

SOCIAL CONTEXTS OF PRODUCTION AND USE OF POTTERY
ENGRAVED IN THE HEMPHILL STYLE
AT MOUNDVILLE

by

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ABSTRACT

Recently there has been considerable debate about the social and political organization of Moundville (AD 1020-1650), a Mississippian ceremonial center with 32 earthen mounds, located in west central Alabama. This complex issue is addressed here using a stylistic analysis of pottery bottles and bowls engraved in the Hemphill style (AD 1325-1450), Moundville's local representational art style, that determines the formal characteristics of religious subjects such as winged serpents, crested birds, raptors, bird tails, hands, and centering symbols. Style will be used to examine Moundville's social and political organization during the 150-year Necropolis stage (AD 1300-1450) of its occupational history, when pottery engraved in the Hemphill style was produced. The concept that style similarity is an index of interaction among artisans and that these interactions are shaped by social forces operating within a society is used to evaluate three alternative models of Moundville's social and political organization, which have been suggested in the literature. The first, which is referred to in this text as a Political Economy model, suggests that Hemphill-style artisans were producing pottery under the control of Moundville's political elite. The second, which is referred to in this text as a Sacred Economy model, suggests that Moundville was dominated by a coherent mortuary ideology during the Necropolis stage and that the pottery was integral to mortuary ceremonies. The third, which is referred to in this text as an Associations model, suggests that sodalities were a key organizing principle of Moundville's society and that possession of a Hemphill-style vessel indicated membership in a particular sodality. Each of these models has different implications for Moundville's social and political organization and implications relating to the diversity of different aspects of the Hemphill style through time. The Hemphill style was seriated to examine changes to the style through

time. In addition to style, geographic distributional data indicates where these vessels may have been used and if that use was restricted. Evidence of use-wear was also used, indicating the extent to which these vessels had an extended use-life before they were interred. Finally, iconographic considerations were taken into account when evaluating the models.

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CHAPTER 1

INTRODUCTION

Recently there has been considerable debate about the social and political organization of Moundville (AD 1020-1650), a Mississippian ceremonial center located in west central Alabama. This broad and complex issue is addressed here by means of a stylistic study of Moundville pottery. Style has been used in archaeology to identify individual artists and workshops, examine ethnicity, intergroup communication, kin relationships, sourcing, and ordering of objects and assemblages in time and across space (Braun 1985; Hill 1970; Hill and Gunn 1977a; Washburn 1989; Wiessner 1984). Here, however, stylistic distinctions will be put to service very differently to shed light on major organizational features of a Mississippian polity. The basic idea is that style similarity is an index of interaction among artisans and that these interactions are shaped by social forces operating within a society. This concept is not a new idea in archaeological studies of style (Hill 1970; Hill and Gunn 1977b). Stylistic similarity can, therefore, be used to help answer current, foundational questions about the social forces operating in Moundville society. Were display goods crafted by artisans under the control of Moundville's political elites (Marcoux 2007; Welch 1996), or not (Thompson 2011)? Was Moundville dominated by a coherent mortuary ideology during its Necropolis stage (Lankford 2011a; Steponaitis and Knight 2004), as emphasized by new exhibits in the Jones Archaeological Museum at Moundville, or not? Were sodalities a key organizing principle of Moundville society (Lankford 2011c; Phillips 2006a), or not? It is important to address such key questions using a number of different approaches. While stylistic analysis of religious imagery on pottery might not be the most

obvious way to address these questions, it is an *additional* way that has not yet been attempted at Moundville.

“Hemphill” is Moundville’s local representational art style, a style that determines the formal characteristics of religious subject matter such as winged serpents, crested birds, raptors, bird tails, hands, bones, skulls, scalps, and centering symbols depicted on engraved pottery bottles and bowls. Currently, there are three distinct conceptualizations about the production and use of these pottery vessels at Moundville, which have different implications for Moundville’s social and political organization. I refer to them in the text as the Political Economy model, the Sacred Economy model, and the Associations model. Each of these three models has implications relating to the diversity of different aspects of the Hemphill style through time. To examine changes in the Hemphill style through time I must first seriate the style. To evaluate these three models, in addition to style I will use three other sources of information. Geographic distributional data on whole vessels and sherds will indicate where these vessels may have been used, and if that use was restricted. Evidence of use-wear will indicate the extent to which these vessels had an extended use-life before they were interred. Finally, iconographic evidence is used help evaluate the three models.

Before discussing the theory that underlies this study, let us first briefly discuss the archaeological context.

Moundville

Moundville is the capital town of a Mississippian polity on the lower Black Warrior River (Figure 1). The polity consists of Moundville itself, 15 single mound centers, and numerous smaller non-mound sites, distributed along a 60 kilometer (37 mile) stretch of the alluvial valley (Knight and Steponaitis 1998b; Welch 1998; Vernon J. Knight, personal communication 2011; Figure 1). The Moundville site covers an area of 75 hectares (185 acres) and has 32 earthen

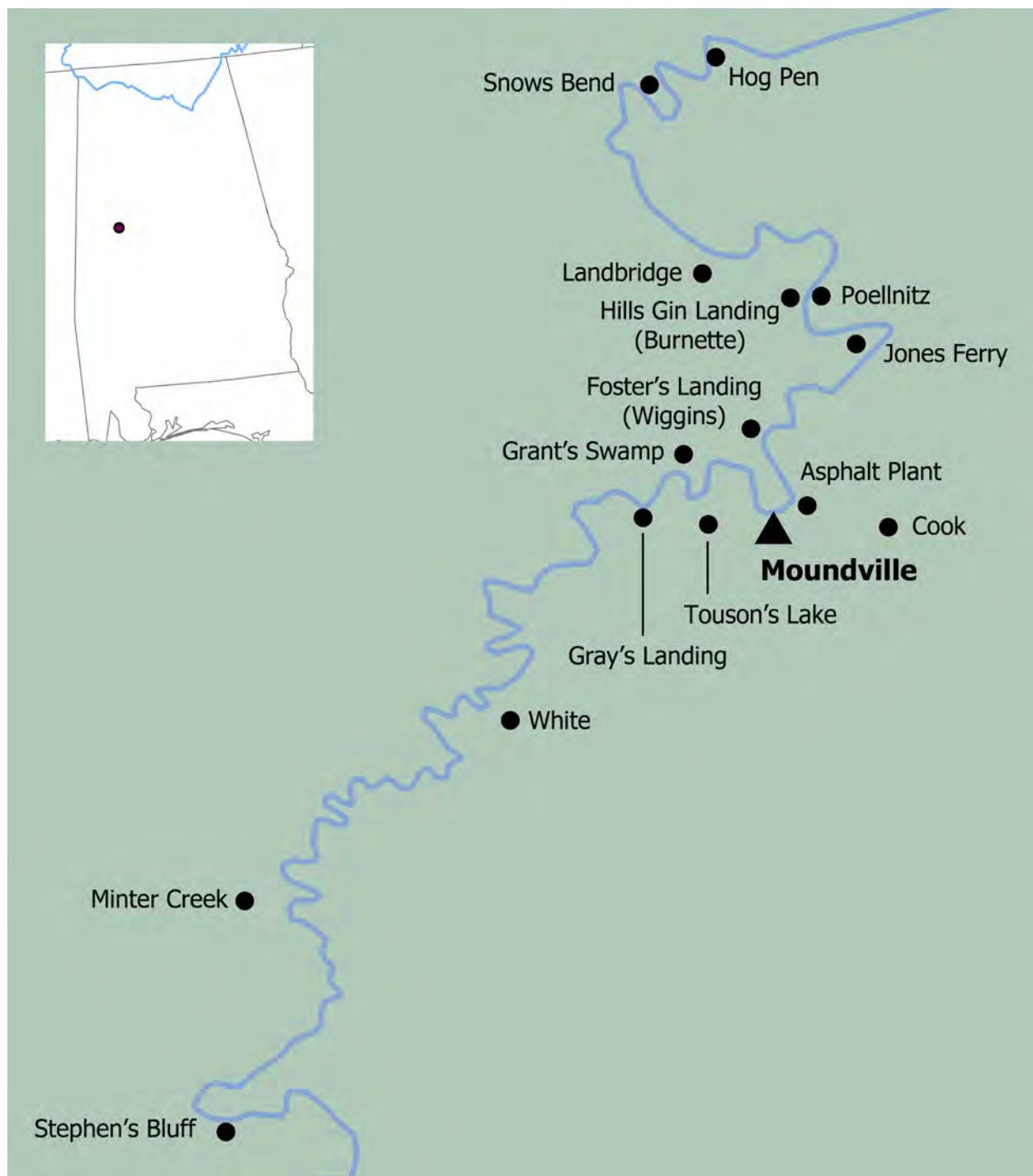


Figure 1: Location of Moundville and Single-mound sites on the Black Warrior River. Inset: Moundville's location in Alabama.

mounds, 20 of which are large platform mounds that surround a central plaza (Knight and Steponaitis 1998b; Figure 2).

Occupational History

The occupational history of the Moundville site is conventionally divided into five developmental stages: Intensification of Local Production (AD 1020-1120), Initial Centralization (AD 1120-1200), Regional Consolidation (AD 1200-1300), Necropolis (AD 1300-1450), and Collapse and Reorganization (AD 1450-1650) (Knight 2010a; Knight and Steponaitis 1998b, 2007; Figure 3).

Moundville itself may not have been populated during the stage known as “Intensification of Local Production,” but there were many terminal Woodland people living within the area. During this stage there was an intensification of production of agricultural products and craft goods. One kind of craft item was shell beads, which would have been used by community leaders as wealth items (Knight and Steponaitis 1998b).

During the stage known as “Initial Centralization,” settlement on the Moundville terrace was along the riverbank and Carthage Branch. At least two mounds were constructed. One known as Mound X is located along Carthage Branch at Moundville, and another is close by at the Asphalt Plant site. There was great variability in architecture, pottery was predominately shell tempered and produced in new vessel shapes, and there was a stable agricultural economy in the Black Warrior Valley with an increased dependence on corn (Knight and Steponaitis 1998b).

The third stage is characterized by regional consolidation. The paramount center was constructed during this time, including all of the major mounds and a bastioned palisade wall. In addition to the mounds at Moundville, several single-mound centers were constructed. Agricultural production increased, with an increased dependence on corn. There is evidence that the elites were provisioned by commoners. In elite midden contexts there was more service ware

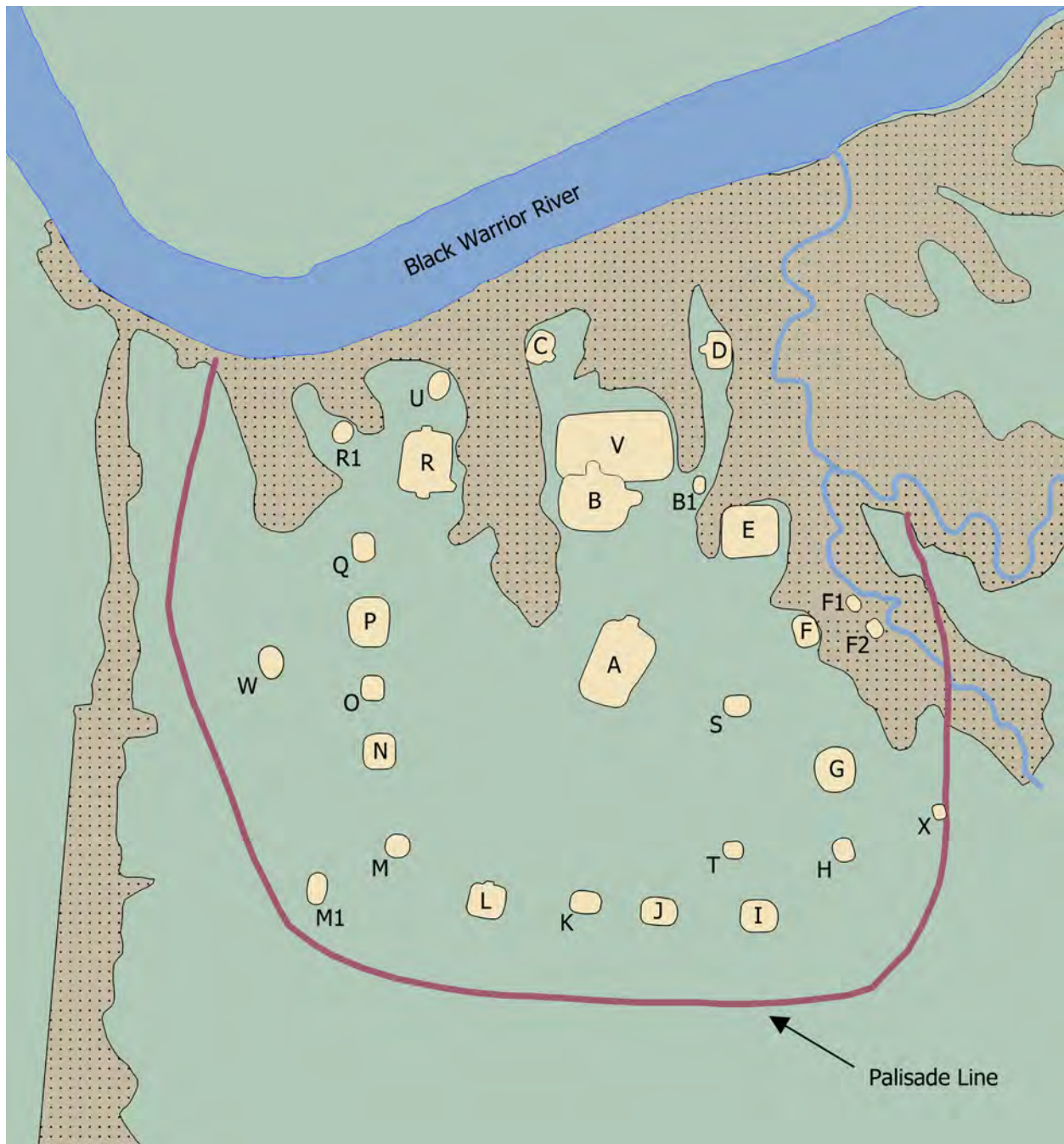


Figure 2: Moundville site map.

| | Ceramic Phase (Subphase) | Developmental Stage | Hemphill Style |
|---------|-------------------------------------|---|--|
| AD1600 | Moundville IV | Collapse and Reorganization | Pottery Engraved in the Hemphill Style |
| AD 1500 | (late) Moundville III (early) | | |
| AD 1400 | (late) Moundville II (early) | Entrenched Paramountcy and Necropolis | |
| AD 1300 | (late) Moundville I (early) | Regional Consolidation | |
| AD 1200 | (late) Moundville I (early) | Initial Centralization | |
| AD 1100 | (late) West Jefferson (early) | Intensification of Local Production | |
| AD 1000 | | | |

Figure 3: Ceramic chronology, developmental stages, and approximate temporal position of pottery engraved in the Hemphill style. Adaptation of Knight 2011: Figure 2.2.

than utility ware, and there was an increase in non-local goods and raw materials (Knight and Steponaitis 1998b).

At the beginning of the Necropolis stage¹, also known as “The Paramountcy Entrenched” (Knight and Steponaitis 1998b:8) and “Entrenched Paramountcy” (Knight 2010a:17) there was an exodus from Moundville as the population dispersed back out to farmstead sites. Seven single-mound sites were occupied during this stage of Moundville’s history. Moundville was left as a relatively vacant ceremonial center inhabited almost exclusively by elites, and many of the mounds in the southern portion of the site were abandoned. Moundville became a necropolis, as virtually everyone in the river valley was buried at the central site (Knight and Steponaitis 1998b:19). The evidence for Moundville acting as a regional necropolis rests in the fact that diagnostic sherds from middens drops during this stage, while the frequency of burials seriated to this stage increases. The two measures have an inverse relationship, indicating that the resident population decreased while the burial population increased (Knight and Steponaitis 1998b:19). Certain burials were clearly elite, based on the included grave goods, especially those interred in Mounds C and D to the north of the plaza. Despite the concentration of power, there was a slight decline in long-distance exchange (Knight and Steponaitis 1998b).

At the beginning of the final stage of Moundville’s occupation, “collapse and reorganization,” several more mounds were abandoned. Burials within mounds ceased. The off-mound cemeteries were still used, but on a smaller scale. Many of the single-mound sites were still in use, and cemeteries were newly established at several of them. Nucleated villages reappeared, both in conjunction with single mound centers and independently of them. By about 1550, all single mound sites were abandoned and by 1600, all of the mounds at Moundville had been abandoned. There was no longer a political hierarchy above the village level. There was a decreased dependence on corn and other domesticated food products, and there were increased health issues as evident in the skeletal remains. Hinterland villages were occupied until about

1650, when they were abandoned likely due to conflict between groups to the east and west (Knight and Steponaitis 1998b).

Within this lengthy sequence of Moundville's occupational history, pottery engraved in the Hemphill style was produced only during the Necropolis stage (AD 1300-1450; Knight and Steponaitis 1998b). Thus, this study focuses solely on a 150 year period of Moundville's history (Figure 3).

History of Work at the Site

Moundville is one of the most heavily investigated sites in North America. The record of formal investigations at Moundville begins with two Smithsonian agents, N. T. Lupton in 1869 and James D. Middleton in 1882 (Steponaitis 1983a). Lupton created a map of mounds at Moundville and excavated in Mound O. Middleton made surface collections and merely described the site, as he was denied permission to dig (Steponaitis 1983a; Walthall et al. 2002). The first large scale excavations at the site were conducted by Clarence B. Moore, an independently wealthy archaeologist sponsored by the Philadelphia Academy of Natural Sciences, in 1905 and 1906 (Knight 1996). The next wave of work at Moundville consisted of Depression-era excavations conducted by the Alabama Museum of Natural History from 1930 to 1941, with assistance of the Civilian Conservation Corps beginning in 1934 (Walthall et al. 2002). In 1978, Christopher Peebles conducted new stratigraphic excavations at Moundville and recovered faunal and botanical remains (Walthall et al. 2002). From 1989 to 2003 Vernon J. Knight, Jr. conducted excavations into eight of the mounds at Moundville to try to understand the nature of the mounds and their mound-top architecture (Knight 2009, 2010a). In addition to the large scale excavations at Moundville, there have been numerous smaller excavations through the years, including current excavations by University of Alabama field schools under the direction of John H. Blitz and Knight. In addition to excavations, since 1965 there have been 16 PhD dissertations and 23 Masters theses focusing on Moundville and surrounding sites (Archive

of Moundville Archaeology). Eight of these dissertations and theses have direct bearing on this study. These include Steponaitis's, Welch's, and Thompson's dissertations and Lacefield's, Schatte's, Gillies's, Marcoux's, and Phillips's theses. Steponaitis's (1980, 1983b) dissertation provided the first in-depth study of Moundville ceramics, in which he classified them according to a type-variety system and created a gravelot seriation, providing Moundville with its first internal chronology. Welch's (1986, 1991) study of Moundville's economy in the context of chiefdom economies has been a central point of reference for many subsequent studies, including Thompson's dissertation and Marcoux's and Barrier's theses. Thompson's (2011) dissertation focused on a specific segment of Moundville's economy, that of its residential populations at the Moundville center. Marcoux's (2000, 2007) thesis focused on the role of display goods, including Moundville Engraved ceramics, in Moundville's economy. Marcoux's display goods model was in part a modification of Welch's Moundville political economy model, and forms the basis of the Political Economy model evaluated here. Lacefield, Schatte, and Gillies examined different aspects of Moundville's Hemphill style, and their theses will be discussed in further detail throughout this dissertation. My own (Phillips 2007) examination of four genres of Hemphill-style artifacts as potential markers of social identities led to the development of the "Associations model" presented and evaluated in this dissertation.

Models

There has been a recent history of model testing as opposed to hypothesis testing in Moundville studies (Barrier 2007; Knight 2010b; Marcoux 2007; Thompson 2011; Welch 1991; Wilson 2008). Models in archaeology are broad, generalized, ethnographically based scenarios explicitly linked to theory. Models are distinct from hypotheses in that models are more difficult to falsify, lacking clear-cut *simple* test implications. The three models being tested are referred to herein as the Political Economy model, the Sacred Economy model, and the Associations model. These three are general theoretical models that draw from the comparative anthropological

literature on political hierarchy, ritual organization, and social structure in complex societies. They are of special importance in this study because all three have been previously proposed for Moundville, and represent three major competing visions of Moundville politics and society (Knight 2010b; Lankford 2004, 2007b:210, 2009; Marcoux 2007; Phillips 2007; Steponaitis and Knight 2004:180; Welch 1991). I recognize that these are not the only potential models² of Moundville's socio-political organization, but in addition to having been previously proposed for Moundville, they have the merit of having relatively straightforward implications for the type of data marshaled in this study.

I am perfectly aware that such models are open to critique from several quarters. Some will argue that they are too rigidly normative, ignoring subtleties of variation. Others will no doubt argue that they ignore the possibility of change over time. Yet others may argue they are too broad, crosscutting processes of current interest to other researchers such as the emergence of craft specialization, expressions of agency in political authority, ritualization, feasting, or reflections of identity in burial practices. Nonetheless, I have chosen to address these models because, as stated above, they encompass much of the current debate in Moundville archaeology. This does not preclude other kinds of study, or even other conclusions using the same data. Moreover, in this work I do not treat these models as monolithic, as I have tied them to changes in Moundville's history. Not only are they applied to a specific 150-year period within Moundville's developmental history, but my test expectations are tailored to the dynamism of change *within* the Necropolis stage. My seriation of the designs in Chapter 4 is in fact a response to the need to address demographic shifts and the gradual dissolution of political power at Moundville during this stage, as known independently (Knight 2010a; Knight and Steponaitis 1998b).

The *Political Economy model* is based on the work of Paul D. Welch (1991, 1996) and Jon B. Marcoux (2007). Political economy models in general emphasize hierarchical political

features and centralized control over regional goods and labor. According to this model, Moundville would have been ruled by a political elite. A paramount chief would have lived at Moundville, and there would have been lesser elites ruling from hinterland single-mound sites which would have functioned as secondary administrative centers over the neighboring farmsteads. Elites at Moundville would have been provisioned with choice cuts of meat by residents elsewhere in the polity. In exchange, the paramount chief would have given display goods produced at Moundville to elites at single-mound centers. Providing elites with prestige goods imported into the polity or produced by part-time specialists at the household level at Moundville would have helped solidify the paramount chief's control.

Colin Renfrew (2001) developed the *sacred economy* as a potential model to explain the archaeological record at Chaco Canyon. He argues that some sites can only be understood as “the product of a powerful imaginative system,” and refers to such sites as Locations of Highly Devotional Expression (LHDEs) (Renfrew 2001:17). LHDEs have at least one of the following characteristics: 1) monumental construction, 2) large open spaces or plazas, and 3) conspicuous consumption of material goods. Renfrew argues that it is a belief system that motivates people “to undertake these costly and expressive acts” (Renfrew 2001:18). According to Renfrew (2001:17), monumental constructions include such things as henge monuments of the British Isles, Pyramids of Egypt, and the Moai of Easter Island. Monumental architecture often involves constructions that regulate the approach to, or restrict, certain spaces. They also sometimes have cosmological alignments. Renfrew (2001:18) uses plazas at Mesoamerican sites as his example of the large scale open spaces that one might find at an LHDE. Conspicuous consumption of material goods includes such things as temple offerings or elaborate grave goods (Renfrew 2001:18-19). Some of the material culture is used to facilitate ritual, and there is often evidence of feasting or sacrificing. The resident population of the LHDE is made up of specialists that support the LHDE. Such specialists include religious specialists and people

who prepare the food for the periodic gatherings. The resident populations are often simple food producers who provide their own subsistence during inter-ritual periods. Renfrew (2001:19) says that it is common for LHDE sites to be separated by smaller homologous centers. LHDEs are often in locations where a large population or a large labor input by a rural population would be unexpected. Large numbers of people gather to participate in the rituals at LHDEs and also exchange ideas and goods while they are there. LHDEs are not exclusively religious or secular. If the society is not egalitarian, the power of high-status individuals is exercised from the LHDE.

After establishing the characteristics of LHDEs, Renfrew (2001:22) explains how a sacred economy works. According to Renfrew (2001:22), within a sacred economy, an individual comes to a LHDE to take part in special rituals. The individual may be obligated to offer goods and services such as labor, food, and goods for a redistributive system if one exists. If the religious and secular are not integrated, the individual may be expected pay the priest or make an offering to a supernatural, resulting in a large influx of material goods into the site.

The other part of the Sacred Economy model as I construe it in this work comes from George Lankford (2004, 2007a, 2007b, 2007c, 2011a), who describes aspects of the “Path of Souls belief complex” over several articles in which Moundville or Hemphill-style images are specific topics of discussion. The Path of Souls mythology is shared among a number of Eastern Woodlands and Plains Native American groups (Lankford 2007a:179-180). They all generally agree on several aspects, although there are, as expected, regional and tribal variations. There are several kinds of souls a person has. The number of kinds of souls varies both tribally and regionally, but is usually either two or four. One of these souls, sometimes called a free soul travels along the Earth Disk to the west where it waits until the optimum time, a 10 minute window each night between November and April, to leap through a portal into the Celestial Realm (Lankford 2007a:176-177). This portal is within the palm of the hand constellation as described in Siouan mythology. The hand constellation is the constellation we know as Orion.

In the celestial realm, the soul travels along the path of souls which can be seen in the night sky as the Milky Way. There is a split or fork in the path which can be seen in the Milky Way and is marked by the star Deneb (Lankford 2007a:208). The shorter tine is a permanent diversion, while the longer tine leads to the Realm of the Dead to the south. The Realm of the Dead, which is seen as a perfected version of world, is protected by the Great Serpent. The Great Serpent, normally the master of the Beneath World can, during the summer, be found in the Celestial Realm as the as the guardian and master of the Realm of the Dead (Lankford 2007a:206-207). The Great Serpent has a red jewel on its head and can be seen in the night sky during the summer as the constellation we know as Scorpio with the jewel marked by the star Antares. At some point along the path, in a number of the myths are dog and a log bridge which is sometimes described as a serpent (Lankford 2007a:178). Generally there is a judge or adversary located at the fork in the path only allowing certain souls to continue to the Realm of the Dead. Lankford suggests that this judge or adversary may be marked by the star Deneb (Lankford 2007a:208) which is located at the fork in the path. These judges or adversaries take different forms in the various myths, but are typically an Old Woman, Old Man, Old Woman and Old Man, Morning Star, or a dog (Lankford 2007a, 2011a). The Old Woman is sometimes described as a brain smasher. In several myths, the soul must carry food to appease the dog. One tribal variant shared by the Alabama and Seminole has a raptor along the path who must be defeated with a knife (Lankford 2004, 2007a:209-210, 2011a). Lankford suggests that the raptor may be seen in the night sky as the constellation Cygnus. Lankford sees five of the subjects on pottery engraved in the Hemphill Style as relating to the Path of Souls mythology. These are the hand and eye, forearm bones, skulls, serpent, and raptor. According to Lankford (2004, 2007a, 2007b, 2011a) the hand and eye represents the portal onto the path, the forearm bones and skulls represent the deceased individual, the serpent represents the Great Serpent, and the raptor represents the adversary at the fork in the path.

The five images focused on by Lankford (2007a), hand, bones, skulls, serpent, and raptor can all be interpreted as Path of Souls imagery, they are all found together on the same kind of pottery, appear together in compositions³, and are found in graves. Moundville seems to have a unique interpretation of the raptor in regard to the Path of Souls (Lankford 2007a:210, 2011a) and Lankford (2011a:247) suggests that “mortuary ritual would likely have included grave goods which would enable the soul to negotiate or fight with the raptor on the journey.” In Lankford’s (2007a:210-211) view, the adaptation of Moundville into a mortuary center and the more than 60 vessels bearing the Path of Souls images may indicate a new cultural role for Moundville after AD 1300⁴. Lankford (2007a:212) notes that while he argues that these five images are integrated by the Path of Souls mortuary complex, not all images at Moundville need have been part of this complex.

I have combined Renfrew’s sacred economy and Lankford’s Path of Souls mortuary complex into what I am calling the *Sacred Economy model*. According to my Sacred Economy model, Moundville would have been a religious center where people from outlying sites would have come for religious experiences, and in exchange would have provided Moundville’s religious leaders with food and labor for such things as constructing mounds. For the purposes of this study I have linked the “Path of Souls” belief complex, as outlined above for Moundville, to the Sacred Economy model because it views much of the Hemphill corpus as reflecting a single religious complex linked to mortuary ritual. The religious experience at the Moundville necropolis thus would have been related to the Path of Souls, the route taken between this life and the afterlife. The portal onto the Path of Souls, which according to Lankford is the hand and eye constellation we know as Orion, would have been accessed from the Moundville center through mortuary rituals performed there.

The *Associations model* suggests that there are organizations within societies where associational memberships are neither ascribed, achieved, nor kin based and are independent

of the political authority system. Membership in such corporate entities might, according to Edmonson (1958:33), be organized by descent (although as these societies are not kin-based, membership would not be restricted to a particular descent group⁵, ranking, ritualization, economic specialization, or political differentiation. Associations organized by one or more of the above principles might include cults or orders where a cult is defined as a “ritual group” and an order is defined as a “ranked ritual group” (Edmonson 1958:33). Edmonson (1958:37, 38) suggests that pure cults and orders do not exist or are incredibly rare. In practice, they tend to have age, residence, or descent as factors for determining membership. Based on Edmonson’s definitions, the secret societies among the Omaha described by Fortune (1932) are cults with some ranking involved although they are not strictly ranked. These societies have variably overlapping membership, were hereditary (whether explicitly acknowledged or not), and some allowed membership of both men and women.

In a previous work I suggested that pottery engraved in the Hemphill style may have represented an associational social identity rather than a strictly achieved or ascribed social identity, based on a study where I examined Hemphill-style artifacts found in burial contexts to determine whether they might be markers of social identities (Phillips 2007). Thus according to the Associations model, as construed herein, Moundville would have had a number of linked associations or sodalities similar in concept to Omaha secret societies as known ethnographically (Fortune 1932). These associations would have had variably overlapping membership that was in some cases hereditary, but not kin-based. Importantly, these plural associations would have been independent of the political authority at Moundville and their members would have resided at every level of settlement: at the Moundville center, at hinterland single-mound sites, and at farmsteads.

Each of these models will be discussed in greater detail in Chapter 2. The contexts

for the production and use of pottery engraved in the Hemphill style for each model will be explained and test expectations will be proposed.

Style

The definition of style in the abstract and the definition of a particular style are two separate things, comparable to the distinction between the culture concept and a specific culture bounded in space and time. I define style, in the broad sense, as mental models regarding proper form. I consider specific, named styles, on the other hand, as manifestations of culturally shared models within the context of a community of artisans and beholders. Style, which deals with the formal qualities of art, is distinct from iconography, which deals with subject matter. A style may be detected by regularities in the formal attributes or works, and may be defined in terms of canons or rules. In the Southeast, formally named styles are limited in space and time to small groups of related communities over a short duration (Knight and Steponaitis 2011). Such styles have been assigned names based on a locus classicus, such as Citico, Classic Braden, Craig, Hemphill, and Hightower.

While some previous researchers have defined style similarly, others have conceived of it as merely the result of “ways of doing” (Boas 1955, Hodder 1990, Sackett 1990, Schapiro 1962, Wiessner 1990). Franz Boas, an anthropologist studying “primitive art” in the 1920s, defined style as simply fixity of form (Boas 1955:144-145). He conceived of culture as existing in the mind, and thus his concept of style aligns closely with my own. In 1952 Meyer Schapiro, a prominent art historian, presented a paper on style as part of a symposium on the sciences of anthropology over which A. L. Kroeber presided. In his paper, Schapiro (1962:278-303) defines style similarly as “the constant form—and sometimes the constant elements, qualities, and expression—in the art of an individual or a group.” Conversely, some archaeologists, most prominently Lewis Binford, have viewed style as equivalent to formal *variability*, thus abandoning mentalist notions and arbitrary normative style definitions (Conkey 1990:9-

10). Wobst (1977) and Binford (1965:208) have further argued that not *all* formal variation is style, but rather that style is only the residual formal variation left over after function has been accounted for. This conceptualization of style sounds quite similar to the evolutionary archaeologists' dichotomy between style and function (Dunnell 1978). This dichotomy conflicts with Weissner's argument that because style is used as a form of communication, then it is inherently functional. Others such as Sackett (1990) view style as the result of traditional ways of doing. These non-mentalistic concepts of style which focus on those who produce forms as opposed to those who experience them conflict with the idea that style is a variably shared mental model which can be produced in multiple genres. The fact that a style can be produced in multiple genres which necessarily have different production steps suggests that it is not enough to say that style is how something is made.

The concept of style as used in archaeology has been quite controversial (Carr and Neitzel 1995a, 1995b; Conkey 1990; Conkey and Hastorf 1990a; Hodder 1990; Roe 1995; Sackett 1990; Voss and Young 1995; Weissner 1990). A clear, concise definition has been as elusive as anthropologists' ability to reach consensus on a definition of culture. One realizes that archaeologists do not agree on what style is, and that to a certain extent their definitions are shaped by their theoretical approach to archaeology and/or their conception of culture.

Some of the debate about what style is was highlighted about 20 years ago by Margaret W. Conkey and Christine A. Hastorf in their 1990 edited volume *Style in Archaeology*. They included chapters by anthropologists Conkey, James R. Sackett, Ian Hodder, William K. Macdonald, Stephen Plog, Timothy Earle, Warren R. DeBoer, and Polly Weissner, and art historian Whitney Davis. These authors examined style as encompassing all forms of material culture, from art to tool manufacture. The goal was to move away from concepts of style as narrowly concerned with painted pottery, a topic that had been studied for years. The edited volume (Conkey and Hastorf 1990a) also stressed that style is not necessarily congruent with

specific social groupings such as tribes or families. In other words, one cannot assume that merely because two individuals possess similar personal styles that they are related by kinship. In this volume Sackett directed comments toward his ongoing debate with Binford about the definition of style, and discussed style in relation to stone tool manufacture (Binford 1986; Sackett 1982,1986). Binford had argued that Sackett confused style and function by combining them in his “isochrestic variation,” which is the variation resulting from tool choice and procedures used in producing objects (Binford 1986:560; Sackett 1986). Binford also expressed concern about the ability to use style for distinguishing ethnicity if one were to accept Sackett’s notion of isochrestic variation (Binford 1986:560; Sackett 1986). Sackett’s further debate with Wiessner, although it too involves isochrestism, is different. Wiessner argues that style is what Sackett terms “iconological,”⁶ meaning that it is actively used by artisans to communicate ethnic identity (Sackett 1985:154); Sackett counters that style is instead isochrestic, resulting from tool choice and procedures, and that the way an artist chooses to do things is often merely the result of enculturation (Sackett 1985:157). In the end, Sackett and Wiessner agreed that style can have both iconological and isochrestic aspects, with the debate centering on the origin of stylistic variation in particular contexts (Hegmon 1992:523). Conkey (1990:13) argues that what is isochrestic in one context may become iconological, that is, communicating ethnic identity, in another.

In 1995, a more cohesive volume on style was edited by Christopher Carr and Jill E. Neitzel(1995a). In *Style, Society, and Person*, the contributing authors examine style from an agent-centered perspective, drawing on Giddens and Bordieu for their social theory. The contributors (David P. Braun, Christopher Carr, Robert F. Maslowski, Jill E. Neitzel, Stephen Plog, John Pryor, Peter G. Roe, Beryl Rosenthal, and Dorothy K. Washburn) examine what they believe an agent-centered approach to style can tell us about societies and personhood within those societies. If in this study I were examining how styles change, then an agent centered

approach might be useful. However, I am examining observers' models rather than procedural models. It is the variable sharedness of the observers' models that makes this study possible. An agent-centered approach would focus on production procedures and the role individual artisans, losing a perspective on the degree to which the style is shared. Having adopted a normative, cognitive approach to culture and style, I cannot simultaneously adopt an agent-centered approach as well.

My conception of style as mental models dictating form is intricately tied to a cognitive anthropological view of culture, where culture is the knowledge necessary to function within one's society (Goodenough 1957), and where this knowledge is variably distributed (D'Andrade 1981:180). Viewing style as variably shared mental models, one can explain individual variation in the cultural model of an art style, while simultaneously seeing style as a normative whole. As a mental model, a given style changes through time, and is thus to be seen as a dynamic entity. Knight (2011:29) similarly argues that style is dynamic, defining it as "cultural models governing the form of all things artificial." As a given style is a cultural model (implying that it is shared amongst a group of people), a style must be confined to a relatively specific geographic area and time (Knight 2011:29-30). Knight (2011: 31-34) further breaks down models pertaining to style into two different kinds. First are models shared by people who view images as well as the producers of images. When speaking of imagery, this means that the ability to be competent in a style is not limited to artisans (Knight 2011:31). It is observers' models that govern the way an image should look. Observers' models are materialized in the images themselves (Knight 2011:31). Procedural models, in contrast, are shared only by producers of images. They assume that the producer is competent in the observers' model for the style, and dictate the procedures for producing an image in a given genre (Knight 2011:31). Procedural models are learned by observing other artisans (Knight 2011:32). While procedural models relate to style, they are not models that govern style. They are conceptually different from style as a "way of doing"

because they do not dictate the way the finished product looks. As I am using style to try to better understand the social contexts of production and use of pottery engraved in the Hemphill style at Moundville, I am predominantly dealing with what Knight would call observers' models. I only touch on procedural models when examining style levels in Chapter 5, which differ in procedures used by artists in engraving an image rather than in observers' models of how the finished product should look.

Often art historians and archaeologists interested in style also discuss concepts such as individual style, workshops, schools, regional styles, and period styles. Individual or personal style refers to the style of an individual artist. One can, for example, speak of Michelangelo's or Picasso's personal style. The term "workshop" implies a physical location where a group of artists work together in close proximity. Sometimes in such contexts the works are produced by individuals, whereas at other times there is a division of labor and a single piece may have multiple contributors (Pierce 1987:98). Like the term workshop, the term "school" can imply a physical location, but a school can also refer to works that are similar because they come from the same area (Clarke 2001:218; Pierce 1987:78). Regional styles are broad style categories based on geography. The Italian Renaissance and Northern Renaissance are regional styles. Observers can distinguish stylistic differences within Renaissance art based on location. Likewise, art historians speak of stylistic differences between regions without temporal qualifiers, as when they discuss Chinese art or Russian art. "Period styles" are chronological categorizations of style, and include such concepts as Romanesque or Gothic art, which are both found in the same area. Period styles are the broadest of these terms and can be broken down into style phases or distinct national or local styles. Styles can be further subdivided into smaller and smaller units based on time and geography until one arrives, finally, at the individual artist. Individual styles can be broken down even further into phases of an artist's development. The degree of specificity used, it may be argued, depends on the cohesiveness of the style. Such

discussions lead to the question, “At what scale is a style defined?” because comparing styles at different scales can lead to confusion. In this regard, I will follow Knight (2011:29-30), who argues that when one defines a style for archaeological purposes it should be narrowly limited in time and space. The Hemphill style defined for Moundville is such a case, as is the Craig style⁷ defined by Philip Phillips and James A. Brown (1978, 1984) for the trans-Mississippi Caddoan region. Knight (2011:30) does note, however, that at times broader temporal or geographic groupings may be necessary.

Because there is disagreement about classifications of style according to individual artists, schools, or workshops, as well as disagreement about our ability to accurately identify them in the archaeological record, I will instead discuss the issue of scale in terms of *style levels* in Chapter 5, in which I will define a series of three hierarchically arranged levels.

Style Studies in New World Archaeology

There have been several Pre-Columbian stylistic analyses that have been particularly helpful in the conduct of this research, including three analyses of Mississippian engraved shell in the Southeastern United States and two analyses of Moche fineline painted pottery in coastal Peru.

Analyses of Mississippian Engraved Shell

As one might imagine, the three studies of Mississippian engraved shell are related. They ultimately originated in a graduate seminar at Harvard University taught by Philip Phillips in 1964, titled “Stylistic Analyses as an Archaeological Method.” As a class, the seminar’s participants discussed engraved shell material from the Spiro site, Oklahoma, while each student additionally examined data from other parts of the eastern United States. Philip Phillips and James A. Brown’s *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma* (1978, 1984) is an extension of what was begun in that seminar (Williams 1978). Jon Muller’s work, including his dissertation on Southeastern shell gorgets (1966) was also an outgrowth of

this class. The third study is to some extent a departure from the two studies just mentioned. It is a study of shell gorget styles in the southeastern United States by Jeffrey P. Brain and Phillips (1996). According to Brown (James A. Brown, personal communication 2011), this latter study, inspired by the study of shell engravings from Spiro, was the invention of Brain as a project to keep Phillips intellectually active in his later years.

Phillips and Brown's study was originally published as a series of six hardbound folio volumes, with the first published in 1975. The five volumes published after Volume I begin with updates of the authors' understandings of the styles represented, but mostly consist of full-size rubbings of the shell cups and fragments divided by style and substyle, and organized by subject matter. Along with each rubbing is a line drawing of the design and a descriptive paragraph explaining why they placed it in the style and substyle they did, as well as a discussion of the context of other similar engravings and other interesting features of the design. The Appendix in the present work was inspired by the Phillips and Brown volumes. Phillips and Brown use the term "school" as a primary subdivision of style, because as Phillips saw it, both the Braden and Craig schools were part of the same style produced at Spiro (James A. Brown, personal communication 2009). Since that time, his co-author Brown (2007) has argued that the shell engravings included in the Braden school are instead imports. Jon Muller, a student of Phillips who is a proponent of quantitative methods in stylistic analysis, critiqued Phillips and Brown's study for its use of qualitative methods, but noted that their "approach *is* subjective, but this does not mean that it is without empirical value... There can be no doubt that Phillips and Brown know this material and their judgments on it are not to be lightly dismissed" (Muller 1984:669).

In Muller's (1966) dissertation, *An Experimental Theory of Stylistic Analysis*, he studied shell gorgets and laid out a specific program of stylistic analysis, breaking each of the designs down into its constituent parts. Following a linguistic format, Muller defined a "grammar" for the styles he examined which determined their necessary production sequences. Muller must

be commended for the rigor of his analyses. While Muller's methods work well for the styles on which he focused, which are styles that feature a significant overlap in design structure and subject matter, these methods are less useful in examining styles with greater variability in layout.

In 1996, Jeffery P. Brain published the book *Shell Gorgets: Styles of the Late Prehistoric and Protohistoric Southeast* with Philip Phillips as co-author. This book uses a thematic concept of style not used by other Southeastern authors to categorize all known Mississippian and Protohistoric shell gorgets. In this work Brain muddled the concept of style in such a way that he confuses those who are already unsure of the nature of style. Unfortunately his conflation of style and subject matter is all too common. While it is sometimes difficult to define a style across themes, the themes in which a style is represented do not help define the style (Muller 2007:19-20). A knowledge of the subject matter involved can indeed be helpful, but matters of form should be primary and the themes should not be a part of the formal definition of the style. The problem of Brain's thematic "styles" is exacerbated by the fact that he used some of Muller's style names in a way Muller never intended (Muller 1997). Along with these issues of style, Brain often claims common authorship or common workshop for objects based on a commonality of features of subject matter rather than on a commonality of form. However, as Muller (1997) notes in his review of this volume, Brain must be acknowledged for his efforts in compiling the corpus of engraved shell gorgets from the Southeast and trans-Mississippi south, even if the images in their published form are poorly reproduced and are often difficult to see. He should also be commended for providing archaeological context for the gorgets from major Mississippian sites.

Moche Fineline Painting

Christopher Donnan and Donna McClelland's study of Moche Fineline painting is the premier study of style in South American archaeology, holding a status similar to that of

Phillips and Brown's study of shell engraving at Spiro in Southeastern archaeology. They have spent years compiling an enormous corpus of images of the vessels, which are widely dispersed, to work with. For their 1999 volume (Donnan and McCelland 1999), they realized that the style changed through time and that it was necessary to seriate the vessels to obtain an understanding of their change through time before doing further analyses. Having seriated the style, they defined stylistic canons for each of their four phases. Next, they began an iconographic study looking for contexts in which each of their easily distinguished characters depicted in the paintings could be found. Finally they pieced these overlapping contexts into narrative sequences where possible. For their 2007 volume (McCelland et al. 2007), to which Donald McClelland, was added as a co-author, they examined the fineline painting from a specific site with better provenience information, San José de Moro, and thus gained a greater understanding of the style by teasing out regional and finer temporal variations. They compared the designs from the 250 vessels included in this latter study with the results of their previous study, examining their stylistic and thematic differences. By re-examining their characters and narratives, they noted how there were influences from neighboring groups. This latter study, although a refinement of their previous study, employs the same methods.

Hemphill Style

Hemphill is Moundville's representational art style. It can be found in seven genres (Figure 4): engraved, incised, and painted pottery; embossed copper gorgets; engraved stone palettes and pendants; and engraved shell (Knight and Steponaitis 2011). The style gets its name from the ceramic type-variety Moundville Engraved, *variety Hemphill* from which it was first defined (Knight and Steponaitis 2011, Steponaitis 1983b). There are six main *themes* (units of subject matter at the level of the composition) depicted in the Hemphill style (Figure 5), including the winged serpent, crested bird, paired tails⁸, trophy, raptor, and center symbols and



Figure 4: Genres in the Hemphill style. Top row: pottery (left to right) engraved, incised, painted. Bottom row, left to right: embossed copper, stone palette, stone pendant, shell gorget.



Figure 5: Six primary themes. Top row, left to right: winged serpent, crested bird, paired tails. Bottom row, left to right: trophy, raptor, center symbols and bands.

bands (Lacefield 1995, Steponaitis and Knight 2004). According to Steponaitis (1983b:318), Moundville Engraved, *variety Hemphill* pottery dates to the Moundville II and III phases of his ceramic seriation by gravelots (Figure 3). The most recent definition of the Hemphill style is by Knight and Steponaitis (2011), and is a reformulation of Gillies's (1998) definition of the Hemphill style for engraved ceramics. This reformulation takes into account knowledge of the style from the six other genres. According to Knight and Steponaitis (2011) canons of the Hemphill style include:

1. A strong conservatism in composition, execution, and choice of theme. The vast majority of Hemphill compositions fall into a small number of redundantly executed themes. Design structures are few in number. Inventiveness or novelty in composition or in manner of drafting is rare.⁹
2. Multiple elements within a given composition are shown apart from one another in the design field, emblemlike, without overlap and without obvious interaction among the components. Animate characters are shown stiff and motionless, without fluidity or any indication of activity.
3. Avoidance of overlap extends to the component figures in a larger design; only in rare instances are the elements of a figure depicted as overlying other elements of the same figure.
4. There is a strong tendency for animate figures to be drawn in profile view. Even in-the-round treatments on pottery vessels, which present frontal bodies of serpents and raptors, always depict the head as turned in profile.
5. Cross-hatching is used sparingly for emphasis within figures. The technique is typically used within acute angular spaces, narrow bands, and enclosed semicircles. It is rarely used to create balanced areas of alternating fills, and rarely for background. [Knight and Steponaitis 2011:204-205]

More specific canons govern each of the seven genres and the presentation of individual themes. For example, a sixth canon based on Gillies's (1998) thesis can be added when examining pottery engraved in the Hemphill style:

6. Engraved designs on pottery are always found on the body of the vessel and sometimes the base, but never on the neck. Occasionally part of an element crosses from the body onto the neck, but this appears to have been unintentional on the part of the engraver.

Since 1983, when Steponaitis first defined Moundville Engraved, *variety Hemphill* pottery, there have been numerous studies of Hemphill-style artifacts including stylistic studies relating to form, iconographic studies relating to subject matter, and an analysis of their mortuary contexts (Gillies 1998; Knight and Steponaitis 2011; Lacefield 1995; Lankford 2007a, 2007b, 2011a, 2011b; Phillips 2006a, 2006b, 2007; Schatte 1997a, 1997b, 1998).

Stylistic studies of the Hemphill style include three Master's theses by University of Alabama students in the mid-1990s (Gillies 1998, Lacefield 1995, Schatte 1997a) and a redefinition of the style by Knight and Steponaitis (2011). Judith Gillies (1998) formally defined the Hemphill style for the first time, solely for engraved pottery, and compared it to neighboring Mississippian engraved pottery styles with representational art¹⁰. The redefinition of the Hemphill style by Knight and Steponaitis (2011) built on Gillies's work and expanded the definition of the style to include additional genres. Hyla Lacefield's (1995) thesis was a stylistic analysis of the art using multivariate statistics, focusing on the crested bird and paired tails themes. Kevin Schatte's (1997a) thesis focused on the winged serpent theme, creating a seriation of those images using a combination of the quantitative methods employed by Lacefield and qualitative methods.

Iconographic studies involving the subject matter of Hemphill style designs are numerous, but only a few of these studies focus on the Hemphill style per se, while most examine Hemphill-style subjects as part of a pan-Southeastern phenomenon. Studies focusing

on the iconography of Hemphill style have been undertaken by George Lankford, a folklorist by training. His iconographic studies include an examination of subject matter including the Great Serpent, the Path of Souls, the raptor, the swirl-cross, and centering (Lankford 2007a, 2007b, 2011a, 2011b). Most of these iconographic analyses focus on the Path of Souls concept or some character or aspect of it. I have incorporated this body of work in the Sacred Economy model examined in this study.

In three related studies (Phillips 2006a, 2006b, 2007), I conducted an analysis of the mortuary contexts of four of the genres of the Hemphill style, examining the possibility that they each marked some sort of social identity. I examined the age and sex of the individuals with whom the artifacts were found, their geographic distribution, whether they were found in mound or off-mound cemeteries, as well as the other artifacts with which they were interred. Based on its distribution among burials, I found that engraved pottery appears to have marked neither an ascribed nor an achieved social identity, but perhaps some sort of an associational social identity. Engraved pottery was not significantly different from the contemporaneous Moundville II and III burial population in terms of age, sex, or location, but burials with engraved pottery were significantly richer. Stone palettes are found exclusively with adults and more often with males than females. Burials with stone palettes are significantly richer than contemporaneous Moundville II and III burials and are found significantly more often in mounds than in off-mound contexts. This distribution suggests that stone pendants mark some sort of achieved social identity. Copper gorgets are found slightly more often with adults than the general Moundville II and III burial population, but are also found with infants and children. All of the burials with copper gorgets that could be sexed were male. Burials with copper gorgets, like burials with stone palettes, are significantly richer and are more likely to be found in mounds than the contemporaneous Moundville II and III burial population. Copper gorgets thus seem to mark some sort of an ascribed social identity. Of the eight Hemphill-style stone pendants that

were found with burials, half were adults and half were sub-adults with an infant, a child, and an adolescent represented. One was male, one was female, and the remaining six were unable to be sexed. There was no significant difference from the Moundville II and III burial population in terms of richness. The stone pendants are best distinguished from the Moundville II and III burial population based on their locational tendencies. Stone pendants were never found with burials in mounds, and were found more often in the southern portion of the site. These eight pendants have at least five different designs, four of which have known analogs in shell or copper. Because of their distribution, it is impossible to tell what sort of social identity, if any, were marked by stone pendants, but their geographic distribution is intriguing. I have formulated the Associations model examined in this study based on the conclusion arrived at in my earlier research that pottery engraved in the Hemphill style marks some sort of an associational social identity.

While the Hemphill style has been expanded beyond engraved pottery to include seven genres, in this work I examine only the engraved pottery. I chose to focus my study on engraved pottery for several reasons. The first is because previous analyses of style have shown that the rules governing the style change with a change in genre¹¹(Boas 1955:221, 257). The second, as suggested by the mortuary analysis of four of the genres (Phillips 2006a, 2007), is that their social contexts of use seem to be quite different, such that collectively examining all genres together would be futile and misleading. Finally I chose to examine engraved pottery specifically because it is the most abundant of the genres, and thus lends itself more easily to analysis.

The remainder of this work is organized as follows. In Chapter 2, I discuss the three models being evaluated and their test implications. In Chapters 3-5, the methods used and results of the analysis of pottery engraved in the Hemphill style are discussed. In Chapter 3, I provide aspects of the sample and my primary data collection methods, including a review of

my methods for producing rollout line drawings. Chapter 4 focuses on the methods used in creating a seriation of the designs engraved on pottery in the Hemphill style and the results of the seriation. I use the seriation from Chapter 4 in my analyses of diversity, competence and style levels, which are discussed in Chapter 5. Chapter 5 describes the methods for determining style level groups, competency levels, and the analyses of diversity along with the results of those analyses. In Chapter 6, I review the evidence and discuss how well or how poorly each of the three models accounts for it.

CHAPTER 2

MODELS

This chapter outlines some features of the Moundville polity common to the Political Economy model, the Sacred Economy model, and the Associations model, followed by descriptions of the three contrasting models. As each model bears on pottery engraved in the Hemphill style, test implications are here suggested as they relate to the domains of style of engraved designs, subject matter, use-wear, and distribution. Table 1 presents a comparison of the three models and their contrasting implications for the production and consumption of pottery engraved in the Hemphill style at Moundville. Chapter 5 will return to these implications in order to links the models methodologically to specific measures, including diversity of theme and subject matter, diversity of design structure, degree of competency, quantified style levels, and amount of use-wear.

Table 1. Characteristics of production and consumption of Hemphill-style pottery within the Moundville chiefdom.

| | Political Economy Model | Sacred Economy Model | Associations Model |
|-------------|---|--|--|
| Production | Centralized , concentrated – Elites control production and the vessels are made at the paramount center (Moundville). | Decentralized, dispersed – The vessels are made throughout the chiefdom by elites and non-elites. Production is not controlled. | Decentralized, dispersed – Each theme is under the control of an association. Vessels are commissioned by their members and are made both at Moundville and outlying sites. |
| Consumption | Centralized, dispersed – The vessels are exclusively used by the elite. They are used at sites throughout the chiefdom that had elite occupations. | Centralized, concentrated – The vessels are used in funerary ceremonies. They are brought to Moundville (or rarely at other funerary locations) for use, but are stored beforehand in residential locations at Moundville and outlying sites. | Decentralized, dispersed – The vessels are used by the various associations or individually by members of the associations both at Moundville and outlying sites. |

Moundville Circa AD 1300-1450

Moundville's Hemphill style was produced during the Necropolis stage (AD 1300-1450), which falls at the end of the Moundville II ceramic phase and at the beginning of the Moundville III ceramic phase. During this time, most of the polity's population left the Moundville center and moved to single mound, farmstead, and other hinterland sites (Maxham 2004; Steponaitis 1998). Knight and Steponaitis (1998b) argue for this population dispersal based on a scarcity of middens, a lack of post-1300 style architecture, and a failure to rebuild the palisade after about AD 1300. They also suggest three possible reasons for this exodus from the Moundville center: 1) the elite wanted to increase the sanctity of the center, 2) wood resources were exhausted, and 3) there was less threat of attack so the palisade was no longer needed. Cemeteries were established in previously residential areas at the site, and most of those buried in those cemeteries never lived at Moundville (Steponaitis 1998). Long distance exchange declined (Knight and Steponaitis 1998b) while intrapolity exchange maintained Moundville's tributary economy.

Political Economy Model

The Political Economy model I will be examining is Jon Marcoux's (2007) political economy for Moundville. Marcoux (2007) argues that there was centralized control over display goods including Moundville Engraved, *variety Hemphill* pottery, that virtually all production of such objects took place at the household level at Moundville, and that they were exclusively used by elites. The political economy at Moundville as described by Marcoux is essentially Paul Welch's (1991) political economy for Moundville except that, drawing from Timothy Pauketat's (1997:10) model for Cahokia, it "emphasize[s] elite strategies to control the *local* production of display goods for *local* distribution" (Marcoux 2007:235) as opposed to Welch's emphasis on nonlocal goods. In either Marcoux's or Welch's conceptualizations, the goods in question are used by elites to cement their authority. Display goods are produced under the centralized control of the elites and are then distributed primarily among local elites although some are used

in external exchange with elites from other polities. One of the key differences between Welch's (1991) and Marcoux's (2007) political economy for Moundville is the importance of *interpolity* versus *intrapolity* exchange. Welch (1991) focuses primarily on external relationships, i.e., the influx of non-local crafts and non-local raw materials for local crafts. Although not strictly display goods, Marcoux (2007) includes *Moundville Engraved, variety Hemphill* and other engraved pottery in his analysis and discussion of Moundville's political economy. According to Marcoux (2007:238), "the classification of these types of pottery vessels as display goods is admittedly arbitrary, being based on the ornate nature of their construction and decoration and their use as serving ware."

Marcoux (2007:236) warns that differences in the known quantities of display goods found at Moundville versus outlying sites may be due to a sampling problem, in that the Moundville site has seen a much greater amount of excavation than the outlying sites. He also notes that "while Moundville may represent the ultimate 'consumption' location of these goods, there is a good possibility that the use histories of these objects took place at sites outside of the center" (Marcoux 2007:236). I suspect that both comments are also relevant to Moundville Engraved, *variety Hemphill* pottery. He notes that while the distribution of locally produced display goods is heavily weighted toward Moundville itself, numerous engraved fineware vessels have been found at outlying sites.

According to both Welch (1991) and Marcoux (2007), pottery engraved in the Hemphill style played a role in Moundville's political economy, such that elites controlled the production of the pottery produced at the household level at Moundville itself. The pottery would then be used exclusively by elites both at Moundville and other sites throughout the chiefdom. Because as Welch notes, there is a "lack of evidence for the centripetal movement of craft items for the paramount chief to use in external exchange" (Welch 1991:181), pottery engraved in the

Hemphill style would not have been produced for interpolity exchange. It was instead locally produced for local use.

If pottery engraved in the Hemphill style played a role in Moundville's political economy as Marcoux's scenario asserts, elites would have controlled its production, it would have been produced exclusively at Moundville under their oversight, and it would have been only used by elites as a strategy to consolidate their political control (Table 1). One would therefore expect a uniformity of style, as production would have been under centralized control, resulting in frequent interaction among the potters. The subject matter depicted in the engraved designs would be highly redundant, concerned with reinforcing political status legitimacy. The pottery would only be found in elite contexts, including middens. It would be found at the Moundville site, and probably also at other sites within the chiefdom where elites resided, especially at single-mound administrative sites in the hinterlands. In burials, Hemphill-style engraved pots would only be found with elite individuals, as judged by independent criteria. Use-wear would be no different than for other pottery bottles and bowls, because they would be used in the same contexts by elites. These vessels would have been used often, as the purpose of the designs was to advertise the sacred authority of elites. Over time and with a contraction of political authority, all of these trends should intensify, as elites struggled to maintain their dwindling power. In other words, the diversity of theme and subject matter would have decreased over time (Table 2), due to elites refocusing their assertion of ideology as their hold on the polity weakened. The diversity of design structure would have decreased over time as well, due to elites reasserting their control over production at the expense of diversity. The degree of competency would have been high initially, as production would have been centralized at the capital town with the designs produced by skilled craftsmen. The degree of competency may have deteriorated later, with fissioning and factionalism within the polity. The number of vessels in each style level group (see Chapter 5 for an explanation of style levels) would have been high

Table 2. Test implications for each of the three models examined in the study in regards to each of the six specific measures used to evaluate them.

| | Political Economy Model | Sacred Economy Model | Associations Model |
|---------------------------------------|-------------------------------------|----------------------------------|----------------------------------|
| Diversity of theme and subject matter | Decreases over time | Remains constant | Increases or decreases over time |
| Diversity of design structure | Decreases over time | Remains constant | Increases or decreases over time |
| Degree of competency | Initially high | High | Moderate to low |
| Quantified style levels | High initially, and may remain high | High initially, and remains high | Low throughout the stage |
| Amount of use/wear | Heavily used | No use or extremely limited use | Heavily used |
| Distribution | Exclusively elite | Exclusively with burials | Spatially dispersed |

initially and may have remained high because the designs would have been produced by fewer individuals under conditions of fissioning.

Sacred Economy Model

A sacred economy is defined by Colin Renfrew (2001) as “the production, consumption, and exchange of goods within a religious context.” A key component of a sacred economy is what Renfrew terms a Location of Highly Devotional Expression (LHDE). Characteristics of LHDEs include monumental construction, large-scale open spaces such as plazas, and/or conspicuous consumption of material goods. LHDEs exhibit periodic devotional use where large numbers of resident and nonresident people come together for various kinds of rituals, they have a resident population that is self-sustaining and includes priests or other religious specialists, and they are also the center of political power in the region. In a sacred economy, individuals come from surrounding communities to observe or participate in religious events, bringing with them goods or services such as offerings or labor, or depending on the level of integration, payment for the priests. In return they receive the benefit of the performance (ritual, ceremony, or observance).

It has been suggested, based upon representational art on pottery engraved in the Hemphill style, that the religious experience one might have sought at Moundville is related to the “Path of Souls belief complex” as defined by folklorist George Lankford (2007a, 2007b). Lankford’s hypothesis is that Moundville, unlike other major Mississippian centers, had a special relationship with the “beneath world” of the cosmos, and that the mound center may have been perceived as being directly linked to the Path of Souls, the journey one takes at death between this world and the afterlife (Lankford 2004). He suggests that many of the subjects depicted on Hemphill pottery are linked to death, either as the portal through which souls must enter, the mythological characters encountered along the Path of Souls, the physical body left behind, or the Great Serpent, a key figure of the cosmological “beneath world” (Lankford 2007a).

In this scenario, the skull and forearm bone motifs represent the dead person; the hand and eye motif represents the portal onto the path (the constellation we know as Orion); the winged serpent theme represents the great serpent protector of the realm of the dead (the constellation we know as Scorpio); and not depicted in the art is the path itself (the Milky Way). The wing of the winged serpent in this context is argued to be a locative, indicating that this serpent is found in the night sky as a constellation of stars (Lankford 2007b). In some of the myths about the path, the raptor is one of the beings encountered along the way. Lankford uses the relative universality of this myth among several culture areas and language groups¹ to argue for its antiquity and the likelihood of the existence of the myth at Moundville (Lankford 2007a).

During the late Moundville II to early Moundville III phases (AD 1300-1450), when Moundville was used as a necropolis, according to a Sacred Economy model people would have come to the center from the hinterland communities to participate in various ceremonies, both political and religious, maintaining traditions that had begun before the population dispersal which had occurred by 1300 (Knight and Steponaitis 1998a; Vernon J. Knight, Jr., personal communication 2011). The labor for mound renewal might be seen as part of this

sacred economy, with the people coming to Moundville providing labor for such major works in exchange for entirely nonmaterial religious experiences. The fact that Moundville was a regional necropolis suggests that the people living within the Moundville polity were motivated by a powerful belief system. Going to Moundville to bury the dead would have been a costly undertaking. A belief that Moundville was uniquely connected to the Path of Souls and the afterlife would have justified such a cost. Moundville is, then, a “location of highly devotional expression” in this model. Renfrew (2001) suggests that LHDEs tend to have both large-scale symbols and numerous small-scale symbols relating to the belief system, as well as a cosmological significance. Here the large-scale symbols of the Path of Souls are cosmological (constellations and the Milky Way), and the small-scale symbols can be found on the numerous Moundville Engraved, *variety Hemphill* vessels that depict the hand and eye, winged serpent, raptor, skulls, and forearm bones.

With Moundville acting as a pilgrimage site where mourners would have gone to bury their dead, pottery engraved in the Hemphill style bearing representations of the Path of Souls journey would have been acquired from its makers at or near the site. Production would have been relatively specialized, with few producers producing most of the vessels. There are many ethnographic and archaeological examples worldwide of ex-votos and ex-donos for purchase at sites of pilgrimage. One such archaeological example is *Sources-de-la-Seine*, a Gallo-Roman sanctuary at the origin of the Seine River in France, where the highly redundant bronze ex-votos are argued to have been produced locally (Beck 2009:382). Ex-votos are given to a deity as part of the conclusion of a contract in which the pilgrim has made a pact with the deity, wherein if the deity fulfills the pilgrim’s request, the pilgrim will do something to please the deity. Ex-donos, in contrast, are given by the pilgrim in the hopes that the deity will be pleased and thus fulfill his or her request. In either case, they are a form of spiritual payment. Ex-votos and ex-donos are thus quite similar, except that one is given after the request has been fulfilled and the other is

given in hopes that it will be fulfilled. According to the model being examined, vessels engraved in the Hemphill style are probably more similar to ex-donos than ex-votos in this sense. I am not arguing that pottery engraved in the Hemphill style was either an ex-dono or an ex-voto, but instead more generally that like ex-votos and ex-donos, they were religious offerings acquired by pilgrims at a sacred location and used in religious rituals.

If pottery engraved in the Hemphill style played a role in a sacred economy as part of the Path of Souls belief complex, these religious tokens would have been acquired by mourners for use at Moundville, a location of highly devotional expression where they came to bury their dead. Because the vessels were acquired at Moundville, there should be a high degree of stylistic uniformity through time. Diversity of theme and subject matter would have remained constant, as the Path of Souls belief complex would have retained its importance throughout the 150-year Necropolis stage (Table 2). Diversity of design structure would have remained constant as well, because variability would have been constrained due to the fact that the conditions under which the designs would have been produced would have been constant during this stage. The degree of competency would have been high, as the vessels would have been produced in large quantities by part time specialists associated with the center. The designs would have been produced expediently, but should not exhibit poor planning. Each potter probably would have been versed in all of the primary themes, whereas subjects depicted less frequently should show less competency in execution than more popular subjects. The number of vessels in each style level group (see Chapter 5 for an explanation of style levels) would have been high initially and remained high, as the mortuary cult would have been active throughout the Necropolis stage. There should be minimal to no use-wear on the vessels because, having been acquired for a single ceremony and buried immediately afterward, they would have been produced, used, and buried in short succession. Vessels would not be found at other sites within the polity, as they would have been produced, used, and buried at Moundville. They would be found only at

Moundville, the devotional center, and only with burials. The individuals interred would have been of all statuses. Sherds might be found only exceptionally, consisting of vessels broken during manufacture or funerary use. Because in this scenario pottery engraved in the Hemphill style is made specifically for funerary functions, fragments would not ordinarily be found in domestic middens at Moundville.

Associations Model

Unlike the Political Economy model and the Sacred Economy model, the Associations model is not an economic model. Whereas the Path of Souls belief complex incorporates several themes and motifs into a single narrative, the Associations model suggests that these same images are not all part of the same narrative, but instead relate to several separate narratives. The images would thus refer to separate but related associational statuses, either as part of a single overarching association or a set of segmentary associations each represented by a different visual theme. Associational statuses are defined by Munro S. Edmonson as positions in “corporate entities with which individuals identify themselves as members” (Edmonson 1958:32). Edmonson argues that associations are organized by one or more of the following principles: age grading, sex binding, descent, marriage, residence, ranking, ritualization, economic specialization, and political differentiation (Edmonson 1958:33). Different kinds of associations might include bands, cults, orders, demes, sibs, fraternities, tribes, priesthoods, fraternal orders, and priestly orders (Edmonson 1958:33). None of the five Native North American societies studied by Edmonson had economic or political associations (Edmonson 1958:42). The Oxford English Dictionary (2011) defines an association as, “A body of persons who have combined to execute a common purpose or advance a common cause.” Associational statuses are analogous to positions within an organization, whether it is general membership, an office held, or a rank within the organization². Associational statuses include such things as membership in a sodality,

for example something like the Midewiwin (Grand Medicine Society) among the Ojibwa of the Great Lakes region (Hoffman 1891), or more broadly any secret society or a medicine society.

There are numerous examples from Plains Indian peoples of multiple segmentary associations and related natural and supernatural imagery. One set of examples can be seen in Reo F. Fortune's (1932) ethnography *Omaha Secret Societies*. The names of the secret societies discussed by Fortune were usually derived from their supernatural patron, but not always. Each of these names is suggestive of a distinct image. The six Omaha societies were the Grizzly Bear and Rattlesnake Society, the Ghost Society, the Buffalo Society, the Water Monster Society, the Shell Society, the Thunderbird Society, and the Night Blessed Society³. The first four were doctoring societies, each of which had specific non-overlapping ailments that adherents cured with non-overlapping methods of treatment. Some of the societies allowed members of certain other societies to join. In this way an individual could be simultaneously a member of the Grizzly Bear and Rattlesnake, Ghost, and Water Monster societies, but could not also be a member of the Buffalo Society. Shell Society members could not also be members of one of the doctoring societies, with the exception of the Buffalo society. All chiefs were members of the Shell Society and none were doctors. The Shell Society (Midewiwin) was small and hereditary, made up of chiefs and chiefs' kin, while the Water Monster Society was exclusive to certain doctors. Membership in the Thunderbird Society was hereditary and was open to both men and women. Membership included doctors, chiefs, and Shell Society members.

I am suggesting an Associations model as an alternative to the Political Economy and Sacred Economy models for understanding the social contexts of the production and consumption of pottery engraved in the Hemphill style at Moundville, because of my previous research (Phillips 2006a, 2007) into potential kinds of social identities marked by artifacts bearing Hemphill-style representational art. In my earlier study, based on artifact distributions with Moundville burials, I suggested that pottery engraved in the Hemphill style marked some

sort of associational identity, while stone palettes marked an achieved identity and copper gorgets marked an ascribed identity.

Following out the implications of the Associations model, political authority would have had nothing to do with the rituals during which pottery engraved in the Hemphill style was used; their ritual usage would have been in the context of a segmented assemblage of distinct sodalities. Each non-kin-based association would have had one or more associated patron supernatural, which would be objectified as the subjects depicted on pottery engraved in the Hemphill style. Alternatively, distinct *roles* within a single organization might be represented by different subject. The Hemphill subjects on pottery can be grouped into six primary themes (crested bird, paired tails, winged serpent, raptor, trophy, center symbols and bands), suggesting that there were at least six associations (or roles) represented. These associations would have had partially overlapping membership and variable membership rules. Each iconic subject would have been under the control of an association, such that only members would have rights to the use of that image. Vessels with these images would either need to be made by members of the associations or commissioned by them. Producers might have made pots for multiple associations, rather than just one. Production would have been at a small scale, at the household level, both at Moundville and at outlying sites. The degree of competency would have been moderate to low, as production would have been dispersed among widely distributed households (Table 2). There is no expectation here that the designs were produced by specialists. The number of vessels in each style level group (see Chapter 5 for an explanation of style levels) should be low throughout the stage, as the production would have been dispersed spatially among numerous households within the polity. The vessels would have been used by members as part of association-wide gatherings, or individually in association-sanctioned rituals where these rituals required the use of tokens. One would expect to find evidence for the widespread use of these vessels throughout the Moundville polity in both elite and non-elite household and

mound contexts. In burials, they should only be found with members. As membership in an association might pass from one family member to another, a member's pottery vessel engraved in the Hemphill style might be passed on as well. Use-wear might be substantial, because these vessels would have been kept and used on a regular basis during associational functions. Thematic diversity in the corpus at any one time should be in proportion to the number of active associations. Through time, new subjects might appear as new associations would come into being. Similarly, subjects might disappear as associations died out. In other words, one would expect a shifting dominance in subject matter, mirroring shifts in the relative dominance of the various associations. Thus, diversity of theme, subject matter, and design structure might have increased or decreased through time, as the production was decentralized and the diversity would have changed depending on any shift in either the number of associations or their associated roles. Because all subject matter would relate to associational membership, it would be highly redundant, depicting a relatively small number of themes. No subjects should appear uniquely on only one vessel.

Summary

As can be seen, each of the three models discussed here has contrasting implications for the social contexts of production and consumption and for the stylistic diversity of pottery engraved in the Hemphill style from Moundville. In the following chapters, I will discuss the methods used to evaluate these three models, analyze the data, and discuss the extent to which each model is or is not supported by the data.

CHAPTER 3

ASPECTS OF THE SAMPLE AND PRIMARY DATA COLLECTION

This study includes 249 analytical vessels represented by whole vessels and sherds classified typologically as Moundville Engraved, *variety Hemphill* and Moundville Engraved, *variety Cypress*. Vessels classified as Moundville Engraved, *variety Cypress* were included, because I agree with Knight (2010a:27) who has argued that its primary design, like those of the type Moundville Engraved, *variety Hemphill*, is representational. Pottery vessel shapes which bear engraved representational art are, in order of descending frequency, subglobular bottles, cylindrical bowls (generally with flat bottoms and a single lug), outslanting bowls, and simple bowls. Of the 249 analytical vessels included in this study, 164 are analytical vessels that were buried complete, mostly in human burials, and 85 are analytical vessels that were broken during use and deposited as fragments, mostly in middens at Moundville. 83 of the 85 vessels broken during use come from Vernon J. Knight's mound excavations from 1989. These 83 analytical vessels are by no means all of the known Hemphill-style vessels broken during use at Moundville, but they were the most accessible due to the line drawings that were created by Andrea Stillwell. One analytical vessel broken during use was found during Alabama Museum of Natural History excavations of Mound W at Moundville. It is represented by a large sherd and was included in the University of Alabama, Department of Anthropology's type collection. Another analytical vessel broken during use was found at Pride Place during excavations by the University of Alabama, Office of Archaeological Research in 1999 was also included. Of the 165 whole vessels, 160 were excavated at Moundville, resulting variously from Clarence

Moore's excavations in 1905 and 1906 (Moore 1905, 1907), the Alabama Museum of Natural History excavations from 1930 to 1941, the University of Michigan's excavations in 1978 and 1979; and Knight's excavations in 1992. Four additional whole vessels were found at other sites within the Black Warrior River Valley, resulting from the Alabama Museum of Natural History's excavations at the Snow's Bend site in 1930 and 1932, and the Office of Archaeological Research, University of Alabama's excavations at the Mill Creek site in 1986. Two more whole vessels that clearly belong to the style come from farther afield, one from the Perry site in the Pickwick Basin of the Tennessee Valley excavated in 1938 (Webb and DeJarnette 1942:58), and the other from Bear Creek, Mississippi¹ excavated some time prior to 1886 (Holmes 1886:194).

