

EXCAVATIONS AT 1Tu50, AN EARLY MISSISSIPPIAN CENTER NEAR MOUNDVILLE

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Site 1Tu50 is a single-mound center located only 0.5 mi (800 m) northeast of Moundville. Excavations in the mound itself revealed at least two episodes of construction; excavations at the mound's edge uncovered the remains of a wooden-post structure. The artifact assemblage contained a high proportion of unusual artifacts and exotic materials, consistent with the site's function as a center of political power and religious ritual. The mound was built and used during the early portion of the Moundville I phase, ca. A.D. 1050–1150, and thus probably predates Moundville's emergence as a major regional center. It appears to be one of several mounds built in the Moundville locality during this phase, a time when Moundville's population seems to have reached its peak.

The Black Warrior Valley of west-central Alabama is home to many Mississippian mound sites. The largest and best-known of these is Moundville, which has more than 20 pyramidal mounds arranged around a plaza and covers some 250 acres (100 ha); in its heyday, this settlement was clearly the dominant social and political center in the region. Also present are at least 12 smaller sites, each with only a single mound; these sites are often referred to as the "minor" or "local" centers, and are scattered along a 25 mi (40 km) stretch of the valley south of the Fall Line at Tuscaloosa.

Archaeologists once believed that all the minor centers were linked into a single regional polity with Moundville at the apex (Peebles 1978; Steponaitis 1978). It is now clear, however, based on the work of Bozeman (1981, 1982) and others (e.g., Welch 1986, 1991), that not all of these minor centers were built and occupied at the same time. Hence, if we are to delineate the trajectory by which the Moundville polity developed, it is crucial to know the chronology of construction at each of the minor centers, and to be able to relate that chronology to events at Moundville itself.

My purpose here is to report and to interpret the results of excavations at one of these minor centers, 1Tu50, located only 0.5 mi (800 m) northeast of Moundville (Figure 1). These excavations were car-

ried out in the summer of 1975 by the University of Alabama Field School, under the direction of Richard Krause. In the pages that follow, I first describe the excavations and the artifacts, and then discuss 1Tu50 in relation to contemporary developments at Moundville.

Excavations

Site 1Tu50 is situated on the edge of a terrace that overlooks a sharp bend in the Black Warrior River. The dominant feature at the site is a single artificial mound, which was first described by Walter B. Jones in 1933. At that time the mound measured about 100 ft (30 m) across at the base and 30 ft (9 m) across at the summit; the summit was in most places 10–12 ft (3.0–3.6 m) high (Peebles 1978:381). By 1975 erosion had left the mound more conical in shape, with a maximum height of approximately 11 ft (3.4 m) above the surrounding landscape (Figure 2).

Jones's 1933 survey also recorded two habitation sites nearby. Just off the mound to the west-southwest, stretching for several hundred feet along the terrace edge, was 1Tu51. Although the original collection could not be located for study, a recent reconnaissance in this general area (which is now heavily overgrown and disturbed) yielded a small ($n = 18$), rather undiagnostic collection of both grog-tempered and shell-tempered pottery, suggestive of occupations during the West Jefferson phase (A.D. 900–1050) and subsequent Mississippian phases. Some 300–400 ft (90–120 m) northeast of the mound was 1Tu52. The pottery originally collected here ($n = 153$) contained diagnostics of the West Jefferson phase, the Moundville I phase (A.D. 1050–1250), and an eighteenth-century Creek occupation (site files, Mound State Monument, Moundville, Alabama; V. J. Knight, personal communication).

The 1975 excavations were concentrated entirely on the 1Tu50 mound (Figure 2). Initially, six 5-by-5-ft squares were laid out, spaced evenly (at 5-ft intervals) along a line between the summit and the mound's southern edge. As the excavations progressed, additional units were opened to follow features and lines of postmolds. By the time the field season ended, the excavated area had expanded to some 450 ft² (42 m²), roughly the equivalent of 18 5-by-5-ft squares.

