

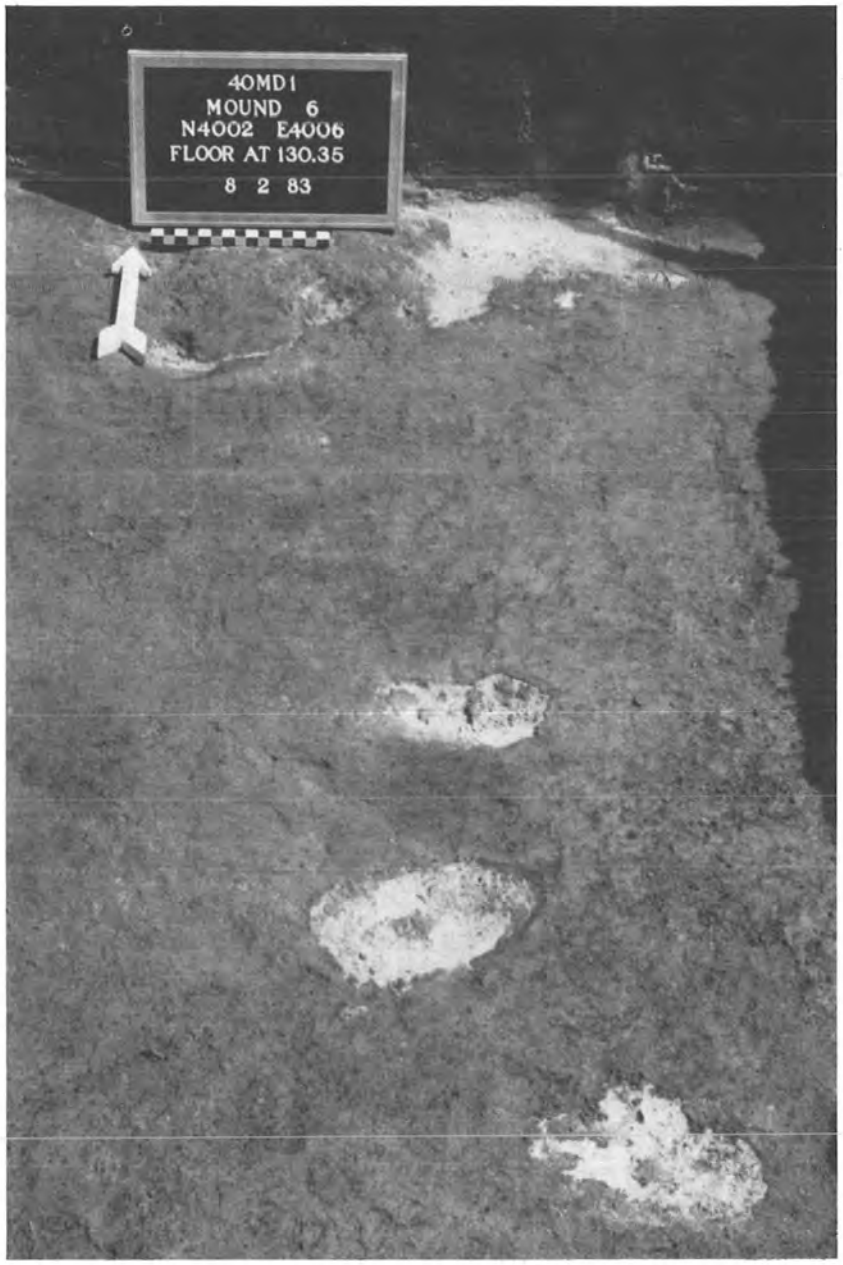


Fig. 59. Twin Mounds. Sand-filled posts associated with platform.

Fig. 60. Twin Mounds. Cross-section of platform showing rotted post.

Fig. 61. Twin Mounds. Detail of core mound cap.

with this construction event is covered with a very thin deposit of pale tan sand that represents a continuation (perhaps accidental) of the sand covering the raised platform. Therefore, it seems likely that the walkway fill was deposited just prior to the addition of the sand to the top of the platform. Since some of the sand that overlies the core mound is covered by this construction event, it is apparent that the sand used to cover the core mound pre-dates the addition of sand to the top of the platform.

The major construction event within stage III was the addition of a layer of loaded fill to the top and sides of the core mound, which is referred to as Zone F1 (see Fig. 56). In contrast to Zone F2, Zone F1 is characterized by fewer individually identifiable basketloads and a lack of pronounced basketloads of subsoil in particular. It should be noted that a number of distinct redeposited cremations (or other burned material) were observed at the base of Zone F1 (i.e., on top of the core mound cap) on the north side of the mound. The F1 mantle was apparently capped over with a layer of gray ashy clay about 10 cm thick. This construction feature was identified in the N3998 and N4000 profiles, but was not observed in the E4000 profile. This was the first of several similar deposits interlaced between successive additions to the mound. These gray caps would seem to have a symbolic function, since they do not serve a structural purpose. At the completion of construction stage III, the northern Twin Mound stood approximately 5 m tall and measured about 14 m in diameter (exclusive of the sand covered platform).

Construction stage IV: Two thick layers of fill were added to the mound during this construction stage; these are designated as Zones D and E (see Fig. 56). However, prior to the deposition of these strata, numerous dark basketloads, which contain cremations and/or ceremonially burned animal remains, were place on top of the sand covered platform to a maximum height of over one meter. In the N4000 and N4004 profiles (see Fig. 54), this deposit is most evident immediately to the west of the large posts near the center of the platform, although the dark fill to the east of the posts may also contain cremations. Along th E4000 profile, however, the dark basketloads are much in evidence near the exterior (north) edge of the platform (Fig. 63). The individual dark loads in this area, which average about 30 cm in volume, were unquestionably deposited while still hot, as the clay matrix surrounding them is hard and discolored due to exposure to heat. The fact that these loads were placed on the platform while still hot indicates that they represent material burned as part of the ritual process of mound construction that was specifically intended for placement on the platform, rather than material that was inadvertently included in the mound fill. No human remains have been identified in these deposits, the only identifiable specimens being deer bone fragments. Some decorated non-local pottery sherds were also associated with these deposits.

After the deposition of material on the platform had been completed, a dark mantle of fill (Zone E) was placed over the entire mound, with the base partially resting on the sand covered platform. Composed of a dark grayish brown fill that is somewhat greasy, Zone E averages about 50 cm in thickness, being somewhat thinner toward the top of the mound. Associated with this stratum were numerous fragments of unidentifiable calcined bone, lithic debitage, pottery sherds, and some exotic materials including mica, copper, and non-local cherts. Food refuse, including white tailed deer and small mammal bones, was also present. Based on the individual basketloads at the base of the deposit and the cultural material recovered, it seems likely that Zone E represents the addition of numerous redeposited cremations and other ceremonially burned material, but this material does not appear to have been deposited while still hot. Over most of the mound, Zone E is similar in appearance to the layer of redeposited cremations recorded in the Duck's Nest sector. However, near the center of the mound, this zone is represented primarily by grayish ash. In this area, the soil immediately below Zone E had been exposed to heat, as demonstrated by its reddish color and hard texture. Unfortunately, much of the upper strata in this area had been disturbed by the relic hunter and it is unclear if these deposits represent a ceremonial fire or the deposition of hot ash. A feature similar to Zone E was exposed by Collins (1926) during his excavation of the McRae Mound. His unpublished field photographs, which are housed in the Smithsonian Institution (negative nos. 83-16153, 16154, and 16155), illustrate a dark, relatively thin stratum originating on the surface of the burial platform and covering the conical "clay dome" near the center of the mound.

Zone E was covered by a deposit of yellowish brown sandy clay that is fairly homogenous over the entire mound. Additional non-local artifacts, as well as some charred seeds (possibly *Chenopodium*) were recovered from this stratum (designated Zone D), but these were less frequent than in Zone E. Zone D achieves a maximum thickness of about 60 cm near the top of the mound and is thinner near the base. While it appears that this stratum covered the entire mound, the relic hunter pit created a discontinuity in the main profiles, causing Zone D to be truncated for several meters along the E4000 line. The final construction event within stage IV was the application of a layer of gray clay that ranges in thickness from 2 to 20 cm. This layer is generally thicker along the N4000 profile than in the E4000 profile (i.e., the north side of the mound).

The completion of construction stage IV brought 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: Construction of the northern Twin Mound was completed by the addition of two strata during construction stage V. The lower of these, Zone C, is a layer of fairly compact mottled dark brown sandy clay with an average thickness of about 40 cm. Contained within this stratum on the northern half of the mound area a large number of sandstone boulders (Fig. 64) that form a partial cap over the mound; this feature does not extend over the southern part of the mound. Some of the rocks weighed as much as 20 kg and, based on the difficulty of carrying them down the side of the mound, the effort in placing them on top of the mound was considerable. Burials 1 and 2 (Features 47 and 50) were encountered directly below the sandstone cap in squares N4004/E4000 and N4004/E4002, respectively. Since the burials were located under the sandstone cap, they are probably not intrusive. Burial 1 is a poorly preserved young adult male that was buried on the right side in a flexed position, with the head to the northeast (Fig. 65). Both femurs were truncated at mid-shaft, apparently as a result of the relic hunter pit. A green speckled schist boatstone measuring 13.5 cm long and 3.3 cm wide, with sides averaging only 2 mm in thickness, was placed on the chest of this individual (Fig. 66). Both 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. Contained within the boatstone were 32 angular fragments of Fort Payne chert. Five distinct varieties are present: light gray (N = 5), yellowish gray (N = 6), grayish pink (N = 11), gray (N = 9), and dark gray (n = 1). Small pebbles have been found in association with other boatstones (e.g., McClurkan *et al* 1980), but the placement of chert fragments in the Pinson Mounds specimen presumably served a different symbolic purpose. Several small fragments of mica, possibly discs, lay against the mandibular teeth and several molars exhibit copper staining. A group of small shell beads, probably a bracelet, were found near the left wrist. No post cranial remains of Burial 2 were preserved and the individual can be identified only as a young adult. No grave goods were associated with this burial.

On the north side of the mound, Zone C articulates with the edge of the gray clay floor (construction stage I), but in the main excavation area it extends somewhat beyond this stratum. In the latter area, the base of Zone C consists of a deposit of tan sand. A thin layer of gray clay covers the stratum.

The final addition to the mound is represented by a layer of loose dark brown sandy clay (Zone B) that is over a meter thick at the base of the mound, presumably as the result of moderate erosion. On the north side of the mound, interface of Zones B and C is marked by a hard mineralized deposit, but this was not observed in the eastern excavation area. In most areas, a dark, old humus zone could be discerned above Zone B; spoil dirt from the relic hunter pit covers the old humus on most of the east side of the mound. When completed, the northern Twin Mound was about 7 m tall and 26 m in diameter. The gradient of the sides is roughly 32°.

One of the principal objectives of the 1983 field season was to document the construction sequence of Mound 6. In this we were very successful. Although stratigraphically complex, the northern Twin Mound appears to be the product of a continuous set of mortuary activities, indicative of a "fossilized ceremony" (Sears 1961:227). While it is possible that other individuals were processed through the sub-mound tombs (see especially the discussion of Feature 54), each stage of mound construction seems to have followed in relatively quick succession, indicating that the earthwork represents a single event structure.

While the use of sand to cover the primary mound calls to mind Ohio Hopewell, the raised burial platform has parallels at the Pinson Mounds site itself. The deposition of cremated remains around a central area of flesh interments is analogous to the internal structure of Mound 31, as discussed earlier, while the use of a raised burial platform was observed in Mound 12 (Mainfort [ed.] 1980). Burial platforms have also been reported for a number of other sites in the southeast, including Pharr (Bohannon 1972), Crooks (Ford and Willey 1940), Grand Gulf (Brookes 1976), and McRae (Collins 1926). If our interpretation of the core mound is relatively flat-topped structure is correct, this feature is unique among Middle Woodland burial mounds. The fact that there are a number of Middle Woodland platform mounds within the Pinson group strengthens the case for a flat-topped core mound and it is interesting to note that the sand used to cover most of this structure is the same material used for the ceremonial occupation floors of Mound 5.

Perhaps the greatest frustration of the 1983 excavations at the Twin Mounds was the lack of time to define the stratigraphic relationship between the north and south mounds. This should be one of the highest priorities for future work and should be accomplished with minimal disturbance to the southern mound. Our interpretation of the stratigraphy revealed by limited testing of the northern Twin Mound will undoubtedly be modified by future research, but the basic outline presented here should remain essentially valid.

ORGANIZATION OF THE SUB-MOUND FLOOR

As noted earlier, a number of features related to mortuary ceremonialism were exposed below the gray clay floor at the base of the mound (Fig. 67). All of these were excavated directly into the subsoil and appear to be contemporary. Among the features recorded were six large tombs (Features 48, 49, 51, 53, 54, and 57), probable cremation pits of various sizes (Features 62, 63, 66, 67, and 71), crematory basins (Features 64, 65, 68, 69, 70, and 72), and a number of post holes, some of which were used as repositories for cremated remains (PM30, 31, 32, 42, 43, and 61). The features referred to here as crematory basins are small, shallow pits with round bottoms. The cremation pits are relatively straight-sided, as are the refilled post holes, the latter being distinguished primarily on the basis of their small diameter.

That the cremation features do not significantly pre-date the tombs (i.e., that they do not represent earlier features that were exposed after the removal of the topsoil) is amply demonstrated by several pieces of evidence. First, there are no cremation features within the area bounded by the outer edges of the tombs (Feature 69 is an exception, as discussed later) and none of the tombs intruded into an earlier feature (see Fig. 67). Additional support for the contemporaneity of the cremations and the tombs is provided by Feature 65, the top of which was covered by a thin layer of sandy clay. This covering would have almost certainly suffered significant damage during the removal of the topsoil, had Feature 65 been associated with an earlier occupation.

Despite the fact that large quantities (in some cases, the entire contents) of the soil samples from the cremation features were water screened, very few cultural remains were recovered. Perhaps of greater significance is the fact that none of the calcined bone fragments from these features could be identified as human, while a number of specimens are definitely non-human (Lane Beck, personal communication). It might be recalled that no human remains have been identified to date in the individual basketloads at the base of Zone E. Therefore, neither the small sub-mound features, nor the Zone E deposits can be demonstrated to be part of the mortuary program *per se* at this point. It is, of course, possible that many of the extremely fragmentary remains from these features are human. The evidence available, however, suggests that many of the sub-mound features were used for the ceremonial cremation of animal remains in conjunction with mortuary rituals.

Mica fragments were recovered from four cremation features (Features 64, 65, 68, and 69) and, with the exception of Feature 69, these represent the best candidates for non-tomb features containing human remains. Feature 69 is of interest because it is located at virtually the center of the mound, the only cremation feature located within the central burial area. In addition to the mica, it contained a bear vertebra, the distal end of a deer ulna, a number of small unidentifiable bone fragments (some charred, other calcined), and a single chert flake. The feature measured 20 cm in diameter and was 17 cm deep. The location and contents of Feature 69 suggest that it served an important ritual function. Features 64, 65, and 68 are shallow, circular basins, averaging about 24 cm in diameter and 16 cm in depth. Five sherds of a smoothed over cord marked vessel with a notched rim, two chert flakes, and several small pieces of sandstone (as well as the mica fragments) were recovered from Feature 65. The top of this feature had been 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; a large Furrs Cord Marked sherd was found against the wall and a rim sherd with a flattened lip from the same vessel was included in the general feature fill. No artifacts were associated with Features 70 or 72, two probable crematory basins that are slightly smaller than those described above.

The cremation pits (Features 62, 63, 66, 67, and 71) exhibit straight sides, most of which have been hardened due to exposure to heat. Size varies considerably, but most of these features are deeper than the crematory basins; bases are flat to slightly pointed. The largest, Feature 66, consisted of a deep pit surrounded on the surface by a burned area. The pit was 21 cm in diameter and extended to a depth of 82 cm below the sub-mound floor. Four sherds of a Furrs Cord Marked vessel, a chert flake, and a quantity of calcined bone and charcoal were the only cultural materials recovered from the fill. Chert flakes were associated with two other cremation pits (Features 62 and 67), while the remainder contained only calcined bone and charcoal. Some of these features may represent post holes that were subsequently filled with cremated materials.

Fig. 63. Twin Mounds. N4010 profile showing dark basketloads above sand-covered platform.

Fig. 62. Pole associated with core mound cap.

Fig. 64. Twin Mounds. Section of sandstone boulder cap in situ.

Fig. 65. Twin Mounds. Burial 1.

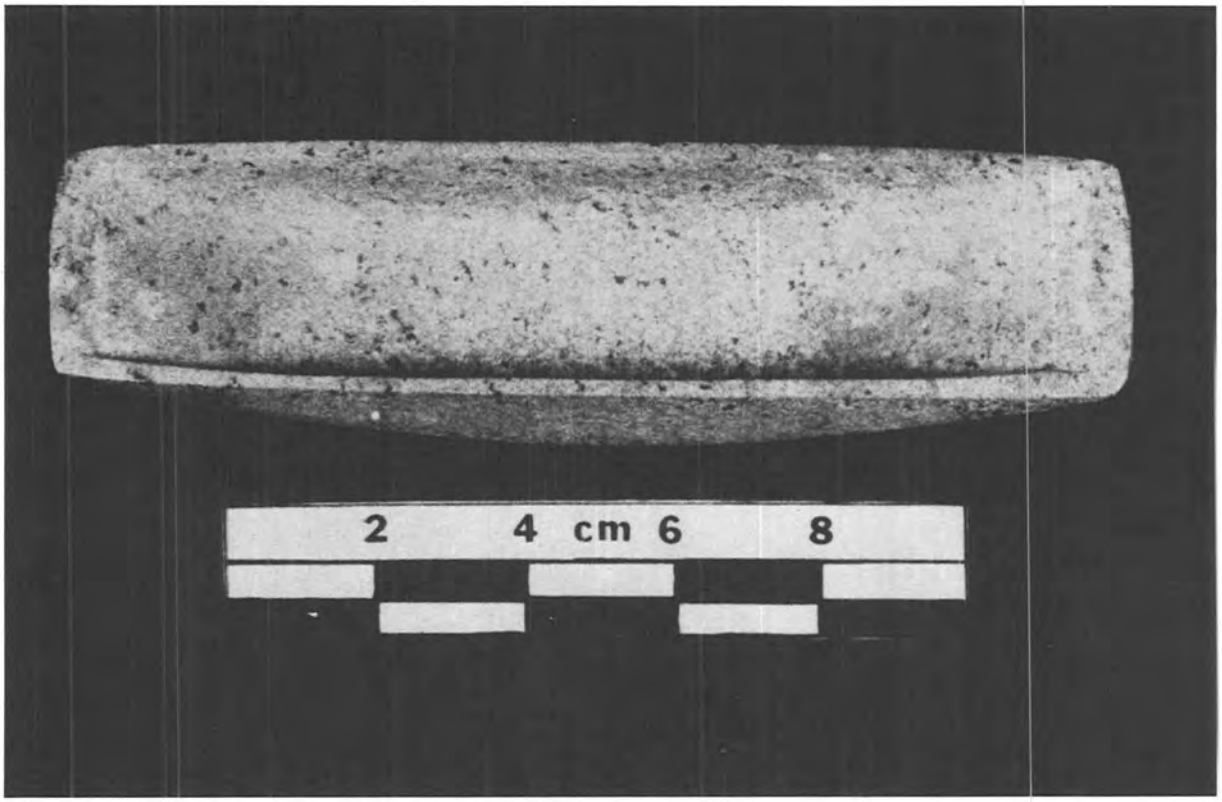


Fig. 66. Boatstone associated with Burial 1 (Reproduced courtesy of Midcontinental Journal of Archaeology).

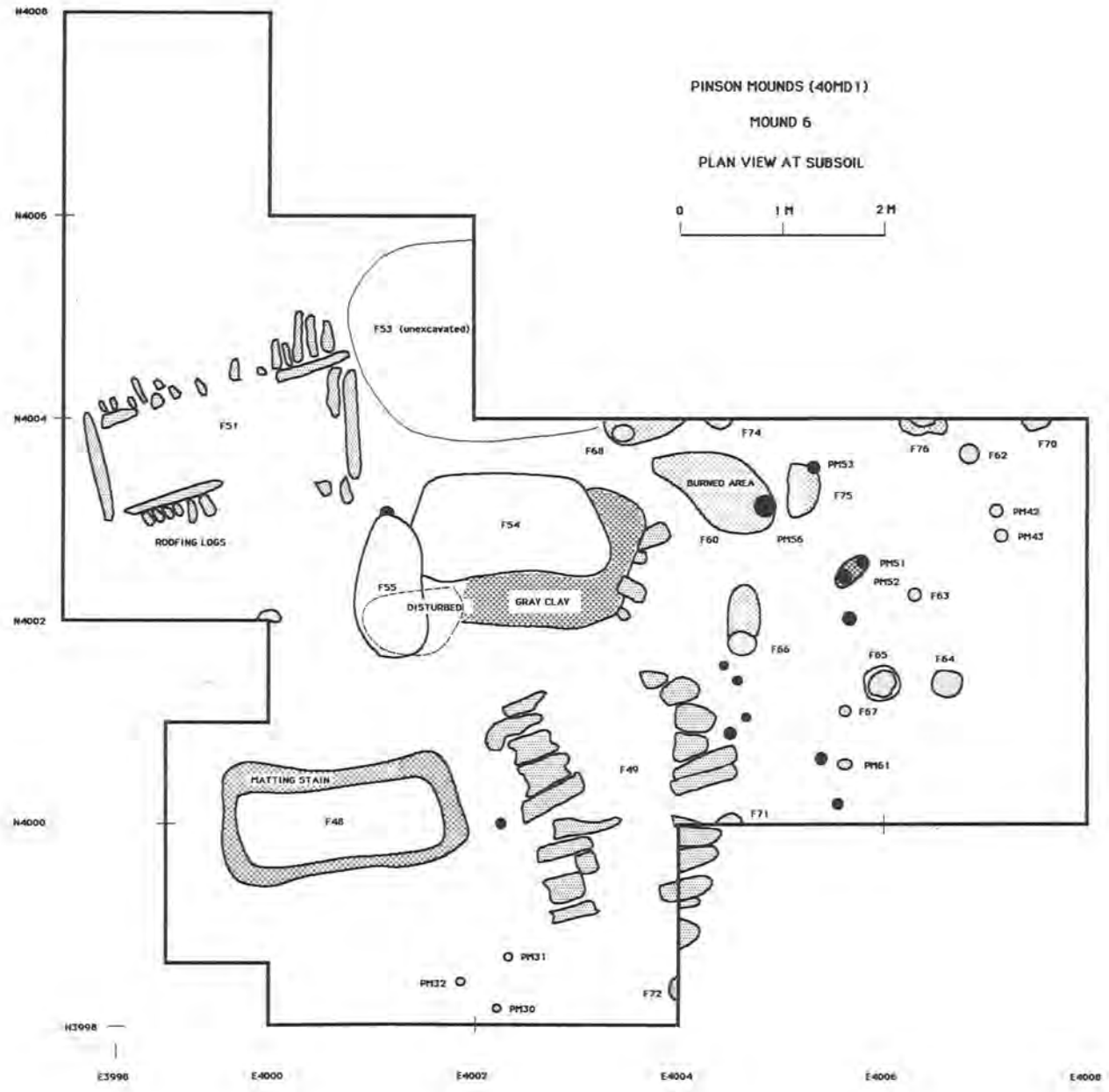


Fig. 67. Twin Mounds. Plan view at subsoil.

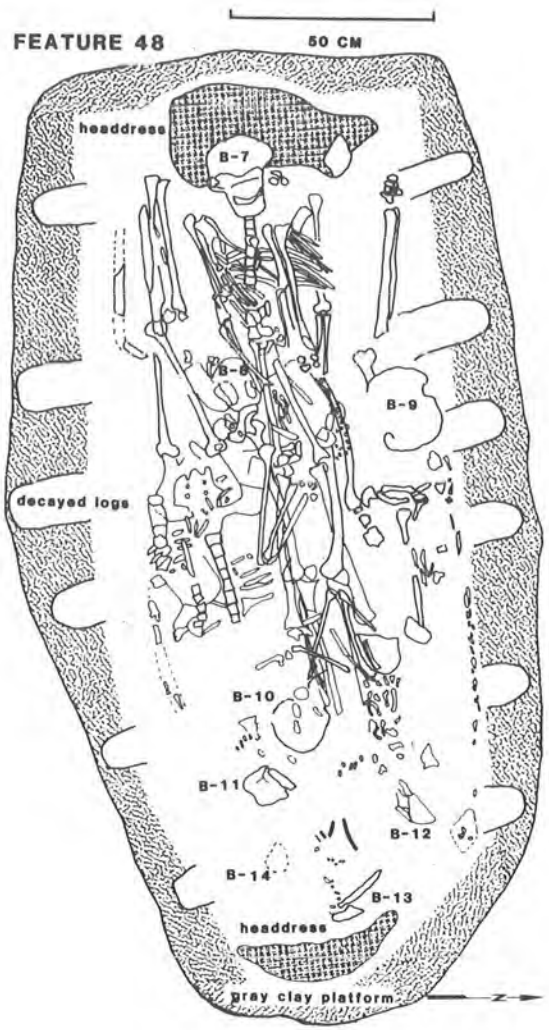


Fig. 68. Plan view, Feature 48.

Fig. 69. Feature 48, showing Marginella beads.

A number of post holes that had apparently been refilled were also associated with the sub-mound floor and these are indicated in light gray in Fig. 67. These were generally shallow and, other than calcined bone, cultural material was rare. The black, circular figures in Fig. 67 represent additional post holes and several post molds. Postmolds 51 and 52 were a pair of posts that were set into a pit that was partially filled with gray clay. PM 51 measured 12 cm in diameter and 18 cm in depth, while its larger companion had a diameter of 17 cm and a depth of 40 cm. Their function is unknown. Associated with a fired area (Feature 60), PM 56 was a large post hole with a diameter of 20 cm that extended 45 cm into the sub-mound floor. The surrounding area seems to have been fired after the removal of the post, as the upper fill contained some ash. Neither charcoal or bone was recovered from PM 56. Although associated with another fired area (Feature 75), PM 53 contained only loose ashy fill similar to that found in PM 51 and 52. Detailed descriptions of the non-tomb features are presented at the end of this section.