There are 109 Hemphill-style vessels stored at the Erskine Ramsay Curation Facility managed by the University of Alabama Museums at Moundville Archaeological Park. Of these, 107 are in the University of Alabama Museums collections, one is in the U. S. Army Corps of Engineers collections, and one is in the Tennessee Valley Authority collections. The Smithsonian Institution's National Museum of the American Indian has an additional 51 Hemphill vessels in their collections crated at the Cultural Resources Center in Suitland, Maryland, and the Smithsonian Institution's National Museum of Natural History has one Hemphill vessel that can be found in their collections at the Museum Resources Center in Suitland, Maryland. The R. S. Peabody Museum at Phillips Academy in Andover Massachusetts has two Hemphill vessels in their collections. Finally, the Putnam Museum of History and Natural Science in Davenport, Iowa has one Hemphill vessel. In addition to those in the above collections, 21 Hemphill-style vessels were among a much larger group of pots and other artifacts stolen from the University of Alabama Museums in 1980, and an additional four vessels recorded as being in the University of Alabama Museums collections could not be relocated at the time of this study. I personally examined all 109 vessels curated by the University of Alabama Museums and all 52 in the Smithsonian Institution's collections. I took notes and made multiple photographs of all of the

vessels, and I created rollout line drawings as time allowed. For the remaining vessels I relied on preexisting photographs alone for my analysis.

Of the 85 analytical vessels broken during use, I recorded 2 in the same manner as I did the whole vessels. For the remaining 83 analytical vessels broken during use, all of which from Knight's excavations, I worked only from line drawings created by Andrea Stillwell. Some of these 83 analytical vessels came from datable contexts.

While most of the pottery engraved in the Hemphill style that was included in this study was found in burials (n=114), burials with such pottery are not common. Burials with pottery engraved in the Hemphill style (n=97) make up 3.18 percent of all 3,051 documented Moundville burials and 20.34 percent of burials seriated specifically to the Moundville II or Moundville III phase (Phillips 2007)². Four burials possess two pottery vessels engraved in the Hemphill style, in each instance, the two vessels depict designs from different themes³. Burials from Moundville possessing pottery engraved in the Hemphill style include both males and females and range in age from infant through older adult (Phillips 2007). The age and sex distribution is quite similar to that of the broader Moundville II and III burial population generally (Phillips 2007). The spatial distribution of these burials at Moundville is very similar as well. Burials with Hemphill style pottery are, however, significantly "richer," statistically, than the average Moundville II or III burial, as judged by the number of grave goods and number of kinds of grave goods (Phillips 2007). The most common artifact forms found in burials with Hemphill pottery are, in decreasing order of frequency, bowls, jars, bottles, shell beads, and copper-clad wooden ear discs (Phillips 2007). Based on the distribution of pottery engraved in the Hemphill style with burials at Moundville, in an earlier study I concluded that an associational social identity (see my discussion of an "Associations model" in Chapter 2) is suggested rather than an ascribed or an achieved social identity (Phillips 2007). In the Black Warrior River Valley hinterland surrounding Moundville, pottery engraved in the Hemphill style is occasionally found in burials

and also apart from them. A Hemphill-style bowl found at the Mill Creek site was found with a burial, as were two bottles from the Snow's Bend site (DeJarnette and Peebles 1970; Mistovich 1986:75-77). However, from the provenience information, I infer that a large Hemphill-style sherd from the Pride Place site was found in a refuse-filled pit feature. Of the two bottles engraved in the Hemphill style found outside the Moundville polity, the one from the Perry site in the Tennessee Valley was found in a clear burial context based on provenience information, while the depositional context for the one from Bear Creek, Mississippi is unknown (Brown 1926). The whole vessels that were not found with burials were generally found in cemeteries (Brain and Phillips 1996, Moore 1905).

The sherd distribution at Moundville is different from the whole vessel distribution. Burials with whole vessels, like the general Moundville II and III burial population, were mostly found in off-mound cemeteries. In contrast, sherds with Hemphill-style engraving are generally associated with refuse middens on mounds, and are found less often in non-mound domestic contexts (Knight 2007; Thompson 2011). Knight (2007:158) reports that from 1989 to 1998, he found 381 Moundville Engraved, *variety Hemphill* sherds in his mound excavations at Moundville. Most came from flank middens on the north slopes of Mounds Q and G, as well as excavations on the summit of Mound E. Only a few came from more limited excavations in the flanks of Mounds R and F. In four seasons of excavations of off-mound residential areas from 2005 to 2007, Thompson (2011) found only 60 Moundville Engraved, *variety Hemphill* sherds. Further, it is quite rare to find a Moundville Engraved, *variety Hemphill* sherd at a site other than Moundville within the Black Warrior Valley (Alexander 1982; Hammerstedt and Myer 2001; Mistovich 1986, 1987; Myer 2002, 2003). The Pride Place site is unusual in that Knight did find Moundville Engraved, *variety Hemphill* pottery there. Even there, only one sherd was found during three seasons of excavations from 2007 to 2009 (Vernon J. Knight, Jr., personal

communication 2011). Moundville Engraved, *variety Hemphill* pottery was also found sparingly at the Foster's Landing site, also called Wiggins (Welch 1998:155)

At Moundville, Hemphill-style vessels and sherds are not spatially segregated by subject matter, although themes are found in varying relative frequencies at different points at Moundville. Based on GIS analysis of 97 burials with pottery engraved in the Hemphill style, the mean centers for the distribution of each theme are almost the same as for the all themes combined (Phillips 2006b; Figure 6). Mean centers, being averages of the spatial coordinates of all actual locations in the sample, are indications of locational tendencies and are best used for comparative purposes. The mean center for burials with pottery engraved in the Hemphill style is just north of the mean center for all burials dated to the Moundville II or III phases, indicating that burials with pottery engraved in the Hemphill style are slightly more likely to be found in the northern portion of the site (Phillips 2006b; Figure 7). According to Figure 6, the mean centers for burials with vessels bearing the winged serpent and center symbols and bands themes are virtually the same as that for burials with pottery engraved in the Hemphill style as a whole. The mean center for burials with pots bearing the raptor and trophy themes is similar as well, although slightly to the west of the others. In other words, burials with vessels having either of these two subjects are slightly more likely to be found in the western portion of the site than those with other subjects. The mean center of burials with pots bearing crested birds (and paired tails)⁴ is the most distinct, in that it is farther south and slightly east of the mean center for the whole sample, indicating that these burials are somewhat more likely to be found in the southern and eastern portions of the site. Despite the fact that in comparative terms, the mean center for burials with crested birds is the most distinct from the other subjects, in truth all mean centers fall reasonably close together, roughly between Mounds A and B. With regard to samples of Hemphill sherds found in mound middens reported by Knight (2007:161), in general, subject matter is independent of mound location. Although the winged serpent theme is relatively more

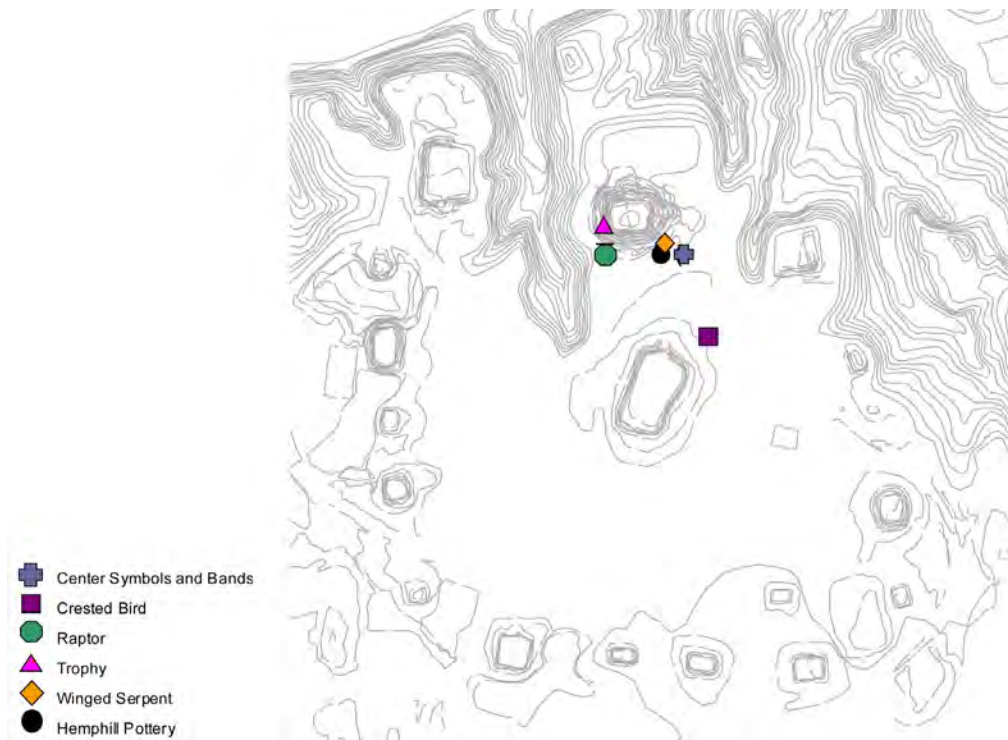


Figure 6: Mean centers of six primary themes.

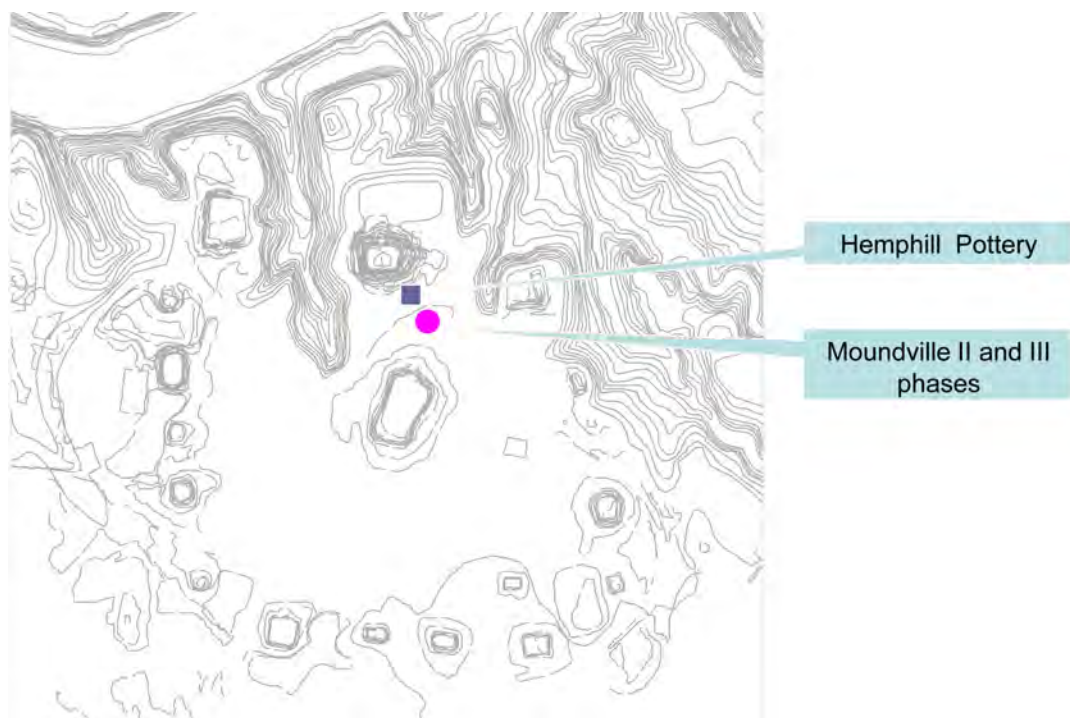


Figure 7: Mean centers for burials with pottery engraved in the Hemphill style and burials dated to the Moundville II and III phases.

common among sherds from Mound Q, whereas the center symbols and bands theme is more common among sherds from Mound G, sherds bearing both themes were found at both locations. Also, the distribution of subject matter between whole vessels and sherds are different overall (Knight 2007:160). The winged serpent is the most common theme among sherds from mounds, while the trophy theme is most common among vessels from burials.

Primary Data Collection

I personally examined all accessible Moundville Engraved, *variety Hemphill* vessels in the University of Alabama Museums collections (n=109)⁵ and in the Smithsonian's National Museum of the American Indian (n=51) and National Museum of Natural History (n=1) collections. I was very fortunate to have most⁶ of the known pottery vessels engraved in the Hemphill style in two institutions and to have one of those institutions be my own. To study the University of Alabama Museums collections, I commuted the 13 miles from Tuscaloosa to Moundville where the collections were housed. I went to Moundville at various points in time as my academic schedule allowed. To fund my study of the vessels in the Smithsonian Institution's collections in Suitland, Maryland, I received the Alabama Archaeological Society's Edward C. Mahan Research Grant, a Smithsonian Institution Graduate Student Fellowship, and additional funding from the University Alabama, Department of Anthropology. Housing was provided by Traditional and Ecological Building Materials at their offices in Annapolis, Maryland. I was in residence at the National Museum of the American Indian's Cultural Resources Center (NMAI CRC) as a Graduate Student Fellow from June 2, 2008 to August 8, 2008 and as a visiting researcher from August 11, 2008 to August 22, 2008. My research took significantly longer than I had planned, so I returned to Maryland for two weeks in December 8-19, 2008, but my trip was cut abruptly short at the beginning of the second week (December 15, 2008) due to unforeseen circumstances. A return trip has yet to be rescheduled. In August 2008, while at the NMAI

CRC, I went next door to the National Museum of Natural History's Museum Resources Center (NMNH MRC) to record the one bottle engraved in the Hemphill style in their collections.

Photographs were taken and notes made on 165 of the vessels. I also examined photographs of vessels published in C. B. Moore's 1905 and 1907 journal articles on Moundville, photographs from the 1930s in the University of Alabama Museums, Alabama Museum of Natural History collections, and photographs taken by Vincas Steponaitis in the late 1970s as part of his dissertation research. Twenty-one of the 25 vessels engraved in the Hemphill style now missing from the University of Alabama Museums collections were among 264 vessels stolen from the curation facility at Moundville Archaeological Park during a major theft in 1980⁷. None of these vessels has resurfaced in the last 30 years. There is also one bottle engraved in the Hemphill style whose photograph appears in Moore's 1905 article that is not in the National Museum of American Indian's collections. Its whereabouts are unknown. In addition to the vessels at the above museums, I have received photographs of pottery engraved in the Hemphill style from two other sources. Two such vessels excavated by C. B. Moore are in the R. S. Peabody Museum of Archaeology collections (Brain and Phillips 1996:311; Vernon J. Knight, Jr., personal communication 2010). I also have acquired photographs of one vessel from Bear Creek, Mississippi located in the Putman Museum of History and Natural Science⁸ which Knight and Steponaitis (2011:Figure 9.13) have suggested is engraved in the Hemphill style.

My notes include provenience information, as well as notes relating to use-wear, and anything else that was notable relating to vessel shape, engraved design, or paste characteristics. I recorded qualitative descriptions of the use-wear and noted where on the vessel it occurred on the base, body, neck (exterior and interior), and lip. Thirty of the 120 vessels for which I have use-wear information recorded have minimal to no use-wear. The rest have moderate to significant use-wear. I was unable to record reliable use-wear on missing/stolen vessels and on vessels that

either had no base or neck represented or where the base and or neck was largely covered in plaster.

For the Moundville site where the majority of vessels were found, unfortunately the provenience information is often only as specific as the general area of the excavations where the vessel was found, such as Mound D or North of Mound R. For vessels recovered during more recent excavations both at Moundville and at other sites, more exact provenience information is known. Where applicable, I recorded the burial number.

To date, I have made rollout line drawings of the engraved designs on 48 vessels⁹. Rollout line drawings are invaluable because they allow one to get a sense of the entire design on a vessel at a single glance, and also because using them, it is easier to compare intricate details between vessels than the alternative of having to continuously flip through a series of photographs taken from different perspectives. In addition to my line drawings, I have used line drawings of vessel designs published in C. B. Moore's (1905, 1907) articles, and line drawings by Hyla Lacefield and Kevin Schatte produced while they were working on their M. A. theses at the University of Alabama (Lacefield 1995; Schatte 1997a). My line drawings and data sheets were combined with the existing Moundville Image File¹⁰ and were reorganized by vessel number rather than by the arbitrary "document" numbers that were assigned by Lacefield in 1994.

Drawing Methods

Before proceeding, several methods for creating line drawings of two-dimensional representational art found on three-dimensional artifacts were evaluated. These methods were developed and used by Eliza McFadden and Barbara Page (Phillips and Brown 1978, 1984) for shell engravings from the Spiro Mounds, Marcia Taylor (personal communication 2008) for engraved pottery from the Central Mississippi Valley, and Donna McClelland (1999) for Moche fineline painted pottery from coastal Peru, all of which were designed to deal with the fact that the collections they were trying to compare were spread among many different collections

around the world. None of these methods were entirely conducive to the present situation.

As part of Philip Phillips and James A. Brown's monumental shell engravings study of Spiro shell, Eliza McFadden and Barbara Page made rubbings of the engraved lines on shell cups and gorgets and then made schematic line drawings of the designs (Phillips and Brown 1978:23-24). Eliza McFadden developed the rubbing method, which involved painstakingly placing strips of thin tissue paper with strategically cut darts on the shell cups and gorgets, holding them in place with tape. After the tissue paper was in place, she would make the rubbing using a lithographic crayon. Immediately after the rubbing was complete, she would attach the tissue paper to a tableau paper backing and perform whatever touch-ups were necessary. McFadden taught this rubbing method to several other people for use in the study, most notably Barbara Page. Later the rubbings and their backings were attached to heavy cardboard, sprayed with a fixative, photostated, and finally the Photostat negatives were photographed with a Polaroid camera. It was intended that the Polaroid prints would be used to do the sorting into style groups, but Phillips and his collaborators quickly realized that the actual full-sized rubbings were necessary for comparative study. Small scale line drawings were created and hung on punchboard to keep track of the style classification. In the published version, these line drawings appeared above the text accompanying each rubbing, opposite the rubbings. According to Phillips and Brown (1978:23), rubbings, as they are purely mechanical, eliminate the subjectivity of obtaining an accurate representation of the engraved designs on shell cups, which due to the curvature of the cup cannot be captured in a single photograph. It is, however, the line drawings rather than the rubbings which are the go-to images for researchers interested in the engraved designs. Researchers only examine the rubbings for purposes of clarification, or in the few instances where a line drawing was not made.

Marcia Taylor adapted McFadden's rubbing methods from the shell engravings for which they were first developed to engraved pottery. Taylor, a student of David Dye at the University

of Memphis, developed her methods of creating rubbings of Walls Engraved pottery for her Master's research. For Taylor, line drawings rather than the rubbings were the finished product. I contacted Taylor to enquire about her methods, and determined that the best way to understand her methods was to be taught how to do them. I traveled to Memphis, Tennessee on February 16, 2008 with a loaned Moundville Engraved, *variety Hemphill* vessel for a two day one-on-one workshop. Taylor provided me with the materials she used and showed me how to do the rubbings on strips of tracing paper. It was very difficult to get clean rubbings, even with the use of tape, as the strips of paper moved easily. After I had successfully made rubbings of the whole subject bottle, Taylor showed me how to lay the resulting strips of tracing paper out on a light table, trace the lines on a fresh sheet of tracing paper with a pencil, and ultimately trace over the pencil with a pen on a new sheet of tracing paper. Taylor warned of the importance of creating the line drawing while the artifact was present rather than waiting until a later date when the rubbings might be difficult to decipher. Taylor's method was ultimately deemed too inaccurate for the present purposes, because it does not replicate line thicknesses or minutely overshoot lines created by the artisan. It is also a copy of a copy, because one begins with the rubbings, followed by the pencil tracing, and finally the pen tracing, such that some detail is lost at each step along the way. In the pencil tracing stage of Taylor's method, one must constantly make decisions about how to connect lines, because the narrow strips of tracing paper from the rubbings never match up exactly. This comes back to the issue of how to flatten a globe. At this stage, accuracy was more difficult to achieve because in some places the rubbings were unclear so that one might have to draw while looking at the design on the vessel and using line fragments visible on the rubbings as a guide. Some thin, extremely shallow lines were very difficult to pick up in the rubbings. It should be noted that Vincas Steponaitis also tried to do rubbings of pottery engraved in the Hemphill style while working on his dissertation in the late 1970s, but was unsuccessful¹¹. At the time, he was in direct communication with Barbara Page as to her methods used with

engraved shell (Vincas P. Steponaitis, personal communication 2007).

In the end, rubbings were not used in this project, both because of this inaccuracy stemming from the inability to achieve good rubbings from pots, and because from a curatorial perspective these rubbing methods using adhesive tape are now seen as potentially harmful to the artifacts. My line drawings were based instead on photographs, which required only minimal handling of the artifacts, no pressure on the artifacts, and no adhesives.

Beginning in the 1970s, Donna McClelland (1999) developed a method for creating accurate line drawings of Moche culture fineline painted vessels from Peru using photographs. She began by photographing the vessels with a 35mm camera, making prints, laying the design out on a light table, using several layers of tracing paper along with various colored pencils to trace the designs at the proper point in the layout, and ultimately creating an inked drawing from the colored layers. In 2008, I contacted Christopher Donnan¹², McClelland's collaborator, to find out whether they had changed their methods in light of the digital technologies which were now regularly available. He indicated that they had looked into digital media, but preferred McClelland's analog methods.

I have adapted McClelland's methods to digital media because I believe the RAW¹³ images produced with digital SLR camera with 10.2 megapixels to be at least as high resolution as those produced by a 35mm SLR camera and printed on 4x6 inch photographic paper. In many ways using Adobe Photoshop layers and a pen tablet are better than using a light table and tracing paper. One way is that one does not have to worry about keeping all of the layers from moving independently as you trace. Another important advantage is that the layers can be made transparent, so that one can more easily see the layer being traced. Yet another advantage is not having one's hand block the view of what you are trying to trace¹⁴. I have made a few other necessary modifications of the photograph to line drawing method that reflect design structure differences between Moche fineline painting and the Hemphill style on pottery.

There is no way to create a two-dimensional representation of a three-dimensional object with spherical qualities without distortion. In general, each engraved composition is so large that it curves around the vessel both horizontally and vertically. Due to vessel curvature, only in very rare instances is an entire composition visible in a single photograph. To create drawings that are as accurate as possible, I divided each composition into its constituent parts and then pieced those parts together electronically. This retains continuity within each segment of the image while shifting the distortion into the negative space between the constituent parts. In the case of a winged serpent image, for example, I took separate high-resolution digital photographs of the head, the body, the tail, the wing, and any other parts that overhang the top or bottom of the vessel separately, using a Nikon D60 10.2 megapixel digital SLR camera with a 60mm Micro-Nikkor macro lens and an aperture setting of f/32 for a maximum depth of field and minimum distortion. I varied the shutter speed as necessary depending on the light levels. A tripod was used to take pictures of whole vessels, and a copy stand was used to take pictures of sherds from vessels that were never reconstructed or for reconstructed vessels that were no longer in one piece. A remote control was used to reduce camera shake due to the necessarily long exposures. All photos were taken as high resolution RAW (NEF) images duplicated by low resolution JPEGs for easy reference. The NEF/RAW files were then converted into 16 bit TIFFs for use in the drawing process, using Nikon ViewNX software. The NEF/RAW files, TIFFs, and JPEGs were saved without additional compression on an external hard drive. With the camera in a fixed position, the vessel was rotated and tilted so that each photograph was taken at an approximately 90° angle to the pertinent part of the vessel. I then manually pieced the parts back together¹⁵ using Adobe Photoshop software¹⁶, with each photograph as a separate layer, sometimes using the Transform function to smooth the connections. Line drawings were then digitally created on-screen in a manner similar to McClelland's tracing paper/light table method (Figure 8). I zoomed in to 200 percent and used a 3 pixel pencil tool to trace the lines in a new Photoshop layer, in this

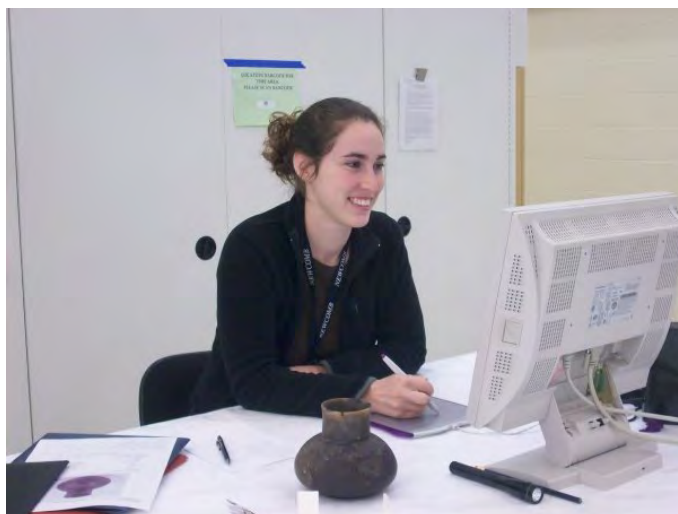


Figure 8: Creating line drawings at the National Museum of the American Indian, Summer 2008 (Photo courtesy of Bridget McNamara)

manner duplicating precisely their varying line widths. In this procedure I used Adobe Photoshop instead of Adobe Illustrator so as to be able to record greater detail, such as varying line thicknesses, line joins, and overshoot lines, information that proved useful in trying to determine style level groups and competency. To increase accuracy over tracing with a mouse, I used a Wacom tablet with pen. After each line drawing was created digitally, it was checked against the original vessel for accuracy while the vessel was still in hand.

In addition to the photographs taken specifically for drawing purposes, I took additional photographs at regular intervals around the vessel to document vessel shape and to serve as a reference for details that might be in question at a later date

For stolen or otherwise missing vessels, all known photographs were digitized. Beyond the purposes of this dissertation, these digitized photographs will eventually be used to create line drawings. The methods of creating the line drawings will approximate as closely as possible the methods used when the vessel was available for study.

These new digital methods of producing two dimensional line drawings of the engraved designs on Hemphill-style pottery can easily be adapted to record the images of any style which

have been engraved, incised, or painted on artifacts. While the advances in three-dimensional scanning, including laser scanning, have been great in recent years and may be useful in recording the images on some artifacts, they cannot fully replace two dimensional recordings. To date, their resolution is inadequate for this kind of detailed work. An important advantage of producing highly detailed two dimensional images of the designs is that it allows the entire composition to be seen at once, and allows for easier comparison between original designs. In addition, these new digital methods of producing two dimensional replications of the original image are more accurate than previous methods and do not damage the artifacts.

CHAPTER 4

SERIATION

The corpus of images was seriated into successive style phases, creating a chronology in order to assess how the Hemphill style changed through time, both in regard to design homogeneity/heterogeneity and the number of style level groups. This seriation drew strongly on the prior qualitative approaches of Phillips and Brown (1978) and Donnan and McClelland (1999), and the quantitative approaches of Lacefield (1995) and Schatte (1997a). Their prior experience in seriating similar materials deserves special consideration.

Methods of Seriation in General

Seriation is, according to the Oxford English Dictionary (2011), “the action or result of arranging items in a sequence according to prescribed criteria.” Michael J. O’Brien and R. Lee Lyman (1999) provide a good history of seriation in archaeology and a discussion of its different kinds in their book *Seriation, Stratigraphy, and Index Fossils*. According to O’Brien and Lyman, there are two basic kinds of seriation: similiary and evolutionary. The difference between the two is whether or not the ordering is based on a “rule of development.” If it is, the ordering is evolutionary. They fairly quickly drop evolutionary seriation from their discussion, however, and focus their attention on similiary seriation. There are three kinds of similiary seriation: phyletic seriation, occurrence seriation, and frequency seriation. Phyletic seriation is different from the other two because the units being seriated are at the level of the artifact or object, and it is the artifact’s attributes or characteristics that are used to determine its placement in the series. In occurrence and frequency seriation, it is an assemblage or collection

that is being seriated, and the position of each is determined by the categories and quantities of artifacts it contains. The method of seriation that I am conducting must necessarily be phyletic, because I am trying to determine a chronological ordering of individual vessels based on design characteristics. By itself, however, a seriation can only provide an ordering of artifacts or assemblages. One must *independently* determine if that ordering is chronological (and which end is early or late). According to O'Brien and Lyman 1999, one must also determine independently if there is "heritable continuity," meaning in the case of phyletic seriation that one observed design developed from another. If there is heritable continuity, then there must necessarily be a chronological ordering, but the inverse is not necessarily true as well. This is an important point. Basically what they are saying is that just because one has demonstrated a chronological order in a seriation, one has not necessarily shown that it was developmental (if A comes before B, one cannot necessarily say that B develops from A). If, however, one shows that the order is developmental, it is necessarily chronological (if B develops from A, then A must come before B).

The Contributions of Phillips and Brown

In their analysis of Mississippian engraved shell from the Spiro site, Oklahoma, Philip Phillips and James A. Brown (1978, 1984) spelled out in revealing detail how their thoughts toward a sequence of materials evolved over time. Previous researchers had broadly grouped the Spiro material into categories based on subject matter, without regard to style (Phillips and Brown 1978:33). Phillips and Brown wanted to make sense of the stylistic differences they saw in the art, and set out to create a seriation. They ordered the art based on a perceived evolution/devolution of the style, while acknowledging that individual artists or groups of artists might go against the broader trend (Phillips and Brown 1978:34). Once the order was established, they planned on using independent evidence to determine which end of the seriation was older and which was more recent¹. In Lyman and O'Brien's terms, they were looking for heritable

characteristics in creating their seriation. Because of this inherent heritability, the seriation created by Phillips and Brown would be chronological, with one end of the spectrum being abstract and the other more naturalistic.

The first thing Phillips and Brown did was to gather as much of the corpus of engraved designs on Spiro shell as they could through rubbings (see Chapter 3 for the methods by which these rubbings were obtained). Phillips and Brown (1978:35-38) originally grouped the large corpus of rubbings of marine shell cups and gorgets into categories of Bold, Intermediate, and Ornate, bearing in mind how well the design was fit to the shell. In other words, they used formal characteristics of the design (design structure and secondary features of human figural components) as their sorting criteria. At first they believed that their Bold designs were likely earliest, but later realized, due to the evidence of some reworked pieces, that the Bold designs occurred later in time than their Ornate designs. A subsequent reformulation did not work well with their data either, so they replaced that with a double branching scheme in which both branches were outgrowths of their Ornate style phase, which they re-named Braden. One stylistic branch consisted of Braden, Modified Braden, and Disjunctive. The other branch consisted of Braden, Intermediate, and Bold. This scheme also had its problems. In the end, they settled on a fourth scheme, with two artistic “schools,” named Braden and Craig, each having three style phases (A, B, C). The two schools became stylistically more divergent over time. This last scheme has been updated again in a recent publication by Brown (2007). As mentioned earlier, the Braden sequence is no longer seen as being chronological, while the Craig sequence seems to have maintained its status as a chronological sequence. As they were working on their seriation, there were more additions to their corpus. It is important to realize that how they conceptualized the stylistic progression changed as they became more familiar with engravings, and that their conceptualization of the style(s) needed to change to fit the data as their evidence changed. A good seriation needs to be able to incorporate all of the units being seriated or to properly explain

why they do not all fit. When they began, Phillips and Brown did not realize that they were dealing with two distinct styles from the same archaeological context², and they had to change their thinking to incorporate this realization.

The Contributions of Donnan and McClelland

Christopher Donnan and Donna McClelland conducted a stylistic analysis of Moche fineline painting on an enormous corpus of more than 2,300 pottery vessels from the north coast of Peru (Donnan and McClelland 1999:13,17). Like Phillips and Brown's study of shell engravings from Spiro, the objects of Donnan and McClelland's study were mostly looted and spread around the world in numerous collections. Instead of the rubbings used by Phillips and Brown, Donnan and McClelland used a combination of photographs and rollout line drawings to represent each of the vessels in their Moche Archive (Donnan and McClelland 1999:17). They produced new line drawings for about half of the vessels, for others they used a combination of photographs and line drawings previously done by others, and for still others they used only photographs or only line drawings where both were unavailable. The corpus of photographs and line drawings used in their study took more than 30 years to gather.

Donnan and McClelland (1999) discovered that they were unable to make many blanket statements about the Moche fineline style as a whole because it clearly evolved through time. It was therefore necessary to break the style into style phases and to discuss its evolution. To do this, they seriated the vessels with fineline painting based on vessel form and decoration (Donnan and McClelland 1999:20). Their efforts were aided by the earlier five phase chronology established by Rafael Larco (1948), based primarily on the changing shape of bottle spouts (Donnan and McClelland 1999:20). Donnan and McClelland therefore began by sorting the vessels represented by photographs and drawings in the Moche Archive into phases based on spout shape. Vessels that were not stirrup-spouted bottles were usually able to be classified based on the shape of a stirrup-spouted bottle from the same gravelot (Donnan and McClelland

1999:21). With the vessel images in the archive sorted by phase, Donnan and McClelland were now able to comprehend further changes in technology and style that followed the same chronological trend, generally supporting Larco's phases³ (Donnan and McClelland 1999:21). Thus not only did the style of decoration change through time, but technology and vessel shape did as well. These parallel evolutions allowed the researchers to independently verify the assignment of a vessel to a particular phase. Whereas Phillips and Brown (1978) based their seriation on style alone, focusing primarily on design structure and secondary features of human figures, Donnan and McClelland based their seriation on a preexisting vessel shape sequence, using this division to further determine stylistic changes in other decorative domains.

The Contributions of Lacefield and Schatte

Hyla Lacefield (1995) and Kevin Schatte (1997a) did things differently. They used quantitative measures to create their seriations of the winged serpent and crested bird and paired tails themes of pottery engraved in the Hemphill style from Moundville. Lacefield (1995) focused her analysis on 21 vessels in the crested bird and paired tails themes. She created index cards, each with a different design element on it. Lacefield called these elements "motifs," but as we define the term motif differently in this work, I will call her motifs "elements." Based on the presence/absence of elements in her sorting, she used a dichotomous coefficient of distance as a prelude to multidimensional scaling (MDS) to analyze the similarities and differences between each instantiation (which is represented by a dot on the graph) within these two themes. MDS groups things that are more similar closer together as graphed in two or three dimensions, and things that are more dissimilar farther apart. Based on these similarities and differences, one can determine which items cluster together and form distinct groups, and which groups are more similar to one another. Her results included three groupings within the crested bird theme, with a fourth group consisting of the paired tails theme. Lacefield surmised that the more elaborate group of crested birds was earliest in time, while the plain group was latest in time.

The intermediate group fell somewhere in between. These chronological assignments were based on external data consisting of a general indication of an order found in Steponaitis's seriation-based ceramic chronology, and Knight's stratigraphic mound excavations, which provided chronological data on certain sherds depicting the theme⁴ (Lacefield 1995:63).

Kevin Schatte (1997a), also working with pottery engraved in the Hemphill style from Moundville, examined the winged serpent theme, including subject matter that he termed pseudo-raptors and transitional pseudo-raptors. He began by classifying the vessels based on design structure into two groups, those with an "in the round" design structure and those that show the serpent in profile with a simple repeating design, generally with two serpents per vessel facing in the same direction. Schatte identified 12 "salient elements" which he used to seriate the vessels and divide them into stylistically similar groups. Considering each element in turn, he grouped the vessels on the premise "the antlers on specimen A are more like those on specimen B than any other specimen" (Schatte 1997a:36). He then basically replicated Lacefield's quantitative methods, although the results were not as clear. After completing the seriation by means of statistical similarity, Schatte reevaluated the results using qualitative methods for the serpents which seemed to be misplaced by the quantitative analysis. Their misplacement, he argued, was a result of initial miscoding of the salient elements, such that a revised master seriation of the winged serpent designs was produced (Figure 9).

While Lacefield (1995) seems to have been successful in her seriation based on quantitative methods, Schatte was less so, and had to fall back on qualitative methods to make sense of his seriation.

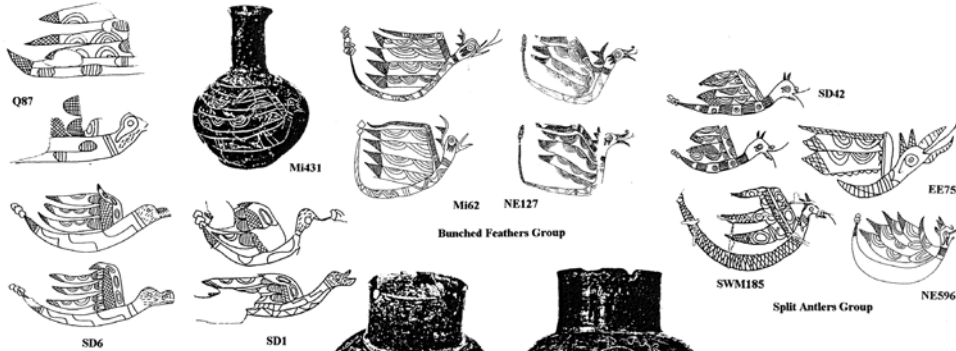
Seriation Methods Used in This Study

This study offers a phyletic seriation of pottery vessels engraved in the Hemphill style. I began by doing a qualitative, visual analysis in a manner similar to the analyses of Donnan and McClelland (1999), Phillips and Brown (1978), and Schatte (1997a). I chose to use qualitative

Early Moundville III Groups
As there is less continuity in style degeneration between these groups, I am treating them slightly differently here. The main problem with these groups as a whole is that they do not seem to directly emerge out of earlier style phases. However, these images are placed in the positions which I feel reflect the best fit in the sequence. One can see remnants of earlier styles in certain elements in these groups but it appears that there are probably missing forms which might make connections clearer. I believe that the artists in the Split Antlers group might have developed from a mixture of the "plume-like" style of the Pseudo Raptors and the more traditional antlers. Also, the Fur-Head style group probably developed out of a sub-style of the New Body cluster. The Thin Body group in my opinion represents the latest style in which winged serpents were engraved.



Thin Body Group



Bunched Feathers Group

Split Antlers Group

Fur-Head Group



Banded Mouth Group

New Body Group

At this point, the serpents become even more stylized, especially in regard to body decoration, feather treatment, and mouth area types. The feathers on ND17 are simplified whereas those on NE90 are elaborated.



Barred Oval Group

This group contains one vessel, SD33. The temporal placement of this style is problematical, however, due to overall complexity of design and stylistic features, I place it on about the same level as the New Body group.

Second Body Group

This style phase appears to be another step removed from the prototypical style, but still retains some similar features including fairly realistic antlers. The body decoration is slightly embellished from the First Body group, the majority of the rattles become more conventionalized, and a "cut nose" feature is added. Changes are also evident in head form and decoration. Additionally, the post wingbar decoration now includes a hatched band in two of the specimens. This element is present in the Pseudo Raptor and Transitional Pseudo Raptor groups indicating some stylistic mixture.



Bird-Tailed Serpents Group

I see these two images as being on the same approximate level of stylistic degeneration as the Second Body group of the main line. However, the plume-like antlers and banded bird tails appear to show a development out of the Pseudo Raptor images. At this point in Moundville II, two distinct stylistic traditions begin to merge. Again, these two serpents are probably the work of the same artist.



Transitional Pseudo Raptor Group

This style group is represented on only one vessel, SD 18. I believe that this style represents a degenerate form of the Pseudo Raptor group. Additionally, I feel that the treatment of the plumes and tail of this engraving may be an intermediate form between the Bird-Tailed Serpents group and the Pseudo Raptor group.



First Body Group

I am speculating that NR17 is representative of a style group which immediately succeeds the Recurvate Antlers group. The elements of this serpent which support this proposition are the "plume" and the overall treatment of the feathers and forward wingbar. The primary difference of course is the addition of the curvilinear body. Also, note the reptilian "pouch-like" element under the jaw. The eye surround is also different and is, in fact, very similar to WR59 of the Pseudo Raptor cluster. There may be intermediate forms which we do not have but it appears that stylistic degeneration began very early in the sequence.



Recurvate Antlers Group

This style group is most likely one of the earliest forms of the winged serpent at Moundville. It is characterized by a high degree of overall elaborateness of design and realism in form. Similar forms are present on sherds from Mound Q in contexts which have been dated to the Moundville II phase (AD 1250-1400). These four images were almost certainly produced by a single artist.

Pseudo Raptor Group

Although not strictly winged serpents, these specimens are included because I feel that they may have influenced or even given rise to certain stylistic forms in the winged serpent theme. They more than likely date to the same or similar time period as the Recurvate Antlers group and share many characteristics with those representations. The Pseudo Raptor group is so named because they are distinct from the traditional Moundville raptor theme. Indeed, these images may be an alternate form for depicting the same supernatural being as is represented by the winged serpent. These two images are another instance of common artist execution.



Figure 9: Diagram of Schatte's (1997a:93) seriation of the winged serpent theme.

methods for my seriation because quantitative methods would not likely have done more than to break the corpus into themes if I had tried to use elements for coding along the lines of those used by Lacefield. There was also a concern that having such a large number of cases (vessels) and given the strong heterogeneity of subject matter, so many negative matches of variables in a dichotomous matrix would overwhelm the analysis and would lead to meaningless results.

I therefore printed a five-by-eight inch note card for each vessel, bearing a drawing of the engraved design on one side, if such a drawing existed, and a photograph of the vessel on the other side. For C. B. Moore's vessels and those excavated by the Alabama Museum of Natural History, I used the vessel numbering system employed by Steponaitis (1983b), which incorporates a code for excavation area. These identification numbers were written on each card for easy identification. For instances where such a number did not exist, I created one following the same pattern, indicating the excavation area at Moundville or alternatively a non-Moundville site by a two letter code, followed by the vessel or field specimen number. I used a rectangular conference table large enough for all of the index cards to be laid out at once, so that the entire corpus could be easily seen (Figure 10). I placed the provisionally earlier examples toward the left end of the table and the later examples toward the right end of the table. In the beginning,



Figure 10: Seriating index cards with photos and drawings of engraved pottery in the Hemphill style (photo courtesy of Pam Chesnutt).

the right half of the table and the chalkboard ledges around the conference room were used for placing cards whose relative position in the seriation I could not immediately determine. I quickly determined that it was difficult to seriate the whole corpus at once, because few vessels have more than one subject depicted providing stylistic linkages. I decided to seriate them subject by subject instead.

| | | | | | | | | | |
|-------|----|-----|--------|---|---|------|---|---|---|
| 1 | 2 | | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| i | ii | iii | iv | | | | | | |
| A | B | C | D | E | F | G | H | I | J |
| Early | | | Middle | | | Late | | | |

Figure 11: Diagram showing the relationships between the stylistic seriation based on engraved designs (1-9), the seriation based on vessel shape (i-iv), the seriation based on style and vessel shape (A-J), and the ultimate style phases (Early, Middle, and Late).

The final seriation is the result of a five stage process (Figure 11). At each stage the nomenclature was changed for ease of reference. In Stage 1, represented by Arabic numerals in Figure 11, the vessels were seriated into nine groups based on stylistic similarities and differences of the engraved designs. Schatte's (1997a:92) seriation (Figure 9) of the winged serpent theme was used as a guide. Other vessels were added to these groups one subject at a time. Not all vessels were seriated at this point because they did not have elements in common with vessels which were already added into the seriation. In Stage 2, represented by Roman numerals in Figure 11, vessels were seriated into four stylistic groups based on vessel shape (Figure 12). Most bottles with simple bases were excluded from this seriation because that bottle form was not temporally restricted enough to add into the seriation. In Stage 3, represented by capital letters in Figure 11, the seriations from Stages 1 and 2 were combined creating 10 groups. In Stage 4, the 10 groups from Stage 3 were merged creating four groups or style phases called Very Early Hemphill, Early Hemphill, Middle Hemphill, and Late Hemphill. Additional vessels

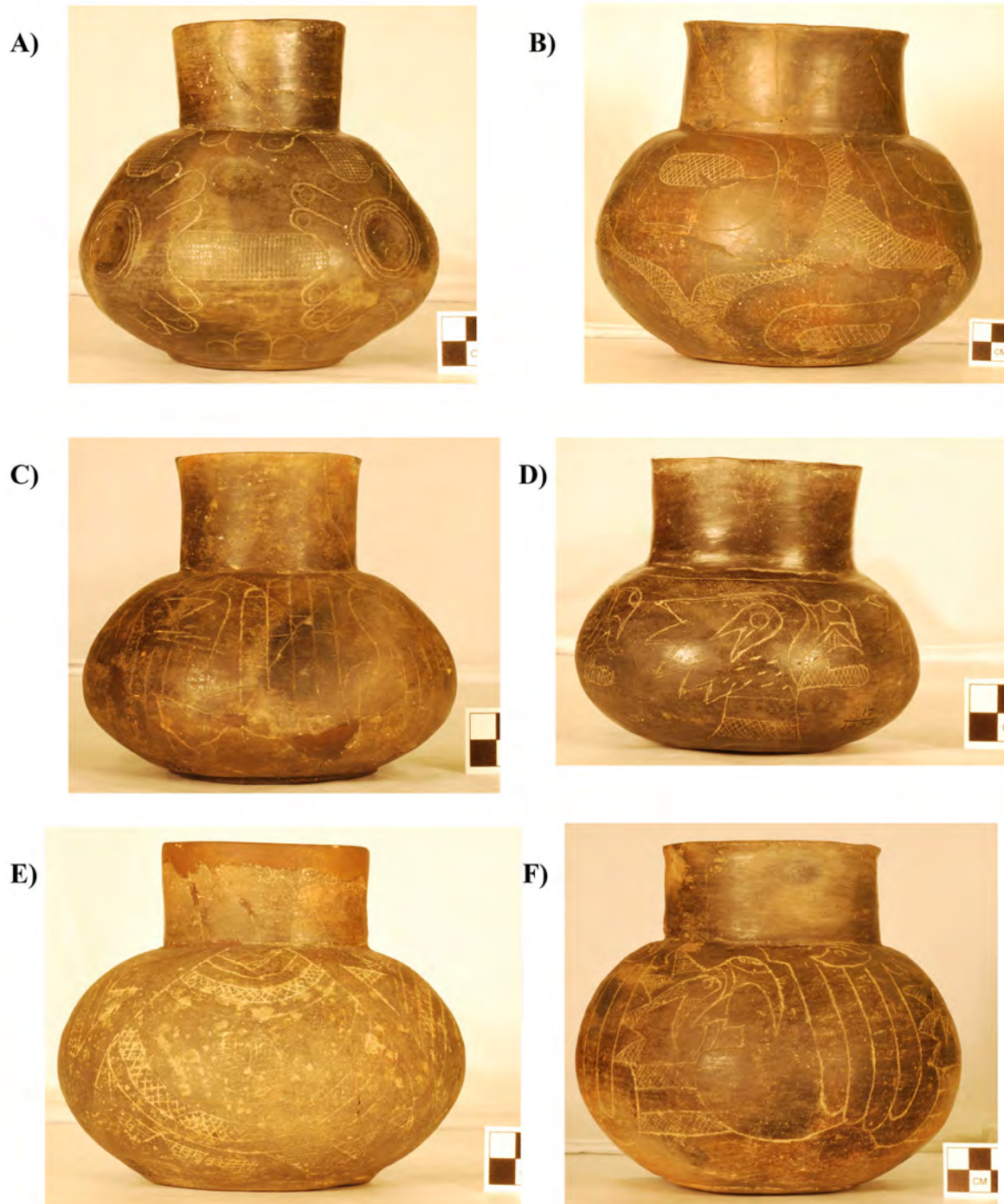


Figure 12: Vessels belonging to groups i-iv from the seriation based on vessel shape. A) Group i (NR1/m5), B) Group ii (SD13/m7), C, D) Group iii (C4/m5, SD54/m7), E, F) Group iv (F4/m5, SD71/m7)

were added based on stylistic similarities and differences of the engraved designs as compared to the engraved designs of vessels already part of the seriation. Because of the decrease in specificity, more vessels were able to be added. In Stage 5, the Very Early Hemphill style phase was subsumed into the Early Hemphill style phase because they were not consistently separable. The last vessels were added and the seriation was finalized.

Seriating the Hemphill Style

Stage 1: Stylistic Seriation Based on Engraved Design

Stage 1 began by using Schatte's prior seriation (Figure 9) as a template⁵. First I arranged the cards for the vessels that Schatte had seriated in the style groups he defined (Recurvate Antlers Group, First Body Group, Second Body Group, New Body Group, Barred Oval Group, and so forth) on the conference table so that all of the cards would be visible at once, with the cards representing what he considered the earliest vessels on the left, and the latest on the right. Having divided them into Schatte's groups, I reread his reasoning behind each of his groupings, and used that information to order the cards representing the additional vessels with serpents engraved on them that Schatte had been unable to access in his study. I then reevaluated the groups with the additional data, to see if the ordering still made sense. In general, I had no problems with Schatte's groupings, but I made a few minor changes, combining Schatte's 13 groups into nine roughly chronological groups (Groups 1-9). I next examined the drawings of sherds⁶ with engraved serpents from Knight's mound excavations, to determine into which group each best fit.

From this point onward, I dealt with one additional thematic subject at a time. In each case, I began by attempting to order them independently of the greater seriation, and then looked for elements that might be similar to elements in the existing seriation and thus form links. An example of such an element would be the inclusion of lips on zoomorphs (or the lack thereof). Another example would be the kind of tail feathers used on birds. In order to determine

which of these elements would be useful, I had to examine the existing seriation and determine whether it was something that only occurred in a few adjacent groups, or more broadly. If the element occurred throughout the sequence, or at both early and late ends, it was determined to be valueless for seriation purposes. As each thematic subject was added, this became both easier and more difficult. It became easier because there were more elements in the seriation that could be used as more images were added to it, but it became more difficult as a number of the remaining subjects had very few stylistic linkages to subjects that were already seriated.

The first subject I added to the sequence was the raptor. I was able to incorporate most of the raptors in the developing sequence by attending to characteristics that both raptors and serpents share, and by comparing the similarity of each of the raptors to one another.

Next I attempted to add the note cards of vessels depicting crested birds and paired tails⁷ to the sequence. I was successful in seriating the crested birds, but I was unsuccessful in seriating the paired tails. All crested birds have one of two different tail designs. There is greater variation in the tail designs of the paired tails than crested birds, and no paired tails designs are the same as either of the two crested bird tail designs. Because of this lack of elemental tie-ins with things already in the seriation, I decided to postpone seriating the note cards with paired tails until later, when I might be able to find something to connect them to the seriation.

I then added note cards representing vessels depicting the remaining subjects, including many vessels with engraved designs whose subjects (hands, skulls, and scalps) are considered part of the trophy theme. At this point I reevaluated the seriation as a whole, to make sure the placements of the most recently added note cards made sense. I was unable to add additional vessels due to a lack in overlap of temporally restricted design elements. I recorded which note cards were in each one of nine roughly contemporary groups and changed strategies.

Stage 2: Stylistic Seriation Based on Vessel Shape

I removed all of the note cards from the table and for the first time made use of changes

in vessel shape over time. I recorded on each note card the vessel shape, taken from Steponaitis's (1983b) whole vessel index. As a check on what I had already seriated, and in the hopes of being able to add more vessels to my seriation, I reviewed Steponaitis's (1983b: 64-78, 110-113, 117-123, Tables 15-16, 20-21, 32-33) discussion of vessel shapes and their order in his ceramic chronology. I then seriated the note cards, except subglobular bottles with simple bases, which are found throughout the Moundville II and III phases (Steponaitis 1983b:Table 32), based on Steponaitis's vessel shape description and the photograph on the card, according to the sequence of shapes determined by Steponaitis's (1983b:110-113, 117-123; 1983b:Tables 15-16, 20-21, 32-33) vessel seriation.

I placed the note cards representing vessels into four groups (labeled Groups i-iv) based on vessel shape alone, using Steponaitis's vessel shape descriptions and seriation as a guide. These groups do not correspond directly to Steponaitis's categories because for subglobular bottles, he only divided them into three groups based on base construction. According to Steponaitis's (1983b:Table 32) seriation, there was a fair amount of temporal overlap between his groups. I took the profile of the body into account as well when creating my groups as there had appeared to be a change through time in Stage 1 and some profiles looked reminiscent of Steponaitis's slender ovoid bottles. The groups were as follows: (i) bottles with pedestal bases whose point of vertical tangency was below the midpoint of the body, and whose profiles reminiscent of slender ovoid bottles; (ii) bottles with pedestal or slab bases whose point of vertical tangency was below the midpoint of the body and whose profiles were not reminiscent of slender ovoid bottles; (iii) bottles with pedestal or slab bases which had body profiles that were very similar in shape⁸ to each other; and (iv) bottles with pedestal or slab bases which had body profiles that were similar in shape to each other, but different from those in Group iii.

Stage 3: Stylistic Seriation Based on both Engraved Design and Vessel Shape

In Stage 3, I compared the nine groups from the sequence of engraved designs (1-9) with

the four groups from the sequence of vessel shapes (i-iv). The order of the groups from each sequence was supported by the order of the groups in the other sequence, although there was not a one-to-one correspondence between them (Figure 11). Combining these two sequences by splitting engraved style Group 2 into two groups (B and C) based on vessel shape style (Groups ii and iii) and splitting vessel shape style Group vi into three groups (D, E, and F) based on engraved style (Groups 3, 4, and 5) resulted in 10 new groups (given the new designations Groups A-J) based on a combination of engraved design and vessel shape. Some of the vessels from Group 2 could not be placed specifically into Group B or Group C, although it was obvious that they fit into one or the other. I had the same problem dividing Group vi into Groups D, E, and F. I realized that my divisions were too fine to accurately seriate the entire corpus of Hemphill-style vessels.

Stage 4: The Creation of Style Phases

In Stage 4, I sought to collapse some of my groups so as to not suggest greater accuracy than I was able to achieve. There were three places within the 10 groups (Figure 11) where both the Stage 1 seriation and the Stage 2 seriation had split between two groups. In reference to Stage 3 groups, these were between Groups A and B, Groups C and D, and Groups F and G. These became the cut points in my seriation into Very Early (Group A), Early (Groups B and C), Middle (Groups D, E, and F), and Late (Groups G, H, I, and J) Hemphill style phases. Group A seemed to be coherent because it was formed out of groups original engraved Group 1 and vessel shape Group i without overlap from other groups, this became the Very Early Hemphill style phase. Groups B and C formed a cohesive group based on engraved stylistic similarity, as they had originally been engraved style Group 2. They became the Early Hemphill style phase. Groups D, E, and F were united by vessel shape and became the Middle Hemphill style phase. Finally, groups G, H, I, and J became the Late Hemphill style phase. Their categorization as a unit later in time ultimately stems from the origin of these four groups in the stylistic groups of

winged serpent vessels that Schatte (1997a:93) attributed to the Early Moundville III phase⁹. Combining the seriations from Stages 1 and 2 gave me additional elements that I could use as tie-ins for subjects that I had been unable to add previously. The note cards representing the remaining vessels were then examined, and they were placed where they best seemed to fit within this expanded seriation. For some of these vessels, a style phase could be determined even though they could not be assigned to a specific group (A-J) within the phase. This is because there were several trends within the Hemphill style through time. One was that earlier in the sequence, the designs tended to be more elaborate while later in time they tended to be simpler. There were also a number of subjects with one or two examples that were found at the beginning of the sequence. Another change through time was a shift away from using crosshatching for balance. One subject specific change through time was a shift in the design in the palm of hands from being eye-like to being an oval or circle. There were several instances, however, where it was virtually impossible to determine whether a vessel belonged to the Very Early Hemphill style phase or the Early Hemphill style phase.

Stage 5: The Final Seriation

Because of it was sometimes difficult to determine if a vessel should be properly placed in Very Early Hemphill or Early Hemphill, in Stage 5, the Very Early Hemphill style phase was subsumed into the Early Hemphill style phase. Because of the number of vessels that could be clearly placed within a style phase, but could not be placed into specific groups (A-J) within them, the style phases, Early, Middle, and Late Hemphill, were used for subsequent analyses.

Once all note cards representing vessels had been seriated, I checked my seriation against Steponaitis's (1989) expansion of his original (1983b) gravelot seriation to make sure that there were no major conflicts between the two. I also checked my seriation against the radiocarbon dates associated with *var. Hemphill* sherds found in midden contexts during Knight's (2010a) excavations at Moundville.

Comparing the Hemphill Style Seriation with Independent Sources as a Check of Its Validity as a Chronology

As noted previously, seriations provide orderings of materials that are not necessarily chronologies. External data are needed to verify the matter. Therefore, the validity of my stylistic seriation as a chronology was tested by comparing my results with phase dates for chronometrically dated Moundville contexts with which are associated several of the vessels from Vernon J. Knight, Jr.'s excavations that were included in the seriation (Personal communication with Vernon J. Knight, Jr., 2010). The Early Hemphill style phase includes one vessel assigned to the late Moundville II phase (Personal communication with Vernon J. Knight, Jr., 2010, G1010 center symbols and bands), while the Middle Hemphill style phase includes one Vessel assigned to the early Moundville III phase (Personal communication with Vernon J. Knight, Jr., 2010, Q364 "seashell" eye). The Late Hemphill style phase does not include any sherds from dated contexts. Neither of the phase dates associated with these sherds conflict with my seriation.

Table 3. Comparison of ceramic phase dates and Hemphill style phases.

| | Early Hemphill | Middle Hemphill | Late Hemphill |
|-----------------------------|----------------|-----------------|---------------|
| Moundville II phase | 11 | 2 | 0 |
| Moundville II or III phases | 12 | 16 | 11 |
| Moundville III phase | 14 | 27 | 20 |
| No associated phase date | 27 | 19 | 14 |

I also tested the chronological validity of my seriation against Vincas P. Steponaitis's (1989) revision of his initial (1983b:Table 35) gravelot seriation that included many of the vessels in my seriation (Table 3). Encouragingly, the Early Hemphill and Middle Hemphill style phases include vessels from gravelots that Steponaitis seriates to the Moundville II phase and the Moundville III phase, while the Late Hemphill style phase includes only vessels from gravelots that Steponaitis seriates to the Moundville III phase. There are, nevertheless, some

discrepancies between my engraved style seriation of vessels and Steponaitis's gravelot seriation. These discrepancies are, however, entirely unidirectional. There are 14 vessels from gravelots that Steponaitis seriates later than I seriate the included vessels. This conflict can be completely accounted for by the fact that my seriation of the Hemphill style is a production seriation, while Steponaitis's seriation of gravelots is a deposition seriation. When viewed in this light, the later dates Steponaitis assigns to gravelots including those 14 vessels indicates heirlooming of pottery engraved in the Hemphill style.

My seriation is externally validated as a chronology. Knight's dated sherds support this seriation. While there are some discrepancies between my seriation and Steponaitis's, they are easily explainable. If, however, I had any vessels which my seriation placed later than Steponaitis's seriation placed them, my seriation would clearly not have been chronological.

Having established my seriation of style phases as a valid chronology, in the next chapter I will use it to analyze how certain aspects of the Hemphill style changed through time.

CHAPTER 5

ANALYSES DEPENDENT ON THE SERIATION

This chapter discusses methods and results for several analyses that depend on the style phase seriation established in the previous chapter. Each of the analyses discussed here is relevant to determining which of the models discussed in Chapter 2 best describes the social and political contexts of production and use of Hemphill-style engraved pottery. These analyses examine changes in thematic diversity; diversity in subject matter; diversity in design structure; competency; and the number of style level groups (1, 2, and 3) through time. While some of the individual test implications are the same across models, taken as an aggregate they are mutually exclusive (Table 2).

Diversity

I chose to examine diversity in theme and subject matter as well as diversity in design structure, because they bear directly on which model is the best fit. Simpson's Index¹ seemed to be the best measure of diversity given the parameters of my data. Because as Simpson's Index increases, diversity decreases, I decided to use the Inverse of Simpson's Index² so that the index and diversity would increase or decrease together and cut down on confusion. Simpson's index and its inverse take into account not only how many themes, subjects, or design structures there are, but also how many instances there are of each and how evenly they are distributed.

Expectations

Thematic diversity and diversity in subject matter tell us more or less the same thing, but diversity in subject matter is amplified because of the fact that some themes have multiple

subjects. According to the Political Economy model, outlined in Chapter 2, if these vessels were used by elites as part of a political economy, there should be a decrease in thematic diversity and diversity in subject matter throughout the period during which the pottery was made (Table 2). According to Knight and Steponaitis (1998b:pages), during the Necropolis stage of Moundville's history, political elites were beginning to lose control. Most of the population had already moved out of Moundville itself to hinterland sites, and several of the mounds had been decommissioned, leading to a diminishment of the population at Moundville and a contraction in the area inhabited and used at Moundville. This expected decrease in diversity of themes and subject matter through time would be a result of elites refocusing on those few specific subjects that served most powerfully to legitimate their sacred authority, as they attempted to maintain whatever dwindling power they have left.

In contrast, if these vessels played a role in a sacred economy tied to the Path of Souls belief complex that Lankford (2007a,b; 2011a) argues was in effect during this 150 year stage of Moundville's history, all themes and subjects should relate directly to the Path of Souls. Thus, thematic diversity and diversity in subject matter should therefore remain constant between AD 1300 and 1450 (Table 2).

If, however, the Associations model is correct, production would have been decentralized. Thematic diversity and diversity in subject matter could either increase or decrease, depending on any shifts in the number of active associations or roles within a single association through time (Table 2). In this case, there should be no isolated instances of a given subject or theme, because they would all relate to a social category, whether association or role, that would certainly have been held by more than one individual over the 150 year Necropolis stage of Moundville's history.

The implications of each model for diversity in design structure are different from the implications for diversity in theme and subject matter just discussed (Table 2). According

to the Political Economy model, diversity in design structure should decrease over time, as elites reasserted their degree of control over production at the expense of diversity (Table 2). Because production in the Sacred Economy model is not controlled, diversity in design structure might increase, decrease or remain constant through time, but it should not vary greatly as the conditions under which they were produced should remain constant (Table 2). Under the Associations model, production is not under centralized control, but is, rather, under the control of the association represented by the engraved subject matter (Table 2). One would therefore expect the diversity in design structure to trend in the same direction as diversity in theme and subject matter.

Results: Thematic Diversity

There is a clear decrease in thematic diversity through time (Early Hemphill, $1/D = 6.28$; Middle Hemphill, $1/D = 5.12$; Late Hemphill $1/D = 4.27$). There are 17 visual themes represented in the Hemphill style (Table 4). Ten of these themes can be found in the Early Hemphill style phase, nine in Middle Hemphill, and 10 in Late Hemphill. Although there are 17 identifiable themes, most (89%) of the vessels in the Hemphill style fall into only six *primary themes*. These are the Winged Serpent ($n=43$), Trophy ($n=38$), Center Symbols and Bands ($n=27$), Crested Bird ($n=20$), Paired Tails ($n=16$), and Raptor ($n=14$). Each of the other, non-primary themes is represented by fewer than five vessels. Only five of the 17 themes (Crested Bird, Center Symbols and Bands, Trophy, Raptor, and Winged Serpent) are found in all three style phases, all of which are among the six primary themes as defined by overall frequency. Of the six primary themes, the only one not represented in all three style phases is Paired Tails, which is not introduced until the Middle Hemphill style phase. Some might argue, based on the visual similarity of the Crested Bird theme and the Paired Tails theme and their small temporal overlap, that these two themes are actually one. Knight and Steponaitis treat these themes as one³ because the paired tails seemed to be a *pars pro toto* version of the crested bird in court-

Table 4. Number of vessels decorated in each theme by style phase.

| | Early Hemphill | Middle Hemphill | Late Hemphill |
|----------------------------------|----------------|-----------------|---------------|
| Bilobed arrows | 4 | 0 | 0 |
| Bird head, pot, other variety | 0 | 0 | 1 |
| Center symbols and bands | 19 | 4 | 4 |
| Crested bird | 8 | 11 | 1 |
| Eyes | 1 | 0 | 0 |
| Feathers | 2 | 0 | 0 |
| Head | 0 | 1 | 0 |
| Insect | 0 | 1 | 0 |
| Ogee | 4 | 0 | 0 |
| Paired tails | 0 | 4 | 12 |
| Raptor | 5 | 8 | 1 |
| Serpent | 1 | 0 | 0 |
| Tails (?) | 0 | 0 | 1 |
| Trophy | 13 | 21 | 4 |
| Turtle/bundle (?) | 0 | 0 | 1 |
| Winged serpents | 7 | 18 | 18 |
| Wings | 0 | 1 | 2 |

card symmetry (Knight 2007, Knight and Steponaitis 2011, Steponaitis 1983b, Steponaitis and Knight 2004; Vernon J. Knight, personal communication, 2011). Both sets of images⁴ are similar in that they consist of two tails extending horizontally from opposite sides of a central knot or medallion, but there are two key differences. The most obvious difference is that the images depicting the Crested Bird theme also have heads and sometimes wings extending from the central medallion. The less obvious difference is that the tails of the Crested Bird theme are all quite similar in design/decoration, while the tails in the Paired Tails theme vary greatly. An additional problem is that there is at least one example of a raptor in similar court-card symmetry (NE145). For the latter two reasons I have chosen to treat them as two separate themes, breaking from the tradition of previous researchers.

Results: Diversity in Subject Matter

As with thematic diversity, diversity in subject matter decreases through time, but the

decrease in diversity of subject matter is more dramatic (Early Hemphill, $1/D = 13.24$; Middle Hemphill, $1/D = 7.50$; Late Hemphill, $1/D = 5.00$). While some visual themes consist of a single subject, others such as the Trophy theme do not. Table 5 shows the distribution of the 29 subjects depicted in the Hemphill style. Because some vessels depict more than one subject, some are counted more than once in this table. An example would be a vessel with both hands and scalps, which would be counted both as a vessel depicting hands and as a vessel depicting

Table 5. Number of vessels depicting each subject by style phase.

| | Early Hemphill | Middle Hemphill | Late Hemphill |
|---|----------------|-----------------|---------------|
| Bilobed arrows | 4 | 0 | 0 |
| Bird | 0 | 0 | 1 |
| Bones | 4 | 0 | 0 |
| Center symbols and bands | 11 | 2 | 0 |
| Center symbols plus fingers | 4 | 0 | 0 |
| Crested birds | 7 | 10 | 1 |
| Cypress | 3 | 2 | 0 |
| Eyes | 1 | 2 | 0 |
| Feathers | 2 | 0 | 0 |
| Hands | 12 | 14 | 4 |
| Head | 0 | 1 | 0 |
| Insect | 0 | 1 | 0 |
| Ogee | 4 | 0 | 0 |
| Paired tails | 0 | 4 | 13 |
| Pot | 0 | 0 | 1 |
| Pseudoraptors | 2 | 0 | 0 |
| Raptors (and raptor heads) | 4 | 9 | 1 |
| Scalps | 1 | 9 | 0 |
| Serpent bird combo | 1 | 0 | 0 |
| Serpents | 1 | 0 | 0 |
| Severed tails | 1 | 1 | 0 |
| Skulls | 2 | 1 | 2 |
| Tails (?) | 0 | 0 | 1 |
| Three fingers plus center symbols and wings | 1 | 0 | 0 |
| Turtle/bundle (?) | 0 | 0 | 1 |
| Windmills | 0 | 0 | 4 |
| Winged serpents | 6 | 18 | 18 |
| Wings | 0 | 1 | 2 |
| Another variety | 1 | 0 | 1 |

scalps. There are 20 subjects depicted during the Early Hemphill style phase, 14 during Middle Hemphill, and 13 during Late Hemphill. Of the 20 subjects found on Early Hemphill vessels, nine are exclusive to that style phase. Of the 14 subjects found in Middle Hemphill, two are exclusive to that style phase. Finally, of the 13 subjects found in Late Hemphill, five are exclusive to the style phase. Of these five exclusively Late Hemphill subjects, two appear together on a single bottle (NR40).

Results: Diversity in Design Structure

There is a decrease in the diversity of design structures through time, with the Early Hemphill style phase being far more diverse in this regard than later style phases (Early Hemphill, $1/D = 35.36$; Middle Hemphill, $1/D = 7.20$; Late Hemphill, $1/D = 3.19$). According to the way I code them, there are more design structures ($n=48$; Table 6) in the Hemphill style than there are subjects depicted. Each style phase features approximately half the number of design structures than the preceding one. Thus there are 34 design structures in the Early Hemphill style phase, 19 in Middle Hemphill, and nine in Late Hemphill. Only four design structures can be found in all three style phases. These four are the “simple repeating,” the “alternating repeating,” the “inverse alternating repeating,” and the “repeating court-card” design structures. Only two design structures are found on more than 10 vessels. These are the simple repeating ($n=40$) and the repeating court-card design structures ($n=33$), both of which can be found in all three style phases.

Competency

I attempted to measure the skill of artisans, using the concept of “competency” in cultural models as employed in current cognitive anthropology (Romney, et al. 1986). If engraved Hemphill-style vessels were used in a political economy, their degree of competency would have been high initially, as production would have been centralized at Moundville with the engraved designs produced by skilled craftsmen (Table 2). The degree of competency may have decreased

Table 6. Number of vessels with each design structure by style phase.

| | | Early Hemphill | Middle Hemphill | Late Hemphill |
|---------------------------------|---|----------------|-----------------|---------------|
| Emblem | A | 1 | 2 | 0 |
| | A centered on base, fold up | 1 | 0 | 0 |
| Single subject repeating | AAAA repeating, simple | 5 | 19 | 17 |
| | AAAA repeating with filler | 1 | 0 | 0 |
| | AAAA repeating with hatched background | 1 | 0 | 0 |
| | AAA repeating with top suspension | 0 | 7 | 0 |
| | AAAA Repeating with bottom suspension | 1 | 0 | 0 |
| | AAAA repeating plus base | 3 | 0 | 0 |
| | AA'AA' Alternating repeating | 2 | 2 | 1 |
| | AA'AA' Alternating repeating with top/bottom suspension | 2 | 0 | 0 |
| | A'AA'A Alternating repeating plus base | 1 | 0 | 0 |
| | A'AA'A Alternating repeating with filler and base | 1 | 0 | 0 |
| Single subject (flip) repeating | AA ₁ AA ₁ Alternating repeating (horizontal flip) | 3 | 0 | 1 |
| | ABAB | 3 | 1 | 1 |
| | ABAB Repeating with A suspended from the top | 0 | 2 | 0 |
| | ABAB Repeating with top/bottom suspension | 0 | 1 | 0 |
| | ABABABABBB | 0 | 1 | 0 |
| | ABCB ₁ ABCB ₁ | 1 | 0 | 0 |
| | AB'A'BA'B | 0 | 1 | 0 |
| | | | | |
| | | | | |
| | | | | |
| Multiple subject repeating | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| | | | | |
|------------------------------|--|---|----|----|
| Multiple registers repeating | AAA | | | |
| | BBB | 1 | 0 | 0 |
| | two registers repeating | | | |
| | A A | | | |
| | A A | 0 | 0 | 1 |
| | Two overlapping registers repeating | | | |
| | A A A | | | |
| | A A A | 1 | 0 | 0 |
| | Two overlapping registers repeating with crosshatched background | | | |
| | B B B | | | |
| Court-card | A A A | | | |
| | Overlapping registers, dual repeating, hatched background | 1 | 0 | 0 |
| | $A_a^b A_a^b A_a^b$ | 0 | 1 | 0 |
| | Staggered repeating | | | |
| | A A A | | | |
| | A A A A ... | | | |
| | A A A | 1 | 0 | 0 |
| | Three overlapping registers repeating with crosshatched background | | | |
| | AA (court-card) | 4 | 10 | 19 |
| | Court card repeating | | | |
| "in the round" | AA (court-card) | | | |
| | Court-card repeating with filler | 1 | 0 | 0 |
| | Court-card suspended from top | 0 | 1 | 0 |
| | Court-card centered on base (fold-up) | 1 | 0 | 0 |
| | A B court-card repeating | 0 | 0 | 1 |
| | "in the round" no base | 6 | 2 | 0 |
| | "in the round" centered on base, fold up | 1 | 3 | 0 |
| | "in the round" top suspension | 0 | 2 | 0 |
| | Center symbols and bands | 1 | 1 | 0 |
| | Center symbols and bands with top/bottom suspension | 1 | 0 | 0 |

| | | | | |
|--------------------------------|---|---|---|---|
| Center symbols and bands | Center symbols and Bands with contrasting diagonals | 1 | 0 | 0 |
| | Center symbols and bands with contrasting diagonals and top/bottom suspension | 2 | 0 | 0 |
| | Center symbols and bands with top/bottom suspension and filler | 1 | 0 | 0 |
| | Center symbols and bands with base | 1 | 0 | 0 |
| | Center symbols and bands reduced | 0 | 1 | 0 |
| | Center symbols and bands with courtcard | 1 | 0 | 0 |
| | Grid repeating | 2 | 2 | 0 |
| Other | Band with suspensions | 1 | 0 | 0 |
| | Cross-in-circle centered on base | 1 | 0 | 0 |
| | Unknown | 0 | 1 | 4 |

through time, however, due to fissioning and factionalism within the polity, which may have made skilled craftsmen freer from control by elites at Moundville. In a sacred economy the degree of competency would have been high throughout the period, as pottery engraved in the Hemphill style would have been produced in large quantities by part-time specialists associated with the center (Table 2). Designs might show competency issues due to the expediency of production, but should not exhibit poor planning, as artisans would have been quite familiar with their subjects and the design field within which they must fit. According to the Associations model, one might expect competency to be moderate to low, because production was dispersed among widely distributed households (Table 2). Here there is no expectation that the designs were produced by specialists. Production would have been infrequent, and would perhaps have corresponded to an individual's initiation into an association or into a specific role within an association, assuming that no vessel was passed down by inheritance. Alternatively, if an individual's vessel broke in use, replacement would have been necessary.