Each unit was excavated in 6-inch (15 cm) arbitrary

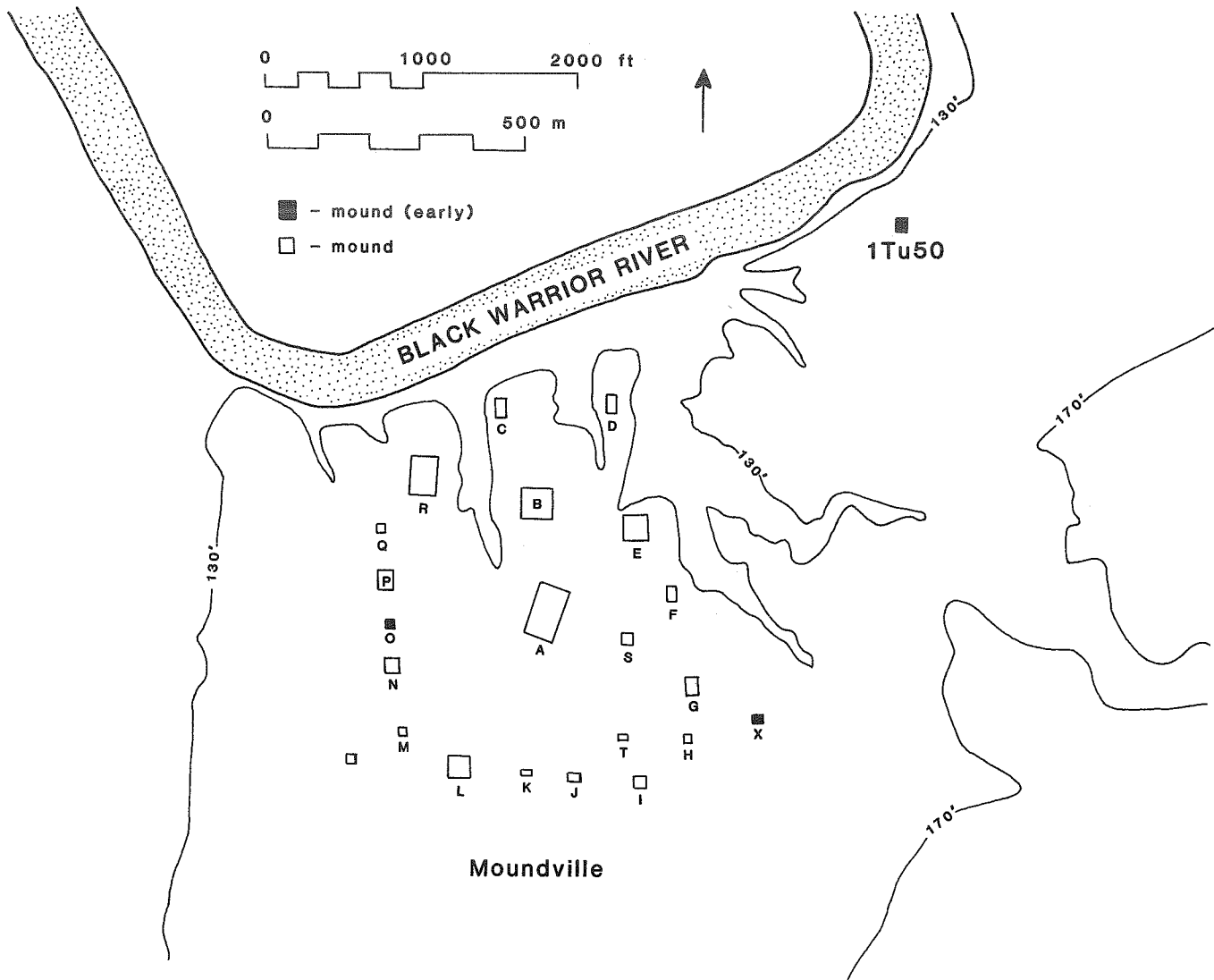


Figure 1. Map showing the locations of 1Tu50 and Moundville. The 130-ft and 170-ft contours delineate (approximately) the terrace on which these sites were built. Solid squares indicate mounds currently *known* to date at least partly to the Moundville I phase; open squares indicate mounds of later or indeterminate date.

levels, and all soil (except in the uppermost level of some units) was screened through half-inch (1.3 cm) mesh.

In the discussion that follows, the excavated units will be considered in two groups: those on the mound's slope, and those at the mound's edge.

Mound Slope Units

The seven squares that were taken down to varying depths on the southern slope of the mound revealed a complex and rather confusing stratigraphy (Figure 3). Encountered at the base of most of these units was a dark brown soil stratum that probably represents the original humus or midden on which the mound was built. All deposits above this stratum were clearly artificial fill, comprising grey, red, and brown sediments that were mixed in kaleidoscopic fashion. A

number of apparent breaks in the stratification of each unit were observed, but the layers in each unit were so different from those in the rest that it was virtually impossible to draw any clear stratigraphic correlations between units.

Nor is it clear how many of these breaks in stratification represent early mound surfaces rather than changes in fill during a single constructional episode. Only two of these breaks can be confidently identified as true surfaces. The first definite surface occurs about 1 ft (30 cm) above the basal stratum in X105 and is marked by a pit feature as well as a distinct hearth (Figure 3). The second surface was observed in the (northern and southern) profiles of X111 as a highly regular, slanting disconformity that almost certainly represents the corner and slope of a buried pyramidal stage. Exactly how these two surfaces are stratigraphically related is unclear, because neither can be con-

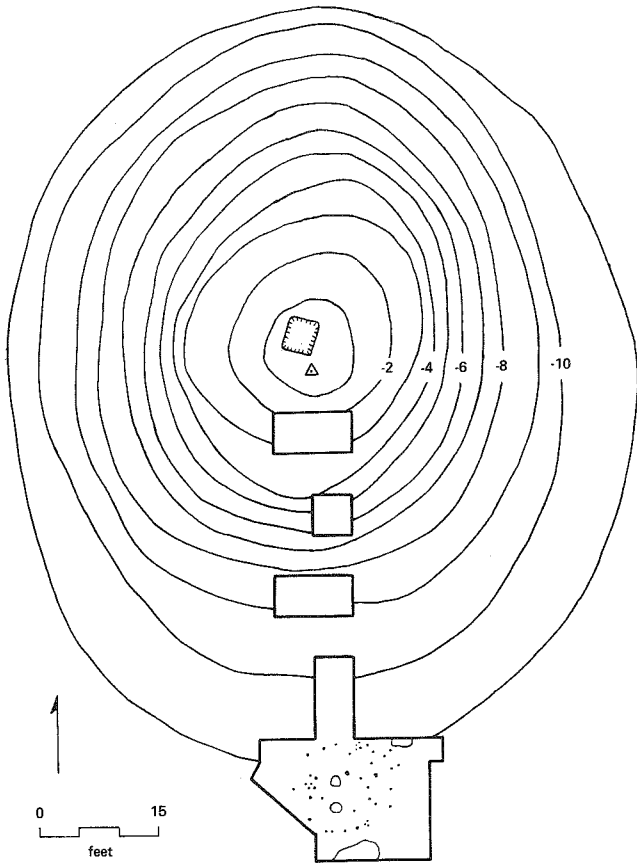


Figure 2. The mound at 1Tu50, with excavated areas marked (contour interval, 1 ft [30 cm]). The depression in the mound's summit is a pot-hunter's pit.

fidently traced into the intervening squares. Thus, all we can say for sure is that the 1Tu50 mound was built in at least two, and possibly as many as five stages (i.e., assuming all the breaks correspond to true sur-

faces). Only additional excavations will resolve this uncertainty.

Mound Edge Units

The second major locus of excavation was at the mound's southern edge, where a set of contiguous units formed a block covering roughly 275 ft² (25.6 m²). Excavations in this block revealed the remains of a wattle-and-daub structure that had been built of singly set wooden posts (Figure 4). Although the exact position of the eastern wall is ambiguous, the other three walls suggest that the building was rectangular and roughly 7 ft (2.1 m) by 10 ft (3.0 m) in size. On the floor near the center of this structure was a concentration of burned earth, and just south of this feature was a hearth, apparently made of clay. Stratigraphically above this floor was a layer rich in wood charcoal and fired daub fragments, suggesting that the structure had burned and collapsed. Outside the walls, just to the south and northeast of the structure, were two dark stains believed to be pit features. Unfortunately, neither of these was excavated due to a lack of time.

Artifacts

The way this site was dug (e.g., by arbitrary levels) makes it impossible now to separate primary from secondary contexts. Artifacts were found in virtually all levels, and when diagnostics were tabulated by individual provenience, no meaningful patterns were discerned either vertically or horizontally. Hence, for present purposes it is reasonable to consider the excavated artifacts in terms of only two generalized proveniences: the mound slope and the mound edge (Table 1). Each of the the major artifact categories

