Moundville Art in Historical and Social Context

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[Paper prepared for the catalogue of the exhibition tentatively titled *Hero, Hawk, and Human Hand: Ancient Art of the Woodlands*, Art Institute of Chicago; draft of September 8, 2003.]

Moundville in its prime was one of the largest civic-ceremonial centers in the Mississippian world, surpassed in monumental grandeur only be the great Cahokia site near modern St. Louis. Situated on the banks of the Black Warrior River in western Alabama, this site was founded ca. AD 1100, grew to regional prominence soon after AD 1200, and continued to be occupied until about AD 1600. Through most of that time it served as the political and religious capital of a powerful chiefdom. Among its residents were important political officials, priests, aristocrats, and their many retainers. It served as a place for ceremonies and rituals, including funerals, for much of the surrounding countryside. And in this context it produced and amassed a remarkable corpus of representational art — used as ornaments, regalia, symbols of power, ceremonial implements, and decorations on pottery. Indeed, this corpus remains one of the "big three" from the Mississippian world (the others being from Spiro and Etowah), and has always played a key role in discussions of Mississippian art.

Our goals in this paper are threefold. First, we describe the site and review its history, thereby describing the setting in which this art was made and used. Second, we examine the art itself, focusing on recent stylistic and provenance studies that provide evidence of where the objects were actually made — either locally or in distant regions. Finally, we draw together these strands of evidence to delineate Moundville's distinctive local styles, and to consider how these objects fit within the social context of the time.

History

As its name suggests, Moundville's architecture was dominated by pyramidal mounds arranged around a large, rectangular plaza (fig. 1). Nowadays, 20 of these mounds are well preserved, but originally there were at least 30. At one time, the site was protected by a bastioned palisade or defensive wall. The area outside the plaza and within this wall was a residential zone that, at its maximum, may have housed some 1,000 people. At its largest extent, this town covered some 75 ha.¹

The mounds themselves were artificially constructed of earth. Most were rectangular and had flat summits that originally supported elaborate wooden structures: public buildings and the residences of chiefs. Some of the mounds were quite large. Mound A, in the center of the plaza, covers .8 ha (2 acres) and is 6 m tall. Mound B, at the northern end of the plaza, is about 90 m square at the base and 17 m high. The labor invested in building these earthworks was enormous.

Ethnohistorical parallels suggest that Moundville was originally built as a sociogram — an architectural depiction of a social order based on ranked clans.² Paired groups of mounds along the plaza's edge were associated with specific clans, arranged according to social power and prestige. The highest ranking clans were situated along the northern edge of the plaza, and the ranks decreased progressively as one moved along both sides of the plaza to the south. Thus, it is not surprising that the largest mounds and the most elaborate burials were found at the site's northern end.

A century of excavations at Moundville, coupled with decades of scholarship focused on the collections yielded by these excavations, has resulted in a reasonable understanding of the site's history, at least in broad outline.³ This understanding is bolstered by knowledge gained from regional surveys and limited excavations at outlying sites in the Black Warrior Valley, which have served to place developments at Moundville in a broader, regional context. The underlying chronology is based on five ceramic phases, each 100-150 years long, that span the period from AD 1000 to 1650.⁴ Here we present a brief social history of this period, as prelude to our discussion of Moundville's art.⁵

The 11th century AD was a time of conflict in this part of the South. Archaeological evidence suggests endemic warfare, coupled with occasional food shortages. People lived in hamlets and villages, densely clustered in certain areas, with large buffer zones between clusters. These settlement clusters must have constituted autonomous political units — perhaps groups of related towns — which from time to time made war against each other. People at this time did not build mounds, and their burials showed few signs of social inequality. One gets the sense that political centralization was minimal. In this setting occurred two important economic changes, which set the stage for later political developments.

The first of these changes was a rapid intensification of farming. In addition to the traditional wild staples of deer and hickory nuts, people began to eat maize in ever-increasing amounts. At AD 1000, maize was an insignificant part of the diet, hardly detectable in the archaeological record. A century later maize was ubiquitous and a major part of the diet. This rapid shift to a more agricultural economy ameliorated local food shortages, made possible denser concentrations of people, and, perhaps most importantly, created a source of wealth that could be mobilized and manipulated for political ends.

Equally important at this time was an upsurge in local craft production, particularly in the manufacture of shell beads. These beads were sewn onto garments that were worn as regalia at ceremonial occasions. They were also undoubtedly a source of wealth. We suspect that this increase in craft production was fueled mainly by ambitious individuals and families who were

competing economically and socially for prestige.

These trends culminated, shortly after AD 1100, in the first material signs of political centralization: two small mounds were constructed on the Moundville terrace — the only such monuments in the Black Warrior Valley at the time. These mounds were accompanied by a large, dispersed community of households stretched out along the terrace's edge. Clearly, Moundville had emerged as a center of political and ceremonial activity in the region, although still modest in scale.

This pattern continued until about AD 1200 or shortly thereafter, when Moundville was suddenly transformed into a major regional center. A new, monumental plan was conceived and imposed on the landscape. A huge central plaza was laid out and leveled by cutting away high spots and filling in depressions. Some twenty new mounds were then built around the plaza's edge, formerly dispersed houses were re-located to the margins of this ceremonial precinct, and the entire settlement was fortified by a massive wall. Thus the sociogram described earlier came into being. A powerful individual or family, whose name we shall never know, took a particular vision of the social order and literally shaped its representation into the earth, thereby creating one of the grandest centers in the Mississippian world. The construction of this center clearly signaled, to all who saw it, the emergence of a great chiefdom, ruled by aristocrats whose power in the region was unrivaled. A number of smaller mound centers, subsidiary to Moundville, were also built in the region at this time.

Around AD 1300, the character of the Moundville center changed once again. Archaeological signs of this change were several: (a) the resident population at Moundville substantially declined, as people relocated to outlying settlements; (b) the number of burials interred at the site increased dramatically; and (c) the defensive palisade was dismantled and never rebuilt. Moundville stopped being a fortified, densely populated town, and instead became a "vacant" ceremonial center, inhabited principally by elite families, ritual specialists, and retainers. As residential precincts at Moundville were emptied, they were turned into cemeteries where people from outlying settlements were brought for burial. Indeed, the absence of cemeteries at contemporary outlying sites suggests that Moundville became the principal place of burial for much of the region's population.

The increasing physical separation of elites from commoners at Moundville was also accompanied by an increasing symbolic separation. During the 14th century AD, some of the most elaborate elite burials were placed in Mounds C and D, accompanied by beautifully crafted copper and shell regalia. We see this as a time when the power of Moundville's chiefs was expressed most clearly in ritual, and may well have reached its zenith in practice.

Be that as it may, subsequent centuries saw Moundville's gradual decline. By AD 1400, most of the mounds along Moundville's southern flank were no longer in use, and over the next century, most of the remaining mounds were "decommissioned." By AD 1450, the truly elaborate burials were no longer being made, and scale of mortuary activity across the site was greatly reduced. A few mounds were still occupied and used in the 1500s, and by 1600 the site was no longer inhabited.

Throughout this period, people continued to live in the Black Warrior region, so Moundville's decline was not a matter of regional abandonment. Quite the contrary, as the political and religious importance of Moundville diminished, that of other, smaller mound centers in the region seemed to increase. Mounds at these outlying centers became larger, and at least two of these outlying centers were marked by the appearance of cemeteries of the kind that had formerly been found only at Moundville. Initially, Moundville's decline signaled not so much a disappearance, but a redistribution of political and religious power in the region, as outlying centers gradually became more autonomous. But by 1600, all the mound centers were gone, leaving only villages with few material signs of chiefly power.

In sum, Moundville emerged as a political and religious center in the 12th century; became a fortified, densely populated town in the 13th century; and evolved into a less-populated ceremonial center in the 14th and 15th centuries, which, among other things, served as a necropolis, a special place of burial for the dead from the surrounding countryside. Most of the elaborate representational art that has survived archaeologically at Moundville dates to the last of these periods, which correspond to the late Moundville II and early Moundville III phases in the ceramic chronology (ca. AD 1300-1450).

Representational Art

Broadly speaking, the artifacts considered here fall into two classes. One consists largely of work in stone, marine shell, and copper — mostly ritual items (such as pipes and palettes) and regalia (such as gorgets, headdress elements, ear disks, and beads). These were generally found in elite contexts, associated with high-ranking individuals or with places where such individuals carried out their public or ritual activities. The other class consists of engraved or painted pottery decorated with representational motifs. Such pottery initially was used only in elite contexts, but by the late 14th century also started to appear more broadly, both in nonelite burials at Moundville and at outlying sites.