For this study, lack of competency was measured by the presence of 1) consistently overshot lines⁵, 2) overlapping of images, 3) inconsistency between duplicated images or mistaken reversal, 4) mishandling of the design field, or 5) redrawn or misdrawn lines⁶ (Figure 13). Competency scores were calculated for each category (Table 7) as the percentage of vessels showing no signs of lack of competency according to these criteria.



Figure 13: Examples of lack of competency.

Table 7. Competency scores and Frequency of occurrence for pottery engraved in the Hemphill style.

| | Competency Score | Frequency of Occurrence |
|---------------------------------|------------------|-------------------------|
| Early Hemphill | 70 | 56 |
| Middle Hemphill | 47 | 55 |
| Late Hemphill | 51 | 43 |
| Hemphill-style engraved pottery | 56 | 154 |
| Six primary themes | 54 | 136 |
| Other themes | 74 | 18 |
| Winged serpent | 57 | 35 |
| Trophy | 39 | 31 |
| Center symbols and bands | 61 | 23 |
| Crested bird | 63 | 19 |
| Paired tails | 67 | 15 |
| Raptor | 38 | 13 |

Measured in this manner, through time there was a decrease in competency in the Hemphill style (Table 7). For the Early Hemphill style phase the competency score is .70, for Middle Hemphill the score decreases to .47, and for Late Hemphill the score is .51. The competency score for the Hemphill style as a whole is .56. The six primary themes combined have a competency score of .54, while all of the other themes combined have a competency score of .74. There is no correlation between the frequency of production and the competency scores for each of the six main themes (Pearson's $r = -.115$; Table 7).

Style Levels

I have decided to avoid the terms “common artist” and “workshop” in my analysis because both terms are problematic. I avoid the term common artist for two reasons. One is a general concern with an archaeologist's ability to unambiguously identify individual artisans in the archaeological record (Donnan and McClelland 1999:187-190; Phillips and Brown 1978:35). Another is that it is unclear whether individual vessels were produced by just one individual. There are several examples ethnographically of potters and decorators being different people⁷. Two examples from the North American Southwest are Maria Martinez and Nampeyo. Maria's pots were decorated by various family members at different points in time (Peterson 1997:62-64). When Nampeyo's eyesight began to fail, her daughter painted her pots (Peterson 1997:57). Despite these ethnographic examples, for the purposes of discussing the engraved designs, the question of whether the potter and engraver were the same is irrelevant. I am avoiding the term workshop because it has connotations of a physical space or structure in which artisans worked in one another's presence. By contrast, in the Southeast, the term workshop has been used to refer to a group of works so similar as to suggest that the artisans were intimately familiar with one another's work, whether or not they actually worked together (Phillips and Brown 1978).

Instead of using the terms artist and workshop, I used three roughly hierarchical style levels, with level one being the most specific.

Level 1 Style Groups

Level 1 style groups can be thought of as groups of vessels that were *likely* engraved by a single artisan. There have been two independent evaluations of common artists of pottery engraved in the Hemphill style, the first by Margaret Ann Hardin and Vincas Steponaitis (Welch 1991), and a second by Jeffrey P. Brain and Philip Phillips (1996). I have made my own independent evaluation of level 1 style groups, relying on criteria recommended by Hardin (1977, 1981), James N. Hill (1977), and Christopher Donnan and Donna McClelland (1999). These criteria are minute mechanical differences, sometimes referred to as “handwriting traits,” as well as variation in elements below the level of the motif, especially in details that would likely have been seen as unimportant by the artist. Examples of such visually unimportant details from other cultures include variability in the depictions of eyes in Moche fineline painting and ears in Italian Renaissance painting. Such handwriting and sub-elemental differences often come across as procedural differences in producing the same image. An example of such procedural differences from pottery engraved in the Hemphill style is given by the rattlesnake tails of three winged serpents in the round. All have the same parts and convey the same idea, but the way those parts are formed show a difference in conceptualizations of the space/design by each artist (Figure 14). For the tails illustrated in figure 14, the lines highlighted in red were drawn first, the lines highlighted in blue were drawn second, the lines highlighted in green were drawn third, and the line highlighted in purple was drawn last. It is unclear in which order the internal divisions and crosshatching were added. It is clear, however, that while the artisans similarly conceptualized the space within the line highlighted in red, they conceptualized the space within the lines highlighted in blue and green differently. In figure 14, note that the tail on the left does not include the cross-hatched area at the top of the enclosed space within the green and blue lines as does the tail on the right. That top cross-hatched area appears to be conceived as a separate unit by the artist on the left, while the artist on the right considers that area to be part of the

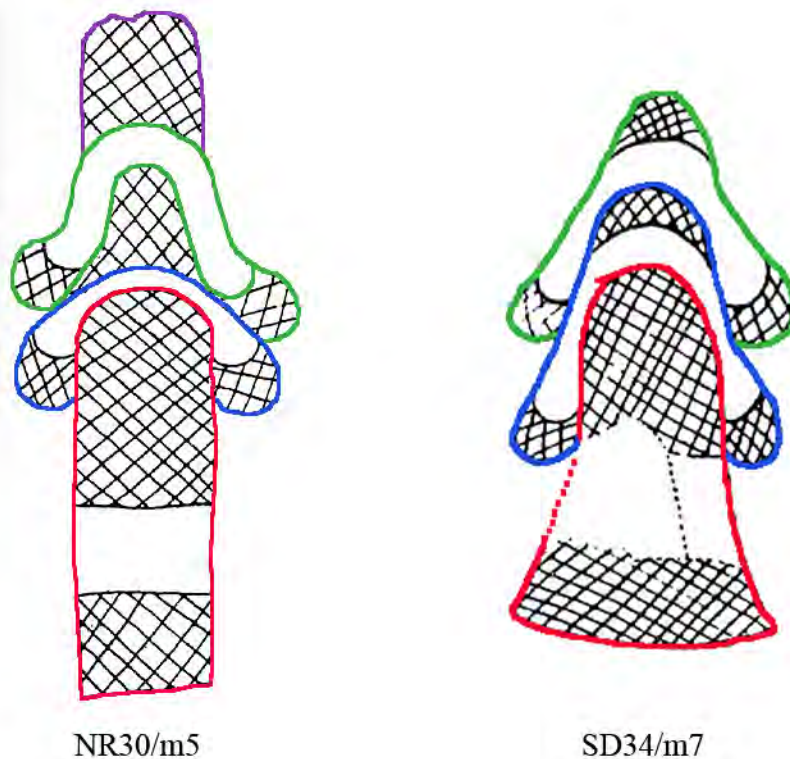


Figure 14: Serpent tails engraved on pottery in the Hemphill style with color added to emphasize the conceptual differences of their formation.

main segments. Vessels that share handwriting traits need not share the same composition, but to successfully identify shared handwriting traits, they do need to depict the same subject.

Levels 2 and 3 Style Groups

What I consider Level 2 and 3 style groups have been referred to as “workshops” in the Southeast (Phillips and Brown 1978:34). As already noted, Phillips and Brown (1978:34) use the term workshop to refer to a group of closely associated artists. I see a clear distinction between what I call Style Level 2, consisting of vessels that appear to be copies of the same original (known or unknown), versus Style Level 3, consisting of those that while quite similar, seem to share the same conceptual prototype but are not direct copies.

Style Level 2, again, consists of vessels whose engraved designs appear to be direct copies of each other. An example of this would be the serpents in the round from which the tails

in Figure 14 are taken (Figure 15). Another example of such a style level 2 group are vessels SD472 and SEH73, which depict crested birds in the round (Figure 16). Generally, members of the same style level 2 group are excluded from being in the same style level 1 group because they exhibit differences comparable to differences in handwriting. It is possible, however, for two vessels to be in the same style level 1 group and simultaneously the same style level 2 group if they share “handwriting traits” with each other and appear to be direct copies of one or more additional vessels. This situation is the case with some of the vessels depicting the hand and eye in the Middle Hemphill phase.

Style level 3 consists of vessels that are quite similar, but do not appear to be direct copies. For example, Figure 17 shows two sets of paired tails which have many of the same elements, but also have a number of different ones. According to Boas (1955: 156), “primitive artists hardly ever copy....The work is laid out in the mind of the maker before he begins and is a direct realization of the mental image.” It is the sharing of this mental image or prototype that explains the similarity of these images rather than direct copying.

In summary, Style Level 1 groups share certain handwriting traits, but may be compositionally different. Style Level 2 groups are virtually exact copies of each other, but do not share handwriting traits. Style Level 3 groups share the same mental image or prototype, but are clearly not copies.

Results: Style Level Analysis

Table 8 shows the number of groups of vessels at each of the three style levels for each of the three style phases. It also includes the number of vessels in each group. Groups consist of between one and six vessels. Most vessels are in “groups” of one, meaning that they were sufficiently dissimilar from all other pottery vessels engraved in the Hemphill style not to be matched with any other vessel. The reason for including these groups of one instead of discarding them from the analysis is because the total number of style level 1-3 groups for a

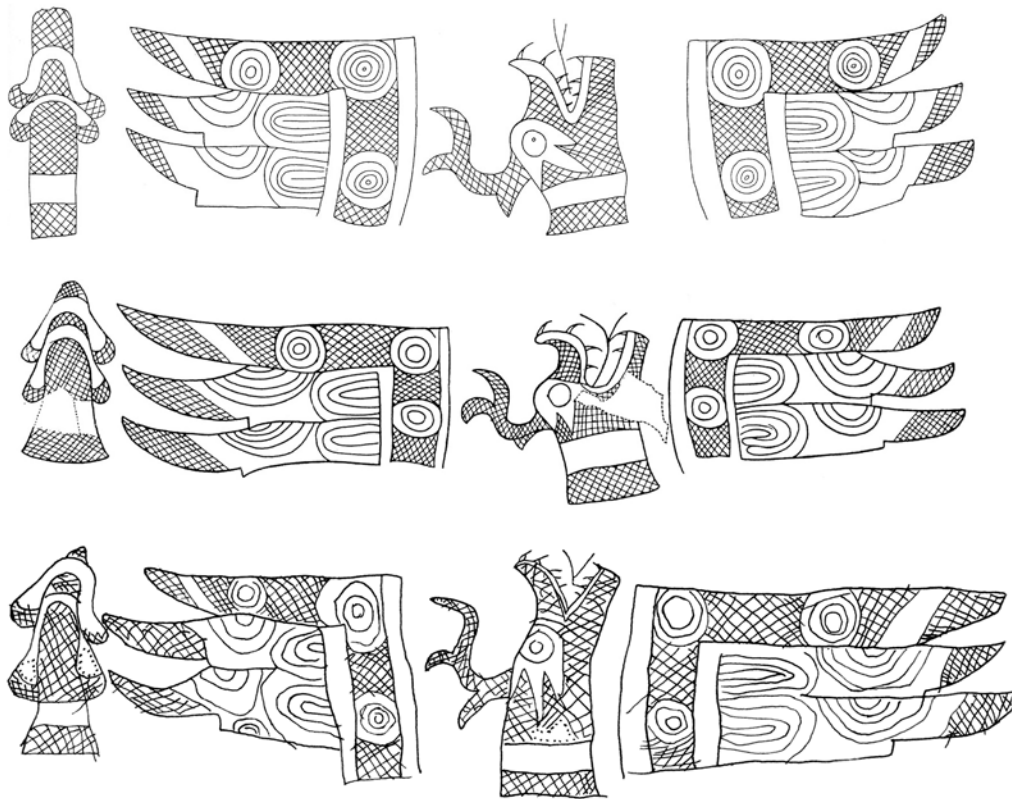


Figure 15: Winged serpents in the round which are part of the same style level 2 group. Top to Bottom: NR30m5 (Moore 1905: Figure 30), SD34m7 (Moore 1907: Figure 34), SL'31 (Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight).

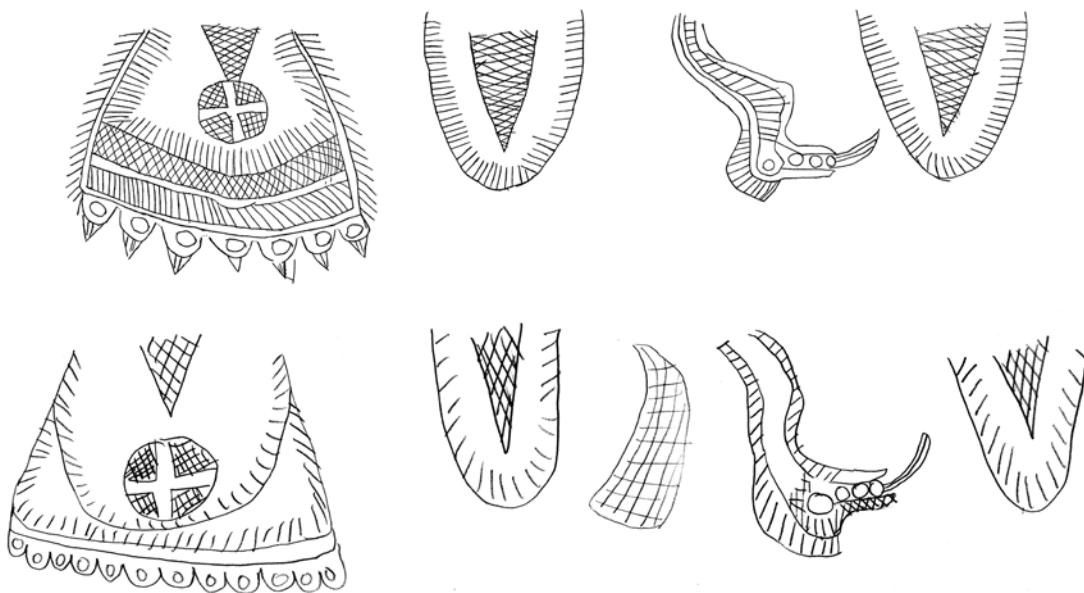


Figure 16: Crested birds in the round which are part of the same style level 2 group SD472 (top), SEH73 (bottom).

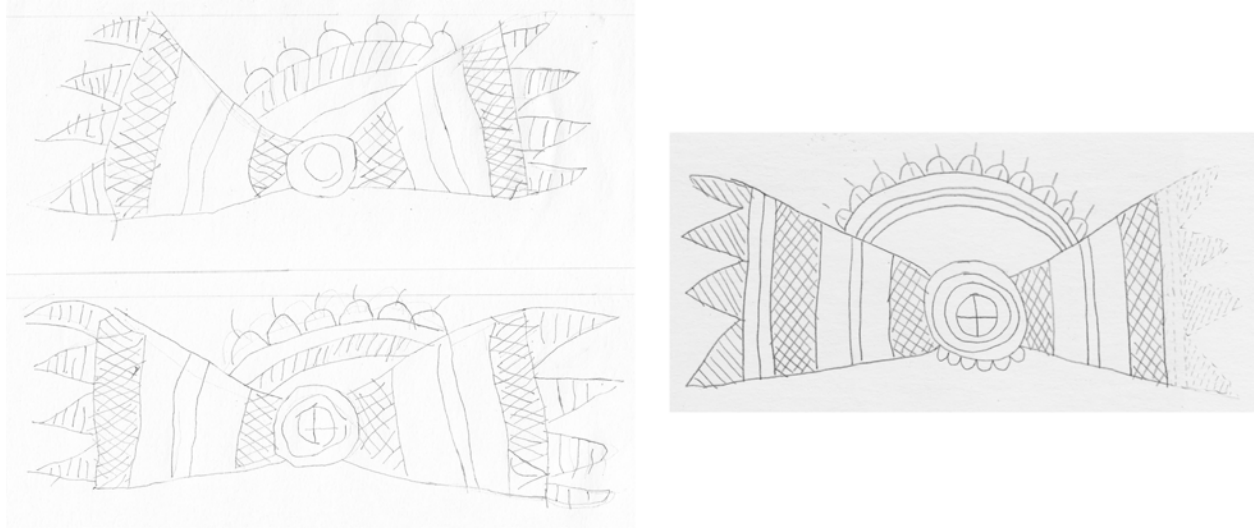


Figure 17: Paired tails which are part of the same style level 3 group. 1984.24.147 (left; Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight) SL'21 (right).

Table 8. Style level groups by style phase.

| | Early Hemphill | Middle Hemphill | Late Hemphill |
|---------|---|---|---------------------------------|
| Level 1 | 64 groups of 1 | 64 groups of 1 1 group of 2 1 group of 3 | 45 groups of 1 |
| Level 2 | 59 groups of 1 1 group of 2 1 group of 3 | 55 groups of 1 4 groups of 2 1 group of 6 | 41 groups of 1 2 groups of 2 |
| Level 3 | 45 groups of 1 3 groups of 2 1 group of 3 1 group of 4 1 group of 6 | 46 groups of 1 6 groups of 2 1 group of 5 1 group of 6 | 41 groups of 1 2 groups of 2 |

given style phase can serve as a proxy for the number of producers of these. The table shows that during the Middle Hemphill style phase there were more producers who were producing multiple vessels in the sample than during the other two style phases. During the Late Hemphill style phase there were fewer producers overall, and those producers were generally producing fewer vessels as compared to the other two style phases. Substituting the list of common artists produced by Vincas P. Steponaitis and Margaret Ann Hardin (Welch 1991:140, Table 5.1) and dividing it into my style phase designations, the same trend appears (Table 9).

Summary

The overall trend in Hemphill-style engraving on pottery is a decrease in diversity, both

Table 9. Steponaitis and Hardin's common artist groups by style phase.

| | Early Hemphill | Middle Hemphill | Late Hemphill |
|---------------|----------------|-----------------|----------------|
| Common artist | 43 groups of 1 | 41 groups of 1 | 37 groups of 1 |
| groups | 1 group of 2 | 2 groups of 2 | 1 group of 2 |
| | 1 group of 3 | 1 group of 3 | |

thematic (theme and subject matter) and stylistic (design structures), over time. There is also a decrease in competency from Early Hemphill to Middle and Late Hemphill. Further, There appears to be a sort of coalescence during the Middle Hemphill style phase, during which a greater number of producers having a greater familiarity with one another's work were producing proportionately more vessels, as compared to the Early and Late Hemphill style phases.

CHAPTER 6

SUMMARY AND CONCLUSIONS

In this chapter, the data and the models will be reviewed, the evidence for and against each model will be discussed, and which model or models best fit the data will be evaluated. To summarize, based on observed use-wear discussed in Chapter 3, pottery engraved in the Hemphill style clearly had a use life prior to interment, indicating that such vessels were not made for single use and buried almost immediately thereafter. When whole vessels engraved in the Hemphill style are found with burials, they are found with all ages and both sexes. The burials with pottery engraved in the Hemphill style tend to have more grave goods and more kinds of grave goods than the average contemporaneous Moundville II and III burial population. While whole vessels tend to be found with burials and in cemeteries, the sherd distribution indicates where these vessels were used and frequently broken. Generally, such sherds are most commonly found in midden contexts on the flanks and summits of mounds at Moundville. They are found much less often in off-mound residential areas at Moundville, and very rarely at single mound and farmstead sites in Moundville's immediate hinterland. Hemphill-style engraving on pottery can be seriated into three style phases lasting approximately 150 years in total. There is a decrease in the competency with which engravings on pottery in the Hemphill style were produced from the Early Hemphill to the Middle and Late Hemphill style phases. Based on stylistic analysis, there appears to have been more interaction between potters during the Middle Hemphill style phase, and these potters seem to have been producing more vessels per potter than those working during the Early and Late Hemphill style phases. Over time, there

is a decrease in the diversity of the Hemphill style, both in terms of design structure and subject matter. The number of design structures in use concurrently decreases with each successive style phase. Most of the vessels depict subjects from the six main themes (winged serpent, crested bird, trophy, center symbols and bands, paired tails, raptor), but some subjects only appear on one known vessel.

Evaluation of the Political Economy Model

According to the Political Economy model, pottery engraved in the Hemphill style was produced at the household level at the Moundville center for use by elites as a strategy to solidify their political control. If this model is accurate, the style should be fairly uniform due to frequent interactions among potters working under the centralized control of elites. Because elites are concerned with cementing their control by demonstrating their connections to sacred power, the subject matter should be highly redundant and should become more so through time, as elites endeavored to maintain former levels of control as the chiefdom weakened politically in the fifteenth century. Pottery engraved Hemphill style should be present primarily at Moundville as the political center, but also at other sites within the chiefdom such as single-mound centers where elites were living. Use-wear should be no different from other vessels, as elites would have used them on a regular basis as a symbol of their power. In burial contexts, they should only be found with elites.

Evidence in Favor of the Political Economy Model

There is a fair amount of evidence in support of the Political Economy model. The decrease in diversity of design structure, subject matter, and theme is what one would expect if these vessels were used as part of an elite strategy attempting to reinforce their status legitimacy while losing power in the waning decades of the polity. The degree of competency, beginning high and decreasing through time, also supports the Political Economy model, as does the generally heavy use-wear pattern, as it indicates that these vessels were used on a regular basis.

That Moundville Engraved, *variety Hemphill* sherds are found much more frequently in mound contexts than in non-mound residential areas supports the idea that these vessels were used by elites (Knight 2007; Thompson 2011). This model is also supported by the intersite distribution of pottery engraved in the Hemphill style. They are found almost exclusively at Moundville, with only a few vessels being found elsewhere within the polity and two found outside the polity near other major river systems.

Evidence Against the Political Economy Model

While most of the evidence is in support of the Political Economy model, there is also evidence against it. The analysis of style levels indicates that there was an increase in interaction between potters during Middle Hemphill and less during the Early and Late Hemphill style phases, counter to the model which predicts that levels of interaction should be high initially and perhaps decrease through time. According to the Political Economy model, one would expect pottery vessels and sherds engraved in the Hemphill style to be found exclusively in elite contexts. In burials, Hemphill-style vessels are not found exclusively in mounds or consistently with other items assumed to mark elite status such as copper goods, marine shell, and stone palettes (Phillips 2006b). While the intrasite and intersite distributions of sherds suggest that these vessels were used predominately by elites, Thompson (2011) found several Moundville Engraved, *variety Hemphill* sherds in non-mound residential areas at Moundville.

In sum, most of the data presented herein is in support of the Political Economy model. While there is some evidence against such a model, none of is damning.

Evaluation of the Sacred Economy Model

According to the Sacred Economy model, pottery engraved in the Hemphill style should have been used in funerary ceremonies exclusively, for which purpose it was made. These vessels would have been either been made by the mourner, commissioned from neighbors or family members, or acquired from potters en route to Moundville or actually at Moundville. If

they were brought from home, one would expect greater stylistic diversity. If they were acquired from potters working at or near Moundville, there should be a low level of stylistic diversity. All subject matter should relate to the Path of Souls belief complex and their diversity of subject matter should remain constant over time, as there should have been no major changes in the belief system. There should be virtually no use-wear, as vessels would have been used for only a single ceremony and then buried. They should only be found in burials at Moundville and also at other contemporaneous sites having burials. Sherds should be rare, resulting only from breakage during manufacture, transport, or funerary use. They should not be found in domestic middens.

Evidence in Favor of the Sacred Economy Model

Because pottery engraved in the Hemphill style would be used exclusively in funerary ceremonies at Moundville, the sacred center, they should rarely be found at other sites. The actual distribution of pottery engraved in the Hemphill style among sites in the Moundville polity supports this.

Evidence Against the Sacred Economy Model

There are many problems with the Sacred Economy model. One relatively obvious problem is that on the whole, there is far too much use-wear on these vessels for them to have been single-use items. The frequency with which sherds engraved in the Hemphill style are found in middens, especially mound flank and summit middens, is also troublesome to this model. According to our expectations, stylistic diversity should remain fairly constant through time, but in reality, instead, diversity decreases over time. If the pottery was produced at or near Moundville for mourners to acquire en route or upon arrival, there should be a higher degree of uniformity through time than there actually is.

Given the poor fit of the Sacred Economy model with the evidence, I argue that it should be discarded as a potential explanation of the production and use of pottery in the Hemphill style at Moundville.

Evaluation of the Associations Model

The Associations model is not an economic model, nor would the associations that used this pottery have had much directly to do with political authority. Each association would have had its own patron supernatural represented on the pottery, or alternatively each role within a given association would have been represented by a different subject. In this scenario, each theme likely represented a different association; therefore, thematic diversity should vary according to the number and prominence of the various associations. Subjects and themes should appear or disappear as new associations appeared or died out. Each supernatural or cosmological subject could only have been used by members of the association to whom it applied. Potters need not necessarily have been association members, and may have produced pottery for multiple associations. Sherds should be found in elite and non-elite contexts throughout the polity. Use-wear would likely have been substantial. In burials they should be found only with members. As associational membership might have been passed hereditarily from one family member to another, associated vessels might have been passed along as well. Thus not all members might be buried with pottery vessels engraved in the Hemphill style vessels, and some pottery vessels engraved in the Hemphill style might have been buried quite a while after they were produced. Subject matter should be highly redundant and there should be no unique subjects depicted.

Evidence in Favor of the Associations Model

Either an increase or a decrease in diversity is expected over time as there is a shift in the number of active associations or roles within an association increases or decreases. According to the Associations model, the initial appearance of the paired tails theme during the Middle Hemphill style phase would indicate that a new association had been introduced. The idea that these associations would likely have had overlapping membership is supported by the fact that, as discussed in Chapter 3, some individuals are found interred at death with more than one

Hemphill-style vessel, each representing a different theme. The Associations model is supported by the decrease in the diversity of design structures through time as the diversity of theme and subject matter decreases. According to the Associations model, these vessels would have been used frequently as part of association-wide gatherings or as part of association-sanctioned rituals. Such a frequency of use is evident in the use-wear on most of the vessels. Because production would have been dispersed spatially among numerous households within the polity, the number of vessels in each style level group should be low. This is generally true, although the numbers in middle Hemphill are a little higher than expected.

Evidence Against the Associations Model

The largest problem with the Associations model is that contrary to expectations, there are numerous subjects that are only depicted on one or two vessels. A second problem is that sherds of pots broken during use should appear much more often than they appear to do in non-elite contexts and sites throughout the polity. This evidence against the Associations model is troublesome. Given that some subjects which are only illustrated on a few vessels were either only found in excavations by C. B. Moore or only in excavations by the Alabama Museum of Natural History (and not all in the same excavation area) may indicate that there were originally more examples of these subjects and that they have simply not been found. With more examples, these subjects would be more likely to coincide with an association. Conversely, there may be additional subjects whose existence we know nothing about. The sherd distributional data may indicate that most associational activities and rituals took place on top of mounds. Also, the degree of competency is higher than one would expect according to the Associations model during the Early Hemphill style phase.

Summary

With regard to the stylistic, distributional, and use-wear data considered in this dissertation, there is at least some evidence both in support of and contrary to each of the models

examined here. The Sacred Economy model is most problematic, because of the cumulative nature of the stylistic evidence against it, as reviewed above. There is evidence contrary to the Political Economy and Associations models as well, but it is not nearly as damaging. It is not surprising that the stylistic data by itself does not allow for definitive conclusions to be drawn.

Iconographic Considerations

Despite the fact that I have pointedly avoided iconographic meaning in favor of style in my analyses, I cannot avoid the fact that the meaningful referents of the engraved designs do bear on the models which I am evaluating. I will examine them briefly, considering them model by model, before drawing my final conclusions.

Political Economy Model

With the Political Economy model as described in Chapter 2, one would expect that elites commissioning religious art on pottery would direct artisans under their control to produce those specific designs that charter their power. One would further expect that all such designs would adhere to a single narrative that connects the power of political elites to the sacred. In general, images engraved on pottery are evenly distributed among six distinctive primary themes in which a common narrative seems to be absent. Additionally, if the designs were being used to legitimate the sacred authority of political elites, then there should little noise in the form of unique or virtually unique subjects. However, 11 of the 17 themes engraved on Hemphill-style pottery occur on four or fewer vessels (Table 4). Moreover, if subjects were derived from a common narrative, they would tend to be combined, at least occasionally, in the same compositions. In reality, themes do not overlap in within compositions¹ strongly suggesting their independence as concepts.

Along the same lines, one would expect that the same themes and subjects found engraved on pottery in the Hemphill style would also be found on items of personal adornment worn by political elites, as they would be broadcasting a uniform message. However, only one

of the six primary themes, the trophy theme, is found on both Hemphill-style pottery and items of personal adornment worn by the elites such as copper or shell gorgets.

Further, if the images were being used by political elites to project their sacred legitimacy, one would expect there to be some overlap between burials with Hemphill-style pottery and items of personal adornment. In fact, however, no individual at Moundville buried with a Hemphill-style item of personal adornment is also buried with a Hemphill-style engraved pot (Phillips 2006b).

With respect to iconographic considerations, the Political Economy model fares poorly in every respect.

Sacred Economy Model

If the Sacred Economy model is correct, then the engraved designs should mutually support a common narrative related to the Path of Souls, the ideology supporting the status of Moundville as a location of highly devotional expression to which mourners came to bury their dead. As stated above, however, there is no iconographic evidence of a common narrative. Themes are distinct, and do not combine in compositions.²

If the Path of Souls ideology was dominant at Moundville during the Necropolis stage, the range of themes as depicted on pottery should also be found in other genres. One extremely important Hemphill-style genre during the same period is the stone palette. Stone palettes have been argued to be portable medicine altars which were kept in bundles and used by religious practitioners (Phillips 2006a; Steponaitis and Knight 2004; Steponaitis et al. 2011). Several of these stone palettes have engraved representational art on them. However, there is a strong mis-match between subjects depicted on pots and subjects depicted on stone palettes, as five of the six main themes found on pottery are unknown on stone palettes. For example, the winged serpent, the most commonly engraved subject on pottery is never found on stone palettes, just as it is never found on any item worn by humans. Of the trophy theme, hands, forearm bones, and

scalps transfer across genres to items of personal adornment, but the rest of the subject matter from the six primary themes does not.

As with the stylistic, distributional, and use-wear data, iconographic considerations strongly contradict the Sacred Economy model.

Associations Model

With the Associations model, one would expect a discrete separation between themes, as each depicts a different supernatural patron or referent, indicating membership in a particular association or sodality. Indeed, there is a clear discreteness between themes, as each consists of subjects that do not co-occur in compositions with subjects of other themes.³ Interestingly, the subjects engraved on pottery, as noted in Chapter 2, correspond remarkably closely to supernatural patrons of Omaha secret societies as known ethnographically.

With the Associations model, assuming multiple associations and some degree of parity among them, one would also expect a corresponding evenness of distribution among the themes. Variability in numbers among themes would most likely result from variation in the membership of different associations or ranks within them. There is, in fact, a roughly even distribution among the six main themes.⁴

As any association should have a sizable membership over a 150-year period, there should not be any significantly underrepresented themes. However, the fact is that not all subjects are assignable to the six primary themes, and several subjects are unique or extremely rare. The Associations model cannot explain the existence of these outliers.

Finally, if Knight (1998; 2010b) is correct and the plaza periphery mounds at Moundville correspond to different kin groups, then themes should not segregate by mound context. As described in Chapter 2, these associations cross-cut kinship. Knight's (2007) study of the distribution of Hemphill-style sherds in Mounds E, G, and Q on the plaza periphery showed that

the themes are freely distributed among mounds around the plaza. In other words, Hemphill themes and mounds result from different kinds of social groups.

Conclusions

There is evidence in support of and contrary to all three of the models examined here. Based on stylistic analysis through an examination of the diversity of theme, subject matter, and design structure, as well as degree of competency and quantified style levels, the Sacred Economy model is not supported, while there is only tenuous evidence against the Political Economy and Associations models. The use-wear data contradicts the Sacred Economy model but supports the Political Economy and Associations models. The distribution data contradicts all three of the models examined, but is more of an issue for the Sacred Economy model than for the other two. When iconographic considerations are brought to bear, they add weight to the data against the Sacred Economy model, making it untenable in the form described in Chapter 2. The iconographic considerations support the conclusions of Thompson (2011) and Knight (2010a) that the Political Economy model presented in Chapter 2, with a centralized authority at its core, is not a good fit for Moundville. While the Associations model as presented in Chapter 2 is generally supported by the data, it cannot explain the presence of unique or extremely rare subjects or the concentration of Hemphill-style sherds at Moundville, especially in mound midden contexts. The Associations model is, however, the strongest of the three models examined in this study relating to Moundville's social and political organization during the Necropolis stage.

As stated in Chapter 1, the three models evaluated here are certainly not the only conceivable models of Moundville's political and social organization during the Necropolis stage, but they have been chosen because they are the ones currently being examined by other researchers using other lines of evidence. These models relating to Moundville's social and political organization, as presented in Chapter 2, appear to be relatively static in their

descriptions. They are, in fact, not monolithic entities. They are not being applied to Moundville over its entire occupational history, but are restricted to the Necropolis stage, a 150-year period between AD 1300 and 1450. These models have been tied to changes, known from independent evidence, throughout this period which perhaps can best be seen in the test implications for each model. The test implications developed for this study make it possible to think about what style can tell us about social and political organization in the context of political power and social stratification that was in flux. While style is not necessarily the best or most nuanced tool to evaluate these models, I hope to have shown that a stylistic analysis as conducted in this study can be used fruitfully to evaluate such grand topics as those addressed by the models of Moundville's social and political organization.

Along with having evaluated the models, having provided tests to evaluate them, and having shown that style can be used to evaluate larger ideas about the social and political organization of a polity undergoing change, this study has what I hope are additional benefits. In the process of conducting my research, I have compiled photographs of all of the known pottery engraved in the Hemphill style and roll-out line drawings of most of the engraved designs. These data can be used by others who may wish to ask different questions of my data such as questions relating to the emergence of craft specialization, expressions of agency in political authority, ritualization, feasting, or reflections of identity in burial practices. Prior to gathering the corpus, I developed novel digital methods of recording the images in two dimensional space that go beyond what others, such as Eliza McFadden, Barbara Page, Marcia Taylor, and Donna McClelland have done. I hope that these drawing methods will be useful to others who wish to study style or iconography.

NOTES

Chapter 1

1. I refer to this stage as the Necropolis stage as the term is more objective than either The Paramountcy Entrenched or Entrenched Paramountcy. The necropolis is a key component of this stage and is integral to this study as many of the vessels examined were found with burials.

2. For example, David H. Dye (2011) presents a model for the use of ceramic art in the Lower Mississippi Valley that could just as easily be argued for Moundville. According to Dye (2011:101), “Fineware vessels would have been interred with the ritual practitioners upon their death. Such an individual would be a member of a small privileged or elite family/lineage segment or sodality of a village or town. At any one time in a village, ritual vessels would be limited in number and restricted to elite compounds and charnel house or ancestor shrine contexts. Thus fineware served the purposes demanded by ritual concerns rather than displaying ‘decoration’ for aesthetic interests. In fact, rather than being merely ‘decorated,’ fineware ceramics represent a microcosm of the Mississippian world.” Walls Engraved vessels, one type examined by Dye, are stylistically similar to Moundville Engraved, *variety Hemphill* vessels.

3. They do not all appear in the same composition, but rather, skulls and forearm bones are found together; skulls and hands are found together; skulls, forearm bones, and hands are found together; and hands and raptors are found together. Lankford(2007a:174) also states that hands and winged serpents are found together, but I believe this to be a mistake as there is no bottle that I know of with this combination. In fact, I do not know of an instance where winged serpents are engraved on the same bottle as any other subject. The hand is found engraved on a stone disc, the Rattlesnake Disk, with two knotted serpents, but they are not winged serpents and are potentially different in meaning from the winged variety.

4. Lankford (2007a:210-211) does not explain what the new cultural role is, but presumably it is related to being the ideal location for the dead to be buried to successfully traverse the path.

5. Examples of organizations with potentially hereditary membership, but which are not themselves kin-based, are groups such as sororities and fraternities that give preferential membership to individuals who have a family member who is/was a member and the United Services Automobile Association, for whom one route to membership is to have a parent or grandparent who is a member.

6. In Wiessner’s 1985 response to Sackett, she draws a distinction between what she calls stylistic variation (Sackett’s iconological variation) and isochrestic variation.

7. It should be noted that Phillips never called Craig a style, but referred to it as a school (Phillips and Brown 1978). He saw Spiro engraved art on shell as a single style, with the Braden and Craig schools as two contemporaneous divisions of this style produced at the same locality.

8. While Knight and Steponaitis (Knight 2007, Knight and Steponaitis 2011, Steponaitis and Knight 2004) do not include paired tails among their Hemphill themes, having combined it with the crested bird theme, I follow Lacefield and separate the two, given the decorative cohesion of the tails of the crested bird theme and the lack of cohesion within the paired tails theme, and the lack of decorative overlap between tails of the two themes.

9. Note that while this canon states that the number of themes is fairly limited, the specific themes and motifs do not enter into the definition of the Hemphill style.

10. To date there has been no formal stylistic analysis of representational forms of Walls Engraved or Pensacola Incised ceramics.

11. Boas was specifically discussing a change in form to adapt to the decorative field, but with a change in genre often comes a change in the decorative field. For Boas style is a fixity of form, such that a change in form would require stylistic change.

Chapter 2

1. The Milky Way as the Path of Souls is “virtually universal in the early ethnographic literature of North America” (Lankford 2007a:179). The horned serpent version of the great serpent, as opposed to the underwater panther version is found among Central Algonkian, Southeastern Muskogean speakers, and upper Missouri River Siouans (2007b:113-115). Stories of travels along the path are found among the Central Algonkian, Siouan speakers, Caddoan speakers, and Muskogean speakers (2007a:183-190). The hand and eye as a portal onto the path is found among Siouan and perhaps Algonkian speakers (2007a:193-202).

2. An example of a modern association with various statuses or roles would be the Girl Scouts. On the one hand there is a general status of membership in the organization, which is a sex-bound organization in that only women can be members. Within the organization there are different ranked statuses based on age, including Daisy, Brownie, Junior, and Cadet. Each of these statuses has its own accompanying regalia in the form of colored sashes or vests with pins and patches, indicating one’s membership and status within the organization and various achievements while a member at that rank.

3. Although no direct connection is implied, the images these Omaha names conjure up are reminiscent of the themes and motifs found on pottery engraved in the Hemphill style.

Chapter 3

1. There is some question about exactly where Bear Creek is. Brown (1926[1992]: 333) states that “The bottle was obtained by Captain W. P. Hall from a mound at Bear Creek, a former postoffice in Humphreys County, ten miles north of Belzoni” in attributing this vessel to

the Lower Mississippi Valley. It has also been suggested by Knight that this bottle alternatively may have come from the Bear Creek site in Tishomingo County in northeast Mississippi (Vernon J. Knight, personal communication 2011). In his report of the 1965 National Park Service excavations of this site, Charles F. Bohannon (1972) describes a number of pottery vessels similar to those from Moundville. Either of these attributions may be correct, given that the original catalog entry is not more specific than “Bear Creek, Mississippi” (Christina Kastell, personal communication 2010).

2. The number of burials with pottery engraved in the Hemphill style included in my 2007 study was 97 (Phillips 2007). It should also be noted that Moundville Engraved, *variety Hemphill* pottery was used by Steponaitis (1983b) to help seriate the burials, so the fact that as many as 20.34 percent of the Moundville II and III burials were found with Moundville Engraved, *variety Hemphill* pottery is not surprising (Phillips 2007). This percentage therefore strongly overestimates the true abundance of these vessels in burials.

3. SWG2 (unidentified subject) and SWG3 (scalp) were found with burial 1717; SD7/m7 (winged serpent) and SD7/m7 (center symbols and bands) were found with burial 8/SD/m7; SD32/m7 (hand and eye) and SD33/m7 (winged serpent) were found with burial 71/SD/m7; and SD86/m7 (crested bird) and SD87/m7 (winged serpent) were found with burial 150/SD/m7.

4. In my Masters thesis (Phillips 2006a), I followed Steponaitis and Knight (2004) in treating crested birds and paired tails as the same theme.

5. This number does not include missing (n=4) or stolen vessels (n=21). Also, three of the vessels previously classified typologically as Moundville Engraved, *variety Hemphill* were later determined not to be in the Hemphill style as strictly defined in this work.

6. The only known pottery vessels from Moundville engraved in the Hemphill style that are not in the University of Alabama or Smithsonian Institution collections are two vessels excavated by C. B. Moore which are in the R. S. Peabody Museum in Andover, MA. No known pottery vessels engraved in the Hemphill style, except perhaps those stolen in 1980 from the University of Alabama, are currently in private collections.

7. The Moundville Stolen Artifacts Website can be found at <http://museums.ua.edu/oar/stolenartifacts>.

8. The Putnam Museum of Natural Sciences in Davenport, Iowa was previously the Davenport Academy.

9. I was unable to make rollout line drawings of the designs on all of the pottery vessels engraved in the Hemphill style I examined due to time constraints. I began drawing vessels in the University of Alabama Museums Special Collections room of the Erskine Ramsey artifact storage facility in Moundville, because they were the most accessible and I needed to work out my drawing methods before my trips to the Smithsonian. While at the NMAI CRC, I began by drawing vessels in no particular order other than by whim. When it became clear that I was

not going to be able to finish in the time allotted, I recorded all of the vessels that I had not yet recorded and then focused my attention on drawing the designs on vessels that were slated to go on exhibit at either the NMAI in New York or the University of Alabama's Moundville Archaeological Park, because once on exhibit, these vessels would be virtually inaccessible to me. Upon my return to Alabama, I focused my attention on drawing vessels that had been chosen to be displayed in the newly renovated museum at Moundville Archaeological Park, such that I had at least one line drawing for each subject represented, whether that drawing was my own or one of the ones from one of C. B. Moore's publications or one of the preexisting drawings by Hyla Lacefield or Kevin Schatte. I did not continue my own line drawings further because the time necessary to complete them would impinge on my ability to graduate in a timely manner. I do, however, fully plan on completing the task of making rollout line drawings of the designs on all of the pottery vessels engraved in the Hemphill style in the future. To assist in my analysis, I did quick whole or partial sketches of the designs on 18 more vessels.

10. The Moundville Image File was created by Hyla Lacefield while working on her M. A. thesis. It includes photographs of Moundville Engraved, *variety Hemphill* pottery from Vincas P. Steponaitis, a few early photographs from the Alabama Museum of Natural History collections, drawings by Lacefield and Kevin Schatte, and some other previously published photographs and drawings. The Image File is maintained by the University of Alabama Department of Anthropology.

11. According to Steponaitis (Vincas P. Steponaitis, personal communication 2011), it is one thing to attach tissue paper to conical shell cups where one can wrap the paper onto the underside of the cup and place the tape there, out of the way of the decoration, but another thing to try to securely adhere tissue paper to the globular surface of a bottle engraved in the Hemphill style. Steponaitis also found that some of the engraved lines on pottery engraved in the Hemphill style were so fine as to not appear on a rubbing.

12. Donna McClelland died on September 11, 2004 (Donnan 2007).

13. RAW refers to a class of digital photo formats that allows greater editing potential by providing the top resolution available on the camera and all of the details of the camera's settings for a given photograph. Different camera brands have different formats. Nikon's RAW format is NEF.

14. This is one advantage of using a standard computer monitor (LCD or CRT) and pen tablet over a tablet monitor. Another of the advantages of this combination of equipment over a tablet monitor is avoiding parallax issues and keeping costs manageable.

15. One technique that was tried early on and subsequently abandoned was digitally stitching together narrow vertical sections of each vessel from photographs taken at regular intervals as the vessel was rotated. This proved to be far too time consuming a technique, and led to less accurate representations due to distortion of the vertical dimension.

16. Adobe Photoshop Elements 2, Adobe Photoshop 7, and Adobe Photoshop CS4 were

used interchangeably to create the line drawings.

Chapter 4

1. It must be noted that Phillips and Brown (1978:34) say “Whether stylistic seriation can be converted into temporal seriation is another, and far more difficult question, one that has to be considered on the merits of the particular case. Obviously for such a conversion to have any credibility, some sort of independent chronological evidence must be brought to its support. We intend to do what we can in this regard later on...” This statement comes after noting that “This is the recognition of what may be called ‘developmental trends.’ An example would be the observation that a given style assemblage is marked by a relatively successful adaptation of design to the form of the artifact, in our case the cup or gorget...It suggests that there is a developmental ‘principle’ (Schefold 1966) at work, and the varying degrees to which it is seen to be working in the hands of individual artists and groups imply direction and therefore can, with circumspection, be used as a basis for stylistic seriation” (Phillips and Brown 1978:34). The prior statement necessitates a temporality to their ordering. Despite the fact that they do not want to admit a chronological aspect of their ordering as evidenced by the first statement, it is clear that they maintained a chronological mindset, as evidenced by their explanation as to how they arrived ultimately at the style groups Braden (A,B,C) and Craig (A, B, C). They were, in fact, right to question whether their categories were chronological, as the Braden A-B-C sequence now appears to be a clinal rather than a temporal sequence.

2. Phillips called Braden and Craig “schools,” but styles would be more accurate in the terminology adopted in this work.

3. Stylistically Donnan and McClelland (1999:21) were unable to distinguish between Larco’s phases one and two based on the fineline painting given the relatively small number of vessels falling into these two phases.

4. At the time Lacefield was doing her work, Knight had not yet published the results of his excavations, but based on the sherds engraved in the Hemphill style that Lacefield and Knight were observing, the more elaborate engravings dated to the Moundville II phase while less ornate sherds dated to the Moundville III phase. This is most clearly evidenced by the fact that sherds depicting winged serpents from Knight’s excavations that dated to the Moundville II phase shared elements with serpents from vessels that Schatte (1997:93) placed in the lower (earlier) half of his seriation (Schatte 1997:101) Lacefield also suggested that this trend from more to less elaborate was supported by Phillips and Brown’s findings in their analysis of Spiro shell, in which the more elaborate examples were earlier than the later examples. I am personally wary of making such claims based on trends in such disparate art styles in other media. Also, it should be noted that the passage cited by Lacefield (1995:63) is referring to line thickness rather than whole compositions where it is said that, “They tend to be finer in the ‘earlier’ phases of both Braden and Craig schools...”(Phillips and Brown 1978:31) . This is not to say that there is not a general trend in Phillips and Brown’s analysis (1978:35-38) wherein more ornate cups and gorgets tend to be earlier.

5. As previously noted, Donnan and McClelland also began their seriation by building from of an existing seriation.

6. The line drawings by Andrea Stillwell of sherds from Knight's excavations were not printed on index cards, but rather were copied to small slips of paper with the accession number(s) written on each one. These drawings were originally created for inclusion in Knight's publication, *Mound Excavations at Moundville* (2010), but were not used in the publication (Vernon J. Knight, Jr., personal communication 2007). The drawings were used in this study with Knight's permission.

7. This group of images was originally referred to as paired tails by Steponaitis (1983), but in more recent literature they have been referred to as the Crested Bird theme. I am referring to this group of images as two separate subjects, "crested birds" and "paired tails." I originally considered both to be part of the Crested Bird theme, but based on the results of this seriation, I now consider them to be two separate themes. It became clear that, as Lacefield (1995) had suggested, there is a distinct difference between the tails of the crested birds and the tails of the paired tails, despite the fact that the only obvious difference is that the paired tails designs lack the crested bird heads projecting up and down from the central medallion. Another reason for treating these two themes separately is that raptors are also shown in the paired tails court-card layout in one or possibly two instances (vessels NE145, SL'1).

8. During this operation, bottles with simple rather than pedestal or slab bases and whose point of vertical tangency was below the midpoint of the bottle were tentatively placed in Group iii. However, it was subsequently found that all of these were from Group 5 in the seriation of engraved designs. Ultimately, these vessels were seriated with the vessels in Group F, as their stylistic connections to Group 5 were stronger than their connections to Group iii.

9. These early Moundville III groups consisted of the Fur-Head Group (my Group G), the Bunched Feathers Group (my Group H), the Split Antlers Group (my Group I) and the Thin Body Group (my Group J). Schatte also included his Banded Mouth Group vessels among his Early Moundville III groups. This group consisted of only one vessel (NED10) that I place slightly earlier as part of group F on stylistic grounds.

Chapter 5

1. Simpson's Index is $D = 1 - \sum_{i=1}^s \frac{n_i(n_i-1)}{N(N-1)}$ where D = the value of Simpson's Index,
 n_i = the number of vessels with the i th (theme, subject, or design structure), and N = the total number of vessels included in the analysis.

2. Inverse of Simpson's Index is $\frac{1}{D} = \frac{1}{1 - \sum_{i=1}^s \frac{n_i(n_i-1)}{N(N-1)}}$ where D = the value of Simpson's Index, n_i = the number of vessels with the i th theme (subject, or design structure), and N = the total number of vessels included in the analysis.

3. Steponaitis (1983b) uses the term “crested bird” for vessels with in the round design structure and “paired tails” for vessels with court-card symmetry. In other publications, Knight and Steponaitis (Knight 2007, Knight and Steponaitis 2011, Steponaitis and Knight 2004) use the term crested bird for both crested birds and paired tails. More recently, however, Knight (2010:98) has started distinguishing between the two themes.

4. Here I exclude crested birds with in the round design structure from my generalization.

5. The presence of only one or two overshot lines did not count as an indication of lack of competency.

6. Failure to crosshatch an area that should have been crosshatched falls into this category as well.

7. While not an ethnographic example, the following may be relevant. Newcomb pottery, one of the major workshops during the Arts and Crafts Movement within the United States, was produced at Newcomb College, in New Orleans, Louisiana from 1894 to 1941. At any given time there was one potter (a man) and multiple decorators (women).

Chapter 6

1. There is a lone exception, a bottle (SD71/m7) that combines raptor and trophy subject matter.

2. The Path of Souls narrative as it has been developed to date does not explain the co-occurrence of scalps together with subject matter such as the hand-and-eye and skull, both key components of Lankford’s Path of Souls complex. If, as Lankford suggests, subjects relating to the Path of Souls are found together in the same compositions, the winged serpent should be found together with other Path of Souls subjects. However, winged serpents are never found together with any other subject matter in the same composition.

3. See Chapter 6, note 1 for the sole exception to this generalization.

4. This is especially the case if one were to reduce the number primary themes to four by combining the raptor and trophy themes and the crested bird and paired tails themes. There is some evidence that the raptor and trophy themes are connected (see Chapter 6, note 1). Further, Knight and Steponaitis (2011) combine the crested bird and paired tails themes into one.

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APPENDIX

VESSELS BY STYLE PHASE

The seriation presented here is a phyletic seriation of all known pottery vessels engraved in the Hemphill style which were buried whole as well as a few of the ones which were broken during use which are often only represented by a sherd or two. Because it is a phyletic seriation, vessels that are stylistically most similar based on both engraved design and vessel shape appear closer together. In this presentation I have grouped the vessels by style phase and then by theme and subject so that it is easiest to follow changes in the engraved style through time. For a description of the methods and process of seriating pottery engraved in the Hemphill style, see Chapter 4.

There are some changes in vessel shapes through time within the seriation. Wide-mouth subglobular bottles with simple bases run throughout the sequence. Pedestal and slab bases are early, with pedestal bases being the earliest. Earlier bottles also tend to have a shelf, whether slight or pronounced, at the top of the body where it joins to the neck. They also tend to have a low point of vertical tangency on the body. While the term “point of vertical tangency” is somewhat cumbersome, I use it following Anna O. Shepard (1956:226) and Steponaitis (1983b:64-74). Slender Ovoid Bottles are restricted to Moundville I (Steponaitis 1983b: Table 32), but some of the subglobular bottles from Moundville II are somewhat reminiscent of their shape (See Figure 3 for the relationship between Moundville ceramic phases and Hemphill style phases). Characteristics that carry over include the body being fairly flat and conical above the low point of vertical tangency, or the curvature of the upper body is less than the curvature of

the lower body. In Middle Hemphill, many of these characteristics continue, but not all together on the same vessel. They disappear in favor of more spherical bodied subglobular bottles with simple bases. Narrow neck bottles, like the one Late Hemphill example (Mi431) are restricted to Moundville III (Steponaitis 1983b: Table 32). Through time, the average bottle size appears to get smaller. Like subglobular bottles with simple bases, restricted bowls can be found in all three style phases. Outslanting bowls, however, are restricted to Moundville II (Steponaitis 1983b:Table 32). Cylindrical bowls, often with a single lug, are found during Moundville II and early Moundville III. Within this seriation, they are found only in Early and Middle Hemphill.

Like the changes in vessel shape through time, there are changes in the engraved designs as well. Overall there is a simplification in the engraved designs from Early Hemphill to Late Hemphill. Some of the Early Hemphill examples combine engraved representational art with another Moundville Engraved variety, particularly variety Havana. One example of such a combination of varieties is NR(sherd)/m5. Another example is PS1991. Another kind of simplification is that the engraved designs are much more intricate early in time than they are later. There are also some filler motifs present in Early Hemphill as well as occasional crosshatching of the background. Both make the earlier engraved designs busier than later renditions. There is also a shift from more veristic depictions of the engraved subjects in Early Hemphill to more schematic depictions later. By veristic, I mean that the designs are more truthful to nature. This shift from veristic to schematic designs can be seen especially clearly in the following elements: 1) the knots at the centers of crested birds, 2) eyes on the palms of hands, 3) antlers on winged serpents, and 4) rattles on winged serpents. There is also a simplification in design structure from more complex to more simple as well as in the number of design structures in use. There is a simplification in the number of subjects depicted through time (Table 5). There are a number of early Hemphill subjects that appear four or fewer times and never reappear. This is not to say that all instances of a rare subject are in Early Hemphill, because there are

also examples such as EE4 which is seriated to Late Hemphill. In addition to the trend towards simplification, there are also some other trends. One such trend is that in Early Hemphill there are strong stylistic ties to engraved designs from the Lower Mississippi Valley and northern Gulf Coast. These stylistic ties to other areas decrease through time. There are also more stylistic ties to other Hemphill style genres earlier in the sequence. According to Canon 5 of the Hemphill style “[crosshatching] is rarely used to create balanced areas of alternating fills, and rarely for background” (Knight and Steponaitis 2011:205), the rare examples are restricted to Early Hemphill.

In the following sections I provide a brief description of each style phase followed by a photograph, line drawing, and vessel description for each of the three style phases: Early, Middle, and Late.

Early Hemphill (ca. AD 1325-1375)

Early Hemphill engraving, while already a distinctive regional art style, has strong stylistic ties to engraved representational art styles from the northern part of the Lower Mississippi Valley (Walls) and the northern Gulf Coast (Pensacola). All early characteristics of the Hemphill style, including associated vessel shapes, as described generally in the opening section of this Appendix are diagnostic of Early Hemphill. Beyond these, there are a number of more specific features that can be pointed to. For example, lips on winged serpents and skulls are exclusive to Early Hemphill. Examples of lips can be found on NR17/m5 and NR25. Feather notching on winged serpent and raptor wing feathers is also exclusive to Early Hemphill, with only two exceptions: O9/m5, a Middle Hemphill raptor, and SD86/N7, a Middle Hemphill crested bird. Small filler motifs, such as are found on SE16 and SWM188, are exclusive to Early Hemphill. Other characteristics of Early Hemphill are theme- or subject-specific.

Winged Serpents

All Early Hemphill winged serpents have upturned snouts and veristic, curving antlers. Some Early Hemphill winged serpents have both explicitly depicted front fangs and rear teeth, which are distinguished from each other, whereas Middle and Late Hemphill examples make no such distinction. Examples of winged serpents with Early Hemphill fangs and teeth include SD836 and WR81.

Crested Birds

Early Hemphill crested birds have undulating necks. Their crests do not go all the way down the neck to the central medallion or tail. The central medallion is an explicit knot, whether veristic or somewhat schematicized. They have a combination of beads, fringed fan, and tongues within and emerging from their mouths. The inclusion of wings on crested birds in a court-card symmetry layout is exclusive to Early Hemphill.

Center Symbols and Bands

Diagonal crosshatching or diagonal banding within the center symbols and bands theme is exclusive to Early Hemphill. In subject matter, the use of swirl crosses within center symbols is also exclusive to Early Hemphill. The three fingers motif in conjunction with center symbols and bands is exclusive to Early Hemphill, although the motif can be found in conjunction with other themes such as the crested bird in Middle Hemphill. The center symbols and bands theme as realized within horizontal registers can be found on NE128, C2/m5, and D5/m5, in which there are no explicit bands within the registers nor any vertical elements. This realization of the center symbols and bands concept within registers is exclusive to Early Hemphill.

Other

Hands with circle motifs on the wrists are exclusive to Early Hemphill. Pseudo-raptors (Schatte 1997a), as depicted using in-the-round design structure, are found only in Early Hemphill. Designs that feature ogees, which all use cross-hatching for compositional balance, are also exclusive to Early Hemphill. Other relatively minor subjects that are exclusive to Early Hemphill are bilobed arrows and feathers.



Mo810/m5

Mo810/m5, which is now missing, was in the collections of the Alabama Museum of Natural History when Moore visited in 1905. The only provenience information is that it came from Carthage, which is now known as Moundville. Moore (1905:137-138) says this vessel “bears upon the base an incised design. Around the body of the vessel, which is somewhat broken, have been four designs similar, in the main, to that on the base. One of these designs is given in diagram 1 in Fig. 9. Near the head, in certain instances, where space has allowed it (Fig. 10), and on each tail, is a swastika enclosed within a circle.” If I understand Moore’s description correctly, this bottle has five sets of crested birds in court-card symmetry. This design structure is unique. This is the only time that five sets of any subject in court-card symmetry is found among the known vessels of the Hemphill style and the only time a subject in court-card symmetry appears wholly on the bottom of a vessel.

According to my seriation placement, this vessel is equally as early as NG3 and PS1991. Stylistically it is very similar to some Walls Engraved vessels showing the same subject from the Central Mississippi Valley. The birds engraved on Mo810/m5 are in courtcard symmetry with heads, tails, and wings radiating from a central medallion.

This vessel is seriated to Early Hemphill because it is most similar to certain Walls Engraved crested birds, and many of the subsequent crested birds seem derivative of it. It was also placed here because of its similarities with PS1991 which was placed in Early Hemphill and due to its vessel shape. While the exact base type cannot be confirmed from Moore’s photo, this bottle appears to have a slab base based on Moore’s (1905: Figure 8) photograph.

(Photo from C. B. Moore (1905: Figure 8). Left drawing by H. Newell Wardle (Moore 1905: Figure 9). Right drawing by H. Newell Wardle (Moore 1905: Figure 10).)



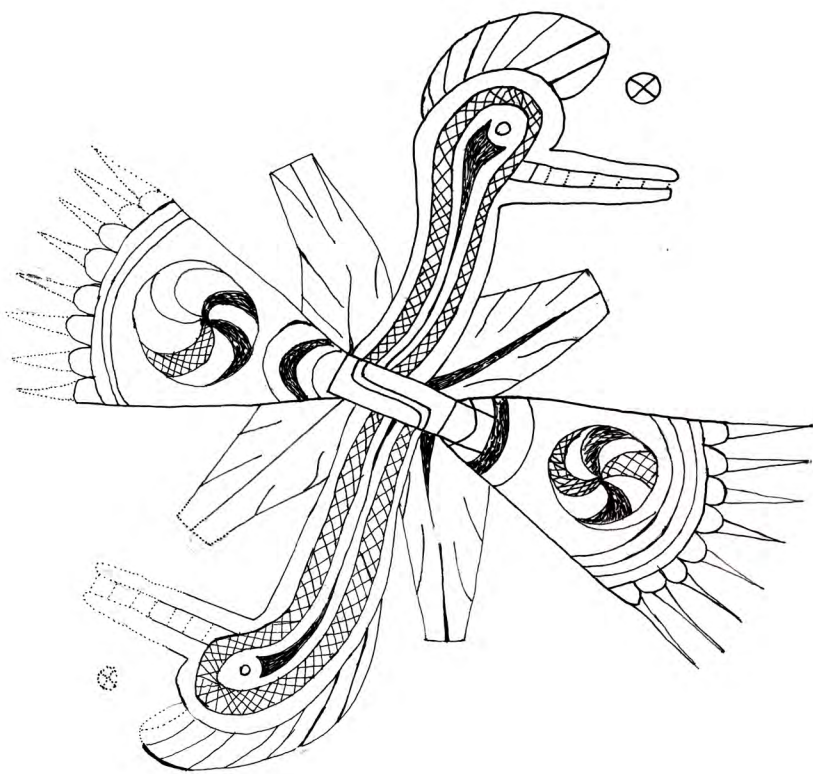
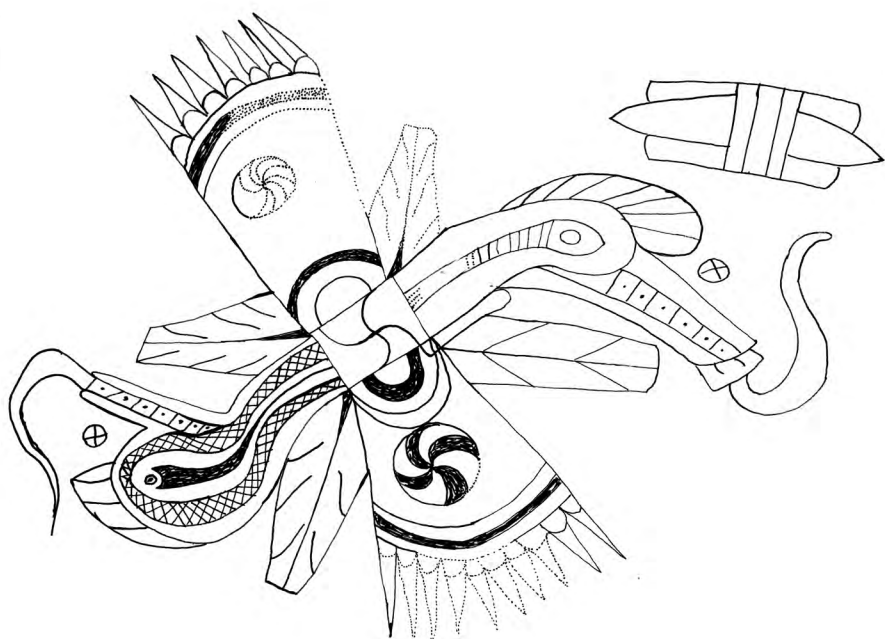
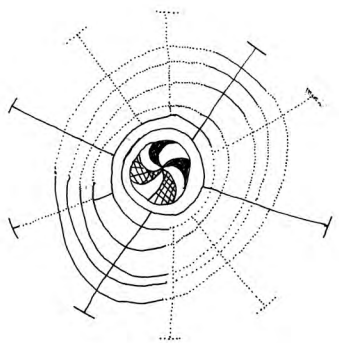


SE16

Steponaitis (1983b:250) classified this bowl (UAM 1931.3.8) as Unclassified Engraved and said that it was non-local. I included it in this study because Lacefield (1995) used it in her thesis, and it has definite similarities to Mo810/m5. The drawings on the next page were executed by Lacefield in the process of her analysis. Steponaitis (1983b:250) describes this vessel as a cylindrical bowl with a rim strap and notched lip. The bowl is well worn throughout, with two large spalled areas and two large areas that have been filled in with plaster. The engraved designs include two sets of crested birds in court-card symmetry, each with two heads, two tails, and four wings. The vessel is unusual in that neither medallion is circular. Typically, Hemphill-style compositions are well adapted to the form of the object on which they are rendered. The engraving on SE16 is unusual in that it is poorly adapted. Two heads and wings wrap onto the bottom of the bowl, one from each of the courtcard crested birds. Each head has a cross-in-circle center symbol immediately in front of the crest, just above the beak. In addition to the crested birds, there is a large center symbol with a swirl cross inside a ring of concentric circles in combination with a radial T-bar and a symbol that may represent a bundle or is a variant of the three fingers motif similar to the version on the Issaquena disk. The engraving on this bowl is fairly similar to engraving on certain vessels in the Central Mississippi Valley.

This bowl was seriated early in the Early Hemphill style phase because the vessels with the best external connections stylistically to vessels from the Central Mississippi Valley and the northern Gulf Coast fall early in the seriation. The crested birds on SE16, O10/m5, SM30, Q1085, G614 seem to have undulating necks and all of their central medallions have lines running through them reminiscent of knots. The central medallion on SM30 is most veristic.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





NG3

NG3, a cylindrical bowl with indentations, was found with burial 8 north of Mound G during Alabama Museum of Natural History excavations (Steponaitis 1983b:250). This was one of the vessels stolen during the 1980 robbery of the University of Alabama Museums' Erskine Ramsay Archaeological Repository. The indentation is in its base that acts as the central medallion for a crested bird in court-card symmetry. This is the earliest Hemphill-style crested bird with stylistic connections to designs found on Pensacola Incised pottery. The tails are quite similar to the raptor tail on NE80, and the cross-hatching of the iris of the eye is quite similar as well. While the engraving is stylistically similar to that of Pensacola Incised pottery, the crested bird subject matter is foreign to Pensacola Incised, but does have ties to Walls Engraved pottery. It thus seems to be derivative of both NE80 and Mo810/m5. Its design structure also seems derivative of both NE80, whose in the round design structure has a head and tail wrapped up from the bottom of the vessel, and Mo810/m5 which displays crested birds in court-card symmetry. This crested bird in court-card symmetry is also very similar to O10/m5. The vessel seems to be a prototype for subsequent versions of the crested bird at Moundville. Like other Early Hemphill crested birds, this crested bird has an undulating neck and a beaded or tasseled tongue.

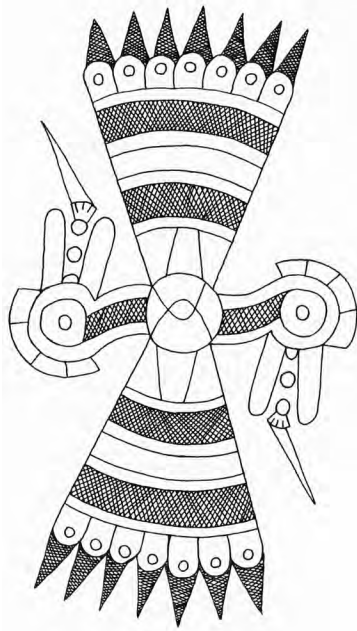
(Photos courtesy of Vincas P. Steponaitis.)

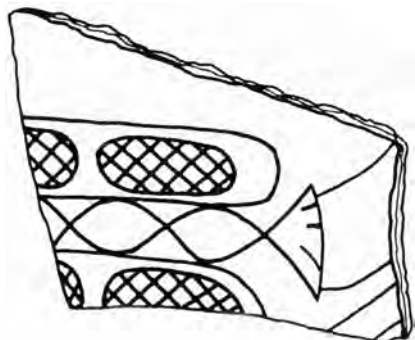


Q1085

Q1085 (UAM 1989.40.1085, 1989.40.969) was found in Mound Q by Vernon J. Knight, Jr. during his excavations in 1992. Q1085 was seriated as Early Hemphill because its crest does not run all the way down the back of its neck, its neck undulates, it has a beaded and tassled tongue, and its central medallion has a connecting line within it.

(Photo courtesy of V. J. Knight. Drawing by Andrea Stillwell, courtesy of V. J. Knight.)





G614

G614 (UAM 1989.41.614.1) was found in Mound G by Vernon J. Knight, Jr. during his excavations in 1993. G614 was seriated to Early Hemphill because of its tongue, which is formed similarly to the tongues on Mo810/m5, where the beads are formed by alternating undulating lines rather than individually drawn circles. The beak, however, is more similar to that of NG3, also an Early Hemphill vessel.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



SM30

SM30 is a cylindrical bowl with a single lug that was excavated with Burial 1033 by the Alabama Museum of Natural History (Steponaitis 1983b:254). While it was stolen in the 1980 robbery, we fortunately have photos showing the engraved design on both sides of the bowl. The photo on the left is an early Alabama Museum of Natural History photograph (MSM 1256), while the one on the right was taken by Steponaitis in the course of his dissertation research. The bowl depicts two sets of crested birds in court-card symmetry, one on each side of the bowl. Each set of crested bird has two heads, two tails, and four wings. The crested birds as depicted here show a combination of traits related to Walls Engraved and Pensacola Incised pottery. It's central medallions seem particularly knot-like. As with other Early Hemphill crested birds the tongues are beaded. Unlike other Early Hemphill crested birds, these crested birds have no cross-hatching.

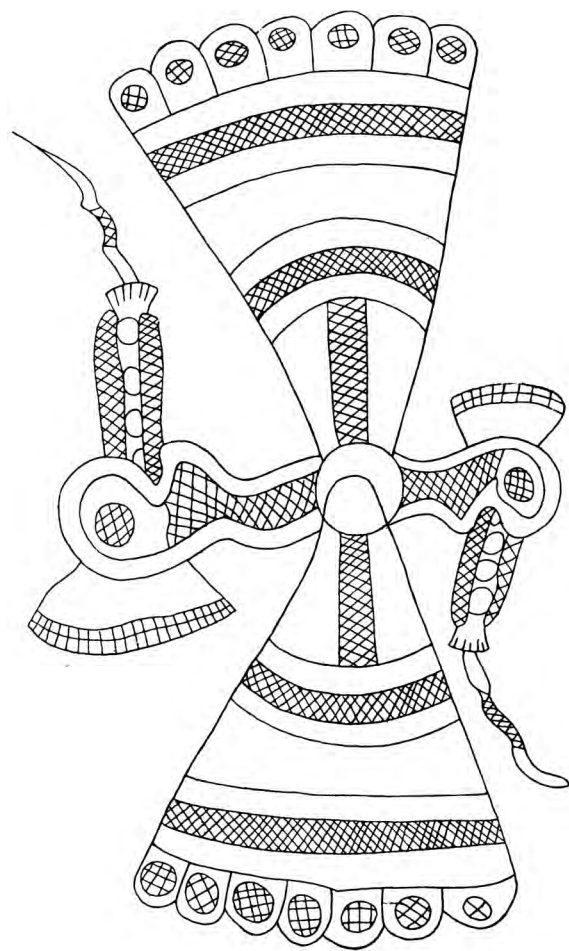
(Left photo courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 1256. Right photo courtesy of Vincas P. Steponaitis.)



O10/m5

O10/m5 (NMAI 172259), a subglobular bottle with a slab base, was excavated with burial 21/O/m5 by C. B. Moore in his 1905 excavations of Moundville (Steponaitis 1983b:256). This bottle has quite a bit of use-wear. Over fifty percent of the base of the bottle is worn. The exterior of the neck shows wear at the base, half way up, and three fourths of the way up, where the outer surface is worn though to the red interior. The neck interior is only slightly worn. The bottle is slightly glittery due to mica inclusions in the clay. The bottle depicts two sets of crested birds in courtcard symmetry. The drawing of one of these sets of crested birds on the next page comes from Moore's 1905 publication. The crests of the birds are reminiscent of peacocks or peahens. This crested bird has a long undulating extension of the standard Early Hemphill beaded and tasseled tongue. Three of the tails overlap onto the center symbols while the right tail of the bird in the drawing does not. On this bottle, the artist has conflated the knotted center with the origins of the tails. The eyes and the circles at the tail ends are cross-hatched, similar to those of NG3 and NE80. This bottle seems to be contemporaneous with A989.40.1085 and A993.41.614.1, which like this bottle have stylistic links to Pensacola Incised pottery. It also seems to be contemporaneous with SE16, with stylistic links to Walls Engraved pottery and SM30, with stylistic links to both Walls Engraved and Pensacola Incised pottery. Like these other Early Hemphill crested birds, the crested birds on O10/m5 have beaded and tasseled tongues, undulating necks, and central medallions with lines indicating knotting. O10/m5 is seriated to Early Hemphill for both the stylistic ties mentioned above, and for its vessel shape. It has a slab base, the body becomes roughly horizontal at the neck creating a shelf-like appearance, and the vertical point of tangency of the body is slightly below the midline.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 118).)