The post holes and post molds at the base of Mound 6 do not comprise a discernable pattern suggesting the presence of a charnel house. However, excavations conducted to the south of the Twin Mounds provide tantalizing clues suggesting that mortuary activities, including the use of a charnel house, were conducted at that locality and it seems very likely that this ceremonial area is contemporary with the Twin Mounds (Mainfort [ed.] 1980:15-18; Morse, this volume). The relationship between this locality and Mound 6 forms one of the key research problems at the Pinson Mounds site.

Six sub-mound tombs were encountered during the 1983 excavations, of which four were completely excavated. The remaining two were left undisturbed. All of the tombs were located within an area defined by the edge of the sand-covered core mound and all had been covered or sealed by the puddled gray clay floor (construction stage I). Tomb architecture varied considerably. Two tombs (Features 49 and 54) were covered with logs that had been burned *in situ*, one was covered only with matting (Feature 48), and the fourth by a log and pole superstructure, as well as several layers of matting (Feature 51). Most of the interred individuals, including all of those in Features 48, 51, and 54, were positioned along and east-west axis, while three of the individuals in Feature 49 had a north-south orientation. All interments appear to represent fully fleshed inhumations and there is little evidence that suggest that the tombs functioned as burial crypts (*sensu* Brown 1979). The skeletal remains exhibit considerable sexual dimorphism and a relatively low degree of dental attrition. Descriptions of the skeletal remains are presented in Appendix 2, while the tombs and their contents are described below.

Feature 48. This feature initially consisted of a pit 2.8 m long, 1.3 m wide, and 70 cm deep with the long axis oriented east-west. The base of the pit extended below the reddish brown subsoil and into the underlying deposit of yellow McNairy Sand. A puddled gray clay platform, supported by six small logs, covered the base of the burial pit. A layer of fabric was placed over the platform prior to deposition of the interments. Eight extended individuals were placed in this facility, all of which were aligned along the long axis of the feature (Fig. 68). The bodies overlapped one another, with five facing west and three facing east. The overlapping of the bodies suggests the following order of placement in the tomb: Burial 13 was interred first, followed by (in order) Burials 12, 11, 8, 9, 10, 14, with Burial 7 last. All eight individuals appear to be young females between 20 and 30 years old, although poor bone preservation made positive identification impossible in several instances (Burials 12 and 14). Most of the individuals seem to have worn headdresses similar to the one associated with Burial 7, but most of these were represented only by stains in the burial fill. A large deposit of *Marginella* shell beads (over 7 cm thick in some areas), perhaps the remains of a decorated blanket, formed an S-shaped pattern over the skeletal remains and apparently is associated with the tomb as a whole, rather than with specific individuals (Figs. 68, 69, and 71b). Some of the beads seem to have run under Burial 10, suggesting that more than one beaded artifact may have been present.

Burial 7 was the final interment made in Feature 48 and is the best preserved. The head was to the east and the slight flexing observed in the field may be due to decompositional slumpage. The partially preserved remains of a fiber headdress were associated with the cranium. A number of copper stains are evident on the fiber, presumably representing thin copper ornaments. After several applications of a solution of polyethylene glycol 1500, the remains of the headdress were removed from the field virtually intact. Analysis of the fibers has not yet been completed. A necklace composed of at least five strands of freshwater pearl beads (with the smallest behind the neck) was worn around the neck (see Fig. 71a) and the copper stains and fragments at the right ear suggest that at least one copper earspool was worn.

Burial 8 was poorly preserved; the head was to the east and the remains were slightly flexed. In addition to a probable headdress, this individual wore a thin copper neckpiece (represented by a stain and some copper fragments). A piece of copper was found adhering to the left portion of the mandible and copper stains were also observed on several parts of the cranium, one wrist, several ribs, and the spine. Two bone awls were located to the east of the skull, with a third broken awl partially under the skull.

The badly decomposed remains of Burial 9 were interred with the head to the east. Copper stains in the area of the ears may represent earspools and a headdress also seems to have been worn. Burial 10 is in a fair state of preservation; the head was to the west. Fiber and copper stains in ther cranial region are probably the remains of a decorated headdress. A cluster of tubular beads was associated with the pelvic region and a group of round shell beads was found at the ankles.

The most poorly preserved burial associated with Feature 48, Burial 11 was placed with the head to the west. Copper stains in the cranial region may represent ornaments on a headdress and additional copper stains were observed in the chest area. Another poorly preserved individual, Burial 12 was also interred with the head to the west. Copper stains and fiber in the cranial area suggest the presence of a headdress; copper stains were also noted on the mandible in the molar region. A pouch or breastpiece decorated with tubular shell beads was located in the chest area (Figs. 70 and 71d); the beads were arranged in identifiable rows and were extensively photographed during their removal.

Burial 13 was the first interment placed in the feature and contact between the skeletal remains and the clay platform made bone preservation poor. The head of this individual was to the west and the fragmentary remains of a headdress were observed in the field. Copper stains were noted near the sternum and at the feet. Represented only by fragments of the pelvis, vertebrae, and lower limbs, Burial 14 was placed with the head to the west. A double row of tubular shell beads, perhaps the remains of a belt, and some fragments of copper were present in the lumbar region.

Feature 48 was covered at the level of the mound floor by a layer of split cane matting, of which numerous fragments were recovered from the upper periphery of the burial pit and the collapsed fill within the facility. The matting was partially supported by two large logs that were set horizontally into the subsoil just below the top of the pit along the long axis of the feature (Figs. 72 and 73). After the feature had been sealed with puddled gray clay (construction stage I), one or more layers of fiber and/or bark matting were placed over the top and sandstone boulders of various sizes were placed around the edges. Preserved impressions of the woven matting indicate that it consisted primarily of flat thin fiber strips averaging 2.5 mm in width that were fastened together at 3 to 5 cm intervals by twisted cordage with a diameter of about 1 mm (Fig. 74a). Also represented is a type of matting composed of interwoven thin fiber strips. Several fragments of gray clay with

Fig. 70. Tubular beads associated with Burial 12 in situ.

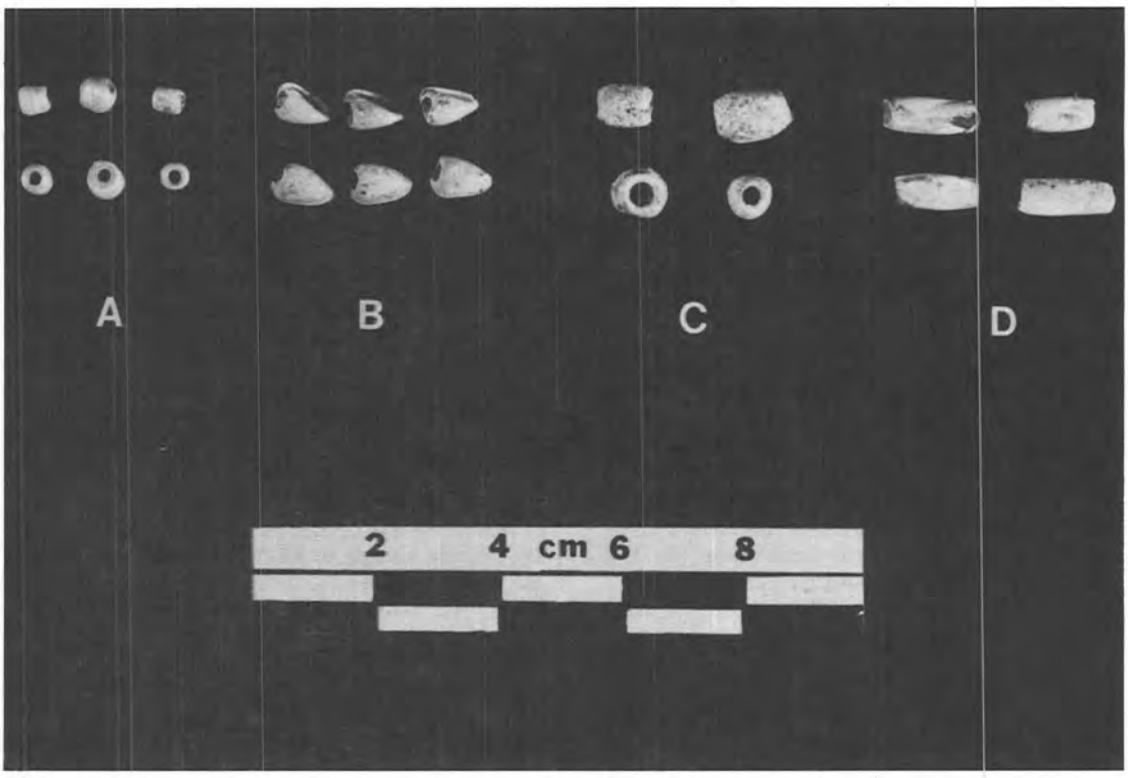


Fig. 71 a-d. Beads. a: freshwater pearl. b: Marginella. c: ovoid shell beads. d: tubular shell beads.

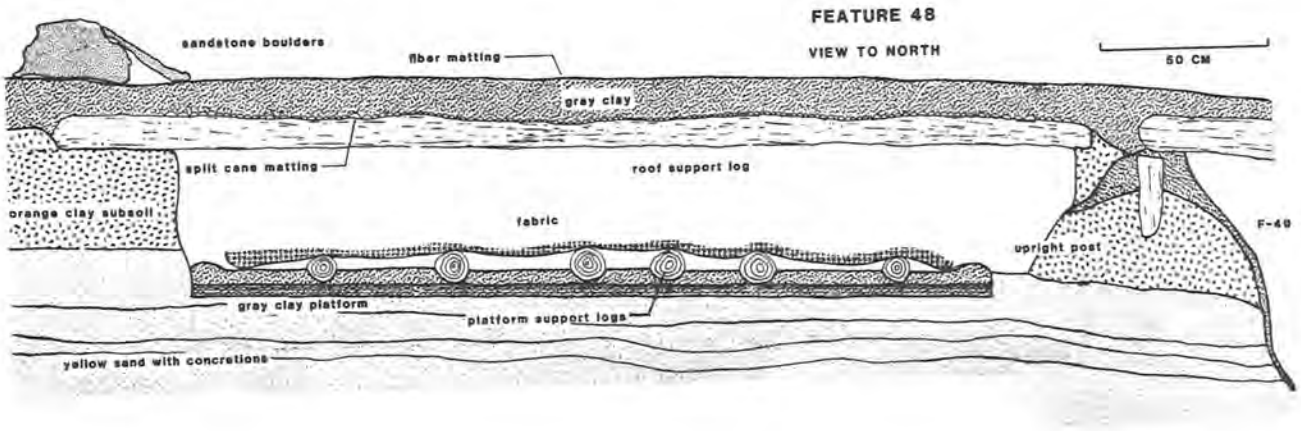


Fig. 72. Section view, Feature 48.

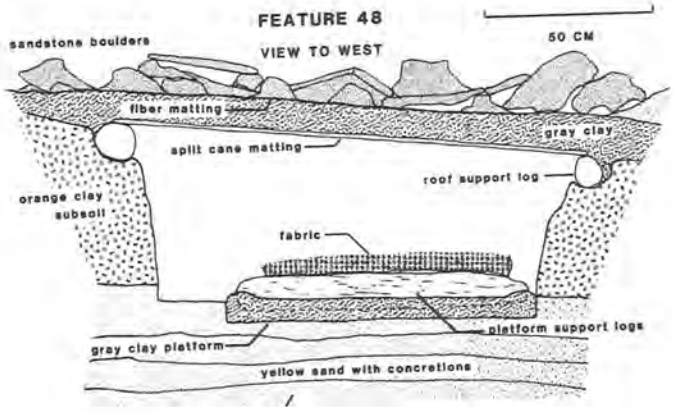


Fig. 73. Section view, Feature 48.

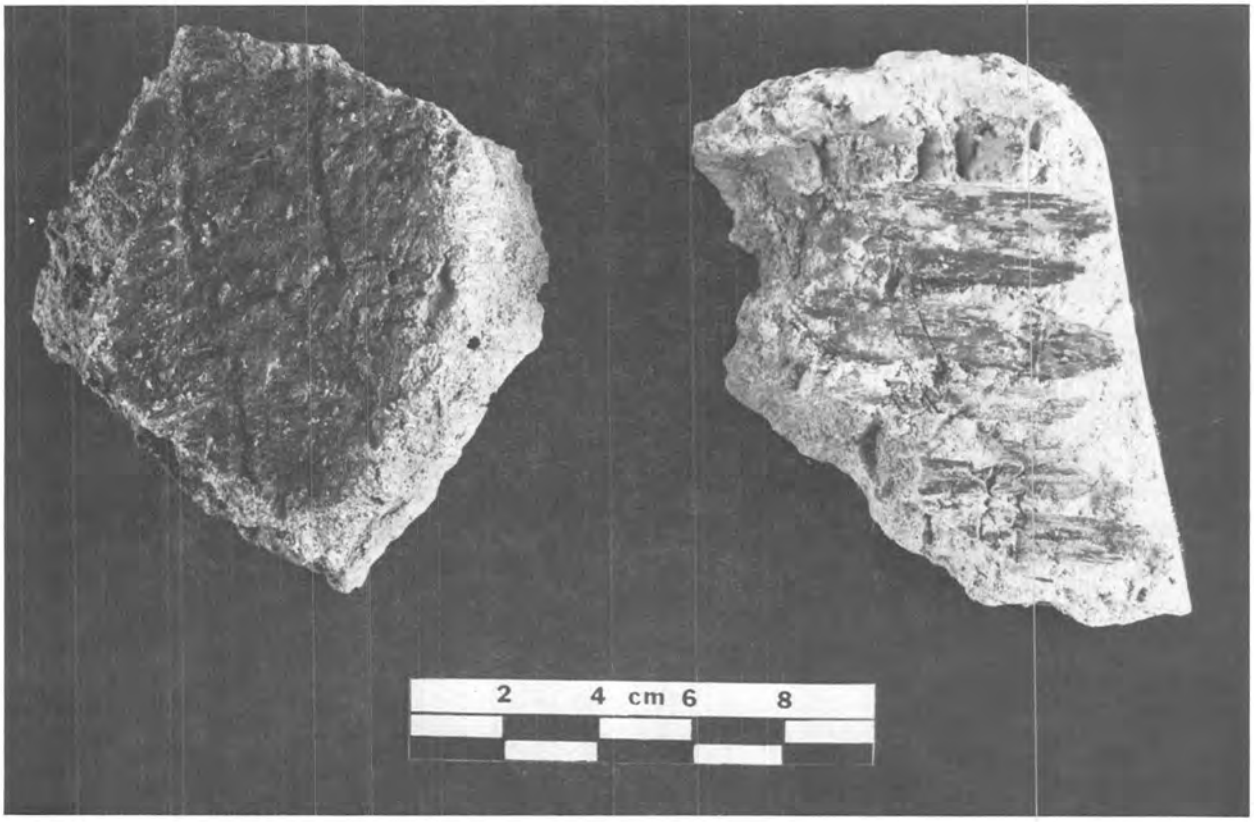


Fig. 74 a-b. Mattting.

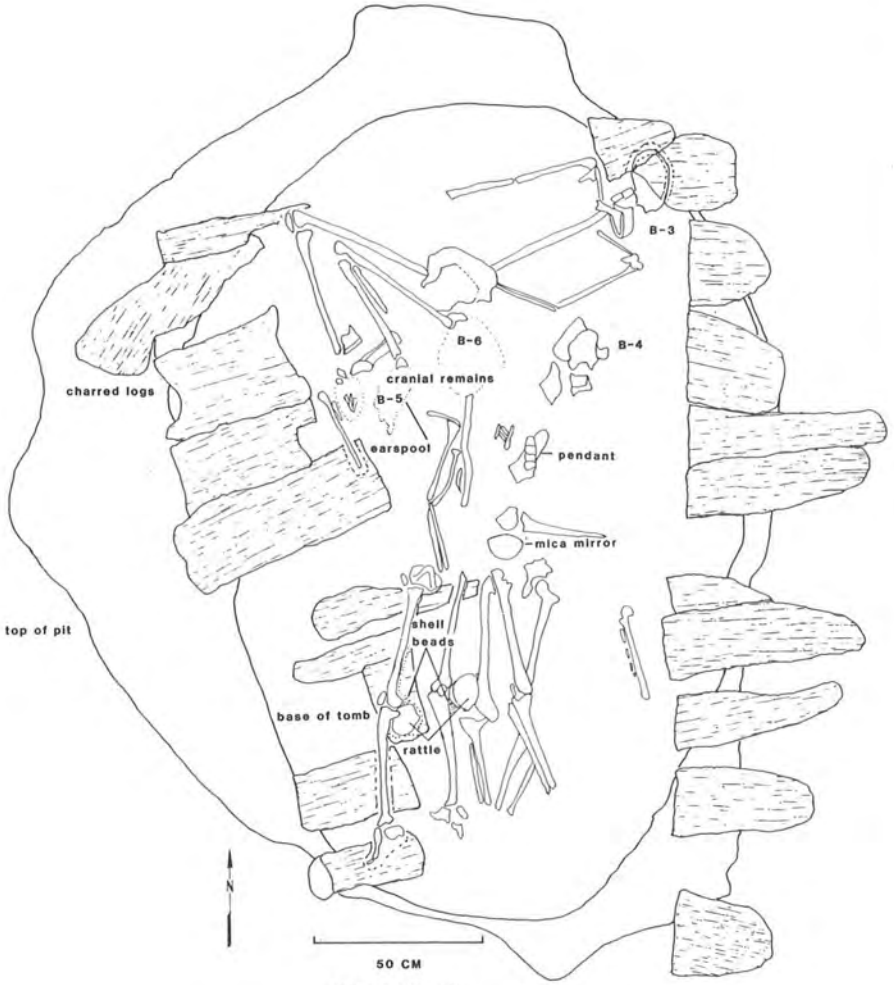


Fig. 75. Plan view, Feature 49.

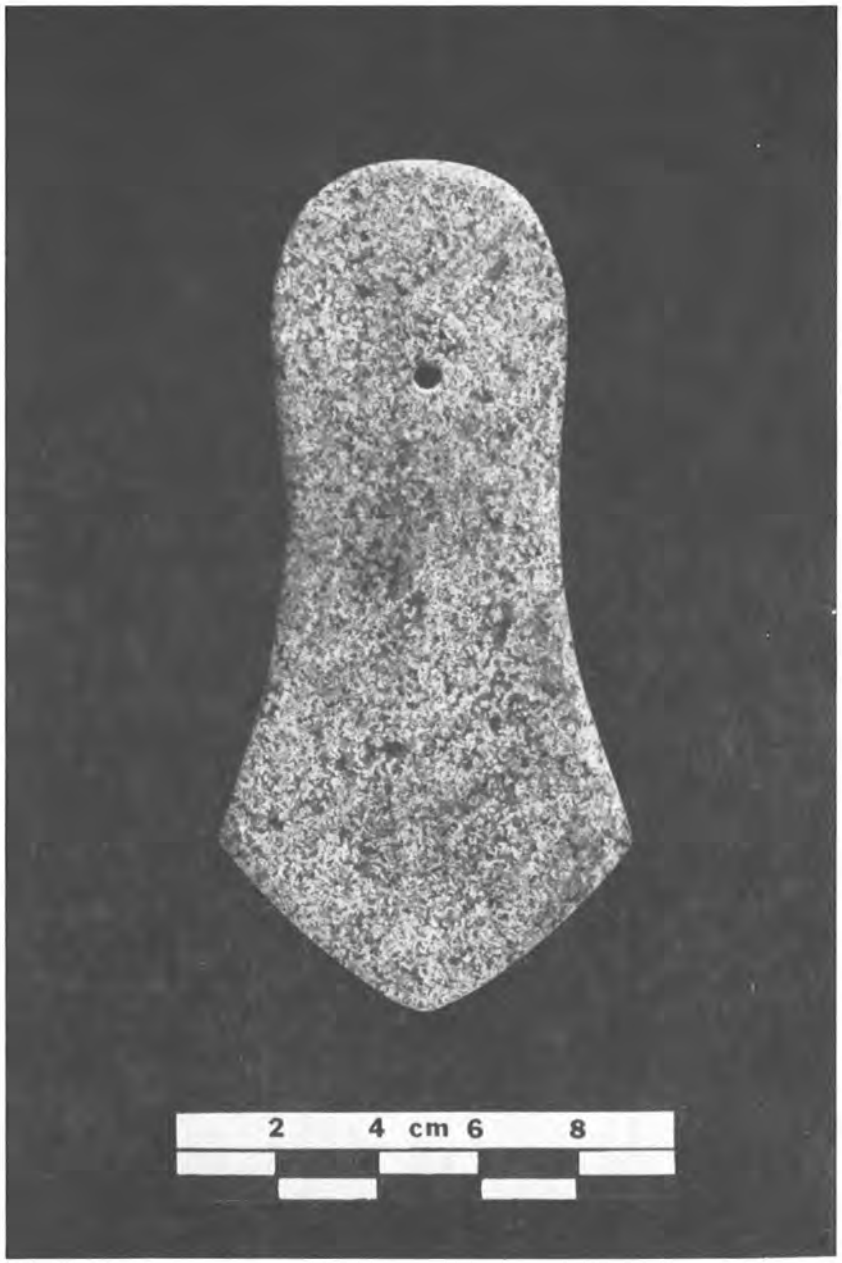


Fig. 76. Schist pendant associated with Burial 4

bark impressions were also recovered from the collapsed fill; these may be the remains of bark sheets that covered the tomb. All recovered bark and fiber matting remains have been stabilized with clear acrylic and an intensive analysis by specialists is planned. Some of the matting seems to have been burned and calcined bone was found in association with burned matting near the northeast and southeast corners of the feature.

Feature 49. Located immediately to the east of Feature 48, this feature consisted of an oval-shaped pit measuring approximately 2.5 m long, 2.0 m wide, and 80 cm deep that was covered with large logs. Unlike the other tombs, the long axis is oriented north-south. The base of the pit extended through the sandy clay subsoil and into the deposit of yellow McNairy Sand that underlies the mound. Four individuals, all relatively old males, were interred in the tomb. Three were oriented north-south, while Burial 3 was positioned along an east-west axis (Fig. 75). Burials 4 and 5 were probably the initial interments, followed by Burial 6 and, finally, Burial 3.

A particularly well-preserved individual, Burial 3 was interred at the north end of the feature in a flexed, supine position. Copper stains on the parietals suggest that earspools were worn. This individual may have been placed on a puddled clay platform, although this soil deposit could also be one of the clay lenses that frequently occur within the McNairy Sand. Burial 4 was placed in an extended supine position with the head to the north. A green speckled schist pendant measuring 16.6 cm long, 7.9 cm wide, and 6 mm thick was located under the spine (Fig. 76). Specimens of a nearly identical shape have been reported from the Miami River valley in Ohio (Squier and Davis 1848:237) and Indiana (Lilly 1937:149).

Burial 5 was interred on the west side of the burial pit and lay under portions of Burials 3 and 6, suggesting early placement in the tomb. The body was extended, with the head to the north. The remains of a copper earspool were found near the left parietal. Two engraved rattles fashioned from human parietals were worn at the knees (Figs. 77 and 78), as were several strings of ovoid shell beads (Fig. 71c); the latter may have been suspended from the rattles. Each rattle consisted of a pair of cut cranial segments measuring approximately 10 cm in diameter that were held together by 4 thongs. Small, yellow quartzite river pebbles produced the rattle effect. Only one of each pair of cut parietals was engraved and, interestingly, it was the engraved pieces that were best preserved. The motifs on the rattles are highly stylized and are similar to the design concepts employed on Weeden Island ceramics, as well as on a number of engraved Middle Woodland shell and bone objects, including the Little Turkey Hill cup (Phillips and Brown 1978:162) and the numerous engraved bone artifacts from the Turner group in Ohio (Willoughby and Hooton 1922). In fact, a pair of engraved parietals executed in a similar style was recovered from the "central alter" of Turner Mound 3. Although identified by Willoughby (1922:56-58) simply as "discs", the placement of fastening holes on these objects suggests their use as rattles. However, the Pinson Mounds specimens are stylistically distinct from the somewhat more naturalistic designs subsumed within the "Fairfield" style (Phillips and Brown 1978:158-163), as typified by the engraved shell gorgets recently unearthed at the Newtown, Ohio firehouse (Genheimer 1981). Although none of the Fairfield gorgets have been precisely dated, an age of roughly A.D. 100-400 has been proposed (Phillips and Brown 1978:158-160; Genheimer 1981:6), which, if correct, suggests that this material postdates the rattles from the Twin Mounds.

The most poorly preserved individual in Feature 49, Burial 6 was interred in an extended, supine position in the center of the burial pit with the head to the north. The left leg was slightly flexed and partially covered Burial 4. Osteoarthritis was observed on several joints. A mica sheet with a wooden back was located in the pelvic region (Fig. 79).

The earth wall separating Features 48 and 49 is rather thin and it appears that an upright support post was positioned in this area. The walls of the pit were partially lined with the same puddled gray clay that was used to cover the mound floor during construction stage I. Ten logs, averaging about 30 cm in diameter, were placed across the short axis of the tomb to form a roof; the logs were subsequently fired. The top of the feature was covered over by the gray clay floor and a number of large sandstone boulders were placed around the edge of the feature, especially on the north and east sides. A number of these fell into the burial pit when the roof collapsed. Tomb architecture is illustrated in Figs. 80 and 81.

One of the two radiocarbon dates for Mound 6 was obtained from a charcoal sample removed from one of the charred roofing logs. The uncorrected date is A.D. 25 ± 80 (UGa-4909).