In the sections that follow we describe Moundville's art, organized into categories based on material and function. We also consider evidence of provenance, that is, whether particular items were locally produced or imported. As James Brown has persuasively argued,⁶ the assemblage of elaborately crafted objects found archaeologically at any major Mississippian site is likely to contain items from multiple, geographically dispersed sources. Such "stylistically mismatched assemblages" can only be sorted out by tackling questions of provenance. Here, we make such discriminations based on both geological and stylistic evidence. Needless to say, our comfort in making these assessments varies according to the strength of this evidence, which differs from item to item. Even so, we believe that the available information is now sufficient to make this line of inquiry productive. While future research may refine the picture and possibly revise some of our more tentative assignments, we are confident that, at least in broad outline, these attributions will hold up under further scrutiny.

Pottery

No artifact is more ubiquitous at Moundville or has been more thoroughly studied than pottery. Typical Moundville vessels range from purely utilitarian cooking pots — mostly jars — to beautifully made serving wares — mostly bowls and bottles. The latter were often decorated with either geometric or representational designs, executed by means of engraving, incising, or painting. It is the representational work, with its evocative subject matter such as the winged serpent and the hand-and-eye, that has attracted the most attention as art. We admit that it is not an easy matter to draw a strict distinction between the symbolic art and the merely decorative. We suspect that at least some, if not most, of the designs that appear to us as purely geometric originally had widely understood conventional meanings. Be that as it may, for present purposes we focus on the two categories of decorated pots that show the most elaborate representational designs: the engraved wares for which Moundville is justifiably renowned, and the bichrome or polychrome painted wares.

Typologically, the engraved wares with representational designs constitute a variety called Moundville Engraved, *variety Hemphill*. Such vessels are typically thin-walled bottles and bowls, which were tempered with finely ground shell, polished, and "smudged" in firing to produce a glossy black surface (fig. 2). Chemical studies leave no doubt that these vessels were made of local clays.⁸

The engraved designs on these vessels are executed in a distinctive manner that has come to be called the Hemphill style. Approximately 150 whole or restorable vessels engraved in this style are known. Most of these pots were found as grave accompaniments, although it is clear that they were not made strictly as mortuary vessels, having been routinely used and broken in domestic settings. The Hemphill style can be distinguished from closely related engraved Mississippian pottery from the Tennessee Valley, the Central and Lower Mississippi Valley, and the Northern Gulf Coast. This style is highly conservative and is confined to a small, repetitive range of subjects drafted in accord with rather rigid artistic canons. Its subject matter, although it overlaps in part with that of other contemporary Mississippian centers, reflects a distinctive Moundville vision of the cosmos.

The vast majority of compositions engraved in the Hemphill style are variations on only five themes, or categories of subject matter (fig. 3). The first of these is the winged serpent (fig. 4), depicted as having the body of a rattlesnake with either a reptilian or a mammalian head affixed with deer antlers. Feathered wings sprout from the back of this dragon-like creature. Second is the crested bird (fig. 5), typically shown in multiples knotted together in pairs around a central medallion or knot, with four birds to a vessel (see fig. 3c). This bird has a long, sinuous neck, a straight beak, and a distinctive flattened head crest. Its broad tail is banded and sometimes bears a prominent center symbol as an emblem. A significant variation that enjoys its own stylistic coherence omits the heads and wings and shows only the fan-like tails conjoined opposite the central medallion. The third and last of the major zoomorphic themes is the raptor (fig. 6), a bird of prey with a hooked beak, a serrated crest, and characteristic eye markings. Unlike raptor depictions elsewhere in the Mississippian world, these birds show no signs of being combined with human features or human costume. A subset of the raptor-headed creatures

consists of forms that incorporate obvious snake features. Schatte has demonstrated that this minor group of hybrid images has its own stylistic development; he speculates that it may refer to a separate supernatural.¹⁰ A fourth theme is called center symbols and bands (fig. 7), comprising a number of geometric-looking compositions that exhibit fairly obvious cosmological references by incorporating strategically placed center symbols intercepted by wide, ribbon-like bands, referencing four quarters or quadrants. Other motifs, such as three conjoined fingers, sometimes radiate outward from the center symbols at the semi-cardinal points. The range of motifs that can act as center symbols in these compositions include the cross-and-circle, concentric circles, the swastika, the radial T-bar, and the dimple. The fifth major category of subject matter is the socalled "trophy" theme (fig. 8). These are compositions that show, in varying combinations, a small checklist of motifs that include the human hand, the forearm bone, the skull, and the scalo stretched on a hoop. Depictions of skulls show what are arguably scalp marks at the back of the head. Occasionally the head of a raptor is included in the mix of motifs. The meaning of this set of associations has proven especially difficult to penetrate, but Lankford has argued that most elements of this theme, together with the winged serpent and raptor, allude to the Path of Souls, a journey taken by the dead that is well documented in the Native traditions of the Great Plains and Eastern Woodlands.11

Many of the artistic canons that allow us to distinguish Hemphill as a style have been worked out. These rules of depiction are helpful in discriminating locally made engraved vessels at Moundville from those few found there that are executed in non-local styles. Following the analyses of Lacefield and Gillies, 12 the style can be characterized as follows.

- * The vast majority of Hemphill compositions (about 90%) fall into one of the five themes listed above. Inventiveness or novelty in composition or choice of subjects is rare.
- * Multiple figures within a given composition are shown apart from one another in the design field, emblem-like, without overlap and without obvious interaction among the components. Animate characters are shown stiff and motionless, without fluidity or any indication of activity.
- * Avoidance of overlap extends to the figures themselves; only in rare instances are the elements of a figure depicted as overlying other elements of the same figure.
- * Acceptable design structures are few in number. Among the seven design structures detected by Gillies, the most common is a simple repetition of two identical figures on either side of a vessel. Where more than two figures are shown, they are most commonly arranged in a horizontal band of repeating elements rounding the vessel body. Two or three subjects are sometimes brought together in compositions in which the subjects repeat in an ABAB or ABCABC manner around the vessel. Alternating elements are sometimes inverted. A more complex design structure is the depiction of winged serpents and raptors "in the round," a treatment in which the body of the vessel substitutes for the body of the subject, with the head and neck engraved on one side and the tail opposite. The wings arise from the opposing sides.

- * There is a strong tendency for figures and elements of figures to be drafted as closed outlines; extraneous line elements are avoided. Equally strong is the tendency to show animate subjects in profile view. Even in-the-round treatments, which present frontal bodies of serpents and raptors, always depict the head as turned in profile.
- * Use of cross-hatching, or sometimes simple hatching for emphasis within figures is commonplace. This filling technique is used sparingly, however, typically within acute angular spaces, narrow bands, and enclosed semicircles. Crosshatching is never used for zonation to create balanced areas of contrast, nor is it ever used for background.
- * Within individual themes, the manner of depiction is strongly governed by a number of more specific conventional rules.

Chronologically, Hemphill style engraved pottery spans much of the 14th century AD and the first half of the 15th. Within this span there were probably never more than a few potters working in this style at any one time. The total number of known vessels is not large, and duplicate vessels bearing "signature" characteristics of the same potter have been identified in several cases. Seriation of the crested bird figures by Lacefield and of the winged serpent figures by Schatte, independently confirmed by sherds from dated midden contexts, shows that the most elaborate, expertly composed, and competently drafted pieces were made in the 14th century. These chronologically earliest pieces are also those with the most obvious external stylistic connections, particularly with certain early Walls- and late Braden-style engraving from the Central Mississippi Valley. The style was probably originally inspired by engraving in other media and was adapted to pottery. By the 15th century, Hemphill engraved vessels generally show a breakdown in competency, a rather poor control of the medium, and more stylistic independence, suggesting a dispersal of potters and workshops away from the Moundville site proper and less importance attached to the engraver's skill.

There is no indication that the circulation of Hemphill engraved pottery was restricted only to elites. The vessels are found in seemingly ordinary graves in all parts of the Moundville site. While these vessels are most abundant at Moundville, Hemphill-style vessels and sherds have also been found at a number of outlying sites including small farmsteads.

The second kind of pottery with representational motifs consists of bichrome and polychrome vessels painted with red, white, and/or black pigments (fig. 9). The first two are applied in the form of slips of colored clay, while the last is a carbon pigment often applied with a negative or resist technique. As with the engraved wares, this painted pottery also tends to be a relatively thin ware, tempered with fine shell and burnished on the exterior. Two vessel shapes dominate this category. The first is a bottle with a spherical body, usually equipped with narrow, curving "carafe" neck. The second is a terraced rectanguloid bowl, a Moundville specialty. This kind of bowl is a vertical-sided, flat-bottomed, rectangular vessel that has an eccentric rim, with one side lower than the others as if to display the vessel's contents.