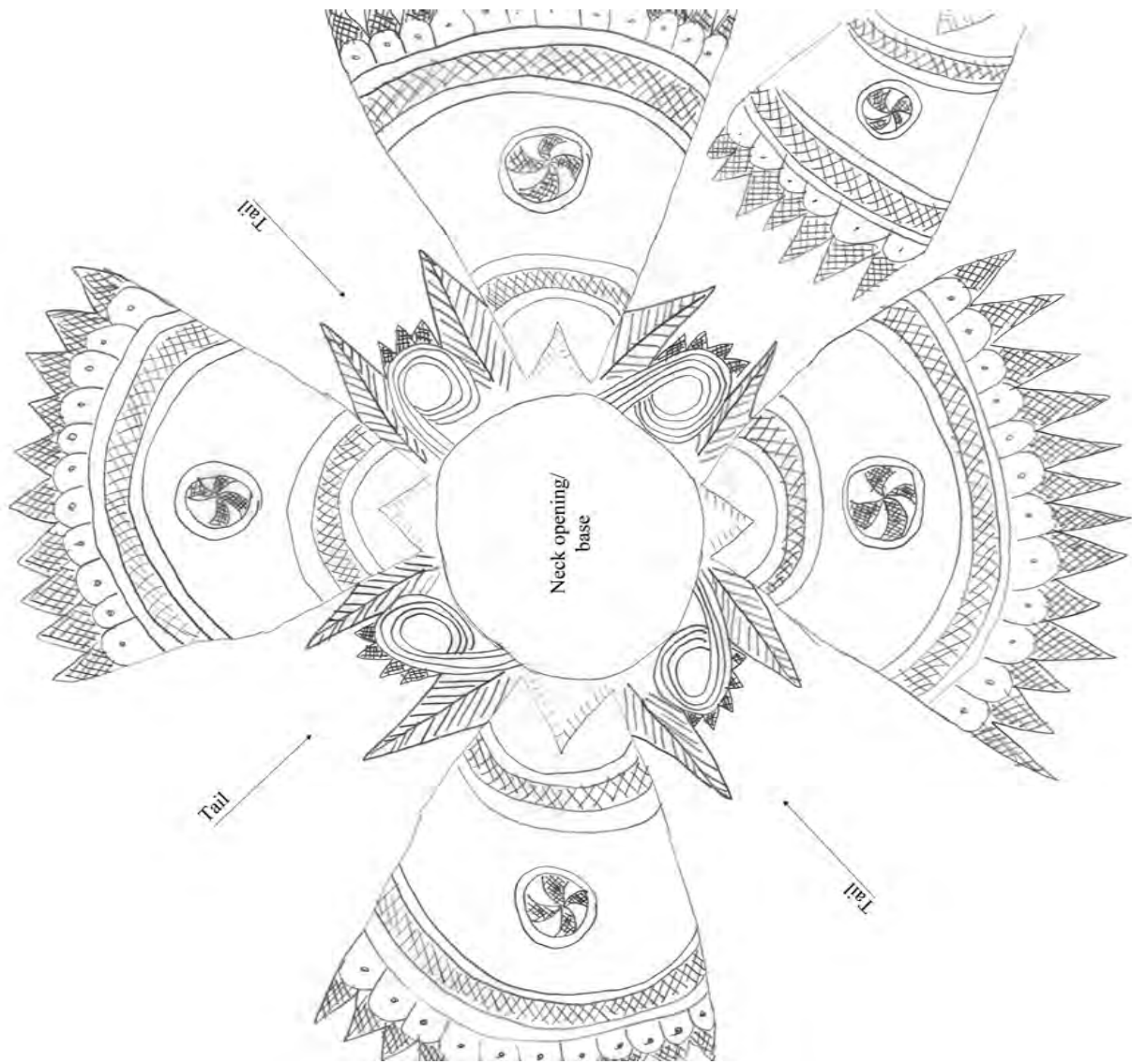
PS1991

PS1991 (UAM 1938.4.48752) was found with Burial 493 at the Perry Site (1Lu25) in the Tennessee River Valley in Lauderdale County, Alabama. It is a subglobular bottle with what appears to be a pedestal base, and depicts severed tails, wings, and looped parallel lines with cross-hatched triangles along the outer edge. These loops with triangles are kind of a combination of design characteristics from Moundville Engraved, *varieties Englewood* and *Wiggins*. This reconstructed bottle shows clear signs of use-wear. The exterior is pitted, especially on one side, and the outside of the neck is rather worn. The neck interior shows wear, but less than that of the neck exterior. Compared to the bottles from Moundville this bottle is quite large, at 21 cm tall and a circumference of 81 cm at the widest point. The base is 13 cm in diameter while the neck opening is 11 cm. The neck is 6 cm tall and 33 cm in circumference. This bottle is one of two Moundville Engraved, variety Hemphill bottles with severed tails. The main difference between the tails on the two bottles is the tail tips. This bottle has been seriated to Early Hemphill, while the other bottle (F4/m5) has been seriated to the Middle Hemphill style phase. The wings and tails clearly belong to the crested bird theme. The wings are similar to those on SM30, while the tails are similar both to those on SM30 and those on Mo810/m5. In addition to its size, three things are unusual about this bottle: the combination of Hemphill designs with other Moundville Engraved designs, the cross-hatched tail tips which do not match to the scalloped ends, and the concentric circle around the swirl cross design in the center of each tail. The combination of *Hemphill* designs and other Moundville Engraved designs is only seen two other times. On NR(sherd)/m5, like PS1991, the other Moundville Engraved design (*variety Havana*) is integral to the original design of the vessel. On NR40, the Hemphill-style representational art seems to be a later addition to a Moundville Engraved, *variety Wiggins* bottle. On the present specimen, there are four severed tails suspended from the top of the body of the bottle and four from the bottom. Each tail is flanked by wings. Between the wing/tail/

wing groupings is a loop of concentric lines and projecting crosshatched triangles. The sketch on the previous page gives a sense of this arrangement looking down from the top or up from the base.

This bottle seriates equally as early as NG3 and Mo810/m5. The engraving is in the Walls Engraved tradition, and has a prototype in 22-DS-500-Edgefield/Walls/Harris. This bottle has been seriated as Early Hemphill based on its stylistic similarities to Walls Engraved designs and Mo810/m5, as well as its vessel shape. It is a subglobular bottle with a pedestal base, the point of tangency of the body is in the lower half, and the shape is somewhat reminiscent of slender ovoid bottles.

(Photo by Erin Phillips. Sketch by Erin Phillips.)





NE80

NE80 is a subglobular bottle with a flattened simple base (Steponaitis 1983b:244). Steponaitis (1983b:244) was uncertain as to whether this bottle was local. The vessel shape, with a high point of tangency for the body, is reminiscent of Pensacola Incised bottles, as is the style of the engraving. Unfortunately this bottle disappeared at about the same time as the 1980 theft from the Erskine Ramsay Archaeological Repository, so it is not available for further examination. Early photographs of this bottle (MSM 1050, MSM 1048) in the Alabama Museum of Natural History collections show the head, the tail, part of the feet, and the wing-tips. This bottle depicts a raptor in the round and is, perhaps, the earliest example of the in-the-round design structure at Moundville. NE80 has been seriated to the Early Hemphill style phase because the three pronged eye surround that goes all the way around the eye and the two part iris are similar to WR81, one of the serpents in the round that were in Schatte's (1997a) earliest grouping; the use of space on the vessel and crosshatching were most similar to other Early Hemphill vessels; and it seems prototypical of other Moundville raptors. This bottle has clear similarities to NG3, which is assumed to be derivative.

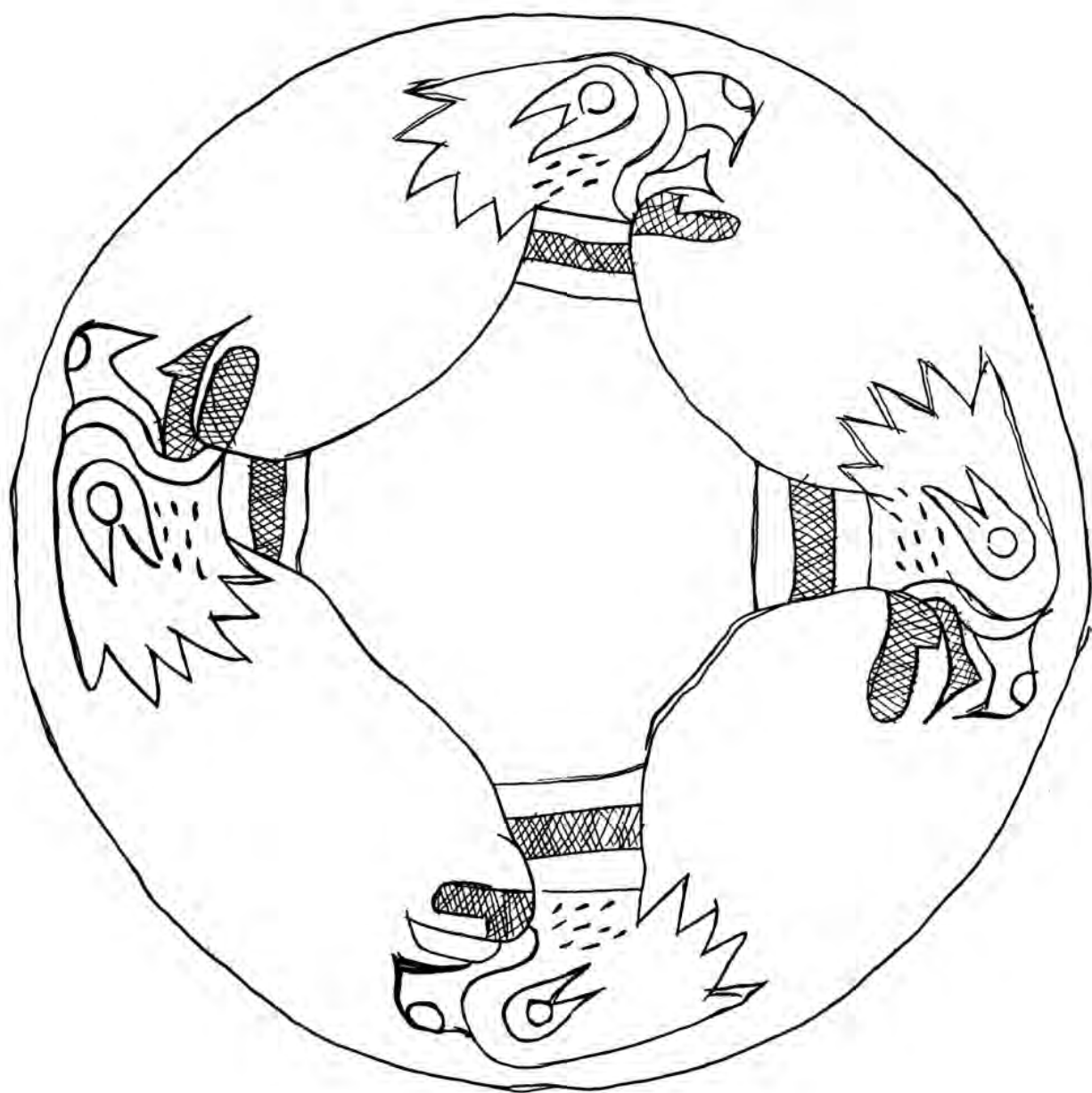
(Left photo courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 1050. Right photo courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 1048.)



SD54/m7

SD7/m7 (NMAI 171424), a subglobular bottle with a slab base, was excavated with burial 108/SD/m7 by C. B. Moore in 1906 (Steponaitis 1983b:242). There is minimal use-wear on the neck, rim, and base. None of the black burnished surface has worn off. There is clear scraping at the outer vertex of the body on the inside of the vessel. Depicted on the bottle are four raptor heads folded up from the bottom with their shoulders connected by a downward-arching line. There is a single engraved line around the body of the bottle just below the neck. The raptor heads seem to have been sketched first and subsequently engraved definitively, as shown by numerous sketch lines. Some of these doubled lines are evident in C. B. Moore's illustration on the next page. The design is well planned on the vessel. There are hash marks in the lower portion of the head similar to those on NE80, NR17/m5, and SD836. The latter two vessels both depict winged serpents. The neck banding lines on these raptors are quite similar to those on the serpents of NR17/m5. After NE80 in the seriation, the beak-head separating line is most distinguished on this bottle. Like O10/m5, SW62, and SD805, this bottle has a slab base and the point of tangency on the body is on the lower half.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 8).)

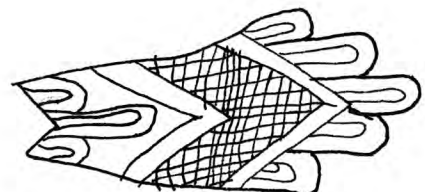
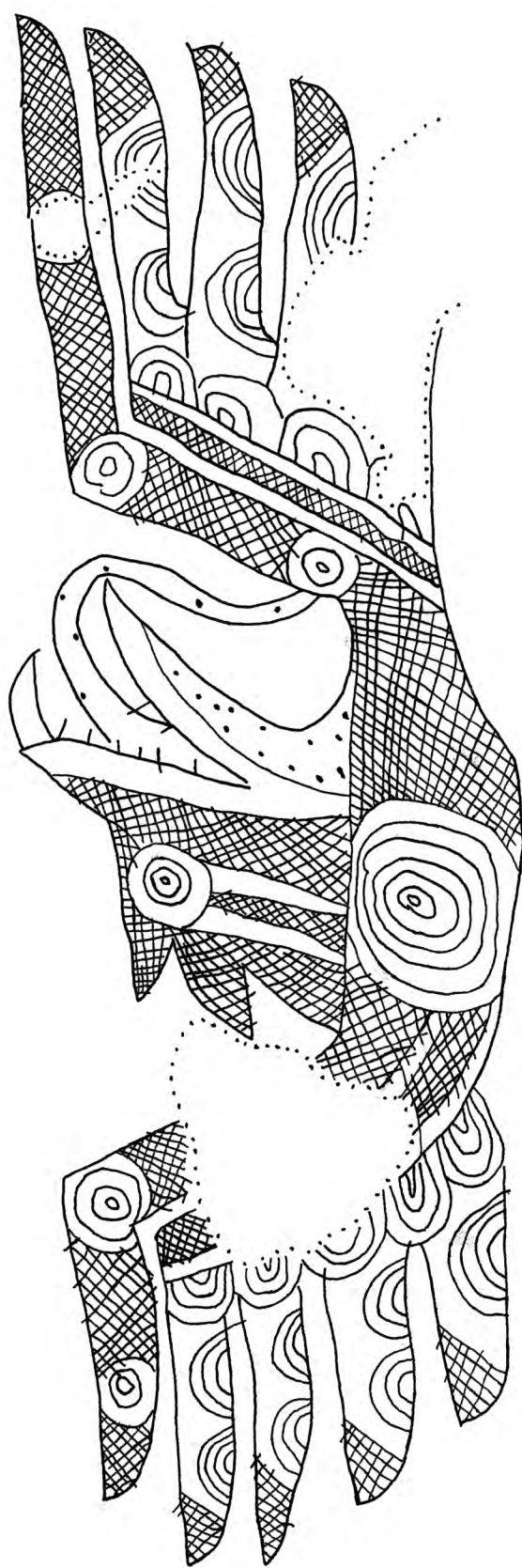




SE8

SE8 (UAM 1931.3.3), a subglobular bottle with a simple base, was found during AMNH excavations south of Mound E (Steponaitis 1983b:249). The image is described by Steponaitis (1983) as a raptor in the round, but Schatte classifies it as a pseudo-raptor because it contains both snake and raptor attributes (see Schatte's drawing on the next page). There is damage in the raptor's right wing bar (on the left side of the vessel). The tiny bottle is worn all over, and much of the shell is leached from the exterior surface. The design is relatively difficult to see. The pseudo-raptor's head and wings wrap up from the bottom, while the tail is suspended from the top. Typically with in-the-round representations, all parts either wrap up from the bottom or are suspended from the top. Such a combination is unusual. The creature on this vessel is very similar to the other creature classified by Schatte as a pseudo-raptor (WR59). In fact, they are part of the same style level 3 group. Pseudo-raptors come near the beginning of Schatte's winged serpent seriation and thus fall into Early Hemphill. With the pseudo-raptors, it seems as though Moundvillians were trying to figure out what to do with the introduced raptor concept, and have combined raptor and serpent ideas.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

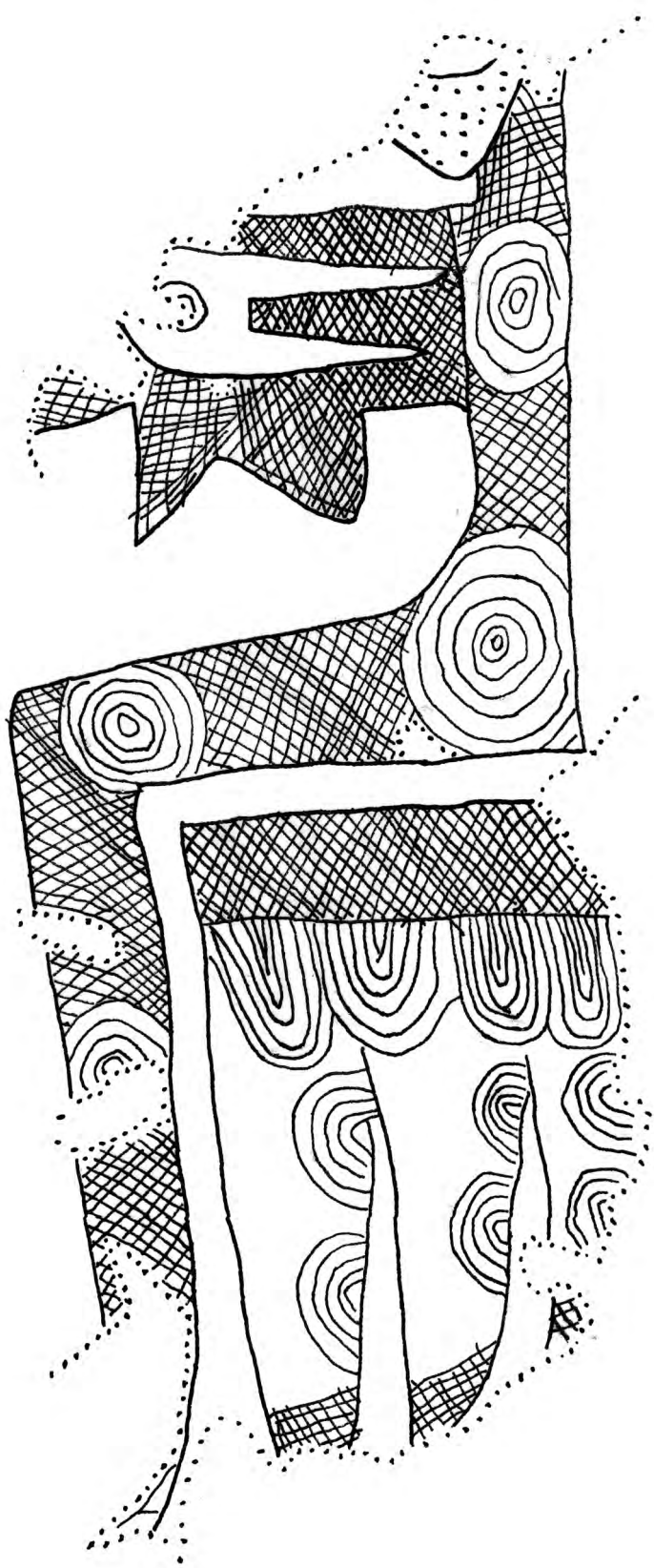




WR59

WR59 (UAM 1930.1.12), a subglobular bottle with simple base, was excavated with burial 1045 during Alabama Museum of Natural History excavations west of Mound R (Steponaitis 1983b:261). This bottle has been largely reconstructed, and Steponaitis classifies it incorrectly as a winged serpent due to its erroneous reconstruction as a winged serpent incised on the plaster by the restorer. The extremely fanciful drawing in *Sun Circles and Human Hands* (Fundaburke and Foreman 1957: plate 38) is based on this erroneous reconstruction. When one examines the actual engraving (see the drawing to the right by Schatte), one realizes, as Schatte did, that this is really a pseudo-raptor very similar in design to SE8. WR59 and SE8 are part of the same style level 3 group. Because of the similarity with SE8, this vessel is seriated as Early Hemphill. Minimal wear is present, but most of the wear would have been on the parts that are missing.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

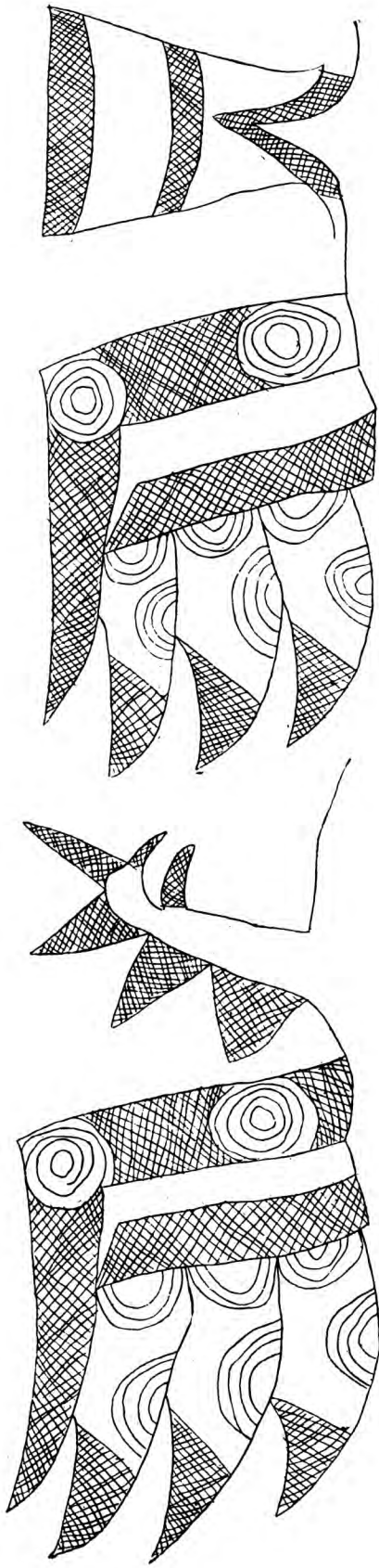




SD18/m7

SD18/m7 (NMAI 174355), a subglobular bottle with simple base, was excavated south of Mound D with Burial 22/SD/m7 by C. B. Moore in 1906 (Steponaitis 1983b:241). There is minimal wear except at the base of the neck, where a groove is worn. There is also some wear at the rim, and there are a few horizontal marks on the interior of the neck where the burnished exterior has worn through. There are a few tiny specks of mica in the clay, but they are somewhat difficult to see. The creature on this bottle appears to be a bird depicted in the round, but one of the wings is backwards (see the line drawing from Moore's 1907 publication on the next page). Schatte classified this bottle as a transitional pseudo-raptor, which he seriated slightly later than the other pseudo-raptors, but still rather early in the overall sequence. Thus, this bottle is seriated to the Early Hemphill style phase.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 11).)





W(sherd)

W(sherd) (UAM m-wp14166, 15671-15672, 15678, 15686, 15688, 15694-15695, 15699) is part of a bottle excavated from Mound W by the Alabama Museum of Natural History. Based on the curvature of the fragment, the bottle is very large for a Moundville Engraved, *variety Hemphill* vessel. This sherd depicts a combination of center symbols and bands and raptors. The raptors are perhaps in court-card symmetry, where the center symbol acts as the central medallion, the raptor heads and tails project on the diagonals, and the bands project vertically and horizontally. Based on the tail coming down from the top, the opening at the top of the bottle likely acts like a center symbol/medallion as it does in examples of center symbols and bands (NR1/m5, SD7/m7) and raptors in court-card symmetry (SWG63). This sherd has been seriated to the Early Hemphill style phase because of its connections to other Early Hemphill vessels and sherds. Like NE80, NG3, and O10/m5, the center of the eye is crosshatched. The center symbol is a crosshatched swirl cross like SD7/m7, 1993.41.1014.3, 1993.41.1010.7+.8+.635.2, and NE128. The “striped pole” bands are similar to the wing-bar on NR17/m5. The oval is reminiscent of the ovals at the centers of ogee motifs on bottles featuring those and on C2/m5.

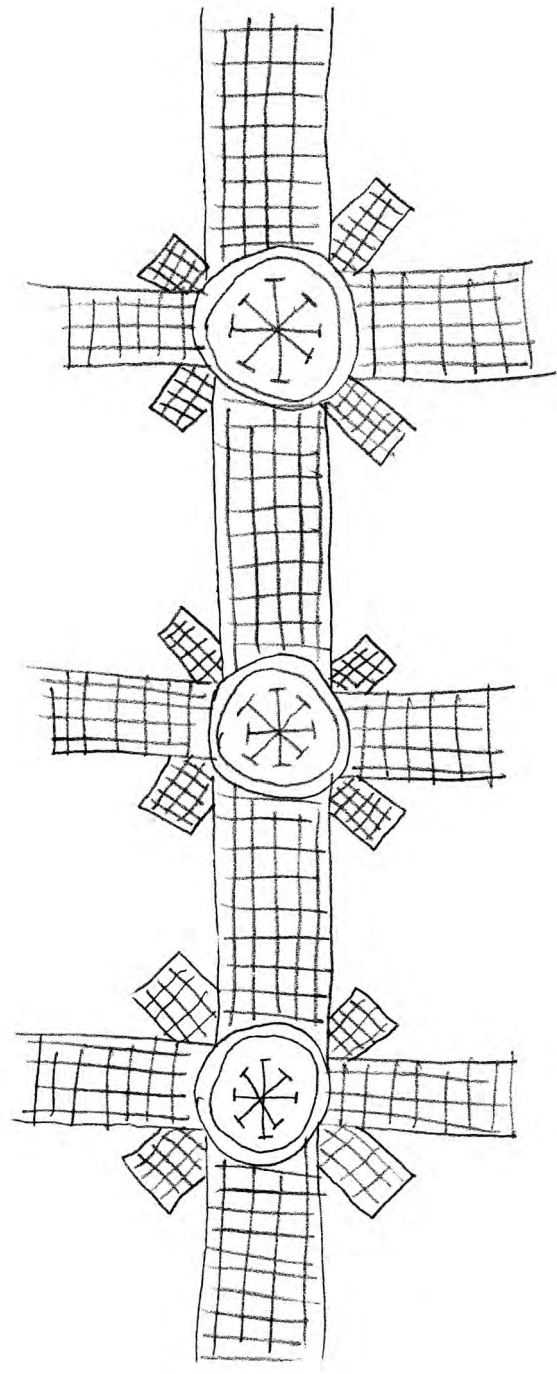
(Photo by Erin Phillips.)



C12/m5

C12/m5 (NMAI 173371) a subglobular bottle with a pedestal base, was excavated from Mound C by C. B. Moore in 1905 (Steponaitis 1983b:235). It was rather broken, but has been reconstructed. The base is broken into many pieces and broke entirely away from the body. The entirety of the base has worn most of the way through the outer surface of the vessel. The inside of the neck is more worn toward the top where, like the base, most of the surface finish has been worn through. The neck exterior shows virtually no use-wear. There is a slight concavity about halfway up the exterior of the neck that is smoother than the rest. While it seems that there are generally four center symbols depicted, this bottle only depicts three, as seen in the sketch to the right. The center symbols are radial T-bars. The crosshatching on the bands runs parallel and perpendicular to the edges of the bands rather than running diagonally as it does on some examples. In this example of center symbols and bands, short bands emit from the diagonals of the center symbols. The engraved lines are relatively thick and deep as compared to other vessels. This bottle is seriated to the Early Hemphill style phase because it, like F3/m5, NR11/m5, NR1/m5, NEC9/m5, C12/m5, and PS1991, has a pedestal base, the point of tangency of the body is in the lower half, and it is reminiscent of slender ovoid bottles. The body becomes horizontal where it joins the neck, which also seems to be an early trait.

(Photo by Erin Phillips. Sketch by Erin.)



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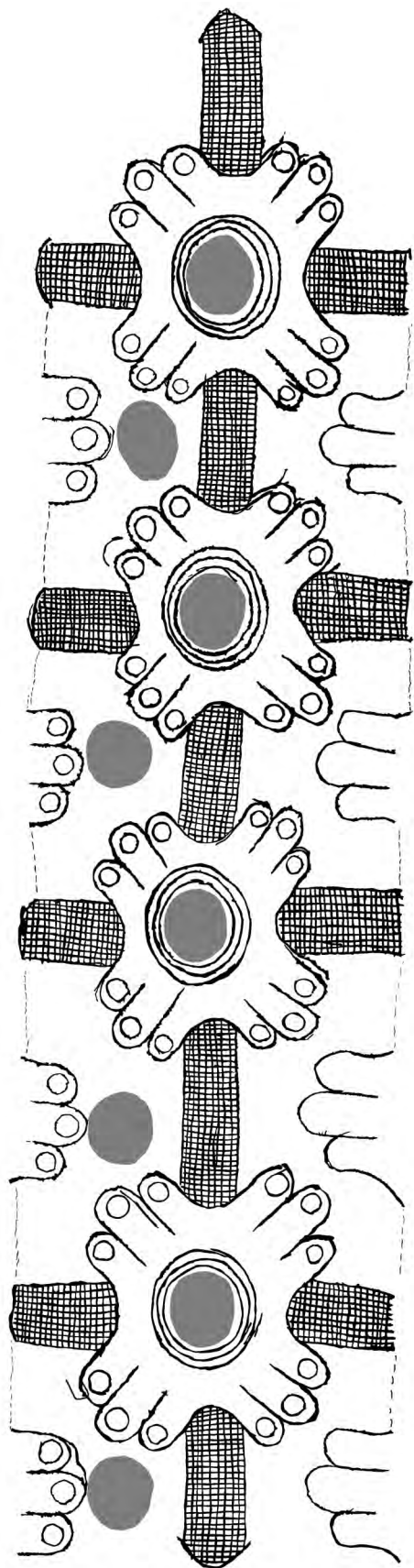


NR1/M5

NR1/m5 (NMAI RP0068.000) was excavated from Feature 1 north of Mound R by C. B. Moore in 1905. It is in the collections of the National Museum of the American Indian. When the NMAI collections were moved from New York to Suitland, Maryland, the staff discovered that another vessel also had the same accession number (173375). NR1/m5 was assigned a temporary Registration Problem number. The provenience of NR1/m5 is known because Moore illustrated it in his 1905 publication about his excavations at Moundville.

NR1/m5 is a subglobular bottle with a pedestal base (Steponaitis 1983b:259). The neck has been broken and repaired. The surface is not an even black, and some shell tempering is visible on the surface. It is well burnished with virtually no signs of wear. There may be slight wear on the inside of the neck. There are indentations in the middle of the center symbols and in the spaces between the three sets of three finger tips on the upper body. The fingertips folded up from the bottom do not have circles on their ends. This bottle is seriated to the Early Hemphill style phase because it has a pedestal base, the point of tangency on the body is below the midpoint, and its shape is reminiscent of slender ovoid bottles.

(Photo by Erin. Drawing by Erin Phillips.)



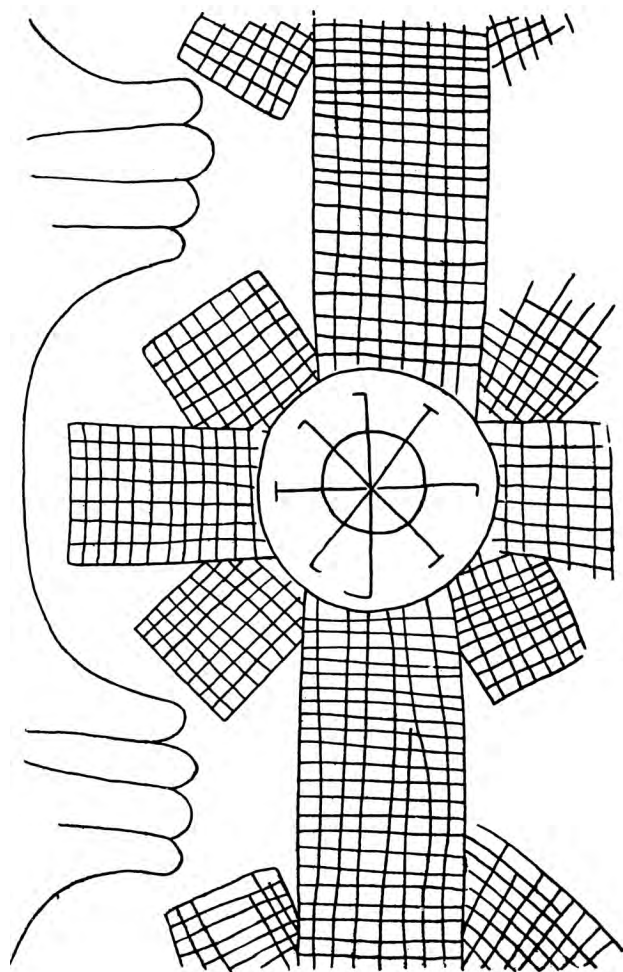
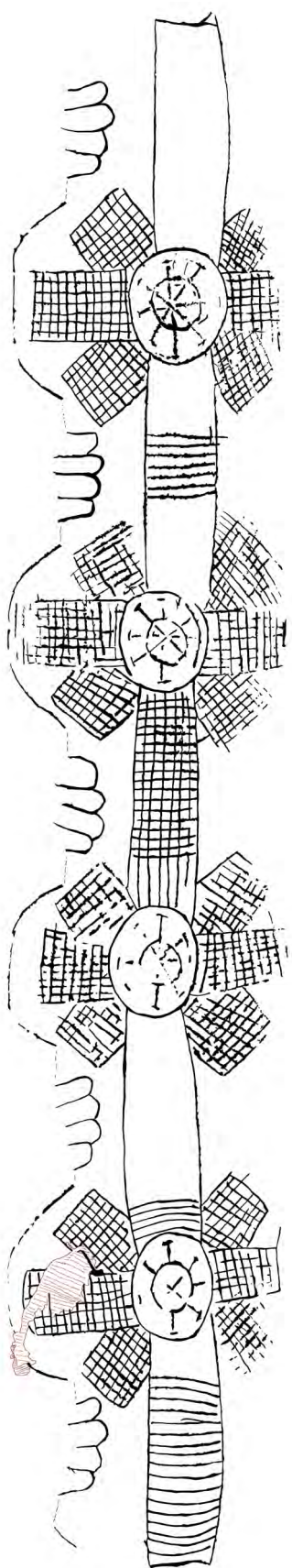


NEC9/m5

NEC9/m5 (NMAI 173356), a subglobular bottle with a pedestal base, was excavated by C. B. Moore northeast of Mound C in 1905 (Steponaitis 1983b:236). The body of the vessel looks more worn than it feels. The base shows little wear. There is a small piece missing from the top of the neck that has been repaired, as can be seen in the photograph above. The neck shows varying degrees of wear, from almost none in some areas to the outer surface finish being almost completely worn through in other areas.

NEC9/m5 has four center symbols, each with eight radiating bands. Four sets of four fingers fold down from the top alternating between center symbols. This bottle is seriated as Early Hemphill because of its pedestal base, its point of vertical tangency is below the midpoint of the body, and the fact that the shape is reminiscent of slender ovoid bottles. This bottle is quite similar to C12/m5 and some Walls Engraved vessels.

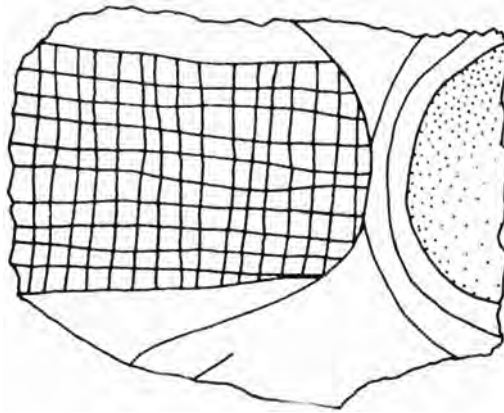
(Photo by Erin Phillips. Top incomplete drawing by Erin Phillips. Bottom Drawing by H. Newell Wardle (Moore 1905: Figure 9).)





SWM188

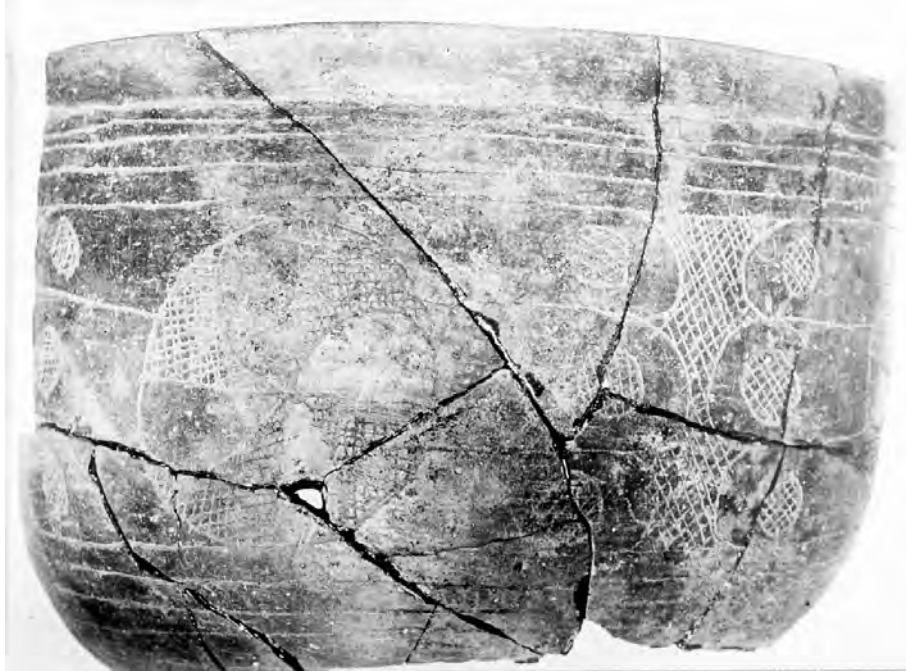
SWM188, a subglobular bottle with slab base and indentations as center symbols, was excavated by the Alabama Museum of Natural History southwest of Mound M (Steponaitis 1983b:254). According the MSM 1268 photo sleeve for a photo very similar to the one above by Steponaitis, there were four indentations on this bottle. Also on the photo sleeve was the following note: "Probably the skeleton with which this [SWM188] was buried was removed by previous excavations, or decayed because [the] outline of [the] burial was discernable." This bottle was one of the vessels stolen in the 1980 robbery. Designs matching the circles over the horizontal bands can be found on Walls Engraved vessels. This vessel was seriated as Early Hemphill because of its slab base and point of vertical tangency below the midpoint of the base. (Photo courtesy of Vincas P. Steponaitis.)



Q1568

Q1568 (UAM 1989.40.1568.2) was found during Vernon J. Knight's excavations of Mound Q. This vessel was seriated as Early Hemphill because of its similarity to both NR1/m5 and O20/m5.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)

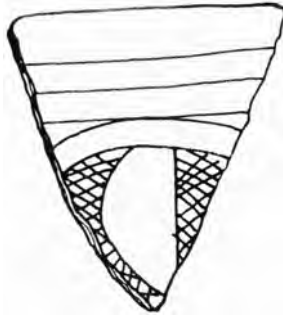


NE128

NE128 (UAM 1932.4.70), a large cylindrical bowl, is now missing (Steponaitis 1983b:244). The only known image is an early Alabama Museum of Natural History photo (MSM1070). This vessel was reconstructed at some point and all that remains are the reconstructed portions with a small undecorated sherd still attached which has been covered in the paint used to paint the plaster. Based on the large plaster-reconstructed piece, the rim diameter of this bowl was 23 cm. The center symbols and three fingers design on this bowl is slightly reminiscent of C2/m5.

This bowl is seriated as Early Hemphill for because of the crosshatched background and the swirl cross center symbol. The finger tips of the three fingers element are quite similar to the Pensacola-like tail tips on NE80 and NG3. It was also included because of the contrasting crosshatched and plain spaces, and because of the concentric lines just below the rim which are early features. Like O16/m5, SD13/m5, and NR(sherd)/m5, NE128 has a crosshatched background.

(Photo courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 1070.)



E3740

E3740 (UAM 1993.41.3740.3) was found during Vernon J. Knight's excavations of Mound E. This vessel is seriated as Early Hemphill because it appears to have come from a bowl with the same design as NE128 on the previous page.

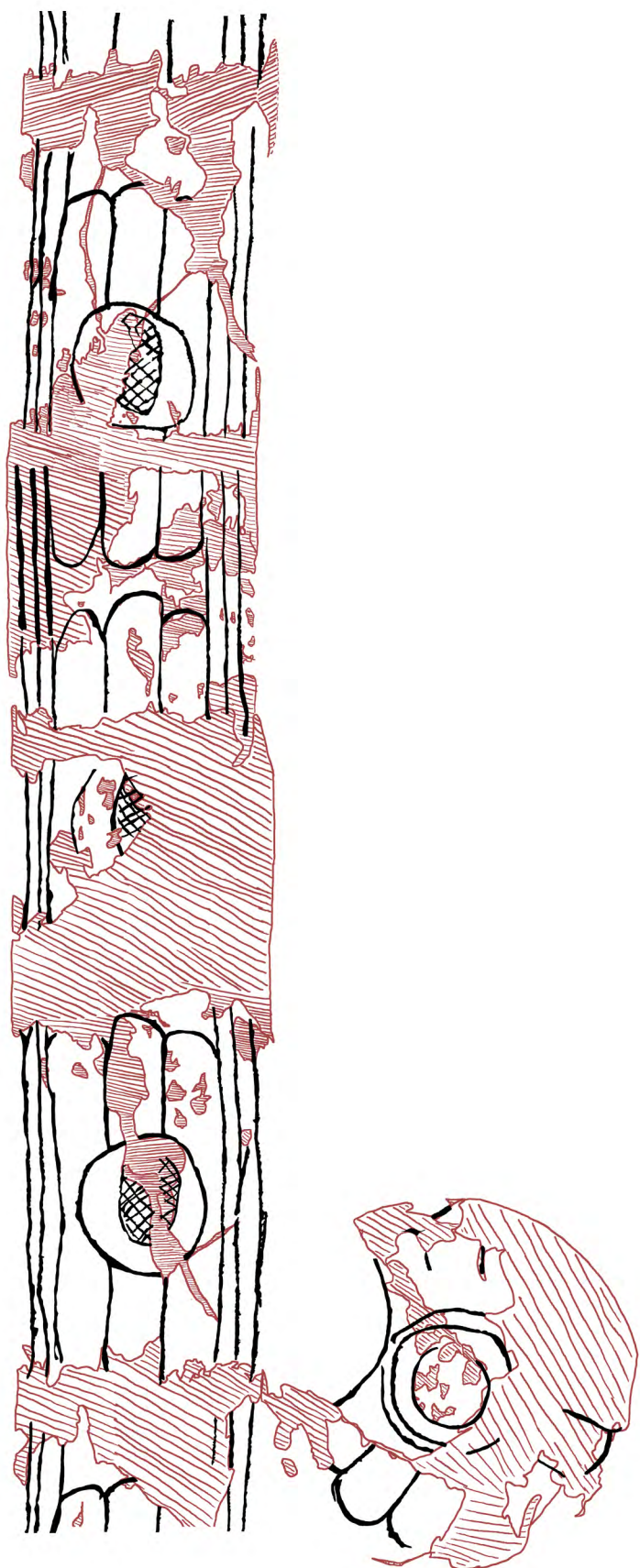
(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



C2/m5

C2/m5 (NMAI 180417) was found in Feature 1 in Mound C by C. B. Moore in 1905. This cylindrical bowl is well worn and has numerous breaks (Steponaitis 1983b:235). The outer surface seems to have spalled off in several locations. The inside is even more worn than the exterior. The three fingers motif emits horizontally from two sides of each of the three circles on the walls of the bowl. Each circle has a cross-hatched oval in its interior. The circle on the bottom of the vessel seems to have three sets of three fingers emitting from it. C2/m5 is seriated in the Early Hemphill style phase because, it has concentric lines just below the rim and it is reminiscent of NE128 and D5/m5.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





D5/m5

D5/m5 (NMAI 173340), a subglobular bottle with a simple base, was found in Feature 4 in Mound D by C. B. Moore in 1905 (Steponaitis 1983b:236). A chunk is missing from one side. The bottle seems to have been quite badly broken. The inside of the neck may be the only place with visible wear, but it is difficult to tell, as the rest is quite smooth. One can see scrape marks from manufacture on the exterior of the neck. In the upper register there are 5 sets of three “finger bars” at the top with crosshatching between. In the lower register there are four wing pairs. The feathers are joined by a double circle or ring which may be equivalent to center symbols. There are two feathers per wing, and feathers are entirely crosshatched. These wings are similar to wings on NR24, except that these are feather pairs and are not attached to wing-bars. This bottle was seriated as Early Hemphill because of the crosshatched background in the upper register. While not a clear example of center symbols and bands, this bottle seems to be most related to that theme, particularly to NE128 and C2/m5.

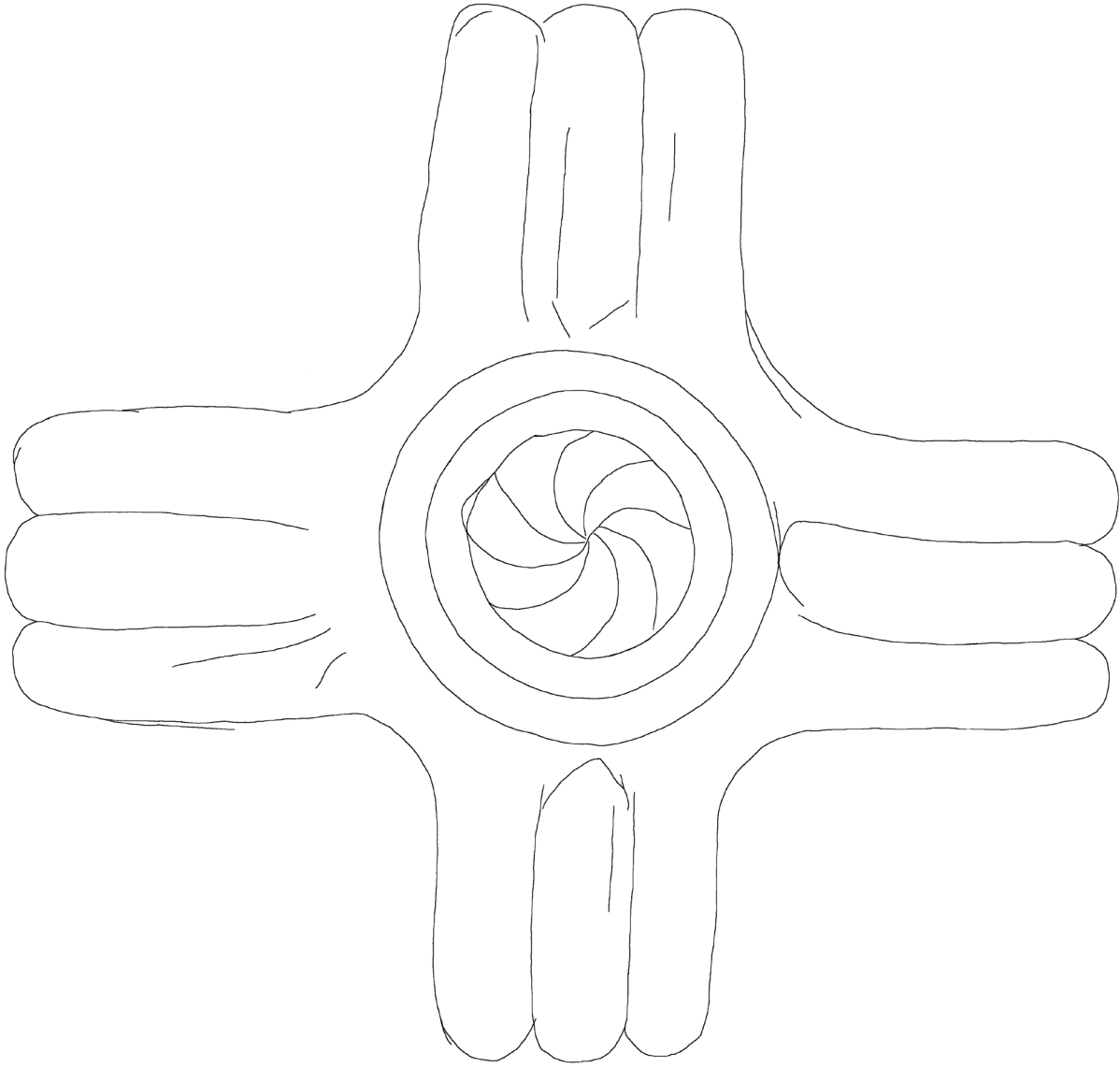
(Photo by Erin Phillips)



SD28/m7

SD28/m7 (NMAI 173377) is a cylindrical bowl with a single lug (Steponaitis 1983b:251). There has been some confusion about the accession number. Steponaitis (1983b) has another vessel with this accession number, and calls this vessel 173377A. Steponaitis's 173377 seems to be 173372, a different vessel. The burnishing is largely intact. There is one very small spot in the curve between the base and the side of the bowl which is worn. There are also a few scuff marks, but overall wear is minimal. The inside of the vessel shows signs of scraping during manufacture. This vessel has a center symbols and three fingers design, with the center symbol on the base and the fingers wrapping up onto the sides of the bowl. There is no crosshatching in the swirl cross center symbol or anywhere else on the bowl. SD28/m7 was seriated to the Early Hemphill style phase because it is most similar to C2/m5 and NE128.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

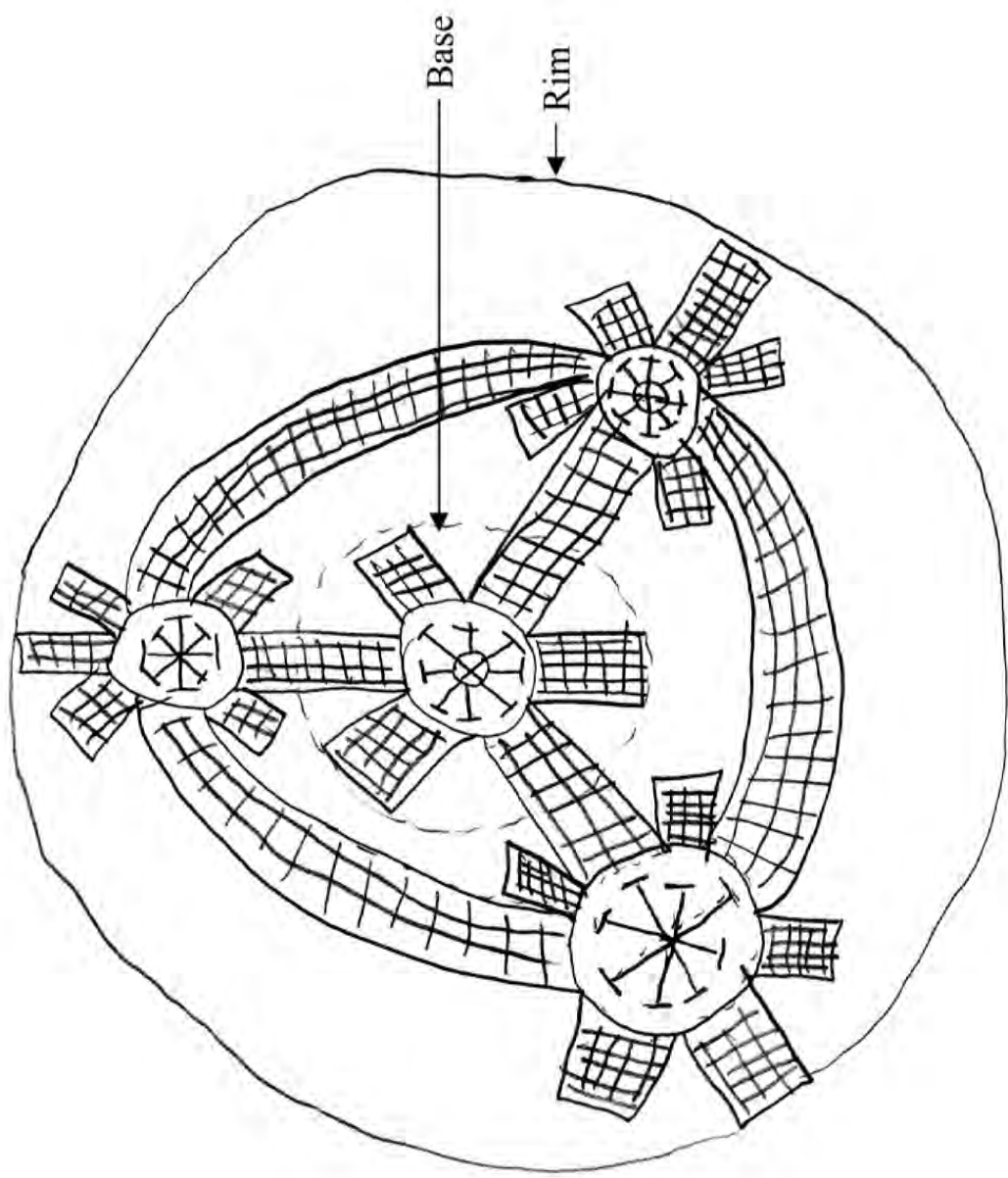




NR114

NR114 (UAM 1931.2.21) is an outslanting bowl found with burial 1109 (Steponaitis 1983b:259). Only the lower half of the bowl is original, the rest being reconstructed. Some of the squares resulting from crosshatching have eroded away. The bowl is red in color and not at all black. There are four center symbols on the bowl, as shown in the sketch on the next page. One center symbol is on the bottom, while the other three are on the sides. The center symbols each have a radial T-bar design. Two have circles in the middle with alternating spokes of the radial T-bar beginning at the circle's edge rather than at the center. The center symbol on the bottom only has six bands. Three of the bands connect to the center symbols on the sides, while the other three run to the outer edge of the base. NR114 is included in the Early Hemphill style phase because of its vessel shape. According to Steponaitis (1983b:Table 32), outslanting bowls are seriated to the Moundville II phase.

(Photo by Erin Phillips. Sketch by Erin Phillips.)



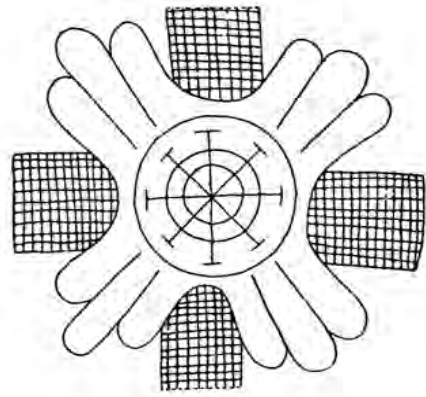


O20/m5

O20/m5 (NMAI 173346), a subglobular bottle with a slab base, was found during C. B. Moore's excavations of Mound O in 1905 (Steponaitis 1983b:256). This bottle was broken into small pieces, but seems to have been reconstructed well. There are a number of horizontal cracks that are likely breaks at the edges of coils. The base of the bottle is rather worn, with about two-thirds of the surface finish being worn most of the way through. The exterior of the neck shows some wear, especially at the lip. The neck interior shows more wear than elsewhere on the vessel. There are four center symbols as part of the center symbols and bands design, although one of them is mostly missing. On the next page is one of the center symbols as illustrated by Moore (1905: Figure 20).

O20/m5 was placed in the Early Hemphill style phase due to its vessel shape. It has a slab base, a vertical point of tangency in the lower half of the body, and the body becomes almost horizontal immediately before joining to the neck.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 20).

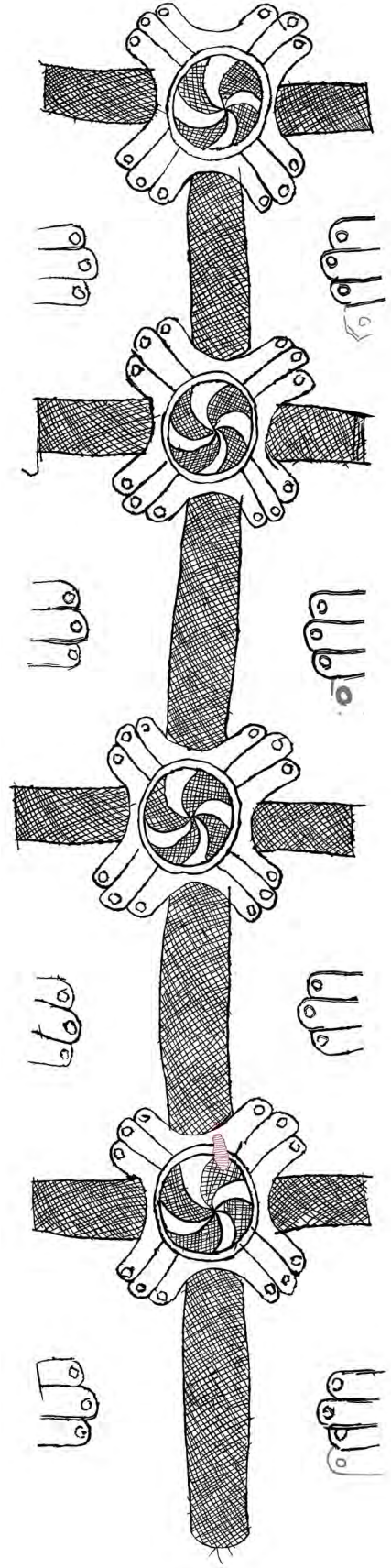


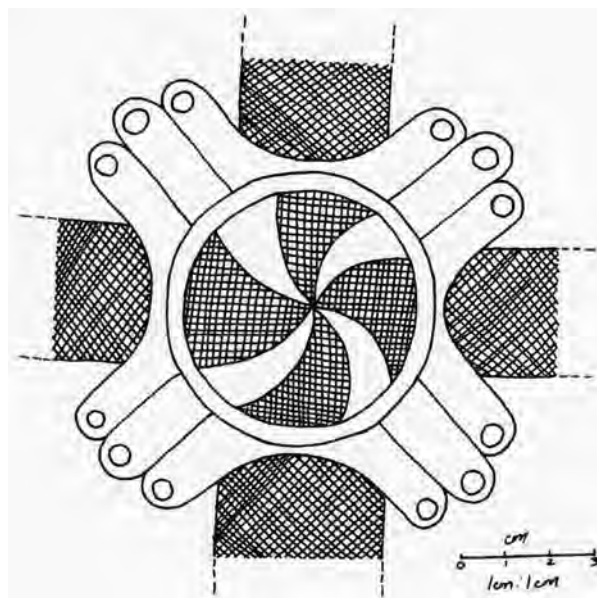
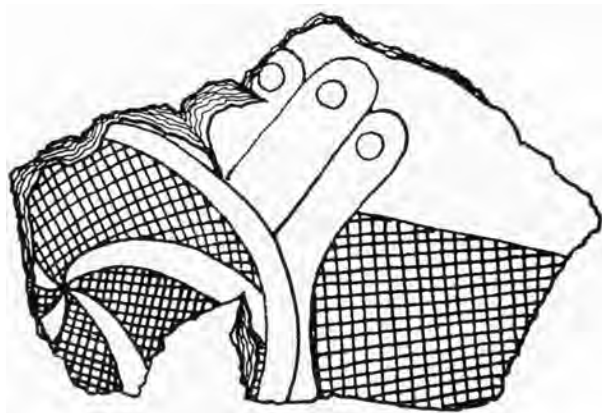


SD7/m7

SD7/m7 (NMAI 173353), a subglobular bottle, was found with Burial 8/SD/m7 south of Mound D (Steponaitis 1983b:241). The neck on this bottle is somewhat wide and flares a bit more than most wide-mouth bottles at Moundville. There is minimal wear over almost the entirety of the base. There is a small puncture on the body of the vessel at one of the center symbols. This small puncture suggests Moore's use of a probe rod in finding burials in this part of the site in 1906. In a few places the shell temper is visible on the surface. The engraving on this bottle is fine, and the diagonal crosshatching is exceptionally close. There are four swirl-cross center symbols, each emitting four sets of three fingers on the diagonals and four cross-hatched bands on the horizontals and verticals. Folded down from the top of the body are four sets of three fingers which alternate with the vertical cross-hatched bands. Likewise, wrapping up from the base are four sets of fingers that alternate with the vertical cross-hatched bands. These fingers at the top and bottom of the body, along with the vertical cross-hatched bands, clearly make the opening and base of the bottle the equivalents of center symbols giving the whole design a clear three dimensional aspect. On the base, three of the sets of fingers seem to have had originally an extra finger on the left side, which has been smoothed over in a very curious attempt to erase it. These extra fingers are barely noticeable, but show up in photographs and can be seen if one is slightly distanced from the bottle and is looking for them. Some of the fingers on the top and bottom show a doubling of the engraved lines, which is likely a result of the particular stylus used. SD7/m7 is in the same style level 3 group as 1993.41.1014.13 and 1993.41.1010.8. SD7/m7 was seriated to the Early Hemphill style phase because of its similarity to NR1/m5 and NE128 which are similarly placed.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

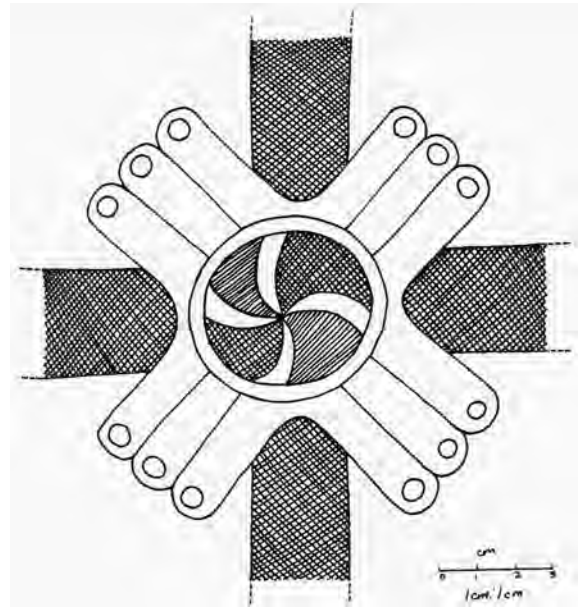




G1010

G1010 (UAM 1993.41.1010.7, 1993.41.1010.8, 1993.41.635.2) was found by Vernon J. Knight, Jr. during his 1993 excavations in Mound G. This vessel was seriated as Early Hemphill because of its similarity to SD7/m7. It is in the same style level 3 group as SD7/m7 and G1014.

(Drawing and design extrapolated from the sherd by Andrea Stillwell, courtesy of V. J. Knight.)



G1014

G1014 (UAM 1993.41.1014.13) was found by Vernon J. Knight, Jr. during his 1993 excavations in Mound G. This swirl-cross center symbol is unusual in that the arms of the swirl-cross alternate between being hatched and crosshatched. This vessel was seriated as Early Hemphill because of its similarity to SD7/m7. It is in the same style level 3 group as SD7/m7 and G1010.

(Photo courtesy of V. J. Knight. Design extrapolated from the sherd by Andrea Stillwell, courtesy of V. J. Knight.)



FSM218

FSM218 was excavated during the University of Michigan excavations by C. Margaret Scarry in 1977. It is currently housed at the Research Laboratories of Archaeology at the University of North Carolina, Chapel Hill. I have not personally examined this bottle, but based on the photograph, it is reminiscent of the slender ovoid bottles shape, has a point of vertical tangency of the body below the midline, and likely has a simple base. The design is an elaborate example of the design known typologically as Moundville Engraved, *variety Cypress*. This bottle was seriated to the Early Hemphill style phase because of its vessel shape.

(Photo courtesy of Vincas P. Steponaitis.)



NR6/m5

NR6/m5 (NMAI 173643) is a small restricted bowl found by C. B. Moore with Burial 8/ NR/m5 north of Mound R (Steponaitis 1983b:260). Most of the base shows some wear. Use-wear is minimal. NR6/m5 is typologically a Moundville Engraved, *variety Cypress* vessel with a band at the top consisting of alternating concentric circles and diagonal lines. Coming from the bottom of this band are sets of concentric arcs. This bowl is seriated to the Early Hemphill style phase because, as a *variety Cypress* vessel, it is most similar to SW62, which is seriated to Early Hemphill.

(Photo by Erin Phillips.)



SW62

SW62 (UAM 1936.2.23) is a Moundville Engraved, *variety Cypress* subglobular bottle with a slab base that was found with Burial 2388 south of Mound W (Steponaitis 1983b: 263). This bottle is thick and shows significant wear. The design is quite difficult to see in places. The top of the neck is broken off. The exterior of the bottle is very rough and splotchy. The slab base is not flat. There are five center symbols on the top half of the body connected by bands with diagonal hatching. Emitting from these bands, both above and below are concentric arcs. Directly below each of the center symbols on the top half of the body is a center symbol on the bottom half.

(Photo by Erin Phillips.)

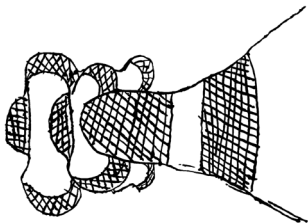
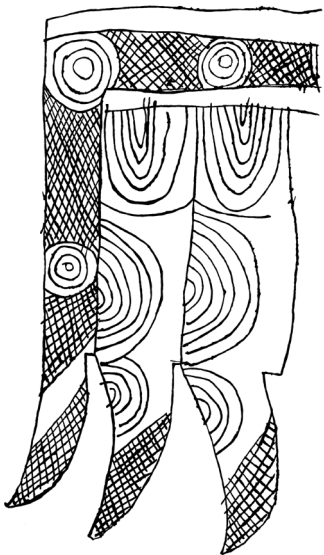
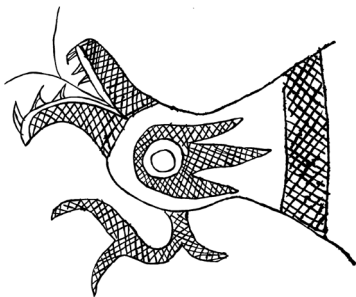
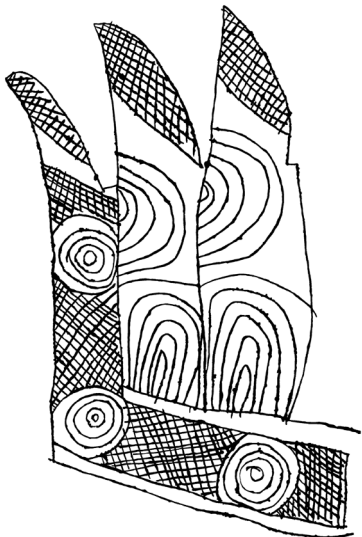


WR81

WR81 (UAM 1930.1.122) is a subglobular bottle with a simple base that was found with Burial 1065 west of Mound R (Steponaitis 1983b:261). This bottle was at the Birmingham Museum of Art for many years where it had accession number BMA1.1955.4. It has recently been returned to the University of Alabama Museums. The neck is broken at the top and has a plaster repair. There is significant wear on the central portion of the neck exterior. On the base there is minimal wear and a crack just below the tail and left wing.

WR81 depicts a winged serpent in the round, but this serpent is slightly different from the others. The head as a whole is not cross-hatched, but the snout is. In contrast to the other winged serpents in the round, the three pronged eye surround and the neck band are cross-hatched. In the other examples, the three pronged eye surround and the neckband are left blank to differentiate them from the cross-hatched head. This bottle is seriated as Early Hemphill because it was part of Schatte's (1997) earliest group of winged serpents, the Recurvate Antlers group. WR81 is in the same style level 3 group as the other three winged serpents in the round (SD34/m7, NR30/m5, and SL'31). It is not in the same style level two group because of the differences enumerated above. Another difference between WR81 and the other winged serpents in the round is its size. This bottle is much larger than the others.

(Photo by Erin Phillips. Drawing by Erin Phillips.)



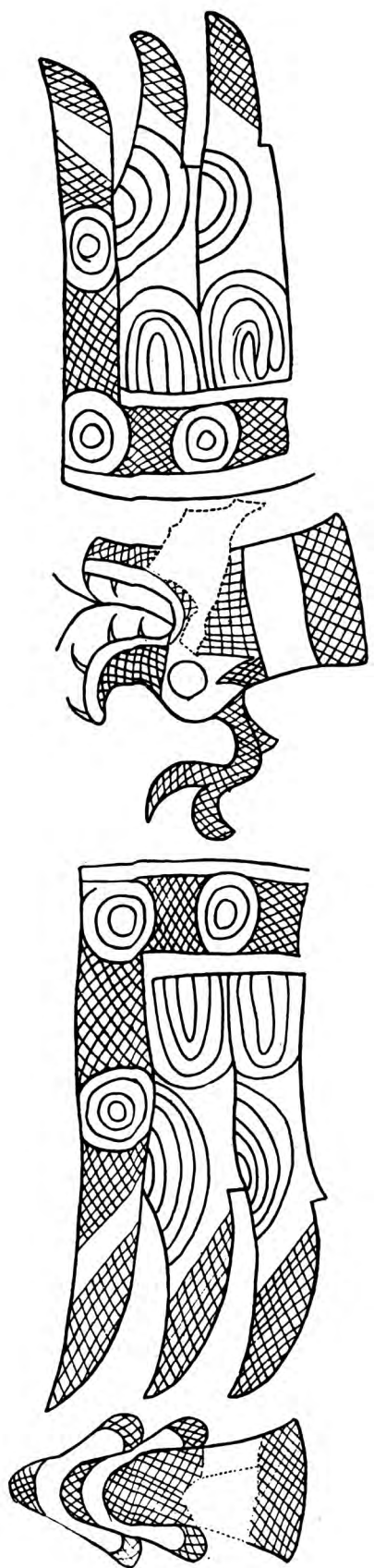


SD34/m7

SD34/m7 (NMAI 173361), a subglobular bottle with a flattened slab base, was found with Burial 66/SD/m7 south of Mound D (Steponaitis 1983b:241). It is more broken than NR30/m5, the other winged serpent in the round found by C. B. Moore. The base is well worn at the edge, but the rest of the base is higher and thus would not have been a primary point of contact. The lip is slightly flared and shows signs of exterior wear. The exterior base of the neck has a very thin worn line. The surface of the inside of the neck seems to be crackled and has small wear marks that are roughly horizontal. This bottle is the same size as NR30/m5.

SD34/m7 depicts a winged serpent in the round. It is seriated to the Early Hemphill style phase because it was part of Schatte's (1997) Recurvate Antler group. This bottle, along with NR30/m5 and SL'31, form a style level 2 group because they seem to be copies of each other or to some unknown vessel. All three are in the same style level 3 group as WR81. They are not in the same style level one group because the way that the tails are formed seems to show different producer models, as noted in Chapter 5.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 34).)



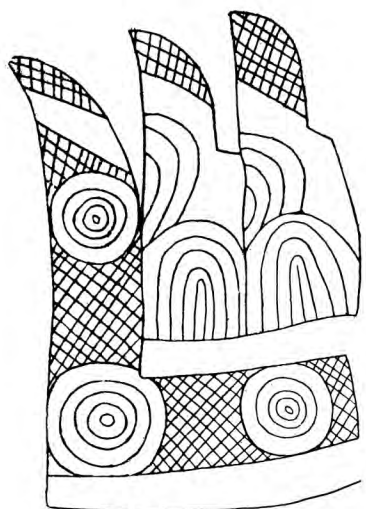
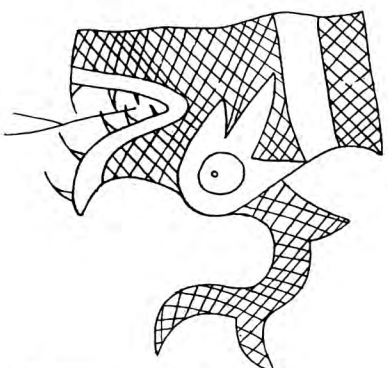
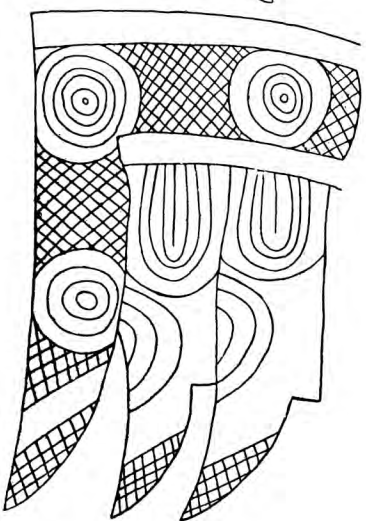
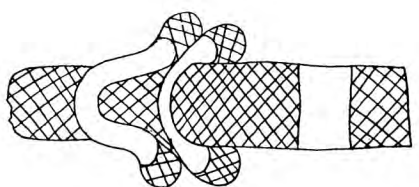


NR30/m5

NR30/m5 (NMAI 173378) is a subglobular bottle with a simple base that was found with Burial 58/NR/m5 north of Mound R (Steponaitis 1983b:260). Most of the neck has broken away at the neck-body join and is missing, but on one side, a small portion of the base of the neck remains. The base is well worn. The wings, head, and tail just end at the base with no clear end line for each, although this is not visible in Moore's drawing on the next page.