Feature 51: This rectangular tomb was located approximately 2.7 m north of Feature 48. The large burial pit, which measured 2.5 m long, 1.3 m wide, and 1.7 m deep, was oriented east-west but, despite its size, contained only two burials (Fig. 82). The base of the pit did not reach the underlying sand deposit and consequently bone preservation was very poor. Both of the interred individuals were young adults, at least one of which (Burial 15) was a male. Burial 15 was placed in an extended, supine position, with the head to the east and was represented primarily by soil stains. A single large freshwater pearl bead was associated with the burial, while the fabric remains near the cranium may represent matting that underlay both burials. Burial 16 lay on its right side in an extended position, with the right arm and leg slightly flexed. A large freshwater pearl was the only artifact associated with the poorly preserved skeletal remains.

Feature 51 exhibited the most complex architecture of any tomb excavated during the 1983 field season (Figs. 83 and 84). Tomb roof construction began by lining the interior of the pit with puddled gray clay. Four support logs were then set along the upper edges of the burial pit, one on each side; the remains of these logs were found *in situ*. The top of the tomb was covered by a layer of split can matting (see Fig. 74b). A number of roof rafters of various sizes were then placed over the matting across the short axis of the feature, as indicated by a large, collapsed fragment of the pit edge that clearly bears the impression of roof rafters overlying cane matting. An unknown number of small poles were located between the roof rafters and the first layer of fiber matting; collapsed roof fragments indicated that these were oriented perpendicular to the roof rafters (i.e., east-west). The initial layer of fiber matting was then placed over the tomb; several collapsed roof fragments contain the impressions of matting overlying the roof rafters. This layer of matting was covered by a layer of mottled packing clay, followed by the addition of additional gray clay, mottled clay, and a final layer of matting. The sequence of layered matting is based on a large *in situ* block of soil from the east end of the feature that contained the impressions of two stratigraphically separated layers of matting and a large collapsed roof fragment bearing the impressions of roof rafters and two layers of matting. The weave 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 the matting associated with Feature 51 is similar to the most common type described for Feature 48, i.e., thin fiber strips joined with twisted cordage.

A low berm constructed of reddish brown clay subsoil was located just to the north of Feature 51 above the gray clay floor (Fig. 57) and extended into the E3998 profile. The excavated portion of the berm measured approximately 2.4 cm long, 40 cm wide, and 15 cm in height. While the significance of this feature is unclear, it underscores the amount of effort expended on Feature 51.

Fig. 77. Engraved rattle in situ.

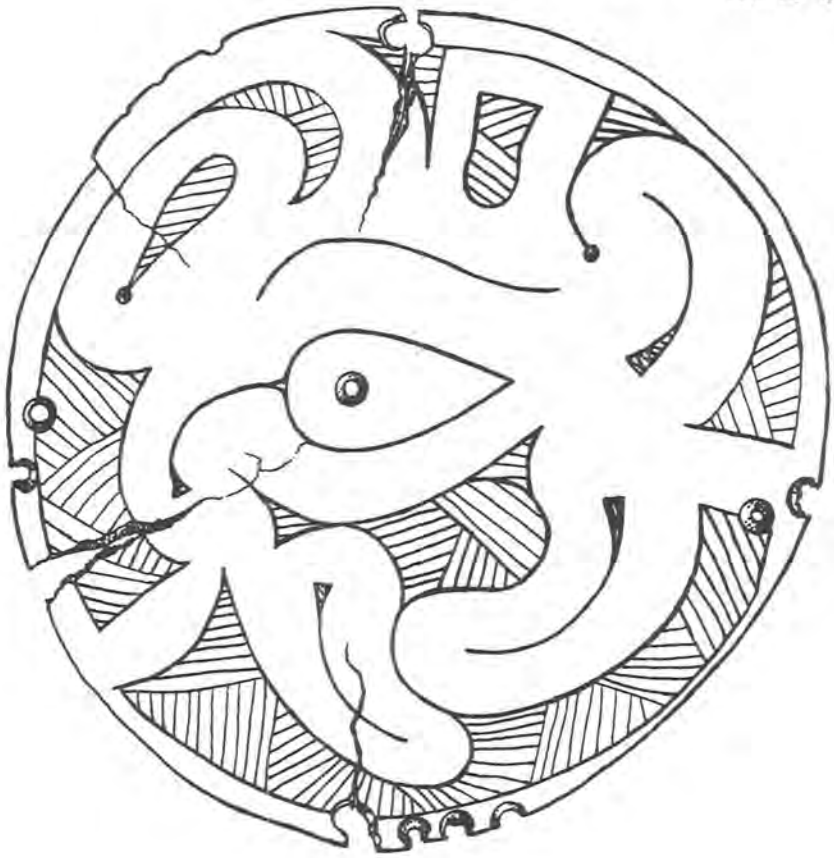


Fig. 78 a-b. Engraved rattles associated with Burial 5 (Reproduced courtesy of Midcontinental Journal of Archaeology)

Fig. 79. Mica sheet associated with Burial 6.

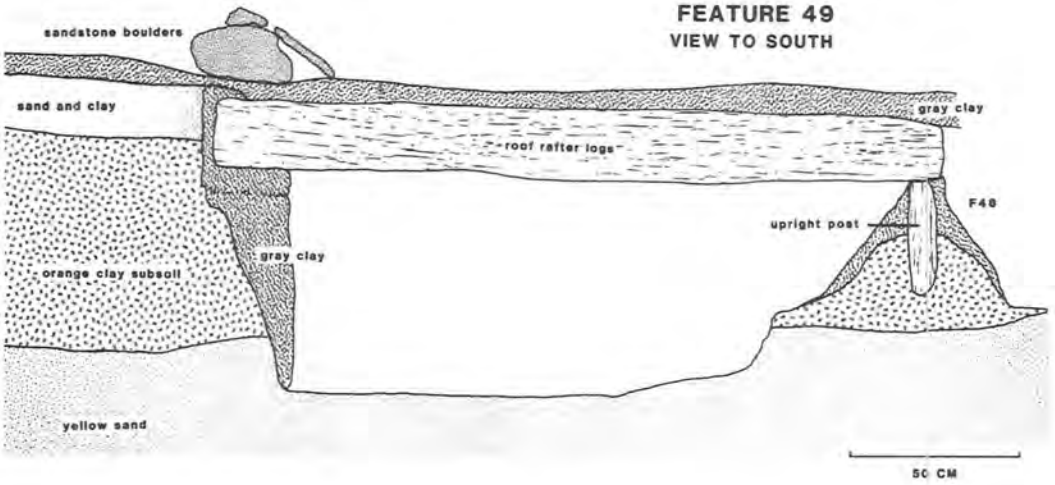


Fig. 80. Section view, Feature 49.

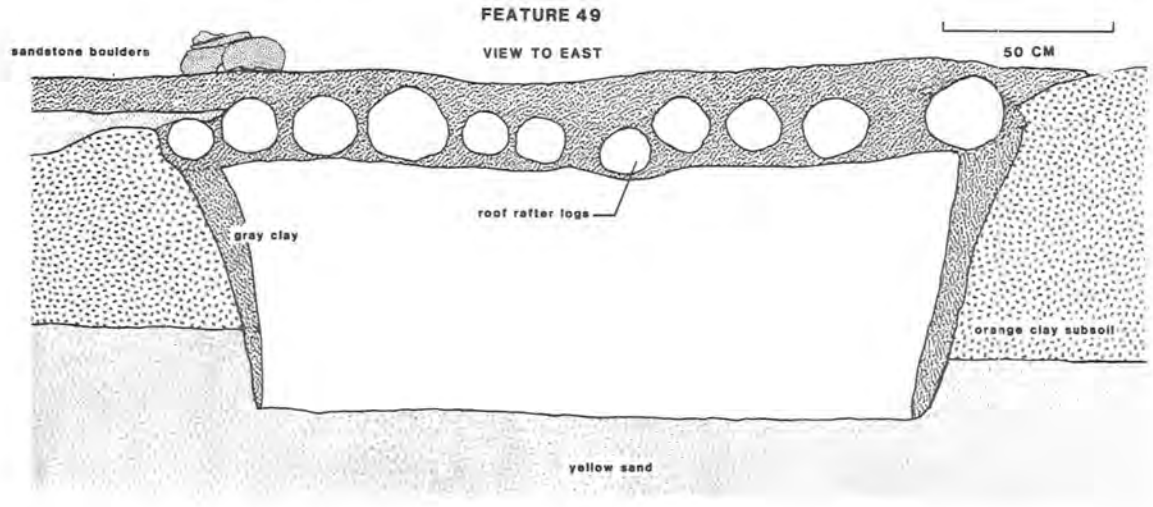


Fig. 81. Section view, Feature 49.

Feature 54: This burial pit, which is located about one meter north of Feature 49, measures about 2.4 m long, 1.5 m wide, and 1.7 m deep. Portions of the top were disturbed by the 1880's excavation, but no serious damage appears to have been caused. However, it is likely that some of the sandstone boulders to the southwest of Feature 54 represent fill at the base of the relic hunter's pit. Two poorly preserved adults were associated with the feature (Fig. 85); one of these is definitely a female (Burial 18) and it is likely that the second is also a female (see Appendix 2). Feature 54 provides the only recovered evidence for possible use of the burial facilities in the Twin Mounds as processing crypts, as Burial 17 appears to have been pushed against the south wall in order to make room for Burial 18. The former was placed on its left side in an extended position with the head to the east, while Burial 18 was interred in an extended, supine position, also with the head to the east. No artifacts were found in association with the burials.

The burial pit originally had sloping sides (especially the south side), but a more rectangular shape was obtained by adding a considerable amount of puddled gray clay to the sides (Figs. 86 and 87). Several small logs that had been burned *in situ* were oriented along the axis, forming a roof over the tomb. An uncorrected radiocarbon date of A.D. 170 ± 95 (UGa-4911) was obtained from a charcoal sample collected from one of the charred logs at the eastern end of the feature. A possible upright buttress (also burned) was observed near the southwest corner of the pit; this might relate to Feature 55 (see below). A number of sandstone boulders were placed around the south edge of the pit after it had been covered by the gray clay floor; some of these were displaced by the relic hunter.

Feature 55: This is an enigmatic, deep, empty pit that was located adjacent to the southwest corner of Feature 54 and the two features may be functionally related (Fig. 87). Feature 55 had a roughly ovoid shape and was 1.3 m long, 1.0 m wide, and 1.3 m deep, with the long axis oriented north-south. The base extended into the McNairy Sand stratum and the collapsed fill in the pit was similar to that found while excavating the tombs. However, no artifacts or skeletal remains were recovered, nor was any evidence of a covering over the pit found. Although the south edge of the feature had obviously been damaged by the relic hunter, the feature itself is clearly aboriginal. Its small size and its proximity to the center of the mound suggest that Feature 55 served some specialized ritual function of which we have no clue as to its nature.

Feature 53: This unexcavated feature is located to the east of Feature 51 (Fig. 67) and was defined on the basis of a distinctive area of collapsed fill measuring 2.3 m long and 1.7 m wide, with the long axis oriented east-west. Feature 53 appears to represent another tomb, but since our excavations exposed only the southern half of the feature, it was not excavated.

Feature 57: This designation has been applied to a concentration of large tabular sandstone that was exposed while excavating the west end of Feature 48 (Fig. 88). The sandstone slopes down toward the west and therefore, is not associated with Feature 48. Feature 57 is undoubtedly a structural feature associated with a tomb and it would not be unreasonable to suggest that this will prove to be the most elaborate mortuary feature in the northern Twin Mound.

COMPARISONS AND CONCLUSIONS

Despite the limited extent of the 1983 excavations, some important generalizations can be made about the formal structure of the Mound 6 tombs. First, only adults were interred in the tombs and Burials 1 and 2, near the top of the mound, were also adults. Additionally, each tomb contained only individuals of the same age and sex; Feature 48 is especially noteworthy in this regard and is suggestive of retainer burial.

Some intriguing spatial relationships among the sub-mound tombs are also suggested by the available data. The large sandstone boulders that were placed to the north of Features 48 and 49 (and perhaps to the southwest of Feature 54), as well as the yellow sand deposited over these features, appear to define north and south ritual precincts at the base of the mound (see Fig. 57). This dichotomy is also suggested by the formal characteristics of the tombs. The two southern tombs (Features 48 and 49) contained 12 of the 16 tomb burials, as well as virtually all of the grave goods placed with the dead. Sandstone boulders were placed around the edges of both tombs. In contrast, the northern tombs (Features 51 and 54) contained only two individuals each and the two pearl beads associated with Feature 51 were the only artifact inclusions. These tombs also lacked sandstone boulders. Yet, despite the presence of few individuals and the paucity of grave goods, the northern burial pits are larger (especially deeper) than those to the south and clearly represent the investment of greater energy in their construction. The elaborate architecture of Feature 51 is also noteworthy in this regard. Interestingly, the apparent north-south dichotomy also seems to be symbolized in the sandstone boulder cap that covers a portion of the northern half of the mound. The symbolic importance of space in partitioning the mortuary domain has been stressed by Brown (1981), Goldstein (1980), and Mainfort (1985) and there can be little doubt that considerable planning is reflected in the organization of the sub-mound floor.

The elaborate construction, energy investment, and use of space revealed by our excavations contrasts markedly with other Middle Woodland mortuary sites in the southeast. As Pinson Mounds has frequently been linked with the Miller tradition because of ceramic similarities (e.g., Jenkins 1981), several of the Miller burial mounds will be useful for initial comparisons. Bynum Mound B (Cotter and Corbett 1951) was a relatively large earthwork, standing about 4.3 m tall, with a diameter of approximately 20 meters. The upper fill was apparently uniform and covered the remains of a charnel house in which cremated remains and grave goods were stored and/or interred. This mortuary structure housed a centrally located crematory pit that had probably seen multiple reuse. Presumably, most of the individuals processed through the charnel house were buried elsewhere and the mound might be viewed as commemorating the charnel house itself and all of the participants (both living and dead) in mortuary rituals at this locality, rather than simply the few interments encountered by the excavators. A smaller mortuary house with an associated crematory was exposed at the base of Mound D, while the central feature of Bynum Mound A may represent a log-covered burial crypt (Brown 1979).

Based on the relative frequencies of ceramic types in mound fill, Jenkins (1982:69) has proposed a date of 100 B.C. - A.D. 1 for Bynum Mound D and A.D. 1 - 100 for Mounds A and B. However, the Bynum ceramic asseblage is dominated by the types Saltillo Fabric Impressed and Baldwin Plain, with only minor amounts of Furrs Cord Marked and other types, making it roughly comparable to the ceramics recovered from the lower occupation zone (Stratum 6) underlying Pinson Mound 12 (Mainfort [ed.] 1980). This stratum has recently been dated to approximately 205 B.C. ± 115 (UGa-3716), suggesting that Jenkins' proposed ages for Bynum are somewhat too recent.

Central crematory features, albeit associated with raised burial platforms, rather than charnel houses, have also been recorded at the Pharr Mounds (Bohannon 1972). Regretably, hasty excavation probably obscured a number of associated cultural features, but it seems likely that these crematory facilities were re-used, as were the associated crematory basins on or below the original ground surface. Several intrusive pits containing grave offerings, but no associated skeletal remains, were recorded in Mound E, the largest of the Pharr mounds. Primary mounds covered the raised platforms, followed by secondary additions. The Pharr ceramic assemblage is nearly identical to that from Bynum, albeit with a slightly higher incidence of Furrs Cord Marked

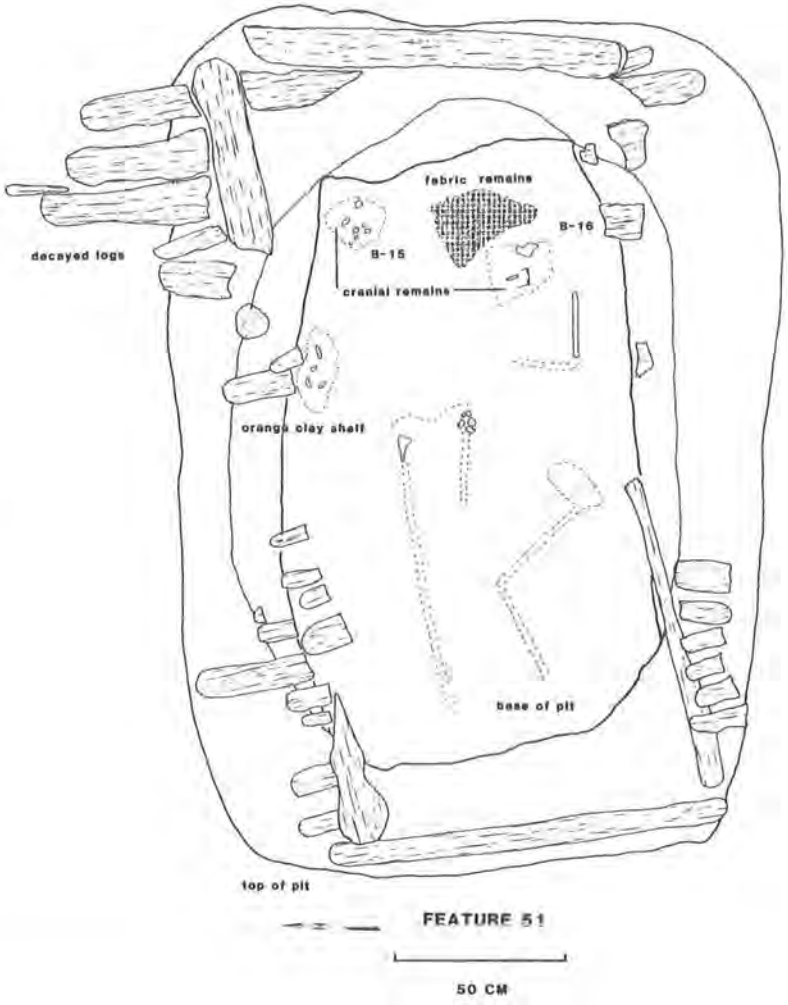


Fig. 82. Plan view, Feature 51.

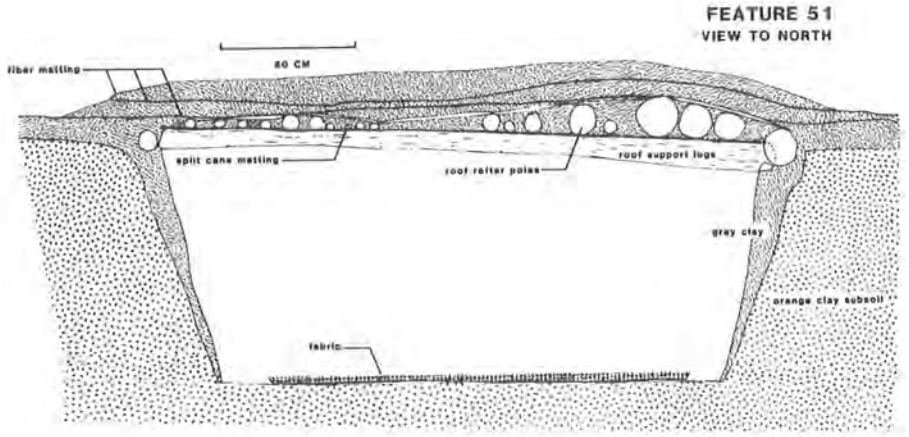


Fig. 83. Section view, Feature 51.

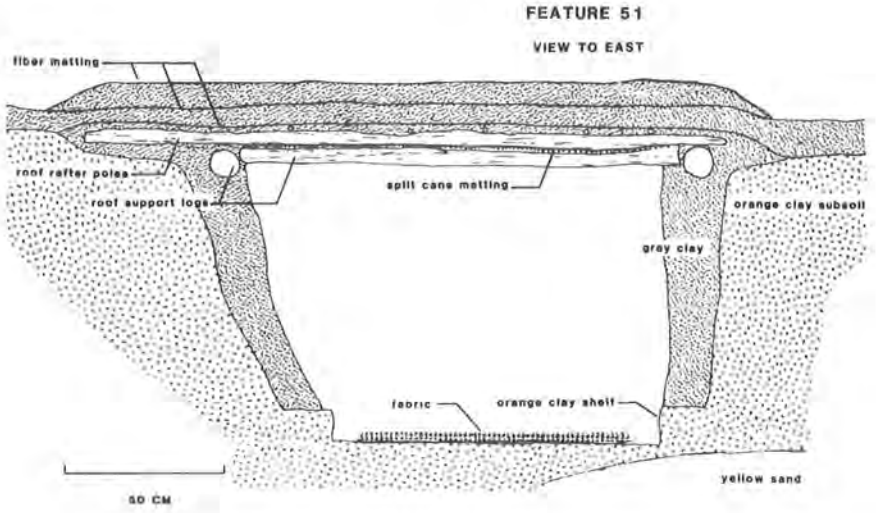


Fig. 84. Section view, Feature 51.

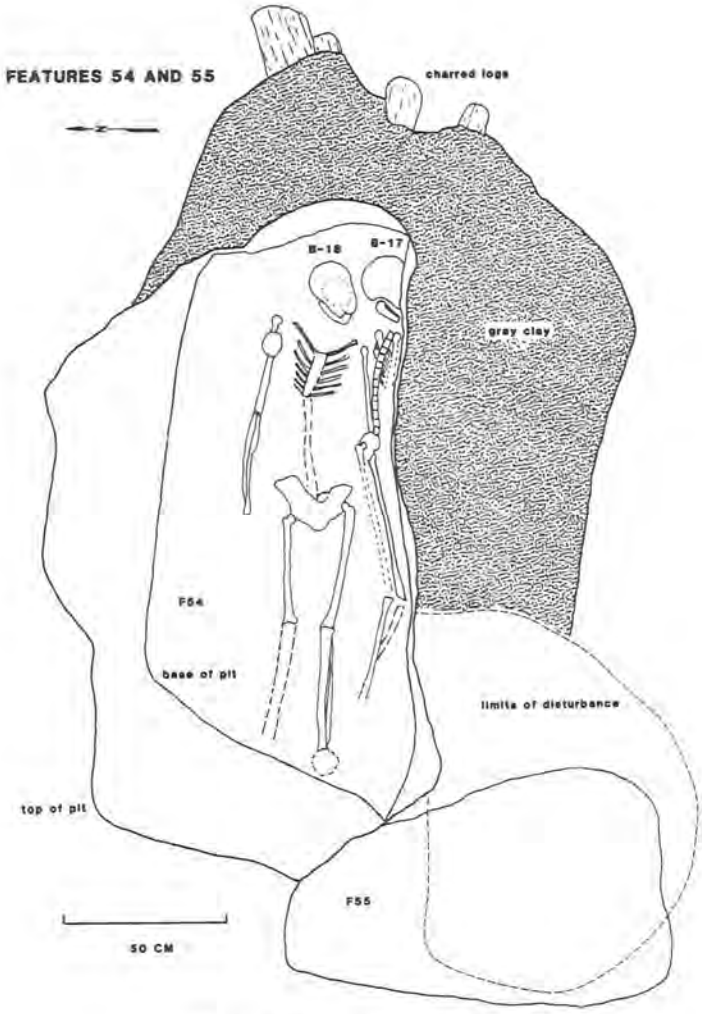


Fig. 85. Plan view, Feature 54.

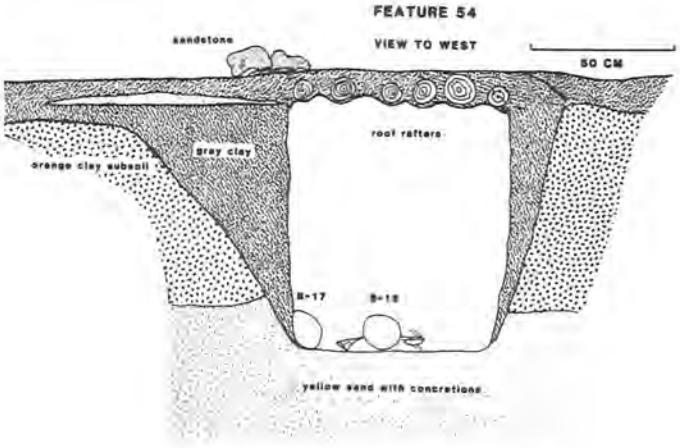


Fig. 87. Section view, Features 54 and 55.

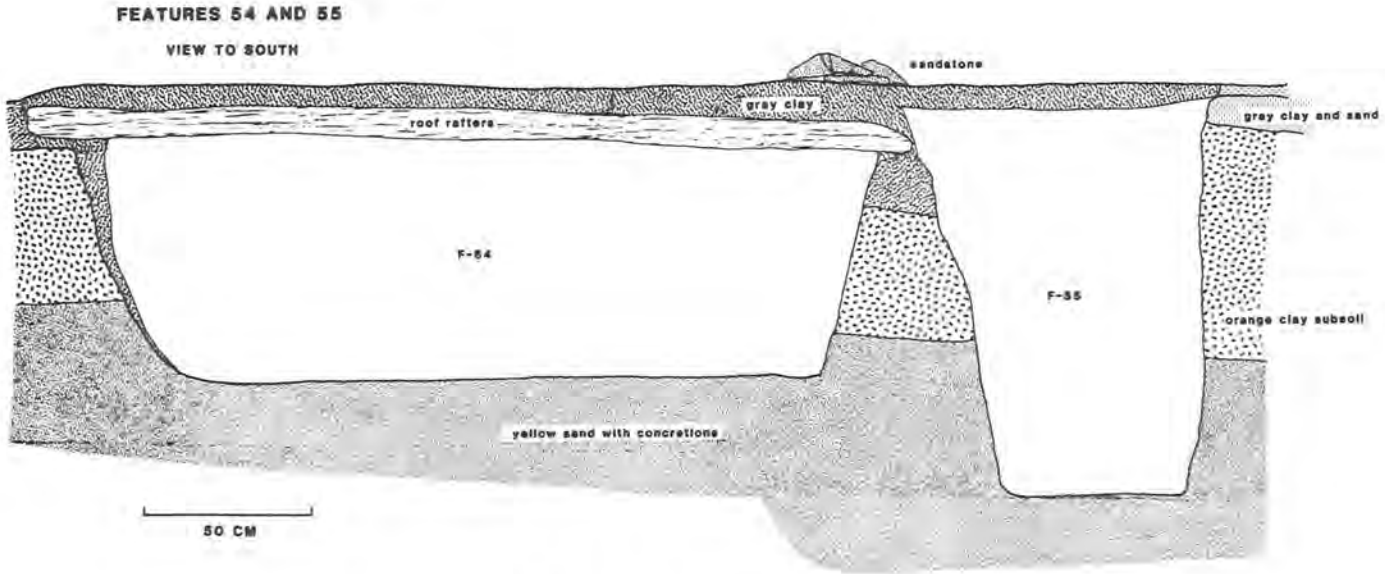


Fig. 86. Section view, Feature 54.

and, again, Jenkins' (1982:69) chronological placement of the site should perhaps be revised.