Stylistically, much of the painted pottery found at Moundville closely resembles that found in other parts of the Mississippian world. The resemblance is particularly close with the painted

pottery found along the Tennessee, Cumberland, and lower Ohio River valleys to the north of Moundville, and in the central Mississippi Valley to the west. That much of this pottery, long suspected of being imported, was not made of local clays has recently been borne out by chemical provenance studies.¹⁴

The same chemical studies show, however, that some painted pots were made locally as well. Observations of form and style both reinforce this fact. The technique is, for one thing, applied to the terraced rectanguloid bowls that are virtually a signature Moundville product. For another, the designs employed include symbolic forms that are strongly suggestive of Moundville iconography in other media, including the distinctive oblong emblem with an embedded swastika-in-circle motif that is duplicated in Moundville copper and stone pendants. Other painted designs included the hand, the skull, the ogee, concentric circles, rayed concentric circles, rayed semicircles, and rayed spirals.

Much unlike the genre of engraved pottery in the Hemphill style, negative-painted pottery (fig. 10), whether locally made or acquired from external sources, circulated only in restricted contexts. Such vessels often ended up as grave goods in elite cemeteries at the Moundville site. Negative painted sherds have also been found in middens and feature fills associated with mounds at Moundville, particularly in mound contexts occupied during the Moundville II and early Moundville III phases. In addition, one off-mound midden north of Mound R at Moundville has yielded negative painted sherds. However, neither negative-painted vessels nor sherds are so far known from any of the sites in Moundville's hinterlands.

Stone Palettes

Another distinctive Moundville artifact is the decorated stone palette (fig. 11). Dozens of complete specimens and hundreds of fragments have been found, more than at any other Mississippian site. These palettes are typically circular, about 20-30 cm in diameter, and 1-2 cm thick; a few rectangular examples of comparable size are also known. They are incised with designs on one or both sides and usually show patches of red, white, or yellow — traces of distinctively colored minerals that were placed on these flat surfaces. We suspect these palettes were used as ritual furniture, portable altars on which medicines and other supernaturally powerful mixtures were prepared.

The vast majority of the palettes at Moundville are made of a fine, gray, micaceous sandstone that occurs in great abundance at outcrops only 30 km north of the site.¹⁷ So there can be little doubt that these artifacts were made locally. At least one palette (the Willoughby Disk, to be discussed presently) is made of a different material: a dark gray, shale-like stone. Although the specific geological source of material has yet to be identified, it is consistent with the kinds of rocks that occur nearby and our best current guess is that this palette was made locally as well.

The obverse face of the palette is usually decorated with a notched or scalloped edge and concentric lines drawn parallel to the rim. This simple design shows clear iconographic parallels to the scalloped edge and multilinear band often found on copper gorgets.¹⁸ The palette's reverse

face is usually undecorated, but the few known exceptions to this pattern are iconographically spectacular.

One such exception is the aptly named Rattlesnake Disk, which is decorated on the reverse with a masterfully executed design showing two horned rattlesnakes knotted together into a circle (fig. 12). This ophidian circle, in turn, surrounds a hand — a symbolic portrayal of a portal into the celestial realm.¹⁹

A second exception is the Willoughby Disk, mentioned previously (fig. 13).²⁰ Its reverse face is covered with a mélange of motifs: a central rope-like element bearing two skulls, flanked on one side by two hands and a bilobed arrow, and flanked on the other side by a curious creature with the spiral proboscis and wing of a moth.²¹ The meaning of this mélange is not at all clear, but iconographic elements are all ones that occur in some form on local pottery (the engraved and painted wares discussed earlier) and are consistent with local styles. These stylistic links strengthen our suspicion that the Willoughby Disk was decorated by a Moundville artist, despite its atypical raw material.

The third notable exception is an unnamed disk that shows a single bilobed arrow motif, located off-center and near the edge, with the rest of the design eroded.²² One is tempted to speculate that this may have been a composition like that on the Willoughby Disk. Unfortunately this artifact is documented only with a sketch made in the 1920s, when it was in private hands, and its current whereabouts are unknown. Thus, there is no way to evaluate this hypothesis through a closer examination of the piece itself.

Stone Pendants

A specialty of Moundville's lapidary work are small tabular engraved stone pendants. Fashioned from thin stone of uniform thickness, these pendants were shaped, polished, and engraved to represent standard symbols. They were marginally perforated for suspension. In most though not all cases the material of manufacture is a blood-red, fine-grained ferruginous stone. Although this material has not yet been securely identified geologically, tabular rock of similar appearance has been noted in the superficial geology of the upper Coastal Plain hills only a short distance from Moundville. At any rate it is abundantly clear that the manufacture of these pendants was local, in that partially finished blanks, partially engraved specimens, and specimens bearing evidence of having broken during manufacture all have been found at the Moundville site, along with a majority of the finished specimens.²³ Blanks and unfinished specimens show that the stone was first ground to a uniform thickness, then sawn into shape by a groove-and-snap technique. Edges and surfaces were then polished, fenestrations and suspension holes were drilled, and the outer surface was engraved. No such production evidence has been found at any of the other sites in Moundville's hinterland.

The most common type, the oblong emblem,²⁴ is a design of central importance to Moundville iconography, shared with other media including sheet copper and negative painted pottery (fig. 14). This design's original prototype is an older Mississippian motif consisting of a

human scalp stretched on a frame, which also shows up as an item of regalia called the "bellows-shaped apron" in the literature.²⁵ Here the design has become conventionalized over time beyond immediate recognition of its scalp prototype. As translated in time an space into Moundville art, the design had become an independent emblem, and the upper and lower registers were now fields for a standard set of locally important motifs. As with the corresponding copper artifacts, the upper register of the oblong stone pendants is occupied by either of two circular motifs. One is the rayed circle and the other is the swastika-in-circle. The lower register may be blank, or may contain the hand-and-eye motif with the fingers downward, plus terrace motifs. Extraneous "eyes" may appear in either the upper or lower register.

A second subject among the tabular engraved pendants is the mace (fig. 15), a standard Mississippian elite icon of long duration.²⁶ The mace shape has two short lateral extensions at the mid-section forming a cross with the handle. The mace flares outward at the upper end and bears an apical "button." The surface is engraved with a Greek cross. Only two specimens are known, one complete and the other broken during manufacture.

The third subject is a human head in profile, of which only a single example is known, of red stone (fig. 16).²⁷ Although it is unique, it is of much iconographic importance as a member of this set. The eyebrow, nose, lips, and chin are executed by simple marginal notching, resulting in a peculiarly angular style. The neck is notched at the base, communicating, we believe, that the subject is to be understood as a severed head. The surface engraving adds a number of details including a scalloped line running from the base of the nose to the back of the head (reminiscent of the shell gorget described below), and double undulating lines originating at the mouth and running down the center of the neck. Projecting from the top of the head is a rectangular tab, doubly perforated for suspension.

Circulation as well as production of these tabular pendants was apparently restricted. To date, only one site in Moundville's hinterland has yielded an example. Two other sites, one in the Tennessee Valley and the other in the Tombigbee Valley, have produced one specimen apiece, both no doubt originating at Moundville.²⁸

Copper Ornaments

Moundville's decorative arts include copper in a variety of forms, including items of regalia cut from sheet copper, copper-clad wooden ornaments, and copper-bladed axes made for display.²⁹ All were manufactured of native copper, that is, relatively pure nuggets that were cold-hammered into thin sheets and cut into the desired shapes. Native copper occurs naturally in many parts of eastern North America, but nowhere close to Moundville. Trace-element studies suggest that most of the copper found at Moundville came from geological sources in the southern Appalachian Mountains, while some came from sources near the Great Lakes.³⁰ In this case, however, the source of the raw material bears little relationship to where a particular artifact was crafted, as native copper from many sources circulated widely across the Mississippian world, and was turned into artifacts at many different places. Thus, conclusions on the place of manufacture must currently rest on the grounds of style, iconography, technology, and

distribution. It seems clear that at least some copper-working was done at the Moundville site, as sheet-copper scrap has been found in midden contexts, particularly where there is other evidence of craft activity, as at Mound Q.³¹ It is also likely on the basis of stylistic and distributional evidence that some copper artifacts at Moundville were imported from other Mississippian chiefdoms.

Let us first discuss the copper objects we believe were made locally at Moundville. Among the items strongly correlated with elite burials at Moundville are gorgets of embossed sheet copper, doubly perforated for suspension along one margin.³² They occur in only two shapes, circular and oblong. The oblong shape conforms to the highly distinctive emblem, already discussed, that is held in common with tabular stone pendants and painted pottery. The oblong gorgets, like their more diminutive stone counterparts, feature a circular upper register that contains either a cutout swastika-in-circle or a scalloped circle motif (fig. 17). The circular gorgets, which tend to possess embossed concentric circles around the outer margin, share the same two motifs, the swastika and scalloped circle, as their central elements (fig. 18). Thus, all but one of the 32 known specimens fall into a scheme of only four possibilities: oblong with swastika-in-circle, oblong with scalloped circle, circular with swastika, and circular with scalloped circle. The lone exception is a circular gorget marginally embossed with concentric circles having a simple circular fenestration. There are stylistic variations on these forms, mostly centering on the number of marginal concentric circles and the number of points in the scalloped circles (six versus eight). Other important variations include a circular gorget with an added petaloid border, one circular and one oblong gorget with an embossed ogee occupying the scalloped circle, and an oblong gorget with a lower register containing an embossed hand-and-eye motif with the fingers pointing downward.