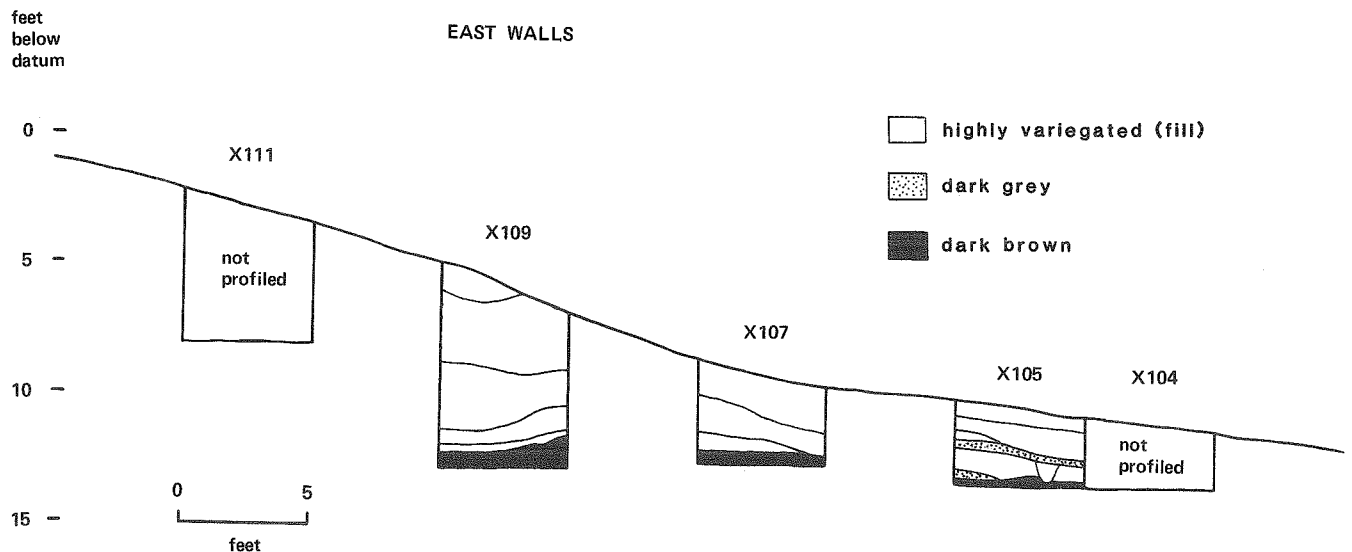


Figure 3. Stratigraphic profile of excavation units in the mound at 1Tu50.

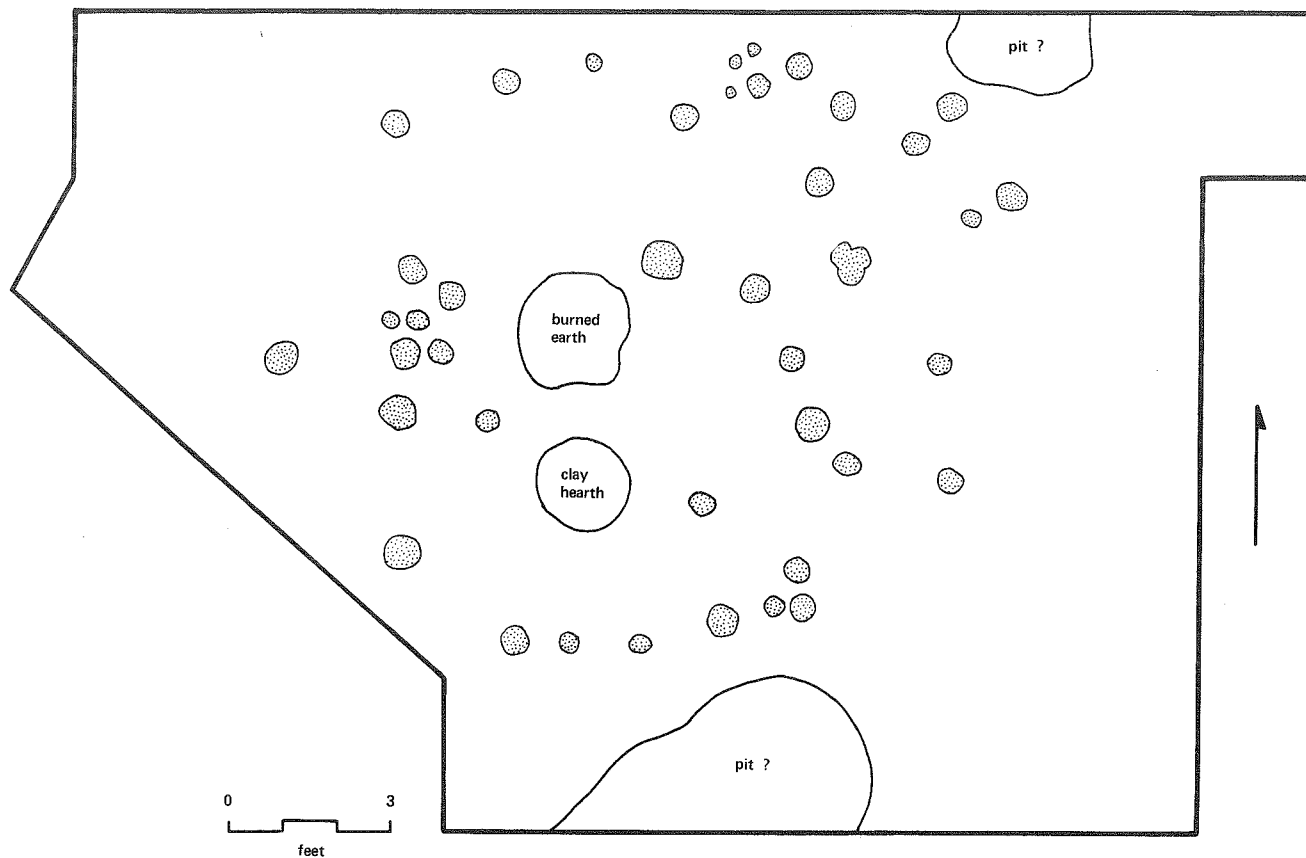


Figure 4. Structure pattern found in the mound edge excavations at 1Tu50. Stippled features are postmolds. The features marked "pit?" are possible pits that were not excavated due to lack of time.

(except for fire-cracked rock and daub) is discussed below.

Pottery

Of the 657 sherds that were recovered, 607 (92.4%) were shell tempered and clearly Mississippian in age; all were classified according to the standard regional typology (Steponaitis 1983a). The most frequent decorated variety was Moundville Incised, *var. Moundville* (Figure 5a-d). Also present were a few black-filmed sherds of Carthage Incised, *var. unspecified* (Figure 5h). The rest of the shell-tempered assemblage consisted of Mississippi Plain, *var. Warrior* (Figure 5e-g) and Bell Plain, *var. Hale* (Figure 5i-k). Most sherds of the latter variety were black filmed, and some other kinds of painted decoration were present in this variety as well: two sherds in the collection were white slipped, and at least one sherd was red filmed.

The prevalence of Moundville Incised and the absence of any later diagnostics strongly suggests that the Mississippian component dates to the Moundville I phase, ca. A.D. 1050-1250 (Steponaitis 1983a).¹ This assignment is further strengthened by an analysis of secondary shape features. For example, the two jar handles in the collection are both of the narrow loop type that most frequently occurs in Moundville I con-

texts. In addition, 13 of the 19 rim sherds from unburnished jars are either folded ($n = 8$; Figure 6d, f-h) or folded-flattened ($n = 5$; Figure 6e, i-j). These rim modes are considered excellent diagnostics of the Moundville I phase and are not believed to persist into later times (Steponaitis 1983a:102).