NR30/m5 depicts a winged serpent in the round, and as one of Schatte's (1997) Recurcate Antlers group, it has been seriated to the early Hemphill style phase. This bottle is in the same style level 2 group as SD34/m7 and SL'31 which appear to be copies of each other or an unknown vessel. They are in the same style level 3 group as WR81. They are not in the same style level one group because the executions of the tails show different conceptualizations of their component parts. These three bottles are in the same style level three group as WR81, which seems to share the same prototype, but not to be a copy.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 30).



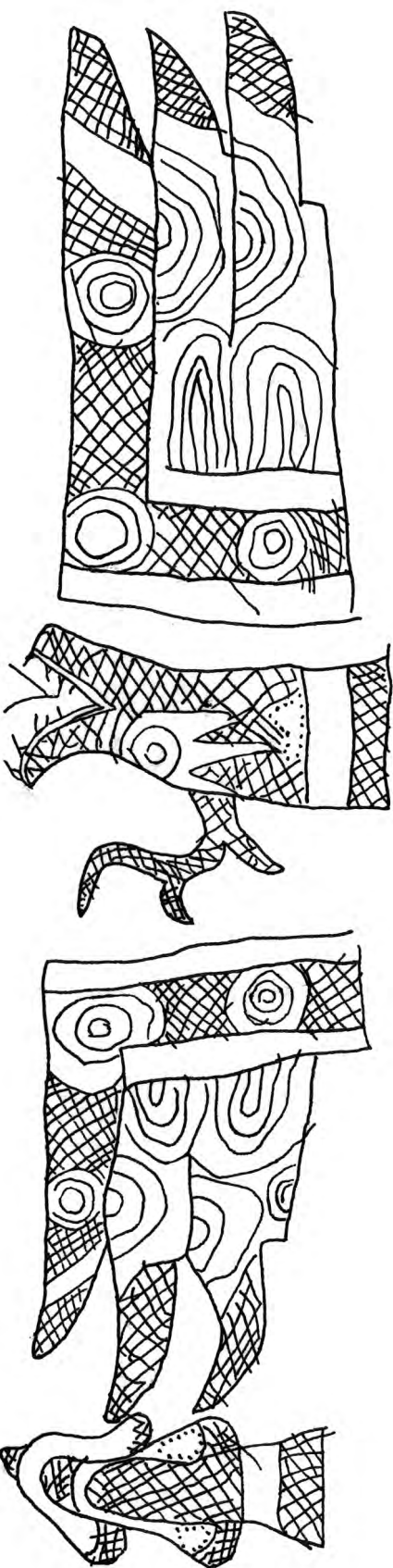


SL'31

SL'31 (UAM 1938.1.11) is a subglobular bottle with a simple base that was found with Burial 3014 south of Mound L (Steponaitis 1983b:253). This bottle is very small, smaller than any of the other winged serpent in the round bottles. The neck is taller than the body and is almost as wide. The colors are very uneven. There are two chips on the rim which are filled with plaster. The inside of the neck has some wear. The base undulates some, both on the inside and outside of the bottle. The body of the vessel is fairly worn and the engraving is hard to see. The drawing on the right was done by Kevin Schatte (1997) in the course of completing his MA thesis research.

SL'21 is seriated to the Early Hemphill style phase along with the rest of Schatte's (1997) Recurvate Antlers group. SL'21 is in the same style level 2 group as NR30/m5 and SD34/m7 because they appear to be copies of one another. They are in the same style level 3 group with WR81, because while they appear to share a prototype, WR81 does not appear to be a copy.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)





NR17/m5

NR17/m5 (NMAI 174359), a subglobular bottle with a simple base, was found with Burial 33/NR/m5 by C. B. Moore during excavations north of Mound R in 1905 (Steponaitis 1983b:260). Unlike most other Moundville Engraved, *variety Hemphill* vessels, this bottle has a matte black surface. The matte surface makes it difficult to detect wear. The surface is also covered in many tiny spalls. About a third of the burnished surface is missing from the base and less than a quarter of the burnished surface is missing on the neck and at the rim. The engraved lines are very fine. The drawing of the crosshatched areas was difficult due to the faint lines and spalling.

NR17/m5 was included in the Early Hemphill style phase because, according to Schatte (1997), it is part of the second generation of winged serpents which he called the First Body Group.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





SD836

SD836 (UAM 1932.3.73) is a subglobular bottle with a simple base that was found with Burial 1563-1564 during Alabama Museum of Natural History excavations south of Mound D (Steponaitis 1983b:240). Its vessel shape is somewhat unusual in that it has a relatively smooth, curving neck-body join rather than one at a relatively sharp angle. Part of the neck is broken and the inside of the neck is quite worn. The base shows significant wear, with the surface finish worn about half way through over the entire base. The color of this bottle is relatively uneven.

There are two winged serpents depicted in profile view on SD836. They have curling noses. SD836 is a good example of the artist distinguishing between front fangs and back teeth. The fangs are drawn and have striations, while the teeth are depicted as simple lines. Both serpents have fan-like fins projecting from the undersides of their bodies. The left serpent almost seems to have whiskers on its lower jaw as indicated by the hachures. SD836 was seriated as Early Hemphill because, according to Schatte (1997), this vessel is roughly contemporaneous with his First Body group and Transitional Pseudo-raptor group.

(Photo by Erin Phillips. Drawing by Erin Phillips.)



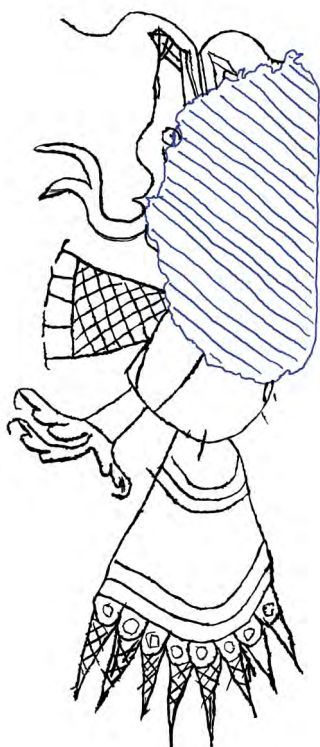
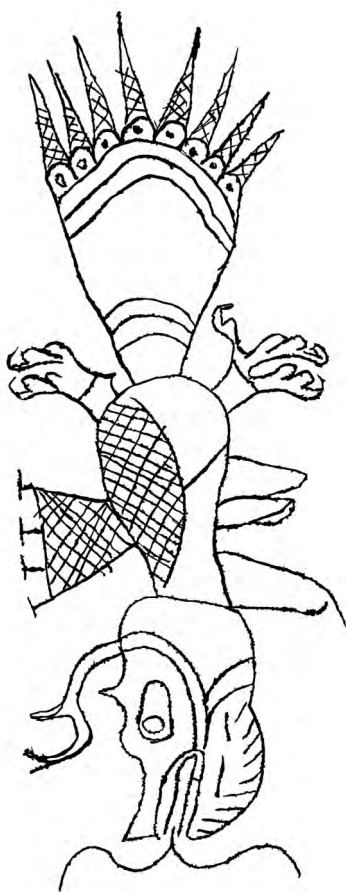


SD805

SD805 (UAM 1932.3.59) is a subglobular bottle with a slab base which was found with burial 1534 during Alabama Museum of Natural History excavations south of Mound D (Steponaitis 1983b:239). The bottle has a wide, low neck and the base is wider than the neck opening. There is a large spalled area on one side of the bottle which has been patched with plaster. It is difficult to tell whether the engraving or the spalling happened first, as the engraving seems at times to take the spalled area into account. Other than a scratched spot on the base and the large spall, there is little wear. SD805 depicts two creatures facing each other. This vessel is the only known example of a creature with this form. The creature on the side with the large spall seems to be unfinished, as it has no eye surround, no crosshatching on the body, and no lower leg. On the intact creature, there are three downward extensions at the front of the body which remain unidentified.

SD805 is an Early Hemphill bottle because of its very wide slab base and stylistic aspects of its engraved design. This creature has lips, recurvate antlers, and a tail similar to the Walls Engraved-like Early Hemphill crested bird tails. This is likely an early Hemphill artist trying to figure out how to depict a winged serpent. The serpents on the Rattlesnake Disk, which probably dates to early Moundville II (Vernon J. Knight, Jr., personal communication 2010), are not winged and have dorsal/ventral distinctions also seen in some Walls Engraved serpents. SD805 has a head very similar to the heads on the Rattlesnake Disk, and there is a dorsal/ventral distinction to the body markings. The wing is reminiscent of Braden fan wings seen on engraved shell. The creature has bird feet, and the tail is similar to some Walls Engraved crested bird tails.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





NR99

NR99 (UAM 1931.2.19) is a subglobular bottle with a simple base that was found with Burial 1103 during Alabama Museum of Natural History excavations north of Mound R (Steponaitis 1983b:259). There is some wear on the base and neck, but there is more wear on the shoulder. While this bottle is typologically Moundville Engraved, *variety Hemphill*, I am not convinced that it is in the Hemphill style. If it is a Hemphill-style bottle, I think it is likely an attempt to figure out how to depict a (winged) serpent. This bottle is seriated to the Early Hemphill style phase based on its vessel shape, and its design does not bear on the placement of any other vessels within the seriation. The characteristics of the vessel shape that make it Early Hemphill are the point of vertical tangency below the midline of the body, and the almost horizontal body profile where it joins with the neck.

(Photos by Erin Phillips.)



Rho1

Rho1 (UAM 1930.2.1) is a subglobular bottle with a pedestal base that depicts the hand and eye design (Steponaitis 1983b:231). This bottle was excavated by the Alabama Museum of Natural History from the Oliver Rhodes site on the eastern side of Moundville. The neck is completely reconstructed. Some wear is visible around the outer edges of the base, although the center is smooth. Wear is quite minimal elsewhere. There are six hands depicted on this bottle, three pointing upward and three downward. All fingers have nails, but only one thumb has a nail. The thumbs have one set of three lines, which possibly represent knuckles. Fingers each have two sets of these three-line elements, which are staggered vertically from one finger to the next. The middle finger and little finger have lines separating them from the palms. Sometimes the wrists also possess three-line elements. The eyes all have basically the same shape, with the arching parts towards the fingers. Rho1 is seriated as Early Hemphill because it has a pedestal base and the point of vertical tangency on the body is below the midpoint.

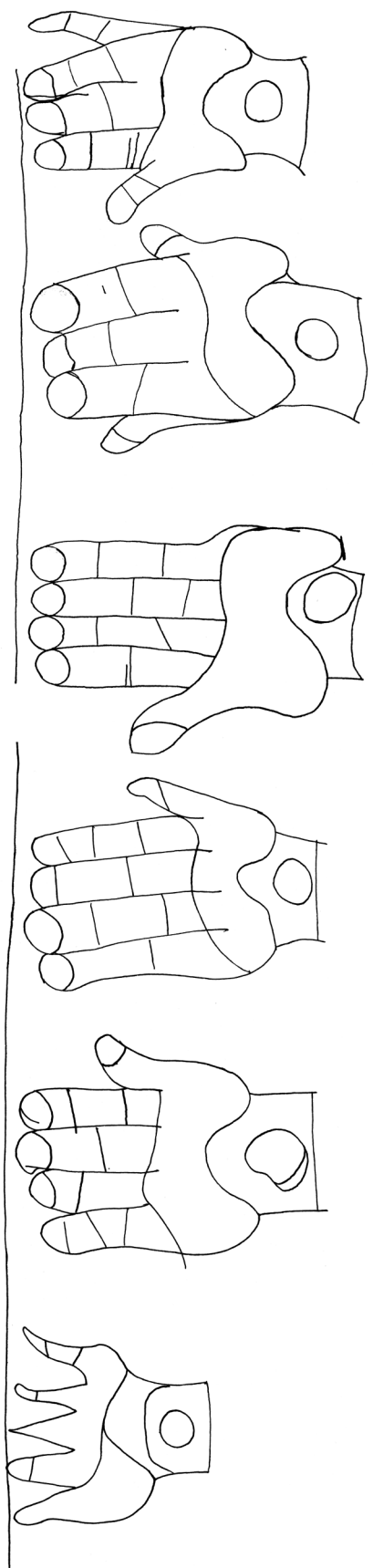
(Photo by Erin Phillips.)



Rho242

Rho242 (UAM 1930.2.308) is a subglobular bottle with a slab base excavated by the Alabama Museum of Natural History from the Oliver Rhodes site. This bottle was at the Birmingham Museum of Art for a number of years, where it was assigned number BMA 1.1955.3. It has some chips on the inside and outside of the rim. The base shows some definite signs of wear. The bottle has uneven coloring. There is an engraved line on the body just below the neck. There are six hands, which all point upwards as seen in Lacefield's drawing on the next page. Two of the hands have been inked on the vessel for greater visibility. Like C4/m5, all of the hands have circles on their wrists. The thumbs on two hands point in one direction, the thumbs on three point in the other direction, and the sixth has no easily distinguished thumb. A little finger was added onto the outside of two of the hands after the basic hand contour was drafted. There are varying numbers of horizontal lines on the fingers. The execution of the hands seems to show varying levels of competency. The hand on the left in the drawing on the next page does not show a strong understanding on the part of the artist of the base of the palm-wrist transition. This bottle is seriated as Early Hemphill because it is most like Rho1 and C4/m5, which have been seriated as Early Hemphill.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

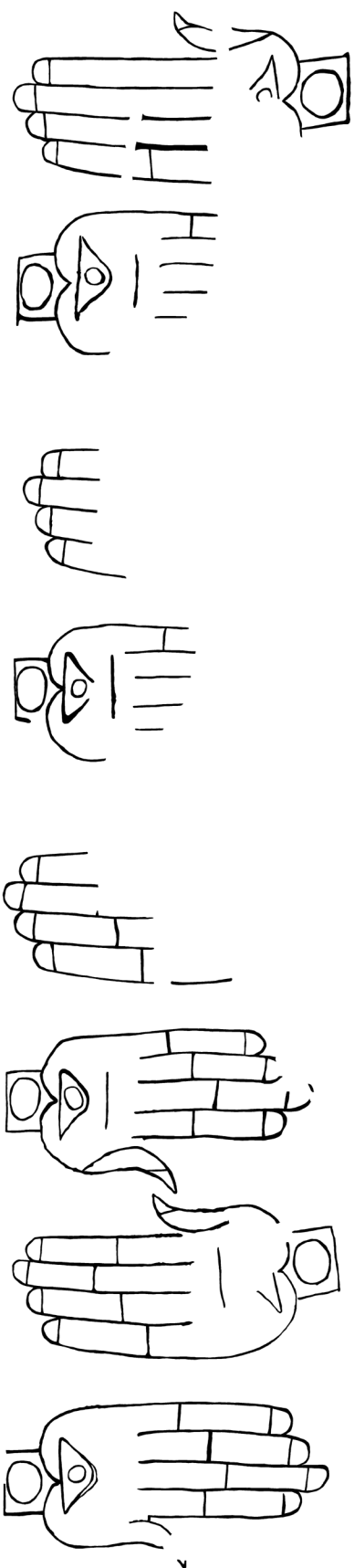




C4/m5

C4/m5 (NMAI 180433), a subglobular bottle with a pedestal base, was found in Feature 2 in Mound C by C. B. Moore in 1905 (Steponaitis 1983b:235). About two-thirds of the base and about half of the lower portion of the body are missing, while much that remains is broken. Some of the burnishing is worn through on the base. There is some wear at the vertical point of tangency, which is located below the midpoint of the body. There is also some wear on the exterior of the neck at the top. The neck is relatively narrow in relation to the vessel width. There are eight hands which alternate between pointing up and pointing down. These hands include wrists, and each wrist has a circle in the center. The eyes are almost triangular in shape. This bottle is seriated as Early Hemphill based on its vessel shape.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

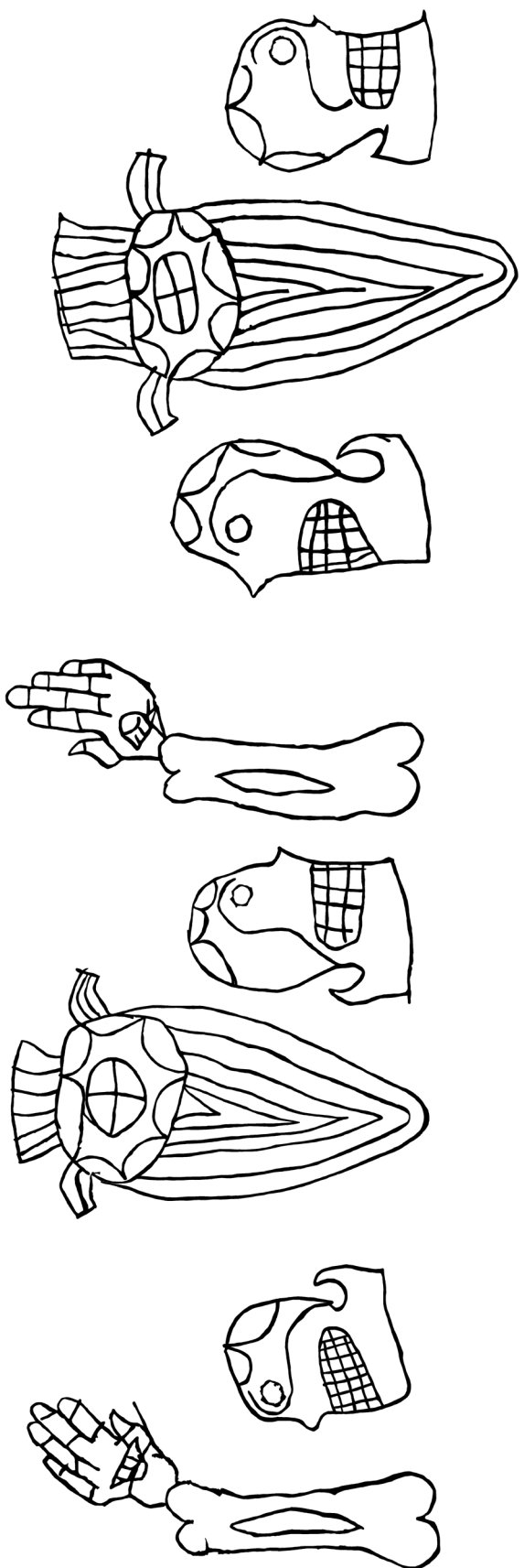




NR9/m5

NR9/m5 (171426) was found with Burial 11/NR/m5 by C. B. Moore during his excavations north of Mound R. This bottle has an unusual vessel shape. It has a smooth, rather than an abrupt transition from the neck to the body, and the bottle seems unusually thick. The shape of the body is similar to that of SWM15a/m7 and SD88/m7. The base is well worn, with the burnishing completely worn through. On the inside of the bottle, one can barely see evidence of the clay coils used to create it. There is a minor crack on the outside of the bottle which seems to follow the coil breaks. There are a couple of spalled areas on the neck and some horizontal scratches on the inside of the neck. There are four skulls, two hand and forearm bones, and two scalps depicted on this bottle. The hands on this bottle are unusual in that they are articulated with forearm bones, and do not have eyes depicted on them. The scalps are unusual in that they have sidelocks and topknots. This arrangement of the elements on this bottle (see drawing to the right) might illustrate a single individual in a kind of split representation (Phillips 2008). This vessel is seriated to Early Hemphill because the skulls are most similar to the ones on the Willoughby Disk, which is considered Early Hemphill. The scalps with the sidelocks and topknots are reminiscent of those on some Walls Engraved vessels. Hands and articulated forearms have Walls counterparts as well [e.g., 03-CT-030-Bellemeade].

(Photo by Erin Phillips. Drawing by Erin Phillips.)

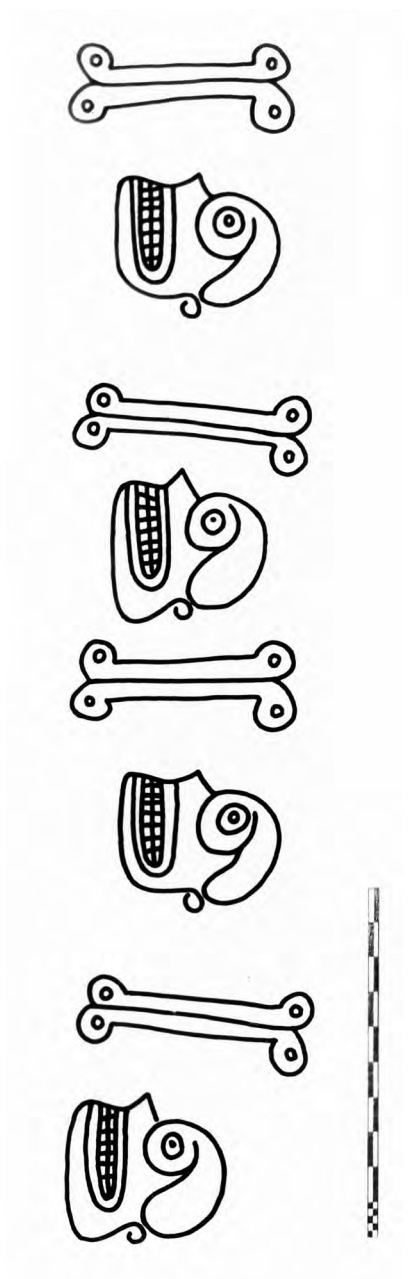




NR25

NR25 (UAM 1931.2.9), a cylindrical bottle with alternating skulls and forearm bones engraved on the body, was found with Burial 1088 during Alabama Museum of Natural History excavations north of Mound R (Steponaitis 1983b:258). While the bottle is listed on the Moundville Stolen Artifacts website which lists vessels stolen in the 1980 theft, this bottle was present in 1995 or 1996 to be photographed for the NAGPRA inventory. Steponaitis (1983b:258) questions whether this bottle is local. The ends of the bones are very similar to bones on a Walls Engraved vessel [22DS001]. This bottle was seriated as Early Hemphill because the skulls have lips, and also have a number of features similar to those on SEH9, the cup whose incised design was used on the frieze of the Museum at Moundville.

(Photo courtesy of Vincas P. Steponaitis. Drawing courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 73.)





SWM15a/m5

SWM15a/m5 (NMAI 174357) is a subglobular bottle with simple base which was found during C. B. Moore's excavations southwest of Mound M (Steponaitis 1983b:255). There are sherds missing, and a crack runs around the vertex of the body. Most of the base is missing. Part of the remaining base seems to be worn, although not extensively. The exterior of the neck shows little wear, but the outer surface at the lip is completely missing. Just below the rim of the neck's interior, the surface is missing on two thirds. The remaining part of the neck interior shows more wear than the exterior, but is nonetheless minimal. There are four hands and four forearm bones that alternate around the body of the bottle. There is simple hatching instead of crosshatching. The hatching on the hands and that on the bones run in different directions. SWM15a/m5 is seriated as Early Hemphill because the balancing of the hatching is similar to the balancing of the crosshatching found on other vessels seriated to this style phase. The marked thumb joint is also found on other Early Hemphill vessels. SWM15a/m5 is part of the same style level 2 group as SD88/m7.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

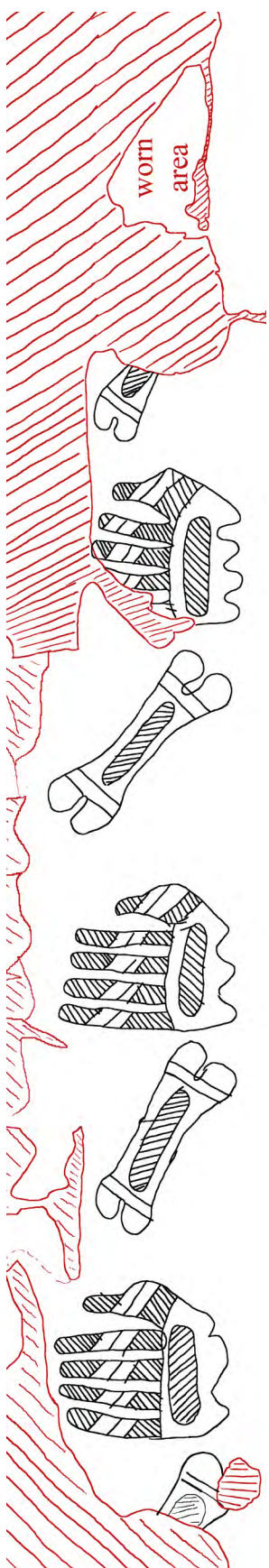




SD88/m7

SD88/m7 (NMAI 174360), a subglobular bottle with a simple base, was found south of Mound D with burial 151/SD/m7 by C. B. Moore in 1906. Over half of the neck is missing. All of the remaining neck is at least 50 percent worn. This bottle generally has a matte finish. The lower body is the only place that has burnishing well intact. The outer surface is almost completely worn through on the base. The engraved lines are very thin. The engraving depicts hands and forearm bones. There were probably originally four of each, but one of the hands seems to be completely worn away. On this bottle, unlike SWM15a/m5, the hatching seems to go in the same direction on both bones and hands. This bottle was seriated to Early Hemphill along with SWM15a/m5 along with several sherds that make up a style level 2 group, because of the balance of hatching present and the marked thumb joint. SWM15a/m5 and this bottle are not engraved by the same individual as suggested by Hardin and Steponaitis (Welch 1991). The artisan who produced this bottle does not seem to have conceptualized the base of the hands in the same way.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





EE182

EE182, a cylindrical bowl with a single lug, was found with Burial 1281 east of Mound E during Alabama Museum of Natural History excavations of Moundville (Steponaitis 1983b:248). This was one of the vessels stolen from the Erskine Ramsay Archaeological Repository in 1980. It belongs to the same level 3 style group as SD27/m7, EE234, MC25, A993.41.2009.1, and A993.41.2216.1. Along with these three cylindrical bowls, EE182 was seriated to Early Hemphill because of the similarities to its hands to those depicted on the Rattlesnake and Willoughby disks, especially the thumbs, and the presumed early date of those disks.

(Photo courtesy of Vincas P. Steponaitis.)



MC25

MC25 (UAM 1986.8.16), a cylindrical bowl with a single lug, was excavated in 1986 at the Mill Creek site, where it was found with Burial 1 in Feature 25. This vessel is part of the Mobile Army Corps of Engineers collections curated by the University of Alabama Museums. The opening of the bowl is smaller than the base, such that the sides slope slightly inwards. Part of the lug is missing. The bottom is worn so that the middle fingers of the downward pointing hands are difficult to see. There are eight hands depicted on this bowl, four pointing up and four pointing down. The fingers of the four hands that face down join on the bottom. The fingers are very long and do not have nails. The eyes are not the double ogee eyes of the other similar bowls. This bowl belongs to the same style level 3 group as SD27/m7, EE182, EE234, A993.41.2009.1, and A993.41.216.1. Based on its vessel shape, this bowl is most similar to EE182. These four bowls have been seriated to Early Hemphill based on the similarity of their hands to those hands on the Rattlesnake and Willoughby disks, particularly the thumbs, and the presumed early date of those disks.

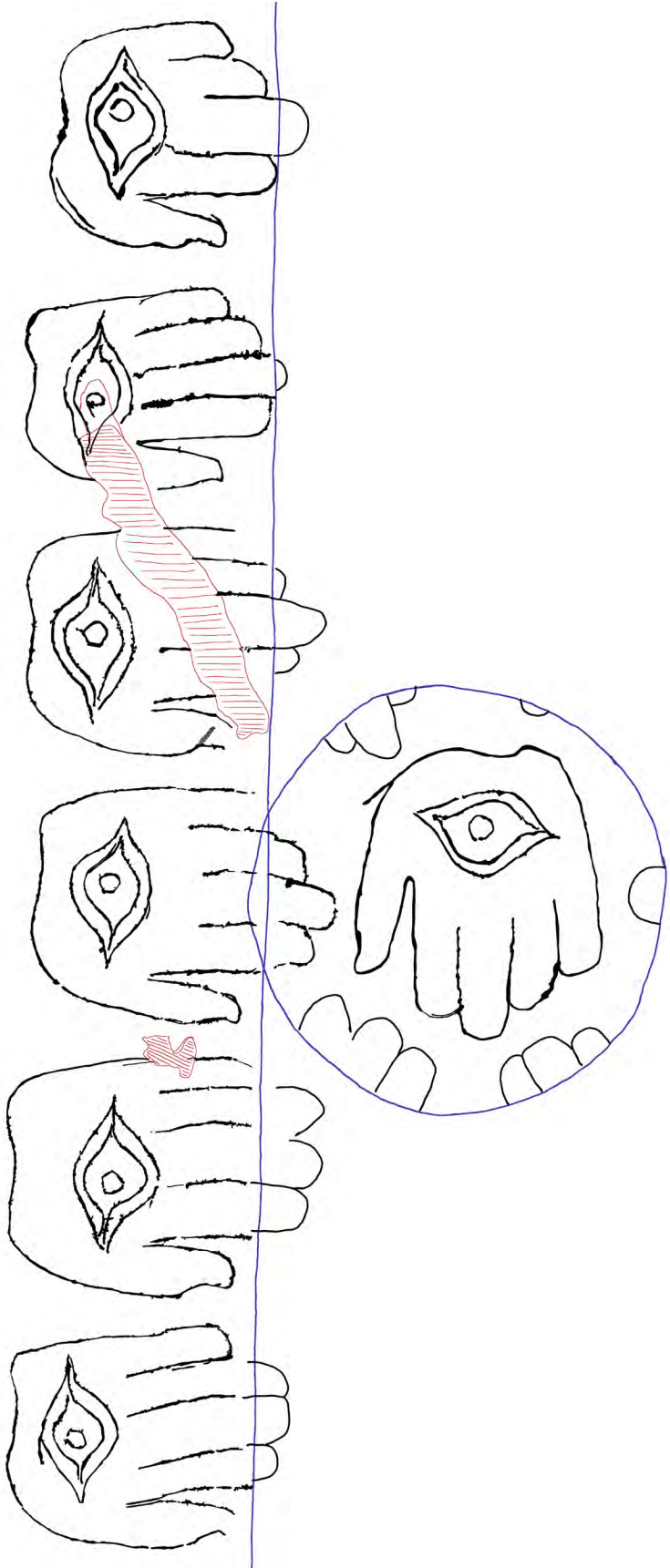
(Photo by Erin Phillips.)



SD27/m7

SD27/m7 (NMAI 174389), a cylindrical bowl with a single lug, was found with Burial 40/SD/m7 during C. B. Moore's excavations south of Mound D in 1907 (Steponaitis 1983b:241). The base and the bottom of the inside are well worn. There are seven hands engraved on this bowl, six around the side pointing downwards with fingertips wrapping onto the base, and one wholly on the base. The fingertips on the bottom are virtually impossible to see and even harder to draw. This bowl is in the same style level 3 group as EE182, EE234, MC25, A993.41.2009.1, and A993.41.2216.1. These four bowls are seriated to Early Hemphill based on the similarity of the hands to those on the Rattlesnake and Willoughby disks, particularly the thumbs and the presumed early date of those disks.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

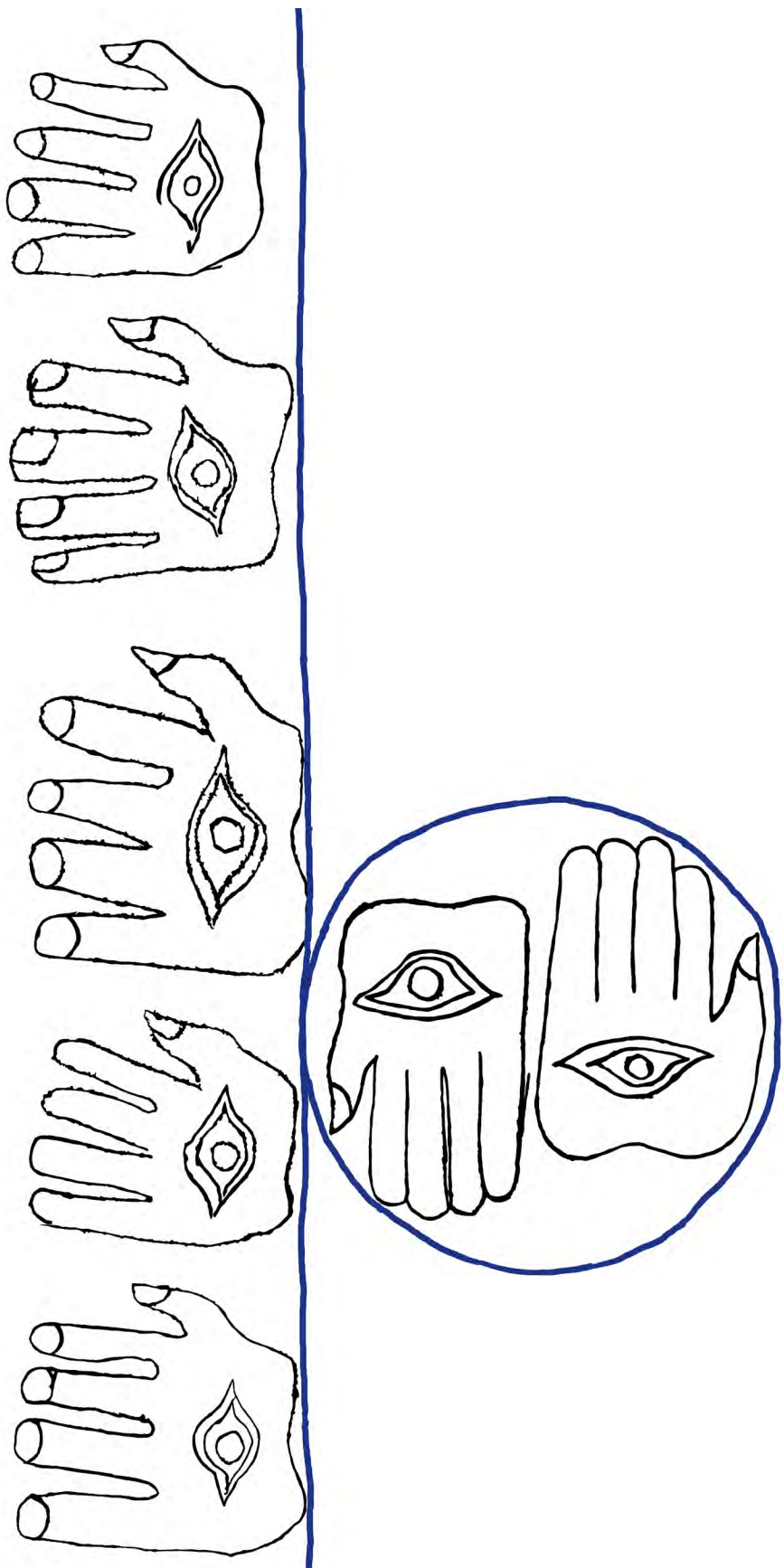


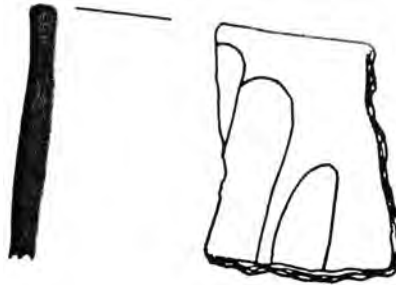


EE234

EE234 (UAM 1931.1.422), a cylindrical bowl with a single lug, was found with Burial 1316 east of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:248). Only minimal wear is evident on the interior. There are seven hands on this bowl, with five on the sides and two on the base. All hands on the sides have open fingers, while the hands on the base have closed fingers. All of the thumbs have sideways thumbnails. The fingers on the base and under the lug lack fingernails. One of the hands on the side of the bowl has sideways fingernails. This bowl is in the same style level 3 group as SD27/m7, EE182, MC25, A993.41.2009.1, and A993.41.2216.1. They are seriated to Early Hemphill because the hands are most similar to those on the Rattlesnake and Willoughby disks, particularly the thumbs, and the presumed early date of those disks.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





E2216

E2216 (UAM 1993.41.2216.1) was excavated from Mound E by Vernon J. Knight, Jr. This vessel was seriated as Early Hemphill because of the similarities of the finger tips and thumb to EE182, EE234, MC25, and SD27/m7. In fact, they are all part of the same style level 3 group along with E2009.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



E2009

E2009 (UAM 1993.41.2009.1) was excavated from Mound E by Vernon J. Knight, Jr. It is part of the same style level 3 group as EE182, EE234, MC25, SD27/m7, and E2216 because of the similarities of its finger tips, thumb, and eye shape. Thus it is seriated as Early Hemphill.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



NR11/m5

NR11/m5 (NMAI 180425), a subglobular bottle with a pedestal base and indentations, was found with Burial 14/NR/m5 north of Mound R by C. B. Moore in 1905 (Steponaitis 1983b:260). There are five indentions on the bottle, each forming the center of an engraved bilobed arrow. There is no engraving within the indentations. There are a couple of small pieces missing from the neck, and there are a couple of fractures. The base is well worn on the outer edges. The center of the base is not in plane with the outer edges, and shows little to no wear. In between, there are variations between the two extremes. The exterior of the neck shows some wear at the base and some wear at the lip. The flared part of the neck interior is smooth, while the rest of the neck is not. This bottle is seriated to Early Hemphill based on the fact that it is a subglobular bottle with a pedestal base whose point of vertical tangency of the body is below the midline, and whose profile is reminiscent of slender ovoid bottles.

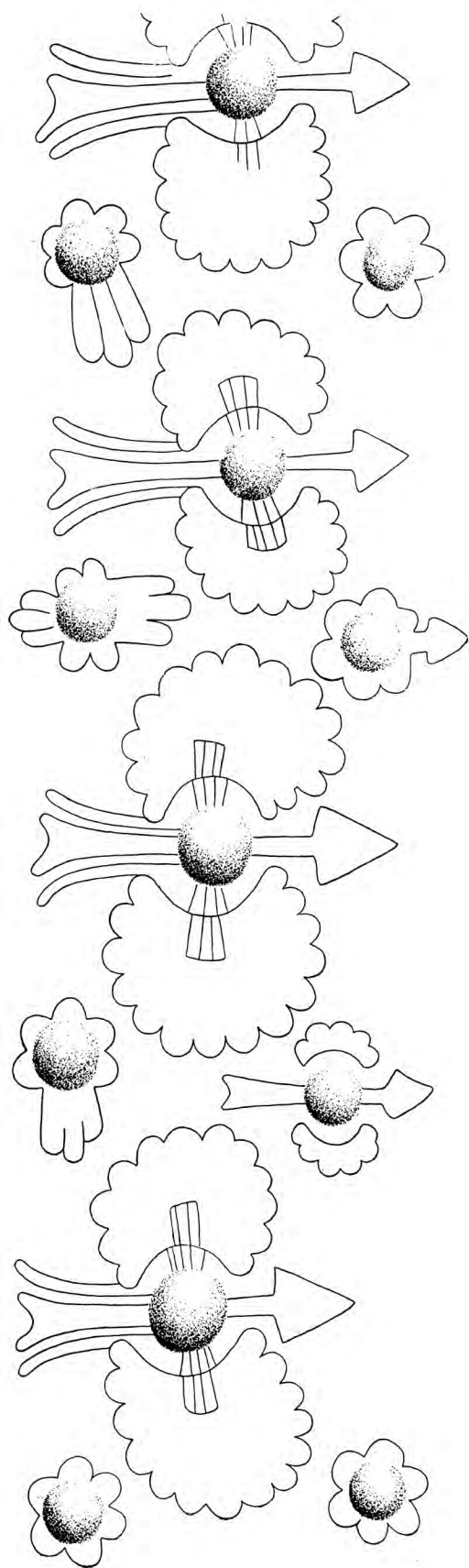
(Photo by Erin Phillips.)



F3/m5

F3/m5 (NMAI 180249), a subglobular bottle with a pedestal base and indentations, was found with Burial 6/F/m5 in Mound F by C. B. Moore in 1905 (Steponaitis 1983b:250). Just over half of the base is missing and has been filled in with plaster on the exterior. On the interior, the entirety of the base is present, although it is broken into two pieces. The entirety of the intact portion of the base exterior is fairly worn. The rest of the vessel, including the neck interior and exterior shows a little wear. There are four arrows that are clearly bilobed around the central indentions. There are two small bilobed arrows, one that is clearly bilobed, one that may be an abbreviated representation, and two petaloids around the bottom indentions. The two small arrows are adjacent to each other rather than alternating with the petaloids. The top row of indentations has one petaloid, two pelatoids with petaloid “tails,” which resemble the three-fingers motif, and one petaloid with two petaloid “tails.” F3/m5 is seriated to Early Hemphill because of its vessel shape and the similarity of its engraved design to NR11/m5. As with the previous vessel, it has a pedestal base, the point of vertical tangency on the body is below the midline, and its profile is reminiscent of slender ovoid bottles.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 88).)





SD48/m7

SD48/m7 (NMAI 174370), a simple bowl with four widely spaced nodes, was found with Burial 101/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:241). The inside of the bowl is fairly rough and lumpy. The bottom of the bowl is clearly worn where it rests. There is a crack due to a tool strike on the exterior of the bowl. There are nine bilobed arrows engraved on the exterior. While the arrangement of the arrows may seem random at first, upon closer examination, they seem to form a cross-in-circle. The four arrows near the rim of the bowl are placed roughly between the nodes and point to the right forming the circle. Five additional arrows form the cross. One arrow is roughly in the center of the bottom of the bowl. There is one arrow behind this arrow on the bottom and one in front of it forming a rough line. Two additional arrows run perpendicular to the bottom arrow and both point in the same direction. SD48/m7 has been seriated to Early Hemphill because of the basic similarity of its engraved design to NR11/m5 and F3/m5.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 44).)

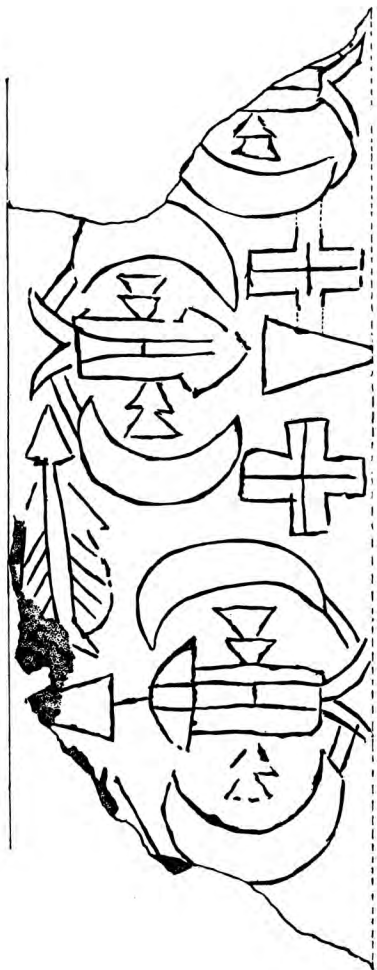




SWM5/m7

SWM5/m7 (NMAI 180421), an outslanting bowl, was found with Burial 14/SWM/m7 southwest of Mound M by C. B. Moore in 1906 (Steponaitis 1983b:255). About half of the bowl is missing. There is very little wear on the bowl. What wear is present can be found at the lip and on the base. The shell temper is quite evident on the surface. There are three bilobed arrows present, which alternate between pointing upwards and downwards. There may have originally been five or six bilobed arrows on the sides of the bowl. Between these arrows at the base are crosses. Between the arrows at the rim is a rare feathered arrow. On the base of the bowl is a cross within a rayed circle. While Steponaitis (1983b:255) questions whether it is local, it seems to fit within the range of variation in the Hemphill style. This bowl is seriated as Early Hemphill because it is an outslanting bowl and its subject matter is otherwise found exclusively in Early Hemphill.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 40).)





NR(sherd)/m5

NR(sherd)/m5 (NMAI 180422) consists of two joining body sherds from a cylindrical bottle which C. B. Moore found north of Mound R in 1905. This bottle was extraordinarily thin. On the larger sherd, a little bit of the shoulder of the bottle is present. There is no clear evidence of wear, although the base and neck are not present. On the body of the bottle at the shoulder are the looped lines typologically characteristic of Moundville Engraved, *variety Havana*. Fitted between and below these loops are ogees, of which only parts of the outer bands are present. Crosshatching is used for balance filling in the negative space. The engraving is relatively deep. This bottle was seriated as Early Hemphill because it has crosshatching which has a similar sense of balance to that of NE128. Like NE128, this bottle also has a crosshatched background. In addition to its similarity to NE128 in terms of crosshatching, NR(sherd)/m5 is similar to O16/m5 and SD13/m5 which were seriated as Early Hemphill in part due to their vessel shape. O16/m5 and SD13/m5 also have crosshatched backgrounds and ogees.

(Photo by Erin Phillips.)



SD13/m7

SD13/m7 (NMAI 173341), a subglobular bottle with pedestal base, was found with Burial 13/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:241). This is a large bottle with a large neck opening. It is rather broken, and a piece of the neck is missing. The exterior surface of the base is completely worn through. There is no obvious wear on the present portions of the neck, both exterior and interior. There are two overlapping registers, each with four partial ogees. The ogees are partial because the tops or bottoms are cut off at the top or bottom of the body. The negative space between the ogees and the oval at the center are crosshatched. The crosshatching is not very regular at intersection points. SD13/m7 is part of the same style level 3 group as O16/m5. This bottle is seriated to Early Hemphill because its use of crosshatching is similar to NE128, and because of its vessel shape. SD13/m7 has a pedestal base and its point of vertical tangency on the body is below the midline.

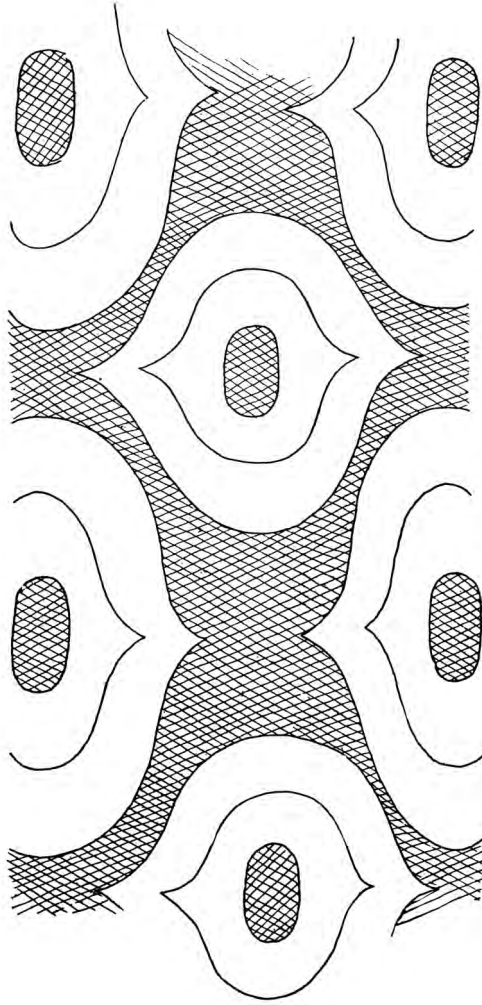
(Photo by Erin Phillips.)



O16/m5

O16/m5 (NMAI 180440), a subglobular bottle with a pedestal base, was found in Mound O by C. B. Moore in 1905 (Steponaitis 1983b:256). There are several breaks, as the neck is broken from the vessel and there are several rim pieces missing. The center of the base shows virtually no wear, while the edges of the base are quite worn. The exterior of the neck has two small areas of wear just above the halfway point. The interior of the neck shows minimal wear. There are three overlapping registers of ogees. The middle register consists of three complete ogees, while the top and bottom registers each have three partial ogees. The ogees in the top and bottom register are partial because they intersect with the neck and the base of the vessel. The center of the ogees and the negative space between them is crosshatched. This bottle belongs to the same style level 3 group as SD13/m7. O16/m5 is seriated as Early Hemphill because the use of crosshatching is similar to NE128, and because it has a pedestal base and the point of vertical tangency of the body is below the midline.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 122).)

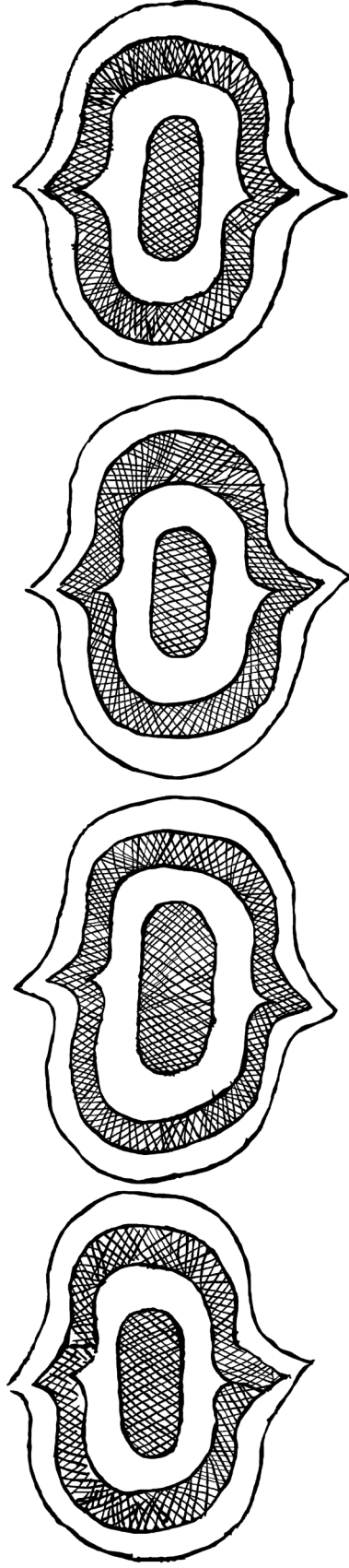




WR28/m7

WR28/m7 (NMAI 174618), a subglobular bottle with a simple base, was excavated west of Mound R by C. B. Moore in 1906 (Steponaitis 1983b:261). Part of the exterior of the neck, about halfway up, is very worn. The interior of the neck has a few small, roughly horizontal wear lines. Most of the base is fairly worn. The ogees on this bottle are different from the ogees on the other bottles. The other ogees have a crosshatched center, two uncrosshatched “rings,” and crosshatched negative space. This bottle has four ogees, each with crosshatched centers and three outer “rings,” with the center one crosshatched and the others plain. There is no decoration in the negative space. WR28/m7 was seriated as Early Hemphill because of its similarity to the other ogee bottles (O16/m5, SD13/m5, and NR(sherd)m5), and the fact that it uses crosshatching for contrast.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

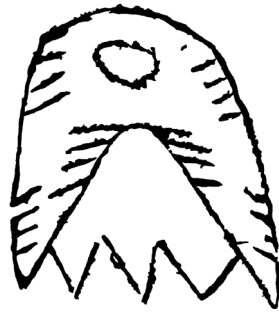




ND14/m5

ND14/m5 (NMAI 173372), a cylindrical bottle, was found in Feature F.7/ND/m5 north of Mound D by C. B. Moore in 1905 (Steponaitis 1983b:236). This bottle depicts four forked eye surrounds. The independent presentation of this motif within the Hemphill style is unique to this vessel. Portions of the neck are missing, and the portions that remain show significant wear. The edges of the base are quite worn. The center of the base is high and has just a few scratches. The top third of the inside of the neck is worn. The burnishing has worn away on the lower portion of the forked eye surround on the far right of the line drawing on the next page. It should be noted that Steponaitis (1983b:236) questions whether this bottle is local. ND14/m5 is seriated to Early Hemphill because the concentric lines at the top and bottom of the body are a relatively early feature at Moundville. It should also be noted that many other subjects make a singular or limited appearance in Early Hemphill.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





NE599

NE599 (UAM 1932.4.60), a subglobular bottle with a slab base, was found with Burial 1673 north of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:246). This bottle is very worn and has a number of spalled places. There is spalling on the base of the neck, both exterior and interior, as well as on the shoulder. The base is quite well worn. The shell in the temper is relatively large. The engraving is difficult to see, consisting of feathers, concentric circles, and upside-down U-shapes. There are four sets of concentric circles and one set of concentric upside-down U-shapes at the point of vertical tangency on the body of the bottle. There may be one circle at the shoulder. Feathers generally run horizontally and vertically. There are 19 feathers, which are mostly horizontal. NE599 and SD849, the other bottle with feathers, were seriated to Early Hemphill for several reasons: 1) they have slab bases, 2) there are only two examples and many other subjects make a limited/unique appearance in Early Hemphill, and 3) NE599 has a seemingly random design structure, with groups of concentric circles inserted here and there.

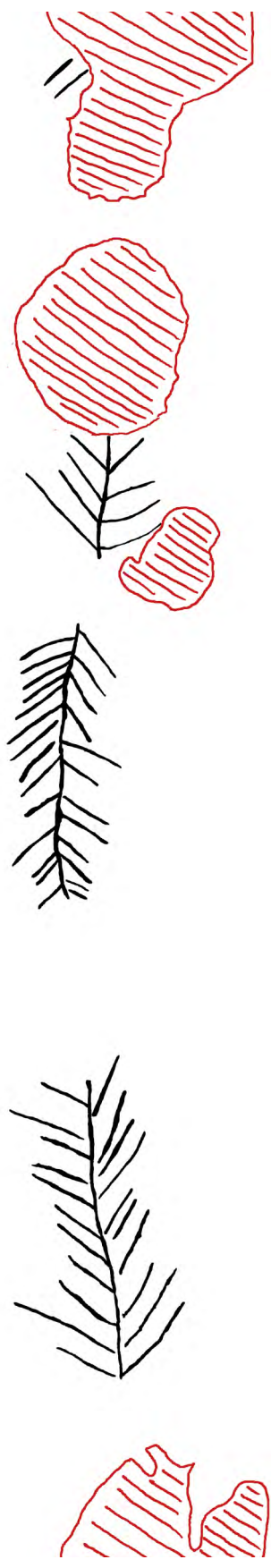
(Photo by Erin Phillips.)



SD849

SD849 (UAM 1932.3.80), a very small subglobular bottle with a slab base, was found with Burial 1573 south of Mound D by the Alabama Museum of Natural History (Steponaitis 1983b:240). There are many surface spalls and no smooth area on the surface. There are cracks visible on the exterior that are not visible on the interior. There are perhaps four feathers, which alternate directions. SD849 and NE599 are seriated in Early Hemphill because of their slab bases, the limited number of vessels with feathers, and because its companion vessel NE599 has a seemingly random design structure.

(Photo by Erin Phillips. Drawing by Erin Phillips.)



Middle Hemphill (ca. AD 1375-1425)

Middle Hemphill retains a number of the characteristics of Early Hemphill, including vessel shape characteristics, but these disappear quickly in Middle Hemphill. Ties to the engraved art styles of the northern portion of the Lower Mississippi Valley and the northern Gulf Coast are still present in Middle Hemphill. However, they are much weaker than the Early Hemphill stylistic connections, and only continue into Middle Hemphill for a short while. By the end of the style phase, such direct connections to Mississippian engraved styles from other areas are gone. Middle Hemphill in some sense thus marks the florescence of Hemphill as an independent style. The style has now most fully come into its own. Thus, while the style is now somewhat simplified from its Early Hemphill roots, it has not degenerated. Because Middle Hemphill is very much a transition between Early and Late Hemphill, very few characteristics are exclusive to it. Its characteristics generally run through all three style phases, or are shared with either Early or Late Hemphill. Here the three fingers motif, which had been associated with center symbols and bands in Early Hemphill, is now found with other subjects such as scalps, crested birds, and winged serpents. In contrast, it is no longer found with center symbols and bands. In association with birds, either raptors or crested birds, the three fingers motif now sometimes hangs suspended from the neck of the bottle. In these instances, the bottle opening is substituted for either the body of the bird, or the central medallion if the bird is depicted in court-card symmetry. This suspension of bird elements from the top of the body of a bottle is exclusive to Middle Hemphill. In Middle Hemphill there are generally two depictions of a single subject on either side of a vessel. This standard layout is characteristic of all themes except that of the trophy. Middle Hemphill traits confined to specific subjects are as follows.

Winged Serpents

All Middle Hemphill vessels depicting winged serpents show two such serpents depicted in profile view facing right, except SD87/m7 a small bottle which depicts only a single winged

serpent in profile view, and SB11 which depicts two serpents facing one another. The three fingers motif used as serpent body decoration, as can be seen on SD87/m7, is exclusive to Middle Hemphill. The antlers become schematized to the point of being unrecognizable during Middle Hemphill. Except for Q1399, there are no dorsal or ventral body distinctions in Middle Hemphill, as there are in some Early and some Late Hemphill examples.

Raptors

Middle Hemphill raptors tend to have blocky rather than rounded heads. Middle Hemphill raptors come in every form they take in the Hemphill style generally. They are found as raptor heads (SD71/m7), with U-shaped bodies (O9/m5), in-the-round (EE416), and in court-card symmetry (SWG63). Because SD71/m7 also depicts hands, there is a possibility that the raptor theme joins the trophy theme in some still obscure conflation in Middle Hemphill.

Crested Birds

Crested birds as depicted in the in-the-round design structure are exclusive to Middle Hemphill. Middle Hemphill crested birds are unique in that the crest generally goes all the way down the back of the neck. The two exceptions to this generalization are SD814 and SD86/m7, whose crests look more like those from the Lower Mississippi Valley. When depicted in court-card symmetry, the central medallions are always empty, which constitutes a strong distinction between these and Early Hemphill crested birds. The only known example of an empty central medallion outside of the Middle Hemphill style phase comes from a bottle depicting paired tails (SD50/m7) assigned to Late Hemphill. Crested bird tail feather tips become simplified in Middle Hemphill.

Paired Tails

Paired Tails is a new subject which appears for the first time toward the end of the Middle Hemphill style phase. It is present in two forms, each represented by two bottles with very similar engraving. One set is NEC11/m5 and Rho219, while the other is SL'21 and 1984.24.147.

Both sets of paired tails are depicted very differently from those associated with crested birds or raptors, this being my primary reason for treating them as a separate theme rather than simply as a pars pro toto version of the more fully depicted birds in court-card symmetry.

Center Symbols and Bands

There are only two examples of Middle Hemphill center symbols and bands. One, C8/m5, is quite typical of the theme, while the other, EE7, is rather unusual. EE7 is odd in that it does not have vertical bands, instead substituting two sets of three fingers which run vertically above and below each central medallion. The more ordinary center symbols and bands design has four sets of three fingers, when they are present, extending in the four intercardinal directions.

Trophy

Scalps appear in their canonical form during the Middle Hemphill phase, with the hair depicted as hanging straight down and without bangs and side-locks emerging from the sides and top of the scalp hoop. Hands became far more uniform stylistically in this style phase. Where eyes appear in palms, all have “eyebrow” elements depicted as arching lines drawn above the eye, and the eyes are asymmetrical in that the top side is more curved than the bottom side. In this style phase, the eye within the middle of the palm begins to be replaced by circles or ovals in the same position.



NN'38

NN'38, a subglobular bottle with a simple base, was excavated with Burial 2136 from an area north of Mound N (prime) by the Alabama Museum of Natural History (Steponaitis 1983b:255). Unfortunately this bottle was included in the 1980 theft of the Erskine Ramsay Archaeological Repository. NN'38 was seriated as Middle Hemphill because it was assigned to Schatte's (1997a) Second Body group along with SB11 and RW878.

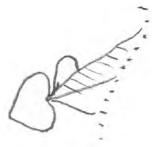
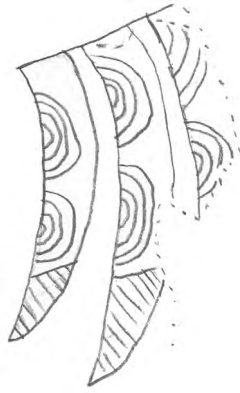
(Photo courtesy of Vincas P. Steponaitis.)

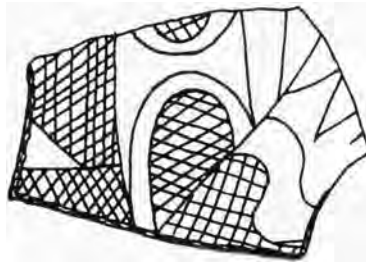


NN'18

NN'18, a subglobular bottle with simple base, was found with Burial 2134 in an area north of Mound N (prime) by the Alabama Museum of Natural History (Steponaitis 1983b:255). This bottle was stolen from Erskine Ramsay Archaeological Repository in 1980. These sherds show parts of the body, wings, and tails of two winged serpents in profile view facing right. It is seriated as Middle Hemphill because of the similarity of the head and tail to those depicted on RW878.

(Photo courtesy of Vincas P. Steponaitis. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

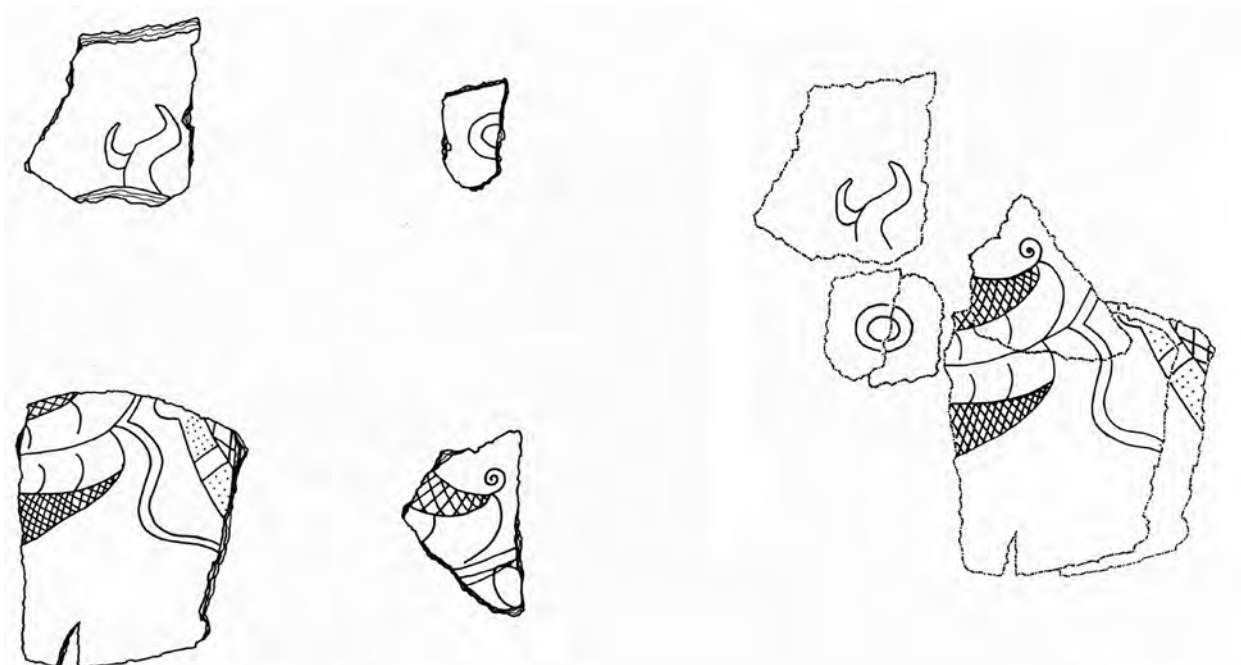




Q1982

Q1982 (UAM 1989.40.1982.3, 1989.40.1982.4) was excavated from Mound Q by Vernon J. Knight, Jr. This sherd shows the neck and beginning of a winged serpent. Q1982 was seriated as Middle Hemphill with along with Schatte's (1997a) Second Body group and Bird Tailed Serpent group, and was added because it is similar to the engraved serpents on NN'38 and RW878.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



Q1399

Q1399 (UAM 1989.40.2508.1, 1399.1, 1418.1, 2092.2, 1655.1) was found during Vernon J. Knight, Jr.'s excavations into Mound Q. This bottle is represented by several sherds as seen in the drawings on the left. On the right is a conjectured composite based on the sherds. Q1399 depicts two winged serpents in profile view facing to the right on a very large bottle. This bottle is unusual because of its large size and because it was white filmed. The engraved serpent is also unusual because the heads of the serpents are very large, there is a dorsal/ventral distinction in the body decoration, and the ventral part of the body decoration is punctated. Q1399 is seriated to Middle Hemphill because of its curled nose, curved teeth, and recurvate antler.

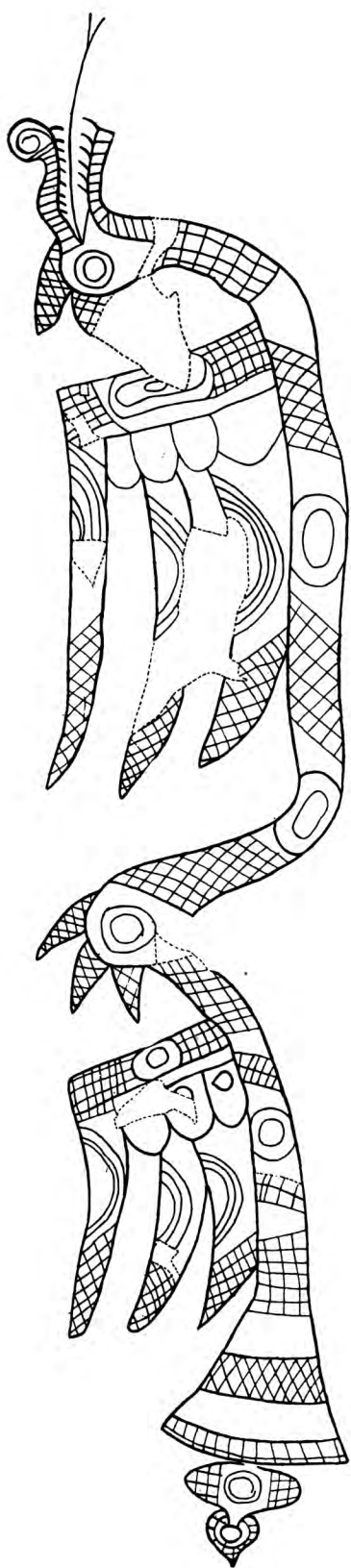
(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



SD44/m7

SD44/m7 (NMAI 173355), a subglobular bottle with a simple base, was excavated with Burial 55/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:241). The neck exterior is quite worn on the upper third for about three fourths of the way around. The neck interior is very worn, especially towards the top. The base has medium wear. There are two winged serpents depicted on this bottle. They are somewhat similar to the serpent engraved on SD87/m7 except that they are not executed nearly as well and the tails are totally different. The head of one serpent becomes the tail of the other, as the artisan likely ran out of room due to poor planning. The other head and tail come close to overlapping. This bottle is seriated as Middle Hemphill because it was assigned to Scatte's (1997a) Bird-Tailed Serpents group.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 65).)

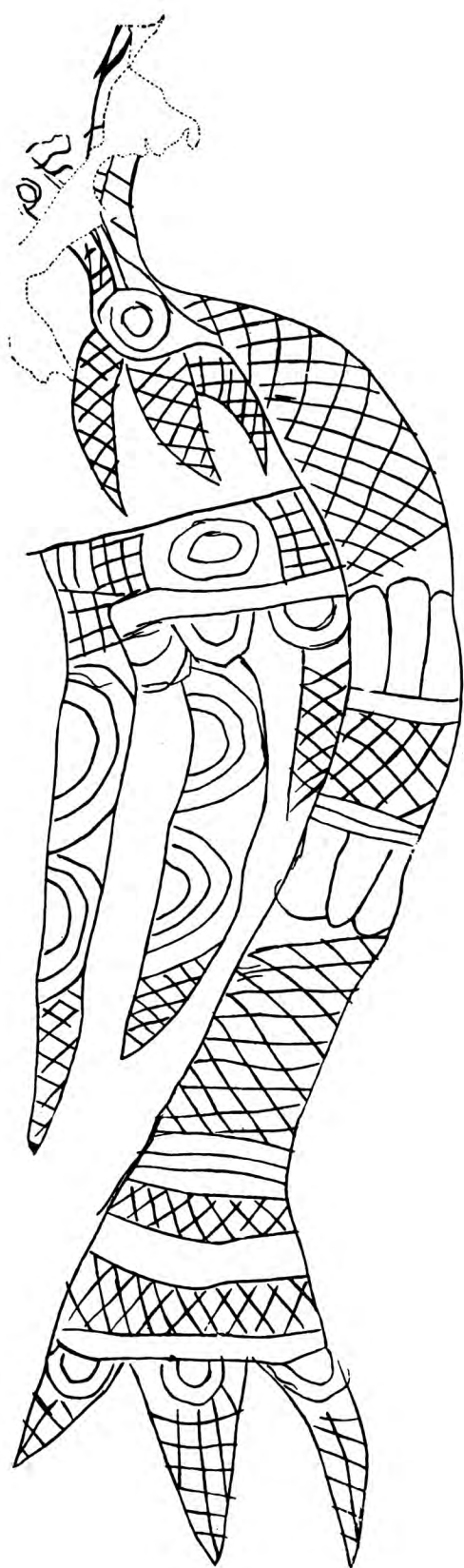




SD87/m7

SD87/m7 (NMAI 173350), a very small subglobular bottle with simple base, was found with Burial 150/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:242). This bottle is the only one known from Moundville to depict a single winged serpent in profile view. There is minimal wear on the body and exterior of the neck. The base is very worn. The lip and top interior portion of the neck is worn completely through the outer surface. Interestingly, this wear is not visible in Moore's (1907:Figure 63) photo. The interior of the neck seems to have only been burnished for the upper two-thirds. There are some spalled areas on the neck interior. This bottle was seriated to Middle Hemphill because it was assigned to Schatte's (1997a) Bird-Tailed Serpents group.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 64).)





Rho110

Rho110 (UAM 1930.2.56), a bottle, was found with Burial 1947 during Alabama Museum of Natural History excavations at the Oliver Rhodes Site (Steponaitis 1983b:231). Rho110 as presently cataloged, actually consists of two bottles, each represented by three sherds. One is a thin Moundville Engraved, *variety Hemphill* bottle, and the other is a thicker Bell Plain bottle. For the *Hemphill* bottle, the two sherds depicting parts of a winged serpent join together, while the third comes from the bottle's neck. The wing tips and part of the body of the serpent are hatched, not crosshatched. It has a long snout mouth with lots of teeth and a curly tongue. Rho110 was seriated to Middle Hemphill because its mouth is similar to the mouths of Schatte's (1997a) Bird-Tailed Serpents group.

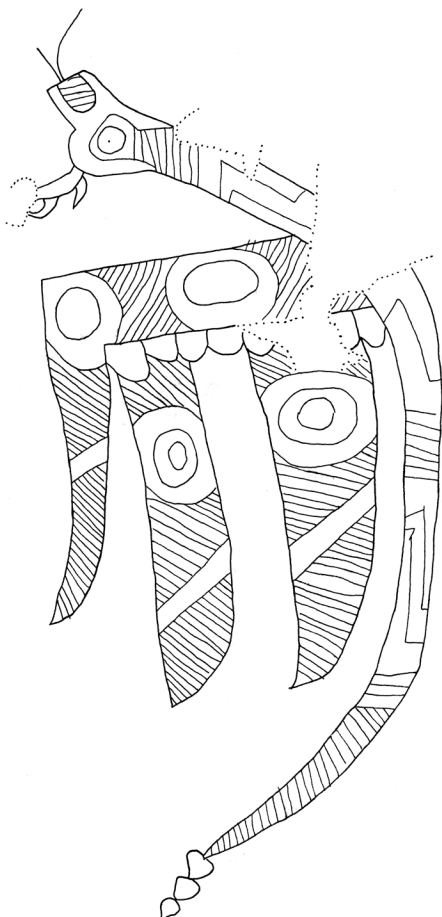
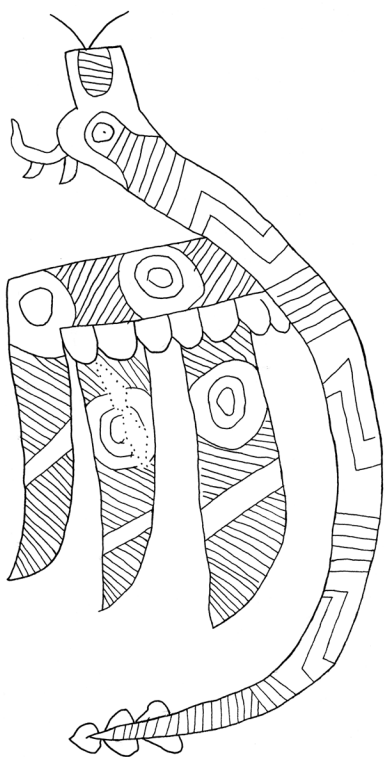
(Photo by Erin Phillips.)