Among these copper gorgets by far the most common type is oblong, with the upper register containing a cutout swastika enclosed by two embossed concentric circles, and a lower register containing a cutout triangle. It seems highly important that this design is the most frequently seen in copper at Moundville, that it has almost exact stylistic counterparts in other media known to be of local Moundville manufacture, and that the design, as executed in this style, is extremely rare outside of Moundville. Its combination with a hand-and-eye motif is again precisely duplicated in local stonework. These circumstances in our opinion render it unlikely that the oblong copper gorgets found at Moundville, and by extension the circular copper gorgets that form the remainder of its intersecting symbol set, were made at any other Mississippian center. Indeed this set of copper gorgets, or more precisely the iconography they convey, is the closest thing we can find to local emblems identifying Moundville's elites. In this connection it is revealing that this small package of elite symbols has so little in common with the iconography shown on Hemphill style engraved pottery, which is also indigenous to Moundville, but has a very different pattern of circulation.

It is useful to contrast these gorgets with other copper items at Moundville which are less common but which do have close, if not exact external counterparts at other Mississippian centers (fig. 19). There are, for example, hair ornaments from Moundville made of embossed sheet copper which have a riveted socket at one end, made to receive a bone or bison-hom hair pin. One complete specimen is in the form of a curving feather notched on one side, another is in

the shape of a key-sided mace, and a third is in the form of a bilobed arrow.³³ All three forms are immediately recognizable as closely identified with elite burials at Etowah and related sites. Although we are not aware of any detailed stylistic study of these artifact forms, the Moundville hair ornaments seem to us to conform stylistically to published examples from Etowah.³⁴ An unpublished copper-clad wooden human head rattle from Mound C at Moundville has an exact counterpart at Etowah.³⁵ At the Moundville-related Lubbub site has been found a sheet copper plate bearing an embossed falcon that is unquestionably realized in the "Etowah copper style" as named by Phillips and Brown. In fact an exact duplicate is known from northern Georgia.³⁶ A similar relationship may be claimed for the small copper bangles known as symbol badges. A number of so-called "Cemochechobee style" symbol badges have been found individually and in groups at both Moundville and Lubbub, that are stylistically identical with specimens found in copper-rich elite mortuaries at Etowah, Lake Jackson, Cemochechobee, and Kogers Island, but without the accompanying variety of form seen at the latter sites.³⁷ There is, in sum, evidence of an important copper connection between Moundville and certain eastern sites, including Etowah, that previously has been underappreciated. Many of the artifacts in Moundville's copper inventory were probably fabricated in that area.

The local versus nonlocal sourcing of two other important categories of Moundville display goods, copper-bladed axes and copper-clad ear disks, is much more uncertain. At this point all we can say is that both artifact categories can be closely matched with counterparts elsewhere in the Mississippian world. Christopher Peebles pointed out that the few copper-bladed axes found at the site, ten in number, accompany the most lavishly furnished elite burials at Moundville and do not occur at subsidiary sites in Moundville's hinterlands.³⁸ The ear disks (not "ear spools") are copper-clad wooden disks equipped with a narrow bone pin to be inserted through the ear lobe.³⁹ They are common accompaniments in Moundville's elite graves, and may be exclusively associated with adult males. The most common form is a simple convex cymbal shape with a central boss. These disks are sufficiently frequent and simple in form that it would not be surprising if some were crafted locally at Moundville.

Stone Effigy Pipes

Moundville has yielded an array of massive effigy-pipes made of stone, one of the biggest assemblages of such pipes in the Mississippian world. These pipes depict both animal and human forms in the round. They typically have two conically drilled holes connected by a narrow passage: a bowl in the top to contain the substance (presumably tobacco) being smoked, and a hole in the side to receive a stem.

Most of these pipes are made of a cream-colored limestone, which, based on distinctive fossils visible in the surface, has been identified as a type called Glendon Limestone. Large outcrops of this rock occur near Vicksburg, Mississippi. Based on geological, stylistic, and distributional evidence, a strong case can be made that the Glendon Limestone pipes were made in the Lower Mississippi Valley and imported to Moundville.⁴⁰

Four of these pipes are examples of the Bellaire style.⁴¹ As is typical of the style, they

depict a "piasa" — a supernatural being that combines the features of a cat, a snake, and a bird, and sometimes a human or a deer.⁴² The Moundville specimens have a distinctly feline head and body and an unusually long, snake-like tail that runs up the creature's back and curls around the pipe's bowl (fig. 20).⁴³ Ethnographic and folkloric evidence leaves little doubt that this being was the "Great Serpent," a denizen of the underworld in the Mississippian cosmos.⁴⁴ All four are made of Glendon Limestone.

At least four other limestone pipes from Moundville have been published: (a) a Lebanonstyle pipe that portrays a human figure holding a pot, which serves as the pipe's bowl; (b) an
effigy of a ceramic pot, without the human figure; (c) a severely eroded pipe whose original
subject is hard to discern, but which may have been either a piasa or a frog; and (d) a pipe
depicting a raptor in a curiously inverted position, with wings folded, talons pointed upward, and
head turned against the side of the body.⁴⁵ The first three are carved from Glendon Limestone,
and the last is made from a different variety of fossiliferous limestone, as yet unsourced.

Another effigy pipe worthy of note is made of red flint-clay and shows a squatting man with no clothing (fig. 21).⁴⁶ The raw material has been mineralogically linked to sources in eastern Missouri, and the pipe is of a style believed to have been made during the 12th century AD in or near Cahokia, the great Mississippian town near modern St. Louis.⁴⁷ Like the others just discussed, this pipe is unquestionably an import.

Stone Effigy Bowls

Items in this category are rare, but they include two of the best known and most beautifully crafted objects at Moundville. Based on their shape and decoration, they seem to be elaborated versions of the ceramic effigy bowls that are relatively abundant at Moundville. They may even have been used for similar purposes. A clue as to what these purposes may have been comes from the journal of Paul du Ru, a French Jesuit who traveled to Louisiana in 1700. Describing the temple in a Taensas village, he wrote:

At the door of this temple one sees only elders lamenting and shouting, cantors praying, people bearing offerings, and all with an extraordinary orderliness and restraint. Among other things there are six large wooden bowls with handles, of which one represents the tail of a swan and the other the neck, which are filled with [maize] flour and carried solemnly to the temple. The Athenian virgins did not carry their baskets of flowers to the temple of Juno with greater dignity.⁴⁸

Except for the material, his description of the bowls in which offerings were made fits well the stone effigy bowls from Moundville.

First and foremost is a spectacular vessel (fig. 22), carved from a massive piece of dark green, metamorphosed diorite, which the excavator called "a triumph of aboriginal endeavor, the 'Portland vase' of prehistoric art in the United States.'⁴⁹ The object so praised is a very large hemispherical bowl, some 30 cm in diameter and 17 cm high, decorated with a band of incised

parallel lines just below the lip — the same design that is usually found on ceramic effigy bowls. Rising another 12 cm above the rim on one side is the gracefully curving neck and head of a creature that was originally identified as a wood duck. Superficially, the head does indeed resemble that of a duck, but a closer examination in light of current understandings of Mississippian iconography leads to a very different conclusion regarding the creature's identity:

The neck is serpentine and of a length far out of proportion to that of any actual duck. This neck, moreover, is crosshatched and bears a trilobate motif on the back, not to be found on any living bird. In Braden style art the trilobate motif has snake associations. The design surrounding the eyes is teardrop shaped. This combination of details, along with the crest of the bird, align it strongly with the amphisbaena, a double-ended knotted snake monster in Classic Braden style engraved shell art at the Spiro site. We suspect ... that the artisan of the diorite bowl intended not an ordinary wood duck, but rather a monstrous supernatural, one partaking of both snake and bird in its cognized form.⁵⁰

The geological source of this metamorphosed diorite is still unknown, but it could be somewhere in the southern Appalachian Mountains. At this point we are unwilling to say whether the artifact was locally made or imported.

