

STYLISTIC ANALYSIS OF BURIAL URNS FROM THE PROTOHISTORIC PERIOD IN
CENTRAL ALABAMA

by

AMANDA LEIGH REGNIER

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Accepted on behalf of the Faculty of the Graduate School by the
thesis committee:

Ian W. Brown, Ph.D.

Keith Jacobi, Ph.D.

Kathryn S. Oths, Ph.D.

Craig T. Sheldon, Jr., Ph.D.

Vernon James Knight, Jr., Ph.D.
Chairperson

Vernon James Knight, Jr., Ph.D.
Department Chairperson

Date

Ronald W. Rogers, Ph.D.
Dean of the Graduate School

Date

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ABSTRACT

The Protohistoric period in Central Alabama (ca. 1540-1717) represents a fundamental shift in the culture of Native American groups inhabiting the Alabama and Black Warrior River valleys. By the dawn of the Protohistoric, the hierarchical societies of the prior Mississippian phases had undergone a transition to an egalitarian social structure. One of the key aspects of this transition that remains unclear is whether it was the result of contact between Native Americans and the first European expeditions to enter the area in the mid-sixteenth century. The relationship between Protohistoric groups to the people of the Mississippian Moundville chiefdom of the Black Warrior River Valley as well as their relationship with historically recognized Native American groups is also poorly understood. In order to address these issues, the archaeological hallmarks of this period, ceramic burial urns recovered from prior excavation of Protohistoric sites, were examined for trends both in vessel form and decorative motifs. The results of a principle component analysis of vessel form, as well matrix of similarity composed in order to analyze decorative motifs present on these vessels, suggest that the Burial Urn Culture can actually be divided into three distinct cultural components. These components separate geographically, falling into groups based upon the location of archaeological sites in the Black Warrior River Valley, the Upper Alabama River Valley, and the Middle Alabama River Valley. Additional research into archaeological and historic accounts suggests that the people of the Moundville chiefdom of the Black Warrior River valley did not migrate westward and join the Choctaw confederacy as has been previously suggested, but instead moved southward to the Lower Black Warrior Valley, near present-day Demopolis. Accounts from early Spanish expeditions into the area suggest that the people of the Upper Alabama River coalesced near the

junction of the Coosa and Tallapoosa Rivers, while the people of the Middle Alabama River moved southward down the Alabama River.

Chapter 1

Introduction

The site of Moundville represents the height of Native American civilization in the Southeastern United States. During the Mississippian stage, between the eleventh and fifteenth centuries AD, Moundville was the center of a complex chiefdom entrenched within the Black Warrior Valley and characterized by social stratification, exchange of goods with distant lands, surplus maize agriculture, and monumental public architecture. Sometime during the middle of the fifteenth century, this system collapsed, resulting in a fundamental culture shift. While the site remained sparsely occupied during this time, the majority of the population had moved into dispersed village settlements, returned to a dependence on wild foods, and, as reflected in their grave goods, reverted to an egalitarian society (Sheldon 1974; Curren 1984; Knight and Steponaitis 1998).

This reorganization was not unique to the Black Warrior River Valley. To the southeast of Moundville, on the Alabama River, a similar cultural development arose. These cultures date approximately to the time between the first Spanish expeditions into the interior southeast in the mid-sixteenth century and the establishment of permanent European colonies in central Alabama in the late seventeenth/early eighteenth century. This span of roughly a century and a half is known as the Protohistoric period. The hallmark of Protohistoric culture in central Alabama is the distinctly non-Mississippian practice of interring the dead, most especially infants, in pottery vessels. These burials typically contain two such vessels, one a globular jar in which remains are placed, and the other a bowl that serves as a cover (Cottier 1970). The decorative motifs found on these vessels and their shapes reflect limited continuity with Mississippian Moundville

ceramics but are characterized by a lack of iconographic motifs generally associated with Mississippian ceremonialism (DeJarnette 1952:284). The limited continuity with Mississippian pottery that is seen on these vessels has led to the suggestion that the Protohistoric phases represent a retention of the domestic culture of the prior Mississippian phases, while the ceremonial component has disappeared (Sheldon 1974).

Research in the Black Warrior drainage has focused on the development and height of the Mississippian phases, leaving the Protohistoric period poorly understood. Within the Alabama River drainage, neither the cultures of the Mississippian stage nor the Protohistoric period have been well-defined, although the similarity between both cultural manifestations has certainly been noted. For most of the history of investigation into the Protohistoric period researchers have considered the clusters of sites in both river drainages as part of a general “Burial Urn culture” that stretches across two river drainages, the Alabama and Black Warrior Rivers, and is known as the Alabama River phase (DeJarnette 1952; Cottier 1970; Sheldon 1974; Steponaitis 1983). Recently, however, several authors have put forth the theory that the Burial Urn cultures of the both river valleys are actually two distinct archaeological phases, known as the Alabama River and Moundville IV phases (Curren 1984; Peebles 1986, 1987; Little and Curren 1995). The only way in which these two phases have been distinguished is on the basis of geography and the absence in the Alabama River phase of two ceramic types found in the assemblages of the Moundville IV phase. Although this distinction has been made, the limited archaeological data at this time do not allow for the definite determination of whether the Protohistoric Burial Urn culture consists of one or several archaeological phases, or whether designating these manifestations as phases is even appropriate. Another question of equal importance that has not

yet been answered is how strongly the cultures of the Protohistoric period are tied to that of the Mississippian Moundville phases.

The current limited archaeological data allow for three possible trajectories of cultural development within the two river drainages. The first possibility is that the regional Burial Urn cultures arose independently. Under this model of separate development, it is feasible that the Protohistoric period can be divided into two separate phases. These phases developed when the Moundville IV phase arose out of the Moundville III phase in the Black Warrior Valley, as a result both of the collapse of the Mississippian society and influence of material culture from the west, while the Alabama River phase arose out of the poorly defined Moundville-related manifestations of that area, also being influenced by developments in the west. A second possibility is that the Burial Urn culture as a whole arose out of the Moundville III phase (ca. AD 1400-1550) of the Black Warrior River Valley. Since the site of Moundville itself was virtually emptied of people by the Moundville III phase and outlying cemeteries and mound sites were being constructed during this time, it is possible that Moundville III populations made their way into the Alabama River Valley and settled there, later taking on the traits of the Protohistoric period. A third model is that the Burial Urn culture arose initially on the Black Warrior River Valley, and populations that had already taken on the traits of the Protohistoric stage moved southeastward to settle in the Alabama River Valley.

Because so little prior research has been conducted on sites from this period, even the date for the beginning of both phases has not been firmly established. Another issue that is intertwined with the beginning of the Protohistoric phases is whether the AD 1540 Spanish expedition of Hernando De Soto, the first European to reach central Alabama, came into contact with people of the Late Mississippian Moundville III phase or the Burial Urn culture when the

expedition passed through the Black Warrior River Valley. Parallel to this is the question of whether the Alabama River sites were related to the domain of Chief Tascalusa, the location of which has been often studied by archaeologists, and whether this population had assumed the characteristics of the Alabama River phase at the time of De Soto's entrada. Arguably the biggest question related to these two cultures, if indeed they can be considered separate, is how the people of the Moundville IV phase and the Alabama River phase relate to historically documented aboriginal groups. At the present time, the people who lived in the Black Warrior River Valley cannot be definitively tied to any ethnic affiliation, although hypotheses have been put forth tying them to the historic Choctaw and the Alabama (Swanton 1998; Galloway 1995; Knight 1996). The establishment of this ethnic affiliation has been difficult because some time during the Protohistoric period another fundamental population shift occurred, resulting in an emptying of the once well-populated Black Warrior River Valley and a reorganization of the groups residing in the Alabama River Valley by the year 1650, prior to sustained European contact.

In attempting to determine whether any of the above models of cultural development can be applied to the Burial Urn culture of the Protohistoric period, this study uses the collections of complete burial urns excavated over a period of more than a century from sites in both the Black Warrior and Alabama River valleys (Figure 1). The present study employs an analysis of vessel morphology and design motifs in order to determine what, if any, trends are present within the geographic distribution of Protohistoric ceramic assemblages and how these trends are tied to the Mississippian Moundville III phase. By finally attempting to understand the development of the Burial Urn culture within the Black Warrior and Alabama River valleys, it is hoped that both the

emergence of this culture and the cultural affiliation of the people of the Moundville chiefdom can be better understood.

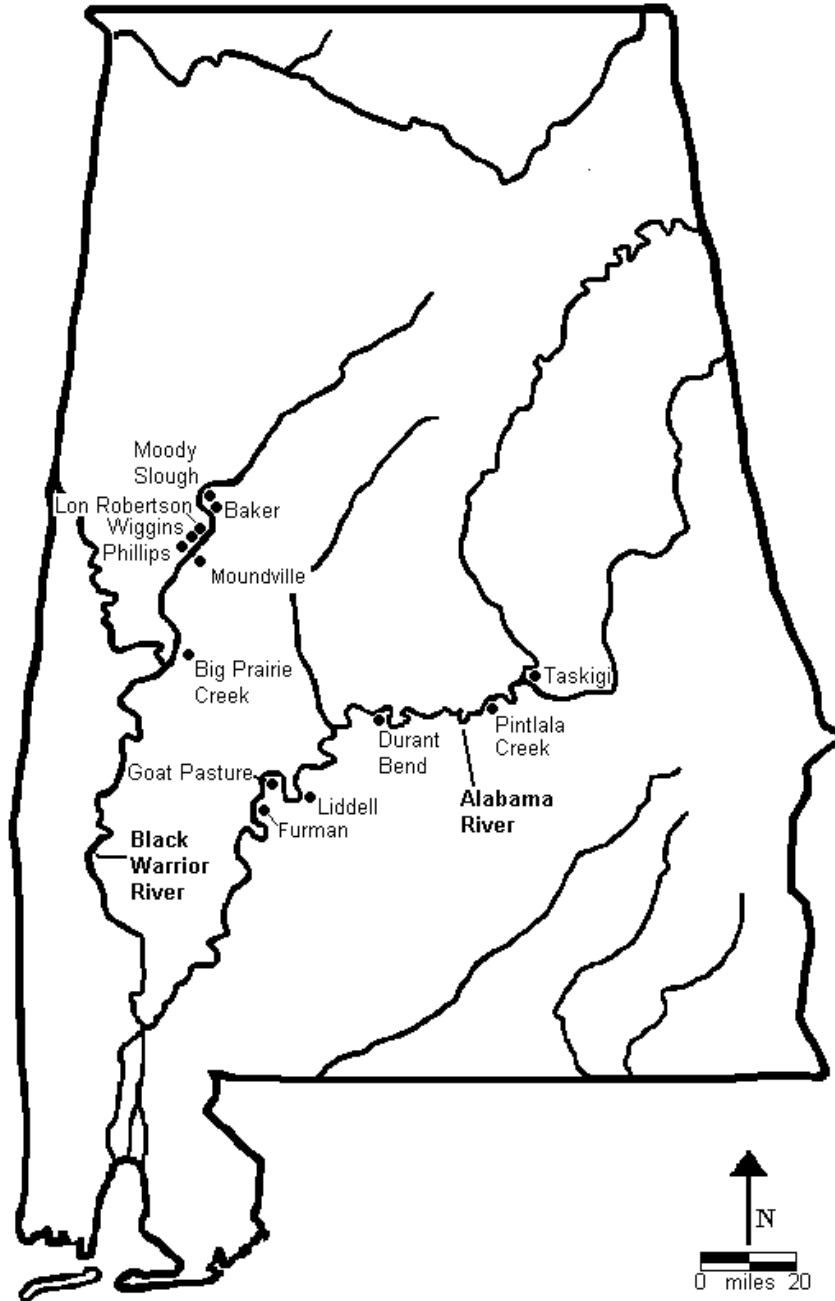


Figure 1. Map of Alabama showing sites used in the current study

Chapter 2

Previous Research into the Protohistoric Period

In interior Alabama, the Protohistoric period has traditionally been assigned a beginning date of AD 1540, since it was during the fall of that year that the Spanish explorer Hernando De Soto crossed into the area along with his expedition of soldiers, captive natives, and pigs and became the first European to make contact with the Native American population. Traditionally, the end of the Protohistoric in central Alabama has been considered AD 1717, the year that the French established Fort Toulouse at the junction of the Coosa and Tallapoosa rivers, a location very near one of the largest of the Protohistoric sites, Taskigi (1Ee8). The period between the first European contacts and the establishment of more permanent settlements in the region remains somewhat of a “Dark Age”, since the events leading to the new distribution of Native American populations observed at the end of this 175 year span remain somewhat of a mystery. What is certain is that by the late seventeenth and early eighteenth centuries, the native populations encountered by Europeans establishing permanent settlements in the area were dramatically different from those encountered by early Spanish expeditions into the interior.