Although located outside of the Miller tradition area proper, the McRae Mound (Collins 1926) is structurally and functionally similar to the Pharr Mounds and warrants mention here. The extant data suggest that the low platform at McRae may have initially served as a temporary repository for fleshed interments and subsequently, after the platform surface was capped with a layer of puddled gray clay, supported an unknown number of crematory facilities. This interpretation is supported by the published illustration of the platform stratigraphy (Collins 1926:92), which shows a thin, dark stratum above the puddled clay cap. The "clay dome" mentioned by Collins (1926:91) apparently represents a feature similar to the primary mound that covered the raised platform at the base of Pharr Mound A (Bohannon 1972:9-10). Several similarities between McRae and the Twin Mounds have been discussed previously.

In summary, the Miller tradition burial mounds discussed above exhibit none of the complex stratigraphy observed in the Twin Mounds. Further, all of the former were built over mortuary processing facilities, with most actual burials taking place at other localities. Varying degrees of energy investment are evident, ranging from minimal (Pharr Mound H) to considerable (Bynum Mound B and Pharr Mound E). Save for the processing loci themselves, there is little that can be said about the ritual use of space within these earthworks.

Some 40 miles west of Bynum, the Womack mound has yielded evidence of a raised clay burial platform that has been dated to circa A.D. 300, as well as a ceramic assemblage that is stylistically similar to Miller ceramics, albeit with a higher incidence of grog temper (Koehler 1966). Characteristic grave offerings were absent and post-Middle Woodland additions substantially increased the size of this earthwork.

The McQuorquodale mound, located just north of Mobile Bay on the Tombigbee River, also exhibited a low burial platform and here the dead were interred with a number of non-local grave accompaniments, including copper ornaments, galena, and mica (Wimberly and Tourtelot 1941). The six interments placed on the platform were all fragmentary secondary burials, suggesting that the platform served as a mortuary processing feature. Sand tempered plain sherds (classified as O'Neal Plain, but indistinguishable from Baldwin Plain) comprised over 75 percent of the ceramic assemblage. Both of these earthworks were relatively small, contained few individuals, and there is little indication that the burial platforms were used for an extended time period.

Another well-documented Middle Woodland site at which a raised platform served as a repository for the dead is the Crooks site in central Louisiana (Ford and Willey 1940). In Crooks Mound A, over 200 individuals, including many secondary interments, were placed on an earthen burial platform, while over 700 additional interments were included in the mound fill above the platform. Some of the latter can be attributed to the later Plaquemine period use of the mound (J.B. Griffin, personal communication). Water deposited soils around the periphery of the platform indicate some time lag between the completion of the platform and the addition of the primary mantle, raising the possibility that the platform was initially used as a processing facility. The 168 burials immediately below the surface of the platform may reflect such a function. Although the site is most frequently cited with reference to the decorated Marksville ceramics used as grave offerings (e.g., Toth 1977:431-434), Crooks Mound A is an important Middle Woodland mortuary structure that merits considerable attention in its own right. The number of interred individuals is without parallel in the southeast and strongly implies the use of the site as a regional mortuary center, an interpretation supported by the high incidence of secondary burials.

Marksville Mound 4 contained another variant of a raised burial platform. In this case, a large pit was excavated into the platform. A roof was erected over this "vault" and the resulting structure served as a charnel house. A number of burials were found within the structure and others were encountered on top of the platform itself (Toth 1974:18-28).

The log-covered tombs within the Twin Mounds readily call to mind the roughly contemporary mortuary facilities at Helena Crossing (Ford 1963). The larger of the two excavated mound (Mound C) measured about 30 m in diameter and 5 m in height. Mound C was constructed over an old sod horizon and contained five log-covered tombs, several pottery deposits, and numerous additional burials. Although the largest tomb (Tomb B) was located near the center of the earthwork, there is little to suggest an overall plan to the spatial arrangement of the tombs. In addition to the size of the mound, the large timbers (some over a meter in diameter) employed reflect considerable energy expenditure. While several tombs were apparently covered with small primary mounds, the stratigraphy of the mound consisted of undifferentiated basket-loaded fill. Brown (1979:219) has correctly pointed out that the Helena Crossing tombs functioned as processing crypts, citing the imperfect articulation of some skeletons, missing bones, and the occurrence of washed soil deposits in the crypts as evidence. While the use of logs to cover burial pits is a structural feature of both Pinson Mounds and Helena Crossing, the apparent lack of emphasis on spatial partitioning, lack of complex stratigraphy, and the use of burial crypts at Helen Crossing make it apparent that these mounds differ markedly in function and symbolic importance from the Twin Mounds.

Although by no means exhaustive, an important fact that emerges from the preceding discussion is that most of the larger Middle Woodland burial mounds in the mid-south began as multiple-use mortuary processing facilities that were later covered by stratigraphically simple mounds and, while several of these evidence considerable initial investment of energy, this was offset by the multiple use of these features. Further, in none of the instances cited did the mounds themselves exhibit the complexity of the northern Twin Mound. When compared to some of the other large burial mounds in the southeast, the energy investment represented by the Twin Mounds is made all the more impressive by the fact that there is no evidence that the tombs in this earthwork were re-used.

Two radiocarbon determinations were made on single log charcoal samples from Features 49 and 54. These dates (A.D. 25 $\pm$ 80 and A.D. 170 $\pm$ 95) indicate that the northern Twin Mound was constructed around A.D. 80-100, roughly contemporary with the upper occupation zone on Ozier Mound. The size and complexity of the Twin Mounds suggest that they served as a supralocal repository for the dead. While the data from the 1983 excavations is admittedly limited, strong indications of a dichotomy in the spatial arrangement of the tombs, the conjoined mounds themselves, and other aspects of mound organization provide a firm theoretical basis for additional excavations.

DESCRIPTION OF FEATURES

Feature 52

Location:	N4000/E4004
Stratigraphic placement:	Mound floor.
Defining characteristics:	Presence of collapsed mound fill within pit; collapsed area also observed in N4000 profile.
Dimensions:	Diameter, 25 cm; depth, 18 cm.
Artifacts present:	None.
Interpretation:	Function unknown; may not be a construction feature.

Feature 53

Location: N4004/E4000 and N4004/E4002
Stratigraphic placement: Unexcavated; presumably mound floor.
Defining characteristics: Area of collapsed mound fill observed in plan view above clay floor and in profiles.
Dimensions: Length, apx. 200 cm; width, apx. 150 cm.
Artifacts present: None recovered.
Interpretation: Not excavated; probably represents collapsed fill above a tomb.

Feature 55

Location: N4000/E4000
Stratigraphic placement: Mound floor; extends into underlying sand deposit.
Defining characteristics: Presence of collapsed mound fill within pit.
Dimensions: Length, 130 cm; width, 100 cm; depth, 130 cm.
Artifacts present: None recovered.
Interpretation: Function unknown, but probably related to Feature 54.

Feature 56

Location: N4000/E4006
Stratigraphic placement: Clay floor (construction stage I).
Defining characteristics: Presence of discolored area containing charcoal.
Dimensions: Diameter, apx. 95 cm.
Artifacts present: None recovered.
Interpretation: Ceremonial fire on gray clay floor.

Feature 57

Location: N3998/E3998, N4000/E3998
Stratigraphic placement: Mound floor.
Defining characteristics: Concentration of tabular sandstone immediately west of Feature 48. Sandstone slabs angle down toward the west.
Dimensions: Width, apx. 150 cm.
Artifacts present: None recovered.
Interpretation: Not excavated; probably represents a tomb containing high status burials.

Feature 59

Location: N4002/E4006
Stratigraphic placement: Clay floor (construction stage I).
Defining characteristics: Presence of discolored area on clay floor.
Dimensions: Length, 118 cm; maximum width, 51 cm; depth, 4 cm.
Artifacts present: None recovered.
Interpretation: Small surface fire on clay floor; probably related to Feature 73.

Feature 60

Location: N4002/E4002, N4002/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Area of soil dicolored by heat.
Dimensions: Length, 125 cm; maximum width, 60 cm.
Artifacts present: None recovered.
Interpretation: Surface fire; perhaps associated with PM 56, a post hole that was apparently refilled with cremated remains.

Feature 62

Location: N4002/E4006
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within straight-sided pit.
Dimensions: Diameter, 22 cm; depth, 34 cm.
Artifacts present: 2 chert flakes, calcined bone.
Interpretation: Small cremation pit or post hole subsequently used as cremation pit.

Feature 63

Location: N4002/E4006
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within straight-sided pit.
Dimensions: Diameter, 12 cm; depth, 20 cm.
Artifacts present: Calcined bone, charcoal.
Interpretation: Cremation pit; similar to Feature 62.

Feature 64

Location: N4000/E4006
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within round-bottomed pit.
Dimensions: Diameter, 27 cm; depth, 16 cm.
Artifacts present: Mica fragments, calcined bone, charcoal.
Interpretation: Crematory basin.

Feature 65

Location: N4000/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within round-bottomed pit; top covered with thin layer of sandy clay.
Dimensions: Diameter, 24 cm; depth, 17 cm.
Artifacts present: 5 sherds Furrs Cord Marked, 2 chert flakes, 2 pieces sandstone, mica fragments, calcined bone, charcoal.
Interpretation: Crematory basin.

Feature 66

Location: N4000/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within deep pit; surrounded by soil discolored by heat.
Dimensions: Diameter of pit, 21 cm; depth of pit, 82 cm.
Artifacts present: 4 sherds Furrs Cord Marked, 1 chert flake, calcined bone, charcoal.
Interpretation: Cremation pit or large post hole subsequently used as cremation pit.

Feature 67

Location: N400/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within pit; largely destroyed by intrusive post.
Dimensions: Diameter (estimated), 18 cm; depth, 6 cm.
Artifacts present: 3 chert flakes, 2 siltstone flakes.
Interpretation: Cremation pit.

Feature 68

Location: N4002/E4002
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within pit; surrounded by area discolored by heat.
Dimensions: Diameter, 20 cm; depth, 15 cm.
Artifacts present: 1 sherd Furrs Cord Marked, mica fragments, calcined bone, charcoal.
Interpretation: Cremation basin.

Feature 69

Location: N4002/E3998
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and bone within round-bottomed pit.
Dimensions: Diameter, 20 cm; depth, 17 cm.
Artifacts present: 2 chert flakes, mica fragments, burned and calcined bone, charcoal.
Interpretation: Pit containing cremated animal remains near center of mound.

Feature 70

Location: N4002/E4006
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within round-bottomed pit.
Dimensions: Diameter, 18 cm; depth, 16 cm.
Artifacts present: Calcined bone, charcoal.
Interpretation: Crematory basin.

Feature 71

Location: N4000/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within straight-sided pit.
Dimensions: Diameter, 20 cm; depth, 22 cm.
Artifacts present: Calcined bone, charcoal.
Interpretation: Cremation pit.

Feature 72

Location: N3998/E4002
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal, ash, and calcined bone within round-bottomed pit.
Dimensions: Diameter, 18 cm; depth, 11 cm.
Artifacts present: Calcined bone, charcoal.
Interpretation: Crematory basin.

Feature 74

Location: N4002/E4000
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal within pit.
Dimensions: Diameter, apx. 20 cm.
Artifacts present: None recovered.
Interpretation: Not excavated; probably a small cremation pit.

Feature 75

Location: N4002/E4004
Stratigraphic placement: Mound floor.
Defining characteristics: Area of soil discolored by fire.
Dimensions: Length, 53 cm; maximum width, 29 cm.
Artifacts present: None recovered.
Interpretation: Surface fire; perhaps associated with PM 53, a post hole that was apparently refilled with cremated remains.

Feature 76

Location: N4002/E4006
Stratigraphic placement: Mound floor.
Defining characteristics: Presence of charcoal and calcined bone within pit; surrounded by area discolored by heat.
Dimensions: Diameter, apx. 40 cm.
Artifacts present: None recovered.
Interpretation: Not excavated; probably a crematory basin.

Fig. 88. East end, Feature 57. (Feature consists of tabular sandstone to west of Feature 48.)

Concluding Remarks

Building on previous investigations at the site, the research described in this monograph has demonstrated that Pinson Mounds is a unique Middle Woodland ceremonial center. The size, spatial organization, and composition of the mound group are without parallel and demand a major reevaluation of Middle Woodland ceremonialism and the cultural dynamics in the southeast during this time period.

Perhaps the most significant contribution presented here is the demonstration that large platform mounds were constructed during the Middle Woodland period. Radiocarbon dates for the upper occupation level of 10 m tall Ozier Mound (Mound 5) indicate that the final construction and use of this structure took place slightly prior to A.D. 100, while the much smaller Mound 10 appears to have been built about 100 years later. Although these are the only platform mounds at the site for which radiocarbon dates have been obtained, all available evidence points to Middle Woodland affiliation for Mounds 9, 15, 28, and 29 as well. Importantly, no evidence of buildings has been found on the excavated flat-topped mounds and it should be reiterated that, save for an isolated farmstead excavated in the 1960's, there is virtually no indication of a Mississippian occupation at the Pinson Mounds site.

Platform mounds occur at a number of additional Middle Woodland sites. Located only three river miles north of Pinson Mounds, the Johnston site (40MD3) is a demonstrably Middle Woodland site that includes two platform mounds, one of which stands about 6 m tall. The orientation of this earthwork is virtually identical to that of Pinson Mound 29 and it seems inescapable that the Johnston site was built and utilized by some of the same social groups responsible for Pinson Mounds (Kwas and Mainfort 1984). Limited surveys and testing suggest that the impressive platform mounds at the Ames Plantation (40FY7) in the Wolf River drainage, near Grand Junction, Tennessee are also of Middle Woodland age (see Peterson 1979) and Rafferty (1983, 1984) has recently presented compelling evidence indicating that the large, ramped Mound 14 at the Ingomar site in northeastern Mississippi is a Middle Woodland earthwork. Leist Mound C in the Yazoo Basin represents yet another large platform mound of probable Middle Woodland age (Phillips 1970:367-373). Enclosed within a small embankment, this structure measures approximately 110 by 75 meters at the base and 2.4 m tall, with a secondary mound nearly 2 m high added to the south end of the earthwork. Finally, Mounds 2, 6, and 7 at the Marksville site appear to be flat-topped Middle Woodland earthworks (Vescelius 1957; Toth 1974).

Other probable Middle Woodland platform mounds occur in southern Ohio. Four truncated pyramidal mounds (at least three of which were apparently ramped) are located within the western embankment at Marietta (Squier and Davis 1848). Prufer (1964:51) and Graybill (1980) argue strongly for these being of Middle Woodland age, although they may be associated with a Mississippian occupation at, or near, the site (Essenpreis 1978); all mounds within the eastern square at Marietta appear to be Middle Woodland (J. B. Griffin, personal communication). The platform mound at Baum is post-Middle Woodland (Prufer 1964:50), but similar structures at Ginther and Cedar Banks are associated with Middle Woodland cultural material (Shetrone 1925; James B. Griffin, personal communication). Also probable Middle Woodland origin are the platform mounds within the Newark works (Prufer 1964). A number of additional flat-topped mounds in the southeast are assignable to the Middle Woodland and these have recently been summarized by Brose (1979).

Archaeologists have traditionally associated truncated pyramidal mounds only with Mississippian societies (cf. Jennings 1974 and Phillips 1970) and it has generally been accepted that the presence of such structures implies a chiefdom level of social organization. The data from Pinson Mounds effectively negate both of these axioms. There can be little doubt that the semiotic relationship expressed by platform mounds communicates a complex message that includes intimations of social dichotomy, privilege, and differential access. Further, the size and complexity of Pinson Mounds and other large Middle Woodland ceremonial centers seemingly necessitated the mobilization and control of a large work force composed of individuals from a number of socio-political groups. Excavations in the Duck's Nest sector and the Twin Mounds provide tantalizing clues about the societies that participated in ceremonialism at Pinson Mounds. Evidence from the former suggests that some individuals were transported over great distances for burial at the site, while the energy investment, spatial arrangement, and internal structure of the Twin Mounds may reflect a social hierarchy that is atypical for the Middle Woodland period.

Yet, there are important differences between large Middle Woodland ceremonial centers like Pinson Mounds and major Mississippian centers such as Moundville. The latter represents the apex of a large, ranked, socio-political system and included a substantial resident population governed by a ruling class (Peebles 1971; Peebles and Kus 1977). In contrast, Pinson Mounds seems to have been constructed specifically for use on ceremonial occasions by a number of relatively small, semi-sedentary social groups with no evidence of multi-village political authority. While this comparison is clearly not exhaustive, it should be apparent that although there are certain formal similarities between Pinson Mounds and the later Mississippian centers, the social and political underpinnings of the societies were markedly different (see also Caldwell 1962:297).

Pinson Mounds also differs significantly from the major centers in Ohio, which Struever (1968:16-21) suggests were products of a chiefdom level of social organization (see also Griffin 1979:278-279). Although the volume of earth represented in the large platform mounds at the site greatly exceeds many of the Ohio centers in magnitude, there is comparitively little evidence of inter-regional trade. In fact, only 10 classes of Hopewell Interaction Sphere commodities (cf. Seeman 1977) have been found at the site and, with the exception of the freshwater pearl and *Marginella* beads from the Twin Mounds, these occur only in very small quantities. This may reflect the fact that Pinson Mounds does not seem to have functioned primarily as a mortuary center.

Unfortunately, this does not bring us appreciably closer to an understanding of why Pinson Mounds was built, why the site was built where it was, or of the social mechanisms that provided the work force large enough to build the mounds. While several mounds were repositories for the dead, the function of the platform mounds (beyond their use as ceremonial structures) is unclear and nothing is known of the motivation behind the construction of such a large and complex site. The location of the site, which provides access to a rich and diverse habitat, does not appear to have importance for the control of critical resources or as a political boundary. Finally, the mechanisms that provided the organization necessary to complete such a major construction project and drew people to Pinson Mounds from great distances remain, at best, poorly understood.

The extensive body of radiocarbon dates for the Pinson Mounds site (see Appendix 1) 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 1 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 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 constructed by small, local social groups and it appears that the Pinson Mounds site ceased to function as supralocal Middle Woodland land ceremonial center around A.D. 300.

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Appendix 1

Pinson Mounds Radiocarbon Dates: 1974-1983 Field Seasons

LAB NUMBER	*UNCORRECTED DATE*	*PROVENIENCE*	*ASSOCIATION*	*COMMENTS*
UGa-976	A.D. 290±70	Mound 12 sector, Feature 35	Burned post associated with oval structure.	Short-term habitation area to the northeast of Mound 12.
UGa-977	A.D. 270±70	Mound 12 sector, Feature 39	Hearth disturbed by construction of oval structure.	
UGa-978	A.D. 775±135	Mound 12 sector, Feature 37	Burned post not associated with a structure.	Significance of date unclear; may be inaccurate.
UGa-980	A.D. 125±65	Mound 12 sector, Feature 48	Post hole containing charcoal and charred cane. Function unknown.	Isolated feature; not associated with structures
UGa-3600	A.D. 475±60	Mound 12, Feature 55	Crematory facility; central feature of mound.	Mound post-dates construction and use of platform mounds at site.
UGa-3601	A.D.455±60	Mound 12, Feature 55	Crematory facility; central feature of mound.	
UGa-3715	A.D. 255±80	Mound 12, Stratum 5, Level 1	Disturbed pre-mound occupation level.	Occupation level may be related to oval structures to northeast of mound.
UGa-3716	205 B.C.±115	Mound 12, Stratum 5, Level 2	Disturbed pre-mound occupation level. Overlies undisturbed stratum containing baked clay objects and fabric marked ceramics	Important date for Early Woodland in west Tennessee. Stratum probably contemporary with occupation zone under geometric embankment (see Morse, this volume).
UCLA-2341A	A.D. 1±200	Mound 12, Feature 61	Pre-mound cremation containing Marksville Incised, Furrs Cordmarked, and Saltillo Fabric Impressed ceramics.	Feature lies within Stratum 5, Level 1.
UCLA-2341C	A.D. 80±250	Mound 12, Feature 66	Pre-mound burial containing Withers Fabric Marked jar.	Feature associated with Stratum 5, Level 2.
UGa-979	A.D. 60±380	Mound 14 sector, Feature 46	Earth oven or crematory pit containing large quantity of ceramics.	Date not of any value. Associated Swift Creek ceramics suggest contemporaneity with the Duck's Nest sector.
UGa-3602	A.D. 300±70	Cochran site, Feature 10	Roof support for oval ceremonial structure.	Short-term habitation area west of the Twin Mounds.
UCLA-2341B	415 B.C.±500	Cochran site, Feature 14	Cremation pit containing Furrs Cord Marked sherds and copper bead.	Date not of any value.
UGa-4173	325 B.C±180	Mound 5, N98/E98, Level 48	Charcoal deposit in fill below upper occupation stratum.	Sample may represent mound fill, rather than a feature.
UGa-4174	A.D. 190±160	Mound 5, Feature 2	Prepared hearth in upper occupation stratum.	Hearth also contained a Furrs Cord Marked sherd
UGa-4543	20 B.C.±110	Mound 5, Feature 1	Hearth in upper occupation stratum.	

LAB NUMBER	*UNCORRECTED DATE*	*PROVENIENCE*	*ASSOCIATION*	*COMMENTS*
UGa-4176	595 B.C.±115	Mound 31, Feature 6	Ring of cremations around central burial feature.	Date probably inaccurate; should be in A.D. 1-400 range.
UGa-4213	A.D. 740±160	Mound 31, Feature 11-A	Small fire pit containing burned cane.	Date probably inaccurate.
UGa-4214	A.D. 380±125	Mound 31, Feature 6	Ring of cremations around central burial feature.	Most acceptable date for mound.
UGa-4542	125 B.C.±90	Duck's Nest, Feature 18	Large fire basin in center of earthwork.	Least unacceptable date for Duck's Nest (see text).
UGa-4681	A.D. 415±65	Duck's Nest, Feature 18	Large fire basin in center of earthwork.	Date probably inaccurate; possibility of sample contamination.
UGa-4910	A.D. 605±135	Duck's Nest, Feature 18	Large fire basin in center of earthwork.	Date probably inaccurate; possibility of sample contamination (see text).
UGa-4544	modern	Duck's Nest, upper charcoal concentration	Charcoal deposit intrusive into top of Feature 18.	Modern disturbance.
UGa-4677	A.D. 125±105	Duck's Nest sector, Feature 20-A	Crematory basin containing ceramics and lithics.	
UGa-4678	A.D. 245±70	Duck's Nest sector, Feature 20-B	Crematory basin containing ceramics and lithics.	
UGa-4679	A.D. 65±130	Mound 10, Feature 21-B	Large hearth near center of mound.	Dates occupation surface of small platform mound.
UGa-4680	A.D. 270±85	Mound 10, Feature 21-B	Large hearth near center of mound.	(as above)
UGa-4909	A.D. 25±80	Mound 6, Feature 49	Log-covered tomb.	Sample taken from single log.
UGa-4911	A.D. 170±95	Mound 6, Feature 54	Log-covered tomb.	Sample taken from single log.

APPENDIX 2

Human Skeletal Remains from Mound 6

Lane A. Beck

Introduction

The 1983 excavations in Mound 6 recovered human skeletal remains representing 18 individuals, all of which were adult at the time of death. Both males and females are present in the sample. Since the mound was not completely excavated, it is not possible to draw inferences about the nature of the burial population. Additional samples may either duplicate or extend the age range obtained from the 1983 burials. Comparative analysis of the Mound 6 burials with those from other sites is also inappropriate at present, due both to the incomplete nature of the sample and to the small number of individuals available for such analysis. As a result, this report is limited to a descriptive summary of the individual burials. Detailed information on the mortuary features is presented elsewhere in this volume and will not be repeated here.

BURIAL TREATMENT

The 18 burials recovered from Mound 6 all represent fleshed inhumations. Although burned animal bone was present in the mound fill and in sub-mound features, no evidence of human cremation was encountered. Although at some Woodland sites, cut marks on human bone have suggested removal of the flesh prior to final inhumation, no such marks were noted on the individuals from Mound 6. Additionally, the presence of all skeletal parts, including sesmoid bones and distal phalanges (parts that may be lost during extensive preburial processing), argues for the deposition of the remains occurring while the bodies were fully fleshed.

Burials were recovered from two locations within the northern Twin Mound. Two individuals appear to have been placed on (prepared?) surfaces under the stone cap near the top of the mound. Precision in describing the placement of these two interments is limited due to poor preservation, root and rodent disturbances, and disturbance of one of the burials by a relic hunter in the late 1800's. The remaining interments were placed in groups of two to eight individuals in four tombs extending into subsoil beneath the mound. No differences in age or sex of the individuals was noted in association with these two locations. However, groupings of individuals were observed for the tombs. Each feature was restricted to a single sex and exhibits marked similarity in age for all individuals.

Both flexed and extended positions were recorded. The two flexed burials were both oriented roughly east-west, while, of the 16 extended burials, three were oriented north-south and 13 east-west. Five of the extended burials might be described as slightly flexed, with one of both legs being somewhat out of alignment. These individuals are interpreted as being among the last interments placed in their respective tombs with the flexure probably representing postdepositional slumpage that occurred as the bodies beneath them decayed. With a single exception, all bodies seem to have been placed in the mound on their backs. A slight inclination to the side noted in six of the burials may also be attributed to postdepositional slumpage.

All four tombs were hollow, sub-mound enclosures. It is not possible to determine the length of time any given tomb was actively in use, nor the duration of use of the mound floor as a mortuary activity area. However, had extensive decay of a body occurred prior to the inclusion of the final burial in a given tomb, one would expect some disturbance of the remains to have occurred; this was not observed. As previously mentioned, the only evidence of postdepositional movement is found in the upper layers of bodies and is associated with decompositional slumpage. Therefore, it seems probable that each tomb was used for a relatively brief period of time, with the placement of the final interment occurring before extensive decomposition of the preceding burial(s). Whether the placement of the interments in a given tomb represents a single event or was spread out over a short time span (perhaps a season) cannot be determined, although the absence of water-laid soil deposits within the tombs suggests that they did not stand open for more than a few days at most.