A companion to the stone vessel just described is another large bowl, 23 cm in diameter and 10 cm high, that also portrays a subject with avian features (fig. 23).⁵¹ On this piece the neck emerges from the side of the rim and curves horizontally an eighth of the way around the circumference, where the tip of the beak meets the rim once again. A large tail adorno fans out from the opposite side of the rim. Rather than having the usual multilinear band, the vessel's exterior is incised with lines showing feathers, wings, and talons in the round. Past attempts to identify the bird have usually labeled it a "vulture" based on its crooked beak and talons.⁵² One might also point to the lines on the head and below the neck of the creature that, respectively, suggest the fleshy wattle and feathered "beard" of a wild turkey. But, as with the previous example, all attempts to find this creature in a Peterson's Guide are bound to fail, as it also has features — an unusually long neck, two trilobate elements (incised on the neck), and the concentric semicircles (incised on the legs) — that iconographically mark serpents.⁵³ In other words, this bird can only be a supernatural one. The raw material is a limestone very different from the Glendon Limestone often seen in the effigy pipes, and its source is unknown.

Marine Shell Ornaments and Cups

In contrast to other Mississippian centers, the medium of engraved marine shell was of only minor importance in Moundville's artistic repertoire. Well appointed, elite burials at the site, while rich in copper, tend to lack engraved shell artifacts. That is not to say that marine shell per se is rare at Moundville, as strands of simple marine shell beads are common accompaniments of elite burials. As for engraved shell art, however, there are on record only eight shell gorgets and three shell cup fragments, among the 3,022 documented burials from the site.⁵⁴ Despite their relative infrequency, those gorgets and cup fragments that do occur at Moundville are of much

interest, because they exhibit a variety of styles having external connections.

The shells themselves originated in the Gulf of Mexico, but, just as with copper, knowing the source of the material tells us little about where these artifacts were crafted, as raw shell circulated widely across the Southeast and was worked in many places. Nevertheless, it can be safely said that the majority of such artifacts at Moundville are nonlocal. This is most clearly the case with the engraved shell cup fragments, all three of which have stylistic counterparts at the distant Spiro site in the west. The best example of these shell cups is a fragment showing portions of at least two elaborately dressed individuals (fig. 24). The style of depiction is unmistakably that designated as "Classic Braden" by Brown, a style indigenous to the Central Mississippi Valley and one elsewhere dated considerably earlier than the context of the find at Moundville. The subject matter is an obvious departure from the locally produced art in that it shows the full human figure.

Engraved shell gorgets from Moundville are a highly diverse lot from the standpoint of style and subject matter. Some are obvious examples of documented styles having centers of distribution elsewhere, most prominently the central Tombigbee River valley to the west and the middle Tennessee area to the north. A striking gorget found by Moore depicts a supernatural piasa, in this case part panther and part human, with perhaps some bird and serpent components as well (fig. 25). In this piece, while the style is unrecognizable, its foreign origin is nonetheless apparent. The subject matter, for one thing, is patently non-Moundvillian, being much more at home in the Mississippi Valley. Human-animal composites in general are not among the subjects of local Moundville art. The depiction of the panther is otherwise known only in the stone Bellaire-style pipes that are independently sourced as nonlocal. The details of the depiction reinforce this assessment. At the hip of the figure is the object known as the "bellows-shaped apron" in the literature; at the neck is a whelk columella pendant, also a staple Mississippian image duplicated in actual costumery at other sites. Neither subject is known at Moundville, however, other than in this unique piece.

There are a few candidates for locally produced gorgets, although a sufficient stylistic case has not yet been made for any of these. Perhaps the most intriguing possibility in this regard is a gorget featuring a severed human head in profile (fig. 26).⁶⁰ The subject of the lone head in profile is found on two other stone artifacts from Moundville, both of which are almost certainly of local manufacture: a stone pendant (see fig. 16 above) and an engraved sandstone tablet made of the same gray, micaceous sandstone used for local palettes (fig. 27).⁶¹ These three cases share certain stylistic features; a nose line projecting almost laterally outward from the eye, a demarcation of the upper and lower face by a line element, and a blocky treatment of the lips and chin line.

Styles and Social Context

Now that we have reviewed the various categories of objects found at Moundville, it remains for us to view this assemblage in broader perspective. We do so in three ways. First, we

identify the objects that, based on current evidence, appear to be the work of local Moundville artisans; not surprisingly, this local subset shows a great deal more stylistic homogeneity than the corpus as a whole. Second, we consider the various social contexts in which these objects were used — some more "public" and others more "restricted." And third, we draw some connections between the nature of the site and the prominence of certain iconographic themes in the assemblage.

Let us begin by sorting out the objects that we believe to be nonlocal. Perhaps the clearest examples are found among the massive stone effigy pipes: Based on strong geological and distributional evidence, the Bellaire-style pipes were almost certainly made in the Lower Mississippi Valley, and the flint-clay human-effigy pipe was probably crafted in the Central Mississippi Valley, in or near Cahokia. Other likely imports include some (but not all) of the polychrome painted pots, which geochemical evidence suggests were made from nonlocal clays. Finally, there is a great variety of items made of copper and shell that tend to be exceptional at Moundville but have close stylistic counterparts in other regions. Among such items are copper hair ornaments and "symbol badges" with counterparts in Georgia and Florida, and shell gorgets and cups with counterparts in Oklahoma and Tennessee.

Once the "clutter" of these nonlocal items is stripped away, we are left with a numerically larger, but stylistically more coherent group of items that were almost certainly made locally, in or near Moundville. It would be incorrect to say that these items constitute a single style. Rather, we recognize several related styles, which are manifested in different kinds of objects.

The best known of these local styles is the Hemphill style, which has its clearest expression in engraved pottery. Its defining characteristics have already been discussed at length and need not be reiterated here. For present purposes, we offer three observations concerning where and how these engraved pots were used:

- * They are found on mound summits, in off-mound residential areas, and as offerings in graves. Many of these pots show considerable wear, as though they were used for a long time before being broken or buried.⁶² It is reasonable to infer that they were used in ritual; whether they were also used as domestic serving vessels is still unclear.
- * When buried as offerings, such pots are not confined to elite graves or cemeteries, but are found in seemingly ordinary graves in all parts of the Moundville site.⁶³
- * Although Hemphill-style pots and sherds are concentrated at Moundville, they are not confined to this major site. They have also been found at a number of outlying sites, including small farmsteads.⁶⁴

We infer from these facts that Hemphill was a "public" style, which was accessible to, and used by, a broad cross-section of Moundville society. The number of potters making these vessels may have been few, and the more esoteric meanings of the representational motifs may not have been known by everyone, but the distribution of the vessels themselves was not highly exclusive.

A second category of local items — copper gorgets and pendants, stone gorgets, stone palettes, painted pottery, and stone bowls — had distributions that were much more limited and were probably used mainly be the society's elite. These comprise what we call the "restricted" sphere of Moundville art. The pendants and gorgets in particular show a remarkable homogeneity in style, so much so that we suspect they were emblematic of a particular social status or sodality, such as a dance or medicine society. The palettes, painted pots, and stone bowls, on the other hand, likely had different meanings and uses. We suggest that these items, together with the imported massive effigy pipes, were ritual paraphernalia — objects used in ceremonies and personal ritual, only by select practitioners who had the necessary knowledge and training.

Taking an even broader view, we also see a thematic unity that crosscuts the "public" and "restricted" spheres of Moundville representational art. This unity is manifested by a strong predominance of motifs and themes that have meanings connected with death and the underworld.⁶⁵ Specifically, we point to the following patterns:

- * the dominance of the swastika, a symbol associated with the underworld, as the central motif on the local pendants and gorgets made of copper and stone;
- * the frequent appearance (on pottery, palettes, and pendants) of the hand motif, which was seen by Indian peoples as a portal to the Path of Souls traversed by the dead;
- * the frequent appearance (on pottery, stone pipes, palettes, and shell gorgets) of serpents and feline piasas alternate incarnations of the Great Serpent, widely regarded by Indians in the Eastern Woodlands as master of the underworld and protector of the realm of the dead.

This iconographic emphasis fits perfectly with what we know about Moundville's history at the time this art was being made and used: in the 14th and 15th centuries AD, Moundville was a necropolis, a place where the dead were brought for burial from throughout the surrounding region. It is reasonable to speculate that at least some of the priests and chiefs who lived at Moundville had a special connection with the underworld. It is also possible that Moundville itself may have been seen as a propitious point of entry to the Path of Souls, which would explain the iconographic emphasis on the hand motif. In either case, such beliefs would have provided powerful ideological support for the social and political power wielded by Moundville's elite residents.

It is interesting to note that depictions of the Great Serpent differ consistently between the public and the restricted spheres at Moundville. In the public sphere, which largely consists of Hemphill pottery, the Great Serpent is always shown as a winged rattlesnake, the wing being a locative that iconographically places this being in the sky — the "Above World" in the Indian cosmos. Indians in eastern North America traditionally saw the constellation Scorpius as an embodiment of the Great Serpent. The summer, when Scorpius appeared low in the night sky, was the only time of year when the Great Serpent ventured into the Above World and was visible

to all. Lankford has argued persuasively that the Hemphill winged serpent refers specifically to this highly public incarnation of the supernatural creature. In other words, the most widely circulated depictions of the Great Serpent in Moundville art were ones that evoked an image seen in the night sky and familiar to everyone.