General Cultural Trends of the Protohistoric Period

The development of many of the cultural traits associated with the Protohistoric period in central Alabama was by no means a unique phenomenon. A number of these traits are evident in some form across the entire Southeastern United States. One such trend is the disappearance of the distinctive ceremonial complex, social stratification, and craft specialization typical of late prehistoric Mississippian cultures across the Southeast (Sheldon 1974:2-3). This is no less true

in central Alabama, which was dominated during the Mississippian stage by the Moundville chiefdom, centered at the site of the same name in the Black Warrior River Valley. In the case of Moundville, evidence suggests that the collapse of the complex chiefdom occurred consequent to a breakdown in the authority of the superordinate classes. This breakdown may have stemmed from a number of possible sources, including (a) a decline in food surplus due to population growth, (b) the onset of the Little Ice Age in AD 1450, which would have cut food production, (c) the usurpation of access to exotic goods, either by competing elites or chiefdoms, (d) the collapse of the societies supplying exotic goods to the chiefdom, or (e) increased factional competition between groups at outlying centers within the chiefdom (Peebles 1986:30-31).

Whatever the cause for decline, the cultures that emerged after the fall of Mississippian chiefdoms were fundamentally different from their predecessors. The practice of burying the dead in pottery urns, the hallmark of the Protohistoric period in central Alabama, is not unique; urn burial during this period is reported across the Southeast, stretching southward from Tennessee and across from South Carolina to Louisiana, although the exact origin of this tradition remains unclear (Moore 1904). In addition to new forms of burial interment, the character of the artifacts accompanying Protohistoric burials shifted from that of the earlier Mississippian phases. Peebles and Kus (1977) demonstrate the presence of both a superordinate and subordinate dimension to Moundville society, based on the distribution of grave goods within the burial populations. Burials from the Mississippian Moundville I-III phases indicating high status contained supralocal grave goods, such as copper axes and gorgets, sandstone palettes, and raw materials such as galena, specular hematite, and mica (Peebles 1971). Analysis of excavation data from burials recovered from Protohistoric sites in the Black Warrior River Valley reveals no evidence of status distinctions reflected through elaborate grave goods

(Regnier 1999). The grave goods recovered from Protohistoric burials, which show no distributions that would be indicative of elevated status, consist of plain shell gorgets, beads, and earpins, as well as limited trade goods.

Several theories have been put forth attempting to explain the cultural significance of the practice of urn burial during the Protohistoric stage. Smith (1987:65-66) suggests that the practice of urn burial reflects a concern with quick disposal of the dead, as would be necessary during a period with high mortality rates. Such high mortality rates were presumably brought on by the exposure of Native American populations to European diseases, spread by members of the De Soto expedition of 1540 and the Luna expedition of 1560. Smith's suggestion of hasty burial is supported by the observation that burial urns in Alabama show evidence of domestic use prior to their use as mortuary containers (Sheldon 1974:53-4).

In contrast, Hill (1996:27) argues that interment in urns may instead imply high status. Hill (1996) notes that skeletal remains recovered from Protohistoric sites show a greater prevalence of nutritional stress, expressed in the form of porotic hyperstosis and enamel hypoplasia, than is seen on remains from the prior Mississippian Moundville phases. This nutritional stress, combined with the introduction of European disease, would have spurred higher mortality rates. If the members of population were dying off at a rapid rate, Hill argues, younger individuals, who are most commonly buried in urns, may have been accorded higher status simply because the survival of the group was dependent upon them. Both of these potential explanations, however, lose much of their credence when the burial interments from this period that do not involve urns are examined. The most common burial interment style of the period, as evidenced by excavation data from the Moody Slough (1Tu4) and Big Prairie Creek (1Ha19), is that of bundle burial, in which individuals are buried and exhumed or left to

decompose, and then the largest skeletal elements are reburied wrapped in a cane mat bundle. The practice of bundle burial, which, given the time spent defleshing adult remains, involves considerable effort, makes both arguments for the reason behind urn burial, (a) that infants and children had high status due to high mortality rates and (b) burial internment styles during the Protohistoric were based on necessary hasty disposal of remains, seem flawed.

In addition to the shifts in burial practice that occurred during the Protohistoric period, subsistence practices changed in the wake of the decline of the complex chiefdoms. Stable isotope analysis from skeletal remains of burials from both the Mississippian and Protohistoric Moundville phases demonstrated that maize constituted ten percent less of the diets of Protohistoric populations than Mississippian populations, suggesting that Protohistoric populations had reverted to relatively greater dependence upon wild foods (Schoeninger and Schurr 1998:128). This reversion to dependence on wild foods is confirmed by botanical and faunal data from the Protohistoric Moody Slough (1Tu4) site, which displayed a wider variety of faunal remains and suggested a greater dependence on hickory nuts and acorns than has been established for the Mississippian phases (Peebles 1987:23). Environmental factors have been employed to explain this change in diet, with authors arguing that it was the direct result of declining corn production in the wake of the onset of the Little Ice Age in AD 1450 (Peebles 1986:31), or the result of the exhaustion of soils after years of cultivation (Schoeninger and Schurr 1998). Current evidence does not allow for the acceptance of one hypothesis over the other, however.

The coming of the Europeans was to have a drastic effect on populations, which occurred in several forms. European disease proved to be the most detrimental of these factors. Archaeological evidence such as the appearance of mass graves, a decline in the size and number

of settlements, and abandonment of settlements all suggest that in the wake of the introduction of European disease, such as smallpox, measles, and influenza, populations underwent both major losses in size and relocations (Smith 1987). Predictably, this dramatic decline in population also resulted in a fundamental realignment of settlement patterns from those present during the earlier Mississippian phases. By the beginning of the Protohistoric period in central Alabama, populations had for the most part shifted from living at dispersed farmsteads and hamlets centered around secondary mound centers within an organized polity to larger nucleated villages (Welch 1998:164).

Additional stress on native populations was to come from their own ranks, in the form of groups from the north who pushed into the Southeast in their efforts to capture slaves to supply the colonists of Virginia. The first of these groups to whom the British provided arms were the Westos, also known as the Chichimecos, a derivative of the Spanish term for an untamed group, who terrorized east Tennessee, interior Georgia, and the Carolinas, wreaking further havoc on groups that were already decimated by disease (Worth 1993). In numerous cases, these groups fled westward in the wake of the pressure both from this slave raiding, which was ravaging their already thinned numbers, and the pressure of European settlements that were encroaching into their territory. Toward the end of the Protohistoric in central Alabama, a number of groups displaced by the Westo took refuge around the junction of the Coosa and Tallapoosa, which is clearly evidenced by the name of the town of Taskigi, taken from a group originally located in eastern Tennessee (Smith 2000; Worth 2000). Smith (1987:133) suggests that almost certainly there were additional Native American groups in the interior that were carrying out similar destructive behavior on native populations. Both this practice and the spread of European diseases during the Protohistoric were to have drastic results, in more than a few extremes

completely wiping out ethnic groups. Clearly this time period in the Southeast witnessed dramatic changes in the Native American population from which they would never recover.

Prior Investigations of the Protohistoric Period

Large-scale excavations of Protohistoric urn burials in Alabama were first undertaken and reported by C. B. Moore (1988), who wrote about them in the account of his jaunt up the Alabama River on the steamship *Gopher*. Moore excavated a number of these features at the sites of Matthews Landing, later known as the Furman site (1Wx169), in Wilcox County and Durant Bend (1Ds1), in Dallas County. Based on the presence of trade goods at these sites, Moore was the first to establish that the “Burial Urn culture” must postdate the De Soto expedition of 1540. The sparseness of trade goods suggested that the culture predated the establishment of a successful French post and settlement in the area during the early eighteenth century.

The founding of the Alabama Anthropological Society (AAS) in 1909 led to the excavation of many more urn burials. The AAS, led during its heyday by Peter Brannon, recovered these features from a number of Protohistoric sites in the Alabama River Valley, including Durant Bend (1Ds1) in Dallas County, Pintlala Creek (1Lo85) in Lowndes County, and Taskigi (1Ee8), located in Elmore County at the junction of the Coosa and Tallapoosa Rivers (Waselkov 1994). Sites associated with the so-called “Burial Urn Culture” proved to be a treasure-trove of artifacts, most often allowing for the recovery of at least two complete vessels per burial for the skilled probe-handler. The excavations conducted by the AAS resulted in the recovery of hundreds of urn burials that were dispersed into the private collections of members. Additional urn burials from the Alabama River Valley were later recovered from the Liddell (1Wx1) and Goat Pasture (1Wx12) sites, located in Wilcox county, through more systematic

archaeological investigations led over a period of several decades by William Sears of the University of Florida and later by Caleb Curren with the University of Alabama.

A survey of the Black Warrior River, under the direction of Caleb Curren of the University of Alabama, led to the excavation of urn burials from a number of sites located on the river south of Moundville. Among the sites on the Black Warrior that yielded urn burials are the Baker (1Tu49), Big Prairie Creek (1Ha19), Lon Robertson (1Tu93/5), Moody Slough (1Tu4), Phillips (1Tu343), and Wiggins (1Tu43) sites. Several Protohistoric urn burials and isolated vessels were also uncovered at Moundville (Moore 1904:342-343; Steponaitis 1983:160). Evidence suggests that the occupation of Moundville during the Protohistoric period probably only occurred during the sixteenth century, with activity occurring only at the summits of three mounds and off-mound residences present only in one small area of the site (Knight and Steponaitis 1998:21).

Specific settlement pattern data for the Protohistoric phases of central Alabama is sketchy at best, due to a lack of extensive excavations, but it is known that all but one of the Protohistoric phase sites that have thus far been identified are located on a major river. Sites seem to be concentrated in two main areas of central Alabama: the Black Warrior River Valley north of Moundville and the Upper Alabama River Valley. The recovery of very small amounts of pottery of the types commonly associated with the Protohistoric from Moundville suggests that the site may have still been in use for mortuary ritual during this period, although the scale of this use had certainly diminished (Moore 1904:342-343; Steponaitis 1983:160; Knight and Steponaitis 1998:21).