No evidence of violent death was noted for any of the individuals. In general, the population appears extremely healthy, with the only pathologies being those associated with age. The skeletons of the 8 individuals in Feature 48 all exhibit extensive pitting, particularly on the bones of the cranial vault and the pelvis. Although macroscopically this pitting is suggestive of a degenerative disease, microscopic examination revealed no signs of bone remolding. Therefore, it appears that the destruction was not due to disease, but rather to insect damage following interment.

Burial Descriptions

A summary of the biological data for each individual is presented below. Burials are grouped by location. Relative positioning of the bodies within each tomb is illustrated in Figs. 68, 75, 82, and 85. Examination of the remains was conducted in several stages. Preliminary age and sex identification was conducted by the author following excavation and treatment in the field lab. Six months later, each burial was fully inventoried and new age and sex observations were again made by the author. A subset of individuals was reevaluated by Sloan Williams to confirm the designations. The information presented here represents the consensus of these examinations. Jane Buikstra was available for consultation on questioned items; her expertise and assistance were greatly appreciated.

Feature 47: This feature (and the surrounding area) was covered by a layer of large sandstone boulders and consisted of a single burial that was placed on an ashy deposit (possibly a prepared platform) near the top of the mound (Fig. 65). No pit outlines were noted.

Burial 1:	Age:	Young adult(24 to 35 years).
	Sex:	Male.
	Preservation:	Poor.
	Orientation:	Northeast to southwest; head to northeast.
	Position:	Flexed; angle toward the right side.
	Comments:	Copper stains were present on the right parietal. The molars exhibit a bright green discoloration of unknown origin. An enamel pearl was noted on the right maxillary third molar. The lower extremities are missing. Both femurs were cut off above mid-shaft, apparently as a result of the relic hunter's efforts in the 1880's.

Feature 50: Also located directly below the sandstone cap, this feature also lacked pit outlines. The entire area was greatly disturbed by massive tree roots.

Burial 2:	Age:	Young adult.
	Sex:	Indeterminate.
	Preservation:	Extremely poor, no postcranial remains were recovered.
	Orientation:	North to south; head to north (suggested by soil stains).
	Position:	Indeterminate.
	Comments:	Preservation was too poor to allow for an examination beyond the identification of the remains as a young adult.

Feature 49: This tomb was an oval-shaped pit dug into the subsoil and covered with logs. Four individuals were placed in this feature (Fig. 75).

Burial 3:	Age:	Old adult (50+ years).
	Sex:	Male.
	Preservation:	Excellent.
	Orientation:	East to west; head to east.
	Position:	Flexed, on back.
	Comments:	The only sign of disease in this individual is arthritis in the vertebrae. Slight pitting on the frontal is due to insect boring. Anomalies include a meitopic suture and lamboidal wormian bones. Dental attrition is slight to moderate. A cross bite is evidenced by the uneven wear pattern of the teeth. Enlargement of the glenoid fossa of the right scapula may indicate that this individual was right handed. Copper stains were noted on the parietals, suggesting that earspools were worn.
Burial 4:	Age:	Old adult (42 to 50 years).
	Sex:	Male.
	Preservation:	Good.
	Orientation:	North to south; head to north.
	Position:	Extended, supine.
	Comments:	A possible degenerative pathology was noted on the parietals in the field. Unfortunately the cranium was subsequently damaged by the partial collapse of a standing profile and the condition was not observable in the lab. Slight osteoarthritis was noted. Dental attrition was slight.
Burial 5:	Age:	Old adult (45+ years).
	Sex:	Male.
	Preservation:	Fair to good.
	Orientation:	North to south; head to north.
	Position:	Extended, supine; head under ankles of Burial 3.
	Comments:	Slight osteoarthritis was noted and dental attrition was very slight, particularly given the age of the individual. Copper stains were present on the mandible.
Burial 6:	Age:	Old adult.
	Sex:	Male.
	Preservation:	Poor.
	Orientation:	North to south, head to north.
	Position:	Extended, supine; left leg slightly flexed over Burial 4.
	Comments:	Although firm aging was not possible, the degree of dental attrition was moderate to extreme, suggesting an age comparable to or older than the other interments in Feature 49. Osteoarthritis was noted in the spine, hip, knees, and elbow.

Feature 48: Located to the west of Feature 49, this feature consisted of a rectangular pit that was covered with matting. Eight burials were placed within this facility (Fig. 68), all of which appear to be young females.

Burial 7:	Age:	Young adult (20 to 28 years).
	Sex:	Female.
	Preservation:	Excellent.
	Orientation:	East to west; head to east.
	Position:	Extended, supine; overlapped the other 7 burials in the tomb.
	Comments:	Extensive insect boring was noted on the cranial vault and pelvis. All bones are extremely gracile and musculature very slight. The pre-auricular sulci are deep and gestation pits are present on the right pubis, suggesting that the individual had born children. Bilateral septal aperatures were present. Dental attrition was slight and no pathologies were observed.
Burial 8:	Age:	Young adult (22 to 29 years).
	Sex:	Female.
	Preservation:	Poor.
	Orientation:	East to west; head to east.
	Position:	Slightly flexed, possibly due to postdepositional movement associated with decomposition.
	Comments:	Extensive insect boring was noted throughout the skeleton. A number of lamboidal wormian bones were present. Thick copper stains are present on the right parietal, temporal, and occipital. A piece of copper was found adhering to the left portion of the mandible in the region of the second and third molars.
Burial 9:	Age:	Young adult (22 to 29 years).
	Sex:	Female.
	Preservation:	Very poor.
	Orientation:	East to west; head to east.
	Position:	Extended, supine; slight tilting to left side possible due to crowding in tomb and postdepositional shifting
	Comments:	Preservation of this burial is too poor to allow extensive observation. Copper stains were noted on the cranial fragments.

Burial 10: Age: Young adult (22 to 26 years).
Sex: Female.
Preservation: Fair.
Orientation: East to west; head to west.
Position: Extended, supine (overlapping majority of interments).
Comments: Extensive insect boring present on the bones of the cranial vault and pelvis. Copper stains were observed on the parietal and occipital regions of the skull. Dental attrition was light to moderate.

Burial 11: Age: Young adult.
Sex: Female.
Preservation: Extremely poor.
Orientation: East to west; head to east.
Position: Extended, supine; tilted slightly to side.
Comments: Although preservation was poor, it was noted that all bones of the skeleton were very gracile. Copper stains were observed on the cranial fragments. Dental attrition was slight.

Burial 12: Age: Young adult.
Sex: Female.
Preservation: Very poor.
Orientation: East to west; head to west.
Position: Extended, supine.
Comments: Copper stains were observed on the mandible and in the molar region. Extensive insect damage was noted on all preserved bones.

Burial 13: Age: Young adult (24 to 28 years).
Sex: Female.
Preservation: Very poor.
Orientation: East to west; head to west.
Position: Extended, supine (underlying all other burials in tomb).
Comments: Being the first interment placed in Feature 48, Burial 13 rested directly on top of the gray clay platform at the base of the burial pit. For all burials, preservation ceased where the bone came in contact with the clay platform.

Burial 14: Age: Young adult.
Sex: Indeterminate (gracility of bones suggests female).
Preservation: Very poor.
Orientation: East to west; head to west.
Position: Extended, tilted to side.
Comments: Only fragments of the pelvis, vertebrae, and lower limbs were preserved. Extensive insect boring was the only anomally observed.

Feature 51: This tomb was rectangular, log-covered pit located to the north of Feature 48. It was oriented with its long axis running east-west. Only two burials were contained within this tomb, despite the fact that it was the largest of the sub-mound mortuary features (Fig. 82).

Burial 15: Age: Young adult (18 to 28 years).
Sex: Male.
Preservation: Poor.
Orientation: East to west; head to east.
Position: Extended, supine.
Comments: This burial consisted primarily of soil stains. Thus, while the positioning of the body was observable, the skeletal remains were too fragmentary to permit observation of pathologies or anomalies. Tooth eruption was complete, yet no evidence of attrition was noted on any of the third molars.

Burial 16: Age: Young adult.
Sex: Indeterminate.
Preservation: Very poor.
Orientation: East to west; head to east.
Position: Extended, on right side, with right arm and right leg flexed slightly at the elbow and knee.
Comments: Like Burial 15, this interment also consisted of soil stains and isolated skeletal fragments. The third molars appeared to be in the process of eruption, suggesting that this individual was a young adult. Preservation did not allow for extensive observation of the skeleton.

Feature 54: This was another rectangular, log-covered pit that was oriented east-west. Definition of some of the original contours and construction features of the tomb was hindered by the relic hunter's pit (see Fig. 85).

Burial 17: Age: Adult.
Sex: Indeterminate.
Preservation: Poor.
Orientation: East to west; head to east.
Position: Extended, on left side.
Comments: Preserved skeletal parts are gracile, suggesting that this individual may be female. In most Woodland populations, little sexual dimorphism is present. The skeletons from the Twin Mounds all exhibit a marked degree of dimorphism in both absolute bone size and in degree of musculature. Dental attrition is moderate in this individual. Although many populations from this time period exhibit marked attrition, the interments from Pinson Mounds are an exception. Based on the degree of attrition relative to other individuals from the Twin Mounds, it is suggested that Burial 17 was a middle aged adult at the time of death.

Burial 18:	Age:	Adult (38 to 50).
	Sex:	Female.
	Preservation:	Poor.
	Orientation:	East to west; head to east.
	Position:	Extended, supine.
	Comments:	Again, preservation limited the extent of observations possible. No anomalies or pathologies were noted. The preserved skeletal remains were all gracile and musculaturee slight. Dental attrition was moderate to severe.

SUMMARY

The remains of 18 individuals, ranging in age from 18 to 50+ years, were recovered during the 1983 excavations in the Twin Mounds. Six males, six females, and six indeterminate individuals were included in the sample. An unusual degree of sexual dimorphism is exhibited within the sample, but whether this is typical of the population as a whole, or an artifact of this subset of burials, cannot be determined at this time. Similarly, the degree of dental attrition is far less than is generally found for skeletal remains of Woodland age. This may be a reflection of the diet of the population as a whole, or only a segment of the population. No pathologies, other than those relating to aging, were observed, but poor preservation precluded full observation of a majority of the interments. Further excavations should yield a larger sample of the population and, thus, enable comparative analysis.

APPENDIX 3

Preliminary Investigation of the Pinson Mounds Site:

1963 Field Season

Dan F. Morse
with a foreword by Mary L. Kwas

Foreword

In 1820, after remaining abandoned for hundreds of years, the Pinson Mounds site was discovered by the early settlers of west Tennessee. Interest in the mounds was immediate and the site found its way into print within only a few years. However, for most of the following 150 years, this interest consisted only of collection and speculation, rather than active professional archaeological research designed to answer questions about the site. The publications of Haywood (1823), Troost (1845), Randle (1875), and others contain descriptions and antiquarian speculations about the site, while collecting and probable excavations by J.G. Cisco and other relic collectors (Butler Ms. #2954, Mississippi Department of Archives and History) went largely unrecorded. The first effort at a more systematic examination of Pinson Mounds was undertaken by William Myer (1922, n.d.) of the Smithsonian Institution, who conducted surface collections and hired a civil engineer to survey and map the site. Although Myer made a major contribution to the documentation of the site, he stopped short of excavation and, unfortunately, let his unbridled speculation run amok (see especially Myer n.d.).

After the publication of Myer's brief article, interest in the site waned and it was not until the middle 1950's that a preservation movement, spearheaded by Jackson physician Dr. John Nuckolls, was set in motion. Recognizing the importance of the Pinson Mounds site, Nuckolls and his associates were determined to convince either the state or federal government to purchase the site and turn it into a park. Their work over the following 20 years included compiling past publications and other information about the site, arranging for land acquisitions, and bringing the site to the attention of professional archaeologists in Tennessee and Washington, D.C. A major aspect of their efforts was to obtain letters documenting the importance of the site and the need for its preservation from noted archaeologists of the day, such as Matthew Stirling of the Smithsonian Institution. The group's efforts led directly to the first professional investigations of the site.

In December, 1961, Fred Fischer and Charles McNutt (1962) of the University of Tennessee conducted the first professional excavations at Pinson Mounds. This project encompassed only three days, but it included systematic surface collecting and the partial excavation of a Mississippian wall trench house. Despite the interest generated by this initial work (and the irony of finding the only Mississippian feature on a predominantly Middle Woodland site), the bulk of the site, including the mounds, remained untested.

Finally, in the spring of 1963, the first relatively extensive test excavations at Pinson Mounds were undertaken under the direction of Dan Morse, with funding from the National Park Service. Although limited to three weeks duration, Morse's research strategy utilized systematic surface collections, as well as test excavations, to address a number of pressing questions about the site. The major contributions of his work included: identification of several portions of Myer's (1922) alleged embankments as historic features; confirmation that the Duck's Nest was an aboriginal feature, rather than the remains of an historic trading post (as believed by local residents); complete excavation of the previously discovered wall trench house; the discovery of Hopewell Interaction Sphere commodities and Marksville ceramics; the identification of short-term habitation areas within the mound complex; and limited testing of several mounds. Importantly, Morse correctly concluded that most of the Pinson Mounds site was constructed during the Middle Woodland period (Morse and Polhemus 1963:58).

Unfortunately for archaeologists, Morse's report to the National Park Service was never published, due to his legitimate fear that release of the information could lead to vandalism at the site (D. Morse, personal communication). As a result, the prevailing assesment of the site among southeastern archaeologists remained that the large platform mounds at the site were of Mississippian age. This view was not to be altered until the 1980's.

Morse's work is noteworthy both for the information he obtained, as well as for the care he took in seeing that his testing would not impede further research. We are pleased to be able to present at this time, a revised and updated version of the 1963 report as an appendix to a summary of the recent extensive excavations conducted at Pinson Mounds.

Introduction

Due to the interest of the Pinson Mounds Association and the National Park Service (NPS), funds were allocated by NPS enabling the University of Tennessee to make a preliminary investigation of the Pinson Mounds site. Previous work by professional archaeologists was limited to a three-day survey in December, 1961 (Fischer and McNutt 1962). Our aims were essentially twofold: (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. Both funds and time were limited. The Tennessee State Planning Office, under the supervision of Walter Criley, Chief Planner, prepared an excellent 20-foot contour map of the entire site and immediate environs. Superimposed on this map were many of the features report by Myer (1922) that are not discernable today.

We investigated as much of the site as possible during a three week period extending from March 21 through April 13, 1963. The test excavations were restricted to state-owned land, since permission for excavation on private land could not be readily obtained and because we did not want to hinder agriculture activities. Within the state-owned tracts, we did not attempt to investigate areas being utilized by the state nursery, since this would have disrupted the loblolly pine harvest. Despite these self-imposed restrictions, we had enough area available for spot investigations to occupy several field seasons. We ranged as widely as possible and did not attempt to accomplish complete excavations.

The assistance and cooperation of the following individuals is gratefully acknowledged: Ben P. Hazelwood, Superintendent, and Joe Overton, Agronomist, University of Tennessee, West Tennessee Agricultural Experiment Station; Robert M. Lancaster, Senior Resident Engineer, Tennessee Department of Highways; James West, Manager, Thunderbird Motel; and John Nuckolls, M.D. Other individuals assisted us, but these five went out of their way to help make our visit pleasant and productive.

Dan F. Morse served as field supervisor and was assisted in the field by James H. Polhemus, III and J.B. Graham. Three local laborers were also employed. Dr. Alfred K. Guthe, Head, Department of Anthropology and Director, Frank H. McClung Museum, University of Tennessee, Knoxville, served as Principal Investigator for the project. Lane Beck (Northwestern University) examined the skeletal remains from Mound 31. Phyllis A. Morse provided editorial assistance, while Mary L. Kwas and Robert C. Mainfort assisted

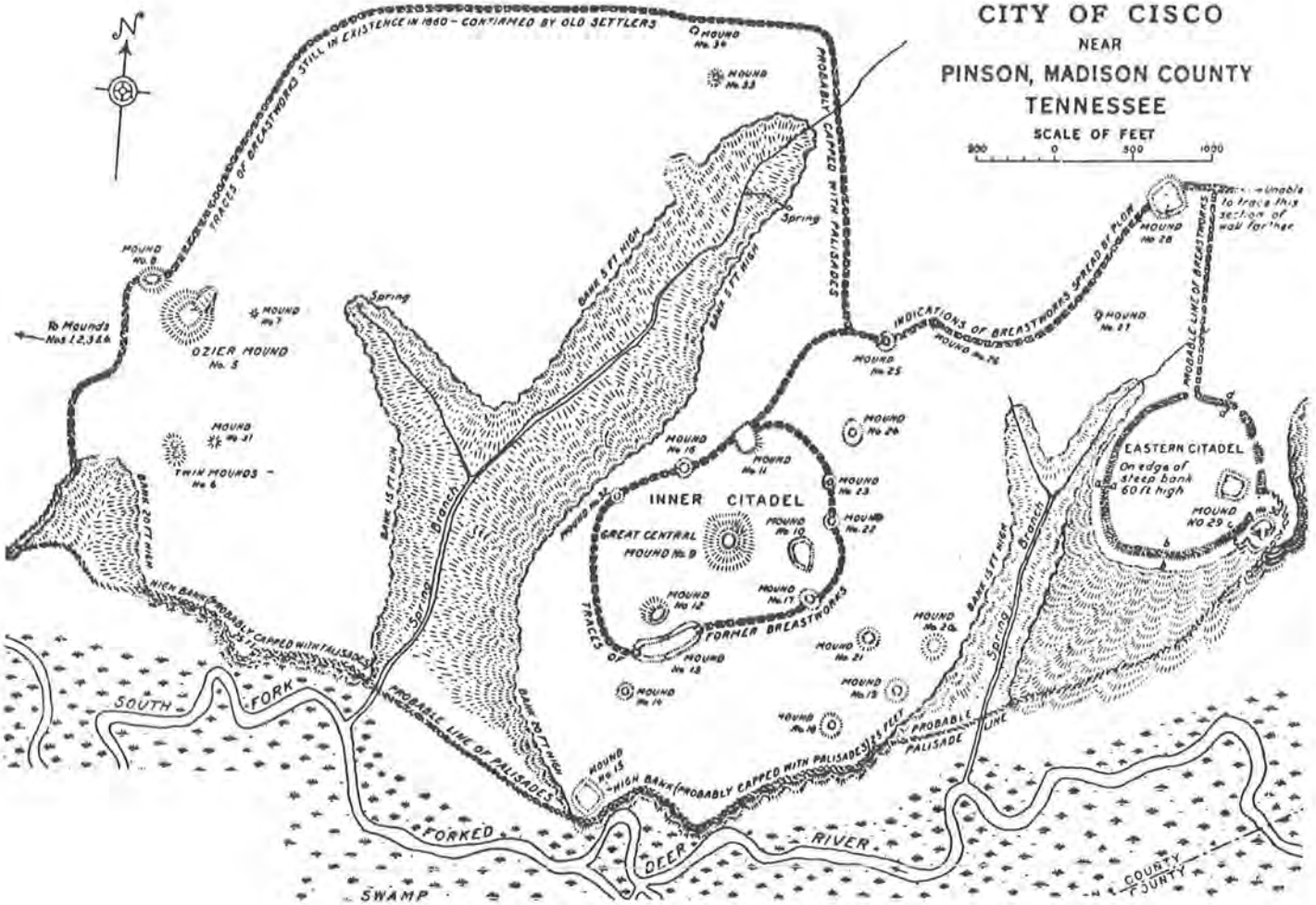

Fig. 89. 1922 map of Pinson Mounds.

with the final editing. Linda Dowdy typed the final draft, while Mainfort prepared the final copy on his Apple Macintosh computer. Nick M. Mathis, assisted by James Loy, drew most of the accompanying figures. An earlier version of this report (Morse and Polhemus 1963) was submitted to the Southeast Archaeological Center, National Park Service. The field notes and recovered artifacts are now curated at Pinson Mounds State Archaeological Area.

THE SITE

The Pinson Mounds site (40MD1) has been described as a large complex of mounds, enclosed within a palisaded embankment, and divisable into three discrete mound groups (Myer 1922; Nuckolls 1958). A map of the site prepared by William Myer (1922) is presented in Fig. 89; note the contrast with the current site map (Fig. 2). The South Fork of the Forked Deer River, which was reportedly navigable by steamboats in the mid-1800's, flows to the south of the site; its present course is an excavated channel.

The western mound group is unnamed, while the central group has been dubbed the "Inner Citadel" and the eastern mounds and embankment the "Eastern Citadel" (Myer 1922). The latter two have been called "citadels" because of alleged embankments surrounding the major aboriginal features in each of the two groups. A palisaded embankment was also thought to enclose the entire mound complex (see Fig. 89). In summary, the traditional view of the Pinson Mounds site has been that of a large settlement or fort surrounded by a palisade. However, as discussed later, our impression was that this is a large, multicomponent site that was not enclosed within a lengthy embankment.

WESTERN MOUND GROUP

Located about 250 m southwest of the state nursery buildings, Mound 6 actually consists of two large intersecting conical mounds that are locally called the "Twin Mounds". Test excavations were restricted to a cultivated field just west and south of Mound 6. A test pit was also placed in Mound 31. No excavations were conducted in the large fields to the north and southeast of the Twin Mounds.

To the north is the very impressive Ozier Mound (Mound 5), which appeared, at the time of our work, to be a typical Mississippian temple mound. It is oriented so that a long ramp extends from the center of one side toward the northeast. This mound has subsequently been demonstrated to be a Middle Woodland earthwork and is described elsewhere in this volume. Neither the alleged palisade line in this vicinity, nor Mounds 7 and 8 (see Fig. 89), were located by us. While they may have been cultivated away, the evidence suggests that these were actually natural rises. There may be a mound about 350 m southwest of Mound 5, just within a wooded area. We did not investigate it, but recent testing suggests that this, too, is a natural rise (R. Mainfort, personal communication). The surface area adjacent to Mound 5 is relatively devoid of artifacts, due in part to State Nursery activities wherein personnel working on their knees are able to collect artifacts readily. It was reported that a number of projectile points have been collected by nursery personnel.

During our visit, a large cultivated field immediately southeast of the Twin Mounds sector was plowed. This field is separated from the Twin Mounds sector by a deep gully and was found by quick inspection to contain at least four aboriginal feature clusters. Three areas, separated from each other by about 200 m, are situated on small ridges and apparently contain hearths, as plowing had disclosed the presence of small spots of charcoal and dark soil that cluster into three distinct groups. No artifacts, with the exception of a broken stemmed projectile point were collected. Few artifacts were visible, perhaps due to the dry weather, and most of the cultural materials noticed consisted of lithic debitage. Pottery was rarely observed and, for the most part, occurred on and near a possible mound in the south end of the field. Hence, there is a possibility that the hearth areas here are Archaic. Local informants report that several projectile points were found in and near the group of hearths in the northeastern part of the field. The small knoll in the southern part of the field may be a mound, since, in addition to burned soil areas, there appear to be a variety of soil colors present. Recent auger testing has strengthened the case for this feature being a mound (R. Mainfort, personal communication). The Twin Mounds sector and the field to the southeast are on the state nursery land, but were leased for cultivation at the time of our visit. The large field is now used as a seed orchard for loblolly pine.

INNER CITADEL

The so-called "Inner Citadel" and adjacent earthworks are located in the center of the site (Fig. 89). There is no indication of an embankment around Mound 9 and many of the smaller mounds recorded in the area by Myer (1922) are now known to be natural features (Mainfort [ed.] 1980). Although there is no evidence of the alleged embankment, it is possible that it may have eroded away. However, this possibility is now regarded as highly unlikely.

Sherds and lithic debitage were scattered thinly throughout the area, but the major concentration of debris was located approximately 500 m southwest of Mound 9, on and near a small natural knoll named Mound 14 by Myer. This general area is refered to here as the Mound 14 sector. Limited excavations were conducted about 150 m southwest of Mound 14. The neighboring fields were not ideal for surface collecting during our visit, as they were either uncultivated or (rarer) freshly cultivated. Surface collections were made at points of apparent concentration, including Mounds 10, 11, 16, and 32 (see Fig. 89); Mound 11 is now recognized as a natural rise that supported prehistoric occupation and Mounds 16 and 32 are likely to be natural features (Toplovich 1980; R. Mainfort, personal communication). The general region between Mound 12 and Mound 9 exhibited a minor concentration of cultural material, but no artifacts were collected by the survey party because we considered conducting test excavations here. Mound 12 is conical in shape and was not tested. Mound 9 is about 25 m tall and, like Mound 5, is Mississippian in form, with a possible ramp extending toward the northeast. We profiled part of an old excavation into the summit. At the time of our visit, a large gully was washing out the east side of the mound; this has subsequently been filled and stabilized. The so-called "Duck's Nest", as well as Mounds 13 and 15 were tested. Two additional tests were made in the adjacent fields, one by auger, the other by shovel. Testing of the Mound 14 sector vilage area was limited to enlarging the earlier excavation by Fischer and McNutt (1962). Our findings indicate that a rectangular Mississippian wall trench house had been superimposed over a number of Woodland features, including hearths, refuse pits, and circular patterns of post molds.

Mound 15 is estimated to measure about 40 m by 30 m at the base, with a height of 2 m or more. It appears to be essentially rectangular in outline and is oriented with the sides aligned along a northeast-northwest axis. The south side of Mound 15 is well-preserved, whereas the north end slopes gently due to plowing. A 60 cm square

test pit was placed in Mound 15 to assertain that it was, in fact, a prehistoric earthwork, rather than an erosional remnant. The excavation reached a depth of only 45 cm and no attempt was made to locate the base of the mound. Beneath the plow zone, the soil is a light brown to brown mottled clayey loam containing a small quantity of charcoal and postherds.