RW878

RW878 (UAM 1939.2.28), a subglobular bottle with simple base, was found during the Alabama Museum of Natural History excavations in preparation for the roadway at Moundville (Steponaitis 1983b:235). The neck is missing, and the body is well worn where the neck would have joined to it. One area on the base is very worn, while other areas are less worn. This bottle was restored at one point, as evidenced by Steponaitis's photo above, but currently it is broken into many sherds. This bottle was seriated as Middle Hemphill because it, along with SB11 and NN'38, was assigned to Schatte's (1997a) Second Body group.

(Photo courtesy of Vincas P. Steponaitis. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

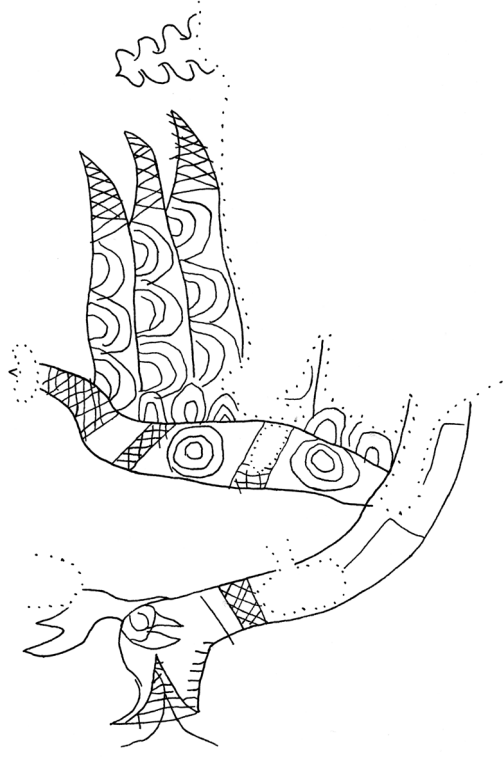




SB11

SB11 (UAM 1930.15.8), a subglobular bottle, was excavated by the Alabama Museum of Natural History at the Snow's Bend site. There is significant wear on the lower half of the vessel and the point of vertical tangency on the body. This may be the most usewear I have seen on any *Hemphill* vessel. The neck has been broken into four pieces and repaired. The rim is chipped in two places. There is significant wear on the inside of the neck. The serpents are almost impossible to see. Some parts seem to have been drawn in with pencil on the vessel, perhaps noting where really faint lines were. The drawing of the serpents on the opposite page is by Kevin Schatte. The spacing between them is arbitrary. This bottle was seriated to Middle Hemphill because it was assigned to Schatte's (1997a) Second Body group.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

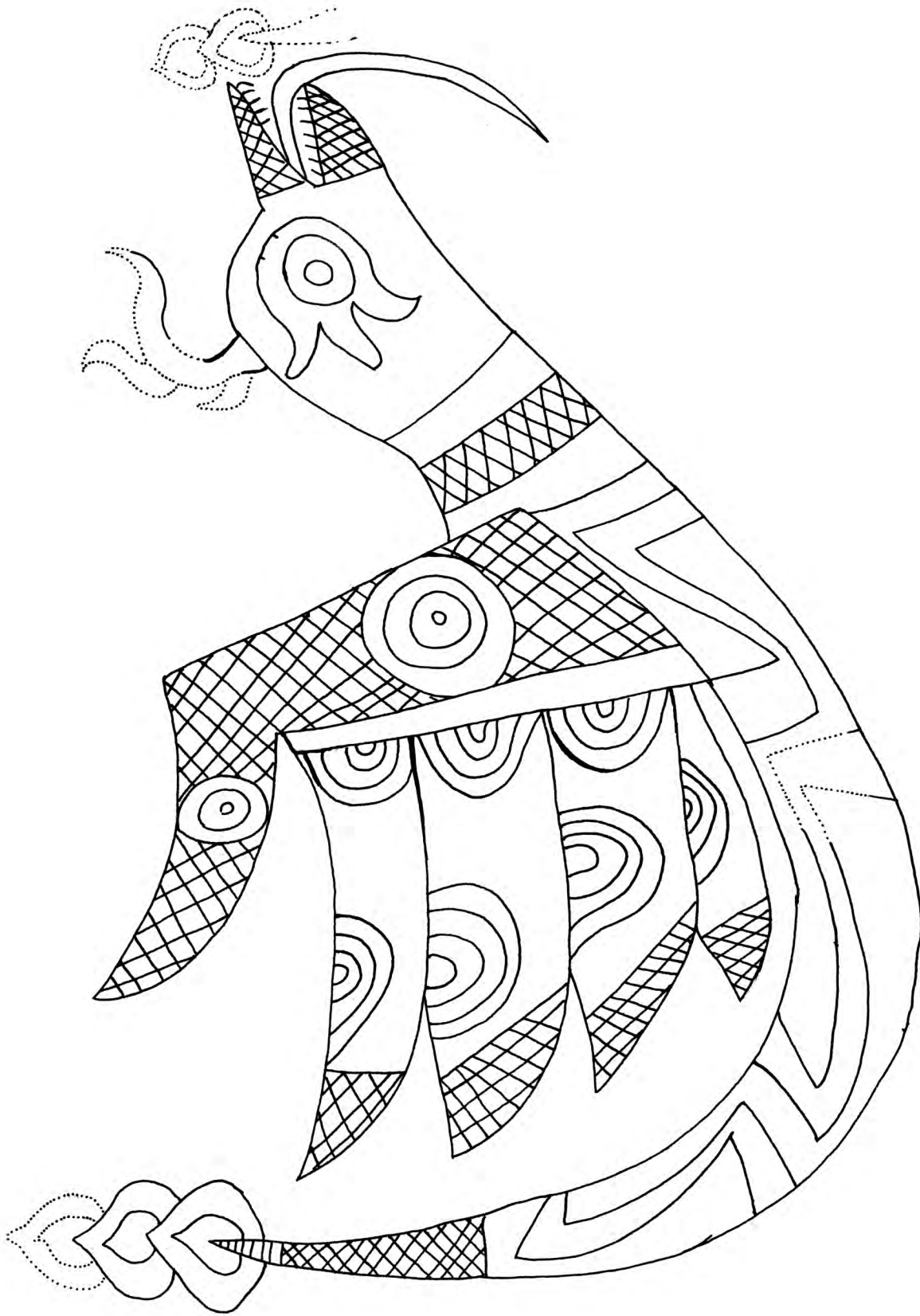




NE59

NE59 (UAM 1932.4.18), a subglobular bottle with simple base was found with Burial 76/NE north of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:243). There is a lot of reconstructive plaster and paint on this bottle. The base has a relatively normal amount of wear, with the surface of the entire base being about fifty percent worn through. There are two winged serpents in profile view, facing to the right engraved on NE59. The drawing on the next page is by Lacefield. This bottle is seriated to Middle Hemphill because it was assigned to Schatte's (1997a) New Body group along with ND"B" and NE90.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

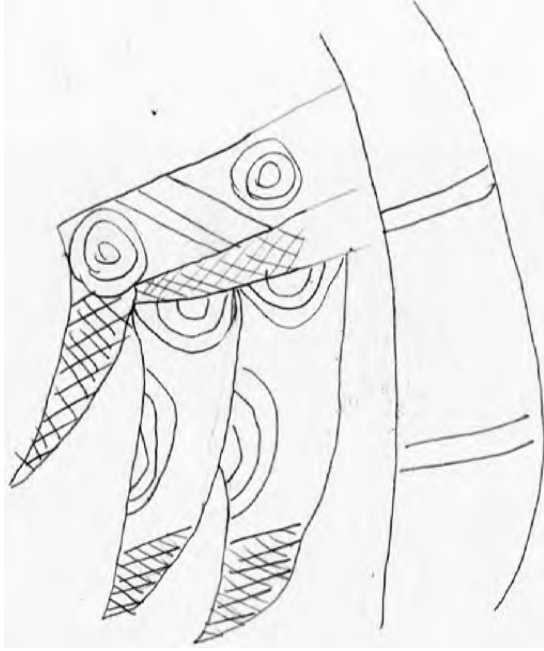




Rho164

Rho164, a subglobular bottle with simple base, was found with Burial 1969 by the Alabama Museum of Natural History at the Oliver Rhodes Site (Steponaitis 1983b:232). This bottle was stolen from the Erskine Ramsay Archaeological Repository in 1980. On the next page is my sketch based on Steponaitis's photograph above, which gives a sense of what this serpent looked like. This bottle was seriated to Middle Hemphill because the decoration of the wingbar, the crosshatching of the secondary part of the wingbar, the wing feathers, and the way the covert feathers were done with u-shapes is most like Schatte's New Body group (ND"B", NE59, NE90).

(Photo by Erin Phillips. Sketch by Erin Phillips.)

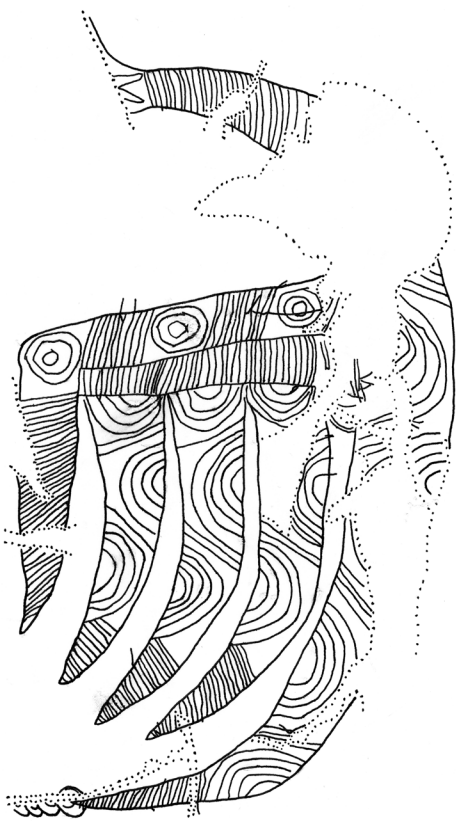
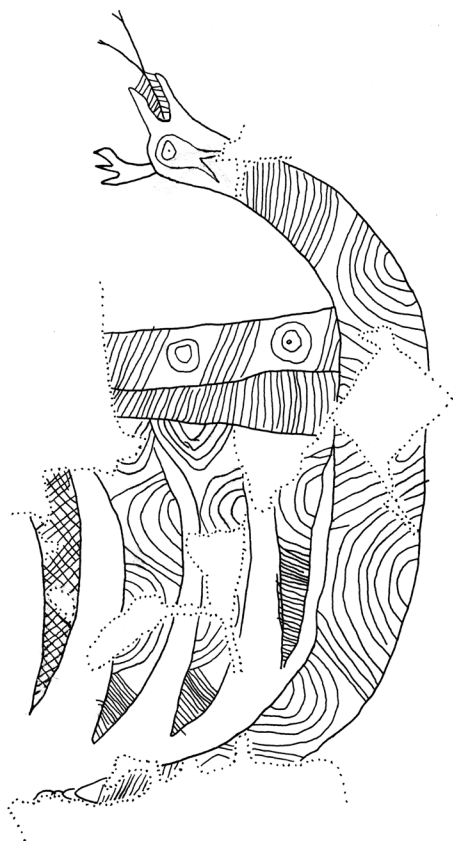


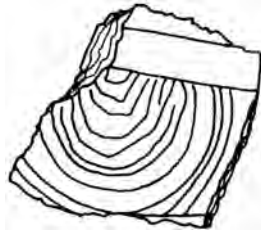


NE90

NE90 (UAM 1932.4.28), a subglobular bottle with simple base was found during Alabama Museum of Natural History Excavations north of Mound E (Steponaitis 1983b:244). The neck is no longer attached and the rim is chipped. NE90 is worn on the base. This bottle is incredibly thin. The drawings on the next page are by Schatte. This bottle was seriated as Middle Hemphill because it is assigned to Schatte's (1997a) New Body group, along with ND"B" and NE59.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

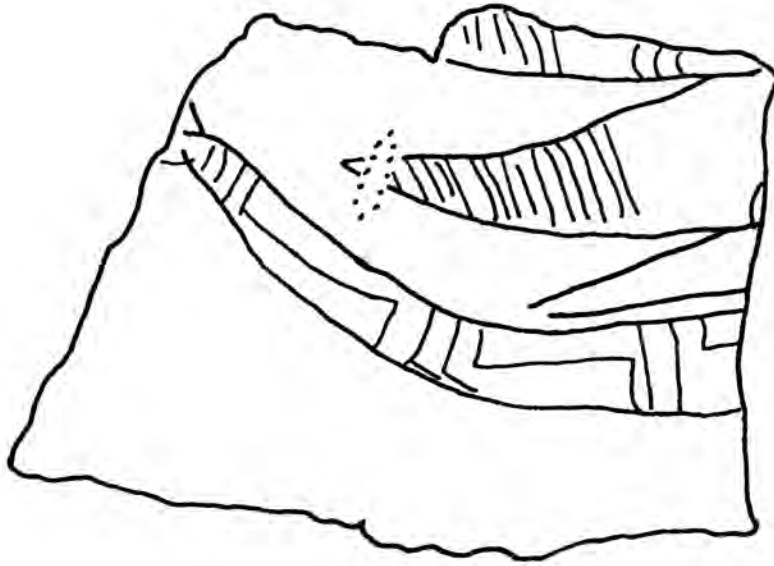




G639

G639 (UAM 1993.41.639.4) was excavated by Vernon J. Knight, Jr. from Mound G. This vessel was seriated as Middle Hemphill because the large number of irregularly drawn arcs is reminiscent of those on NE90's body.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



SMI95

SMI95 is a bottle, represented by three sherds, which was excavated at Seven Mile Island in the Pickwick Basin of the Tennessee River Valley (Webb and DeJarnette 1942: Plate 67.1). Webb and DeJarnette (1942: Plate 67.1) provide a drawing restoration of the bottle this sherd comes from. The tail on the restoration comes from SD33/m7 and the head and wing-bar/covert feathers come from SD42/m7. The actual serpents (presumably there were two drawn in profile, facing toward the right) on this vessel probably looked nothing like Webb and DeJarnette's (1942: Plate 67.1), except in that they are both in the Hemphill style. The drawing of the sherd above is by Schatte. SMI95 is seriated to Middle Hemphill because of the similarities of the body, tail, and wing tips to NE59 and ND"B".

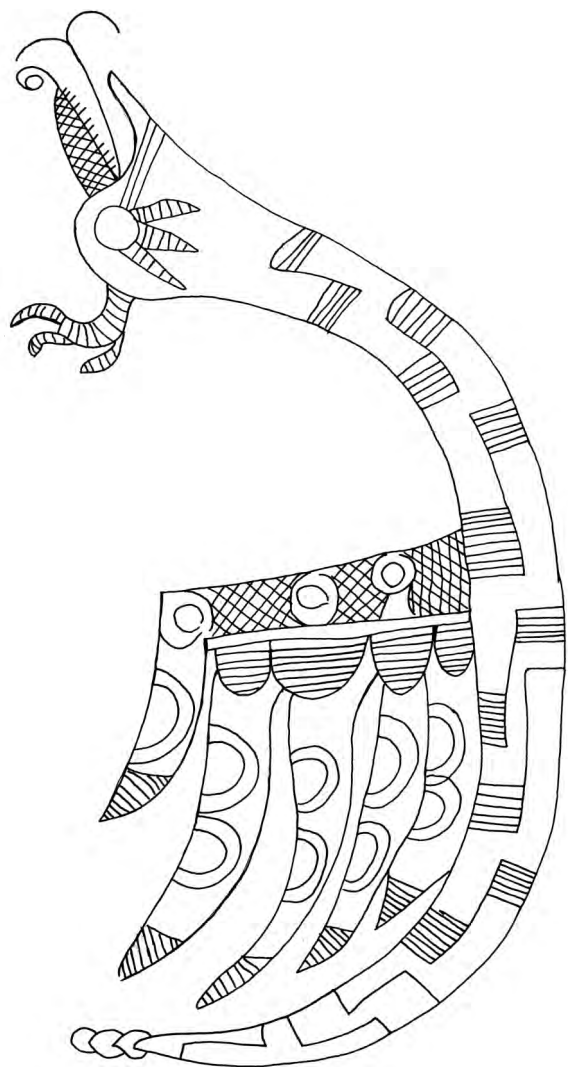
(Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)



ND“B”

ND“B” (UAM 1940.26.52), according to the note written on the base of the vessel, eroded out of the riverbank north of Mound D in August 1948. This large subglobular bottle with a simple base has no breaks other than chipping at the rim. Both the lip and the base of the bottle are worn. This bottle depicts two serpents in profile view. Lacefield drew one of them, which can be seen on the next page. Her drawing is good, but it omits the bottom row of teeth. There is more simple hatching than crosshatching on this bottle. ND“B” was seriated as Middle Hemphill because it was assigned Schatte’s (1997a) New Body group.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

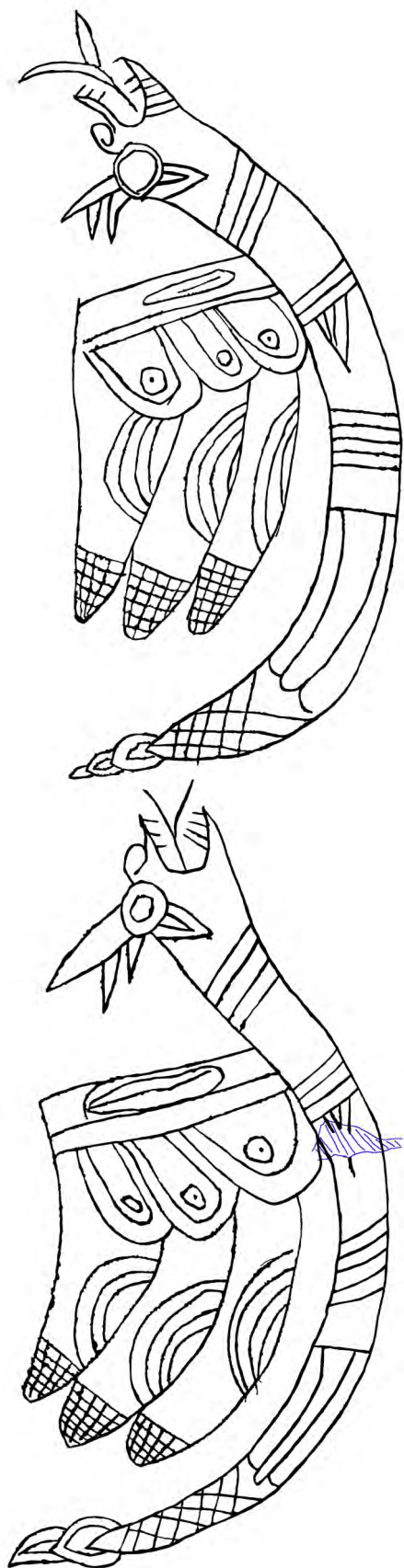




SD33/m7

SD33/m7 (NMAI 174356), a subglobular bottle with simple base, was found with Burial 71/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:241). There is significant wear at the top of the neck, most of the way around, and some wear on the base of the bottle. The engraving on this bottle depicts two winged serpents in profile view. The head on the serpent on the left, in the drawing on the next page, is much more crowded than the one on the right. This is the only known winged serpent depiction from Moundville where the noses curl downward instead of upward. This bottle has been seriated to Middle Hemphill because it was assigned to Schatte's (1997a) Barred Oval group.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

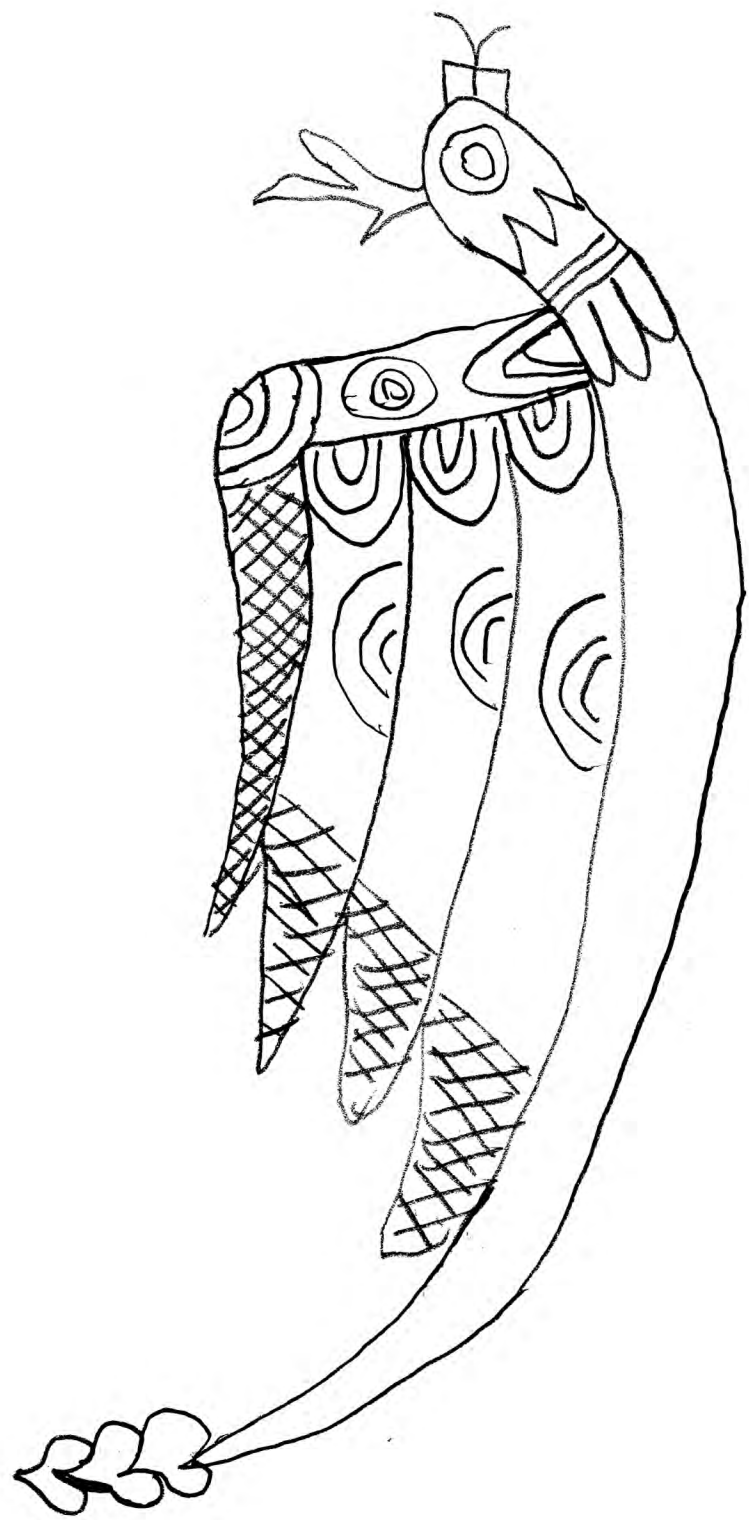




RW130

RW130 (UAM 1939.2.39), a subglobular bottle with simple base, was excavated by the Alabama Museum of Natural History in preparation for the roadway at the park. This bottle, which is currently in sherd form, was not included in Steponaitis's (1983b) ceramic study. Much of the serpents are missing, and there is wear on the base and shoulder of the body. On the next page, is a rough composite sketch of what the serpents on this bottle look like. Unfortunately in this preliminary sketch, the body and the wing feathers are unduly elongated. The serpents have antlers and three-pronged forked eye surrounds. The antlers and the beak/snout directly conjoin the eye surround. The segments of the rattles are reminiscent of onion domes or upside-down hearts. The wingbar has covert feathers. The main feathers are decorated with concentric arcs with the open side downward. The wing bar has concentric circles on it. The body of the serpent is mostly plain. This bottle was seriated to Middle Hemphill because the antler is no longer recurvate, and like NED 10, it has a three-fingers design element on its neck.

(Photo by Erin Phillips. Sketch by Erin Phillips.)





NED10

NED10, a subglobular bottle with simple base, was excavated during Alabama Museum of Natural History Excavations northeast of Mound D (Steponaitis 1983b:237). It was stolen as part of the 1980 theft from the Erskine Ramsay Archaeological Repository. The photograph on the left is an early image which is part of the University of Alabama Museums collections (MSM 1094). There are two additional photographs of this bottle in the University of Alabama Museums collections (MSM 1093 and MSM 1101). The photograph on the right was taken by Steponaitis. This bottle was seriated to Middle Hemphill because it was assigned to Schatte's (1997a) Banded Mouth group, which seems to be more contemporaneous with the Barred Oval group than with Schatte's Later Moundville III groups, which are assigned to Late Hemphill.

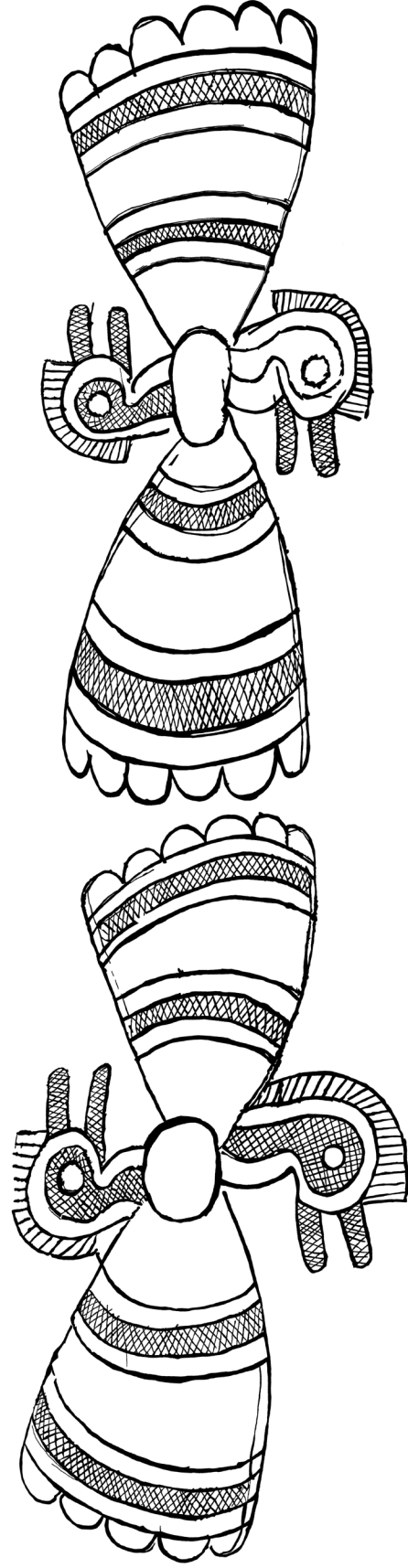
(Photo courtesy of The University of Alabama Museums, Tuscaloosa, Alabama, MSM 1094. Photo courtesy of Vincas P. Steponaitis.)



SD93/m7

SD93/m7 (NMAI 180432), a subglobular bottle with slab base, was found with Burial 153/SD/m7 by C. B. Moore south of Mound D in 1906 (Steponaitis 1983b:242). This bottle has a point of vertical tangency which is low on the body and a slight shelf where the body joins to the neck. There is mild wear on the neck and base. Most of the wear on the neck is on the inside. The crosshatched lines are finer and deeper than the main lines. The engraving/incising methods seem similar to Pensacola Incised, *variety Hamilton*. This bottle depicts two sets of crested birds in court-card symmetry. One set of birds heads go all the way to the neck and base, the heads on the other stop short. There are several duplicated lines which may indicate mistakes, or perhaps preliminary sketching. This bottle was seriated to the early end of Middle Hemphill because it retains some Pensacola-like aspects in terms of style, but they are not as strong as some of the Pensacola-like stylistic traits of some Early Hemphill vessels; because it still has elongated neck bulges, which is a trait common to Early Hemphill crested birds; because its central medallion is blank, which is a Middle Hemphill trait; because it has a crest that runs all the way down the back of its neck, which is a Middle Hemphill trait; and because of its vessel shape that has some aspects of Early Hemphill vessel shapes, but the early characteristics are not as strong as those in Early Hemphill.

(Photo by Erin Phillips. Incomplete Drawing by Erin Phillips.)





SD814

SD814 (UAM 1932.3.64), a subglobular bottle with simple base, was found with Burial 1539 south of Mound D during Alabama Museum of Natural History Excavations at Moundville (Steponaitis 1983b:239-240). This bottle is plain, except for the engraved crested bird head on one side. There is a piece missing at the base that is probably due to a tool impact during excavation. The rim is chipped. The surface is more eroded on the side opposite the crested bird head. The bottle shape seems somewhat unusual because the point of vertical tangency is high, the neck-body join is a smoother transition than usual, and the neck flares more than is typical. This bottle is seriated to Middle Hemphill because the bird head, which seems to be in the Walls tradition, still has an elongated neck, but the head seems more simplified than earlier versions.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





SD86/m7

SD86/m7 (NMAI 174395), a cylindrical bowl, was found with burial 150/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:242). This bowl is smooth and dark at the head and part of the wing closest to the beak. The engraved lines seem wider there. This bowl is well worn on the base and the side opposite the head. The interior shows some wear, mostly on the bottom. The engraving on this bowl depicts a crested bird with feet similar to those on NE80 and SD805. The feet are often excluded in depictions of birds in the round at Moundville. The body continues onto the base, as can be seen in the drawing from Moore's 1907 article on the next page. There is a barred oval where the legs join to the body, and there are barred ovals on each wing bar. There is no crosshatching on the head or neck. Like SD814, this crested bird shows vestiges of crested birds in the Walls tradition, and still has evidence of the elongated neck bulge. SD86/m7 is considered to be fairly early within the style phase because of the concentric lines around the rim of the bowl and because the wing feathers are still notched, but it is less Walls-like than earlier vessels, suggesting a Middle Hemphill assignment.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure38).





SL'1

SL'1 (UAM 1938.1.1), a subglobular bottle with slab base, was found with Burial 3001 in an area known as south of Mound L prime which was previously referred to as south of Mound K during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:253). The original outer surface seems to be missing on over half of the vessel and the neck is broken. These birds in courtcard symmetry are unusual in that they have spiked crests like raptors, but are otherwise very much like other crested birds. There is no crosshatching on this bottle. In the absence of crosshatching, the tail design seems unique, but it is otherwise quite similar to Middle Hemphill crested bird tails. The beaks are like those on O6/m5, which bears Middle Hemphill crested birds. Thus SL'1 is seriated to Middle Hemphill.

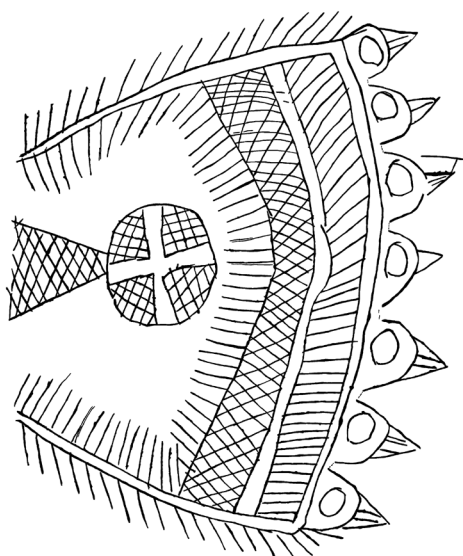
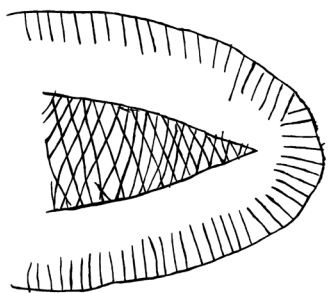
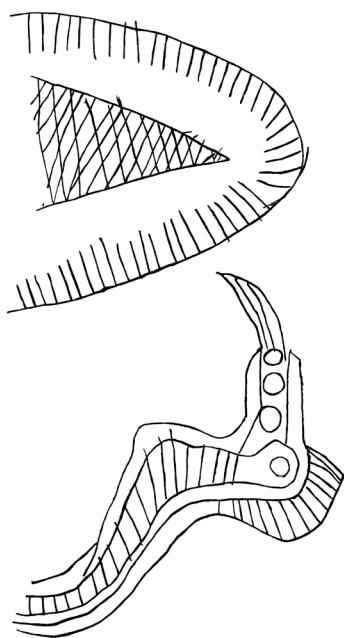
(Photo by Erin Phillips.)



SD472

SD472 (UAM 1932.3.31), a subglobular bottle with simple base, was found with Burial 1468 south of Mound D during Alabama Museum of Natural history excavations at Moundville (Steponaitis 1983b:238). There are two large spall repairs below the left wing. There is some wear at the top of the neck and a worn groove at the body-neck join. There is minor wear on the base. SD472 depicts a crested bird in the round suspended from the neck of the bottle. This bottle and SEH73 are very similar and are in the same style level 2 group as SEH73. The bird has an undulating neck, and the tail tips are pointed with rounded bases bearing circles. Both SD472 and SEH73 are in the tradition of Walls-influenced Hemphill-style crested birds, but seem several steps removed from the earlier examples found in Early Hemphill. Both SD472 and SEH73, along with NG10 and SL'21, have simple bases and points of vertical tangency of the body below the midline. All have been seriated as Middle Hemphill.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

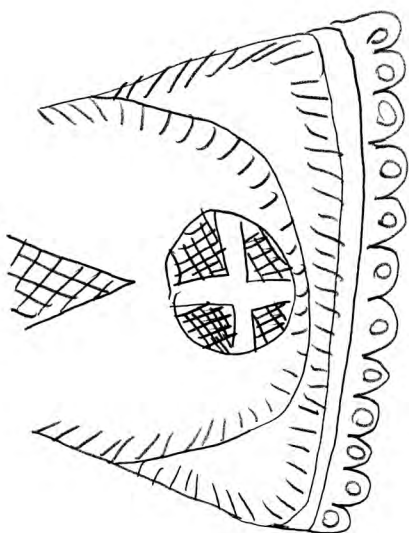
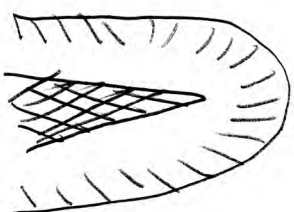
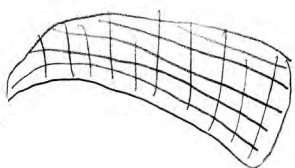
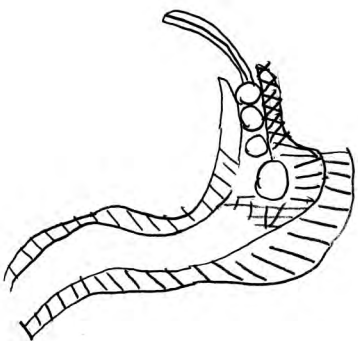
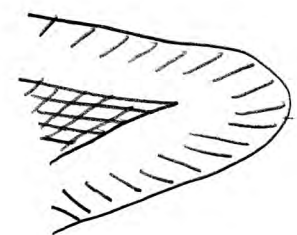




SEH73

SEH73 (UAM 1930.4.10), a subglobular bottle with simple base, was found with Burial 869 southeast of Mound H during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:252). The outer surface of the bottle is pitted and the rim is chipped. The edges of the base are more worn than the middle is. This bottle is very similar to SD472, but is broken into a number of pieces and seems to have an additional engraved element. The two bottles are in the same level 2 style group. The drawing on the next page is a preliminary sketch of the engraved design. SD472 and SEH73 are in the tradition of Walls-influenced Hemphill-style crested birds, but seem several steps removed from the earlier examples found in Early Hemphill. SEH73, along with SD472, NG10, and SL'21 all have the same vessel shape, with simple bases and points of vertical tangency on the body below the midline. All have been seriated to Middle Hemphill.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

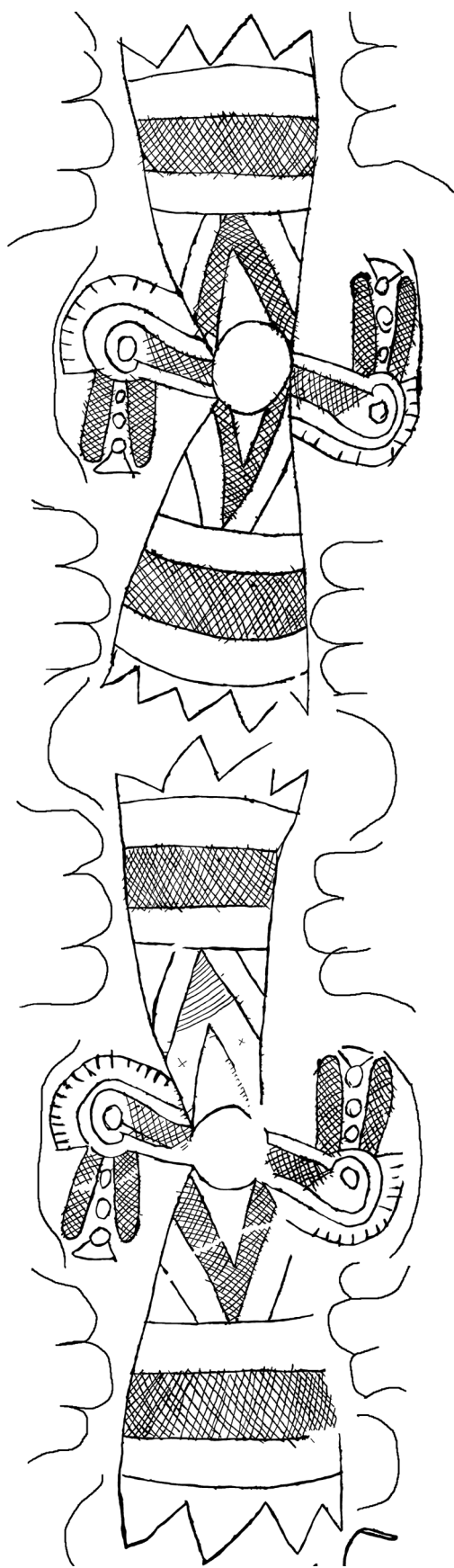




O6/m5

O6/m5 (NMAI 173363), a subglobular bottle with a slab base, was found with burial 14/O/m5 by C. B. Moore during his excavations of Mound O at Moundville (Steponaitis 1983b:255). Much of the base shows significant wear. There is no wear on the exterior or interior of the neck, but scraping during manufacture is visible on both. The lip is worn in one spot. The neck opening is unusually wide. In addition to the two sets of crested birds in courtcard symmetry, there are four sets of three fingers connected by arcing lines at both the top and bottom of the body of the vessel. All four of the heads have three-beads-plus-fan tongues. The heads themselves are quite similar to those on SD93/m7. This bottle is in the same style level 3 group as D6/m5, EE3, NE60, and Rho338. This bottle was seriated as Middle Hemphill because of its vessel shape, and because the engraved design seems to be derivative of earlier crested birds at Moundville all of which have knotted medallions. This crested bird has a blank center medallion which is characteristic of Middle Hemphill. It is somewhat similar to SD93/m7 as well.

(Photo by Erin Phillips. Incomplete Drawing by Erin Phillips.)





EE3

EE3 (UAM 1931.1.2), a cylindrical bowl with a single lug, was found with burials 1181-1183 during Alabama Museum of Natural History Excavations east of Mound E (Steponaitis 1983b:246). The bottom of the bowl shows clear signs of wear. Some of the wear elsewhere is obscured by plaster. While this bowl was reconstructed, it has now rebroken into a number of sherds. There are two sets of crested birds in courtcard symmetry engraved on this bowl. The design is not well adapted to the space: the one top head that remains runs into the lug, both bottom heads run onto the bottom of the bowl, and the tail feathers overlap horizontally. This bowl belongs to the same style level 3 group as O6/m5, D6/m5, NE60, and Rho338. It is seriated as Middle Hemphill because of the similarities of its design to O6/m5. It is the only example in its style level 3 group that is a bowl, and the only one to not have the three fingers motif at the top or bottom of the design field.

(Photo courtesy of Vincas P. Steponaitis.)



Rho338

Rho338 (UAM 1930.2.84), a cylindrical bottle, was found with Burial 2089 during Alabama Museum of Natural History excavations at the Oliver Rhodes site. This bottle was not included by Steponaitis in his ceramic study of Moundville (1983b). It seems to have been reconstructed at one point, as a few plaster fragments remain, but it has since broken again. Most of the base is present. Most of the surface finish has worn through on about half of the base. The base-to-wall transition is rather sharp. There is minor wear on the base of the neck exterior. This bottle depicts two sets of crested birds in courtcard symmetry. At least part of all four heads remain. The tops of the two bottom bird heads extend slightly onto the base. There were four sets of three fingers suspended from the neck of the bottle, all connected with arcing lines; only part of three sets are still present. The three fingers motif is not found at the bottom of the bottle. The triangular element of the tail that radiates from the central medallion does not extend to the first arc, as they typically do on similar crested bird tails. This bottle is part of the same style level 3 group as O6/m5, D6/m5, EE3, NE60, and Rho338. It is seriated to Middle Hemphill because it is part of the same style group as O6/m5, which is seriated as Middle Hemphill.

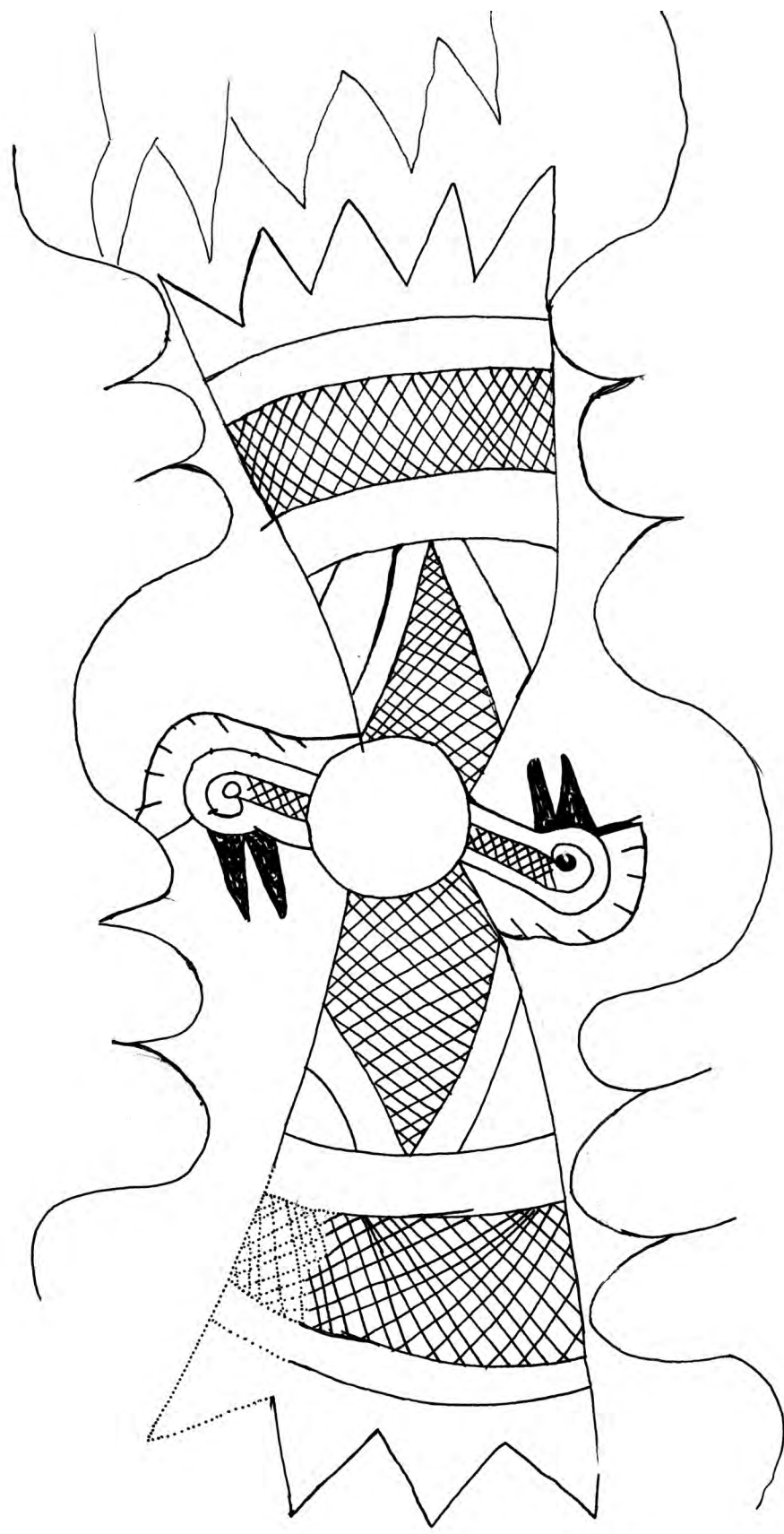
(Photo by Erin Phillips.)



NE60

NE60 (UAM 1932.4.19), a subglobular bottle with simple base, was found by the Alabama Museum of Natural History with Burial 17/NE north of Mound E (Steponaitis 1983b:243). The neck of the bottle has been broken and mended, and there is a worn groove at the base of the neck. Some wear is clearly present elsewhere, but nowhere is it significant. This bottle, like the others in its style level 3 group (O6/m5, D6/m5, EE3, and Rho338), depicts two sets of crested birds in courtcard symmetry. The three fingers motif can be seen coming up from the bottom and down from the top. The heads of these crested birds are unusually small. On one set of crested birds, the eyes have irises (see Lacefield's drawing on the next page, and see the photo above), while they are absent in the other set. The beaks have been shallowly excised. Despite the fact that this bottle has a simple base, a groove has been cut at the base to give it definition. This bottle is quite similar to O6/m5, but it is less well executed and lacks the beaded tongue. Lacefield's drawing of one set of crested birds gives the general gist of the design, but is not accurate in all respects. One of the most obvious problems is that the wings curve in her drawing, while as can be seen in the photo above, they do not actually curve that dramatically. This bottle has been seriated to Middle Hemphill along with its style level 3 group.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





D6/m5

D6/m5 (27953) was found during C. B. Moore's excavations of Mound D in 1905. The bottle is now in the collections of the R. S. Peabody Museum at Phillips Academy in Andover, Massachusetts. It was not included in Steponaitis's (1983b) ceramic study. This bottle, like the others in its same style level 3 group (O6/m5, EE3, Rho338, and NE60) depicts two sets of crested birds in court-card symmetry and is seriated as Middle Hemphill. As can be seen in the photo above, it was broken and has been repaired.

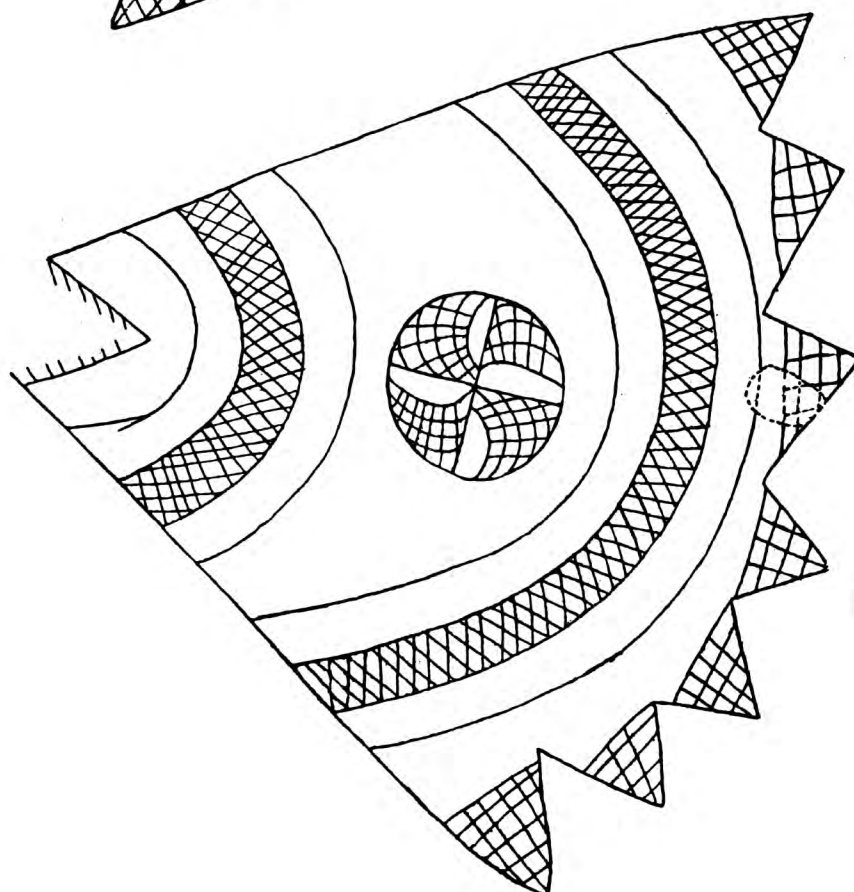
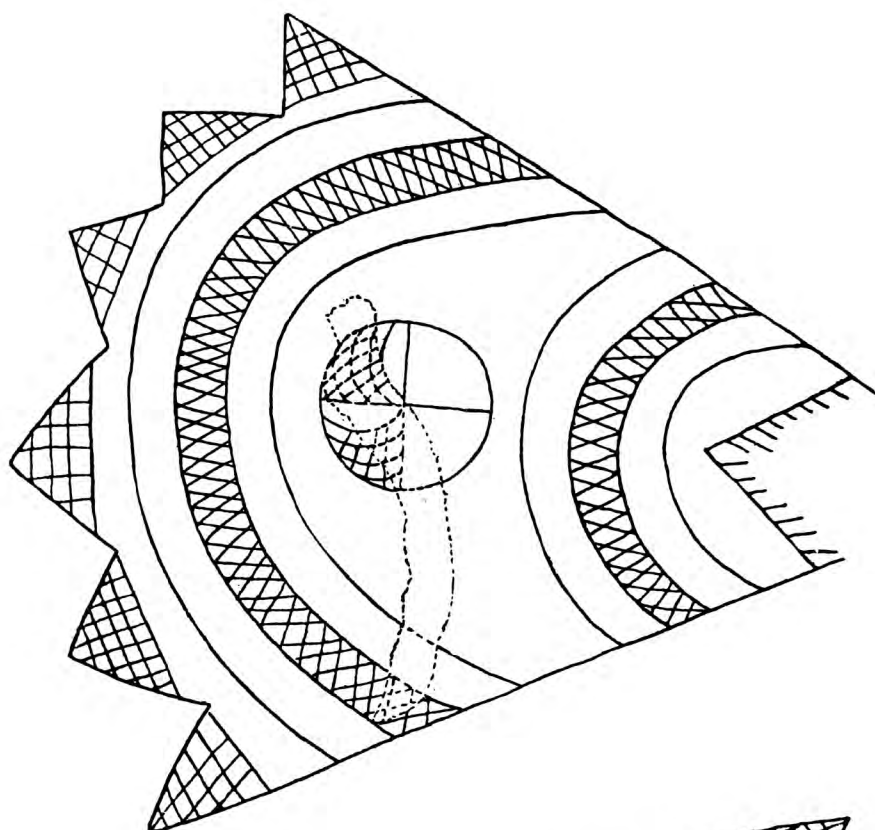
(Photo courtesy of the Robert S. Peabody Museum of Archaeology, Phillips Academy, Andover, Massachusetts.)



F4/m5

F4/m5 (NMAI 180431), a subglobular bottle with a pedestal base, was found by C. B. Moore during his excavations into Mound F in 1905 (Steponaitis 1983b:250). This bottle has a few cracks and the body is entirely rough. The base is very worn, with most of the surface finish worn through. The neck interior is rough, but the neck exterior is smooth. The rim seems to be missing all of the way around. Most of the engraved lines are white or yellow in color, like the spots on the body. One tail, however, is mostly free of both. The bottle shape is rather wide, and the point of vertical tangency on the body is low. The engraved design on this bottle is four severed tails. Three of the tails have a swirl-cross-in-circle, while one of the tails has a straight cross-in-circle. These severed tails, based on their decoration, come thematically from crested birds. The other bottle with severed tails (PS1991) is assigned to Early Hemphill. The difference between the design of the tails of this bottle and the tails on PS1991 are the tail tips. The tail tips on the earlier PS1991 are the Walls-like versions with pointed projections coming from rounded tail tips and circles in the centers. Those features tend to be found in Early Hemphill. The tail tips on F4/m5 are simple crosshatched triangles that are reminiscent of the crosshatched triangle crests of raptors found in Middle Hemphill, especially SD362. This bottle is seriated to Middle Hemphill based both on the rounded profile of the body with a point of vertical tangency near the midline and its triangular tail tips.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 90).)

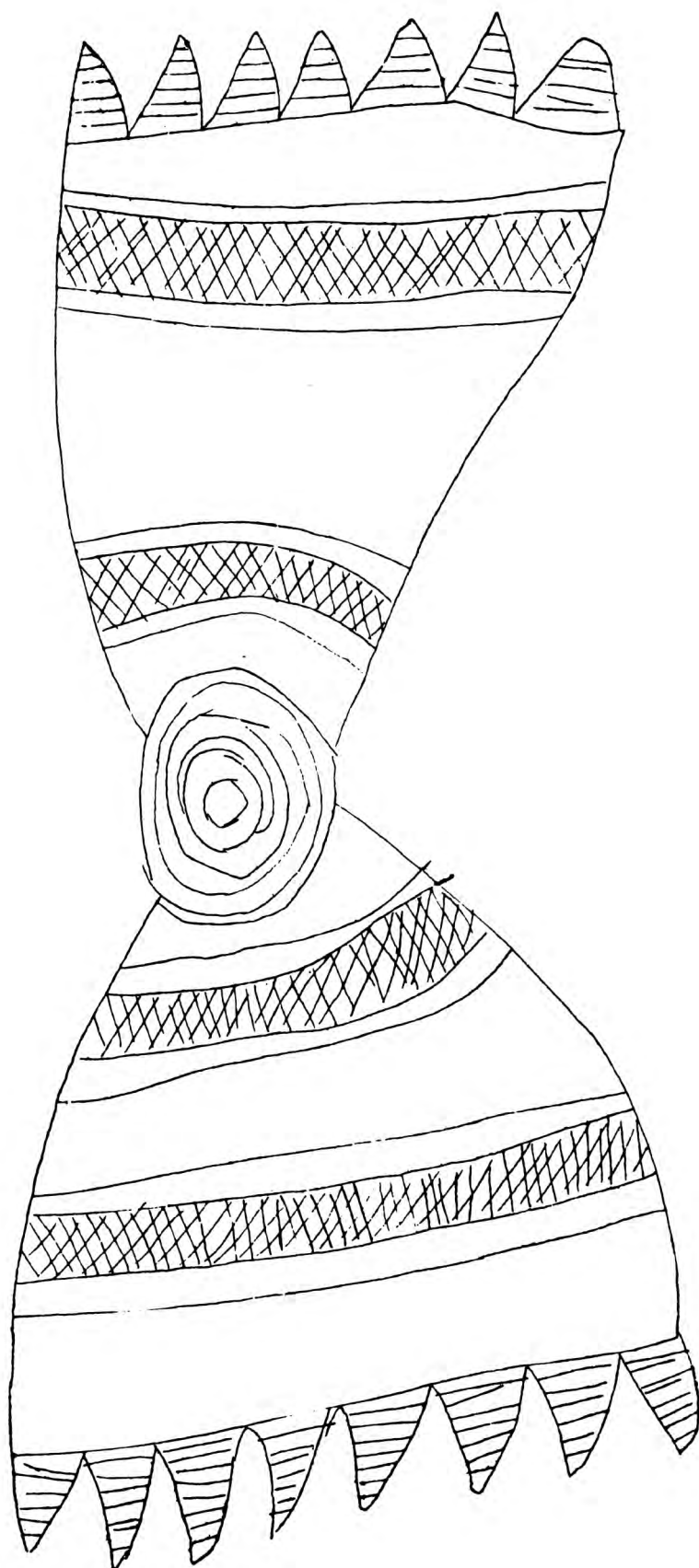




NEC11/m5

NEC11/m5 (NMAI 171425), a subglobular bottle with a simple base, was found with Burial 20/NEC/m5 during C.B. Moore's excavations northeast of Mound C in 1905 (Steponaitis 1983b:236). This bottle has no breaks and virtually no wear. The only place there is wear is the neck interior, where it is minimal. This bottle is unusual in its vessel shape, most noticeably in the way the lip flares outward. The engraved design on this bottle is two sets of paired tails. They are not well executed, and a few lines appear to be doubled. The design on one of the central medallions is almost a spiral. While the shape of Rho219, another subglobular bottle, is distinctively different, the engraved designs are virtually the same. These two bottles form the same style level 2 group. Both bottles are seriated to Middle Hemphill because their two plain-crosshatched-plain stripes on each tail are similar to part of the tail decoration on crested birds, but in general paired tails seem to be different and later, lacking swirl crosses or lines/triangles radiating from the central medallion and having simple hatched triangular tail tips.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 57).)





Rho219

Rho219 (UAM 1930.2.29), a subglobular bottle with simple base, was found with Burial 2009 during Alabama Museum of Natural History excavations on the eastern edge of Moundville in an area known as the Oliver Rhodes site (Steponaitis 1983b:232). This bottle is largely reconstructed. The neck is pitted both inside and out. The bottle seems to be well worn, especially on the bottom. This bottle has two sets of paired tails engraved on it. The engraving is very similar to NEC11/m5. The first striped segment of the tail is much closer to the center medallion than they are on NEC11/m5. The tail tips are also slightly different in that they have diagonal hatching instead of vertical hatching. Rho219 and NEC11/m5 make up the same style level 2 group, and both are seriated to Middle Hemphill because of their two plain-crosshatched-plain tail stripes. Except for SL'21 and 1984.24.147, all other paired tails are seriated as Late Hemphill.

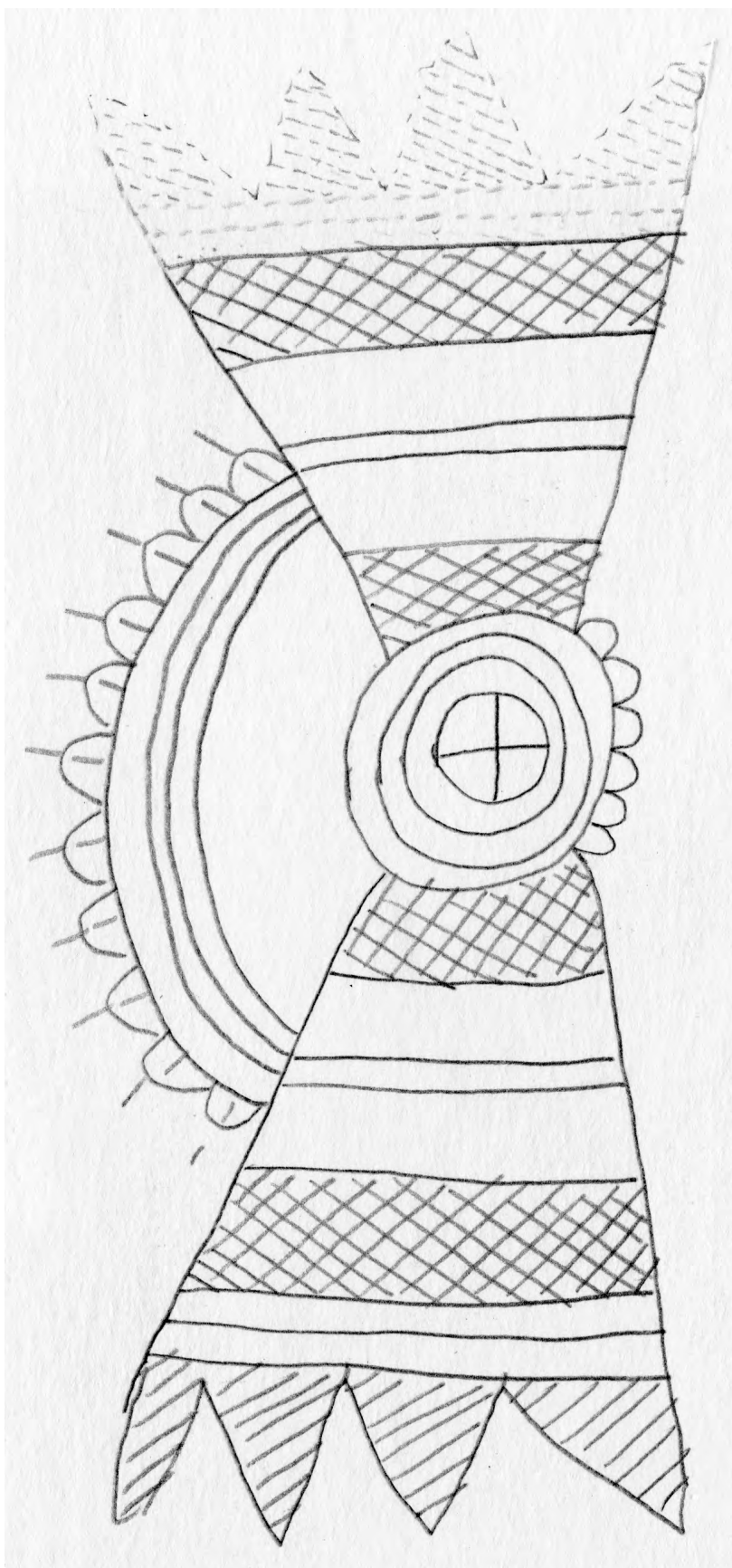
(Photo by Erin Phillips.)



SL'21

SL'21, a subglobular bottle with simple base, was found with burial 3012 during Alabama Museum of Natural History excavations in an area of Moundville known as south of Mound L (prime) which was previously known as "South of Mound K" (Steponaitis 1983b:253). This bottle was stolen in 1980 during the robbery of the Erskine Ramsay Archaeological Repository. SL'21 has two sets of paired tails. In addition to being joined by a central medallion, the tails of each set are joined by an arcing set of lines with scallops at the top, which are crosscut by lines running perpendicular to the arcing lines. This bottle is assigned to the same style level 3 group as 1984.24.147. It is seriated as Middle Hemphill because it has the same vessel shape as SEH73 and SD472. All three are subglobular bottles with simple bases with low points of vertical tangency on the body.

(Photo courtesy of Vincas P. Steponaitis. Sketch by Erin Phillips.)

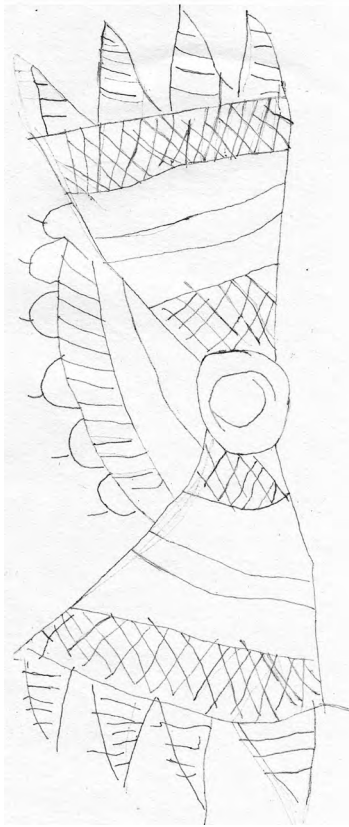
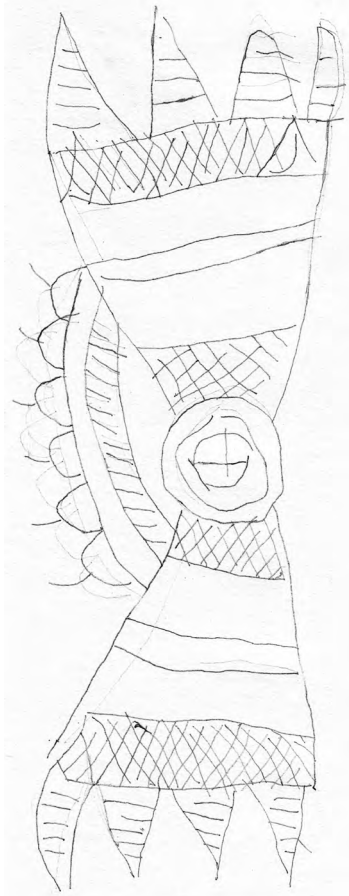




1984.24.147

1984.24.147, a subglobular bottle with a simple base, has had its provenience information lost. The accessions database notes that it came from WPA era excavations and the inside of the bottle's neck says "Moundville Surface." The base is worn and crazed. The lip is rather chipped. There are deep scratches on the interior of the neck, and a few on the exterior. There is a section of the neck exterior where the burnished surface has come off. Shell has leached out, leaving pock marks. There is a spalled area that may have been caused by the impact of an archaeological tool that is located on the lower portion of one tail. This bottle is rather similar to SL'21, with which they make up a style level 3 group. The drawings on the next page were made by Kevin Schatte. The engraved design seems less well executed than that on SL'21. This bottle is seriated to Middle Hemphill because SL'21 is seriated to Middle Hemphill.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

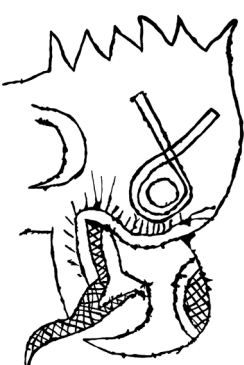
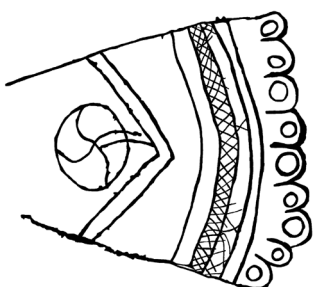
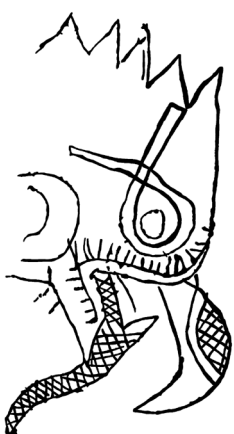
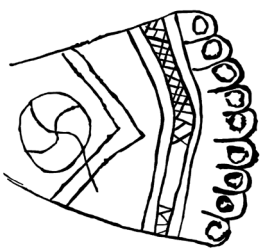




SWG63

SWG63 (UAM 1934.1.19), a subglobular bottle with simple base, was found with Burial 1788 southwest of Mound G during Alabama Museum of Natural History Excavations of Moundville (Steponaitis 1983b:252). The exterior is very rough. I am not sure if this is due to use wear or postdepositional agents. The engraved design is somewhat difficult to see. Steponaitis (1983b) describes it as a raptor in the round, but it is actually a raptor in courtcard symmetry. This depiction is unusual for two reasons. The first is that the subject matter of the courtcard symmetry is crested birds, and the second is that this example uses the neck opening of the bottle as the central medallion, such that the two heads and tails are suspended from the top. This raptor is also somewhat unusual in that it has the same eye surround found on the large greenstone “duck” bowl from Mound U which Moore (1905: Figure 167) referred to as “ridge north of Mound R.” This eye surround alternatively can be described as the lowercase Greek letter alpha. The arches on the raptor necks are also rather unusual. There are numerous instances of overshot lines where crosshatching and swirls of swirl crosses do not stay within their bounded areas. This bottle is seriated to Middle Hemphill together with SD71/m7 and O9/m5. SWG63 has a beak/face separating line, which, although it is like the lines on SD71/m7 and O9/m5, is not as clear as the earlier examples. The decoration at the curve of the beak is more like SD71/m7 and O9/m5 than it is to any other raptor.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

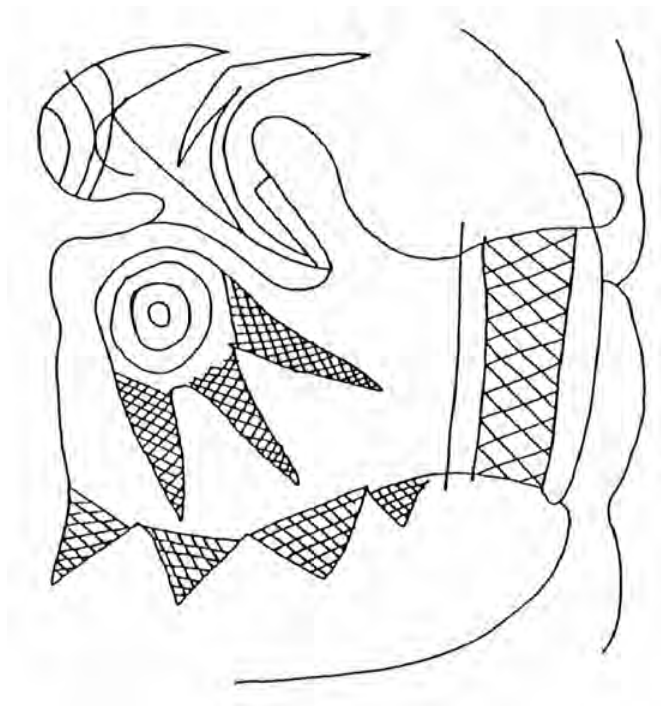




SD362

SD362 (UAM 1932.3.27), a subglobular bottle with simple base, was found with Burial 1459 during Alabama Museum of Natural History excavations south of Mound D (Steponaitis 1983b:238). This bottle depicts a raptor in the round. The base is very worn, which obscures any engraving that might be there. The inside of the neck is especially worn on the side opposite the raptor head. There seems to be more wear at the base of the neck interior than at the rim. The lip is chipped. The bottle has been broken and pieced back together. Upon first impression, it seems as though it might potentially be the most elaborate Hemphill-style raptor. Upon further inspection, however, one realizes that it is poorly executed. This raptor has a three-pronged eye surround. The raptor's neck extends down to the wing join. It seems to potentially have a body on the base of the bottle. There is an extra vertical bar between the wing bar and the covert feathers. The tail is relatively small. The wing feathers actively curve upward. This bottle has been seriated to Middle Hemphill together with EE416 and SD586. All three have flat heads and crosshatching at all pointed ends. This raptor is less well executed than those on EE416 and SD586. There are qualities of SD362 that are reminiscent of NE59. This bottle is also seriated at Middle Hemphill because the circles/ovals on the wingbars correspond to those on NED10, SD33/m7, and RW130.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

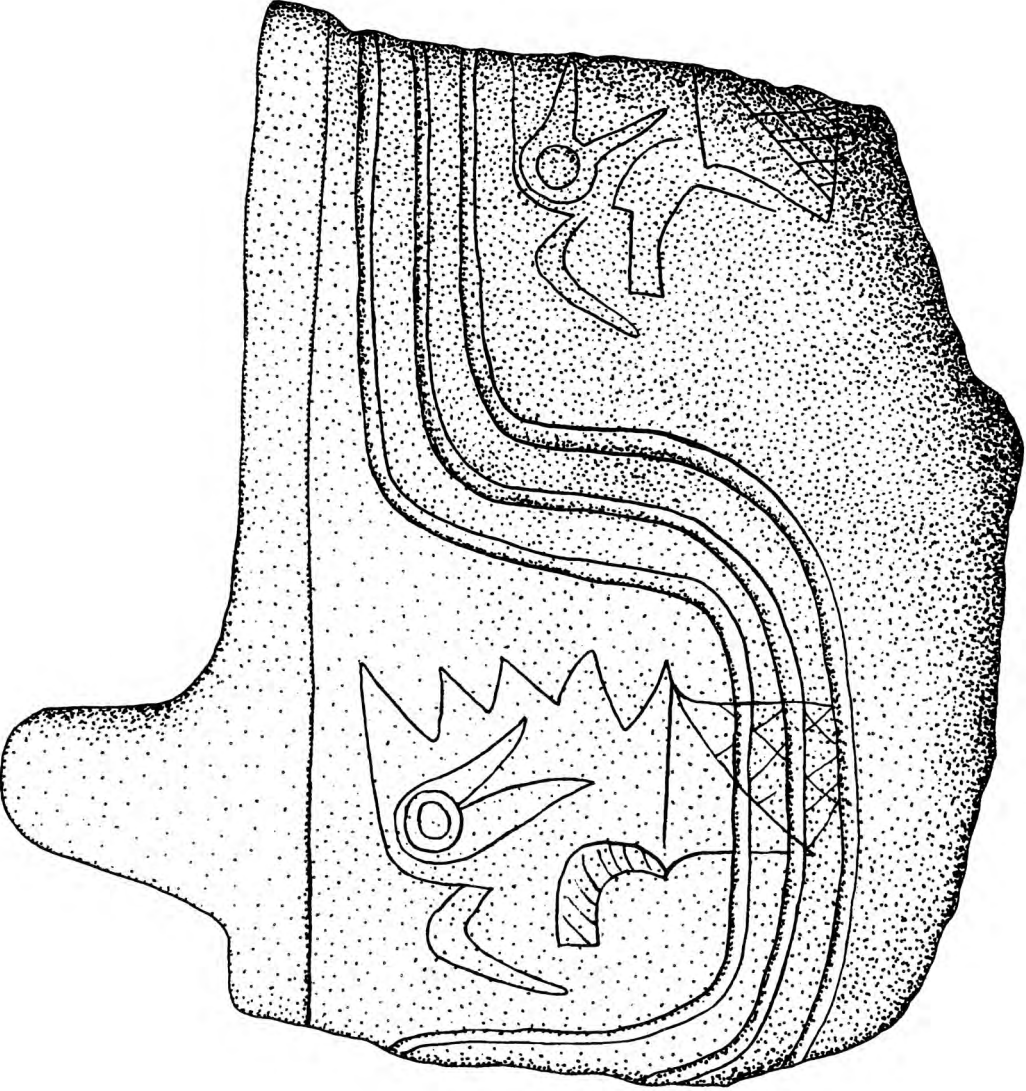
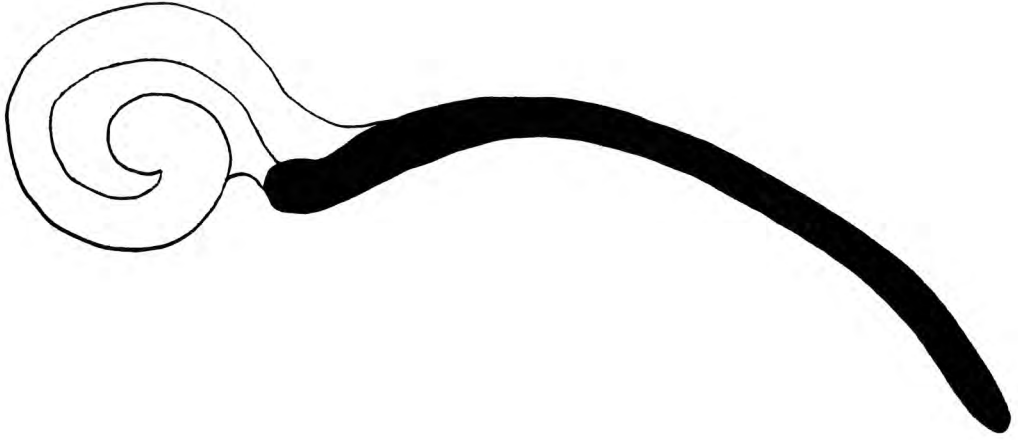




PP47

PP47 (UAM 1998.36.2330), a large sherd, was found in Feature 47 of unit 2N8 at the Pride Place site during Office of Archaeological Research, University of Alabama Museums excavations in the 1990s. The bowl that this sherd came from is a red-on-white feline effigy with incised meanders, that probably originated in the Mississippi Valley. It belongs to the type Leland Incised. It has since had raptor heads engraved into the painted surface. This sherd has part of two engraved raptor heads and a feline effigy tail. Some red paint has worn off around the tail, and some white paint has worn off around the incising. There are two large areas where the white paint has turned black. There are some cracks around the feline effigy tail that do not go all the way through. The temper seems to be a mix of grog and fine shell. The order of decoration of this bowl is: 1) feline effigy, 2) incising, 3) white painting, 4) red painting, and 5) engraving. The engraving on this bowl is seriated to Middle Hemphill because its squared and sometimes stepped lower beak is similar to that of O9/m5 and SD71/m7.