Yet despite the presence of good Moundville I chronological markers, the 1Tu50 ceramics do not constitute a typical Moundville I phase assemblage (at least not in terms of the way this phase is currently defined). This can best be seen when the type frequencies from 1Tu50 are compared to those from other Moundville I components in the Black Warrior drainage (Table 2). The closest things we have to pure Moundville I phase assemblages come from the well-known Bessemer site, 70 km to the north (DeJarnette and Wimberly 1941), and the lower levels of the deep midden at Moundville north of Mound R (Scarry 1981, 1986; Steponaitis 1983a:94-98). It was largely on the basis of these two assemblages that the Moundville I phase was originally defined. The 1Tu50 material differs from these "type" components in two ways: (a) the relatively lower frequency of Moundville Incised, and (b) the complete absence of Moundville Engraved, which in the "type" components has frequencies of 2-3%.

The absence of Moundville Engraved at 1Tu50 can-

Table 1. Artifact Counts from 1Tu50.

| Category: Subcategory | Surface Collection | Excavations | | Total |
|---|-----------------------|-------------|------------|-------|
| | | Mound Slope | Mound Edge | |
| Pottery: | | | | |
| Moundville Incised, <i>Moundville</i> | | 3 | 8 | 11 |
| Carthage Incised, <i>unspecified</i> | | 1 | 2 | 3 |
| Mississippi Plain, <i>Warrior</i> | 50 | 284 | 167 | 501 |
| Mississippi Plain, <i>Hull Lake</i> | | 1 | | 1 |
| Bell Plain, <i>Hale</i> | 3 | 44 | 44 | 91 |
| Mulberry Creek C. M., <i>Aliceville</i> | 2 | 1 | 4 | 7 |
| Baytown Plain, <i>Roper</i> | 1 | 15 | 18 | 34 |
| McLeod Simple Stamped, <i>Eutaw</i> | | 1 | 1 | 2 |
| Baldwin Plain, <i>Lubbub</i> | | 1 | 1 | 2 |
| Baldwin Plain, <i>unspecified</i> | | 1 | 1 | 2 |
| Unclassified | | 1 | 2 | 3 |
| Total | 56 | 353 | 248 | 657 |
| Chipped Stone: ^a | | | | |
| Madison point (nonlocal) | | 1 | | 1 |
| Madison point fragment (local) | | 1 | | 1 |
| Large biface fragment (nonlocal) | | | 2 | 2 |
| Microblade core (local) | | 1 | | 1 |
| Flake (nonlocal) | | 1 | 10 | 11 |
| Flake (local) | | 8 | 10 | 18 |
| Angular debitage (local) | | 1 | 3 | 4 |
| Ground/Pecked Stone: | | | | |
| Greenstone celt fragment | | 1 | | 1 |
| Sandstone palette fragment | | 1 | 1 | 2 |
| Sandstone abrader fragment | | | 2 | 2 |
| Worked sandstone (misc.) | 1 | | 1 | 2 |
| Hammerstone | | 1 | | 1 |
| Fire-Cracked Rock | 2 | 7 | 5 | 14 |
| Miscellaneous Stone Fragments: | | | | |
| Galena | | 1 | | 1 |
| Hematite | | 5 | | 5 |
| Limonite | | 3 | 2 | 5 |
| Sandstone | 8 | 365 | 63 | 436 |
| Pumice | | | 1 | 1 |
| Daub | 8 | 29 | 21 | 58 |

^a The presumed source of the raw material is indicated parenthetically. See Table 3 for a more detailed breakdown.

not be simply dismissed as the result of sampling error, since the sample in question contains over 600 sherds. The probability of missing this type in such a sample, taken randomly from a typical Moundville I sherd population, is virtually nil ($P < 0.00001$, based on the binomial equation, with $n = 600$ and $p = .02$). Thus, in order to account for the absence, we must look to other explanations.

One possibility is that the lack of engraved sherds results from leaching and weathering. Generally speaking, the shell-tempered sherds from 1Tu50 were heavily eroded, far more than usual for this region. Yet, even so, I doubt that the surface erosion would have obliterated *all* evidence of engraved designs, had they been present, especially in view of the fact

that early varieties of Moundville Engraved tend to have much more deeply inscribed lines than the later varieties.

A second possibility is that spatial or hierarchical variation might be responsible for the difference, but these factors also seem to me unlikely. While spatial separation might be invoked to explain the differences between 1Tu50 and Bessemer, this factor surely does not explain the difference between 1Tu50 and Moundville, since the two sites are only 0.5 mi (1 km) apart. Nor are hierarchical or "status" differences a likely explanation, since all three sites appear to have been civic-ceremonial centers.

The third possibility, and the one that I currently favor, is that the differences are chronological. An

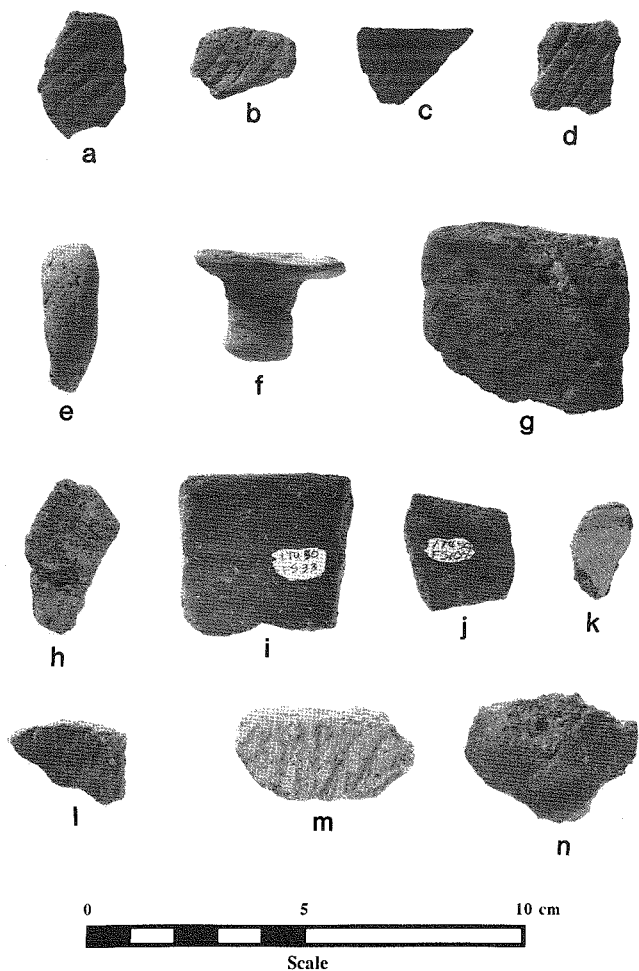


Figure 5. Pottery from 1Tu50: (a-d) Moundville Incised, *var. Moundville*; (e) Mississippi Plain, *var. Warrior* loop handle; (f) Mississippi Plain, *var. Warrior* lug (viewed from above); (g) Mississippi Plain, *var. Warrior* body sherd with applique effigy features; (h) Carthage Incised, *var. unspecified*; (i) Bell Plain, *var. Hale* bottle rim, black filmed; (j) Bell Plain, *var. Hale* bowl rim, black filmed; (k) Bell Plain, *var. Hale* body sherd, white slipped; (l-m) Mulberry Creek Cord Marked, *var. Aliceville*; (n) Baytown Plain, *var. Roper* body sherd with handle attachment scar.