Depictions of Great Serpent on other artifacts at Moundville are quite different. The creature may be shown in feline or serpentine form — as in the Bellaire pipes and stone palettes, respectively — but it never appears with wings. This was the Great Serpent as he might be encountered in the Beneath World, a potentially dangerous place with which only individuals having the requisite knowledge and spiritual power dared to communicate. It is not surprising, therefore, that these wingless depictions appear exclusively on artifacts in our restricted sphere, that is, on ritual paraphernalia that were probably kept in sacred bundles and used only by ritual specialists or priests — some of whom may also have been Moundville's chiefs.

Also striking is the thematic distinctiveness of Moundville's art when compared to that of other Mississippian centers. For example, human figural representations are plentiful at Spiro and Etowah, but virtually absent at Moundville. Conversely, the hand motif, so prevalent at Moundville, is rare at Spiro and absent at Etowah. Also, unlike elsewhere in the Mississippian world, no shrine figures have ever been found in the Moundville region. Taken together, these differences point up the fact that there never existed a single "Southeastern Ceremonial Complex." Rather, the art and iconography of the Mississippian world comprised a set of regional complexes that shared certain themes and motifs, but at the same time retained a distinctiveness that was rooted in local history, as well as the various social and ritual contexts in which the objects were used.

Notes

Many of the ideas presented in this paper were developed at meetings of the Mississippian Iconographic Workshop at Southwest Texas State University in San Marcos. We thank Kent Reilly for inviting us to these meetings and wish to acknowledge the stimulating discussions and ideas prompted by all the participants, but especially those who have taken part in the Moundville working groups: Jim Brown, Jim Garber, Bob Hall, Mary Helms, George Lankford, Shirley Mott, Clay Shultz, and Ken York. We are also grateful to Pat Galloway for translating the passages from Father du Ru's journal that are quoted herein.

- 1. Knight and Steponaitis 1998, pp. 2-6; Steponaitis 1998.
- 2. Knight 1998.
- 3. For a history of scholarly work at Moundville, see Peebles et al. 1981 and Knight and Steponaitis 1998, pp. 1-9. For a collection of articles that summarize current knowledge about the site, see Knight and Steponaitis, eds., 1998.
- 4. The published chronology for Moundville, based on uncalibrated radiocarbon dates, places the span of each phase as follows: West Jefferson, AD 900-1050; Moundville I, AD 1050-1250; Moundville II, AD 1250-1400; Moundville III, AD 1400-1550; and Moundville IV (formerly Alabama River), AD 1550-1650 (Steponaitis 1983a; Knight and Steponaitis 1998). Recently, Knight, Konigsberg, and Frankenberg (1999) have revised these spans using more dates, which have been both corrected for isotopic fractionation and calibrated for fluctuations in atmospheric carbon. This, more sophisticated analysis has yielded a new set of calendrical spans: West Jefferson, AD 1020-1120; Moundville I, AD 1120-1260; Moundville II, AD 1260-1400; Moundville III, AD 1400-1520; and Moundville IV, AD 1520-1650. In effect, the two earliest phases have been shortened and their starting dates have been moved about a century later than previously estimated, while the three latest phases have been left more or less the same. This revised chronology is the one we have adopted for present purposes.
- 5. Our historical account is abstracted from a more complete synthesis that has been published elsewhere; see Knight and Steponaitis 1998, pp. 10-25 and references therein. The calendrical chronology, however, has been altered as explained in the preceding note.
- 6. Brown 1989.
- 7. Steponaitis 1983a, pp. 54-63, 317-318.
- 8. Neff et al. 1991.
- 9. The parameters of the Hemphill style have recently been worked out in a series of Master's theses written under the direction of Vernon J. Knight: see Lacefield 1995, Schatte 1997, and

Gillies 1998.

- 10. Schatte1997.
- 11. Lankford 2000.
- 12. Lacefield 1995; Gillies 1998.
- 13. Lacefield 1995; Schatte 1997.
- 14. Neff et al. 1991; cf. Steponaitis et al. 1996.
- 15. For illustrations and discussion of these palettes see Moore 1905, 1907; Webb and DeJarnette 1942; Mellown 1976, pp. 9-10; Krebs et al. 1986, pp. 48, 52, 102. Specifically excluded from this category are two artifacts, also made of fine micaceous sandstone, that are decorated but irregularly shaped. We refer to these as "tablets" and suspect that they are functionally different from the palettes. One is illustrated by Moore (1907, fig. 89, upper left) and the other by Knight (1992, fig. 14).
- 16. Moore 1905, pp. 145-147; Moore 1907, p. 392.
- 17. See Whitney, Steponaitis, and Rogers 2002. Sites with abundant debris consisting of this sandstone occur near the outcrops, but this debris cannot as yet be definitively tied to the manufacture of the elaborate palettes found at Moundville (cf. Johnson and Sherard 2000).
- 18. For example, compare fig. 19 with fig. 25 in Moore 1905.
- 19. For previously published illustrations and descriptions of the Rattlesnake Disk, see Moore 1905, pp.134-137; Mellown 1976, p. 9; Krebs et al. 1986, p. 48. The case for interpreting the hand as a portal has been made by Lankford 2000 (also see Reilly, this volume).
- 20. For previously published illustrations and descriptions, see Moore 1905, pp. 131-134; Mellown 1976, p. 9.
- 21. Franke 1998; Knight and Franke 2002.
- 22. Anonymous 1923.
- 23. Webb and DeJarnette 1942, p. 58.2; Steponaitis 1983b, p. 138; Knight 2002, p. 116.
- 24. Mellown 1976, p. 11; Krebs et al. 1986, p. 50; Marcoux 2000, pp. 57-58, figs. 7-8...
- 25. Brown 2000a.

- 26. Marcoux 2000, p. 58, fig. 9.
- 27. Krebs et al. 1986, p. 50.
- 28. The Tennessee Valley specimen comes from Seven Mile Island (1Lu21) in the Pickwick Basin (Webb and DeJarnette 1942, pl. 58.2). The other example was found at Wildcat Bend (22Lo558) in the central Tombigbee Valley (Rucker 1974, pp. 85-86, pl. 4c).
- 29. For examples, see the numerous specimens illustrated in Moore 1905 and 1907.
- 30. Goad 1978; see also Hurst and Larson 1958, Rapp et al. 2000.
- 31. Knight 2002, pp. 117-118; Markin 1997; Scarry 1995, p.83.
- 32. McGhee-Snow 1999.
- 33. The first two types are described and illustrated by Moore (1905, pp. 162-163, 198, figs. 45, 105); the bilobed arrow ornament is unpublished and resides in the collections of the Alabama Museum of Natural History.
- 34. See the relevant observations and comparisons in Brain and Phillips 1996, pp. 308, 329, 373.
- 35. The Moundville human-head rattle was excavated by C. B. Moore and currently resides in the collections of the National Museum of the American Indian. For descriptions and commentary on the comparable examples from Etowah, see Larson 1957 and Brain and Phillips 1996, pp. 148, 158-159.
- 36. Descriptions of and commentary on the Lubbub plate can be found in Jenkins 1982, pp. 130-132, fig. 22; Jenkins and Krause 1986, p. 97, fig. 26c; Brain and Phillips 1996, p. 285. For an extended discussion of the "classic Etowah" copper style, see Phillips and Brown 1978, pp. 185-193. More recently, Brain and Phillips (1996, pp. 368-371) have assigned the Lubbub plate their "Wulfing style," which also has strong representation at Etowah. The Geogia counterpart of the Lubbub plate was found at the Shinholser site; see Williams 1990, fig. 35, pp. 232-233; 1994, fig. 5, p. 189.
- 37. For more on symbol badges, see Brain and Phillips 1996, pp. 285, 328-329, 373. The Moundville examples are nicely described by Moore 1905, pp. 196-198.
- 38. Peebles and Kus 1977.
- 39. Nice illustrations of Moundville ear disks can be found in Moore 1905, fig.40, and Moore 1907, fig. 106.
- 40. Steponaitis and Dockery 1997.