(Photo by Erin Phillips. Drawing by Jeff Motz courtesy of University of Alabama Office of Archaeological Research.)





BC1

BC1 (AR5832) is in the Davenport Academy collections of the Putnam Museum of History and Natural Science in Davenport, Iowa. I have not examined this vessel personally, I have only seen the four photos of the bottle shown on the next page which were provided by the Putnam Museum and the photograph used by Holmes (1886), Brown (1926), and Knight and Steponaitis (2011). This bottle was described by W. H. Holmes in 1886. It is noted as having come from Bear Creek, Mississippi, but there is some discrepancy as to where this Bear Creek is. Calvin Brown (1926) suggests that it comes from the Mississippi Valley, while Jim Knight (Vernon J. Knight, personal communication 2011) suggests that it may have come from the Bear Creek mound site in northeast Mississippi, closer to Moundville. This bottle was included in this study because Knight and Steponaitis (2011) have suggested, based on photographs of the raptor's head, that this raptor was engraved in the Hemphill style. The shape of the bottle is also very much like Moundville's subglobular bottles. The head and tail definitely seem Hemphill-like with their use of crosshatching, and the designs of both are very similar to engraved raptors at Moundville. The wings, however, are different. There are no known wings at Moundville that consist of just feathers without wingbars. The alternating plain and crosshatched pattern of the feathers is also unknown at Moundville. The in-the-round design structure as used for raptors is very familiar, especially during the Middle Hemphill style phase. This bottle has been seriated as Middle Hemphill because it seems to have a slab or pedestal base, and the engraved head is most similar to the head of SD362.

(Photos above and next page courtesy of the Putnam Museum of History and Natural Science, Davenport, Iowa.)

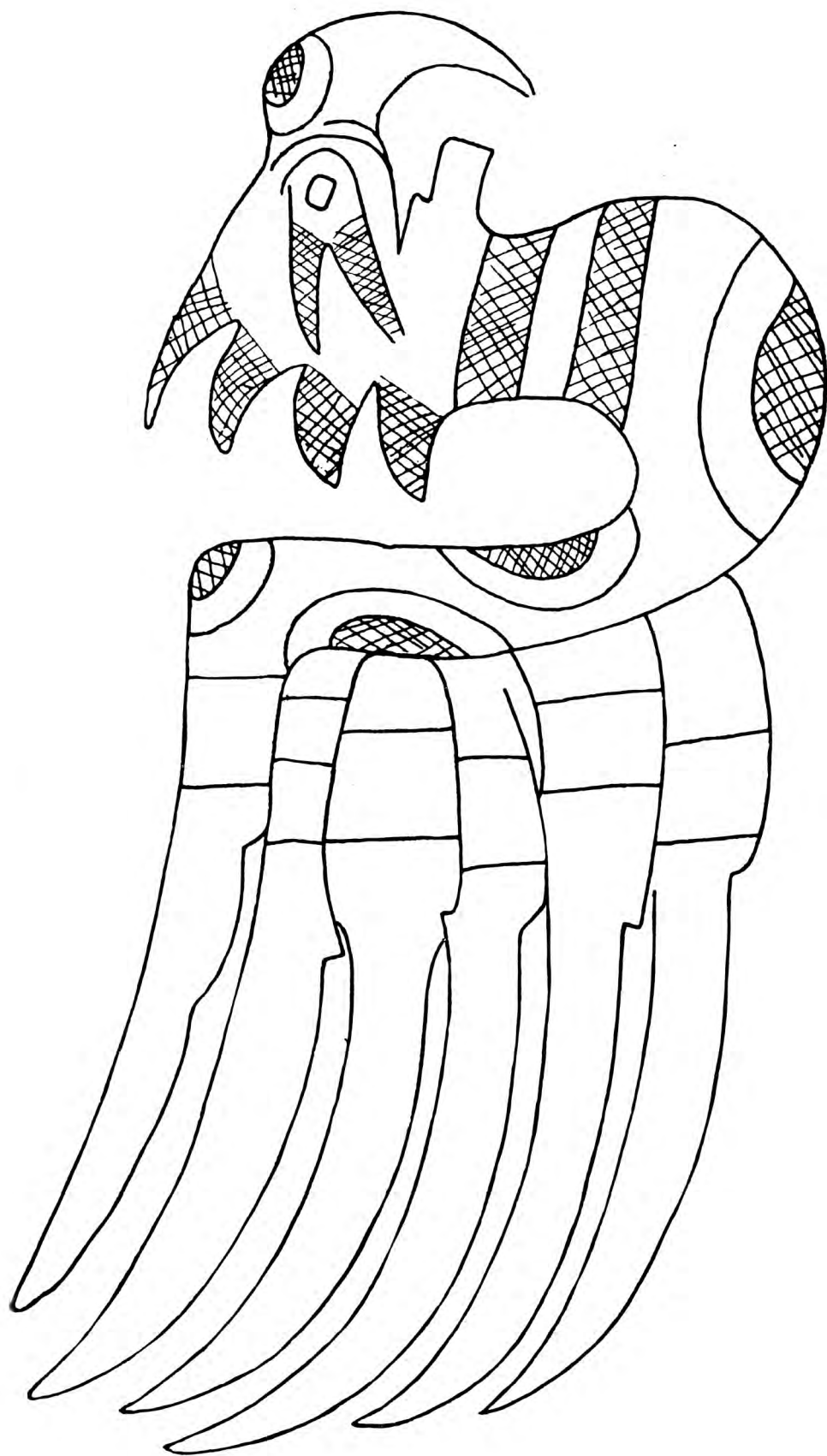




O9/m5

O9/m5 (NMAI 173339), a subglobular bottle with slab base, was found with Burial 19/O/m5 during C. B. Moore's excavations of Mound O in 1905 (Steponaitis 1983b:255-256). The base of the bottle is very worn. There is one crack in the neck. There is some spalling on the interior of the neck about two thirds of the way up. The outer surface has completely worn through on the lip. The neck exterior shows minimal wear. This bottle depicts two engraved raptors. Neither has a body or a tail. There is a U-shaped serpentine transition between the raptor's neck and the wing bar. The raptor heads are very similar to the raptor heads on SD71/m7, and they are assigned to the same style level 1 group with WR8/m7. Further, they are assigned to the same style level 3 group as WP208, D3/m5, NR19/m5, SL' 14, SD32/m7, NR38, and SL'8. O9/m5 and SD71/m7 are seriated to Middle Hemphill because they are somewhat similar to NE80, they do not have flat heads, the crosshatched spots on O9/m5 are similar to the oval patches on sherd A989.40.1982.3,.4, and the vessels possess slab bases.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 115).)

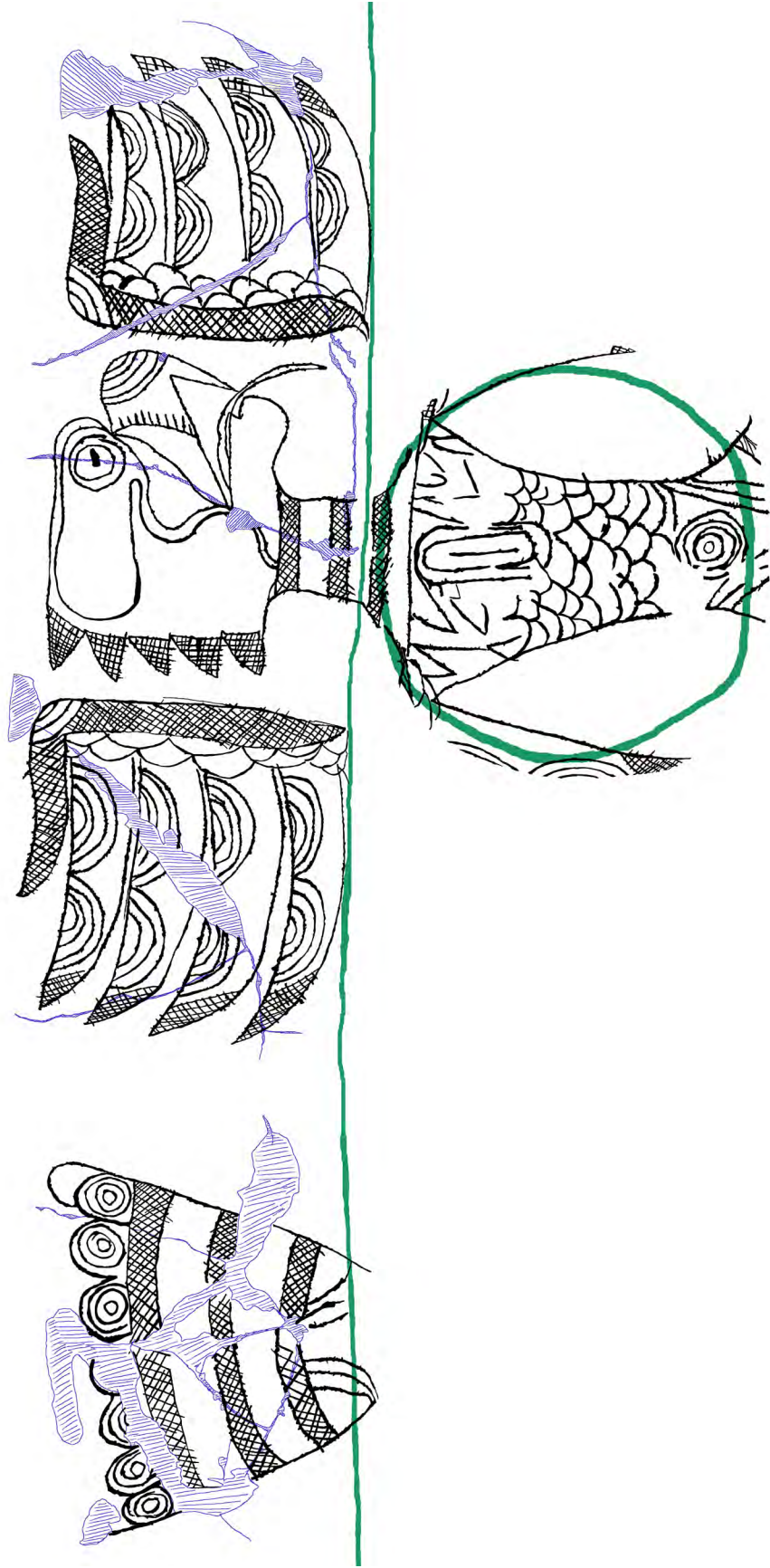




EE416

EE416 (UAM 1931.1.403), a cylindrical bowl with single lug, was found with Burial 1406 east of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:249). This bowl was broken, but has been mended. There is wear on the base that obscures some of the engraving. The design engraved on this bowl is a raptor in the round, with the body of the raptor engraved on the base of the bowl. Unlike the crested bird depicted on SD86/m7, the legs are not shown on this raptor. The eye-surround is unusual at Moundville. The only two vessels that possess it are this bowl and SD586, a virtually identical bowl. The tail of the raptor is under the lug and the head is on the opposite side of the bowl, with the wings in between. The tail has an apparent mistake on the rightmost tail tip. This bowl and SD586 constitute the same style level 2 group. SD586 has some additional elements, especially on the wing, that EE416 does not have. They are seriated to Middle Hemphill because the raptors have flat heads and hatching at the pointed ends. They are better executed than SD362.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





SD586

SD586 (UAM 1932.3.35), a cylindrical bowl with a single lug, was found with Burial 1496 south of Mound D during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:238-239). The bowl is broken into twenty-five pieces and has been partially mended. The lug does not protrude as much as in other such bowls. The left wing is mostly present, while the head is quite worn. The lower portion of the left wing is the least worn area on the vessel. The base piece shows much wear. One section at the tail is also quite worn. The engraving depicts a raptor in the round, and is virtually identical to that of EE416. The orientation of the raptors on the bowls is even the same. SD586 and EE416 are assigned to the same style level 2 group. The main difference between this bowl and EE416 is that this bowl has an additional vertical oval bar between the hatched part of the wing bar and the covert feathers. The two bowls appear to have the same form of eye surround and flat-topped heads. This bowl is seriated to Middle Hemphill for the same reasons as EE416.

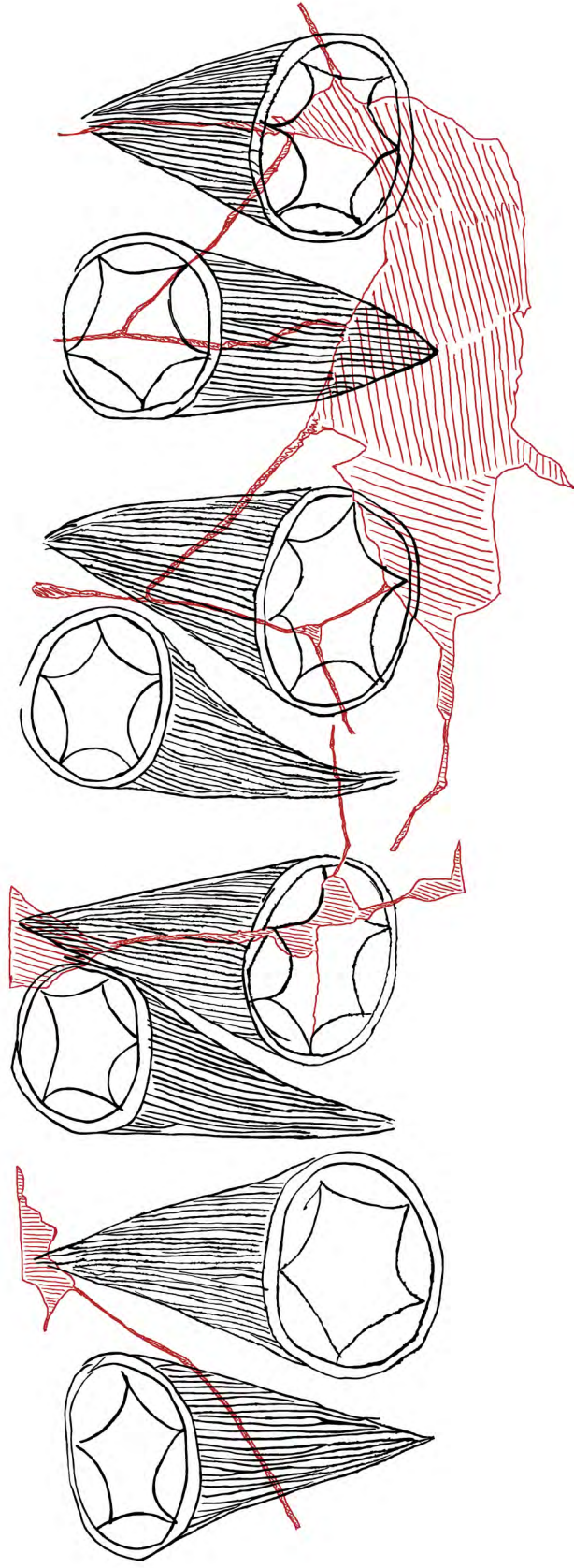
(Photo by Erin Phillips.)



SWG3

SWG3 (UAM 1934.1.4), a cylindrical bowl with a single lug, was found with burial 1717 during Alabama Museum of Natural History excavations southwest of Mound G (Steponaitis 1983b:251). This cylindrical bowl is rather large. It depicts eight scalps, which alternate between right side up and upside down. This bowl has been broken into eight pieces and mended, with three missing sections. There is some clear usewear on the base, and the bowl seems to be generally worn all over. One can feel the coils used to make the bowl by drawing one's fingers up the walls. The hanging hair is parallel sided, unlike that on the Early Hemphill NR9/m5. The points of hair on the bottoms of some of the right-side-up scalps curve. All of the scalps have five or six points. Most right-side-up scalps have five points to the central rayed circle, while most upside-down ones have six points. This bowl is seriated as Middle Hemphill because the scalps are similar to those on SL'8 and NR38. This may just be how scalps are drawn, but all of these scalps are different from those on the earlier NR9/m5. Because of this difference, I am treating ND4, EE343, SWG3, SL'8, and NR38 as a rather cohesive group.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





ND4

ND4, a subglobular bottle with a slab base, was found during Alabama Museum of Natural History excavations north of Mound D at Moundville (Steponaitis 1983b:236). This bottle was stolen during the 1980 robbery of Erskine Ramsay Archaeological Repository. Based on Steponaitis's photograph above, it appears that this bottle has six scalps and three sets of three fingers suspended from the base of the neck at the top of the design field. This bottle has been seriated as Middle Hemphill due to the similarity of its scalps to those on SL'8 and NR38.

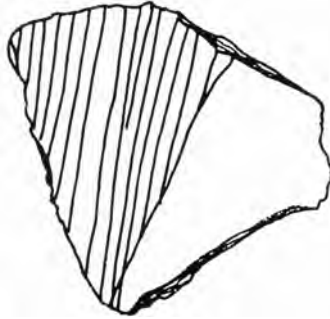
(Photo courtesy of Vincas P. Steponaitis.)



EE343

EE343, a subglobular bottle with slab base, was found during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:248). This bottle was stolen during the 1980 robbery of Erskine Ramsay Archaeological Repository. The photograph above was taken by Vincas Steponaitis during his doctoral research at Moundville. EE343 was seriated to Middle Hemphill because of the similarity of its scalps to those on SL'8 and NR38.

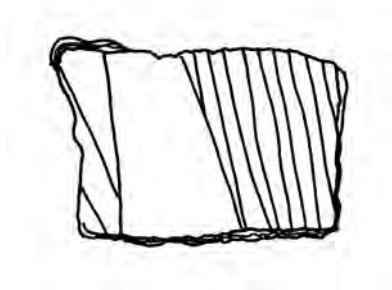
(Photo courtesy of Vincas P. Steponaitis.)



E1232

E1232 (UAM 1993.41.1232.2) was excavated from Mound E by Vernon J. Knight, Jr. The extant sherd shows a portion of a scalp motif. This vessel was seriated as Middle Hemphill because most of the other vessels with scalps were seriated to Middle Hemphill, and this sherd is more similar to those than to the lone Early Hemphill example (NR9/m5).

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



Q1082

Q1082 (UAM 1989.40.1082.1) was excavated by Vernon J. Knight, Jr. from Mound Q. This sherd depicts part of the har from a scalp. This vessel was seriated as Middle Hemphill because it is more similar to the Middle Hemphill scalps than to NR9/m5, which was seriated as Early Hemphill.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



G628

G628 (UAM 1993.41.628.3) was found during Vernon J. Knight, Jr.'s excavations in Mound G. The subject depicted on this sherd is a scalp. This vessel was seriated as Middle Hemphill because that is where all of the whole vessels with scalps other than NR9/m5 were seriated, and top of the scalp visible on this sherd is more similar to the Middle Hemphill scalps.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



Q1153

Q1153 (UAM 1989.40.1153.2) was found in Mound Q during Vernon J. Knight, Jr.'s excavations. This vessel was seriated as Middle Hemphill because, as in the previous three cases it is more similar the Middle Hemphill scalps than it is to the lone Early Hemphill example (NR9/m5).

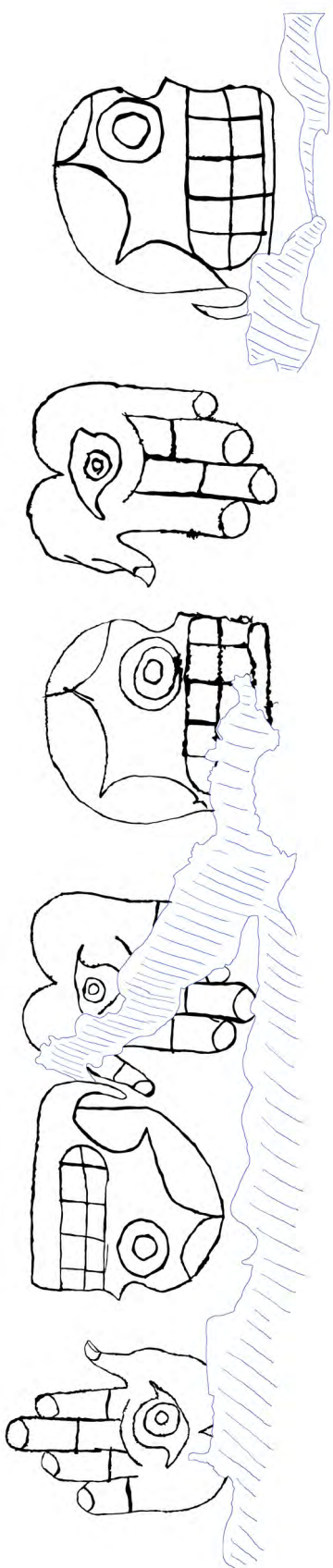
(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



D4/m5

D4/m5 (NMAI 173376), a cylindrical bowl, was found in feature F.3/D/m5 by C. B. Moore during his excavations in Mound D (Steponaitis 1983b:236). The base of this bowl is rather broken. About half to three-fourths of the burnishing has been worn from the interior bottom. About a third of the burnishing is missing from the base. There are three heads and three hands, which alternate as well as alternating in orientation. The alternation is not perfect, in that two heads are right side up and one is upside down, while two hands are upside down and one is right side up. This bowl is seriated as Middle Hemphill because its skulls seem one remove from those of NR9/m5 and NR25. The thumbs also seem slightly more like the thumbs of Middle Hemphill, and the eyes have simple eyebrows, which are only found in Middle Hemphill.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





NE61

NE61 (UAM 1932.4.20), a subglobular bottle with slab base, was found with Burial 54/NE north of Mound E during Alabama Museum of Natural History excavations (Steponaitis 1983b:243). The neck and one side are entirely recreated with plaster. The original surface is pitted. The base is highly worn with virtually none of the black surface remaining. White ink has been added by the restorer to make the engraved lines more visible. There are four hands on this bottle. The “eye” is a double concentric circle. The fingers are quite large. The fingers are in correct length order, with the middle finger being the longest, the pointer and ring fingers being mid-length, and the pinky being the shortest. The thumbs join to the next hand in two out of the three cases where this is preserved. This bottle was initially seriated as Middle Hemphill because of its vessel shape with the point of vertical tangency being near the midline of the body’s profile in combination with a slab base. This is a good placement for this bottle because the hands are conceptually similar to those of O18/m5. The ovals have been replaced with circles but the notched thumb joint remains.

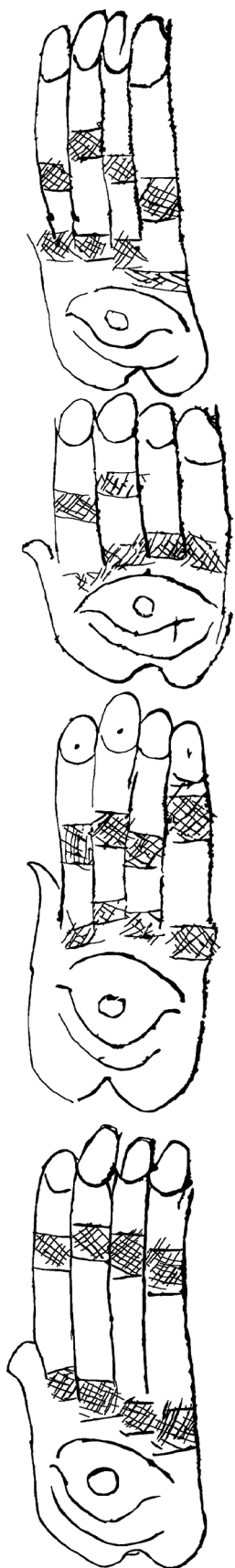
(Photo by Erin Phillips.)



WR10

WR10 (UAM 1930.1.117), a subglobular bottle with simple base, was found with Burial 17/WR during Alabama Museum of Natural History excavations west of Mound R (Steponaitis 1983b:260). The lip is chipped. There is usewear on the base. Part of the base is covered with putty to help the bottle sit level while on display, and one hand has been inked so that it stands out better. This bottle shows four hand and eyes depicted sideways on the bottle with the fingers pointing to the right. This is the only Moundville Engraved, *variety Hemphill* bottle that shows this orientation of the hands. This orientation of the hands is shared by those on two Late Hemphill restricted bowls (EE126, SWG52). The hands are also unusual because they have crosshatched finger joints. There are three concentric lines on the body at the base of the neck. This bottle has been seriated to Middle Hemphill because its hands are similar to the ones on SD71/m7, WR8/m7, WP208, D3/m5, NR38, SL'8, SD32/m7, NR19/m5, and SL'14.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

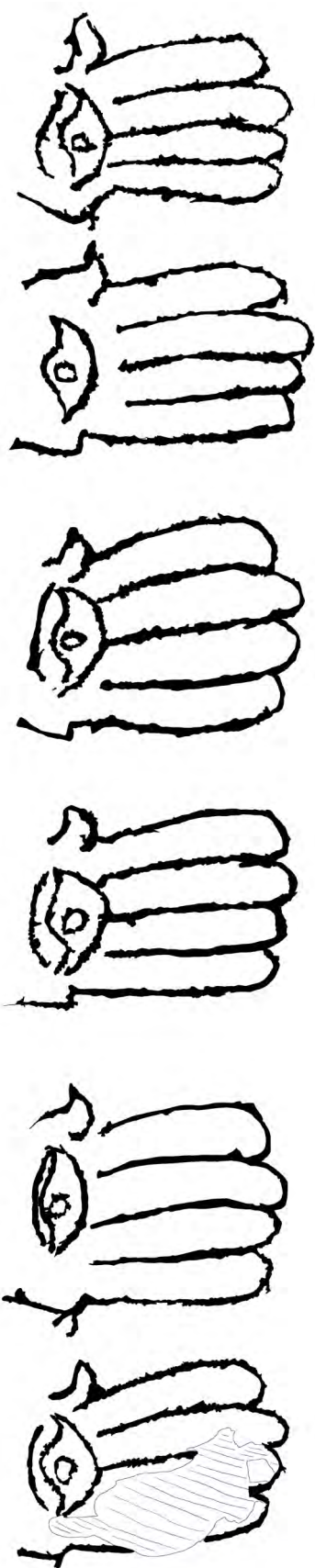




WR8/m7

WR8/m7 (NMAI 174364), a subglobular bottle with pedestal base, was found with Burial 9/WR/m7 by C. B. Moore during his excavations west of Mound R in 1906 (Steponaitis 1983b:261). This is a small vessel with relatively thick engraved lines. It was broken into two pieces, which are almost halves, but has been mended. Only a small section is black. There are semicircular indentations on the inside of the base. There is minor usewear on the base. There is some wear at the base of the neck on the exterior. The inside of the neck is well worn, with most of the burnishing missing. The inside of the bottle is mostly black. One can see the fine deep line of the engraving between its ragged edges. There are six hands engraved on this bottle. One of them, the second from the right in the drawing on the next page, is missing an eyebrow. This bottle is assigned to the same style level 1 group as O9/m5 and SD71/m7. It falls in the same style level two group as WP208, D3/m5, SD32/m7, NR19/m5, and SL'14. Both the vessels in the style level 1 group and the style level 2 group form a style level 3 group, together with NR38 and SL'8. This bottle was seriated to Middle Hemphill because the hands are almost identical to the hands on SD71/m7, and because of its vessel shape. The point of vertical tangency is at about the midline and the bottle has a pedestal base.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

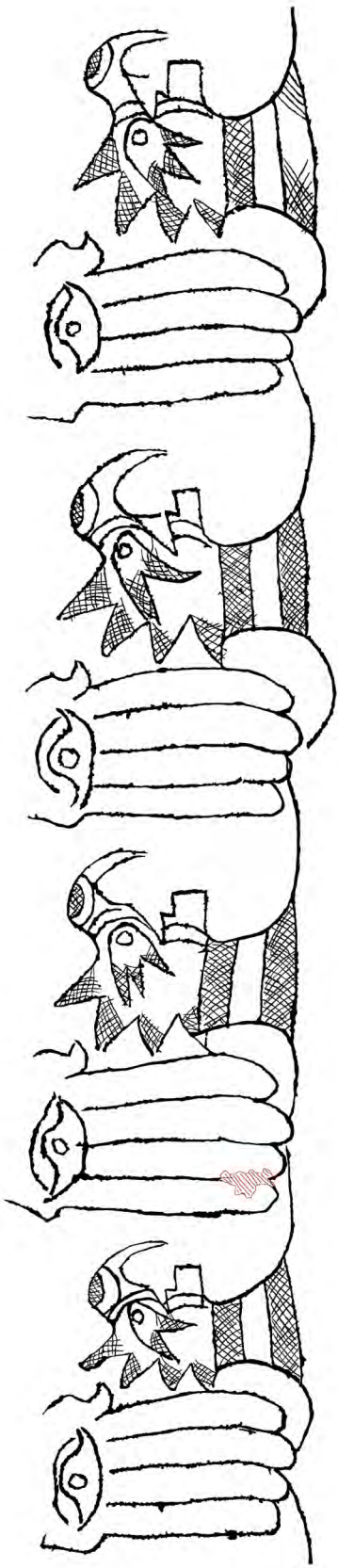




SD71/m7

SD71/m7 (NMAI 173342), a subglobular bottle with a slab base, was found with burial 128/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:242). This bottle is unusual in that it seemingly combines two themes, raptor and trophy, in the same composition. All of the burnishing either has worn off the base or it was never burnished, which would also be unusual. The neck is cracked, and half of the neck's exterior is worn at the top with all of the dark burnished surface worn through to the red clay beneath. Half of the inside of the neck is also worn, this time in two bands. There are several worn areas on the body which are on the same side as the wear on the neck. This bottle depicts four hands and four raptor heads, which alternate. The hands have squatty thumbs which are similar to the thumbs on WR8/m7, although in that case, the line ended at the neck and did not have the extra bump marking the second thumb joint. The necks of the raptor heads run into the fingers, as can be seen in the line drawing on the next page. On the raptors, the forked eye surrounds alternate between having two and three prongs. This bottle has been seriated as Middle Hemphill due to its vessel shape, and the depiction of the raptor heads which are quite similar to the heads on O9/m5, as well as being somewhat similar to NE80. The raptor heads are also not flat. The seriation of this bottle brings along with it all of the bottles with similar hands. Two of those bottles with similar hands also have scalps, which brings in all of the known vessels with engraved scalps in the Hemphill style other than the Early Hemphill NR9/m5. This bottle is in the same style level 1 group as O9/m5, which depicts raptors and WR8/m7 which depicts hands. They are assigned to the same style level 3 group as WR208, D3/m5, NR19/m5, SL'14, SD32/m7, NR38, and SL'8.

(Photo by Erin Phillips. Incomplete Drawing by Erin Phillips.)

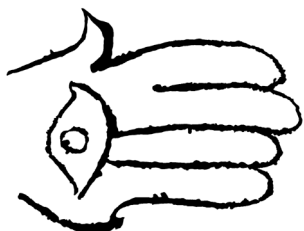
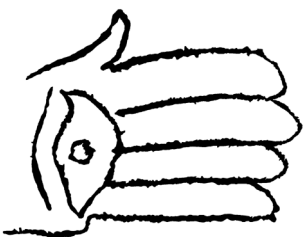
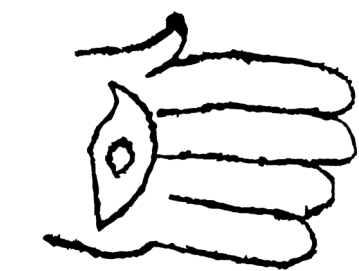




WP208

WP208 (UAM 1936.1.33), a subglobular bottle with simple base, was found with Burial 2558 during Alabama Museum of Natural History excavations west of Mound P (Steponaitis 1983b:257). This bottle seems to have been treated with something post excavation, as even the worn areas are shiny. The neck exterior is especially worn on two opposite sides, and there are chips in the rim at these same locations. Halfway down the interior of the neck is a worn ring. There are six hands depicted on this bottle. This bottle is seriated to Middle Hemphill because the hands are similar to those on SD71/m7. It is assigned to the same style level 1 group as D3/m5. They are in the same style level 2 group as NR19/m5, SL'14, SD32/m7, WR8/m7. They are all in the same style level 3 group together with WR8/m7, SD71/m7, O9/m5, NR38, and SL'8.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





D3/m5

D3/m5 (RSPM 27962), a subglobular bottle, was found in Mound D by C. B. Moore in 1905. Unlike all of the vessels illustrated in his articles, this bottle is at the R. S. Peabody Museum at Phillips Academy in Andover, Massachusetts. As can be seen in the photograph above, the neck, plus a small area on the body are missing. D3/m5 depicts the hand and eye design, which is repeated six times around the body. This bottle was seriated to Middle Hemphill because of the similarity of its hands to those on SD71/m7. D3/m5 is assigned to the same style level 1 group as WP208. They are both in the same style level 2 group as NR19/m5, SL'14, SD32/m7, and WR8/m7. They are all assigned to the same style level 3 group, along with SD71/m7, O9/m5, NR38, and SL'8.

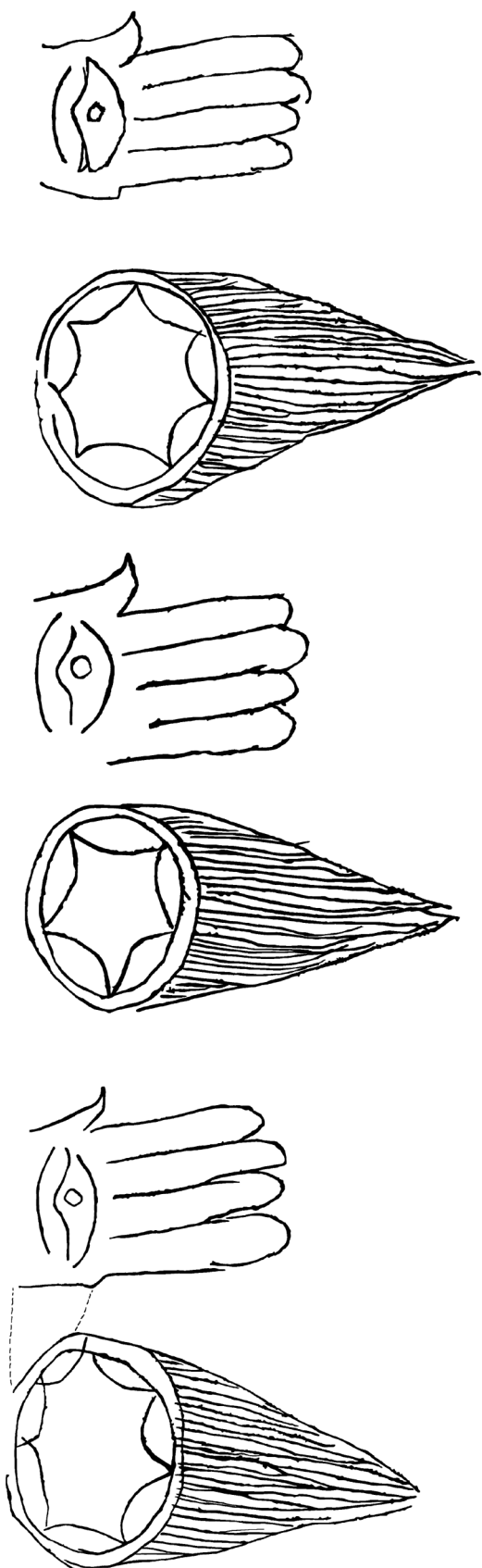
(Photo courtesy of Robert S. Peabody Museum of Archaeology, Phillips Academy, Andover, Massachusetts.)



NR38

NR38 (UAM 1931.2.12), a subglobular bottle with simple base, was found with Burial 1094-1096 during Alabama Museum of Natural History Excavations north of Mound R (Steponaitis 1983b:258). The neck has broken off and has been repaired. There is minimal use wear. Alternating around the body of the bottle are three scalps and three hands. This bottle is seriated to Middle Hemphill because of the similarities of its hands to the hands depicted on SD71/m7. The engraved design on NR38 is almost identical to that on SL'8. They are assigned to the same style level 2 group and are also in the same style level 3 group together with WR8/m7, SD71/m7, O9/m5, WP208, D3/m5, NR19/m5, SL'14, and SD32/m7.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





SL'8

SL'8 (UAM 1938.1.17), a subglobular bottle, was found in an area designated south of Mound L (prime), originally designated as South of Mound K. This vessel has been broken into a number of small sherds. Along with it are part of a punctated vessel, and base sherds from two other vessels. The lip is chipped. This vessel is similar to NR38, which has three alternating hands and scalps, and both are assigned to the same style level 2 group. SL'8 has four hands and four scalps which alternate. Most of one of the hands is missing. The composition seems to be poorly planned, as one of the hands seems to be squeezed between two scalps. This same hand has the base of the palm drawn at the neck of the bottle. This is the only hand like these to do this. In terms of size, this bottle is smaller than normal. SL'8 has been seriated to Middle Hemphill because of the similarity between its hands and those on SD71/m7. SL'8 and NR38 are in the same style level 3 group together with WR8/m7, SD71/m7, O9/m5, WP208, D3/m5, NR19/m5, SL'14, and SD32/m7.

(Photo by Erin Phillips.)



SD32/m7

SD32/m7 (NMAI 174361), a subglobular bottle with a simple base, was found with Burial 71/SD/m7 south of Mound D by C. B. Moore in 1906 (Steponaitis 1983b:241). There is minimal use-wear on the neck, lip, and base. Five hands are depicted on this bottle. As seen in the photograph above and the line drawing on the next page, the separately-drawn fingertips do not always join with the fingers. This bottle has been seriated to Middle Hemphill because the hands are similar to the ones on SD71/m7. It is assigned to the same style level 2 group as WP208, D3/m5, NR19/m5, SL'14, and WR8/m7. It is in the same style level 3 group as SD71/m7, O9/m5, NR38, and SL'8.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





NR19/m5

NR19/m5 (NMAI 173649), a subglobular bottle with a simple base, was found with Burial 10/NR/m5 north of Mound R by C. B. Moore in 1905 (Steponaitis 1983b:260). This bottle is unbroken. The base is well worn, with about 75 percent of the outer surface missing. The wear is difficult to note on the neck. Five hands are depicted on the body of NR19/m5. This bottle is seriated to Middle Hemphill because the hands are similar to those on SD71/m7. It is assigned to the same style level 2 group as WP208, D3/m5, SL'14, SD32/m7, and WR8/m7. They are in the same style level 3 group with SD71/m7, O9/m5, NR38, and SL'8.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

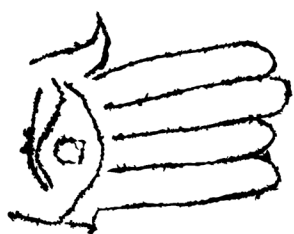
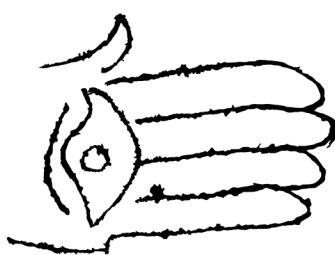




SL'14

SL'14 (UAM 1938.1.7), a subglobular bottle, was found with Burial 3010 in an area of Moundville designated as south of Mound L (prime), previously known as south of Mound K. The neck is broken, and there is minimal wear on the exterior. The variation in color indicates that the firing environment was neither completely oxidizing nor reducing. There are scratches on the interior which appear to be fresh. Six hands are engraved around the body of the vessel. They appear to have been drawn in the order of pointer to pinky, or perhaps the pointer and pinky were drawn last. This bottle has been seriated to Middle Hemphill because of the similarity between its hands and those on SD71/m7. SL'14 is assigned to the same style level 2 group as WP208, D3/m5, NR19/m5, SD32/m7, and WR8/m7. They are in the same style level 3 group as SD71/m7, O9/m5, NR38, and SL'8.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

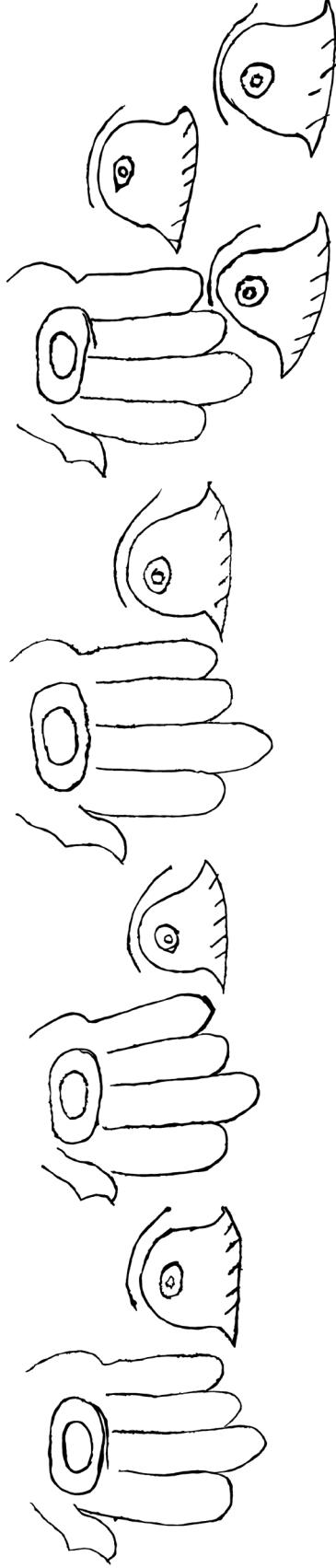




O18/m5

O18/m5 (NMAI 173352), a subglobular bottle with slab base and a quite rounded body, was found in feature F.2/O/m5 in Mound O by C. B. Moore in 1905 (Steponaitis 1983b:256). This bottle is unbroken. Most of the red areas are quite worn including the large red area on the neck. The inside of the bottle is smooth, but not burnished. The neck-body join is rough on the outside, showing wear. A little over one-half of the base is well worn. This seems to be where the base of the vessel was in contact with a flat surface, but may also be related to the large red worn swath on that side of the neck and upper body. O18/m5 has ovals on the hands where the eyes normally are, and “seashell”-looking eyes alternating with the hands. There are four hands and six eyes engraved on the body. At one point (see line drawing on the next page), to fill in excess space, two additional eyes were drawn. While generally the thumbs are on the right sides of hands, on this bottle they are on the left side. O18/m5 is seriated as Middle Hemphill because of its vessel shape and because the hands are most similar to the ones depicted on SD71/m7, although they have ovals instead of eyes and the first thumb joint is well defined. O18/m5 is assigned to the same style level 3 group as A989.40.34.5 P2

(Photo by Erin Phillips. Drawing by Erin Phillips.)





Q364

Q364 (UAM 1989.40.364.5) found in a Moundville III context in Mound Q during excavations by Vernon J. Knight, Jr. The engraved design on this sherd is quite similar to the “seashell” eyes on O18/m5, except that it does not have the hashure marks at the base of the eye. These two are assigned to the same style level 3 group. Both have been seriated as Middle Hemphill because O18/m5 has a slab base combined with a point of vertical tangency near the midline of the body’s profile and the hands of O18/m5 are somewhat similar to the ones on SD71/m7, except that they have ovals instead of eyes and a notch at the first thumb joint.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



F10/m5

F10/m5, a subglobular bottle with a pedestal base, was found in Mound F by C. B. Moore in 1905 (Steponaitis 1983b:250). The current whereabouts of this bottle are unknown. All we have are C. B. Moore's photograph (above) and description: "Vessel No. 10, not identified with any burial is a broad-mouthed water-bottle, badly broken. On each of the two sides of the body of the bottle is a rude attempt to delineate the human head, now partly weathered away" (Moore 1905:193). Steponaitis (1983b:250) questions whether this bottle is local. F10/m5 is quite unusual in that it depicts a fleshed human head. The only other known fleshed human head engraved on pottery from Moundville is a sherd that has been seriated to Moundville II based on its vessel shape (Knight and Steponaitis 2011: Figure 9.10), and would be seriated as Early Hemphill for the same reason. F10/m5 has also been seriated based on its vessel shape, but it is seriated to Middle Hemphill because it has a pedestal base and a point of vertical tangency near the midline of the body's profile. The heads from these two bottles are quite different, and their seriation based on vessel shape makes sense stylistically as the other head is more veristic this head is more schematic.

(Photo from C. B. Moore (1905: Figure 93).



NG10

NG10, a subglobular bottle with flattened simple base, was found with Burial 20/NG during Alabama Museum of Natural History excavations north of Mound G (Steponaitis 1983b:250). This bottle was stolen during the robbery of the Erskine Ramsay Archaeological Repository in 1980. According to Steponaitis (1983b), the engraving depicts an insect. NG10 is seriated to Middle Hemphill based on its vessel shape. Its point of vertical tangency is below the midline and it has a simple base. The profile of this bottle is very similar to SD472, SEH73 and SL'21.

(Photo courtesy of Vincas P. Steponaitis.)



EE7

EE7, a subglobular bottle with a flattened simple base, was found with Burial 1185 during Alabama Museum of Natural History excavations East of Mound E (Steponaitis 1983b:246). This bottle was stolen during the robbery of the Erskine Ramsay Archaeological Repository in 1980. The design depicted on this bottle seems to be a reduced version of center symbols and bands with the center symbol, two bands (instead of four) and two sets of three fingers (instead of four). Other examples of the three fingers with circles at the tips are seriated as Early Hemphill. This bottle has been seriated as Middle Hemphill because it seems to have been derived from the earlier versions.

(Photo courtesy of Vincas P. Steponaitis.)



C8/m5

C8/m5 (NMAI 173635), a subglobular bottle with slab base, was found with Burial 5/C/m5 in Mound C by C. B. Moore in 1905 (Steponaitis 1983b:235). This bottle was broken into a number of pieces and reconstructed. The surface has almost a grey speckled quality. The base, exterior of the neck, and interior of the neck are very worn, with over 75 percent wear. There is one small patch on the neck exterior where the burnished sheen is still intact. There are four center symbols around the body of this bottle, each with horizontal, vertical, and diagonal radiating crosshatched bands. The design in the center symbol is a radial t-bar. This bottle is seriated to Middle Hemphill because it has a slab base in combination with a point of vertical tangency near the midline of the profile of the body.

(Photo by Erin Phillips.)



NE592

NE592 (UAM 1932.4.57), a subglobular bottle with simple base, was found with Burials 1647-1648 north of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:245). Steponaitis (1983b:245) classifies this small bottle typologically as Moundville Engraved, *variety Cypress*. In his type-variety appendix, Steponaitis lists it as NR592, whereas in the appendix with vessel descriptions it is listed correctly. There is a piece missing from the lower body which looks like a recent loss. There was a plaster repair of the area at one point, but it is no longer there. Based on an examination of the broken edge, the clay seems to separate into thick exterior and thin interior layers. The neck is large for the vessel size. Almost half of the neck is a plaster repair. The lip of the original part of the neck is chipped. The base of the bottle is clearly worn. The shell temper is easily visible on the surface. The design on this bottle is very similar to that on SED27. On NE592, there is no connecting band at the bottom. Both this bottle and SED27 are seriated to Middle Hemphill because the decoration on the bands is similar to the wingbars on NE90 and Rho164.

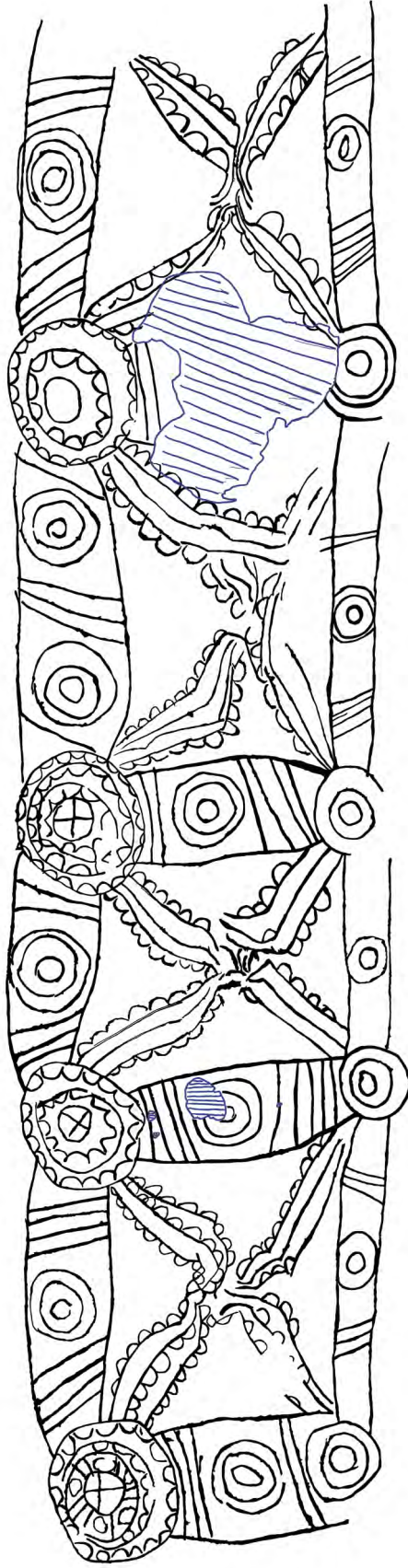
(Photo by Erin Phillips.)



SED27

SED27 (UAM 1930.8.4), a subglobular bottle with simple base, was found during Alabama Museum of Natural History excavations southeast of Mound D (Steponaitis 1983b:237). Steponaitis (1983b:237) classifies this bottle typologically as Moundville Engraved, *variety Cypress*. About half of the neck, including all of the rim, has been replaced with plaster. The base of the vessel is well worn so as to obscure some of the engraved design. The lower half of the body shows a fair amount of wear as well. There are some spalled spots. The engraved design has four center medallions with a straight cross in the middle. Many scallops are incorporated into the design. This bottle, along with NE592 has been seriated as Middle Hemphill because the interior scalloped swirls have lost their interlocking aspect. The bounding bands are also like the wingbar on NE90 and Rho164.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

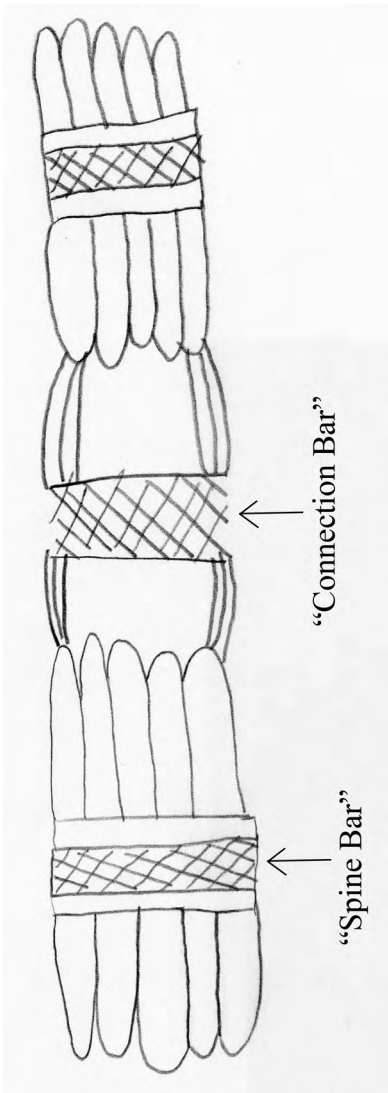




SWG2

SWG2 (UAM 1934.1.3), a restricted bowl, was found southwest of Mound G with Burial 1717 by the Alabama Museum of Natural History (Steponaitis 1983b:251). Part of the bowl is missing. There are small chips on the lip, and some spalling is present. On the base, part of the surface finish has worn through. Although Steponaitis (1983b) calls the design “radial fingers,” the engraved design (see sketch on the next page) is similar to SD59/m7 and NR24/m5. There are four connection bars and three spine bars. An additional spine bar may have once been in the plaster-restored section. One connection bar has horizontal/vertical crosshatching while the others have diagonal crosshatching. This bowl has been seriated to Middle Hemphill because the main part of its design (scallops/fingers/feathers)-blank band-crosshatched band-blank band-crosshatched band-(scallops/fingers/feathers) is the central element of SD87/m7’s body.

(Photo by Erin Phillips. Sketch by Erin Phillips.)



Late Hemphill (ca. AD 1425-1450)

Late Hemphill marks the end of the Hemphill style in its engraved form. It has now become rather broken down. It should be noted, however, that the style ironically continues to be elegant in its incised form, as what is known typologically as Carthage Incised, *variety Fosters*, which is not considered in this research. Like Phillips and Brown's (1978) description of Late Braden, Late Hemphill is disjunctive. There appear to be many instances of artisans not knowing how to draw certain things, or not fully understanding what they were drawing. Late Hemphill is dominated thematically by winged serpents and paired tails, with winged serpents being the most plentiful. Very few design structures are present. There are two new subjects in the Late Hemphill style phase. One is a pot with a bar-and-circles decoration, as can be seen on NR40, a subject with connections across much of the Southeast. The other new subject, see on EE4, has been said to depict a turtle, although I have suggested a bundle as an alternative reading. The swirl cross is completely absent in the style phase.

Winged Serpents

There are so many novel serpent body treatments in Late Hemphill that the variability can be considered a characteristic of the style phase. The antlers at this point have become almost unrecognizable, appearing sometimes as merely two points, and at other times looking almost vegetative. Occasionally they appear too far to the rear, on the neck of the serpent rather than at the head, or too far forward. They are sometimes absent altogether. Some three-pronged eye surrounds take up the entire head. All of the serpents with hatch marks on the head suggesting fur belong to Schatte's (1997b) "Fur-Head" group and are assigned to Late Hemphill. Some serpents have separated wings or feathers, while still others have what Schatte (1997b) called bunched feathers. Wing feathers are often incomplete. Some of the serpent bodies are quite thin compared to earlier renditions. All attempts at terraced body markings are abject failures. Sometimes the mandible is oddly displaced, awkwardly joined to the head area rather than being

integral to it.

Raptors

Late Hemphill raptors all appear in unusual contexts. The only depiction of an entire raptor is in profile view, depicted above an engraved pot on a bottle which was previously engraved with the motif of Moundville Engraved, *variety Wiggins* prior to the addition of Hemphill style engraving (NE80). On a bowl (NE145) there are two sets of raptors in court-card symmetry whose tails are highly unusual. The final context depicts a disembodied raptor head drawn horizontally, beak pointing downward, on a bottle otherwise depicting tails as the main subject (WP'30).

Crested Bird

There is one Late Hemphill example of crested birds (SD9/m5). It appears to be two sets of crested bird heads added in court-card symmetry to what would otherwise clearly be classified as paired tails, in that the tails and central medallions look much more like examples of the paired tails theme than those of the crested bird theme.

Paired Tails

There is a wide variety among Late Hemphill depictions of paired tails. Only one example, SD50/m7, has a blank central medallion. All others have either a cross or concentric circles. There is one example with the three fingers motif projecting vertically above and below the central medallion.

Center Symbols and Bands

Late Hemphill center symbols and bands feature isolated, unconnected motifs that resemble windmills (see Steponaitis 1983:62-63). The center symbols have a straight cross or concentric circles in the middle. Unlike most Early and Middle Hemphill examples, there is never anything projecting diagonally from the center symbols in Late Hemphill examples.

Trophy

The trophy theme in Late Hemphill is limited to depictions of skulls and hands. There are no known examples of scalps or forearm bones, although forearm bones are quite common in incised depictions on Moundville pottery at this time, as Carthage Incised, *variety Fosters*. Hands have either concentric circles or barred ovals on the palms, never explicit eyes. Nor are there ever fingernails on Late Hemphill hands. The fingers are sometimes separated from the palm by a straight line. There is very curiously no parallel at all between these hands and the contemporaneous incised Hemphill-style hands of Carthage Incised, *variety Fosters*.

Wings

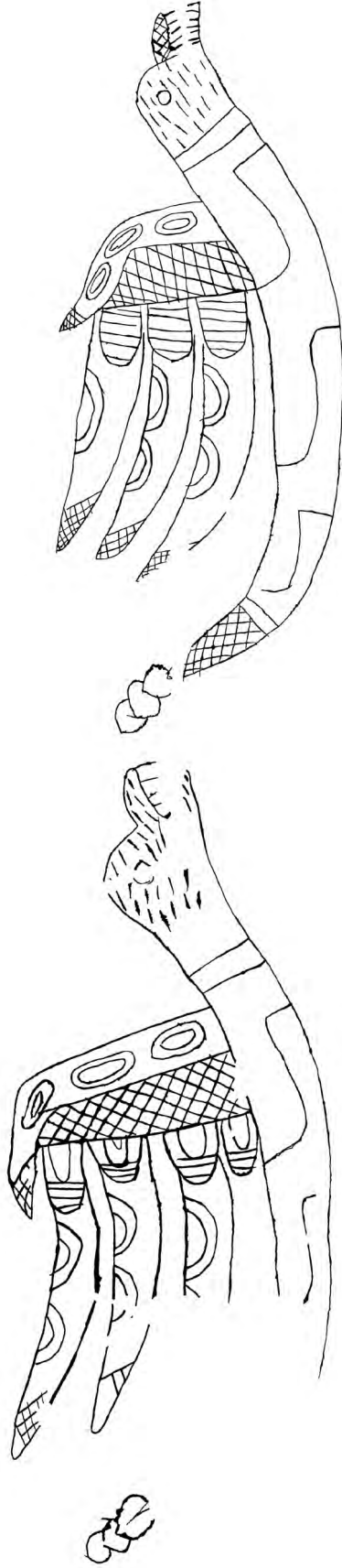
There are two examples of stand-alone wings on Late Hemphill bottles. These wings look rather different from either those typically found in association with winged serpents and raptors, or those typically found in association with crested birds.



SD6/m7

SD6/m7 (NMAI 180436), a subglobular bottle with a simple base, was found with Burial 8/SD/m7 south of Mound D by C. B. Moore in 1907 (Steponaitis 1983b:241). The bottle has been broken and mended with pieces missing. The neck and the base show clear signs of use, but less than 25 percent of the burnishing is missing. The left serpent in the rollout drawing on the next page has a fourth wing feather that has been started, but the main part has not been drawn. Its wingbar is crowded and bent due to its closeness to the neck. The serpent on the right is better fitted to the space. This bottle has been seriated as Late Hemphill because it was part of Schatte's (1997a) Fur Head group, which was one of his later Moundville III phase groups.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

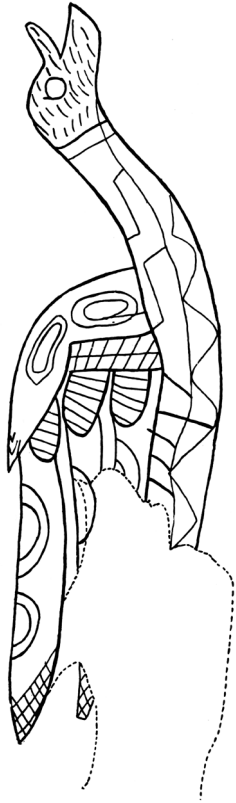
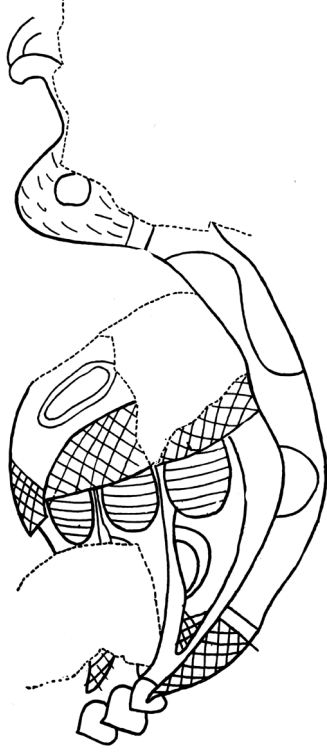




SD1/m7

SD1/m7 (NMAI 173365), a subglobular bottle with a simple base, was found with Burial 2/SD/m7 south of Mound D by C. B. Moore in 1907 (Steponaitis 1983b:240-241). The bottle was broken into numerous pieces, some of which are missing, and has been mended. There is minimal wear on the base, the neck exterior has medium wear, and the neck interior is quite worn, especially towards the top. This bottle has two engraved winged serpents in profile on the body. These serpents are similar to the ones on SD6/m7. Both seem similar to one another at first glance, but are quite different upon close inspection. The serpent on the left has different dorsal and ventral decoration than its companion. This bottle has been seriated as Late Hemphill because it was part of Schatte's (1997a) Fur Head group, which was one of his later Moundville III phase winged serpent groups.

(Photo by Erin Phillips. Left drawing by H. Newell Wardle (Moore 1907: Figure 55). Drawing by H. Newell Wardle (Moore 1907: Figure 54).)

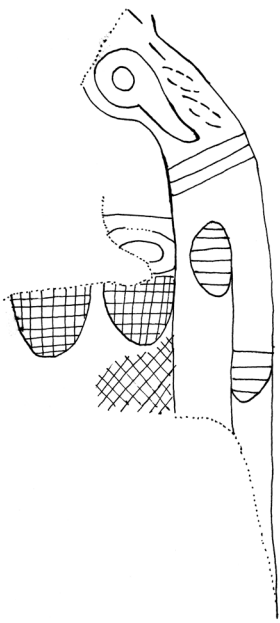
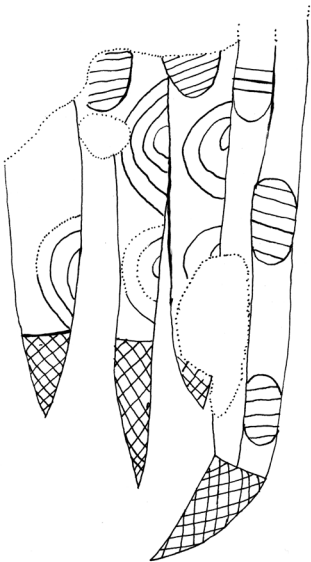




Q87

Q87 (UAM 1989.40.3315), a subglobular bottle with simple base, was found by Vernon J. Knight, Jr. during his excavations of Mound Q. About half of this bottle is missing and has been reconstructed. The entire surface finish is worn off, obliterating most of the engraving. The drawing on the next page was done by Knight. This bottle has been seriated to Late Hemphill because it is part of Schatte's (1997a) Fur Head serpent, group which is one of his later Moundville III phase groups of winged serpents.

(Photo by Erin Phillips. Drawing courtesy of V. J. Knight .)

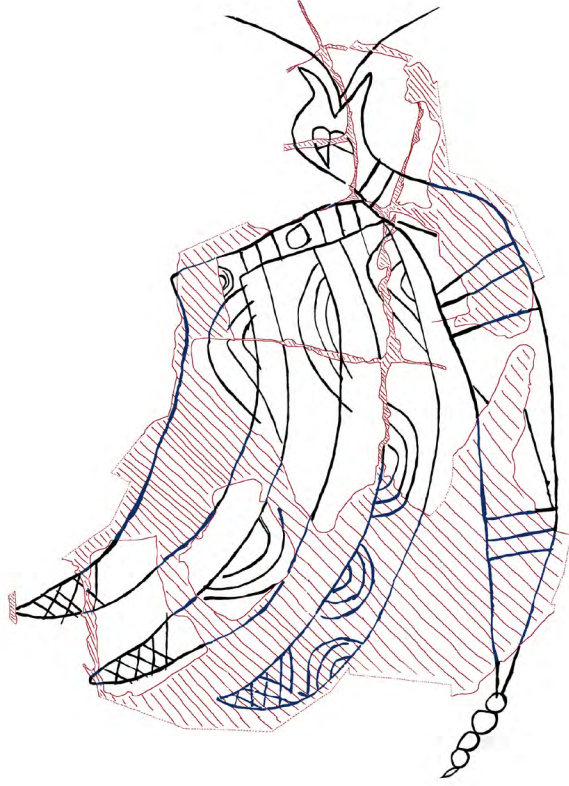
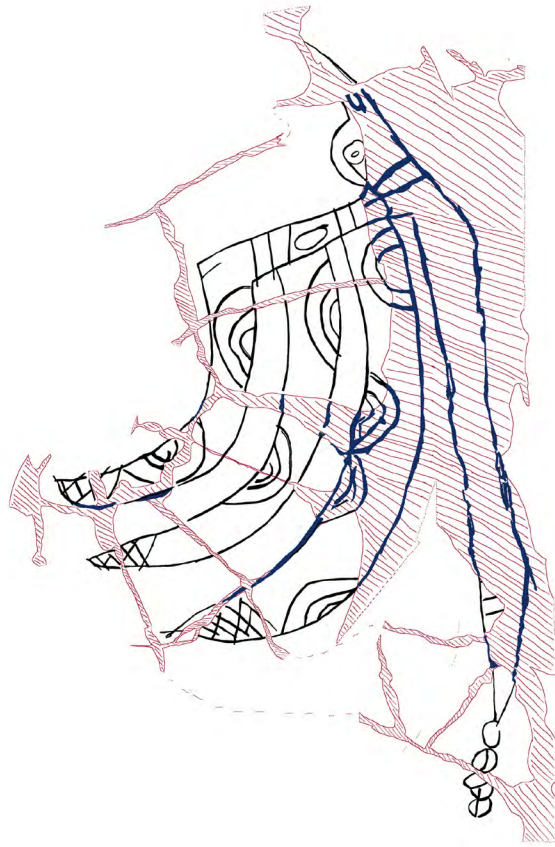


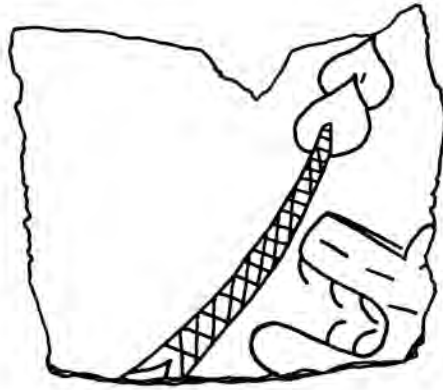


Mi431

Mi431 (NMNH A377382-0), a narrow-neck subglobular bottle with a slab base, was given to the National Museum of Natural History by the Alabama Museum of Natural History (Steponaitis 1983b:264). Its provenience within Moundville is unknown, and Steponaitis (1983b:264) questions whether it was produced locally. This bottle was badly broken and has been reconstructed somewhat poorly. Several sherds are missing. The base is well worn, with about 90 percent showing wear. The surface on the outer edges is almost entirely worn through; the center is higher and shows less wear. There is significant spalling. The interior surface of the neck is grey, most likely due to a lack of burnishing and cleaning. Except at the cracks, the outer surface of the body seems to be intact. Visible on the inside are glue, plaster, and a lump of green modeling clay. Two serpents in profile view have been engraved on the body of this bottle. Both have been entirely inked in white by the restorers, even over the repair fill. The white lines were added at different times, as evidenced by the fact that the white on one of the serpents was more controlled and put on in liquid form, while the other is much more crayon-like. This bottle was seriated to Late Hemphill because it is part of Schatte's (1997a) Fur Head Serpent group, which is one of his later Moundville III phase groups. Unlike the other serpents in Schatte's group, Mi431 does not show any hachures on the head area. Schatte probably could not see that there was no fur on the head based on the photograph he used from Fundaburke and Foreman (2001). I have chosen to leave it with the Fur Head group because the heads on Mi431 are similar in shape to those of SD1/m7.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





Q35

Q35 (UAM 1989.40.35.4) was found by Vernon J. Knight, Jr. during his excavations of Mound Q. This vessel was seriated to Late Hemphill because it seems to have a “fur head” and the tail seems to be similar to that of SD6/m7 and SD1/m7.

(Drawing by Andrea Stillwell, courtesy of V. J. Knight.)



NE127

NE127 (UAM 1932.4.30), a cylindrical bottle, was found north of Mound E during Alabama Museum of Natural History excavations at Moundville (Steponaitis 1983b:244). This bottle has been broken into numerous pieces and reconstructed. One piece is missing from the neck. The shoulder is almost perfectly flat. This bottle was constructed by wrapping a slab around the circular base. The shoulder, was then placed on the slab. Finally, the neck was set into the shoulder. Both the base of the bottle and the lip show clear signs of wear. There are both vertical and horizontal breaks. The vertical breaks run virtually the whole height of the body. Only one horizontal break runs more than half way around the bottle. There are two winged serpents engraved on this bottle, both in profile view. Their bodies are U-shaped. Two different concepts of the three pronged forked eye surround are demonstrated on this bottle. On one, the prongs are clearly part of the eye, while on the other, they lie behind a line fully crossing the head posterior to the eye. Both serpents have thick, curling noses and antlers that seem to emerge from the neck. The semi-circles that decorate the wing feathers overlap, and some hang below the bottom feathers. The crosshatched lines run parallel to the bounding lines, and then at an angle to them. This bottle is seriated to Late Hemphill because it was part of Schatte's (1997a) Bunched Feathers group, one of his later Moundville III phase groups.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)





Mi62

Mi62 (UAM 1941.4.521) is a subglobular bottle with simple base in the Alabama Museum of Natural History collections (Steponaitis 1983b:264). Its provenience within Moundville is unknown. There is a label on the base of the bottle with the number 3290 on it, but no indication as to what the number means. The neck is broken and has white plaster repairs. There is a worn groove on the exterior where the neck joins to the body. There is also wear on the inside of the neck. There is a small pin-head sized hole in the base running all the way through the vessel which was perhaps caused by leached shell. There is a gash in the side of one of the serpents and a worn area at the wing tips of the other. Two winged serpents in profile view are engraved on this bottle. Both of the serpents have been inked during restoration; the inking on one is almost crayon-like. The rattles are unusual. One serpent has three diamonds for rattles, although the drawing by Hyla Lacefield on the next page only shows two. The other serpent has five odd shapes conjoined as rattles. The three prongs of the eye surrounds seem to be more appendages to the eye surrounds rather than part of them. The wing bar and top feather are reminiscent of SD8. The bands on the necks of the serpents are unusual in that they are simply hatched rather than crosshatched. The mouths are also unusual in that they almost seem to be added on to the heads rather than a part of them, and each is constructed differently. One serpent has a tongue and the other does not. This bottle was seriated to Late Hemphill because it was part of Schatte's (1997a) Bunched Feathers Group.