A trench measuring 5 m north-south and 1.1 m east-west was excavated near the center of Mound 13. A 1.7 m^2 extension was placed on the eastern side. This excavation demonstrated the Mound 13 is not a prehistoric earthwork and no trace of a palisade was encountered. Rather, it looks very much like this was the site of an old fence row. The north-south profile exhibited a plow zone lying directly upon a stratum of sterile red to orange clay subsoil. The plow zone was 12 m deep at a point just north of the center of the test pit, increasing to maximum depths of 21 cm to the south and 43 cm to the north, respectively, with a thickness of 18 cm at both ends. This is essentially the situation that would be expected near a fence, where plow turns built up the ground level on either side of the fence. A charred post was, in fact, uncovered just north of the dip in the profile described above. The post measured 21 cm in diameter and extended from the base of the plow zone to a depth of 6 cm. Immediately to the south was a charred log lying horizontally and oriented northwest to southeast. This log was 79 cm long, 25 cm wide, and extended into the sterile clay subsoil to a depth of 6 cm. Our limited testing suggests that a fence had been constructed at this locality to separate two fields and that it was later burned and plowed over.

The Duck's Nest is a curious feature that is discussed in more detail in a later section. Essentially, it is a rimmed depression measuring about 10 m in diameter (see Fig. 22). That it is an aboriginal earthwork is attested to by the prehistoric ceramic vessel found in the rim and the fire pit in the center of the depression. The Duck's Nest would have to be fully excavated for a satisfactory functional interpretation. Our test consisted of a narrow trench through the rim and a small test pit near the center of the depression.

A 90 cm by 90 cm test pit was placed approximately 400 m south of Mound 9. A thin, dark brown to black layer was found beneath the plow zone at a depth of 27 cm below the surface. It extended across the entire eastern side of the test unit and pinched out about 50 cm to the west in both the north and south faces. This layer probably represents a portion of the Duck's Nest sector deposits described elsewhere in the volume. We did not investigate further, because our full attention was needed on Mound 9 and in the Mound 14 sector excavation. The questionable mounds to the east (Mounds 17, 18, 19, 20, 21, 24, and 25) were not investigated because of lack of time and permission.

EASTERN CITADEL

The "Eastern Citadel" consists of a large earthen enclosure, with one mound (Mound 29) located within and another adjacent to, but outside, the southern edge of the enclosed area (Mound 30). The problematic Mound 27 was not checked (see Mainfort [ed.] 1980:38). The two alleged embankments adjacent to Mound 28, approximately 500 m north of the Eastern Citadel, do not exist. The trees supposedly marking the one on the east were being bulldozed away and we could find no evidence of a prehistoric embankment or a palisade line. There are a number of recent erosion-control terraces and field borders present that meander sinuously across the terrain, but none seem to mark palisade lines. In fact, an iron boundary stake was found at the end of one of these lines. Mounds 28 and 29 are platform mounds, measuring about 40-50 m square at their base and 3-4 in height. Mound 30 is approximately 20 m in diameter and stands 2.5 m high. It is badly eroded on its southern side, which may be why Myer (1922, n.d.) called it a bird effigy. Determining the original form would require a complete excavation and our excavation was confined to a 1.75 m^2 test pit near the summit.

While Mounds 28 and 30 are situated outside the enclosure, Mound 29 is located in the southeastern portion of the embankment, near Mound 30 (see Figs. 2 and 89). Our excavations in Mound 29 consisted of a 2.7 m by 1.3 m test pit (Test Pit 3), as well as a small unit (Test Pit 5) into the basement of an historic house that had been built on top of the mound in the late 1800's.

The geometric embankment, or enclosure, is essentially circular in outline (see Figs. 2 and 4). Unfortunately for our purposes, the embankment was covered by trees and thorn bushes and was exceedingly difficult to map. We mapped only the portion of the enclosure that was under state ownership. The southern half has been largely destroyed, with the possible exception of a mound of earth immediately south of Mound 29 that continues to the west down a steep slope. This feature conforms closely to the location of the embankment as recorded by Myer (Fig. 89), but it may represent spoil dirt from the house basement.

Breaks in the enclosure may have been caused by erosion, since gullies are present at these localities, but the openings may be prehistoric features. Excavations might disclose their origin. Our excavation into the embankment was made with several factors guiding us. First, we did not want to excavate where clearing would be necessary and tree roots abundant. Not only would this have been time consuming, but our experiences suggest that a cleared area constitutes an open invitation to relic collectors to "dig here". Hence, a trench designated Test Pit 1 was excavated into the northern portion of the embankment, which had been under cultivation. We ended Test Pit 1 just west of the summit so that there would be a minimum amount of erosion resulting from the excavation. Several test pits were placed randomly within the enclosure and one was excavated just outside the northeast side; sterile clay was encountered immediately below the plow zone in all of these units. Scattered cultural materials were observed within the enclosure and in the cultivated fields to the north. Possible camp sites, probably dating to the Archaic and Early Woodland periods, appear to have existed in these areas. There was no surface indication of a village.

Hence, by way of introduction, our general inferences about the Pinson Mounds site are as follows. In 1963, the site appeared to have been an important ceremonial site for two distinct cultures: one related to the Middle Woodland Marksville phase, the other associated with Middle Mississippian. There are at least two Woodland habitation areas present and a Mississippian village may have been superimposed on the central one. It is now known, however, that all of the mounds and the enclosure are of Middle Woodland origin and that the Mississippian component was limited to a single known residence.

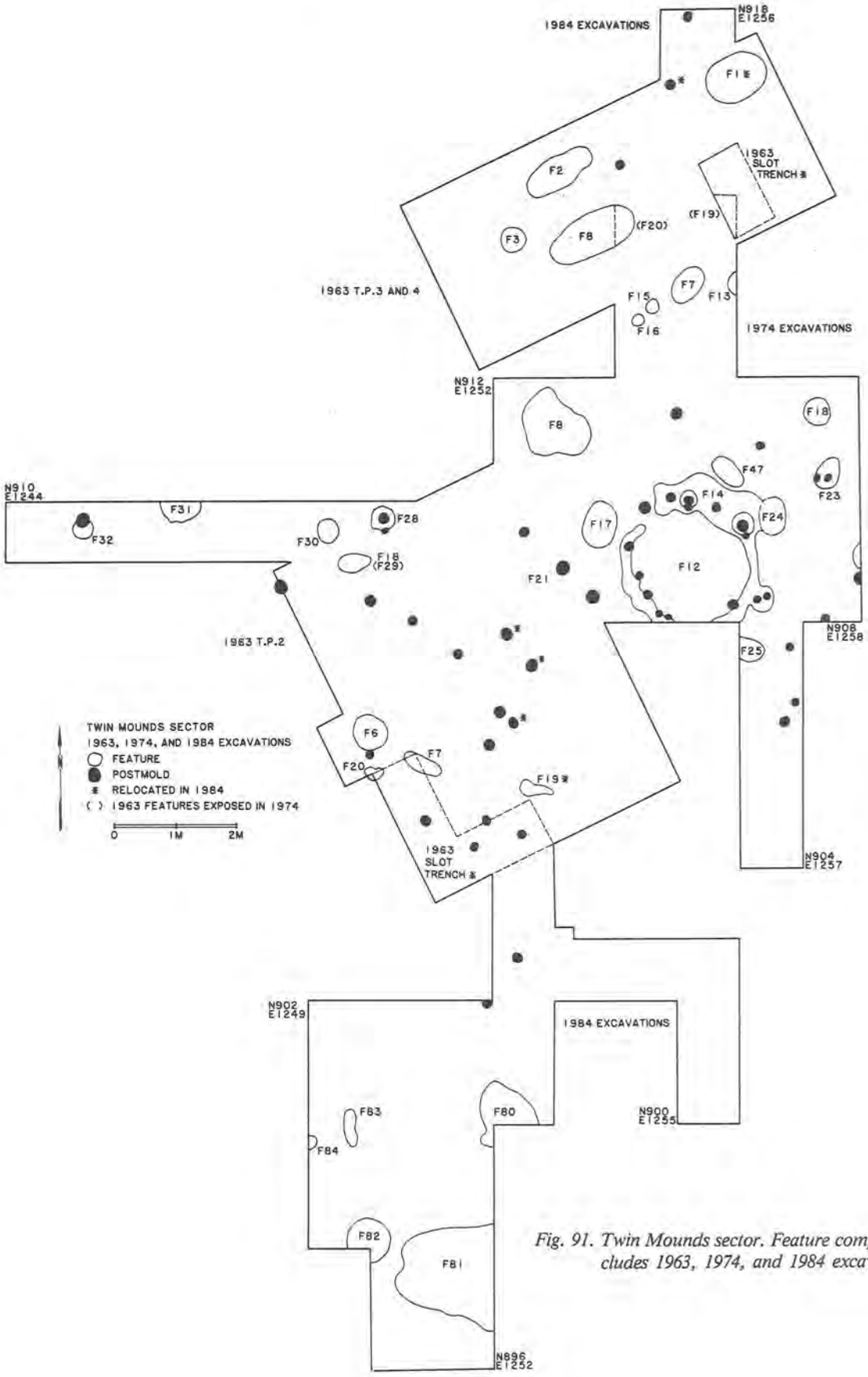

Fig. 91. Twin Mounds sector. Feature complex on upper terrace. (Includes 1963, 1974, and 1984 excavation units.)

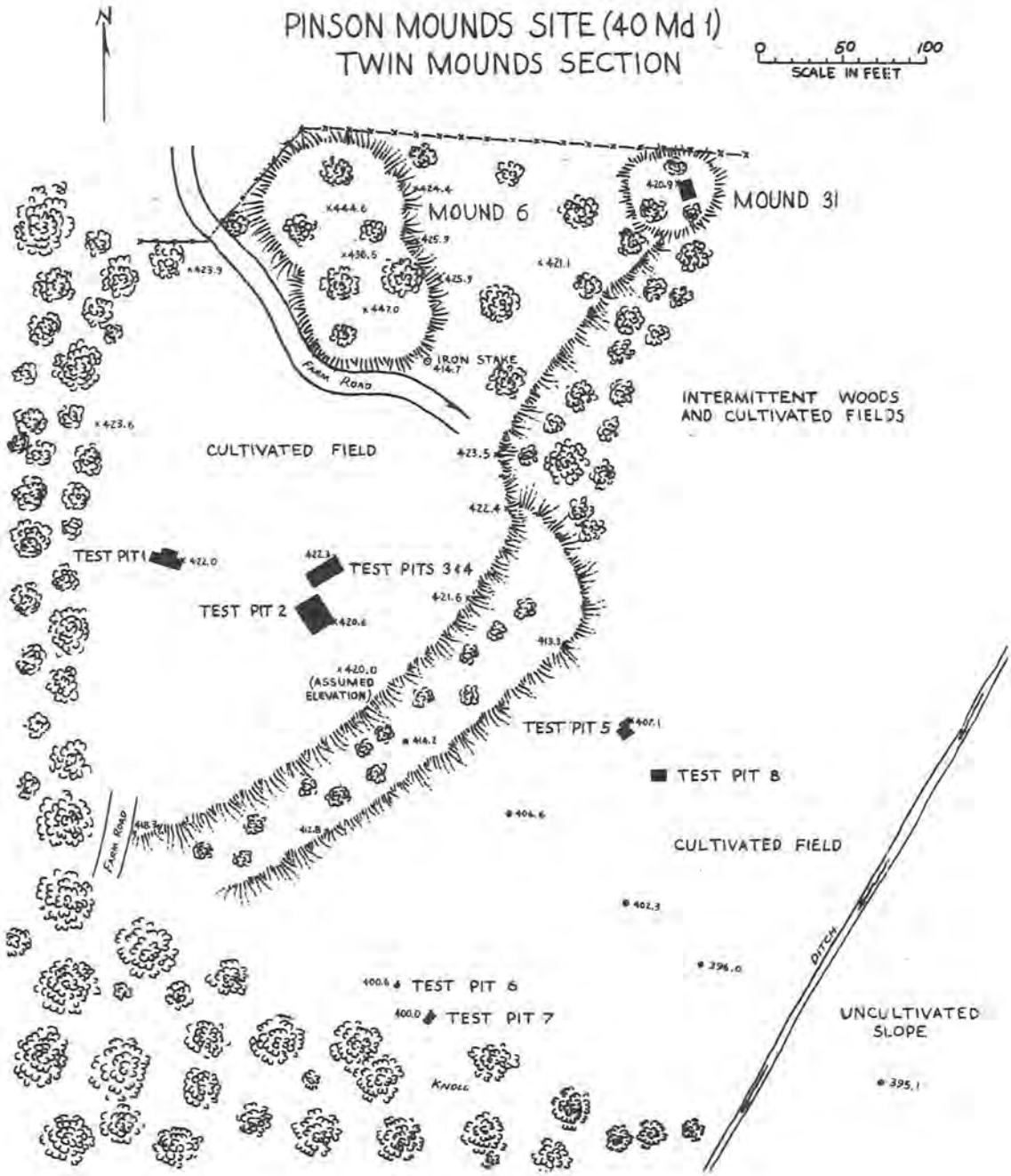

Fig. 90. Twin Mounds sector. 1963, excavation units.

Twin Mounds Sector

DESCRIPTION OF EXCAVATIONS AND FEATURES

Our investigations in the western part of the site focused on a cultivated field immediately south and southwest of Mound 6, designated the Twin Mounds sector (Fig. 90). Eight excavation units covering approximately 100 m^2 were placed in this area. In addition, five 60 cm^2 test pits were excavated in a line down the terrace from the main habitation area to test for soil variation. The erosion that caused the major part of the terracing that divides the area into an upper and lower section took place prior to the Woodland occupation, as Woodland features were found on the slope.

Test Pit 1 ranged from 1.5 to 3 m wide and was 6 m long, constituting an area of about 15 m^2. The depth varied from 30 to 46 cm, with a 90 by 121 cm section excavated to a depth of 100 cm and augered to a depth of 146 cm as a soil test. Artifacts and features were sparse. In addition to Features 4, 5, and 17, two post molds measuring about 15 cm in diameter were found; these extended to depths of 73 and 41 cm below the ground surface.

Test Pit 2 exposed a pattern of 14 vertical post molds arranged around a centrally located hearth (Fig. 91). Most of the posts (N = 11) were about 20 cm in diameter and ranged in depth from 37 to 52 cm below ground surface. The house seems to be of typical Middle Woodland ovoid shape, with a diameter of about 5 m. Located near the center of the inferred house, Feature 6 was a basin-shaped hearth filled with burned soil. A probable refuse pit, Feature 7 is not associated with the house; charcoal flecks and red ocher were found in the fill. Features 18 and 19 may be root disturbances and Feature 20 may be an irregularly shaped post mold. The features were disturbed as little as possible in the event that future development of the site might include the reconstruction and display of houses.

Test Pit 3 produced a relatively large sample of characteristic Middle Woodland artifacts, as well as three refuse pits (Features 2, 3, and 8) and a deep hearth or earth oven (Feature 1). Most artifacts from Feature 1 were located in the upper 30 cm of fill. The flat base and lower 21 cm of the walls were fired red and the interior walls were apparently lined with puddled clay. A total of 17 burned sandstone fragments were found at the base. Except for its smaller size, Feature 1 is generally similar to the "bathtup-shaped fire pits" at the Greenhouse site (Ford 1951:104-105).

As illustrated in Fig. 91, additional excavations in the vicinity of Test Pits 2, 3, and 4 were conducted by the Tennessee Division of Archaeology in 1974 and 1984. The 1974 excavations (Mainfort [ed.] 1980) uncovered a large Middle Woodland crematory facility (Features 12 and 14), as well as numerous related features. Our field records were not available to the 1974 excavators and, consequently, they were unable to precisely determine the relationship between their excavation units and our Test Pits 2, 3, and 4. Following the donation of the 1963 project records to the Pinson Mounds museum, further testing was conducted in 1984, which successfully relocated both the 1963 and 1974 excavation units. Note that all original feature numbers have been retained on the resultant composite map (Fig. 91). Hence, a single feature number may refer to two separate features and some features received two different numbers. Although no radiocarbon dates are presently available, this feature complex is probably contemporary with the construction of the nearby Twin Mounds (i.e., A.D. 100).

Test Pit 5 was excavated to test a sherd concentration on the lower terrace. Four pits that intrude into each other were revealed. A refuse pit containing a large quantity of cultural material within a matrix of very dark clayey loam (Feature 13) was the first in the sequence. A shallow storage pit, Feature 10 intruded into the former; the mottled yellow clayey loam constrasted sharply with the Feature 13 fill. Feature 12 had been excavated into Feature 10 and was, in turn, intruded into by Feature 11. Neither of the latter features contained cultural remains and their function is unknown.

About 10 m southeast of the edge of Feature 13 was an area of refuse pits that, uniquely for the Pinson Mounds site, contained well-preserved bone and shell. Test excavations here (Test Pit 8) exposed three contiguous refuse pits (Features 14, 15, and 16) and surface material suggests the presence of additional refuse pits immediately to the south and west. Only one post mold was exposed, suggesting that these refuse areas are consistently separated from the house sites. This area would be an excellent one to excavate fully, since there is relatively little occuptation and clues about settlement patterns may be readily obtainable.

Features 14, 15, and 16 produced lithics and pottery, as well as bone and mussel shell. Turtle, bird, deer, and possibly other species are represented. Nowhere else did we find identifiable bone and shell samples with the exception of the skull found in Mound 31 (discussed later). The preservation of organic remains in Test Pit 8 is apparently not due to the nature of pit fill, since, if this were the case, Feature 13 should also have produced a large quantity of bone and shell. An unusual pattern of groundwater drainage may contribute to preservation in this area, but the actual cause is unknown. Lying on its back at the base of Feature 15 was a human infant skeleton, with the trunk extended, arms straight at the sides, and the legs flexed toward the chest; the skull was oriented slightly east of south. The bones were in a fair to poor state of preservation.

Test Pits 6 and 7 were also located in apparent artifact concentrations. The plow zone in Test Pit 7 was relatively deep, since it was excavated at the base of an eroding knoll. Feature 9 in Test Pit 7 is interesting because it produced a large quantity of burned hickory nuts.

CERAMICS

The break between sand tempered and clay tempered is not clear cut and these temper groups grade into each other, resulting in a series of sherds that range from one extreme to the other. In the 1963 analysis and report, we utilized the type designations established for the Lower Mississippi Valley (Phillips, Ford, and Griffin 1951) and, consequently, tended to emphasize clay tempering as a diagnostic. Although our original designations have been revised to reflect current nomenclature, it should be stressed that we did not reanalyze the collections and that the majority of the "clay tempered" wares discussed below have a fairly sandy (i.e., *var. Tishomingo*) paste. Of the few purely clay tempered sherds, a small minority exhibit a poorly wedged, contorted paste similar to that exhibited by Tchefuncte ceramics. Eroded surface sherds consist mainly of very small specimens, but since many sherds are eroded to some extent, sherds with plain surfaces probably compose the majority of those in the eroded category. Cord impressions are deep enough to be recognized despite minor eroding. Of particular interest are the non-local types in the assemblage, including Marksville Incised and Stamped, as well as Larto Red Filmed. Selected sherds are illustrated in Fig. 92.

Withers Fabric Marked *var. Twin Lakes*

N = 3

Only three fabric marked sherds were represented in the Twin Mounds sector collections and the rarity of this decorative treatment indicates that the area was not intensively occupied during Miller I times. Sand is the principal tempering agent, but small fragments of baked clay are also present.

Baytown Plain *vars. Tishomingo* and *unspecified*

N = 52.

Sherds exhibiting an uneroded plain surface were relatively infrequent and less than 30 percent of these contain clay tempering. Rather than reanalyzing the entire collection, we will simply note that over 90 percent of these sherds exhibit a *var. Tishomingo* paste. Occasional specimens are brushed and several exhibit a smoothed to burnished exterior; the latter exhibit a hard, compact paste similar to the decorated sherds from Mound 31 (see below). Brushing, also noted on several Baldwin Plain specimens, consists of narrow, parallel striations on the exterior. Two sherds from Feature 8 exhibit red, highly polished exteriors, that does not appear to be the result of red filming. A third sherd is a fragment of a flat vessel base. Three Baytown Plain rim sherds are represented in the assemblage. One is only 3 mm thick, exhibits a flattened lip, and was part of a small bowl or jar. The polished rim sherd has a thickened upper rim with a plain, rounded lip. Three eroded surface clay tempered rim sherds were also found, one of which is from a small jar; the lip is flattened and extends sharply outward from the upper rim. A second specimen has a polished, rounded lip, and the third exhibits a flat, notched lip.

Mulberry Creek Cord Marked *vars. Tishomingo* and *unspecified*

N = 92

Again, *var. Tishomingo* sherds constitute the majority of this type. Most examples are light in color, but range from buff to black. Cord impressions are coarse and widely spaced. Mulberry Creek Cord Marked is less than 10 percent as common as its purely sand tempered counterpart, Furrs Cord Marked, but almost twice as numerous as its companion type, Baytown Plain. Sherds exhibiting any sign of a cord impression were classified as cord marked. Partial obliteration of cord impressions by smoothing is rare. Occasional holes, produced by the decomposition of limestone fragments, were observed, but these are probably the result of accidental inclusions. It was assumed for the purpose of classification that these, as well as small chert fragments, course sand grains, and mica did not constitute meaningful attributes. One rim sherd exhibits a lip flattened by a cord-wrapped paddle edge, while another has a folded rim with a plain rounded lip.

Marksville Incised and Stamped

N = 19

This group of sherds serves to illustrate the sand vs. clay temper problem noted earlier. Here we have elected to retain the Lower Valley type designations used in the original report, although the types Alligator Bayou Stamped and Basin Bayou Incised may be equally applicable. Most of the incised sherds appear to be parts of stylized bird designs (see Fig. 92). They are of a very fine, compact paste that contains fine sand and exhibit polished surfaces. Incisions are wide and deep and there is no overhang. The single stamped specimen is a zoned cord marked body sherd. Unfortunately, none of the sherds are large enough to describe adequately. Some sherds classified as Baytown Plain *var. unspecified* have a very fine, compact paste, and polished surfaces, suggesting that they may be fragments of decorated Marksville vessels. Fine sand is present in the paste of these sherds and a rim sherd from a high necked jar with a thickened upper rim (not channelled) has a very sandy paste. Another rim sherd also has a thickened upper rim, probably the result of folding and extensive smoothing; the lip is rounded. These thickened upper rims are similar to Hopewell channeled rims.

Larto Red Filmed and Churupa Punctated

N = 4

The three Larto Red Filmed body sherds are clearly grog tempered and nearly identical to specimens recovered from the Duck's Nest sector (Mainfort, this volume). A punctated body sherd, tentatively identified as Churupa Punctated *var. unspecified,* exhibits a similar, but slightly sandy paste, as well as surface polish; it is not zoned incised. The punctations alternate in rows in a group and were made by an implement held at an angle to the vessel wall; diameters average about 1 mm and the individual punctations are spaced at roughly 4 mm intervals (see Fig. 92).

Baldwin Plain

N = 188

As mentioned earlier, this is a relatively minor type in the Twin Mounds sector assemblage. Occasional sherds exhibit polished surfaces. Lips are generally rounded, with beveling and/or notching present on some specimens. Several folded rims were recovered. The large rim sherd from Feature 17 is part of a bowl. The lip is rounded and the exterior is thickened slightly on the upper rim, much like the previously discussed Marksville sherds. A possible flat vessel base measuring 10 cm by 12 cm was found in Test Pit 1. This specimen is almost perfectly flat and there is no indication of a vessel wall.

Furrs Cord Marked

N = 1081

Cord impressions are generally coarse and widely spaced, with a few specimens exhibiting fine, closely spaced impressions. Among the 61 rim sherds are 18 folded rims; the lips on these sherds are generally plain, but punctates, notches, and cord impressions occur on some. Over half (N = 24) of the remaining rims have plain, round lips, with notching present on 6 specimens. A single rim sherd exhibits a crude, curvilinear incised design applied over cord marking (see Fig. 92). Seven basal fragments from conoidal vessels were also recovered.

Miscellaneous ceramics

N = 676

Included here are 12 eroded limestone tempered sherds, while the remainder are residual sand tempered (N = 607) and *var. Tishomingo* (N = 57) paste sherds.

Other ceramic artifacts

N = 15

Baked clay objects include several possible Poverty Point objects (sand tempered, with irregular shapes), as well as a number of

Fig. 92. Twin Mounds sector. Ceramics.

weathered puddled clay hearth fragments. Two clay tempered pipe fragments, possibly from the same pipe, were found. The stem fragment is circular in cross section and measures 1.2 cm in diameter. The inside diameter at the stem is 1 mm and this enlarges quickly to 3 mm. The pipe could have been shaped like specimens from Greenhouse (Ford 1951, Fig. 42 f-k) or Poverty Point (Ford and Webb 1956, Fig. 36 b-3). The other specimen appears to be an eroded bowl ragment.

LITHICS

The lithic technology reflected in the Twin Mounds sector was apparently based on breaking up pebbles into fragments for use as cores. Next to chert, ferruginous siltstone was the major material used. Sandstone occurs naturally in the area and was used primarily in hearths. Unworked chert fragments range from chips trimmed off bifaces to possible pebble cores and there is a great variety of color and texture. Worked chert artifacts consist primarily of retouched flakes that were used as scrapers and/or knives.

Blade

N = 1

Blade flakes from Pinson Mounds, with few exceptions, are trim flakes or flakes removed from core corners. However, some true Hopewellian-style blades were collected at the site. The broken specimen from the Twin Mounds sector is made of a conglomerate and measures 2.4 cm long, 1.4 cm wide, and 3 mm thick (see Fig. 97).