assemblage with no Moundville Engraved, relatively low counts of Moundville Incised, and even lower counts of Carthage Incised is exactly what we might expect from a component dating to the *early* part of the Moundville I phase, perhaps somewhere between A.D. 1050 and 1150. This interpretation puts the 1Tu50 assemblage squarely in the transition between the West Jefferson phase and the predominantly *late* Moundville I components that have previously been used as models for the entire phase. Obviously, this chronological hypothesis cannot be taken for granted until some radiocarbon dates become available; in the absence of such dates, the other possible explanations I mentioned should not be totally dismissed.

It should also be noted that a small minority of the 1Tu50 ceramics, less than 8% of the total, consists of grog-tempered and sand-tempered types that gen-

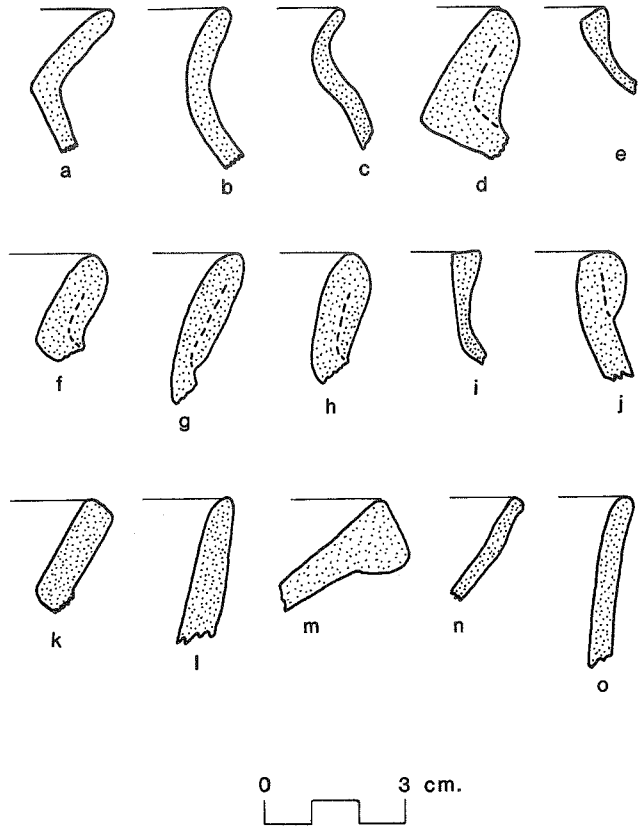


Figure 6. Pottery rim profiles from 1Tu50: (a-e) Moundville Incised, *var. Moundville* jars; (f-k) Mississippi Plain, *var. Warrior* jars; (l) Baytown Plain, *var. Roper* jar; (m-n) Mississippi Plain, *var. Warrior* bowls; (o) Bell Plain, *var. Hale* bottle.

erally predate the shell-tempered wares (Table 1). These earlier types include Mulberry Creek Cord Marked, Baytown Plain, McLeod Simple Stamped, and Baldwin Plain—all of which could have been redeposited from the West Jefferson habitation area and earlier Woodland-period components nearby (Jenkins 1981; Steponaitis 1983a). However, it may also be that the minor representation of certain grog-tempered varieties (Mulberry Creek Cord Marked, *var. Aliceville* [Figure 5l-m] and Baytown Plain, *var. Roper* [Figure 5n]) in the 1Tu50 assemblage is a holdover from West Jefferson times, rather than the result of postdepositional mixture (Jenkins 1981; Welch 1981; Mistovich 1988). Such an interpretation is entirely consistent with the site's inferred chronological position.

Chipped Stone

The chipped stone assemblage from 1Tu50 is small, but nonetheless intriguing. It consists of 2 points, 2 large biface fragments, 1 core, 25 flakes, and 4 pieces of angular debitage.

Both points are of the triangular Madison type (Cambron and Hulse 1975:84). One is a broken proximal end made of the local, red, heat-treated chert; it

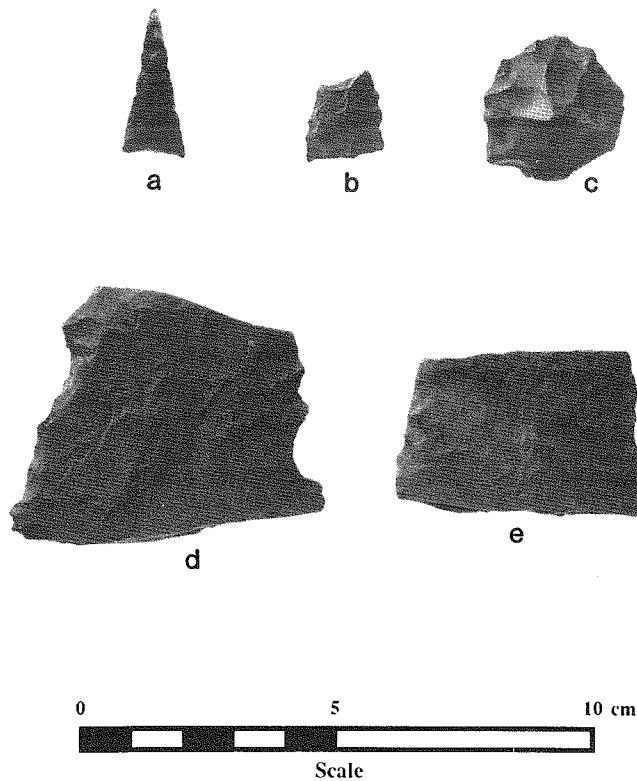


Figure 7. Chipped stone from 1Tu50: (a) Madison point, Knox chert; (b) Madison point fragment, local chert; (c) microlithic blade core, local chert; (d-e) large biface fragments, Mill Creek chert.

is 15 mm wide at the base and 4 mm thick (Figure 7b). The other is a finely chipped specimen made of Knox chert, which is a nonlocal material that outcrops principally in the Valley and Ridge Province of east Tennessee and northeast Alabama (Kimball 1985:94-96; Osborne et al. 1989); this point is 12 mm wide at the base, 28 mm long, and 4.5 mm thick (Figure 7a).

The large biface fragments (Figure 7d-e) are both made of Mill Creek chert, which outcrops in southern Illinois and was widely traded during Mississippian times (Brown et al. 1990; Cobb 1989; Winters 1981). One is 47 mm wide and 11 mm thick, and the other is 58 mm wide and 8 mm thick. Both are probably fragments of ceremonial weapons, the chert "swords" or "daggers" that also occur at Moundville and other Mississippian sites (e.g., Moore 1905:212-213; Steponaitis 1983b:140).