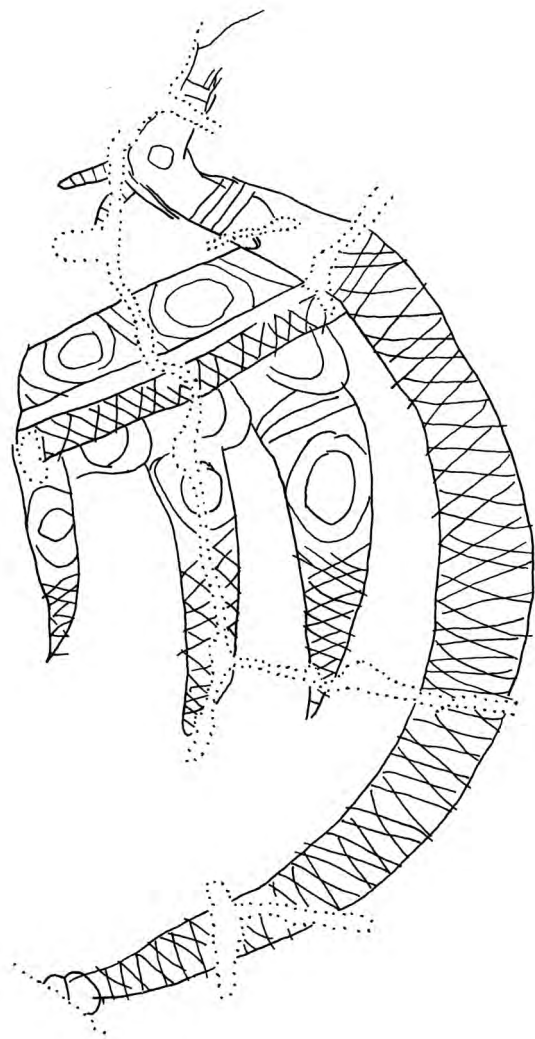
(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





SWM185

SWM185 (UAM 1930.3.8), a subglobular bottle with simple base, was found with Burial 983 during Alabama Museum of Natural History excavations southwest of Mound M (Steponaitis 1983b:254). While it had been reconstructed, this bottle has now broken again. About half of the original bottle is present, including a small neck sherd and most of the base. The design engraved on the body is difficult to see due to all of the plaster dust. There are small chips on the lip and overall wear seems to be minimal. The engraving on this bottle depicts two winged serpents in profile view. The drawing of one of the serpents on the next page was drawn by Kevin Schatte in 1996. This bottle was seriated to Late Hemphill because it was part of Schatte's (1997a) Split Antlers Group, one of his later Moundville III phase groups. (Photo courtesy of Vincas P. Steponaitis. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

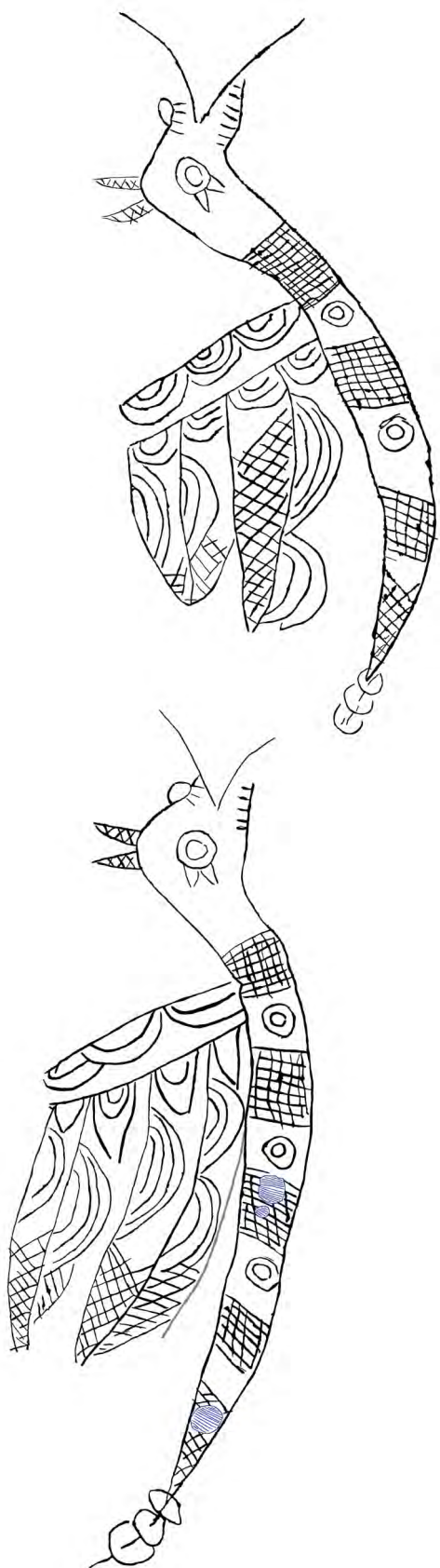




SD42/m7

SD42/m7 (NMAI 174353), a subglobular bottle with simple base, was found with burial 84/SD/m7 by C. B. Moore in 1906 (Steponaitis 1983b:241). There is a well-worn ring around the neck which is noticeably convex. This ring is easily visible in the photograph above. There is also a worn ring at the interior of the neck, just below where the interior flares. Over 75 percent of the burnishing on the neck's interior is missing below this flare point. The base is also well worn, with about half of the burnishing missing. Spalling has occurred on the body of the vessel, specifically at two spots on the body of one of the serpents (the left serpent in the drawing on the next page). White ink has been added by the restorer to the serpents to make photos easier. This bottle depicts two winged serpents in profile view. The left hand serpent was likely the first to be drawn as there is enough room for its tail and the wing seems to have been more fully thought through. This bottle is seriated to Late Hemphill because it, along with SWM185, EE75, and NE596, was part of Schatte's (1997a) Split Antlers group, one of his later Moundville III phase groups.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

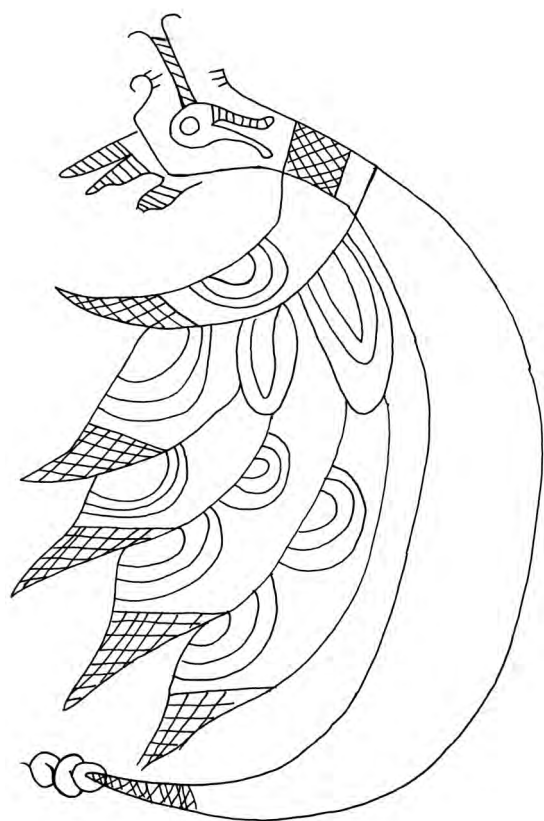




NE596

NE596 (UAM 1932.4.58), a subglobular bottle with simple base, was found with Burial 1665 during Alabama Museum of Natural history excavations north of Mound E (Steponaitis 1983b:245). This bottle, which depicts two winged serpents facing one another, was broken and has since been repaired. The neck is no longer attached to the bottle, and the rim is very heavily worn. There is some very minor wear on the exterior of the neck-body join. The base of the bottle, like the rim, is quite worn, with the outer surface entirely worn through. The lower part of the body is more worn than usual, with wear increasing towards the base. Either some of the engraved lines were drawn with a fine tool and then redrawn with a thicker one, or more likely, the graver had a sidespur. This is especially visible on the eye and crest of the left-hand serpent in the photograph above, but does not appear in Hyla Lacefield's drawing on the next page. The design of these serpents is relatively unique, with the wingbar looking just like the feathers and the antlers seeming more crest-like. This bottle is seriated to Late Hemphill because it was part of Schatte's (1997a) Split Antlers group, which was one of his later Moundville III phase groups.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

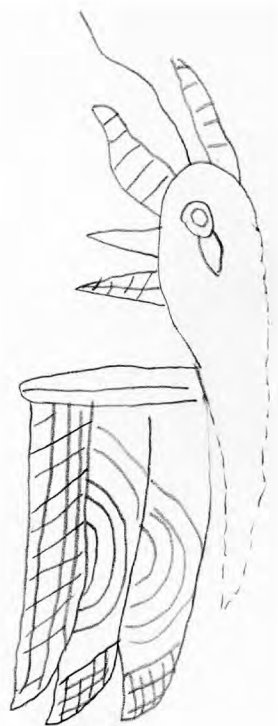
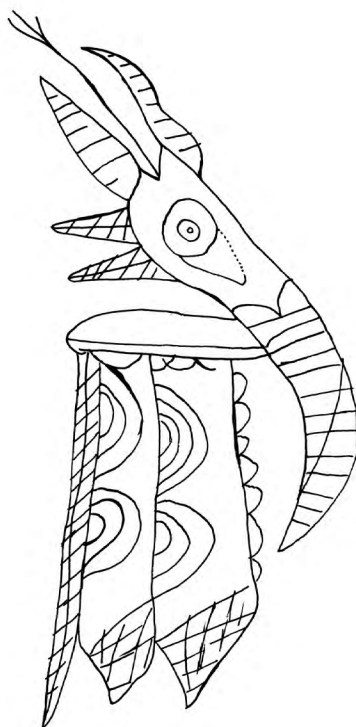




EE75

EE75 (UAM 1931.1.12), a subglobular bottle with simple base, was found with Burial 1225 during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:246). The base of the bottle is worn and the lip is worn and chipped. There are some scratches on the neck exterior, and there is a worn groove on the exterior at the neck-body join. On the next page, the drawing of the serpent on the left is by Hyla Lacefield, while the sketch of the serpent on the right is by Erin Phillips. The body of the serpent on the left appears much thinner than Hyla drew it. Both serpents are roughly the same. Both lack rattle ends on the tails and have schematized antlers. The mouth is similar to those on WP'19 and RW152. This bottle was seriated to Late Hemphill because it, along with SD42/m7, SWM185, and NE596, is in Schatte's (1997a) Split Antlers group, one of his later Moundville III phase groups.

(Photo by Erin Phillips. Left drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight. Right drawing by Erin Phillips.)

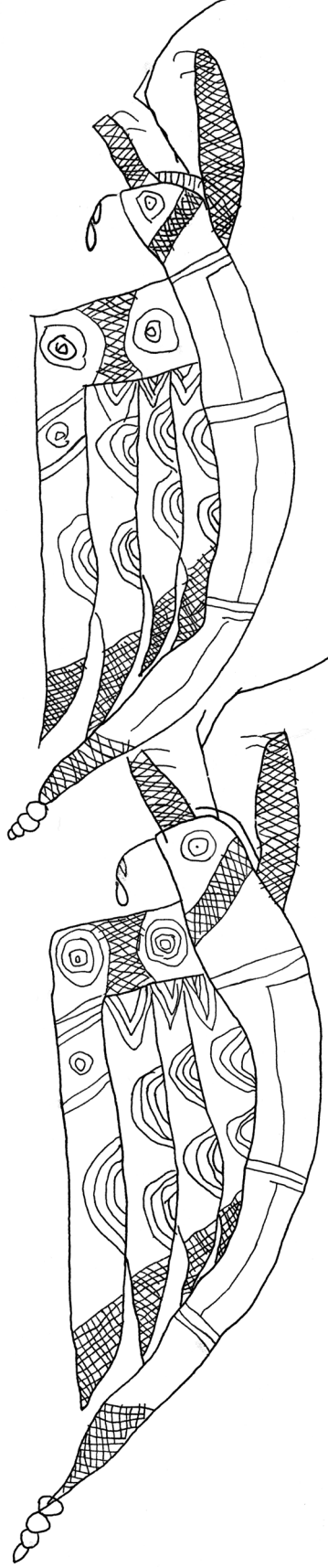




WP'19

WP'19 (UAM 1931.4.2), a subglobular bottle with simple base, was found with Burials 2152-2154 during Alabama Museum of Natural History excavations west of Mound P in an area identified as WP' (Steponaitis 1983b:258). WP'19 depicts two winged serpents in profile view. This bottle has spalling on the exterior, especially on one side of the base. There is clear wear on half of the neck interior, which is generally on the side opposite the spalling on the base. The rattles of both serpents extend slightly onto the neck of the bottle. The antlers seem almost like plumage rather than the typical depictions. This could be a derivation from the type seen on NG30. This bottle is seriated to Late Hemphill because it is similar to vessels in Schatte's (1997a) Split Antlers group, most notably, its mouths are similar to EE75's mouths. These mouths are also similar to those on RW152.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)





RW152

RW152 (UAM 1939.002.50), a subglobular bottle with simple base, was found with Burial 2740 during the Alabama Museum of Natural History's Roadway excavations at Moundville. There are sherds from more than one vessel that have been accessioned together. One has engraved serpents on it. The bottle's base has clear wear, and there is some wear on the neck. On the next page is a rough composite sketch of what the two serpents drawn in profile look like. The tails are tipped with almost diamond shaped rattles. The antlers and mouths are crosshatched. The forked eye surround here takes up the entire head. These serpents and those on Rho141 have conceptually similar antlers, rattles, and wings. The serpents on RW152 also have mouths similar to EE75 and WP' 19. This bottle was seriated to Late Hemphill because of the similarity of the mouths on these serpents to those on EE75 which were part of Schatte's Split Antlers group, a later Moundville III group.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

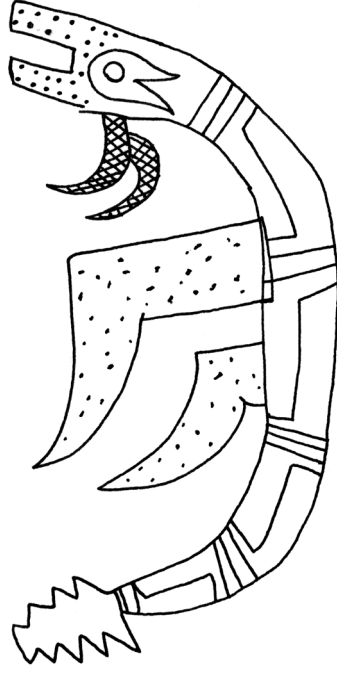
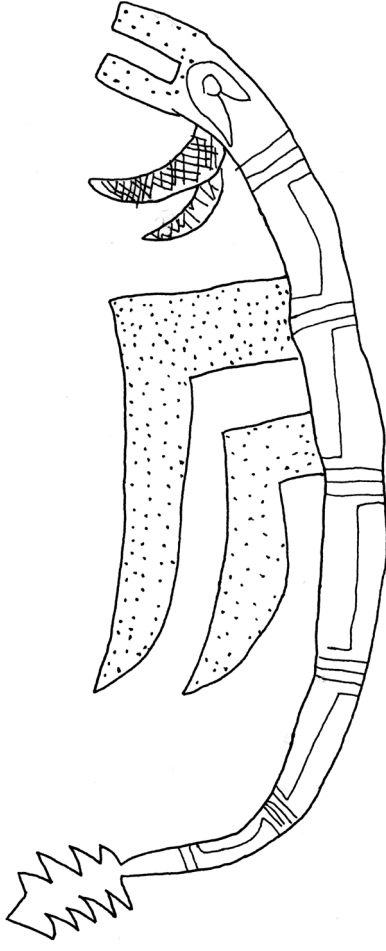




Rho141

Rho141 (UAM 1930.2.15), a subglobular with simple base, was found with Burials 1956-1957 during excavations in an area on the eastern edge of Moundville known as the Oliver Rhodes site (Steponaitis 1983b:231). The lip is chipped, and there is wear all the way through the black exterior on part of the base. There is slight wear at the base of the neck on the exterior, and also some wear at the point of vertical tangency on the body. This bottle has two winged serpents in profile view engraved on it. The serpents on this bottle are unusual in that they use punctations as decoration. The wings and mouths of these serpents are punctated. The mouths and wings are additionally unusual in that the mouths have squared ends and the wings are made up of two wingbars without additional feathers. While these differences might suggest that these serpents are stylistically distinct from Hemphill-style serpents, the wings, tails, and even antlers are similar to those of RW152. It is these connections to RW152 that allow Rho141 to be included in the Hemphill style and to be seriated as Late Hemphill. The body decoration of Rho141 is also seen on several Hemphill-style serpents.

(Photo by Erin Phillips. Left drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight. Right drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





EE25

EE25 (UAM 1931.1.64), a subglobular bottle with simple base, was found during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:246). This bottle was stolen from Erskine Ramsay Archaeological Repository during the 1980 theft. This bottle is seriated to Late Hemphill because Schatte included it in his Thin Body Group, one of his later Moundville III phase groups.

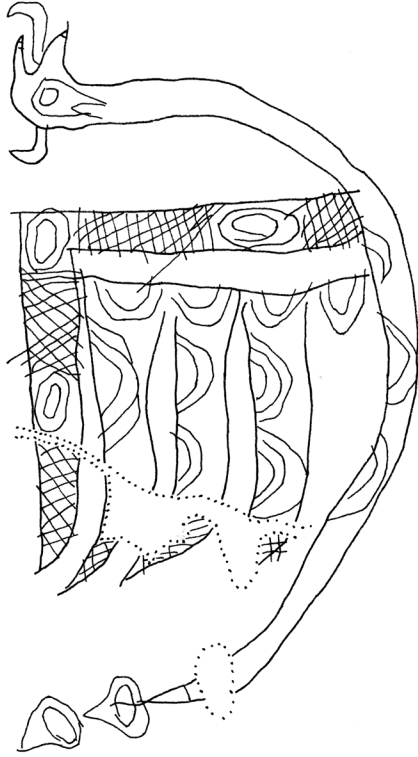
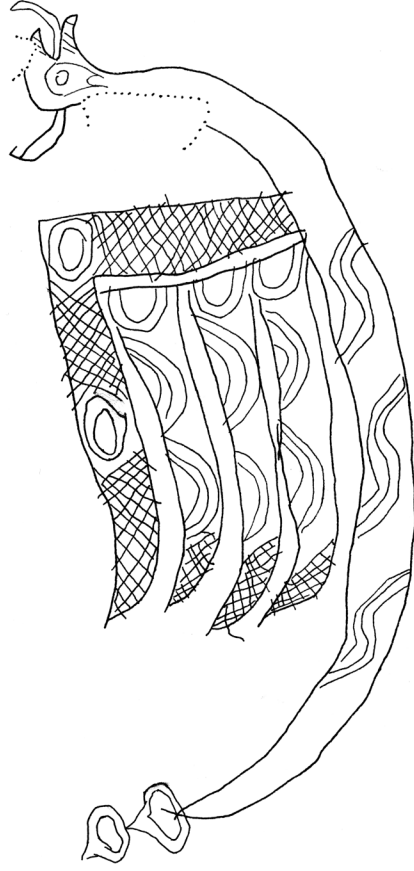
(Photo courtesy of Vincas P. Steponaitis.)

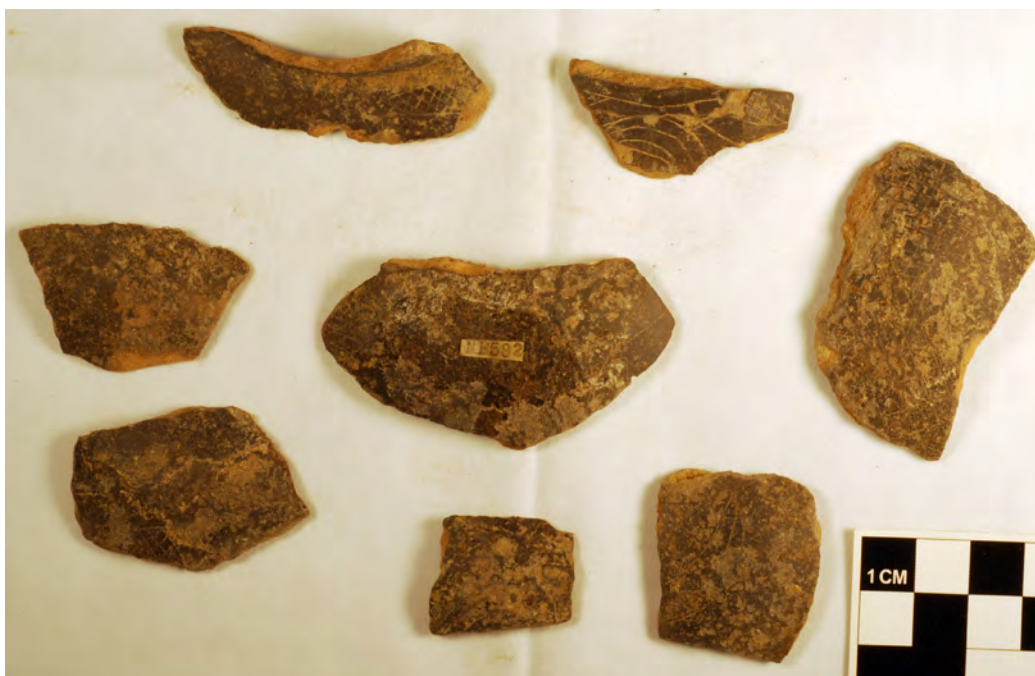


EE1

EE1 (UAM 1931.1.1), a subglobular bottle with simple base, was excavated with Burials 1181-1183 during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:246). Two winged serpents in profile view are depicted on this vessel. There are a couple of sherds missing from this bottle. There are several spalled areas, especially on one section of the neck, about half way up. The outer surface of the vessel is completely worn through on the base. Two winged serpents in profile view are depicted on this vessel. The rattle segments of the tails of the serpents, as can be seen in the drawings by Kevin Schatte on the following page, do not overlap. This bottle is seriated to Late Hemphill because it was in Schatte's (1997a) Thin Body Group, one of his later Moundville III phase groups.

(Photo by Erin Phillips. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

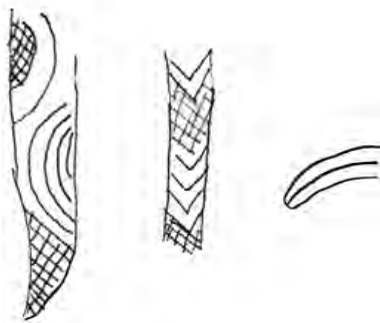




NE582

NE582 (UAM 1932.4.87), a subglobular bottle with a simple base, was found with Burial 1651 during Alabama Museum of Natural History excavations north of Mound E (Steponaitis 1983b:245). This bottle has not been reconstructed. The sherds appear to be rather pitted and worn. Some pieces seem to be surprisingly thin. There are definitely wings depicted. The top wing feather has been sketched on the following page (top). The sketch below the wing feather is likely a serpent body with alternating crosshatching and chevrons. The drawing on the bottom is probably either an antler with a line down the middle, or some sort of tongue. At this point, I believe that the engraved design is a winged serpent in profile view. I seriate this vessel to Late Hemphill on the assumption that the middle sketch on the next page is a serpent body, on which basis I group it with Schatte's (1997a) Thin Body group. I also seriate it to Late Hemphill because it has unusual body decoration.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

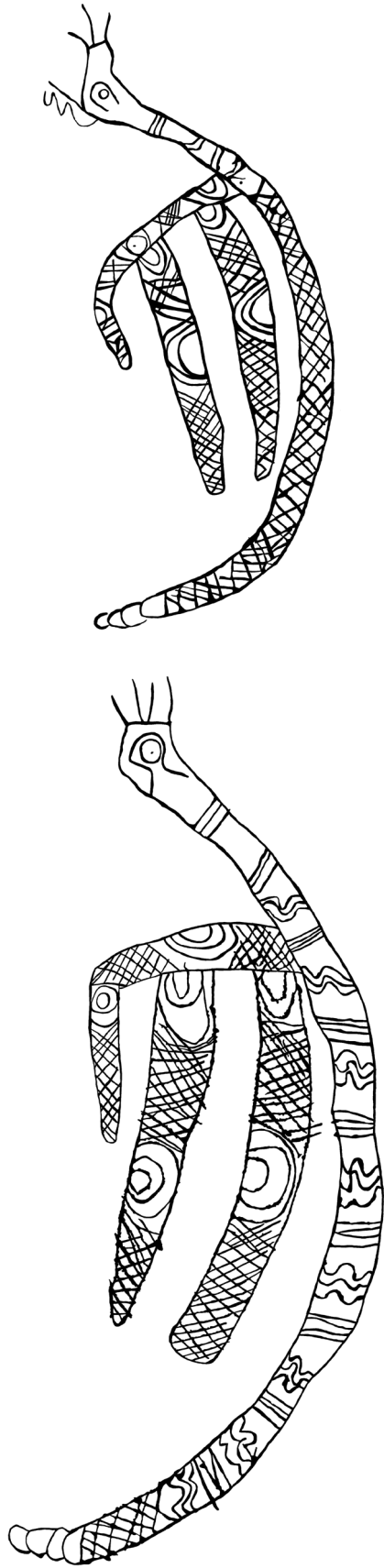




SD8

SD8 (UAM 1932.3.5), a subglobular bottle with simple base, was found during Alabama Museum of Natural History Excavations south of Mound D. Part of the bottle's neck is missing and has a plaster repair. There is some wear on the neck and interior of the rim. At the neck-body join, there is an inconsistent indentation on the exterior. There is wear evident on the base. There are two winged serpents in profile view engraved on this vessel. Both of the serpents have been inked in white by a restorer, but the inking on one side is more crayon-like. These serpents are rather unusual in design and decoration. This bottle is seriated to Late Hemphill because it was part of Schatte's (1997a) Thin Body group, one of his later Moundville III groups.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

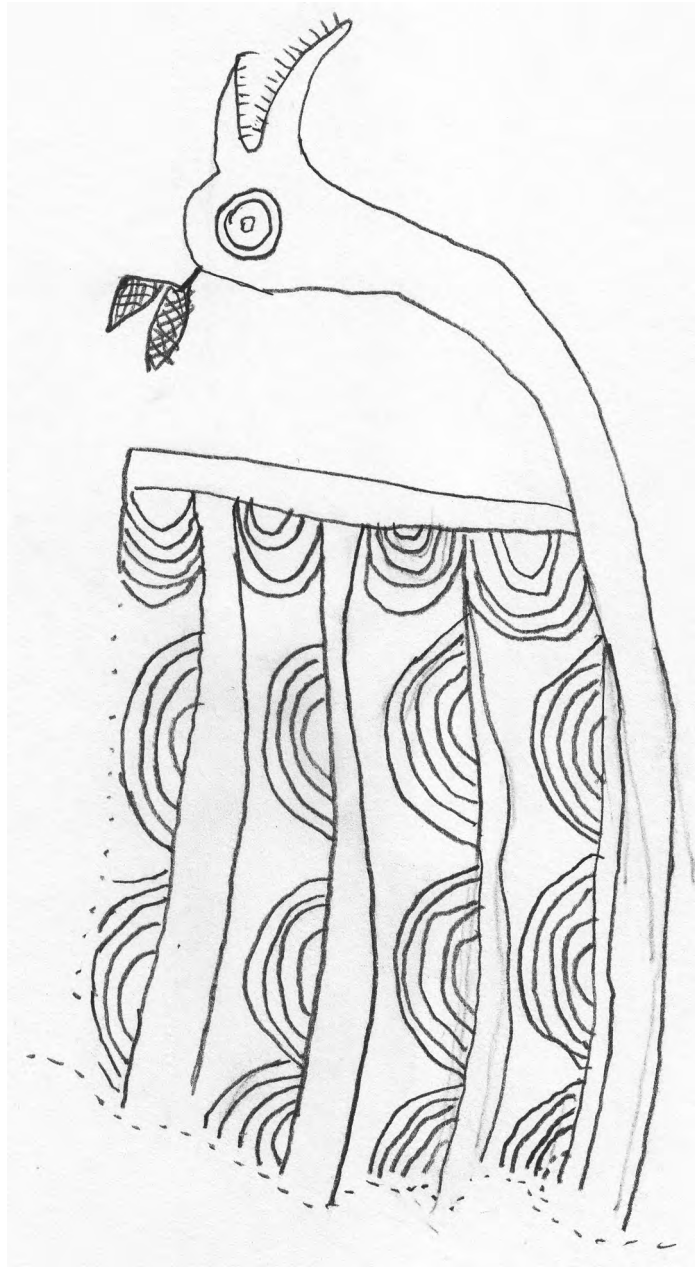




NG30

NG30, a subglobular bottle with a simple base, was found with Burial 1007 during Alabama Museum of Natural History excavations north of Mound G (Steponaitis 1983b:251). This bottle was stolen during the 1980 theft of artifacts from Erskine Ramsey Archaeological Repository. The bottle depicts two winged serpents in profile view. This bottle has been seriated to Late Hemphill because it was in Schatte's (1997a) Thin Body group, one of his later Moundville groups. The photograph above was taken in the late 1970s by Steponaitis during his dissertation research. The drawing on the following page is by Schatte and is based on Steponaitis's photo.

(Photo courtesy of Vincas P. Steponaitis. Drawing by Kevin E. Schatte in the Hemphill image file, courtesy of V. J. Knight.)

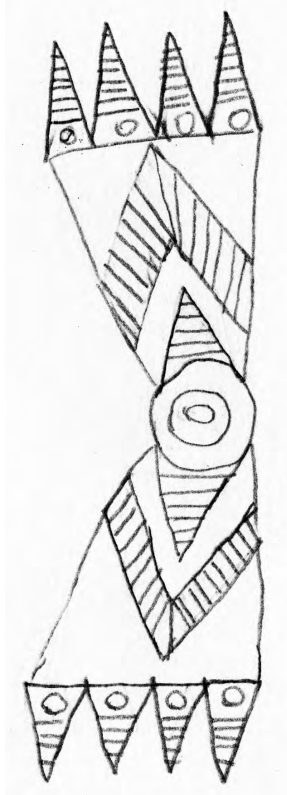




SB7

SB7 (UAM 1930.15.6), a subglobular bottle with simple base, was found during Alabama Museum of Natural History excavations at the Snow's Bend site in 1930. This bottle has two sets of paired tails engraved on it. The rim has been reconstructed of plaster and there is a puddle of plaster on the inside of the base. The base shows some signs of wear, but wear is virtually impossible to see through the post-excavation surface finish (lacquer?). This bottle was assigned to Late Hemphill because the tail tips are most like those of SD9/m5.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

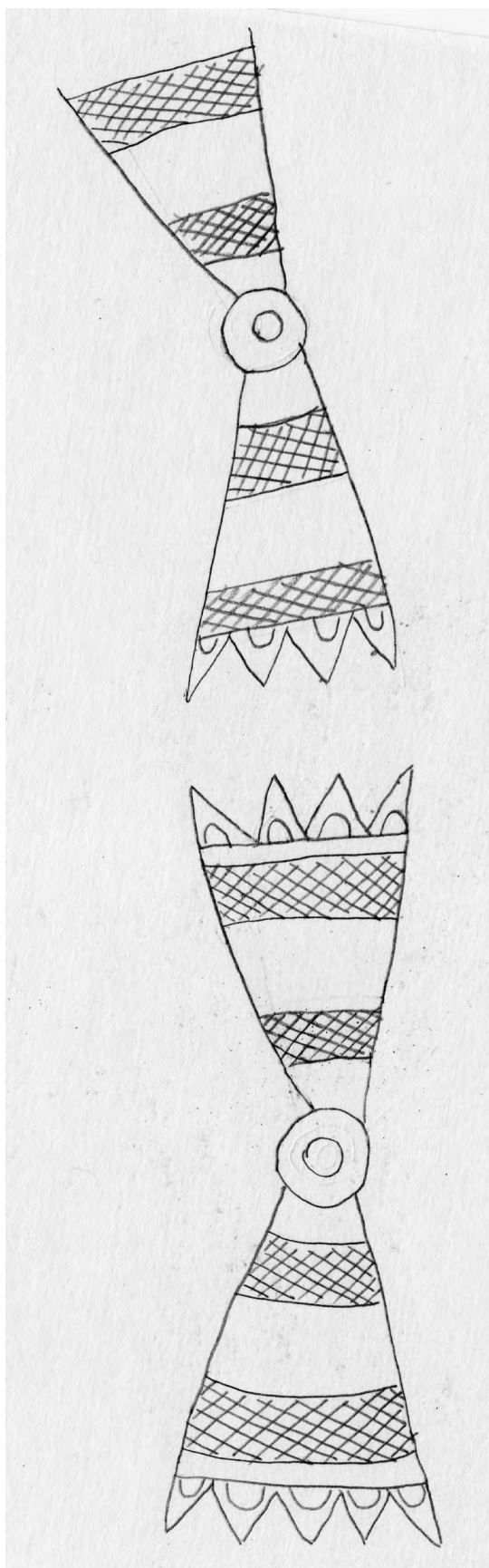




SWG62

SWG62 (UAM 1934.1.30), a subglobular bottle with simple base, was found with Burial 1789 in the area southwest of Mound G during Alabama Museum of Natural History excavations (Steponaitis 1983b:252). While the vessel has been reconstructed, it is now in sherd form. There is minor wear on the base and some wear on the sides of the bottle. The lip is chipped and worn. Some of the shell temper has leached out. There are four indentations on the bottle, but the paired tails are engraved without regard to the indentations. This bottle has two sets of paired tails engraved on it. As can be seen in the sketch of the paired tails on the following page, the tail tips consist of triangles containing semicircles. The paired tails on this bottle are similar to those on RPB(4), SWG62, and EE166. All three have been seriated to Late Hemphill because the central medallions of RPB(4) and EE166 are like the central medallions on SD9/m5.

(Photo courtesy of Vincas P. Steponaitis. Sketch by Erin Phillips.)

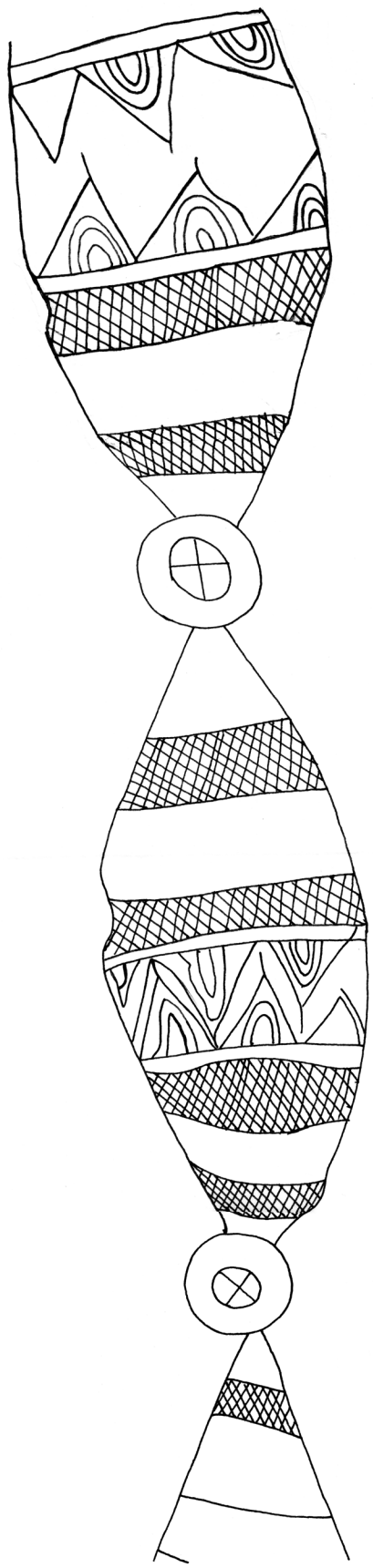




RPB(4)

RPB(4) (UAM 1951.1.32), a subglobular bottle with simple base, was excavated by the Alabama Museum of Natural History during excavations at the “picnic building for colored,” now known as the bunkhouse, west of Mound R in July, 1951, where it was found with Burial 5 (Steponaitis 1983b:233). The rim is chipped, and two sherds have broken from the neck and glued back. The inside of the neck is quite worn. The inside of the body of the bottle is very rough, uneven, and undulating. There is a worn groove on the exterior where the neck joins the body. The engraved designs on the bottle have been inked by the restorer for easier viewing. This bottle has two sets of paired tails. A drawing by Hyla Lacefield of one set appears on the next page. This depiction of paired tails is odd in that the tails are connected, not only by the central medallions, but also by lines connecting the pairs at the tip ends of the tails. Some of the tail tips are missing the U-shaped decorations. This bottle was seriated to Late Hemphill along with SW62 and EE166 because the center medallions of RPB(4) and EE166 are like the center medallions of SD9/m5.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)

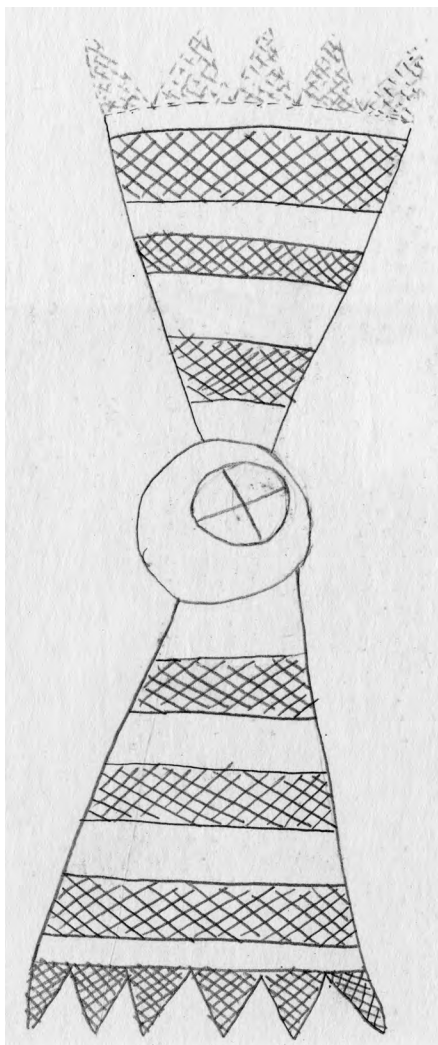


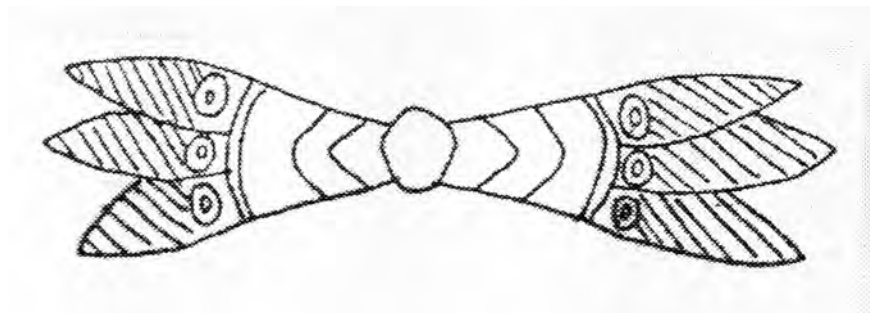


EE166

EE166, a subglobular bottle with simple base, was found during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:247-248). It was stolen during the 1980 robbery of Erskine Ramsay Archaeological Repository. As can be seen in the photo above taken by Steponaitis, the rim has been broken and repaired with plaster. This bottle, along with RPB(4) and SWG62, has been seriated to Late Hemphill because of their similarities to each other and the similarities of the central medallions of RPB(4) and EE166 to SD9/m5.

(Photo courtesy of Vincas P. Steponaitis. Sketch by Erin Phillips.)

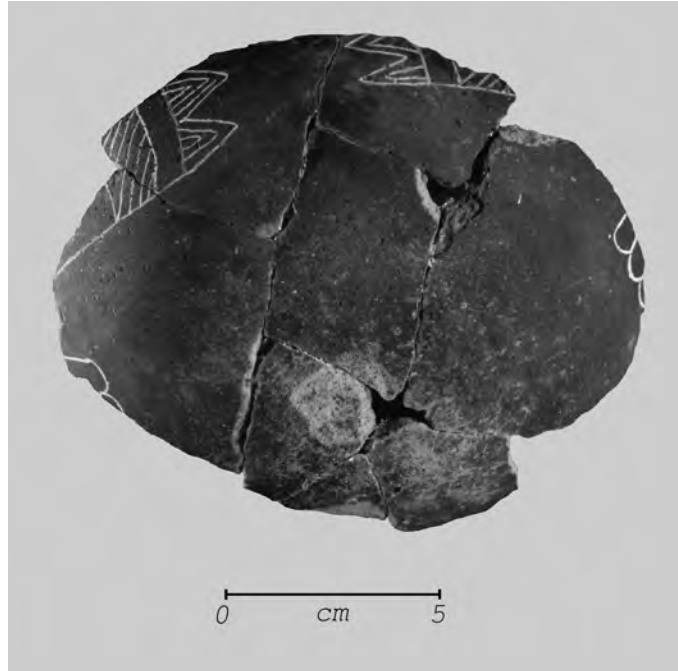




SD50/m7

SD50/m7 was found south of Mound D with Burial 104/SD/m7 by C. B. Moore in 1906. According to Brain and Phillips (1996:318) this burial “had a small undecorated bottle at the head according to the field notes (Moore 1906). The vessel was given away by Moore, and subsequently it was donated to the Florida State Museum (V. J. Knight and V. P. Steponaitis, personal communications, 1986). It had never been thoroughly cleaned, and when this was done it was found to be decorated, apparently Moundville Engraved, *var. Hemphill* with the paired tails motif.” This vessel has since been transferred from the Florida State Museum to the Alabama Museum of Natural History (Vernon J. Knight, Jr., personal communication, 2009). It could not be located at the time of this study. Based on Moore’s vessel numbers for the vessels described before and afterwards by Brain and Phillips (1996:318), I suggest that this is vessel number 50 from South of Mound D excavated by Moore in 1906. I seriated the bottle based on Knight’s drawing, published in Brain and Phillips’s (1996) *Shell Gorgets*, which has been reproduced above. This bottle has been seriated to Late Hemphill because the tail tips seem to be abstracted from the stripe and circle tail tips of SB7 and SD9/m5. There is no crosshatching on the main tail parts, and the central medallion is blank, unlike all other Late Hemphill examples of paired tails.

(Drawing by V. J. Knight.)



Q2743

Q2743 (UAM 1989.40.2743.1), the base of a subglobular bottle, was found with Burial 1 during Knight's (2010:98) excavations of Mound Q in 1992. There is significant use wear on part of the base, which is obvious in the photograph above (Knight 2010: Figure 4.27, reproduced here with permission). The part of the paired tails plus three fingers design can be seen in the photograph. This bottle was seriated to Late Hemphill because the tail tips are similar to those on RPB(4), and like SEH74, it has three fingers projecting above and below the central medallion between the tails. This paired tails plus three fingers design is exclusive to Late Hemphill.

(Photo courtesy of V. J. Knight.)



SEH74

SEH74 (UAM 1930.4.11), a subglobular bottle with simple base, was found with Burial 869 during Alabama Museum of Natural History excavations southeast of Mound H. The lip is chipped, the inside of the bottle is uneven, and the bottle's exterior surface is rather rough and worn. The neck-body join is not well smoothed on the exterior. SEH74 has a paired tails plus three fingers design engraved on it. The design on this bottle is roughly the same as that on Q2743 in that they both have a combination of paired tails plus three fingers. While the design is almost impossible to see on the bottle, the sketch on the following page gives a sense of it. This design seems to be a combination of paired tails like those of NEC11/m5 and Rho219 with center symbols and bands with radial fingers as on EE7. The tail tips between the two sets of paired tails are attached by horizontal lines as on RPB(4), but here the connecting lines are more numerous. This bottle is seriated to Late Hemphill because it has the three fingers added to the paired tails and has circles alone in the tail tips, which are attached to the other pair by horizontal lines.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

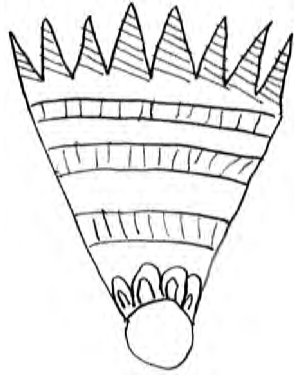




EE155

EE155 (UAM 1931.1.26), a subglobular bottle with simple base, was found with Burial 1275 during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:247). The exterior surface is rather pitted and worn. The engraved design is difficult to see through the repair. The pieces of the base that are present are plastered over. This bottle has two sets of paired tails engraved on it. The sketch on the next page shows the design of one of the tails. The paired tails on this bottle are most similar to those on WR13, RPB(1), SD742, and SWG24. The paired tails engraved on these five bottles are generally characterized by horizontally hatched vertical stripes in the tails, hatched tail tips, covert feathers or fingers emanating horizontally from the central medallions over the tails, and concentric circles as the central medallion decoration. The empty medallion in the sketch on the next page simply served as anchor for the tail. In actuality, the central medallions of EE155 are composed of concentric circles.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

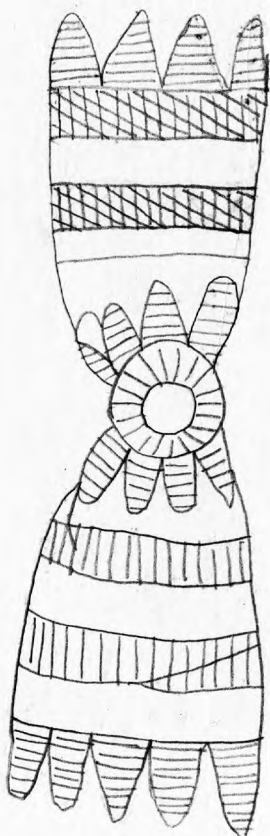
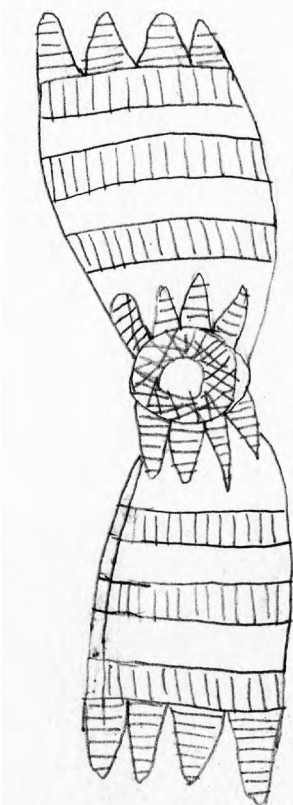




RPB(1)

RPB(1) (UAM 1951.1.30), a subglobular bottle with a simple base, was found with Burial 3 during the Alabama Museum of Natural History excavations of the “picnic building for colored,” now known as the bunkhouse, which is located northwest of Mound R (Steponaitis 1983b:233). This small bottle is highly burnished, and one side of the body has shovel damage. This bottle has two sets of paired tails engraved on it. Both tails have been inked to make them more visible. A sketch of the tails can be seen on the next page. This bottle is similar to WR13, EE155, SD742, and SWG24. The central medallions of RPB(1) are unique.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

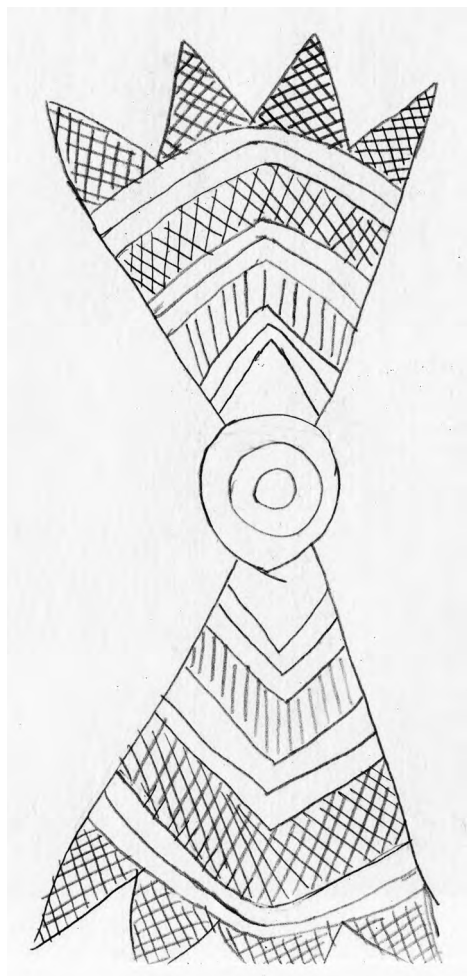




SD742

SD742 (UAM 1932.3.49), a subglobular bottle with simple base, was found with Burial 1525 during Alabama Museum of Natural History excavations south of Mound D (Steponaitis 1983b:239). The exterior surface is rough, and the shell temper is quite visible on the surface. There is a worn groove at the exterior of the neck-body join. Wear is difficult to see, but there is some on the base. The engraving is quite faint, such that the center medallion on one side is difficult if not impossible to see. The sketch on the next page shows the design of the paired tails on SD742. This bottle has been seriated to Late Hemphill along with WR13, EE155, RPB(1), and SWG24. SD742 does not have covert feathers emanating from the central medallion and the hatched/crosshatched bands are angular.

(Photo by Erin Phillips. Sketch by Erin Phillips.)

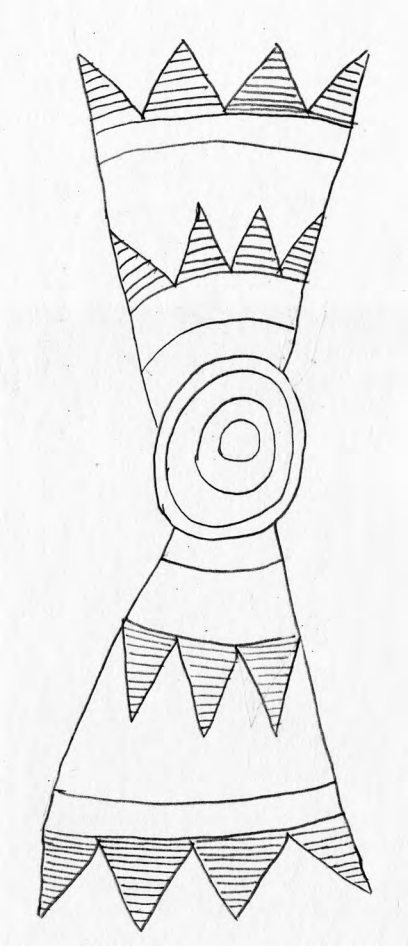




SWG24

SWG24, a subglobular bottle with simple base, was found with Burial 1751 during Alabama Museum of Natural History excavations southwest of Mound G (Steponaitis 1983b:251). This bottle was among the vessels stolen from Erskine Ramsey Archaeological Repository in 1980. The photograph above was taken by Steponaitis in the late 1970s. The sketch on the next page is based on this photograph and shows the paired tails design. SWG24, along with WR13, EE155, RPB(1), SD742 is seriated to Late Hemphill. These tails have a design on them that is identical to the tail tips.

(Photo courtesy of Vincas P. Steponaitis. Sketch by Erin Phillips.)

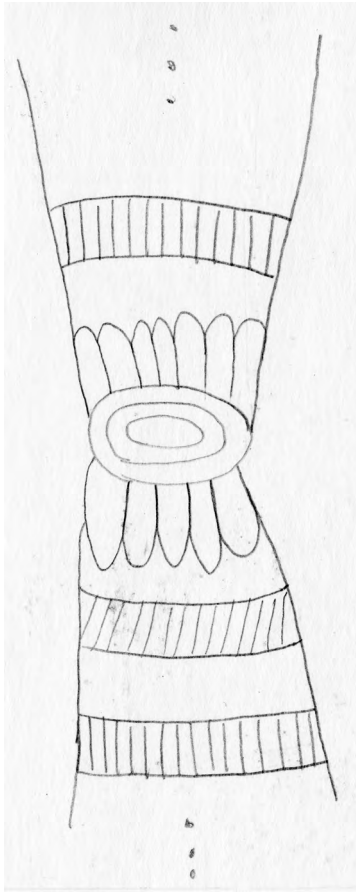




WR13

WR13, a subglobular bottle with simple base, was found with Burial 10/WR during Alabama Museum of Natural History excavations west of Mound R (Steponaitis 1983b:260). While not part of the 1980 theft of Erskine Ramsey Archaeological Repository, this bottle could not be located at the time of this study. The photograph above was taken by Steponaitis in the late 1970s. The sketch on the next page shows the paired tails design on this bottle and is based on the above photo. The ellipses at the edges of the sketch indicate that the tails continue, but their nature is unknown. This bottle, like EE155, RPB(1), SD742, and SWG24 is seriated to Late Hemphill. These five vessels are similar in some ways, but each is clearly distinct in other ways. The paired tails on this bottle have every feature that members of the group.

(Photo courtesy of Vincas P. Steponaitis. Sketch by Erin Phillips.)





WP'30

WP'30 (UAM 1936.4.4), a subglobular bottle with slab base, was found with Burial 2165 during Alabama Museum of Natural History excavations West of Mound P in an area known as West of P (prime) (Steponaitis 1983b:258). This bottle was once reconstructed, but is now in sherd form. This bottle was unevenly fired. About half the outer surface finish is worn through on the base. WP'30 is fairly wide and relatively short. The neck is wide and short as well. At this point, most of the neck is missing. There appear to be four suspended tails together with a horizontally-oriented raptor head with its beak pointing downward near the neck of the bottle. This raptor head is potentially within a tail, and is unlike all other known depictions of raptor heads from Moundville. The tails have a peculiar spur on one side near the tail tips. The circle-within-triangle tail tips seem to fit well with other Late Hemphill designs.

(Photo by Erin Phillips.)

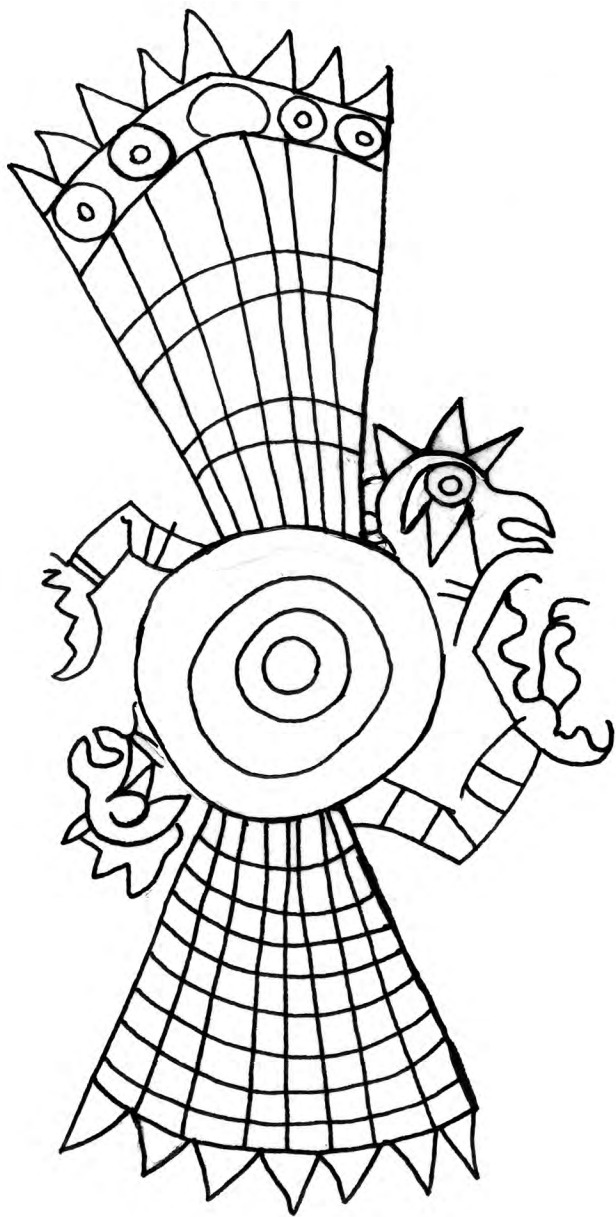


NE145

NE145 (UAM 1932.4.37), a rather squat restricted bowl, was found during Alabama Museum of Natural History excavations north of Mound E (Steponaitis 1983b:244). This bowl is relatively thick, but one can see the scraping marks on the interior left from thinning the bowl. It was broken into several pieces and mended. There is some pitting/spalling. The base of the bowl shows wear over the entire surface, but is generally not worn through the surface finish except in the pitted areas. There is some plaster infill from the restoration. There are four sets of paired tails depicted on NE145. Two are raptor-headed paired tails in court-card symmetry and two have no heads. These alternate, such that the ones with raptor heads are on opposite sides. The paired tails with raptor heads have pointed tail tips, while the paired tails with no heads have rounded feather ends. The tails, while their decorations towards the ends are different, all have a spider-web-like decoration for the main part. All of the raptor heads have two-prong forked eye surrounds. All of the central medallions are composed of concentric circles. One set of headless paired tails has a rayed circle around the central medallion, while the other does not. The tails in Hyla Lacefield's drawing on the next page should be rotated 180 degrees. In general, this particular drawing is lacking in accuracy and does not indicate an area that has been filled in with plaster. The engraving on this bowl is unusual for several reasons. One is that four sets of paired tails/birds in court-card symmetry are shown instead of the usual two. A second reason is that this is one of two clear examples of raptors in court-card symmetry. The other example, SWG63, is a Middle Hemphill bottle. A much more equivocal example might be SL'1, which would be a crested bird in court card symmetry except for its raptor-like crest. This bowl depicting raptors in court-card symmetry is one of the reasons that one cannot simply equate paired tails with crested birds. Another reason this engraving is unusual is that the tail decorations seen here are found nowhere else. This is also the only example of court-card symmetry at Moundville to include feet as well, although feet are only included in one of the four pairs. Placement within

Late Hemphill seems to work well, both on account of its unusual nature as well as the fact that the central medallions are composed of concentric circles, as in a number of the Late Hemphill paired tails. This is the final example of court-card symmetry in the known corpus of Hemphill-style art.

(Photo by Erin Phillips. Drawing by Hyla L. Lacefield in the Hemphill image file, courtesy of V. J. Knight.)





ND3

ND3 (UAM 1935.1.22), a simple bowl with two spouts, was found during Alabama Museum of Natural History excavations north of Mound D (Steponaitis 1983b:236). Steponaitis (1983b:236) questions whether this bowl was locally produced, based on the unusual form. The bowl is more highly burnished on one side. The shell temper is relatively coarse, especially visible on the less burnished side. There are three hands and three skulls, which alternate, with an extra undulating line running between as seen in the rollout drawing on the next page. The engraving is crudely executed, especially on the less burnished side. The skulls are unusual in that the teeth are withdrawn into the skull outline instead of being flush with the front. The two on the left of the rollout drawing seem to have residual noses in front of the teeth. The scalping marks come around the top of the head in front of the eyes. The ascending ramus at the back of the skull is curled inward. There is a line between the eye and the mouth on the left most skull in the rollout drawing, while the other two have a line extending back from the mouth. ND3 was seriated to Late Hemphill because it seems to have lost some of the idea of what certain skull features originally signified, such as the scallops at the top of the skull, and also because the hands are abstracted and do not have eyes.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





WP'39

WP'39, a subglobular bottle with a flattened simple base, was found with Burial 2171 during Alabama Museum of Natural History excavations West of Mound P in an area known as West of P (prime) (Steponaitis 1983b:258). This bottle was stolen during the 1980 robbery of Erskine Ramsay Archaeological Repository. WP'39 is seriated to Late Hemphill because the hands seem rather broken down.

(Photo courtesy of Vincas P. Steponaitis.)



EE126

EE126 (UAM 1931.1.61), a restricted bowl, was found with Burial 1261 during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:247). There is significant spalling on this bowl, and only minimal wear on the base. All of the engraving is above the midline. There are four engraved hands with fingers to the left, as seen in the drawing on the next page. The top finger of each is hatched. The top and bottom fingers were drafted together with the palm, while the middle fingers were added subsequently. All have two middle fingers except the second from the left. Each hand has two concentric circles in the middle of the palm and a crosshatched tab for the wrist. EE126 is very similar to SWG52, with which it forms a style level 2 group. They have been seriated to Late Hemphill, like WP'39, because the hands seem to be rather broken down and no longer have eyes.

(Photo by Erin Phillips. Drawing by Erin Phillips.)





SWG52

SWG52 (UAM 1934.1.15), a restricted bowl was found with Burial 1801 during Alabama Museum of Natural History excavations southwest of Mound G (Steponaitis 1983b:252). This bowl has been broken and reconstructed. The rim is chipped, and there is some wear on the base. This bowl has four hands engraved around the outside. SWG 52 is quite similar in size, shape, and design to EE126, and they are assigned to the same style level 2 group. The top and bottom fingers (or finger and thumb) are again part of the same unit as the palm. In between the top and bottom finger, there are three to four fingers added between the top and bottom fingers. In the center of the palm are three to four concentric circles. There is no hatching of the top finger as seen on EE126. Both SWG52 and EE126 have been seriated to Late Hemphill because the hands seem rather broken down and no longer have eyes.

(Photo by Erin Phillips.)



NE79

NE79 (UAM 1932.4.614), a subglobular bottle with simple base, was found during Alabama Museum of Natural History excavations north of Mound E (Steponaitis 1983b:244). There is some wear on the base, and there is a worn indentation on the exterior of the bottle at the neck-body join. NE79 has 12 sets of center symbols and bands engraved on the body. Steponaitis (1983a) thought that this design looked like windmills. They are arranged in two slightly overlapping registers, each with six sets of center symbols and bands. The center symbol consists of three concentric circles. There are four bottles bearing this “windmill” kind of center symbols and bands, which probably constitute the last vestiges of the center symbols and bands concept.

(Photo by Erin Phillips.)



EE391

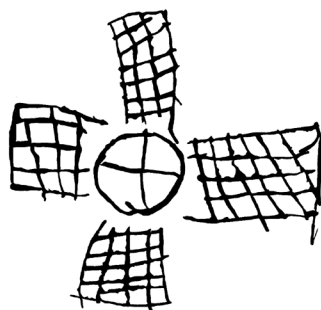
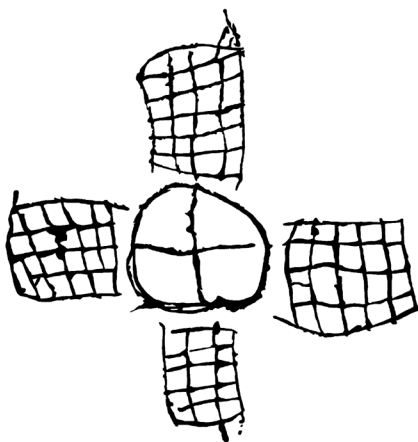
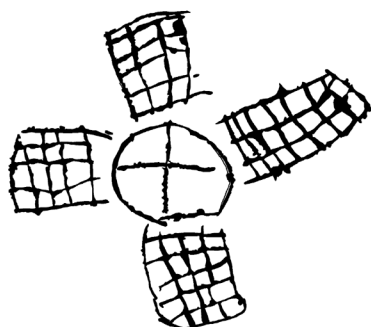
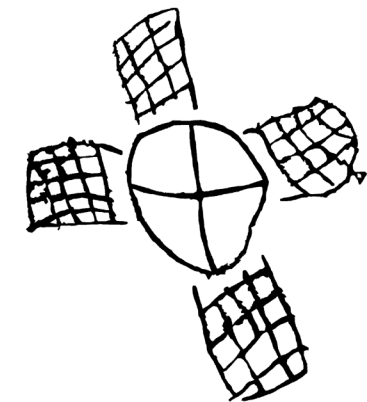
EE391, a subglobular bottle with simple base, was found with Burial 1394 during Alabama Museum of Natural History excavations east of Mound E (Steponaitis 1983b:249). This bottle was stolen during the 1980 robbery of the Erskine Ramsay Archaeological Repository. EE391 has had a plaster repair to the neck that can be seen in Steponaitis's photo reproduced above. There also appears to be significant spalling. This bottle is decorated with center symbols and bands of the "windmill" variety similar to the ones on NE79, EE458, and SD15/m7. This rendition seems to be less well executed than the ones on NE79.

(Photo courtesy of Vincas P. Steponaitis.)



SD15/m7

SD15/m7 (NMAI 173343), a subglobular bottle with simple base, was found with Burial 14/SD/m7 during C. B. Moore's excavations south of Mound D during 1906 (Steponaitis 1983b:241). There is only a small amount of wear visible on this bottle, and most of it is on the rim. The only breaks and chips are on the lip. This very small bottle is a bit lopsided. There are four of the windmill-like center symbols and bands around the body. Each center symbol includes a straight cross. The center symbols and bands design on this bottle is almost exactly the same as that on NE458, an even smaller bottle. SD15/m7 and NE458 are in the same style level 2 group. The design is similar to the center symbol and bands design on NE79 and EE391. (Photo by Erin Phillips. Drawing by Erin Phillips.)





NE458

NE458 (UAM 1932.4.509), a miniature subglobular bottle with simple base, was found with Burial 1624 during Alabama Museum of Natural History excavations north of Mound E (Steponaitis 1983b:245). This is the smallest known Moundville Engraved, *variety Hemphill* bottle. The neck-body transition is much more gradual than normal. The lip is worn, but otherwise, wear is very minor. The engraving is very similar to SD15/m7, but it is more crowded due to the smaller circumference of the bottle. Both NE458 and SD15/m7 are assigned to the same style level 2 group. The side bands overlap horizontally, as shown in the sketch above. One center symbol is missing a band on its left side.

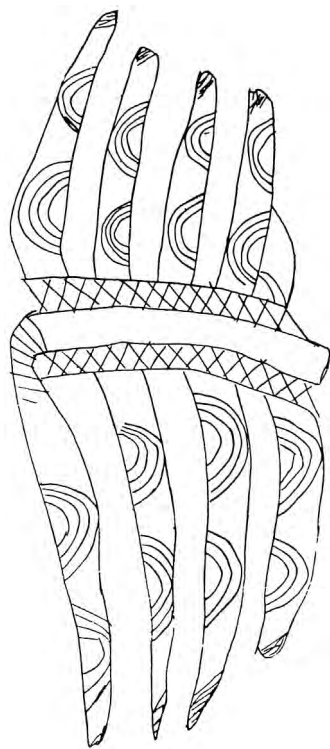
(Photo by Erin Phillips. Sketch by Erin Phillips.)



SD59/m7

SD59/m7 (NMAI 173344), a subglobular bottle with simple base, was found with Burial 114/SD/m7 during C. B. Moore's excavations south of Mound D in 1906 (Steponaitis 1983b:242). Wear on this bottle is almost non-existent. There is minor wear only at the top interior of the neck. The exterior surface of the bottle is highly burnished. The engraved subject on the body of this bottle appears to be wings. In both pairs, the wingbar curves over forming the top feather on the left side. SD59/m7 was seriated as Late Hemphill because its wings seem to coincide most closely with those of Late Hemphill winged serpents.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1907: Figure 50).)

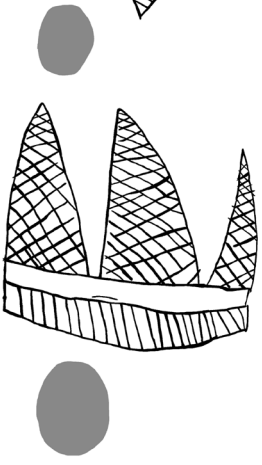
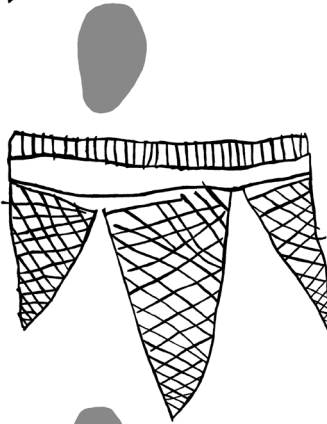
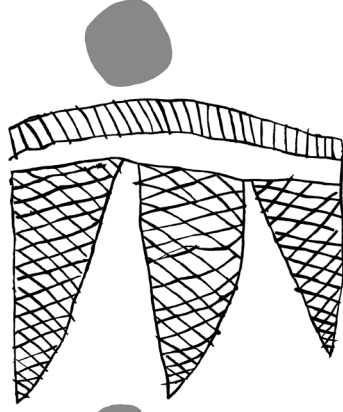
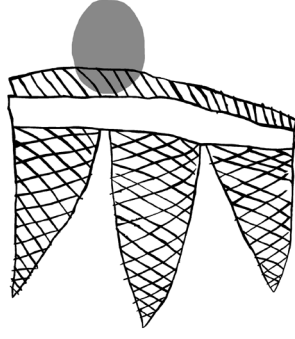




NR24/m5

NR24/m5 (NMAI 173349), a subglobular bottle, was found with burial 38/NR/m5 by C. B. Moore during his excavations north of Mound R in 1905 (Steponaitis 1983b:260). There is a worn reddish, almost circular area on the outside of the neck, as can be seen in the photograph above. About a third of the neck is still burnished, but the lower half of that is pock-marked. The base of the bottle shows clear wear, but very little of it is completely worn though the outer surface. The inside of the neck only has a small portion that is still smooth and burnished. There are four indentations placed evenly around the bottle and four engraved designs that are likely intended as wings. On three of the wings, the feathers point to the left, as can be seen in the drawing on the next page. In general, the indentations fall between the wings, but the wing on the far right in the drawing on the next page overlaps one of the indentations. Compared to the Early Hemphill bottles with indentations, the indentations on this bottle are not circular with crisply-formed edges. Indentations that are not well formed seem to be a later characteristic within the Hemphill style.

(Photo by Erin Phillips. Drawing by Erin Phillips.)

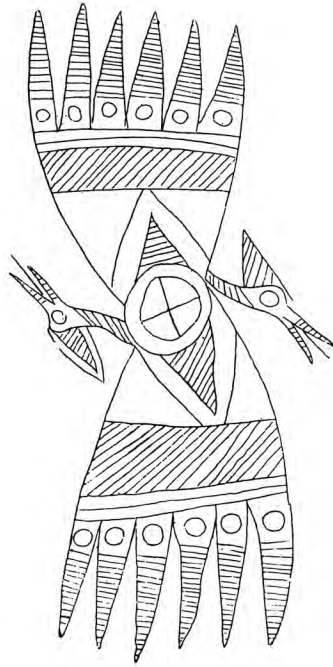




SD9/m5

SD9/m5 (NMAI 173364), a subglobular bottle with simple base, was found with Burial 23/SD/m5 by C. B. Moore during his excavations south of Mound D in 1905 (Steponaitis 1983b:240). There are numerous fracture lines, and an excavation tool seems to have impacted one of the lower heads. The base of the bottle feels well worn. There are some pieces missing from the rim, which have been filled in with plaster as can be seen in the photograph above. There is minimal to no wear on the exterior of the neck, although the neck interior shows definite signs of wear, especially on the upper two-thirds. The two crested birds in court-card symmetry engraved on this bottle are very different from others. SD9/m5 was seriated to Late Hemphill because the tail tips are barely suggestive of the idea of the circle-in-arc-plus-hatched-triangle tail tips with the triangle-with-circle-at-the-base-and-hatching-above tail tips on the crested birds on SD9/m5. The central medallion has a straight cross-in-circle motif, and the whole design looks generally odd and degraded. This is the latest known crested bird vessel in the Hemphill style.

(Photo by Erin Phillips. Drawing by H. Newell Wardle (Moore 1905: Figure 85).)





NR40

NR40, a subglobular bottle with a simple base and indentations, was found with Burial 1087 during Alabama Museum of Natural History excavations north of Mound R (Steponaitis 1983b:258-259). This bottle could not be located at the time of this study. Steponaitis (1983a) classifies this bottle typologically as Moundville Engraved, *variety Wiggins* based on its original engraving. The Hemphill-style bird, skull, and pot were engraved later. The other example of Hemphill-style engraving added later is PP47, the sherd found at the Pride Place site. The bird has a spiked crest, and its beak is most like that of NE145. The skull is atypical for Hemphill-style skulls in that the teeth are set back from the front of the face.

(Photo courtesy of Vincas P. Steponaitis.)



EE4

EE4 (UAM 1931.1.3), a subglobular bottle with a simple base, was found with Burials 1181-1183 during Alabama Museum of Natural History excavations east of Mound E. This small bottle has a rough surface and wear on the base and lip. The subject, whether it is turtles, bundles, or something else, appears four times around the body of the vessel. The top and bottom tendrils are reminiscent of the horizontal part of the wing bar on SD 8. The head/tail is reminiscent of Q2743 and RPB(4).

(Photo by Erin Phillips. Drawing by Erin Phillips.)