Projectile points

N = 15

Surface collections yielded an expanded stemmed point, as well as a crudely side-notched point fashioned from a point fragment. The expanded stemmed point from Feature 1 was shaped from an older biface, as inferred from differential surface weathering. In Test Pit 4, an expanded stemmed point with a slightly convex base, an oval body, and straight shoulders was found. It exhibits an unground, trimmed base and a resharpened tip. Two additional expanded stemmed points were recovered from Features 15 and 16. The fairly crude specimen exhibits sloping shoulders and straight sides; the tip and base are broken. The other is well-made and has straight shoulders, an oval body, a trimmed straight unground base, a needle-like point, and long, narrow flake scars. The side-notched basal fragment from Feature 8 may represent a variant of the expanded stemmed type; the straight base is not as wide as the shoulders and is trimmed, with no indication of grinding. These expanded stemmed points are very similar to late Hopewell forms in central Illinois (Morse 1963:57). The two Gary variants (cf. Ensor 1981:96) from Feature 13 have rounded, unground stems, resharpened blades, and staight shoulders. Representative specimens are illustrated in Fig. 97 (upper row).

Bifacial knife

N = 1

This specimen may have functioned as a chisel, since it exhibits a worn, polished convex end. Though broken, it was apparently oval in shape and measures 5.0 cm long, 3.3 cm wide, and 9 mm thick.

Celts, axes, and choppers

N = 3

A possible chert celt bit measuring 6.1 cm wide was collected from the surface. The chipped siltstone axe or chopper was found on the surface of the lower terrace and a ground siltstone celt with battered edges and a large, battered piece of siltstone was recovered from 9.1 cm long, 4.0 cm wide, and 2.1 cm thick.

Hammerstones

N = 3

A quartzite rock found on the surface is pecked on one end and chipped on the other. Test Pit 2 yielded an irregular siltstone disc exhibiting a shallow, pecked depression on each surface and battered edges and a large, battered piece of siltstone was recovered from Test Pit 4.

Abraders

N = 2

The specimen found in Test Pit 1 is made of local sandstone and exhibits several grooves on both surfaces. Recovered from Features 15 and 16, the second abrader is oval in shape and smooth.

Quartz crystal

N = 1

This unmodified specimen of clear quartz measures 2.0 cm by 1.0 cm in maximum dimensions. At the Crooks site, similar artifacts were found in association suggesting their use as pendants or parts of medicine bundles (Ford and Willey 1940:125).

BONE ARTIFACTS

N = 2

An awl tip was found in association with Features 15 and 16. The turtle shell fragment from Feature 14 exhibits striations on the interior surface and may have been part of a vessel.

Mound 31

Mound 31 is a small burial mound located about 60 m east of the Twin Mounds (Mound 6). It is about 15 m in diameter and 1 m high; the mound is badly eroded. An excavation unit measuring 3.5 m by 1.7 m was placed approximately 3 m east of the center (see Fig. 90). Additional excavations were conducted in 1981 (Mainfort, this volume). The profiles and plan view of the test pit (Fig. 93; see also Fig. 16) indicated the following stages of construction. First, the area was cleared of humus and topsoil. Next, an area at least one meter in diameter was fired, causing the underlying sterile clay to be burned red to a depth of about 10 cm. Two small, circular fire basins are contemporary with the fired area and were situated just beyond the edge of another area of burned subsoil (Feature 1), which was highly mottled with charcoal and cultural debris. Feature 1 was thickest over the fired clay (3 cm maximum depth) and nearly pinched out along the eastern face of the test pit, there mingling with the base of a burned, mottled dark brown clayey loam and an underlying ash layer that progressively thickened to the south. Hence, the burned clay and Features 2 and 3 are roughly contemporaneous and slightly earlier in time than Feature 1, the ash layer, and the burned area (perhaps a prepared floor) that occurred throughout the test pit.

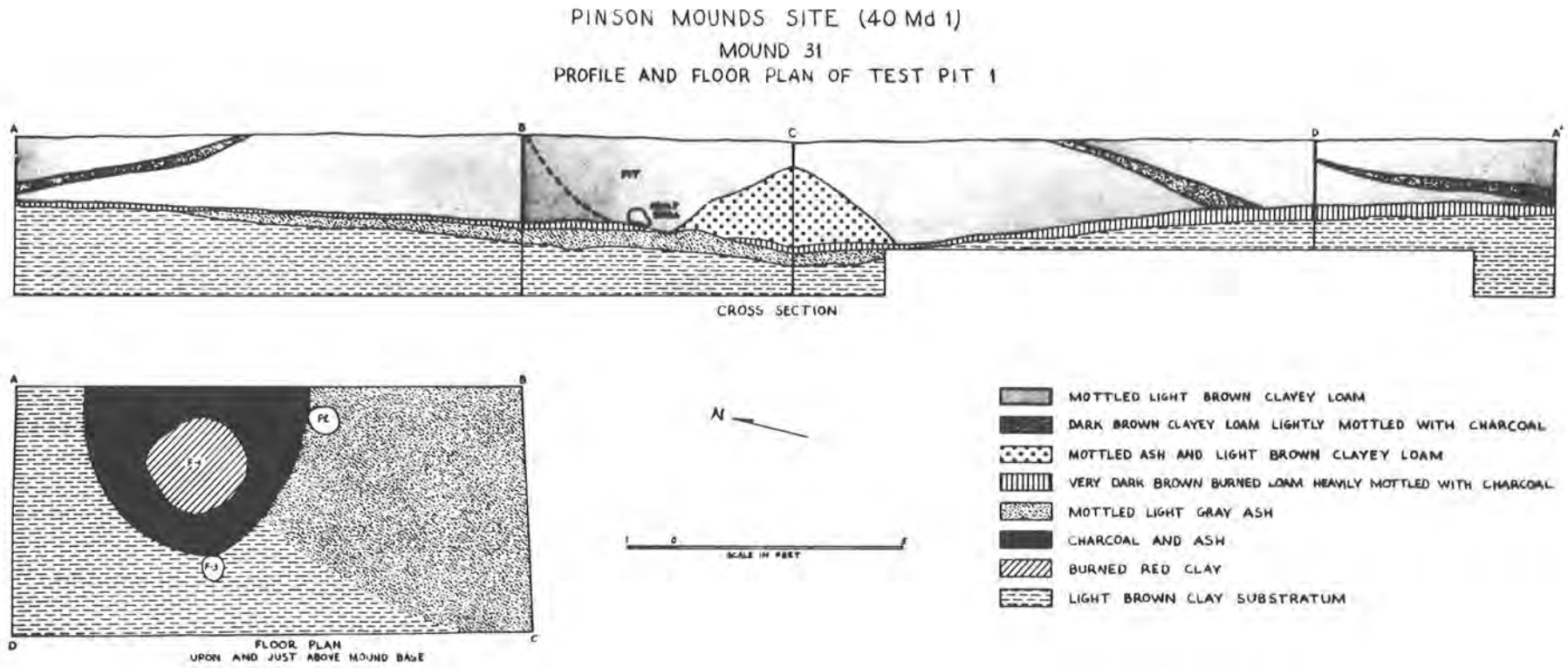

Fig. 93. Mound 31. Profile and plan view.

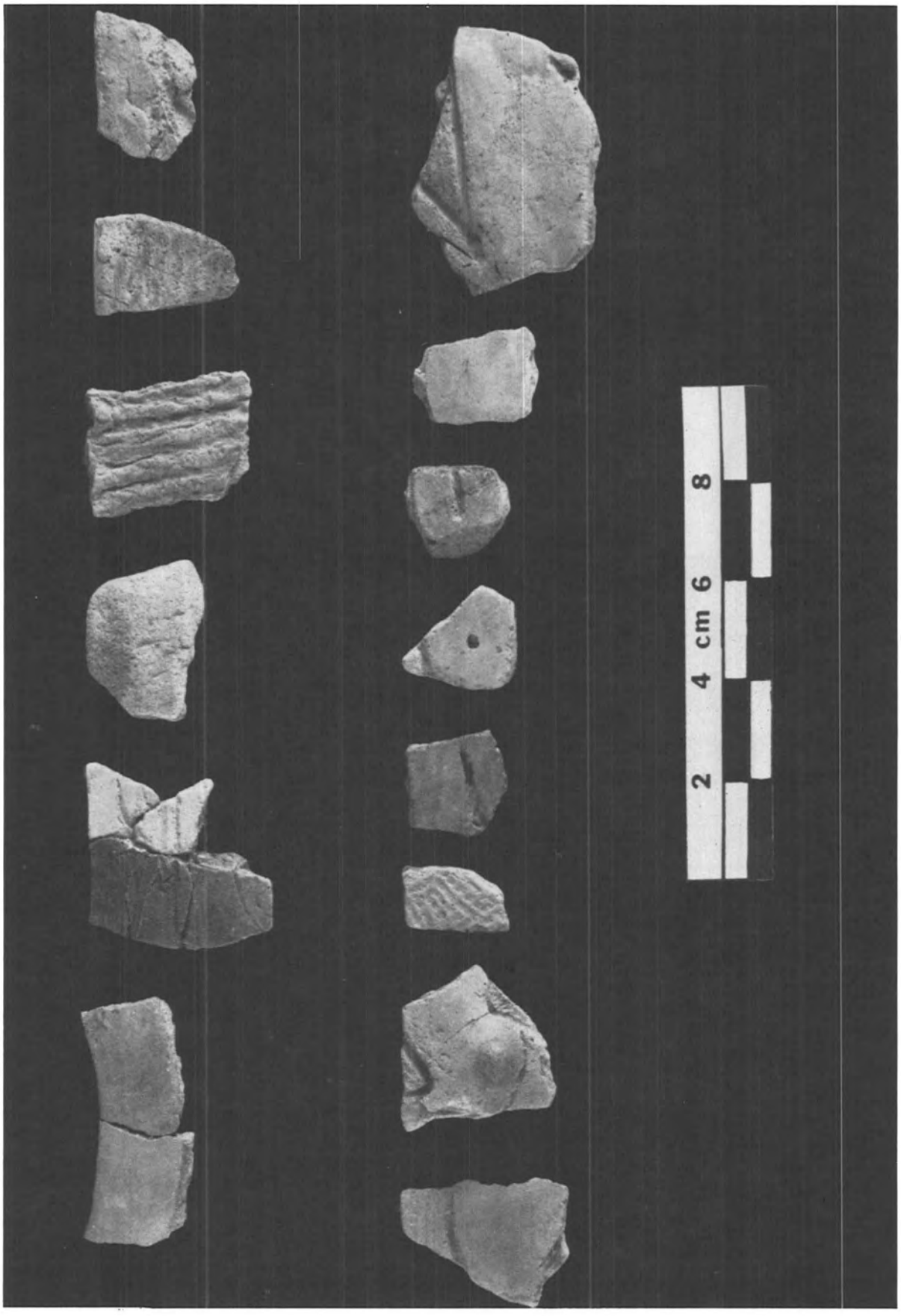

Fig. 94. Mound 31. Ceramics.

Feature 2 was somewhat bell-shaped, with a rounded base, and measured 24 cm in diameter and 28 cm deep. It was filled with charcoal that seems to consist mainly of small branches. Circular in plan view, Feature 3 measured 18 cm in both diameter and depth and exhibited straight sides and a rounded base. The fill consisted of charcoal and ash. It seems apparent that Features 2 and 3 were basins associated with ceremonies conducted near the beginning of mound construction. The stratigraphy revealed by our test excavation suggested that presence of a central burial tomb, an inference born out by the 1981 excavations.

The third major stage of construction reflected in the test pit is the construction of a primary mound composed of ash and light brown clayey loam near the center of Mound 31. Superimposed on this were perhaps three more construction stages, each composed of mottled light brown clayey loam and separated from each other by a lightly mottled dark brown clayey loam layer. An intrusive pit was observed in the south face of our excavation. We did not excavate the pit, except to remove a disarticulated skull with the mandible in place from the base. Oriented so that the foramen magnum was oriented to the north and the face to the west, the poorly preserved skull is that of an adult male, aged 40 to 50+ years. Dental attrition is severe and the teeth are carious (Lane Beck, personal communication). A green stain, perhaps the remains of a copper artifact, was found in the soil at the back of the skull near the base. While removing the skull, a Baytown Plain *var. Tishomingo* rim sherd was found in the pit fill; the paste is compact and the surface is polished.

Recovered from the 0-15 cm level of the mound were a black chert core remnant, two residual sand tempered sherds, and a polished Baldwin Plain body sherd. In the 45-60 cm level were a siltstone chip, a fragment of a baked clay object, a Furrs Cord Marked sherd, and a residual *Tishomingo* paste sherd. An unidentified limestone tempered incised sherd and two small Furrs Cord Marked sherds were recovered from Feature 2. Feature 1 yielded all other artifacts found in Mound 31, including a substantial number of non-local sherds (see Fig. 94). The four Alligator Bayou Stamped *var. Sumter* sherds closely resemble Marksville Incised *var. Manny* (cf. Jenkins 1981:121-122) and the nine Basin Bayou Incised *var. unspecified* sherds (including two rim sherds) are also similar to their grog tempered counterparts; the seven polished Baldwin Plain sherds are probably associated with these decorated types. Seven sherds, including a rim, are part of an unidentified sand tempered incised or simple stamped vessel. The remaining sherds (N = 17) represent portions of three Furrs Cord Marked vessels. Also included were five fragments of baked clay objects and six chert flakes.

Mound 14 Sector

DESCRIPTION OF EXCAVATIONS AND FEATURES

Our test excavations in the Mound 14 sector (Fig. 95) were restricted to enlarging the house excavation begun by Fischer and McNutt (1962). Their identification of a rectangular wall trench house with a Middle Woodland context was puzzling, so we wished to conduct further investigations at this location. The resulting excavation was in no small part made difficult by undocumented excavations made prior to our arrival (Charles Nash and James Ford excavated several tests into the wall trench house in 1962; C. McNutt, personal communication), as well as by the presence of a large number of aboriginal features (Fig. 96). Because of limited time, we had to be content with merely surface collections from the remainder of the area.

Unfortunately, almost none of the house floor was found to be intact, although it was apparently immediately below or at the base of the plow zone. In the western corner, an intact section of the floor, covered by a thin layer of sand, was exposed. The house was of open corner construction, with interior dimensions of approximately 21 m by 17 m. The four wall trenches ranged in depth from 80 to 100 cm in depth below the approximate level of the floor (see Fig. 96). The central fired area has been described by Fischer and McNutt (1962) and there are several candidates for support posts clustered around this feature. Some of these were apparently removed, as the upper portions of the postholes were enlarged by cave-ins. Feature 10, a storage pit located outside the house, may be associated with the structure, since it contained fill very similar to the undisturbed house floor overburden and contrasted with the fill of other features. This feature intruded through an unexcavated feature containing similar fill and measuring perhaps 90 cm in diameter and 35 cm deep, that lay outside our test pit. We had planned to excavate some test trenches in order to locate additional houses, but the complexity of the area excavated necessitated abandoning this plan. However, extensive testing of this general area in 1981 failed to reveal additional structures and only a few scattered features were found (R. Mainfort, personal communication). No diagnostic Mississippian artifacts were associated with the house and the recovered artifacts are all attributed to the Early and Middle Woodland periods. Some of the rare clay tempered sherds may be Mississippian, although none correspond to the distinctive Obion Plain that comprises most ceramic assemblage from the Obion mound group (40HY14), some 60 miles to the north (Baldwin 1966). Shell and bone are rarely preserved at the Pinson Mounds site, so the arguments of Fischer and McNutt (1962) concerning the virtual absence of shell tempered sherds are not necessarily valid. Nonetheless, the extremely low incidence of shell tempering at the site is striking.

Test Pit 1 was expanded on all four sides to expose a 1.5 to 2.0 m wide band around the house. Several additional features and a number of large posts were revealed. The post molds indicate that several superimposed circular Woodland houses were constructed in the area. Indeed, the post molds are so numerous that it is difficult to discern individual house patterns. Although additional excavations will be required to delineate these Woodland structures, it appears that they were about 7.5 m in diameter, slightly larger than the partial house exposed in the Twin Mounds sector. Several years after the completion of our original report, two radiocarbon dates were obtained on charcoal from several posts in the wall trench. The uncorrected dates are A.D. 850 $\pm$ 120 (M-1362B) and A.D. 1130 $\pm$ 110 (M-1362A). These assays suggest a calendar date of about A.D. 1000, or slightly later, and correspond nicely to the dates from the Obion site (Baldwin 1966:400-403).

CERAMICS

The relative frequencies of the ceramic types represented in the Mound 14 sector are different from those observed in the Twin Mounds sector and there is considerable variability within the Mound 14 sector assemblage itself. Several occupation components are represented in this area.

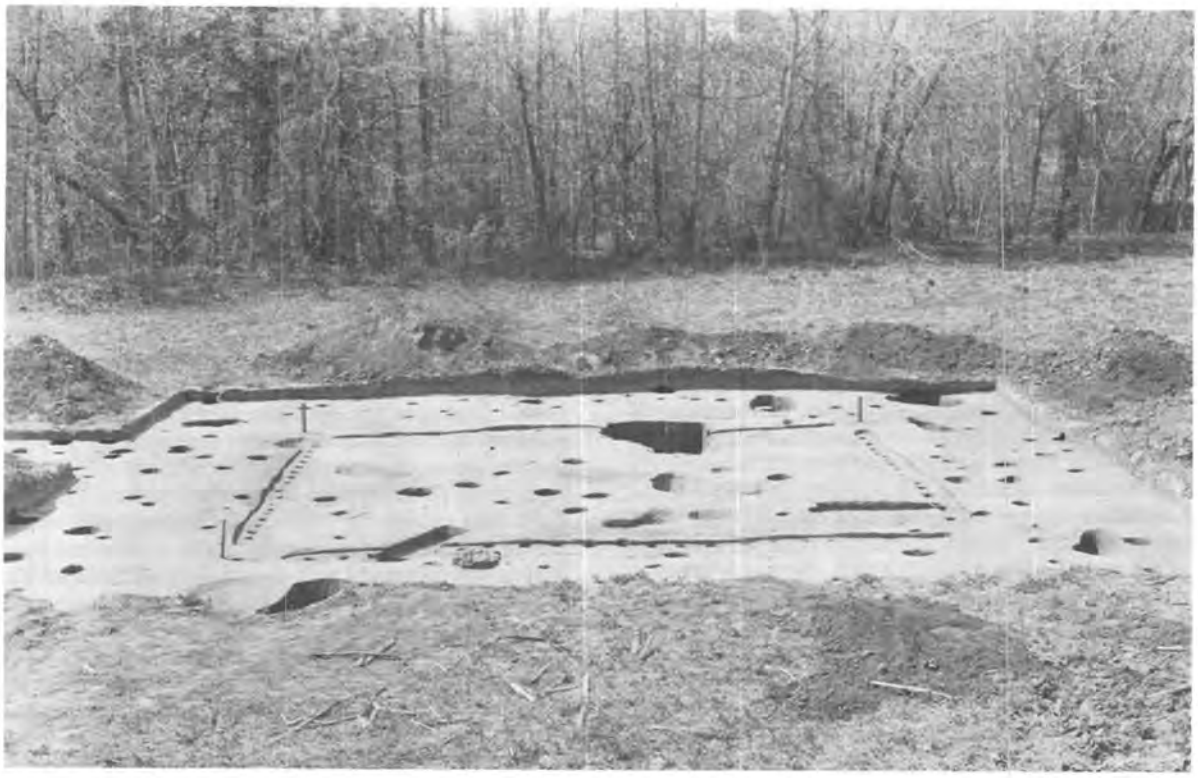

Fig. 95. Mound 14 sector. Excavation area.

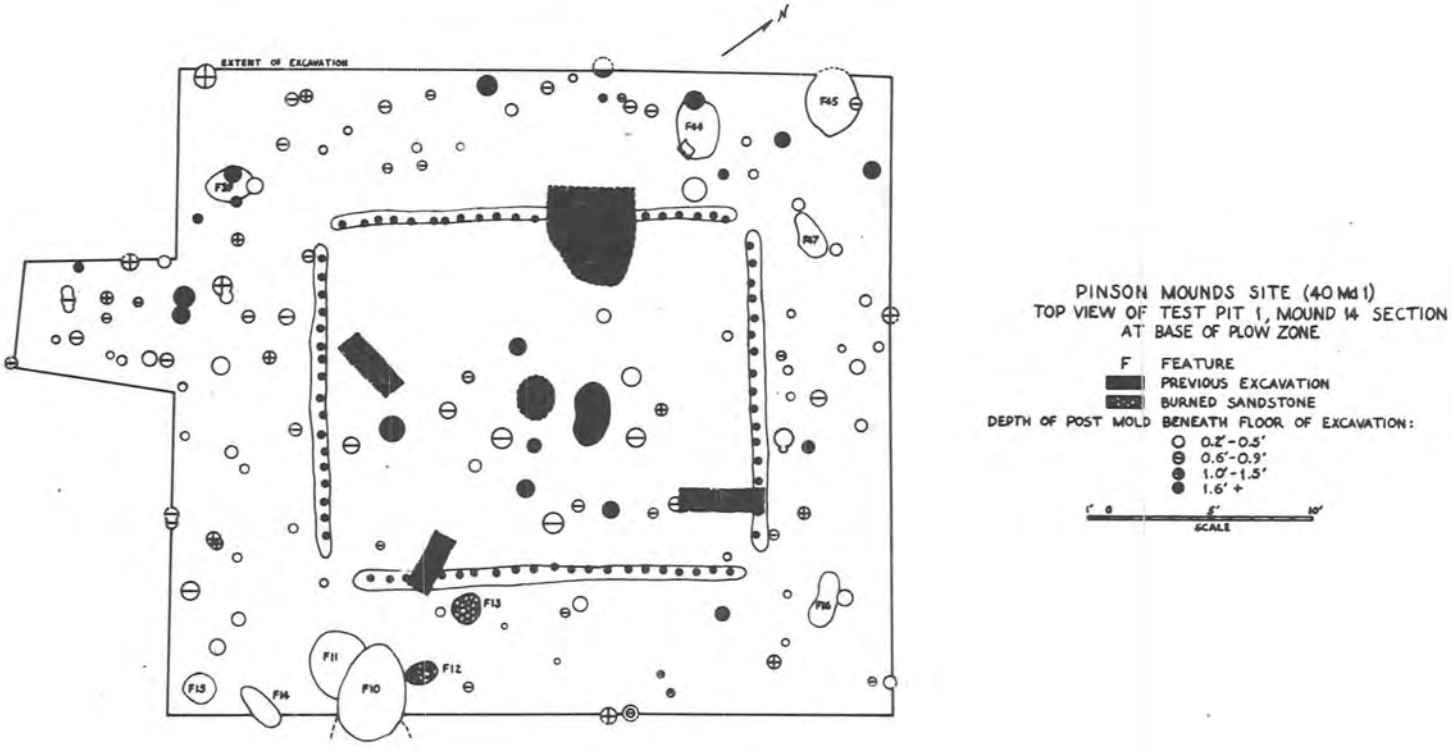

Fig. 96. Mound 14 sector. Plan view, Test Pit 1.

Withers Fabric Marked *var. Twin Lakes* and Saltillo Fabric Impressed

N = 59

These Early Woodland types were rare to absent in the Twin Mounds sector. They are also infrequent in the Mound 14 sector surface collections, but in the area of the house excavation (Test Pit 1), fabric marked ceramics constitute a significant part of the assemblage, especially in the Woodland post molds. Among the sand tempered sherds (N = 47), both straight and folded rims occur.

Baytown Plain and Mulberry Creek Cord Marked

N = 76

As was the case in the Twin Mounds sector, sherds with *var. Tishomingo* paste constitute the majority of these specimens. However, *var. Tishomingo* paste is more prominent in the Mound 14 sector surface collections than elsewhere at the Pinson Mounds site and plain surfaced sherds also have a higher relative frequency. This may indicate that the Mound 14 sector represents a slightly later occupation than the Twin Mounds sector, although recent excavations at the site suggest that *var. Tishomingo* paste does not have major temporal significance in the Pinson Mounds area.

Larto Red Filmed

N = 2

Two sherds exhibit red filming, one on both surfaces, the other only on the interior. The paste of these is not as fine and compact as that observed on the Twin Mounds sector specimens.

Baldwin Plain

N = 69

Three Baldwin Plain rim sherds, two of which are jar fragments, are included in the Mound 14 sector assemblage. One jar fragment exhibits a flat, punctated lip, the other a plain interior bevel. the third rim sherd, unidentified as to vessel shape, has a plain, rounded lip.

Furrs Cord Marked

N = 145

This is the primary ceramic type throughout the Mound 14 sector, although the percentage of Furrs Cord Marked is significantly lower than in the Twin Mounds sector. Four rim sherds are straight with plain rounded lip and the two folded rims also have plain rounded lips. The remaining has a flat lip and exhibits small notches perpendicular to the lip.

Sand Tempered Complicated Stamped

N = 1

The single example was recovered from Feature 16. The apparent complicated stamped motif consists of a series of circles that has been partially obliterated by smoother. Several Swift Creek Complicated Stamped sherds were recovered from the Mound 14 sector in 1974 (Mainfort [ed.] 1980) and our specimen may be a representative of that type.

Sand Tempered Incised

N = 3

An eroded sherd found while cleaning up the 1961 excavation area in Test Pit 1 exhibits remnants of what appears to be a series of incised curvilinear motifs; the design elements were clearly not stamped. Crude, incised lines of indeterminate motifs appear on the remaining specimens.

Miscellaneous ceramics

N = 203

Included here are badly eroded sand tempered (N = 160), mixed sand and clay tempered (N = 38), and limestone tempered (N = 5) sherds.

Baked clay objects

N = 32

Although these consist primarily of burned daub or hearth fragments, several artifacts similar to Poverty Point objects were also found, all of which exhibit sandy paste and a pale color. One oval specimen measures 4.4 cm by 2.6 cm, while the two irregular round balls are both about 2.9 cm in diameter. Similar objects were recovered from the Early Woodland occupation zone below Mound 12 (Mainfort [ed.] 1980).

LITHICS

The ratio of stone artifacts to pottery was higher in the Mound 14 sector, although fewer specimens were collected than in the Twin Mounds sector. Flint working techniques appear to be similar, although the Mound 14 sector flakes tend to be larger. The same varieties of chert (primarily Fort Payne) were used in both areas. Selected examples are illustrated in Fig. 97. (bottom row).

Projectile Points

N= 9

From the surface of a knoll 100 m north of Test Pit 1, we collected a resharpened Madison point. The two point fragments from the eastern extension of Test Pit 1 are, respectively, part of an expanded base and a midsection, resharpened to a drill-like shape. A large, corner-notched basal fragment was found while cleaning the 1961 excavation area. Two crude points similar to Bradley Spikes (Cambron and Hulse 1975:19) were found on the surface of Mound 14.