The core (Figure 7c), made of local yellow-red chert, was used to produce "microblades," which in turn were typically made into "microdrills" that played a role in the manufacture of shell ornaments (Ensor 1981; Pope 1989). In the Black Warrior Valley, such tools occur in West Jefferson and (possibly) Moundville I phase contexts.

The rest of the chipped stone assemblage comprised flakes and angular debitage. All the flakes are relatively small and appear to be from the late stages of biface reduction. Besides the locally available yellow-red chert, quartz, and quartzite, a number of non-local rocks are also represented (Table 3). These include Bangor chert, Pickwick chert, Fort Payne chert, and Camden chert, all of which probably come from sources in northwest Alabama, northeast Mississippi, or the adjacent parts of Tennessee (Ensor 1981:8-11; Futato 1983).

The most striking characteristic of this chipped stone assemblage is the high proportion of nonlocal raw materials (Table 3). In our admittedly small sample, 75% of the bifaces and 45% of the flakes were made of imported rocks. The only other site in the Black Warrior Valley that is known to have comparably high proportions of exotics is Moundville, where nonlocal materials comprised 60-83% of the chipped

Table 2. Type Frequencies in Selected Moundville I-II Phase Assemblages.

| Phase: Assemblage | Total Sherds ^a (n) | Moundville Incised (%) | Carthage Incised (%) | Moundville Engraved (%) | Bell Plain (%) | Mississippi Plain (%) |
|-------------------------------------|-------------------------------------|------------------------------|----------------------------|-------------------------------|-------------------|-----------------------------|
| Moundville II: | | | | | | |
| Moundville, North of R ^b | 1,440 | 1.6 | 1.0 | 3.2 | 28.7 | 64.4 |
| Moundville I: | | | | | | |
| Moundville, North of R ^c | 2,799 | 3.8 | 0.5 | 2.4 | 34.8 | 58.1 |
| Bessemer ^d | 997 | 6.7 | 1.4 | 2.7 | 10.7 | 74.0 |
| Moundville, Roadway ^e | 97,561 | 4.3 | 1.8 | 0.4 | 9.1 | 81.4 |
| 1Tu50 ^f | 607 | 1.8 | 0.5 | 0.0 | 15.0 | 82.7 |

^a Count includes only shell-tempered types; potential Woodland-period types are excluded. Percentages are computed with reference to this total.

^b Includes AU.2/6N2W and AU.2/8N2E (Steponaitis 1983:Table 18).

^c Includes AU.1/6N2W and AU.1/8N2E (Steponaitis 1983:Table 18).

^d From DeJarnette and Wimberly (1941:81). Type names translate to their approximate modern equivalents as follows: "Moundville Black Filmed" is counted as Bell Plain; "Warrior Plain" as Mississippi Plain; "Moundville Filmed Incised" as Carthage Incised; "Moundville Filmed Engraved" and "Moundville Engraved Indented" as Moundville Engraved.

^e From Wimberly (1956). Type names translate as in note *d* above.

^f From Table 1.

Table 3. Raw Materials of Chipped Stone Artifacts from 1Tu50.

| Source: Raw Material ^a | Madison Point | Large Biface Fragment | Microblade Core | Flake | Angular Debitage |
|--------------------------------------|------------------|--------------------------|--------------------|----------------|---------------------|
| Local: | | | | | |
| Yellow/red chert | 1 | | 1 | 12 | 3 ^b |
| Quartz | | | | 1 | |
| Quartzite | | | | 1 | 1 |
| Nonlocal: | | | | | |
| Knox chert | 1 | | | | |
| Mill Creek chert | | 2 | | | |
| Bangor chert | | | | 1 | |
| Pickwick chert | | | | 1 | |
| Fort Payne chert | | | | 5 ^c | |
| Camden chert | | | | 4 | |

^a For descriptions of the nonlocal materials and their geological sources, see Futato (1983), Ensor (1981), Kimball (1985: 94-96), Winters (1981), and Cobb (1989).

^b Count includes one item with evidence of slight retouch or utilization.

^c Count includes two items with evidence of slight retouch or utilization.

stone in middens dated to the Moundville I phase (Scarry 1986:154-168; Welch 1986:146-164). In contrast, the excavations at 1Tu265, a roughly contemporary farmstead, yielded an assemblage in which only 15% of the lithics were made of foreign material (Mistovich 1987:156-167). The high frequency of exotics at 1Tu50 and Moundville is almost certainly related to their function as centers of elite power and community ritual.

Ground/Pecked Stone

Tools in this category comprised one greenstone celt fragment, two palette fragments, two sandstone abraders, two undistinctive pieces of worked sandstone, and a hammerstone.

The polished greenstone fragment appears to be the poll of a petaloid celt (Figure 8a). Its proximal end has been severely battered. The material is non-local, almost certainly from the Hillabee Formation in east-central Alabama.

The palette fragments are made of a highly distinctive, gray micaceous sandstone, exactly the same material used to make the palettes (or "carved stone disks") that occur in elite burials at Moundville. Neither of the fragments shows any signs of engraved decoration, although both are so small that such negative evidence means little. The one rim fragment (Figure 8d) has a maximum thickness of 11 mm and tapers toward the edge. The geological source of this micaceous sandstone has not yet been precisely determined, but very similar rocks are known to occur in the upper Pottsville Formation only 20 mi (30 km) north of Moundville (Maxwell 1876:70; Osborne et al. 1989). Despite its nearby source, this material does not occur frequently on sites in the Black Warrior Valley, which suggests that it was either highly val-

ued or that its use was in some way restricted, perhaps to elite or ritual contexts.

The abraders were made of a red, ferruginous sandstone, generally coarser than that used for the palettes (Figure 8b). Except for the presence of flat, abraded surfaces, these tools do not appear to have been deliberately shaped.