Authors have speculated that some time during the Protohistoric period, the residents of the Black Warrior migrated out of their home river valley, moving toward the Alabama River

valley (Sheldon 1974:61-62; Knight 1982:38, 47-49). While this has not been proven, it is known that by the middle seventeenth century, the Black Warrior Valley was devoid of all settlement, and the river became known as Potagahatchie, or “the river at the boundary,” referring to its position between the Choctaws to the west and the proto-Creeks to the east (Knight 1982). The abandonment of the Black Warrior Valley would have created a vacant zone between the two groups, whose relations with one another could certainly not be described as peaceful. In other areas, similar vacant zones have been postulated to function as buffers, preventing sustained contact, and thus conflict, between different ethnic groups (DeBoer 1981:375-376).

In order to understand the Protohistoric phases, their predecessors in both the Black Warrior and Alabama River valleys must be understood. The Black Warrior Valley was dominated during the late prehistoric by the Moundville chiefdom. Examination of data from past excavations at Moundville and new excavations have recently resulted in a reevaluation of the history of the site. Until recently, Moundville was thought to have reached a maximum population of 3,000 during the Moundville III phase (ca. AD 1400-1550), and to have emptied out rapidly when the chiefdom collapsed (Sheldon 1974:5). However, reinterpretations of excavation data show a presence of extensive sheet middens only during the Moundville I phase (AD 1120-1260), when the site reached a maximum population of approximately 1000 people (Steponaitis 1998:42-43).

During the subsequent Moundville II (AD 1260-1400) and Moundville III phases, burial populations remained high, although a lack of midden deposits suggest that the site was primarily inhabited by members of the elite class, while the rest of the population had moved out into outlying hamlet sites in the Black Warrior Valley, using the Moundville site largely as a

place for burial (Knight and Steponaitis 1998:18). By the middle of the fifteenth century, activity and construction on the majority of the mounds at Moundville had ceased, whereas mound construction at outlying hamlets within the Black Warrior valley probably extended into the sixteenth century. By the fifteenth century, cemeteries were also established at these outlying sites, suggesting that Moundville's authority as a regional center had declined (Knight and Steponaitis 1998:23). By the mid-sixteenth century, Moundville was only occupied sparsely, which is evidenced by the fact that only two percent of artifacts recovered from Moundville excavations are attributable to the Protohistoric component (Steponaitis 1998:37).

The Late Prehistoric in the upper Alabama River Valley is far less clear. Sheldon (2001:20) reports that there is no defined cultural chronology for the area stretching from the junction of the Coosa and Tallapoosa rivers down the upper 25 miles of the Alabama River. What is known is that the Protohistoric sites of the Alabama River Valley lie near a major archaeological boundary, based on the radical break between diagnostic ceramic styles to the east and west of this boundary (Little 1999, Sheldon 2001). All of the Protohistoric sites in question fall to the west side of the line, which has been described as linked to the Moundville cultures. This is made clear by surveying artifacts recovered by Moore (1899) from mound sites located near present-day Montgomery, such as Charlotte Thompson, Thirty-Acre Field (1Mt7), and Big Eddy (1Mt5). These sites yielded copper, shell, celts, and ceramic artifacts, including Moundville Incised, *var. Moundville*, and Carthage Incised, *var. Carthage* vessels, which date to a Moundville II-III context (Sheldon 2001:21). Unfortunately, these sites have never been systematically excavated, and, as a consequence, this cultural manifestation and its relationship to the Moundville chiefdom are poorly understood.

Further down the Alabama River, in Dallas and Wilcox counties, Protohistoric sites appear to have links with both the Moundville and Pensacola cultures, the center of which is the Bottle Creek site in Alabama's Mobile-Tensaw delta. This is evidenced most strongly by Curren's (1984) excavations at the Furman site (1Wx169), a Late Mississippian/ Protohistoric site that yielded pottery types associated with both cultures. This is not surprising, since the tradition of urn burial also occurs in Pensacola Protohistoric manifestations, as a trait marking the Bear Point (Ginhouse Island) phase (Fuller 1985). Little and Curren (1990) call the Late Mississippian cultural manifestation that stretches from present day Selma through southern Wilcox County the Furman phase, differentiating it from the more southerly phases of the Pensacola variant based upon a reduction of the presence of D'Olive ceramic varieties that are prevalent in Pensacola ceramics (see Fuller and Stowe 1982 for a definition of the D'Olive type and associated varieties).

Across central Alabama, beginning in the mid-sixteenth century, the exact chronology of the Protohistoric becomes unclear. The first work attempting to understand the temporal position of sites from both the Black Warrior and Alabama River drainages was done by David DeJarnette (1952:283-284), who termed those sites with urn burials "Decline Mississippian," noting that the pottery of this period and of the earlier Mississippian culture were similar. Further research into the Protohistoric was conducted by John Cottier (1970) who, based on the limited amount of material available from the Black Warrior Valley at that time, subsumed the entire Burial Urn culture under one title—the Alabama River phase. Ceramics from this phase were divided into Wilcox and Alabama River series, each with four basic decorative motifs—plain, incised, appliqué, and pinched. The tempering agent, which was shell for the Alabama Series and sand for the Wilcox series, served as the criterion for distinguishing between the two

series. Red and white painting, similar to that from the Nodena phase of Arkansas, was also observed as a minor type, based on the presence of one painted vessel recovered from Taskigi (1Ee8).

Four years later, Sheldon (1974) added two more types to the Alabama River phase ceramic assemblage, Foster Filmed Incised and Taskigi Filmed Incised, after examining the ceramics from the Black Warrior River Valley sites. Curren (1982, 1984) later augmented the ceramic description by observing that Pensacola Incised and Barton Incised types also occurred within Alabama River Phase assemblages, and argued that vessels from Cottier's (1970) Wilcox series were not in fact sand-tempered, but were actually tempered with very fine crushed shell. Steponaitis (1983) further revised the existing typologies for the Alabama River phase, noting that Carthage Incised and Mississippi Plain remained in Protohistoric assemblages of the Alabama and Black Warrior River valleys as a holdover from the Moundville III phase.

Curren (1984) was the first author to suggest that the Protohistoric sites in the Black Warrior River Valley represented a distinct archaeological phase, the Moundville IV phase, rather than being part of the Alabama River phase. However, it was not until very recently that Little and Curren (1995) formally described the Moundville IV phase as the immediate post-Mississippian cultural manifestation, represented by sites within the Black Warrior River Valley. In addition to being defined geographically, this phase is also defined by its ceramics, which show continuity with Moundville III phase ceramics, along with new influences. According to Little and Curren, Moundville IV is characterized by the following types, taken largely from Steponaitis (1983): Carthage Incised *varieties Alford, Carthage, Fosters, Moody Slough, and Poole*, Barton Incised *varieties Demopolis and Cochrane*, and Alabama River Appliqué (see Curren 1982 and Steponaitis 1983 for descriptions of these types). The appliqué decorative

technique, in which strips of clay are applied around the rim of the vessel, appears to be derived from types found to the west that appear to originate in the Mississippi Valley rather than from ceramic types found at Moundville (Sheldon and Jenkins 1986:96-100). Appliqué designs occur in the Tombigbee drainage in West Central Alabama and at sites such as Lyon's Bluff and Yarborough as early as the late fifteenth century, but do not appear in the Black Warrior Valley this early (Solis and Walling 1982). Little and Curren (1995) argue that what truly distinguishes the ceramics of the Moundville IV phase is the lack of the Alabama River Incised types that are present on pottery recovered from Alabama River phase sites.

Distinguishing the Moundville IV and Alabama River phases through the presence or absence of Alabama River Incised seems to be a tenuous distinction at best. This is especially true since the current inventory of ceramic types for the Burial Urn Culture does not fully cover the entire range of variation within the collection of bowl forms. The Alabama River Incised type is defined by Curren (1984:222) as a "shell tempered and burnished ware" with incised line widths of .5-1.5 mm occurring on both flaring rim bowls and globular jars from the Alabama River Valley. Carthage Incised is simply a shell tempered and burnished ware with incised line widths of 1.5 to 2.0 mm wide (Steponaitis 1983:307). Neither these two types, nor the Pensacola Incised type, account for the occurrence of motifs associated with Carthage Incised, such as guilloches and semicircles, on non-burnished sand-tempered vessels in the Alabama River Valley, although this phenomenon occurs on at least five vessels recovered from sites within that drainage.

Willey and Phillips (1958:22) define a phase as, "an archaeological unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultures or civilizations, spatially limited to the order of magnitude of a locality or

region and chronologically limited to a relatively brief interval of time.” What is currently known about the ceramics from Protohistoric sites in the Black Warrior and Alabama River valleys does not fit this criterion because the majority of ceramic types used to define the two are held in common between both supposed phases. Further research is necessary to determine whether the division of the Burial Urn Culture into two phases based upon different ceramic characteristics is indeed valid.

The Historic Evidence

The limited ethnohistoric record for the Protohistoric begins with the aforementioned entrance of Hernando De Soto. The fact that De Soto came through Alabama in the fall of 1540 is the only fact about his route through Alabama upon which researchers can agree. The majority of the evidence compiled about the route of De Soto’s expedition come from three accounts, one the eyewitness account of Luis Hernandez de Biedma and the other two secondary histories taken from the testimonies of Roderigo Ranjel and the Gentleman of Elvas (Clayton et al. 1993). Unfortunately, these accounts do not contain the information necessary to solve the key debates surrounding De Soto in Alabama, which include the location of the towns that he visited as relative to the Moundville site, most especially the town of Mabila where Chief Tascalusa launched an attack against the expedition, and the cohesiveness of the Moundville chiefdom at the time of the expedition’s visit.

Hudson (1994:87-89), in his reconstruction of the route of the expedition, places the site of Mabila somewhere in the vicinity of the junction of the Cahaba and Alabama Rivers (Figure 2). Hudson (1994) also argues that it was near the Snow’s Bend site (1Tu2/3), one of the outlying mound sites within the Moundville chiefdom, that De Soto encountered the chief of Apafalaya, whom he captured and took along on his march westward toward the Tombigbee.

Apafalaya appears to Hudson et al. (1990) to be yet another loosely unified small polity, as were encountered so frequently along the expedition route. Certainly, Hudson et al. (1990) argue, this cannot represent the Moundville chiefdom at its height; however, it suggests that some sort of confederation of towns was still functioning within the Black Warrior River Valley at the time of De Soto (Knight and Steponaitis 1998:23).

Peebles (1986:3), on the other hand, makes a case for the Moundville chiefdom being completely dissolved by 1540 as a result of internal factors, specifically political and economic stress. According to Peebles's (1987) argument, this collapse occurred not during the Protohistoric, but during the Moundville III phase, some 100 years before the arrival of De Soto.