Triangular bifaces

N= 2

An artifact similar to knives found on northern Hopewell sites was recovered from Feature 10. Although the blade edges have been reworked, a few blade-like scars are still observable. While basically triangular, the sides and base are slightly convex. This specimen is 3.7 cm long, 2.9 cm wide, and 0.7 cm thick. The small, broken biface from the western extension of Test Pit 1 seems to have a convex base and recurvate edges; blade-like scars occur on both surfaces.

Blades

N= 5

Although a number of flakes are long, narrow, and relatively thin, only those that were clearly removed from prepared polyhedral cores are classified as blades here (Morse 1974). All specimens were manufactured from non-local (i.e., not Fort Payne) cherts and one appears to be an example of Flint Ridge flint. The Mound 14 sector specimens are similar in outline and curve to small Hopewell blades and exhibit multiple (usually 3) blade scars on the obverse surface that are parallel to the long axis of the blade (Fig. 97, bottom row). All exhibit a bulbar proximal end, while all distal ends have been broken, perhaps due to use. Two blades have been retouched.

End scrapers

N = 4

The two examples found on the surface of Mound 14, one of which is unfinished, are made on flakes. In the southern extension of Test Pit 1, there was an end scraper that was apparently made on a core trim flake. It exhibits blade-like scars on its obverse. The remaining specimen was recovered from a post mold in the northern wall trench of the house.

Celts and choppers

N = 5

Crudely chipped oval to rectangular implements of chert and ferruginous siltstone comprise this class. Most exhibit a single chipped and battered edge. Lengths generally range from 9 to 11 cm, widths from 5.5 to 7.5 cm, and thickness from 2 to 4 cm. The smallest specimen measures only 5 cm long, 3 cm wide, and 2 cm thick.

Hammerstones

N = 8

In the southern extension of Test Pit 1, there was a quartzite hammerstone measuring about 10 cm in diameter, that exhibits battering on all sides and a small, shallow depression in one surface. Five additional quartzite hammerstones were also found in the Mounds 14 sector, as well as one specimen each of chert and ferruginous siltstone. Four of the quartzite hammerstones are fragments of water-worn rocks with battered ends. Apparently rejected as a potential core because of a thick patina, the chert specimen is battered and a few flakes had been removed prior to its use as a knapping tool.

Other lithic artifacts

N = 2

A modified piece of galena was recovered from Feature 16, which also produced a possible Swift Creek Complicated Stamped sherd. This small artifact is essentially triangular in shape, with a square cross-section, and is 1.2 cm long, 5 mm wide, and 5 mm thick. There is a crude, thin, shallow groove near the largest end, suggesting possible use as a pendant (Fig. 97, bottom row). A small mica fragment was found in a postmold near the wall trench house.

Mound 9 and Other Inner Citadel Areas

MOUND 9

Mound 9 (Sauls Mound) is located near the center of the mound complex and stands over 20 m tall; the flat summit measures between 15 and 18 m square. Because of erosion and relatively modern disturbances, this area varied as much as 1.5 m in absolute elevation. Four corners and a possible ramp are readily identifiable from the summit. The western corner was badly eroded and a gully 10 m wide had intruded about 6 m into the southeastern side of the mound summit. Adjacent to this gully was a deep 5 by 7 m hole, apparently dug by relic hunters (see Mainfort, this volume). Our test excavation was placed in the southwestern corner of the old excavation, along the side of the gully, in order to obtain a soil profile. The face exposed measured 3.4 m wide and 2.6 m deep. The upper meter consisted of spoil dirt from the old excavation.

Four strata were distinguished beneath the spoil overburden. The lowest of these was a homogeneous hard whitish clay that was lightly mottled with charcoal; the surface varied between 2.3 and 2.5 m beneath the ground surface. Above this was a mottled brown and yellow clayey loam in which individual basketloads were evident. The surface of this stratum sloped from 1.5 to 2.0 m beneath surface, from southeast to northwest. Superimposed on this was a deposit of mottled brown and yellow clay, the surface of which generally lay about 1.3 m beneath the present surface, with a dip (possibly a pit) in the northwestern side of the test pit. The upper stratum was a brown to light brown silty loam.

Other than several fragments of sandstone, the only artifact found during the Mound 9 excavation was a Baytown Plan *var. Tishomingo* body sherd, probably an inclusion in a basketload of mound fill. Interestingly, no reddish-brown subsoil was observed in the mound fill, indicating that, even in the final construction stages, at least some fill was being skimmed form the ground surface, rather than obtained from a deep barrow pit. However, a large probable barrow pit is readily visible about 100 m south of Mound 9.

DUCK'S NEST

Our tests at the Duck's Nest were very limited and our objective was simply to determine whether or not this small earthwork was aboriginal, as local residents believed it to represent the cellar of an old trading post or store. Test Pit 1 was 6.4 m long and 75 cm wide, with an unattached extension measuring 1 m by 75 cm. Maximum depth attained below the ground surface was 1.4 m. The soil profiles were difficult to interpret. The basal stratum was a sterile yellow to light brown clay that was very level throughout our excavations. This apparently level surface may have been created during the construction of the Duck's Nest, since it was our impression that it was constructed on an erosional remnant. A large, circular fire basin was located near the center of the depression. This feature is intrusive from the surface of the tan sand (50 cm below ground surface) and the section exposed measured 73 cm by 85 cm. The basin was not excavated and we did not attempt to expose the entire feature. The sides were clearly burned and the fill consisted of grey sandy clay, with some charcoal flecks. This feature was excavated in 1982 (Mainfort, this volume).

Fig. 97. Lithics. Twin Mounds sector and Mound 14 sector.

Fig. 98. Duck's Nest. Furrs Cord Marked vessel.

The small embankment seems to have been constructed in three stages. The initial construction stage is represented by a stratum of light brown sand, with a maximum thickness of 50 cm and a width of no greater than 3 m. Overlying this is a zone of dark brown sand, up to 70 cm thick. Neither of these strata were apparent in the central test pit. The final construction stage was the addition of a mottled light to dark brown clayey sand stratum with a maximum thickness of 55 cm. Lying upside down on this stratum and just beneath the summit of the embankment was a conoidal Furrs Cord Marked jar (Fig. 98). The vessel is 21 cm in diameter and the lip has been flattened by the edge of a cord-wrapped paddle. It was filled with dirt and may have actually been used to transport fill. Few additional artifacts were recovered during our excavations. Ceramics include two sand and limestone tempered plain sherds, a Furrs Cord Marked sherd, a Mulberry Creek Cord Marked *var. Tishomingo* rim, and a sand tempered incised sherd. A well-made straight stemmed projectile point and a broken drill were also found.

SURFACE COLLECTIONS AND MISCELLANEOUS TESTING

Surface collections and minor test excavations were conducted at several additional localities within the central part of the Pinson Mounds site, including the problematic Mounds 11, 16, and 32, Mounds 10 and 15, and the fields in this general area (see Fig. 89). Artifact density was fairly low. The small ceramic sample collected from Mounds 10, 16, and 32 (N = 14) included only plain or eroded surfaced sherds of Baldwin or *Tishomingo* paste. The possible Larto Red Filmed sherd found south of Mound 9 may be Mississippian. The lip and interior are red-filmed, while the exterior is badly eroded. The lip is rounded and thickened in front, with an incision paralleling and just beneath a slight protuberance on the upper rim.

With the exception of two specimens found south of Mound 9, projectile points from the "Inner Citadel" area were represented by tips and midsections. A well-trimmed basal fragment, perhaps Middle Archaic, and a section of a stemmed or corner notched point with Hopewell-like flaking were also found.

Eastern Citadel

GEOMETRIC EMBANKMENT

A trench (Test Pit 1) measuring 14 m long and 1.5 m wide, with a maximum depth of 1.4 m, was excavated into the northern section of the geometric embankment at the "Eastern Citadel", with a 1.5 m by 3.0 m extension near the summit (Fig. 99). The embankment exhibits four stratigraphic levels (Fig. 100): a reddish-brown clay substratum (Level 4), a light gray silty clay occupation zone (Level 3), general embankment fill composed of mixed soils (Level 2), and a plow zone (Level 1). Artifacts were recovered from the upper three zones and it appears that a habitation area was stripped of its occupation zone to provide fill for the embankment. No post molds suggestive of a palisade were observed, although such features would be difficult to recognize. They were not expected and their absence is mentioned here only because Myer (1922) suggested the possibility of such an occurence. The excavated section of the embankment had been damaged by plowing and was 6 to 9 m wide, with a height of 30 to 100 cm. Other surviving sections of the enclosure are 2 to 3 m tall.

SURFACE COLLECTIONS

Surface collections were made in three areas. Very few artifacts were observed, despite the fact that most of the eastern half of the enclosure was examined. Two minor artifact concentrations were noted, one near the embankment test, the other in a small field about 150 m to the north; neither locality produced many artifacts. One of Myer's "palisade lines" was followed east from Mound 28, until it turned at an iron boundary stake. Among the artifacts collected in this vicinity was a broken Early or Middle Archaic projectile point base that exhibits a ground, concave base, wide side-notches, basal thinning, and parallel-sided flake scars. Lithics from the small field north of the enclosure include two unifacial side scrapers, the base of an oval knife, two end scrapers, and two gravers. The scrapers and gravers are made on flakes. The two ceramic sherds found in this area have a very micaceous paste that is typical for the site. Three end scrapers (one broken) and a siltstone chopper were also found at this locality.

Six projectile points were collected from the surface within the enclosure. One is a midsection fragment and another is a broken corner notched specimen. Two rounded basal fragments from crude side notched or expanded stemmed points were found, as was a crude expanded stem fragment. The single complete point exhibits an expanded stem, a well-trimmed concave base, and a resharpened blade. The blade and stem are differentially weathered and this is probably an Archaic point that was resharpened by a Woodland knapper.

The two iron fragments, as well as the unifacial scraper and the siltstone chip, from Level 3 of the embankment test were recovered from the western 3 m of the trench, within or just below the plow zone. Saltillo Fabric Impressed and sand tempered eroded sherds were the dominant ceramic types found in Level 2; several end scrapers and a quartzite hammerstone were also found in this level. It appears that an Early Woodland habitation area provided much of the embankment fill and Level 3 may represent a remnant of this occupation.

MOUND 29

This platform mound is roughly 40 m square at the base and 32 m square at the summit. It is about 3 m high, with the sides oriented toward the cardinal directions (Fig. 101). The top of the mound had formerly been under cultivation.

Test Pit 3 was located near the edge of the mound and measured 2.7 m long, 1.3 m wide, and 2.9 m deep. An auger test indicated that the surface of the reddish-brown subsoil is 3.6 m below the summit of the mound. Immediately above the subsoil is a mantle of mottled dark brown clayey loam, about 1.6 m thick, containing small fragments of sandstone and a few sherds. This deposit is capped with two thin soil zones, each about 6 cm thick. The lower of these is a layer of brown clayey sand, while the upper cap is composed of pale yellow McNairy Sand. The surface of the yellow sand level is level and occurs at a depth of from 1.7 to 1.9 m below the ground surface. Evidence from Mound 5 suggests that this might represent a ceremonial floor (Mainfort, this volume). The upper mound fill is composed of mottled brown clayey loam. This stratum may have been constructed in two phases, since there is a diagonal 15 cm thick deposit of brown loam, probably redeposited topsoil, exhibited in the west face of the profile that disappears near the surface. The upper 15 cm of the mound have been disturbed by cultivation.

Test Pit 5 measured 110 cm by 70 cm and reached a maximum depth of about 170 cm. This unit revealed that a brick house with a dirt basement, dating to the late nineteenth or early twentieth century, had burned down. A 15 cm thick layer of charcoal, brick, and iron fragments lay directly above a 2 cm thick hard packed clay floor at a depth of

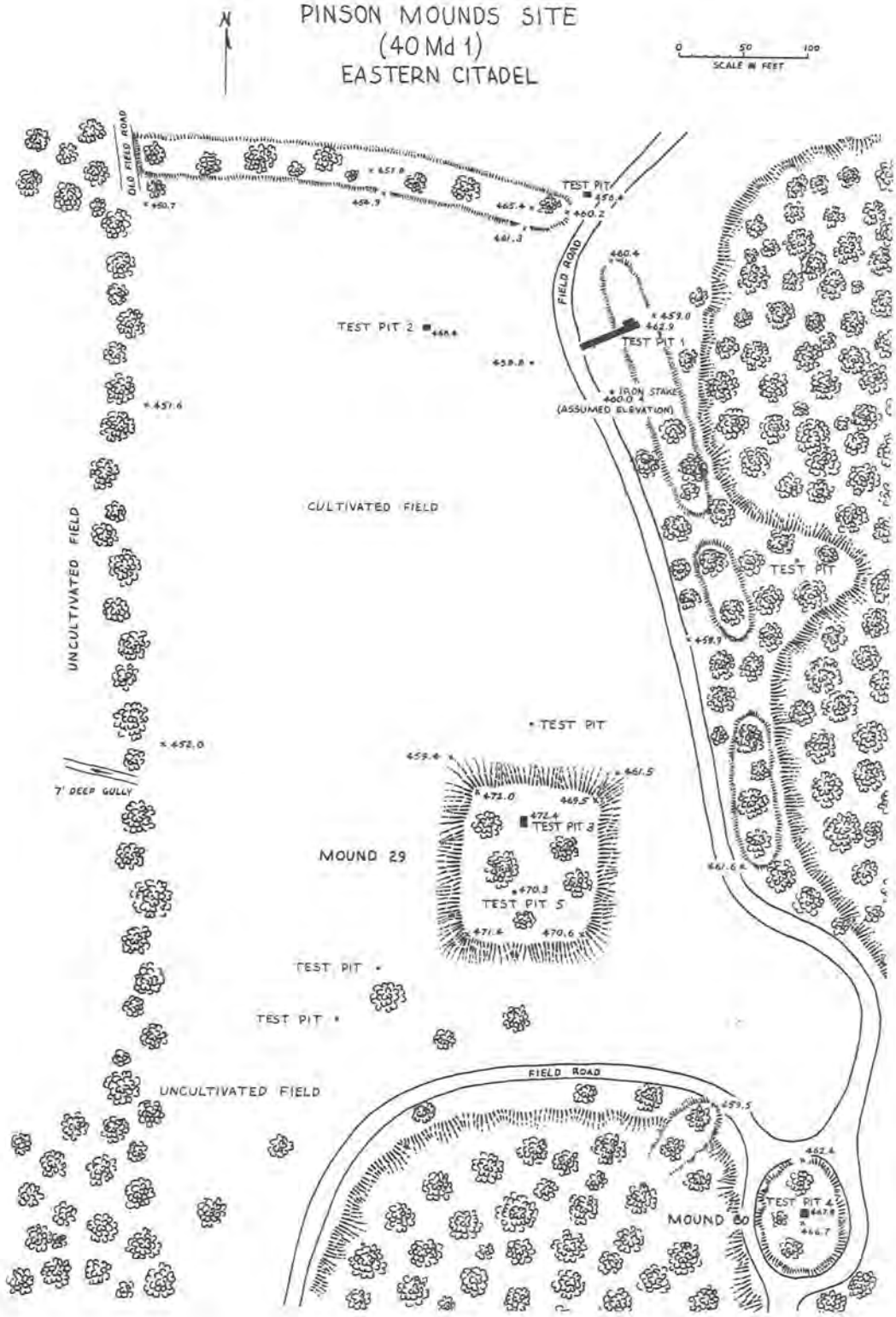

Fig. 99. Eastern Citadel. 1963 excavation units.

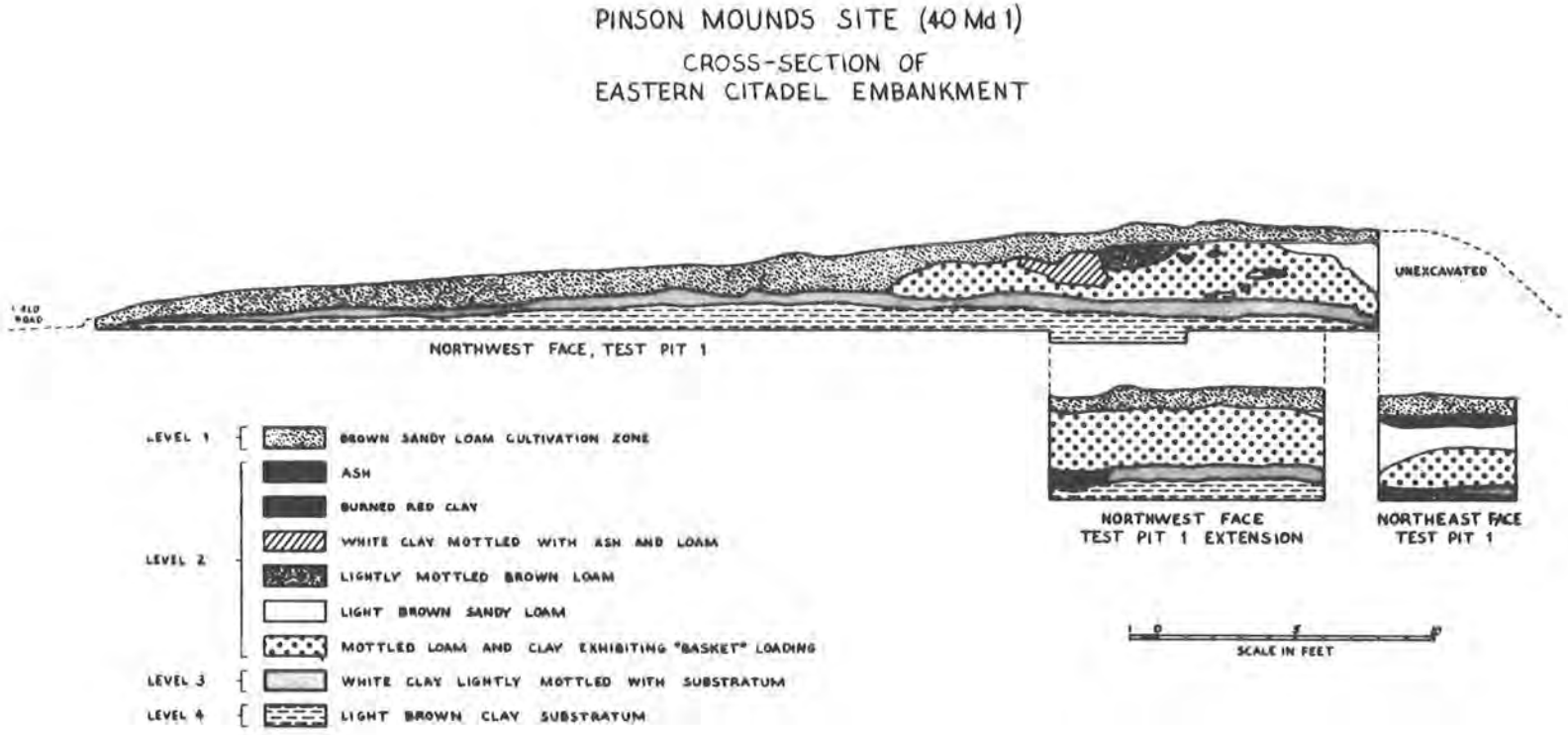

Fig. 100. *Eastern Citadel. Profile of embankment.*

110 cm below the ground surface. Artifacts from Test Pit 5 included bricks, undecorated whiteware sherds, split bone fragments, iron nails with square cross sections, a shell button, a brass rim fire cartridge shell, and unidentified iron fragments. At about 1.7 m beneath the surface, the prepared sand floor observed in Test Pit 3 was encountered. The historic house does not appear on the 1877 Bearss map of Madison County (R. Mainfort, personal communication).

The shell-edged plate rim was found on the surface at the base of the eastern side of the mound and it was the discovery of this sherd that caused us to test the house remains. A broken projectile point tip was found at a depth of 1.2 m below the mound surface. The small ceramic assemblage includes examples of both Baldwin and *Tishomingo* paste.

MOUND 30

An excavation unit measuring about 1.75 m square and 1.7 m deep was placed 3 m north of the center of Mound 30 (Fig. 99), revealing a complex series of construction phases. An auger boring made in the center of the test pit's base disclosed a light brown sandy clay level (probably subsoil) at a depth of 2.2 m below the surface of the mound. The first construction stage is represented by a mottled sand layer with a light brown sandy loam cap that ranges in thickness between 3 and 15 cm. The surface of the sand layer varied between 90 and 170 cm below surface, dipping beneath the test pit floor in one corner. Overlying this is a deposit of highly mottled brown sand that is relatively level and occurs at a depth of about 55 cm below surface, but extends up to the surface in the area where the underlying stratum dips down. A pocket of white sand about 10 cm thick was encountered above the mottled brown sand in one corner of our excavation. The upper stratum of Mound 30 is a mottled light brown sand that has been disturbed by cultivation and erosion. Our limited test only demonstrates that this earthwork is a mound and that its construction took place in several stages.

Summary

The Pinson Mounds site is a 160 ha area containing mounds, habitation areas, and a geometric embankment. The site lies within the Mississippi River drainage system. Actually spanning two contiguous counties (Madison and Chester), the state site file designation 40MD1 applies to the entire site.

The purpose of our research was to conduct test excavations and surface collections at this large, but relatively unknown site. The alloted time period was limited and the area to be tested large. Hence, we attempted only to collect scattered artifacts, soil and charcoal samples, and to make strata cuts in selected areas. Our main objective, therefore, was to make a cultural inventory of the site and we were careful not to disturb deposits beyond our immediate objectives. Six mounds, two habitation areas, and the large enclosure were investigated, revealing evidence of Archaic, Woodland, Mississippian, and Historic period cultures.

Archaic: Only scattered Archaic materials were found. Two possible Early to Middle Archaic projectile points were collected in the vicinity of the Eastern Citadel, as were some potentially early unifacial tools. A broken Archaic point was found just south of Mound 9 and the Late Archaic might be represented by the crude, rounded stemmed points, particularly the specimen found 250 m southeast of the Twin Mounds.

Early Woodland: Fabric impressed sherds were found virtually everywhere on the site, but two notable concentrations were discovered. The ceramics obtained from the Eastern Citadel embankment test and the surface assemblage from this area include numerous examples and an Early Woodland village deposit appears to be preserved under the embankment. Apparently the habitation area within the enclosure was removed for use as embankment fill. Most of the lithics collected from this vicinity appear to be Early Woodland, with some possibly Archaic. A second concentration of fabric marked sherds occurs in the Mound 14 sector. The large number of Saltillo Fabric Impressed sherds recovered from post molds (especially those not associated with the wall trench house) probably represents the remains of an Early Woodland village that was disturbed by the later Middle Woodland and Mississippian occupations. The baked clay objects from the Mound 14 sector are now known to be of Early Woodland affiliation, as well (Mainfort, in press).

Middle Woodland: It is very apparent from our test excavations that Middle Woodland peoples were responsible for the construction of most of the earthworks at the Pinson Mounds site. The artifact assemblage exhibits a number of similarities to the Marksville and Miller cultures to the south, although the site is far larger than any Marksville or Miller sites. There may be several Middle Woodland components represented at Pinson Mounds. The collections from the Mound 14 sector appear to be significantly different from samples obtained from the Twin Mounds sector, in that there is a higher percentage of mixed sand and clay tempered ceramics (*var. Tishomingo* paste) at the former locality. However, this could be a function of sampling error. During the later part of the Middle Woodland in this area, there may have been a shift from sand temper to clay temper. The two crude Bradley Spike points are probably Middle Woodland, as are the expanded stemmed points, which represent the most common point style at the site and which are very similar to late Illinois Hopewell forms. Another significant lithic trait of the (presumably) Middle Woodland occupation of Pinson Mounds is the occurence of blades, although only six were found at the site.

The major ceramic type is Furrs Cord Marked, which makes up 50 percent of the Twin Mounds sector assemblage. Baldwin Plain sherds constitute a minority ware and clay tempered sherds are relatively rare. Of considerable interest are the Marksville sherds, especially those from the Twin Mounds sector and Mound 31. Several polished and some red filmed sherd exhibited a paste almost identical to these, while the complicated stamped sherd from the Mound 14 sector is similar to Swift Creek Complicated Stamped. The Middle Woodland houses at the site are roughly circular in outline. Both conical (Mounds 6 and 12) and platform (Mounds 5, 15, 28, and 29) mounds are present and the geometric embankment is reminiscent of Ohio Hopewell ceremonial centers.

Mississippian: At the time of our work, we regarded Mounds 5 and 9 as typical Mississippian temple mounds. However, recent research has convincingly demonstrated that Mound 5 was completed around A.D. 100 and it is likely that Mound 9 is of roughly the same age (Mainfort, Broster, and Johnson 1982; Mainfort, this volume). With the exception of the wall trench house in the Mound 14 sector, there is virtually no indication of a Mississippian occupation at Pinson Mounds. In fact, Mississippian sites are very rare throughout much of west Tennessee, the nearest being the Denmark Mounds (40MD85), some 40 km northwest of Pinson Mounds. No shell tempered sherds were found during our investigations and only a single Madison point, indicating that the Mississippian component at the site is very minor. It is possible, of course, that some of the rare clay tempered sherd are associated with a Mississippian occuaption coeval with the Obion site (40HY14), but the bulk of these are probably Middle Woodland.

Historic: A relatively modern house basement was found on the summit of Mound 29 and the shell-edged plate rim found on the surface nearby may indicate a fairly early occupancy of the house of of the nearby area. Nuckolls (1958) reports the discovery of a pipe tomahawk at the site, suggesting the possibility of an Historic Indian component or an early trading post.

A number of site features were investigated and pertinent archaeological samples collected. The major value of our limited research lies not only in establishing the cultural affiliation of the Pinson Mounds site, but also in providing a basis for more intensive future investigations. We are grateful that the Tennessee Department of Conservation provided generous funding for the exciting research described in this volume and that our work contributed a small part to the establishment of Pinson Mounds as a state park.

Fig. 101. *Mounds 29 and 30. View to south. A section of the geometric embankment is visible at far left.*

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