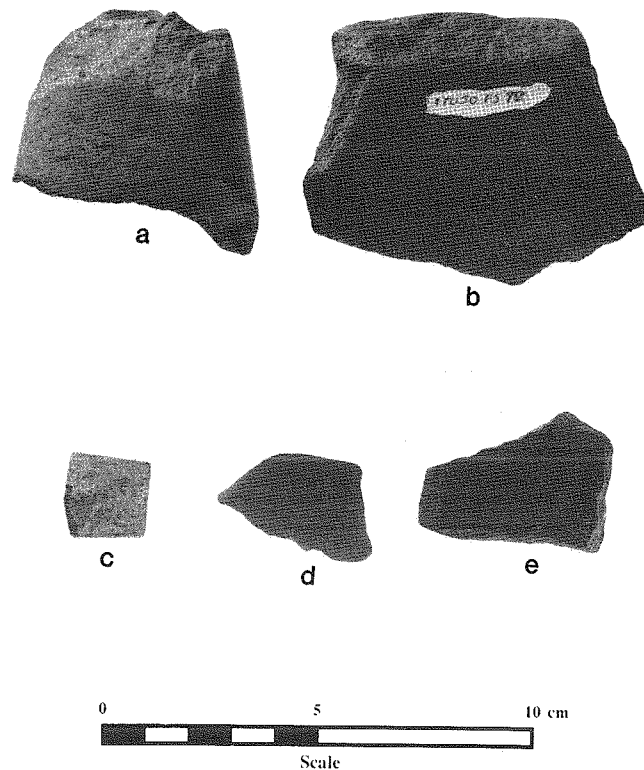


Figure 8. Ground/pecked and miscellaneous stone from 1Tu50: (a) greenstone celt fragment; (b) sandstone abrader; (c) galena; (d) sandstone palette rim fragment; (e) worked sandstone.

The miscellaneous pieces of worked sandstone show signs of deliberate abrasion, but have no recognizable shape (Figure 8e). Both are highly ferruginous, and may have been used as abraders or ground to produce pigment.

The one hammerstone is a roughly ovoid, natural cobble of quartzite, some 9 cm long, with most of its cortex intact and battering along one edge. This is clearly an "expedient" tool that was not deliberately shaped.

Miscellaneous Stone

This category includes stones that are not, strictly speaking, artifacts, but clearly owe their presence at the site to human action.

One such object is a lump of galena, 19 by 19 by 14 mm in size, weighing 28.3 g (Figure 8c). This mineral probably was used as a pigment, and most likely was imported from sources in southeast Missouri or the upper Mississippi Valley (Walthall 1981:15-18, 41-42).

Numerous lumps of ochre, both hematite (red) and limonite (yellow), were also found. These, too, were undoubtedly used as pigments and, unlike galena, were available locally.

One small piece of pumice, 20 mm in diameter, was recovered at the mound's edge, in a sealed context that seemingly precludes recent contamination. Its function and source are unknown. Finds of this material at Indian sites in the Southeast are rare, but not unheard of, particularly in the Mississippi Valley (e.g., Price et al. 1990:110).

Finally, the excavations produced hundreds of small (pebble-sized) fragments of coarse, ferruginous, unworked sandstone, of a type that is ubiquitous in local gravels. Why this material was brought to the site in such quantity is unclear; one guess is that it served as a source of yellow and red ochre, and that the ubiquity of this sandstone is a byproduct of these pigments' extraction.

Summary and Discussion

No radiocarbon dates are available from 1Tu50. However, the associated pottery strongly suggests that both the mound and the wooden structure at its base were built during the Moundville I phase (A.D. 1050-1250), most probably during the early portion of this phase between A.D. 1050 and 1150.

It should also be noted that the 1Tu50 excavations produced an extraordinary diversity of nonlocal or otherwise unusual stone materials, a finding consistent with the notion that the mound was used for ritual or elite activities. Among these exotic objects were the following: the poll of a greenstone celt, a lump of galena, two large biface fragments made of

Mill Creek chert, a triangular point of Knox chert, and flakes of a variety of other nonlocal cherts. Also present were pieces of sandstone palettes like those typically found in mortuary contexts at Moundville. It is not unreasonable to suppose that such palettes were associated with mound rituals and/or the special activities of community leaders (Holmes 1906).

Moundville and 1Tu50: The Configuration of Early Mississippian Settlement

It now remains to interpret 1Tu50 in its social context, by considering this site in relation to contemporary developments at Moundville nearby. Specifically, I wish to pose the following questions: What did the Moundville site look like during the Moundville I phase, and how were the two sites related at that time?

The nature of the Moundville I phase community at Moundville can be approached using two lines of evidence: (a) the distribution of dated mounds, and (b) the distribution of dated sheet-midden deposits. Let us consider each line of evidence in turn.

Reconstructing the sequence of mound building at Moundville, especially during the early portion of the site's history, is no easy matter. Most of the relevant evidence comes from C. B. Moore's excavations at the turn of the century (1905, 1907). Although Moore placed "trial holes" in virtually all the mounds, most of his excavations were relatively shallow, rarely penetrating more than 4-5 ft (1.2-1.5 m) below the summit (Moore 1905:139). Given that the mounds themselves were generally 10-20 ft (3-6 m) high, or even taller, many of the early constructional stages were probably missed. Moreover, the only ceramic diagnostics Moore consistently recovered were whole pots, and only five of the mounds he dug yielded pots that could be assigned to specific phases. As a result, most of the mounds at the site cannot be directly dated with the evidence in hand.

Despite these problems, we can be reasonably confident that part of Mound O was built during the Moundville I phase, because, in addition to some later material, the earthwork yielded two slender ovoid bottles (Moore 1905:Figures 129-130), vessels diagnostic of this time. Neither vessel was associated with human remains. Although Moore did not record the exact depths of these finds, we know that his excavations in Mound O reached a maximum depth of 5 ft (or 1.5 m; Moore 1905:200). Since the mound itself was at least 12 ft (3.6 m) high at the time of his work (Moore 1905:200), the Moundville I stages must have reached a height of at least 7 ft (2.1 m) above the plaza.

Another seemingly early mound—which in the current alphabetical naming system can be designated Mound X—was discovered by the University of

Alabama Field School in 1984 (Vogel and Allan 1985). Situated about 450 ft (140 m) east-southeast of Mound G, this mound was cross-cut by a number of palisade trenches associated with the fortifications that once surrounded the entire site. Although the ceramics from this excavation have yet to be fully analyzed, the mound's unusual location (off the plaza) and its stratigraphic position (beneath the palisade) strongly suggest that it was built and used during Moundville I times.

Finally, an analysis of recently discovered sherd collections (originally excavated in 1937) indicates that Mounds H, I, J, K, and L—the five earthworks that define the southern edge of the plaza—were probably built in the late Moundville I or early Moundville II phase (Knight 1989). This spate of construction probably coincided with the establishment of the main plaza and Moundville's emergence as a major regional center.

In sum, we currently know of two mounds at Moundville that *may* date to the early Moundville I phase and thus be contemporary with 1Tu50: Mound O and Mound X. Although future work may uncover other mounds that are equally early, current evidence suggests that the main plaza was laid out no earlier than the *late* Moundville I phase, probably after 1Tu50 was abandoned.

Having examined the evidence for early mound construction, we must also consider the chronological distribution of midden deposits at Moundville. In 1978 and 1979, field crews under the direction of C. Margaret Scarry conducted test excavations at five different locations on the site: north of Mound R, west of Mound R (near the Conference Building), east of Mound B, west of Mound N, and south of Mound I (Scarry 1981, 1986). Although these excavations were few in number, they yielded surprisingly consistent results: the bulk of the midden deposits at all five locations turned out to be Moundville I phase in date. Only in the excavations north of Mound R, along the riverbank, were significant midden deposits from the later Moundville II and Moundville III phases found (Steponaitis 1983a).