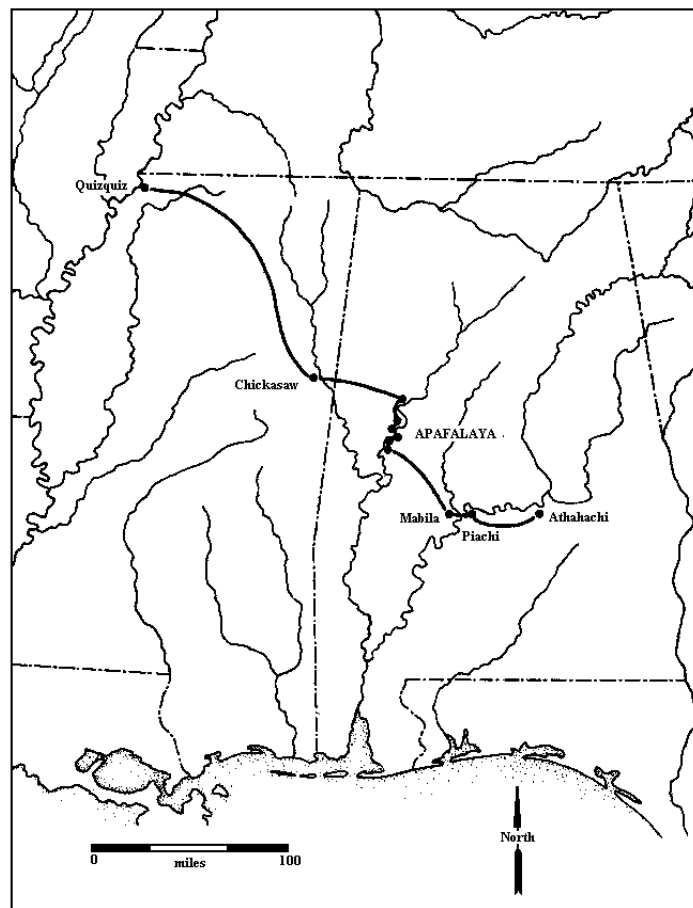


Figure 2. DeSoto expedition route through central Alabama, as proposed by Hudson et al. (1990:182)

During this phase, Peebles (1986, 1987) suggests that there was a significant migration of people out of the Black Warrior River Valley. By the time De Soto arrived, the fundamental realignment of populations into equally spaced villages competing for both agricultural and hunting space that is characteristic of the Moundville IV phase had already occurred (Peebles 1987:9). Although this fundamental settlement pattern realignment would have already taken place, Peebles (1986:33) still argues that De Soto encountered Moundville III, rather than Moundville IV, populations.

Peebles (1986, 1987) argues that the early demise of the chiefdom is also evidenced by the fact that De Soto clearly did not visit the site of Moundville because its sheer size would have warranted some mention in the narratives of his travels. Sheldon (1974:32) also points out that the lack of reference to Moundville anywhere in the De Soto narratives suggests that the chiefdom was well into decline, especially since Native American populations who were eager to get rid of their surly uninvited guests often told the Spaniards of great wealth elsewhere. The lack of any mention of Moundville whatsoever, even by groups in the area directly surrounding the Black Warrior River Valley, suggests that the site had so declined in influence that it was no longer well known.

A third view is advanced by Little and Curren (1995:69), who date the beginning of the Moundville IV phase to AD 1570 based upon their argument that Moundville IV and the dissolution of the complex chiefdom occurred as a result of contact with the De Soto expedition. They argue that this is evidenced by a series of radiocarbon and thermoluminescence dates from both the Moundville III-phase White (1Ha7/8) site and the Moundville IV phase Moody Slough (1Tu4), Big Prarie Creek (1Ha19), and Baker (1Tu49) sites that indicate a De Soto-era date for White and later dates for the three Protohistoric sites. In addition, Little and Curren (1995:65)

note that the glass bead assemblages from two Alabama River phase sites, Liddell (1Wx1) and Goat Pasture (1Wx12) date between 1590 and 1650, which also suggests a later transition to the Alabama River and Moundville IV phases. However, the discovery of a Nueva Cadiz Twisted bead, a type that dates between 1513 and 1560 (Smith 1987:34), from the surface of the Moody Slough site in the early 1990s calls this argument into question (Little and Curren 1995). A recent evaluation of radiocarbon determinations from Moundville phase sites by Knight et al. (1999) also shows a transition between Moundville III and IV that occurs in the earliest part of the sixteenth century, distinctly earlier than the De Soto expedition. This leads Knight et al. (1999:7) to suggest that De Soto encountered Moundville IV phase villages.

Little and Curren (1990) also suggest a different route for the De Soto expedition, arguing counter to Hudson et al. (1990) that the location of Apafalaya (or “Pafallaya”) was somewhere near present-day Demopolis, on the lower Black Warrior River. They argue that this province, as well as a large portion of central Alabama, was subject to Chief Tascalusa, who was a Mobilian chief. Based on artifacts recovered by collectors from a Mississippian site in northern Baldwin County, Little and Curren (1990:183) hypothesize that Mabila, the palisaded town that was the site of a Native American attack on the De Soto expedition, is located far south, near the junction of the Tombigbee and the Alabama River. Galloway (1995:158) counters this by arguing that the artifacts attributed to the De Soto era are instead from the Luna expedition, which spent considerable time camped in the Mobile-Tensaw delta. Results from a survey undertaken by Paul Patterson (1990) of the lower Cahaba junction call into question Hudson’s assessment of the Lower Cahaba as the location of Mabila. Patterson’s (1990) survey showed no evidence of small site clusters around a large village, as would be expected for Mabila, nor did it yield any evidence of sixteenth-century trade goods, both of which suggests

that Hudson's estimation of the location of Mabila may be incorrect. At the present, the location of Mabila remains buried by time; however, whether it is placed in a more northern or southern location, it is clear that some of the towns under Chief Tascalusa were located in the Alabama River Valley.

The ethnic tie between the Protohistoric populations and known historic Native American groups remains to be determined. Based on the documentary evidence cited above, it seems reasonable to guess that in the sixteenth century, the people of the Black Warrior River

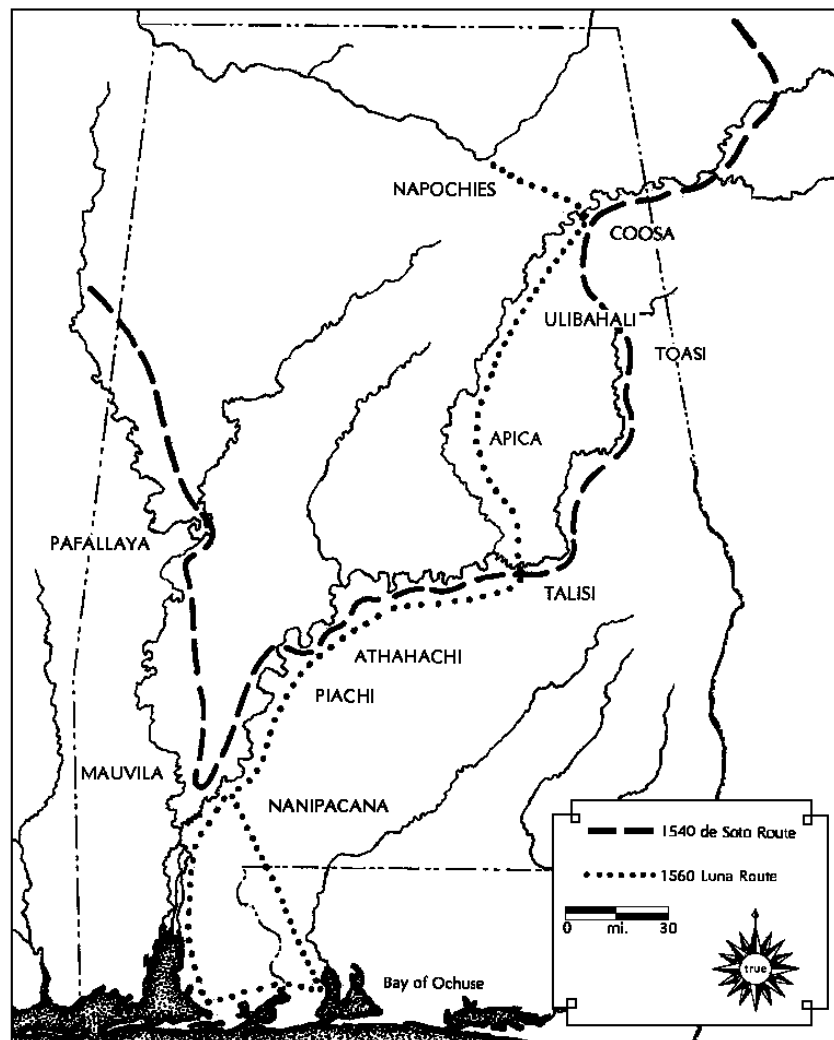


Figure 3. Route of DeSoto and Luna through Alabama, as proposed by Little and Curren (1990:175)

Valley were associated with the loose organization of towns known as Apfalache, while populations in the Alabama River Valley were part of a more organized group of towns that were led by a member of the Mobilian tribes. Further ethnic evidence is available from the 1560 expedition of Tristan de Luna, which was chartered in order to find a port in Florida for Spanish

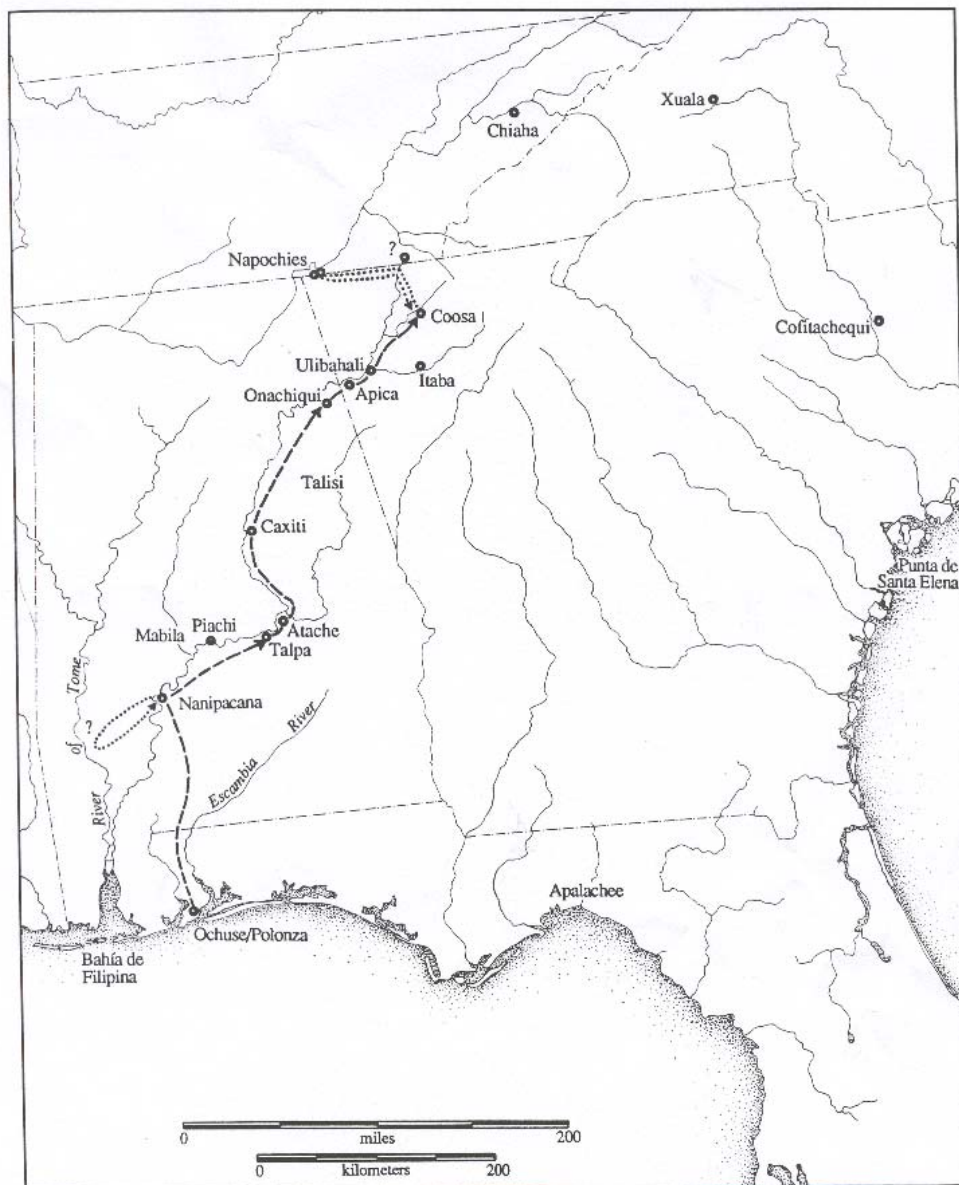


Figure 4. Route of the 1560 Luna Expedition, as proposed by Hudson et al. (1990:35).

ships and areas in the interior suitable for settlement. Luna and his expedition made landfall at Mobile Bay and progressed eastward to Pensacola Bay, eventually making their way into the Alabama River Valley (Hudson et al. 1989; Galloway 1995) (Figure 4). After losing a number of their ships to a hurricane, the expedition traveled into the interior in search of provisions, camping for some time at a village known as Nanipacana, which is most likely the Furman site (1Wx169) (Hudson et al. 1989:36). From there, a small detachment was sent up the Alabama River in search of further provisions and the province of Coosa. After journeying up the river for some 40 days of hard travel, the small detachment arrived in the province of Tascalusa. Two bits of information that are pertinent to this study are contained in the chronicles of the Luna expedition. The first is that the Spaniards did not appear to encounter any villages that were decimated by disease, and instead remarked on the healthiness of the natives (Galloway 1995:157). This fact may call into question the argument that Protohistoric phases emerged in response to depopulation as a consequence of the De Soto expedition.