- 41. Brain and Phillips 1996, pp. 384-388.
- 42. Phillips and Brown 1978, pp. 140-143.
- 43. See published examples in Thruston 1897, fig. 84; Moore 1905, figs. 1-3, 165, 166; Mellown 1976, p. 12; Krebs et al. 1986, p.104; Cox 1985, pl. 6; Scarry 1995, fig.86.
- 44. Lankford 1997.
- 45. These four pipes are illustrated, respectively, in Moore 1907, figs. 80-86; Krebs et al. 1986, p. 104; Moore 1905, figs. 2-3; Moore 1907, figs. 80-86. The term "Lebanon style" is taken from Brain and Phillips 1996, p. 384.
- 46. Moore 1905, figs. 131-132.
- 47. Emerson et al. 2003, p. 300-301.
- 48. Translated by Patricia K. Galloway from the original manuscript, which resides in the Newberry Library (Ayer MS 262, pp. 64-65). In French, the key passage reads: "six grandes Ecuelles de bois dont une ance represente la queue d'un cigne et une autre le col qu'on remplit de farine" The word ecuelle typically refers to a bowl with two handles, and ance is simply an alternate spelling of the word anse, meaning handle. The one previously published translation of this passage in unsatisfactory, in that it inexplicably leaves out the mention of handles (see du Ru 1934 [1700], p. 42).
- 49. Moore 1905, p. 238.
- 50. Knight et al. 2001, pp.133-134, internal references omitted.
- 51. Moore 1907, figs. 76-79.
- 52. Moore 1907, p. 384.
- 53. Phillips and Brown 1978, p. 149, 156.
- 54. Brain and Phillips 1996, p. 296.
- 55. Brain and Phillips 1996, pp. 298-299.
- 56. Moore 1905, fig. 34.
- 57. Brown 2000b.
- 58. Brain and Phillips 1996, p. 301.

- 59. Moore 1907: fig. 98.
- 60. Moore 1907, figs. 96-97.
- 61. Knight 1992, fig. 14.
- 62. Good examples of Hemphill sherds from mound contexts are documented by Knight (1995, 2002); sherds from off-mound residential areas at Moundville are described by Steponaitis (1983a); and whole vessels from burials are illustrated by Moore (1905, 1907). The heavy wear that sometimes occurs on these vessels is evident in published photographs (e.g., Moore 1907, fig. 60) and has been observed by the authors in the collections they have studied.
- 63. See, for examples, the descriptions in Moore 1905 and 1907.
- 64. DeJarnette and Peebles 1970, pp. 98-101; Mistovich 1986, pp. 75-77.
- 65. These meanings have been persuasively reconstructed in a series of seminal papers by George Lankford. For his arguments concerning the swastika see Lankford 2001; for the Path of Souls see Lankford 2000; for the Great Serpent see Lankford 1997. Although the Great Serpent was commonly viewed as master of the underworld (or, in Lankford's terms, the "Beneath World") and protector of the realm of the dead, it is not clear whether these two places were regarded as the same. In many of the stories that Lankford (2000) cites, the realm of the dead is described as being "in the south," without reference to any specific layer in the Native cosmos. A few stories locate the realm of the dead in the Above World, and at least one places it "beneath the earth-disk," which seems to imply the Beneath World.
- 66. Lankford 2000; for an extended discussion of locatives in Mississippian art, see Reilly 2000.
- 67. For comparative material from Spiro and Etowah, see Moorehead 1932, Phillips and Brown 1978, Brown 1996, and Brain and Phillips 1996. Although the hand motif is absent at Etowah proper, it is engraved on the Wilbanks Monolithic Axe, which is said to have been found in the same region (Williams 1968, pp. 78-80). Yet here the exception proves the rule, for the engraving on this artifact seems stylistically out of place. As Phillips and Brown put it, the design on this axe "shows Spiroan and Moundville affinities in approximately equal strength, with Etowah only twenty miles away scarcely represented" (1978, p. 193). A thorough discussion of Mississippian shrine figures can be found in Brown 2001.

Bibliography

Anonymous

1923 Stone Disc. *Arrow Points* [Monthly Bulletin of the Alabama Anthropological Society] 7, no. 6, p. 118.

Brain, Jeffrey P., and Philip Phillips

1996 *Shell Gorgets: Styles of the Late Prehistoric and Protohistoric Southeast.* Peabody Museum Press, Cambridge.

Brown, James A.

- 1989 On Style Divisions of the Southeastern Ceremonial Complex: A Revisionist Perspective. In *Southeastern Ceremonial Complex: Artifacts and Analysis*. University of Nebraska Press, Lincoln.
- 1996 The Spiro Ceremonial Center: The Archaeology of Arkansas Valley Caddoan Culture in Eastern Oklahoma. Memoirs 29. Museum of Anthropology, University of Michigan, Ann Arbor.
- 2000a Chronological Implications of the Bellows-Shaped Apron. Paper presented at the 57th annual meeting of the Southeastern Archaeological Conference, Macon, Georgia.
- 2000b The Greater Braden Style of the Southeastern Ceremonial Complex. Manuscript in possession of the authors. [To be published in *Studies in Mississippian Iconography, Volume 1*, edited by F. Kent Reilly III and James F. Garber. University of Texas Press, Austin.]
- 2001 Human Figures and the Southeastern Ancestor Shrine. In *Fleeting Identities: Perishable Material Culture in Archaeological Research*, edited by Penelope Ballard Drooker, pp. 76-93. Occasional Paper 28. Center for Archaeological Investigations, Southern Illinois University, Carbondale.

DeJarnette, David L., and Christopher S. Peebles

1970 The Development of Alabama Archaeology: The Snow's Bend Site. *Journal of Alabama Archaeology*, vol. 16, no. 2, pp. 77-119.

du Ru, Paul

- 1934 *Journal of Paul du Ru, Missionary Priest to Louisiana*. February 1 to May 8, 1700. Translated and annotated by Ruth Lapham Butler. Caxton Club, Chicago. Reprinted 1997 by Ye Galleon Press, Fairfield, Washington.
- Emerson, Thomas E., Randall E. Hughes, Mary R. Hynes, and Sarah U. Wisseman 2003 The Sourcing and Interpretation of Cahokia-Style Figurines in the Trans-Mississippi South and Southeast. *American Antiquity* 68, no. 2, pp. 287-313.

Franke, Judith A.

1998 The Birdman and the Insect. *The Living Museum* 60, no. 2, pp. 6-9.

Gillies, Judith L.

1998 A Preliminary Study of Moundville Hemphill Representational Engraved Ceramic Art Style. Unpublished master's thesis, Department of Anthropology, University of Alabama, Tuscaloosa.

Goad, Sharon I.

1978 Exchange Networks in the Prehistoric Southeastern United States. Ph.D. dissertation, Department of Anthropology, University of Georgia, Athens. University Microfilms, Ann Arbor.

Hurst, Vernon J., and Lewis H. Larson, Jr.

1958 On the Source of Copper at the Etowah Site, Georgia. *American Antiquity* 24, no. 2, pp. 177-181.

Jenkins, Ned J.

1982 Archaeology of the Gainesville Lake Area: Synthesis. Archaeological Investigations in the Gainesville Lake Area of the Tennessee-Tombigbee Waterway, vol. 5. Report of Investigations 23. Office of Archaeological Research, University of Alabama, Tuscaloosa.

Jenkins, Ned J., and Richard A. Krause

1986 *The Tombigbee Watershed in Southeastern Prehistory*. University of Alabama Press, Tuscaloosa.

Johnson, Hunter B., and Jeff L. Sherard

2000 Domestic Sandstone Artifact Production. In *Archaeology at Pride Place (1Tu1): Its Position in the Moundville Chiefdom*, edited by Hunter B. Johnson. Manuscript on file, Office of Archaeological Research, University of Alabama, Tuscaloosa.

Knight, Vernon J., Jr.

- 1992 Evidence for the Dating of Mounds A, B, P, R, and S, Moundville. Paper presented at the 51st annual meeting of the Southeastern Archaeological Conference, Lexington, Kentucky.
- 1995 Chronology and Use of Public Architecture at the Moundville Site: Excavations in Mounds R, F, G, and E. Unpublished report submitted to the National Science Foundation in fulfillment of award number 9220568.
- 1998 Moundville as a Diagrammatic Ceremonial Center. In *Archaeology of the Moundville Chiefdom*, edited by Vernon J. Knight, Jr. and Vincas P. Steponaitis, pp. 44-62. Smithsonian Institution Press, Washington, D.C.