A similar pattern can be seen in the results of the depression-era excavations as well. The only CCC-WPA excavation from which we have published sherd counts is the so-called "Roadway excavation," which, as its name implies, followed the projected path of the road that is now used by visitors to Mound State Monument (Peebles 1979). This excavation was by far the most extensive ever undertaken at the site, and produced data from a long, winding transect that cuts across the central plaza as well as the areas to the east, south, and west of the mounds.

When we examine the relative frequencies of the shell-tempered types that were recovered in this excavation (Wimberly 1956), we find that they closely

fit the "profile" of a Moundville I phase assemblage (Table 2). I do not mean to suggest that the Roadway collections represents a pure Moundville I phase assemblage; later components are undoubtedly present also. I do, however, believe that Moundville I is by far the *dominant* phase represented in this collection. There is simply no other way to account for the high frequency of Moundville Incised among decorated types, and the correspondingly low frequencies of Bell Plain and Moundville Engraved. Indeed, a recent re-examination of a sample of Roadway sherds has confirmed this conclusion (Welch 1989).

Thus, Moundville I phase middens are abundant at Moundville, and later midden deposits are relatively rare. This pattern suggests that Moundville's resident population substantially *declined* sometime around the thirteenth century A.D. Interestingly, this decline occurred at, or perhaps shortly after, the establishment of the plaza and the the onset of major mound construction, which, as discussed previously, apparently happened during the late Moundville I or early Moundville II phase. The nature of this change was dramatic. It was almost as though a new "zoning ordinance" took effect, transforming a large block of residential land to civic-ceremonial use.

Returning now to the relationship between Moundville and 1Tu50, let me propose the following model, still largely hypothetical: During the early Moundville I phase, the terrace system on which both sites are located supported a sizable population, probably consisting of farmsteads or hamlets. Scattered among these communities were several small civic-ceremonial centers marked by pyramidal mounds. One of these, 1Tu50, was located at the northeastern edge of the terrace. Others, represented by Mounds O and X at Moundville, were spaced along the terrace to the south and west.

We have no reason to believe at this point that any one of these centers was dominant over the others, or indeed over any other center that existed in the Black Warrior Valley during early Moundville I times. Each mound site was probably a local civic-ceremonial precinct that served the farmsteads in its immediate vicinity (Bozeman 1982; Peebles 1986; Steponaitis 1983a; Welch 1990).

Given our lack of detailed information on the ceramics and stratigraphy associated with Mounds O and X, we cannot be absolutely certain that these mounds were in use at *exactly* the same time as 1Tu50. All we can say for sure is that they were used within the same 200-year-long archaeological phase.

Whatever the case, it is quite clear that a major change in community pattern occurred on this terrace near the end of the Moundville I phase, around the thirteenth century A.D. (Steponaitis 1983a:156-161). At this time, the western half of the terrace was transformed into a large civic-ceremonial precinct of re-

gional, perhaps even supraregional significance. And by the time this happened our small site, 1Tu50, was abandoned.

Conclusions

Examination of the data from 1Tu50 has shed light not only on the history of this small civic-ceremonial center, but also on the general pattern of early Mississippian settlement in the vicinity of Moundville. The conclusions may be summarized as follows:

1. Construction of the mound at 1Tu50 took place during the Moundville I phase, most probably in the early portion of the phase between A.D. 1050 and 1150. Such an early placement is suggested by a ceramic assemblage whose predominant decorated type is Moundville Incised, and which lacks Moundville Engraved entirely.

2. Although the assemblage from 1Tu50 is small, it contains an unusually high proportion of nonlocal materials. Noteworthy is the presence of Mill Creek chert, Knox chert, Ft. Payne chert, Bangor chert, Pickwick chert, greenstone, and galena. Also present are fragments of a locally available, highly micaceous sandstone that was used to make carved-stone disks at Moundville. The presence of these materials in what appears to be an elite context suggests the importance of trade and craft production in the developmental stages of the Moundville chiefdom.

3. A broader examination of settlement data suggests that 1Tu50 may have been part of a dispersed community of farmsteads and hamlets, interspersed with small civic-ceremonial mounds, that covered the terrace on which Moundville is located. Indeed, most of the known Mississippian sheet-midden deposits in Moundville's vicinity date to the Moundville I phase, and may largely predate the construction of Moundville's massive earthworks and plaza. If abundance of midden can be taken as an index of residential density, the observed pattern suggests that Moundville's resident population peaked in the first two centuries of its existence as a civic-ceremonial center, perhaps even *prior* to its emergence as a major regional center.

The last two patterns, though still dimly perceived, are rather intriguing, because they are processes that have been observed elsewhere in cases of chiefly polity-building and the emergence of social ranking (e.g., Earle 1989). Major differences in social prestige—the essence of ranking—are largely created and maintained through the manipulation of wealth, most likely in the form of comestibles and/or socially valued “prestige goods.” Although the precise nature of these manipulations depends on the cultural context, a commonly used tactic is to deploy wealth in ways that inflict social debt, thereby creating economic

asymmetries that eventually are transformed, through ideology and ritual, into asymmetries of prestige. Mobilizing the wealth used in these prestige-building transactions involves control of labor, for it is only through the labor of a chief's household or followers that the necessary comestibles and craft items can be produced (or obtained through exchange). It is not surprising, therefore, to find abundant evidence of nonlocal raw materials and sometimes even craft production associated with the residences of emerging elites (Steponaitis 1986:387–392, 1991:205–206). Nor should it be surprising to see large aggregations of people associated with the settlements of budding chiefs, for such people probably helped to provide the critical mass of labor with which ambitious political designs could be enacted.

Considerable research remains to be done before the trajectory of political developments at Moundville is adequately delineated, much less understood. However, certain areas of inquiry stand out as especially important in testing and refining the model of early Mississippian settlement outlined above. Additional survey and testing must be carried out in the immediate vicinity of Moundville, in order to determine more precisely the extent and distribution of Mississippian settlement on the terraces surrounding the site. Further excavations are also required in the mounds at Moundville and surrounding centers, so as better to define their constructional histories.

Notes

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Collections. The 1Tu50 collections are curated by the Archaeology Division of the Alabama Museum of Natural History; they are currently located at Mound State Monument, Moundville, Alabama.

¹ Differences of opinion exist over when the Moundville I phase begins. Some researchers place its start at A.D. 1000 (e.g., Welch 1990), others at A.D. 1050 (e.g., Steponaitis 1983a, 1991; Scarry 1986; Peebles 1987a, 1987b; Mistovich 1988; Futato 1989). The present radiocarbon evidence is ambiguous enough to support either interpretation (cf. Jenkins and Nielsen 1974; Scarry 1986). For now, I still prefer the later date, but recognize that the earlier one is equally plausible.

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