The second point of interest in the chronicles of the Luna expedition, which is pertinent to the ethnic identification of the Protohistoric populations of central Alabama, is that at some point between Nanipacana and the province of Coosa, the group crossed a linguistic boundary line (Galloway 1995:153), such that the two Native American languages of Nanipacana and Coosa, while sharing words, were not mutually intelligible. It is possible that this linguistic break coincides with the aforementioned major east-west break seen in the archaeological record. The presence of this boundary may then suggest that at the time of the Luna expedition, the basic ethnic boundaries between the groups that would become Creek and Choctaw confederacies were already in place, and may have been for some time.

The Alibamo, Choctaw, Koasati, Mobilians, and Napochies have all been suggested as the historic groups that have ties to the Burial Urn Culture (Sheldon 1974:55-64). The suggested ties of three of these historic groups, the Napochies, the Creeks, and the Koasati, to the Burial Urn Culture have all but been eliminated based on documentary evidence related to the historically-documented locations of these groups. The Napochies are only mentioned once historically, in the chronicles of the Tristan de Luna expedition of 1560. During the expedition's stay at Coosa, in present-day northwest Georgia, the principal men of the chiefdom launched a raid against the Napochies, a group which had recently broken relations with Coosa (Hudson et al. 1990:41). Swanton (1998:240) argues that the Napochies appear to have been a Choctaw-speaking group living on the Black Warrior or Tombigbee River. Hudson (1990:42 deduces), in what appears to be the more accurate argument, that the expedition instead crossed the Tennessee River and encountered the Napochies there, making any ties between the Napochies and the people of the Burial Urn Culture nearly impossible.

Ties between the remnants of the Protohistoric people of Central Alabama and the Koasati have also been suggested (McKenzie 1966:53; Sheldon 1974: 57). The Koasati, while recorded by the Marcos Delgado expedition of 1686 in the region of the Coosa/Tallapoosa junction, appear to actually be migrants from Eastern Tennessee. Their homeland has been identified with the town of Coste that was recorded at the junction of the Little Tennessee and Tennessee Rivers by the De Soto expedition (Smith 2000:80). Sheldon (1974:62) notes, based on ceramic traditions such as notched rims, incising motifs similar to guilloches, and the carinated bowl vessel form, that the Lower Creeks may have some ties to the Burial Urn Culture. However, this appears to be more the result of trait diffusion than direct descent.

Archaeologically, some similarities are present between the Burial Urn Culture of central Alabama and the historic Choctaw. If the domain of Tascalusa fell on the opposite side of this divide from Coosa, then it may be possible that the Protohistoric populations of the Alabama River valley were one of the western-Muskogean speaking groups that later united to become the Choctaw confederacy. Brannon (1938:233-234) notes the similarity of bundle burials, the most common burial type at Protohistoric sites, to Choctaw burials. The Choctaw mortuary practice consisted of laying the dead in charnel houses until they were sufficiently decomposed, at which time a ceremonial “bone picker” extracted the largest of the bones and buried them, typically in a cane bundle (Galloway 1995). Ceramically, the connections between the Protohistoric people of central Alabama and the Choctaw are tenuous. In his survey of Choctaw ceramics and their possible antecedents, Carleton (1994:88-89) notes the presence of incised motifs associated with the Burial Urn Culture of central Alabama in eighteenth-century Eastern Division Choctaw ceramic assemblages. However, he argues that these motifs are also characteristic of all of the Protohistoric and historic manifestations stretching from central Alabama to the Mississippi River. Based on the presence of similar rectilinear and curvilinear incised motifs and the coarse shell-tempered paste for plain wares, Carleton (1994:93) instead sees the Doctor Lake ceramics of the lower Tombigbee and Alabama Forks region as having the strongest connection with Eastern Division Choctaw ceramics.

Cottier (1970:8) argues that based upon accounts of the early eighteenth century, the Protohistoric people of the Alabama River Valley may actually be connected to the Mobilian tribes as well as the Alibamo. Cottier’s case for the identification of Alabama River phase groups with the Mobilians is supported by the accounts of the De Soto expedition, and their placing of the Alibamo. In accounts of the expedition, Ranjel and Elvas mention camping at a

town called Alimamu/Limamu, while Biedma recounts a province called Alibamo, which was encountered after the crossing of the Tombigbee River (Clayton et al. 1993). Hudson (1994) places the location of Alibamo in western Mississippi, possibly at the Lyon's Bluff site (22Ok506) in present-day Oktibbeha county. The identification of these populations with the Alibamo of De Soto appears to be incorrect, however, because, based on the most recent radiometric determinations, De Soto almost assuredly visited Burial Urn Culture populations in the Black Warrior River Valley (Knight et al. 1999). Cottier's (1970) argument favoring cultural association with the Mobile tribes is also supported by the fact that Chief Tascalusa clearly had some kind of domain in the Alabama River and was reported to be a Mobilian chief in the narratives of the De Soto expedition (Clayton et al. 1993).

Furthering the case for closer ties between the people of the Burial Urn Culture and the Mobilians is the report of the later 1686 travels of Marcos Delgado, who was dispatched by the governor of the Apalachee mission province to take an overland route through the interior under the pretense of delivering a letter to Mexico, but in actuality to check on the progress of the French into the interior (Boyd 1937). Delgado reached as far as the Coosa/Tallapoosa region of east Alabama, and among the towns that he noted, reported on a town called Aymamu, whose residents had been driven from the west by the Choctaws. If these were the Alibamo, as Galloway (1995:180) suggests, then they cannot be identified with the Choctaws, as Carleton (1994) has noted.

Peter Brannon (1938:234) of the Alabama Anthropological Society was the first to suggest that the people of the Burial Urn Culture were tied to the historically recognized Alibamo. Overwhelmingly, authors have agreed with Brannon and identified the indigenous Protohistoric developments of central Alabama with the Alibamo. Swanton (1998:191-192)

describes the Alabama, who aligned themselves with the Upper Creek nation, as being different from the Upper Creek and more linguistically and culturally similar to the Choctaw.

The Alibamo are first mentioned, in the form of a village called Alimamu/Limamu located on the western side of the Tombigbee River, in the narratives of the De Soto expedition (Clayton et al. 1993). Almost a century and a half later, the 1686 expedition of Marcos Delgado recorded the presence of a group called the Aymamu, who had been driven from the west, around the Coosa-Tallapoosa junction (Boyd 1937). The emergence tale for the Alibamo places their origin in the west, somewhere between the Alabama and Cahaba River valleys. Galloway (1995:330), however, questions this association, since myths were not collected from the Alibamo until 1847, well after their removal to the west, making any sort of historical accuracy ascribed to these myths questionable. Thus, Swanton's (1998) association of the Alibamo with the Choctaw based on their creation myth is misleading. Any relationship between the Alibamo and the Choctaw is in the distant past, and far removed from the question of ethnic affiliation of the Burial Urn Culture. Linguistic evidence for the Alibamo further provides evidence that they are not tied to the Choctaw. The Alibamo language certainly belongs to the Muskogean family, and remains conservative between the two extreme dialects, the western Muskogean Choctaw and the eastern Muskogean Creek (Nicklas 1994:9). Linguistically, the Alabama language is closest to Koasati and Apalachee, which is rather odd, given the location of each of the groups in Mississippi/Alabama, eastern Tennessee, and the Florida panhandle by the early historic period (Hopkins 1999).

As is clear from the review of the relevant literature, a number of issues related to the development and eventual termination of the Protohistoric phases of central Alabama remain unresolved. Key among these issues is the relationship between the Moundville IV and Alabama

River phases as currently defined, and the relationship of people of both of these two phases to each other and to the native groups encountered by the Europeans who settled in the area. It is hoped that a survey of the complete vessels used as burial urns by the people of both phases can provide clues as to the nature of these relationships.

Chapter 3 Study Design and Methods

Analysis of Protohistoric period ceramic assemblages is facilitated by the practice of urn burial, which has made possible the recovery of complete vessels previously used in a domestic context. This practice also made the sites an easy target for early collectors, who, with the aid of a probe and a little digging, could easily be rewarded with two or more vessels per burial, skeletal remains, and possibly even European trade goods dating from the early contact period. In some cases, such as the site of Pintlala Creek (1Lo85), it was fortunate that the Alabama Anthropological Society (AAS) excavated urn burials in the early part of the twentieth century, since the site was subsequently destroyed during the construction of a gravel quarry (Craig Sheldon, personal communication 2000). A number of Protohistoric vessels have been lost to the collections of private individuals; however, some of the original collectors, namely Peter Brannon, J.Y. Brame, and J. M. White, donated their personal collections of burial urns to various repositories in order to aid in archaeological studies. Unfortunately, beyond the site from which they were recovered, no evidence as to the provenience of these vessels within these sites remains. In addition to those urns excavated in the Alabama River Valley by the AAS, the vessels recovered from C. B. Moore's expedition up the Alabama River and excavations undertaken in 1959 by William Sears and by the University of Alabama in the mid 1960s and late 1970s/early 1980s remain available for study.

The collection of complete vessels recovered from Protohistoric burials from Moundville IV and Alabama River phase sites are housed at both the curation facilities of the University of Alabama Office of Archaeological Services (OAS) in Moundville and at the Alabama Department of Archives and History (ADAH) in Montgomery. The vessels curated in

Montgomery consist of those vessels recovered by the AAS in the early part of the twentieth century from two sites, Taskigi (1Ee8) and Pintlala Creek (1Lo85). The vessels housed at Moundville include the J.M. White collection and vessels excavated from the surveys led by Sears and Curren. The vessels at Moundville represent the following sites: Moody Slough (1Tu4), Wiggins (1Tu43), Baker (1Tu49), Lon Robertson (1Tu93/5), Phillips (1Tu277) Big Prairie Creek (1Ha19), Taskigi (1Ee8), Liddell (1Wx1), and Goat Pasture (1Wx12) (for descriptions of these sites see Sheldon 1974 and Curren 1984). Six additional vessels from the site of Durant Bend (1Ds1), which are curated in the Smithsonian Institution, were added to the sample after their measurements were determined and profiles drawn based on photographs included in C.B. Moore's publication *Certain Aboriginal Remains of the Alabama River* (1899). Moore included scales with the photographs that were published, and actual measurements were determined by multiplying the measurement from the photograph by the reciprocal of the scale. The addition of these vessels brought the total number of vessels examined for the purpose of this study up to 124.