- 2002 Chronology and Use of Public Architecture at the Moundville Site: Excavations in Mound Q. Unpublished report submitted to the National Science Foundation in fulfillment of award numbers 9220568 and 9727709.
- Knight Vernon J., Jr., James A. Brown, and George E. Lankford2001 On the Subject Matter of Southeastern Ceremonial Complex Art. SoutheasternArchaeology 20, no. 2, pp. 129-141.
- Knight, Vernon J., Jr., and Judith A. Franke
 - 2002 Identification of a Moth/Butterfly Supernatural in Mississippian Art. Manuscript in possession of the authors. [To be published in *Studies in Mississippian Iconography, Volume 1*, edited by F. Kent Reilly III and James F. Garber. University of Texas Press, Austin.]
- Knight, Vernon J., Jr., Lyle W. Konigsberg, and Susan R. Frankenberg
 1999 A Gibbs Sampler Approach to the Dating of Phases in the Moundville Sequence.
 Manuscript in possession of the authors.
- Knight, Vernon J., Jr., and Vincas P. Steponaitis (editors)1998 Archaeology of the Moundville Chiefdom. Smithsonian Institution Press,Washington, D.C.
- Knight, Vernon J., Jr., and Vincas P. Steponaitis
 - 1998 A New History of Moundville. In *Archaeology of the Moundville Chiefdom*, edited by Vernon J. Knight, Jr. and Vincas P. Steponaitis, pp. 1-25. Smithsonian Institution Press, Washington, D.C.
- Krebs, W. Phillip, Polly Futato, Eugene M. Futato, and Vernon J. Knight, Jr.
 1986 *Ten Thousand years of Alabama Prehistory*. Bulletin 8. Alabama State Museum of Natural History, Tuscaloosa.
- Lacefield, Hyla L.
 - 1995 *A Preliminary Study of Moundville Engraved Pottery*. Unpublished master's thesis, Department of Anthropology, University of Alabama, Tuscaloosa.
- Lankford, George E.
 - 1997 The Great Serpent in Eastern North America. Manuscript in possession of the authors. [To be published in *Studies in Mississippian Iconography, Volume 1*, edited by F. Kent Reilly III and James F. Garber. University of Texas Press, Austin.]
 - 2000 The "Path of Souls": Some Death Imagery in the Southeastern Ceremonial Complex. Manuscript in possession of the authors. [To be published in *Studies in Mississippian Iconography, Volume 1*, edited by F. Kent Reilly III and James F. Garber. University of Texas Press, Austin.]

2001 The Swastika and the Cross. Paper presented at the Southwest Texas Mississippian Iconographic Workshop, San Marcos, Texas.

Larson, Lewis H., Jr.

1957 An Unusual Wooden Rattle from the Etowah Site. *Missouri Archaeologist* 19, no. 4, pp. 6-11.

Marcoux, Jon Bernard

2000 Display Goods Production and Circulation in the Moundville Chiefdom: A Mississippian Dilemma. Unpublished Master's thesis, Department of Anthropology, University of Alabama, Tuscaloosa.

Markin, Julie G.

1997 Elite Stoneworking and the Function of Mounds at Moundville. *Mississippi Archaeology* 32, no. 2, pp. 117-135.

McGhee-Snow, Katherine

1999 Preliminary Results of the Analysis of the Copper Assemblage Recovered from Moundville. Paper presented at the 56th annual meeting of the Southeastern Archaeological Conference, Pensacola, Florida..

Mellown, Robert O.

1976 *The Art of the Alabama Indians*. The University of Alabama Art Gallery, Tuscaloosa.

Mistovich, Tim S.

1986 Excavations at Sites 1Tu265 and 1 Tu423, Oliver Lock and Dam, Tuscaloosa, Alabama. Report of Investigations 51. Office of Archaeological Research, University of Alabama, Tuscaloosa.

Moore, Clarence B.

1905 Certain Aboriginal Remains of the Black Warrior River. *Journal of the Academy of Natural Sciences of Philadelphia* 13, pp. 125-244.

1907 Moundville Revisited. *Journal of the Academy of Natural Sciences of Philadelphia* 13, pp. 337-405.

Moorehead, Warren King (editor)

1932 Etowah Papers. Yale University Press, New Haven.

Neff, Hector, Michael D. Glascock, Katherine Stryker, Vincas P. Steponaitis, and Paul D. Welch 1991 Chemical Characterization of Moundville Pottery. Manuscript on file, Research Reactor Center, University of Missouri, Columbia.

Peebles, Christopher S., and Susan M. Kus

1977 Some Archaeological Correlates of Ranked Societies. *American Antiquity* 42, no. 3, pp. 421-448.

Peebles, Christopher S., Margaret J. Schoeninger, Vincas P. Steponaitis, and C. Margaret Scarry 1981 A Precious Bequest: Contemporary Research with the WPA-CCC Collections from Moundville, Alabama. In *The Research Potential of Anthropological Museum Collections*, edited by Anne-Marie Cantwell, James B. Griffin, and Nan A. Rothschild, pp. 433-447. *Annals* 376. New York Academy of Sciences, New York.

Phillips, Philip, and James A. Brown

1978 Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma. Paperback edition. Peabody Museum Press, Cambridge.

Rapp, George, James Allert, Vanda Vitali, Zhichun Jing, and Eiler Henrickson
2000 Determining Geologic Sources of Artifact Copper: Source Characterization Using
Trace Element Patterns. University Press of America, Lanham.

Reilly, F. Kent, III

2000 The Symbolic Function of the "Petaloid" Motif within the Art of the Southeastern Ceremonial Complex. Manuscript in possession of the authors. [To be published in *Studies in Mississippian Iconography, Volume 1*, edited by F. Kent Reilly III and James F. Garber. University of Texas Press, Austin.]

Rucker, Marc D.

1974 Archaeological Survey and Test Excavations in the Upper-Central Tombigbee River Valley: Aliceville-Columbus Lock and Dam and Impoundment Areas, Alabama and Mississippi. Report to the U.S. Department of the Interior, National Park Service, submitted by the Department of Anthropology, Mississippi State University, Starkville.

Scarry, C. Margaret

1995 Excavations on the Northwest Riverbank at Moundville: Investigations of a Moundville I Residential Area. Report of Investigations 72. Office of Archaeological Services, University of Alabama, Tuscaloosa.

Schatte, Kevin E.

1997 Stylistic Analysis of the Winged Serpent Theme at Moundville. Unpublished Master's thesis, Department of Anthropology, University of Alabama, Tuscaloosa.

Steponaitis, Vincas P.

1983a Ceramics, Chronology, and Community Patterns: An Archaeological Study at Moundville. Academic Press, New York.

1983b The Smithsonian Institution's Investigations at Moundville in 1869 and 1882.

Midcontinental Journal of Archaeology 8, no. 1, pp. 127-160.

1998 Population Trends at Moundville. In *Archaeology of the Moundville Chiefdom*, edited by Vernon J. Knight, Jr. and Vincas P. Steponaitis, pp. 26-43. Smithsonian Institution Press, Washington, D.C.

Steponaitis, Vincas P., M. James Blackman, and Hector Neff

1996 Large-Scale Patterns in the Chemical Composition of Mississippian Pottery. *American Antiquity* 61, no. 3, pp. 555-572.

Steponaitis, Vincas P., and David T. Dockery III

1997 The Geological Source of the Emerald Effigy Pipes and its Implications for Mississippian Exchange. Paper presented at the annual meeting of the Southeastern Archaeological Conference, Baton Rouge, Louisiana.

Webb, William S., and David L. DeJarnette

1942 An Archeological Survey of Pickwick Basin in the Adjacent Portions of the States of Alabama, Mississippi and Tennessee. Bureau of American Ethnology Bulletin 129. U.S. Government Printing Office, Washington, DC.

Williams, Mark

1990 Archaeological Excavations at Shinholser (9BL1): 1985 & 1987. Publication 4. LAMAR Institute, Watkinsville, Georgia.

1994 Growth and Decline of the Oconee Province. In *The Forgotten Centuries: Indians and Europeans in the American South, 1521-1704*, edited by Charles Hudson and Carmen Chaves Tesser, pp. 179-196.

Williams, Stephen (editor)

1968 *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.* Papers 58. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge.

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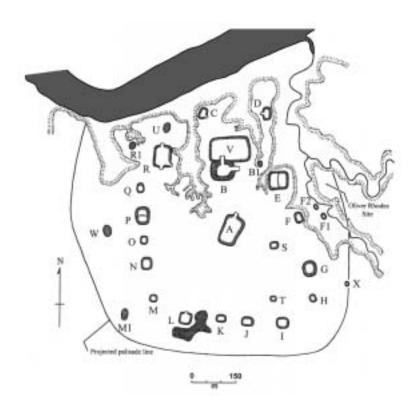


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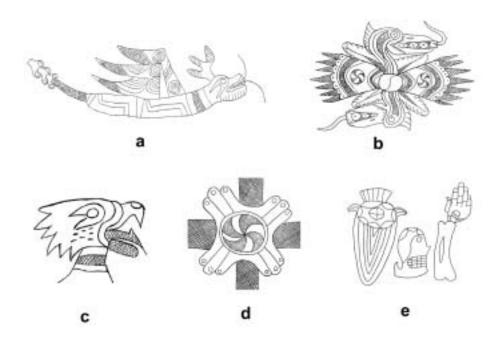


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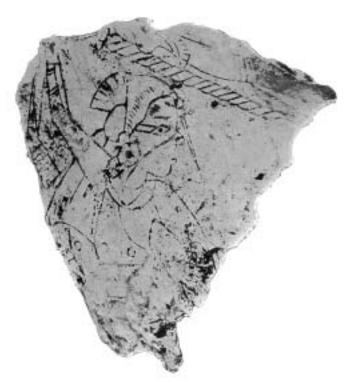


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