The data collected from the vessels consisted of both metric and stylistic variables. In order to employ a simple set of landmarks that could be applied to each of the vessel forms used in the study, Krause's (1995:311) "ceramic landmark primitives" were employed (Figure 5). Krause defines the lip of the vessel, which is typically referred to as the rim, as the junction of the exterior and interior of the vessel. The vessel shoulder is defined as the maximum circumference of the body of the vessel, while the vessel bottom is defined as the minimum circumference of the body. The surface from the shoulder to the bottom of the vessel is the lower body, and the surface from shoulder of the vessel to the lip is the upper body. The mouth

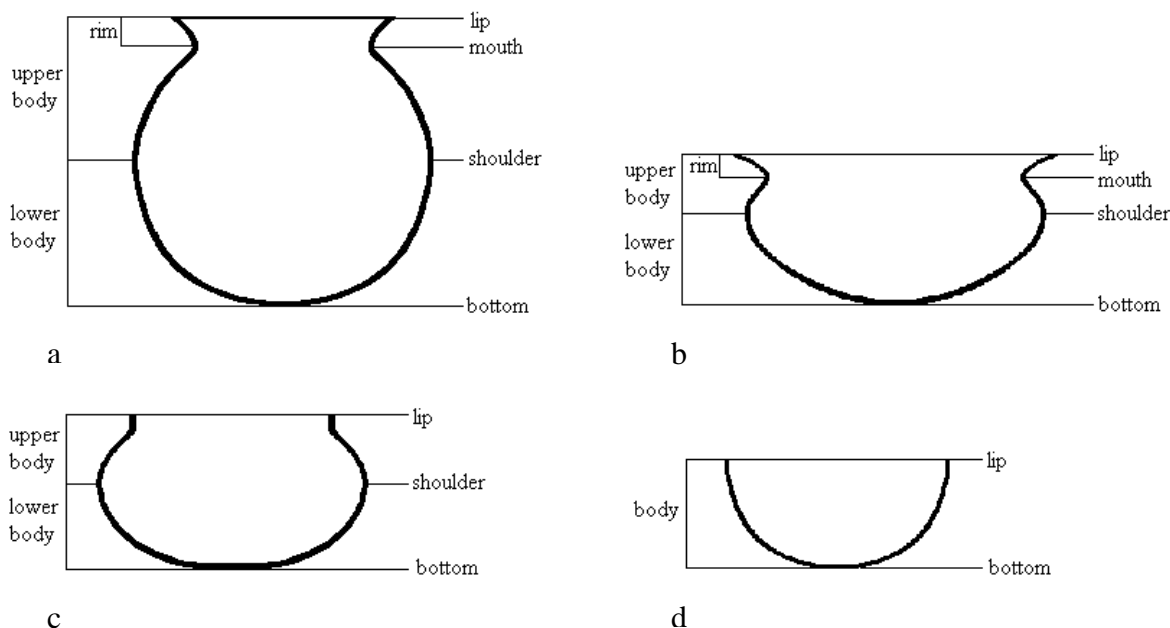


Figure 5. Ceramic landmarks used by Krause (1995) as applied to the four basic vessel forms from the Protohistoric assemblage: (a) globular jar, (b) flaring rim bowl, (c) carinated bowl, and (d) simple bowl.

is defined as the minimum circumference of the upper body of the vessel, and the rim is defined as the distance between the mouth and the lip.

Four basic forms are present in the Protohistoric burial urn assemblages (see Figure 4). These consist of the globular jar, flaring rim bowl, carinated bowl, and simple bowl. For the purpose of metric analysis, each of the four basic vessel forms were treated separately. Three of these four forms, the globular jar, flaring rim bowl, and simple bowl, are part of the vessel assemblage from the Mississippian Moundville phases, as described by Steponaitis (1983). The fourth form, the carinated bowl, shows some similarity with the short-necked bowl from Moundville assemblage; however, the variation present within this form is sufficient to warrant designation in a separate class. Steponaitis (1983:69) describes the subclass of jars as having a globular body as well as a wide constricted mouth. The rim height is less one third of the total

vessel height, and the diameter of the vessel mouth is no less than three fourths of the shoulder diameter. Globular (standard) jars have a rim that slants outward and may have upwards of twenty handles, though two or six handles are far more common (Steponaitis 1983:70).

Steponaitis (1983:68) describes bowls as vessels whose maximum diameter is less than half their height. Flaring rim bowls have a hemispherical lower body, a sharply outflaring rim, and fall into two categories, shallow and deep. The shallow form has a poorly defined shoulder, while the deeper form has a more definite shoulder. Simple bowls are described as having a roughly hemispherical shape with no ceramic vessel landmarks between the lip and the bottom of the vessel. Carinated bowls present somewhat of a problem, in that, while some of the vessels within this form fit Steponaitis's (1983:68) definition of the short-necked bowl, with a subglobular body, restricted mouth and short, vertical rim, not all of the carinated bowls examined possessed any rim at all, instead having a mouth and lip that are coterminous. Therefore, for the purpose of this study, the carinated bowl is simply defined as having a subglobular body and a restricted mouth, which collapses Steponaitis's (1983) categories of restricted and short-necked bowls into one category.

For the most part, analysis of vessel form in archaeology has been tied to determining the function of that vessel, and this is no less true for material from the Southeastern United States (see Hally 1986 and Taft 1996 for examples of this as applied to Protohistoric and Moundville assemblages). The usefulness of an analysis of form in order to determine differences between ceramic assemblages of separate regions was first suggested by Shepard (1956). A case for the application of analysis of form was also advanced by Ericson and Stickel (1973:364), who argue for the classification of pottery based not on decoration but on form, which can then be used to determine chronological or spatial trends. Whether based on their advice or not, several

archaeologists have used studies of form in analyzing whole vessel assemblages. Hodder (1979) employs vessel shoulder and mouth widths in order to determine different points of origin for Baringo pottery in western Kenya. Richards (1987:96) uses vessel shapes to determine the morphological variation present in Anglo-Saxon burial urns from Great Britain, arguing that differences in vessel heights in different geographic areas reflect emerging differences in ethnic groups.

The methods employed in the present study draw upon those outlined by Shennan (1988) and Shennan and Wilcock (1975). Shennan and Wilcock (1975) employ analysis of vessel form in order to establish that undecorated Bell Beakers from Central Europe show greater variation of form than is true for decorated vessels. In addition, Shennan and Wilcock (1975:27) are able to conclude that certain decorative zoning (i.e., decoration in two bands) is restricted to specific forms of vessels. Following the same methods, principal component analysis was performed on a series of measurements taken from the profiles of each of the complete vessels from the Moundville IV and Alabama River phase assemblages.

In the application of this method, the drawing of a vessel profile initially created a problem, since there was no way to lay the vessel flat and simply trace the curve of its form. Shennan (1975) suggests the use of a digitizing tablet and appropriate computer program in order to accurately represent a vessel profile. Due to the locations of the vessel collections, however, this method was not feasible for this study. Instead, profiles were drawn using a series of measurements taken at fixed heights along the exterior of the vessel. In order to do this, the vessel was first turned over so that it rested on its lip. If the vessel was measured resting on its curved bottom, there would be no way to ensure that its position remained stationary while measurements were being taken. The inverted vessel was placed on a pair of boards joined at a

right angle so that the shoulder was against the vertical board at one point and aligned with a line on the surface of the horizontal board 90 degrees around the vessel. Both boards were marked with graph paper in order to facilitate measurement. A 90-degree ruler with levels on each side was placed against to the vertical board at each centimeter traveling up the side of the vessel and at major landmarks, such as the vessel's shoulder, and moved horizontally from the line on the board until it touched the vessel. The distance from the line on the horizontal board to the vessel was taken at each centimeter traveling up the side of the vessel and plotted on graph paper from zero. Once measurements were completed for one half of the vessel, the vessel was turned 180 degrees and the process was completed and drawn on graph paper based on a zero point at the diameter of the vessel's shoulder. The vessel profile was then drawn by connecting the points plotted on the graph paper. In some cases, smoothing of the profile was necessary; however, no major alterations to the measured vessel profile were made.

Once the vessel profile was complete, a bisecting line was drawn vertically through each profile at a point that equaled the radius of the shoulder of the vessel (Figure 6). Perpendicular lines were next drawn and measured from the centerline to the edge of the vessel at ten equidistant intervals from lip to bottom. Two additional measurements were taken for the flaring rim bowls and the globular jars. These measurements were taken from the mouth to the bottom of the vessel and from the shoulder to the bottom of the vessel. For the weak-shouldered simple bowls, only the depths from the shoulder to the base were taken because the vessel form does not possess a true mouth. All measurements used in the analysis were standardized by division by the height of the vessel so that each measurement used in the analysis is truly a ratio with respect to the vessel height. This prevents the size of the vessel from directly impacting the analysis, and allows form to be the true focus of the study.

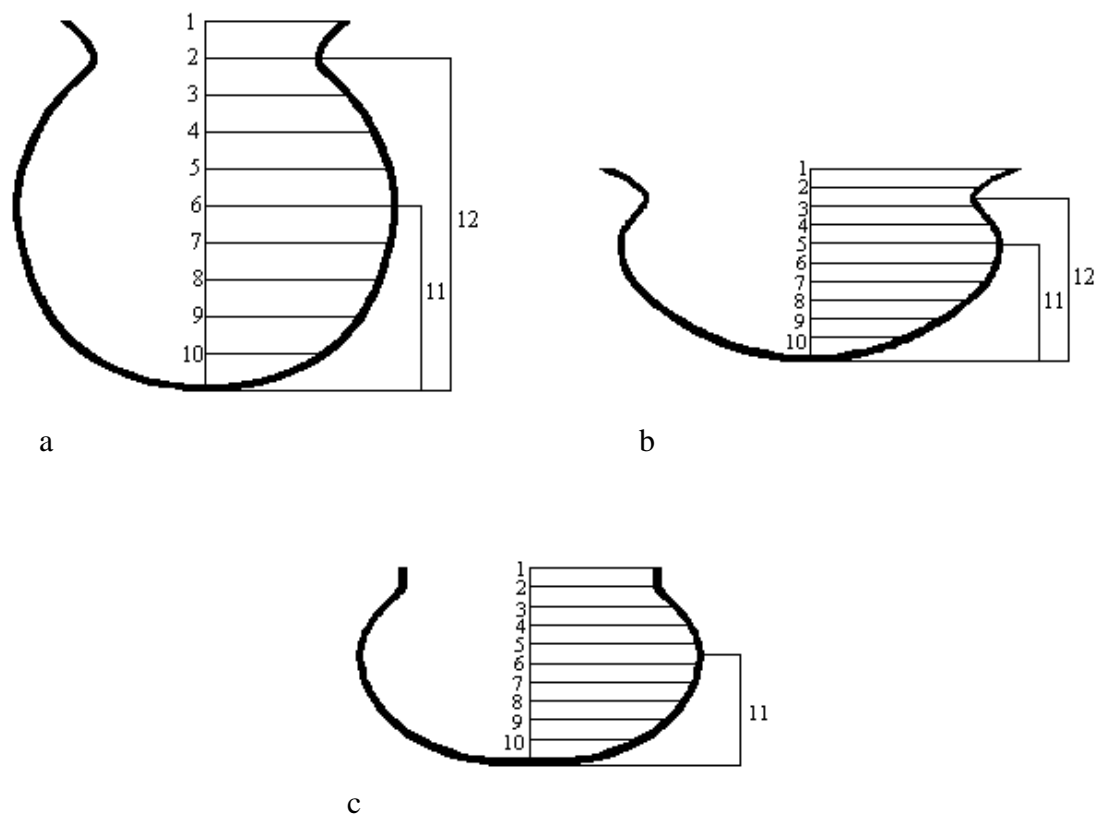


Figure 6. Protohistoric vessel forms showing measurements used in principle components analysis: (a) globular jar, (b) flaring rim bowl, and (c) carinated bowl.

Once these measurements were obtained, principal components analysis was performed using SPSS 10.0 on the data for three of the vessel forms. The sample for the simple bowl vessel form contained too few cases ($n=7$) to support data analysis. Therefore, the characteristics of these vessels will only be discussed in a qualitative manner. The goal of the principal components analysis was to extract the components that are responsible for the majority of variance occurring in the sample and eliminate extraneous variables. In order to determine which components accounted for the majority of the variance, eigenvalues, which rank each component based on the percentage of the variance within the sample for which it accounts, were

computed. Only those components with eigenvalue scores greater than one were considered to account for substantial variance within the sample, thus reducing the number of critical variables.

After the principal components were extracted, factor-loading scores that correlate each variable with the principal components were generated. In order to clarify these scores, they were subjected to one vector rotation using the varimax method, which made trends within the data much clearer. Those variables that had a particularly high loading on certain components, which typically is represented by a component score greater than .500, could then be established as the points on the vessels that accounted for the majority of the variance within the sample.

Once the variables that comprised each of the components was determined, each vessel was assigned a factor score on each of the components. Those vessels with high negative and high positive component scores were then isolated and identified as to their location in order to understand if those vessels scoring at extremes were related to their presence within one or the other river drainage. Using this method, it was hoped that differences, or lack thereof, in form between the two river drainages would clearly emerge.

Initially, analysis of decorative styles was to be performed solely on the vessels that were included in the sample. It quickly became apparent that in order to understand the entirety of the stylistic assemblage, sherd collections also would have to be utilized, because the limited sample of burial urns did not represent all of the decorative motifs occurring at Protohistoric sites. All of the sites, with the exception of Lon Robertson (1Tu93/5), Wiggins (1Tu43), Phillips (1Tu277), and Pintlala Creek (1Lo85), possessed substantial sherd collections from prior excavations. Previous analysis of these sherd collections has been published in existing literature (Bozeman 1963; Cottier 1968, 1970; Sheldon 1974; Nance 1976; Little and Curren 1981; Curren 1984).

To keep the sherd analysis from becoming too complicated, each site was analyzed simply based upon the presence or absence of fifteen different stylistic modes identified from prior analysis by Little and Curren (1981) that are associated with the Protohistoric period (Figure 7). Six of the motifs examined were commonly associated with globular jars, and nine were associated with the bowl forms. One of the incising motifs, the swastika scroll, was found to occur on both jars and bowls. The motifs associated with globular jars were executed by means of appliqué and incising. Appliqué motifs, occurring on the rims of jars, consisted of vertical lines, diagonal zigzag lines with nodes, crossed strips forming diamonds, and a continuous sinuous strip. The incising motifs consist of vertical lines and crossed lines, both occurring on the rim of the vessel, and swastika scroll motifs, which were incised onto the shoulder area of globular jars. The motifs examined for bowls were executed through painting and incising. The presence of painting was counted as a variable, because the majority of the sherds that contained evidence of painting were too small to determine any motif. The incising motifs include the swastika scroll, continuous guilloches, separate guilloches, separate guilloches with punctuation, nested semicircles, semicircles with staircases, and incised notching around the lip. The presence of incising motifs associated with the Pensacola culture, such as the crescent

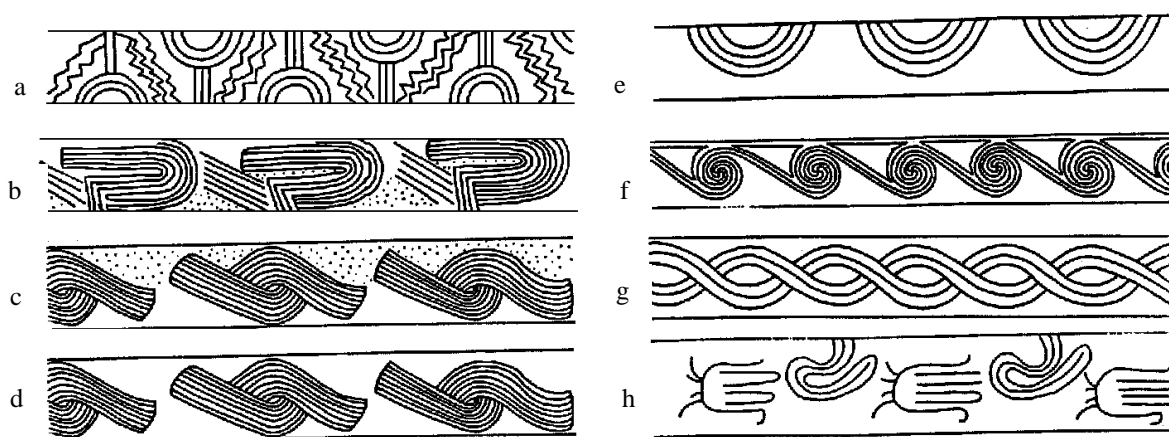


Figure 7. Selected incising motifs occurring on Protohistoric vessels, taken from Fundaburk and Foreman (1957): (a) semicircles and stairs, (b) Pensacola stylized skull motif, (c) separated guilloches with punctations, (d) separated guilloches, (e) semicircles, (f) swastika scroll, (g) continuous interweave (h) hand and skull/longbone

and triangle and stylized skull, was also noted.

Once the motifs present at each site were determined through an inventory of published reports and descriptions, a matrix of similarity between each of the sites and every other site was constructed. The similarity measure computed between each of the sites is the Coefficient of Dice, a dichotomous measure. In order to calculate a Coefficient of Dice, a 2-x-2 contingency table is used, as every site is compared with every other in order to determine which motifs are shared. Once the motif matches are tallied for each pair of sites, the Coefficient of Dice is calculated using the following equation: $(2a)/(2a+b+c)$, where a was the number of motifs at both sites, b was the number of motifs at the first site and not the other, and c was the number of motifs present at the second site and not the other. Because the amount of correspondence between sites was important in this case, an equation was chosen that weights the positive matches doubly and does not take into account negative matches. Once the matrix of similarity was constructed, its rows and columns were rearranged so that the sites would be ordered based upon similarities. Trends in grouping of sites stylistically then emerged, and it was possible to reorder the chart showing motifs present at each site in a way that clearly showed where the distinctions between groups of sites occurred.

Chapter 4 Results

Globular Jars

Profiles were drawn and measurements were taken for a total of 67 globular jars. Principal component analysis extracted two factors with eigenvalues greater than one (see Table 1). The first factor, with an eigenvalue of 7.62, was shown to account for 63.5 percent of the variance within the sample. The second factor, with an eigenvalue of 1.97, was shown to account for a far lower amount of the variance within the sample, at only 16.4 percent. When the component matrix was subjected to one varimax rotation, the variables contributing to both of the components became clear (Table 2). Against Component 1, variables 1 to 8 were correlated very strongly, with values between .80 and .96.

Once the components were extracted, the factor scores computed for each vessel against Component 1 were examined. Special attention was paid to vessels with low negative (less than

Table 1. Eigenvalues Extracted by Principal Component
Analysis of Globular Jars

Component	Eigenvalue	% of Variance	Cumulative %
1	7.62	63.5	63.5
2	1.97	16.4	79.9
3	.79	6.5	86.4
4	.60	2.0	91.5
5	.36	2.9	94.4
6	.24	1.9	96.4
7	.20	1.6	98.1
8	.09	.7	98.8
9	.07	.5	99.4
10	.05	.4	99.8
11	.02	.1	99.9
12	.01	.0	100.0

Table 2. Loadings of Variables Against Components Extracted for Globular Jars

Variable	Component	
	1	2
1	.81	.32
2	.90	.15
3	.95	-.17
4	.96	-.02
5	.94	.20
6	.89	.37
7	.82	.47
8	.80	.41
9	.10	.74
10	.49	.57
11	.41	-.83
12	-.11	-.77

Note: Loadings have been subjected to one varimax rotation

Table 3. Globular Jars With Highest and Lowest Component Scores Against Component 1

Vessel ID #	Component Score	Site
1.209	-2.61	Taskigi
1.202	-2.02	Taskigi
2.701	-2.00	Wiggins
1.241	-1.85	Taskigi
2.901	-1.59	Phillips
2.202	-1.49	Lon Robertson
2.506	-1.39	Taskigi
2.605	-1.21	Moody Slough
3.103	1.19	Durant Bend
1.101	1.30	Pintlala
1.220	1.34	Taskigi
1.248	1.39	Taskigi
1.250	1.40	Taskigi
1.229	1.44	Taskigi
2.305	1.92	Goat Pasture
2.304	2.51	Goat Pasture

-1.21) and high positive (greater than 1.19) factor scores (Table 3). The vessels with highest positive factor scores were recovered from Pintlala Creek (1Lo85), Goat Pasture (1Wx12), Taskigi (1Ee8), and Durant Bend (1Ds1), all of which are located within the Alabama River drainage. The ratio values of vessel radius to height measurements at positions 1 to 8 for the vessels with high positive scores against Component 1 ranged from approximately .61 to .85. Those vessels with the lowest negative factor scores were recovered from the sites Lon Robertson (1Tu93/5), Moody Slough (1Tu4), Wiggins (1Tu43), Phillips (1Tu277), and Taskigi (1Ee8). With the exception of Taskigi, all of these sites are located within the Black Warrior River drainage. The ratios of vessel radius to height at positions 1 to 8 for the vessels with low negative scores on Component 1 ranged from approximately .40 to .64.

Based on the results of principal component analysis as described above, it appears that globular jars recovered from the Alabama River drainage are wider with respect to their height than those recovered from the Black Warrior drainage. The presence of vessels from Taskigi in

both the groups with high positive and low negative factor scores is not entirely surprising, since it has been speculated that while the site is located within the Alabama River drainage its ceramic assemblage is more closely related to sites in the Black Warrior Valley sites (Little and Curren 1995:66). In order to be certain that the differences between the two river valleys that appeared based on component score extremes were not simply due to a group of odd vessels, a one-way analysis of variance (ANOVA) was performed comparing component scores of the vessels from the Alabama, Black Warrior, and Taskigi. The results demonstrated that the trends picked up by the factor analysis were not simply due to chance ($F=3.36, p<.05$).

Fisher's Least Significant Difference (LSD) post hoc tests showed that the mean factor scores on Component 1 for the Black Warrior and Alabama River Valleys were different ($p<.05$) and the mean factor scores for Taskigi and the Black Warrior drainage vessels were different ($p<.05$). However, the mean scores from Taskigi and the Alabama River Valley were not different ($p>.05$) (Table 4). Thus, it appears that the four globular jars from Taskigi that possess low negative component scores are the exception rather than the rule for the vessels from the site, because the mean of the component scores from the site is no different than the mean from the Alabama River Valley.

Against Component 2, variables 9 and 10 were found to have high positive scores, at .741 and .571, respectively, while variables 11 and 12 were found to have high negative scores, at -.834 and -.766 respectively. As with Component 1, those vessels with high positive, greater than 1.33, and low negative, less than -1.32 , scores on this component were examined (Table 5). The vessels with high component scores were recovered from Baker (1Tu49), Moody Slough

Table 4. Results of Fisher's LSD test on Component Scores by Region

	Black Warrior	Alabama	Taskigi
Black Warrior	-	***	***
Alabama	***	-	---
Taskigi	***	---	-

$F=3.36, p<.05$

*** = $p<.05$, --- = $p>.05$

Table 5. Globular Jars with Highest and Lowest Component Scores Against Component 2

Vessel ID #	Component Score	Site
1.109	-1.62	Pintlala
2.301	-1.57	Liddell
2.404	-1.39	Liddell
2.202	-1.37	Taskigi
2.304	-1.33	Goat Pasture
3.101	-1.32	Durant Bend
2.403	1.33	Liddell
2.108	1.49	Baker
2.104	1.64	Baker
2.405	2.45	Liddell
2.602	2.61	Moody Slough
2.506	3.29	Taskigi

(1Tu4), Taskigi (1Ee8), and Liddell (1Wx1). The vessels with low negative component scores were recovered from Pintlala Creek (1Lo85), Taksigi (1Ee8), Liddell (1Wx1), Goat Pasture (1Wx12), and Durant Bend (1Ds1). The sites from which the high and low scoring vessels were recovered show no distinguishable pattern in their location. However, when the sizes of the vessels are compared, the smallest vessels in the sample, with heights ranging from 85 cm to 264 cm and maximum diameters ranging from 11.6 cm to 35.7 cm, scored the highest against Component 2. The largest vessels in the sample, with heights ranging from 21.0 cm to 39.6 cm and maximum diameters ranging from 30.5 cm to 53.8 cm, scored the lowest.

When the relationship between variables 9 and 10 and 11 and 12 is examined, the form trend suggested by this component becomes clear. Because variables 9 and 10 possess strong positive correlations with Component 2 and variables 11 and 12 correlate strongly in a negative direction with Component 2, it can be assumed that the two pairings of variables are inversely correlated. Thus, as variables 9 and 10, which are located near the bottom of the vessel, increase in their ratio respective to the vessel's overall height, variables 11 and 12 decrease as a portion of the overall height of the vessel. This means that as the vessel widens at its bottom, growing rounder, the distance from the lip of the vessel to the mouth and shoulder gets proportionally

larger. The shoulders and mouths of vessels with a more conical shape, and thus a narrower bottom, occur closer to the lip. The fact that the first trend appears most prevalently on small vessels is probably attributable more to the nature of vessel construction than to any intentional differentiation in form on the part of potters.

Flaring Rim Bowls

A total of 22 flaring rim bowls were measured and profiled for principal component analysis. Although the sample number is considerably smaller than that of the globular jars, clear trends did emerge from analysis. The initial analysis generated two components with eigenvalues greater than 1.0 (Table 6). The first component demonstrated an initial eigenvalue of 9.67, which accounts for 80.6 percent of the total variance within the sample. The second component, with an initial eigenvalue of 1.21, accounts for only 10.1 percent of the variance within the sample. When each variable was loaded against both components and subjected to one varimax rotation, variables 1 to 10 were found to score high against Component 1, with

Table 6. Eigenvalues extracted by Principal Components
Analysis of Flaring Rim Bowls

Component	Eigenvalue	% of	
		Variance	Cumulative %
1	9.67	80.6	80.6
2	1.21	10.1	90.6
3	.89	7.5	98.1
4	.20	1.6	99.7
5	.02	.1	99.8
6	.01	.1	99.9
7	.01	.1	100.0
8	.00	.0	100.0
9	.00	.0	100.0
10	.00	.0	100.0
11	.00	.0	100.0
12	.00	.0	100.0

scores ranging from .83 to .99. Only variable 12 was found to have a strong factor loading against Component 2, with a score of -.95 (Table 7).

For Component 1, the vessels with factor scores greater than 1.187 and lower than -1.163 were examined further (Table 8). The three vessels with high positive scores were recovered from Taskigi (1Ee8), Lon Robertson (1Tu93/5), and Baker (1Tu49). The three vessels with low negative scores were recovered from Pintlala (1Lo85), Taskigi (1Ee8), and Baker (1Tu49). Clearly, since vessels from both Taskigi (1Ee8) and Baker (1Tu49) were included in both groupings of factor scores, Component 1 is not correlated with location by river drainage. It is interesting to note that a frequency count shows that, excluding Taskigi, only four flaring rim bowls have been recovered from sites in the Alabama River drainage. Complete flaring rim bowls are absent from the urn burials recovered from both the Liddell and Goat Pasture sites (1Wx1 and 1Wx 12).

Component 1 appears to actually be based on the two different forms of the flaring rim bowl, shallow and deep, that are described by Steponaitis in his description of the Moundville

Table 7. Loadings of Variables Against Components Extracted for Flaring Rim Bowls

Variable	Component	
	1	2
1	.97	.13
2	.97	.13
3	.98	.12
4	.99	.09
5	.98	.18
6	.95	.28
7	.93	.35
8	.90	.41
9	.87	.45
10	.83	.49
11	.01	-.95
12	-.21	-.49

Note: Loadings have been subjected to one varimax rotation

Table 8. Flaring Rim Bowls With Highest and Lowest Component Scores Against Component 1

Vessel ID #	Component Score	Site
1.255	-1.24	Taskigi
2.107	-1.18	Baker
1.108	-1.17	Pintlala
1.223	1.19	Taskigi
2.201	1.52	Lon Robertson
2.103	2.90	Baker

ceramic assemblage (1983). The vessels with high positive factor scores for Component 1 had ratio values for variables 1 through 10 ranging from .70 to 1.81, while those with low negative factor scores for Component 1 had ratio values for variables 1 through 10 ranging from .49 to .97. Those with high factor scores, then, represent vessels that are relatively shallow, while those with low factor scores represent the deeper version of the flaring rim bowl vessel form. Both forms appear in the Alabama and Black Warrior drainages, as well as at Taskigi.

Component 2, which accounts for 10.06 percent of the variance within the sample, displayed high negative factor loadings on variable 12. This variable is a measurement of the ratio of mouth height to the total vessel height. The three vessels with factor scores above 1.22 for Component 2 were recovered from Taskigi (1Ee8) and Baker (1Tu49). Those with scores below -0.90 were recovered from Taskigi (1Ee8), Big Prairie Creek (1HA19) and Moody Slough (1Tu4) (Table 9). The vessels with high component scores have values for variable 12 ranging from .71 to .80, whereas the vessels with low component scores have values ranging from .77 to .95.

Once again, Component 2 does not suggest any differentiation in form with respect to river drainage. Component 2 also does not appear to be related to deep versus shallow flaring rim bowls, since shallow and deep vessels appear in both high and low component score

Table 9. Flaring Rim Bowls with Highest and Lowest Component Scores Against Component 2

Vessel ID #	Component Score	Site
1.217	-1.69	Taskigi
2.601	-1.41	Moody Slough
1.238	-1.37	Taskigi
2.802	-0.90	Big Prairie Creek
1.102	1.22	Pintlala
2.107	1.23	Baker
1.206	1.37	Taskigi
2.103	2.01	Baker

groupings. Based on the presence of both types of bowls at each end of the component score continuum, it appears that Component 2 reflects how high the mouth occurs on the vessel. Those vessels with high component scores have a larger distance from the mouth to the lip of the vessel, while those with low component scores have a mouth that is closer to the lip of the vessel.

Carinated Bowls

Although there were only 16 examples of the carinated bowl form included in the sample, principal components analysis was performed on the eleven measurements taken on each of the carinated bowls. The carinated bowl vessel form does not possess a true mouth from which measurements could be taken, thus the twelfth measurement was eliminated. The analysis generated only one component with an eigenvalue of 9.07, accounting for 82.47 percent of the variance within the carinated form (Table 10). All eleven variables loaded strongly against the first component, with loading scores ranging from .65 to .98 (Table 11). The two vessels with highest component scores (above 1.99) were recovered from Taskigi (1Ee8), as were the vessels with the lowest component scores (below -1.19) (Table 12). The vessels with low component

Table 10. Eigenvalues extracted by Principal Components Analysis of Carinated Bowls

Component	Total	% of Variance	Cumulative %
1	9.07	82.47	82.47
2	.80	7.31	89.78
3	.53	4.85	94.63
4	.42	3.80	98.43
5	.09	.78	99.20
6	.04	.39	99.60
7	.02	.18	99.78
8	.02	.02	99.94
9	.01	.01	99.99
10	.00	.01	100.00
11	.00	.00	100.00

Table 11. Loadings of Variables Against Components Extracted for Carinated Bowls

Variable	Component
	1
1	.98
2	.99
3	.98
4	.88
5	.65
6	.98
7	.98
8	.98
9	.97
10	.87
11	.65

Note: Loadings have been subjected to one varimax rotation

Table 12. Carinated Bowls with Highest and Lowest Component Scores Against Component 1

Vessel ID #	Component Score	Site
1.215	-1.35	Taskigi
1.211	-1.19	Taskigi
2.508	-1.12	Taskigi
1.213	2.00	Taskigi
1.221	2.11	Taskigi

scores had values for variables 1 to 11 that ranged from .62 to 1.31. The vessels with high component scores had values for variables 1 to 11 that ranged from .48 to .89. As with Component 1 for the globular jars, carinated bowls with low component scores are typically wider and shallower, whereas those vessels with high component scores are narrower and deeper. As with the flaring rim bowls, the principal component is not related to the river drainage from which the vessel was recovered.

Design Motif Analysis

Once the Coefficients of Dice were calculated, the sites were ordered in a similarity matrix. Following Robinson (1951), the matrix was ordered so that the largest similarity values would fall against the long diagonal in the center of the matrix (Table 13). In large part, the ordering of the matrix follows this ideal scheme; however, the close stylistic relationship between Liddell (1Wx1) and Goat Pasture (1Wx12), and their relatively distant relationships to every other site aside from Taskigi (1Ee8), forced the two sites to be positioned at each end of the similarity matrix. The mean similarity value for all sites was .63, with a standard deviation of .11.

By looking at the matrix, the strongest association ($n=.77$) occurs between the two sites in Wilcox County. Aside from their strong relationship with one another, the next strongest relationship for either of the two Wilcox county sites is the one between Liddell (1Wx1) and

Table 13. Similarity Matrix of Motifs Occurring on Pottery from Each Site

Site	Goat Pasture 1WX12	Durant Bend 1DS1	Taskigi 1EE1	Big Prairie Creek 1HA19	Moody Slough 1TU4	Baker 1TU49	Liddell 1WX1
Goat Pasture 1WX12	-						
Durant Bend 1DS1	.56	-					
Taskigi 1EE8	.70	.73	-				
Big Prairie Creek 1HA19	.50	.71	.70	-			
Moody Slough 1TU4	.59	.64	.70	.74	-		
Baker 1TU49	.57	.67	.63	.76	.70	-	
Liddell 1WX1	.77	.50	.70	.57	.59	.29	-

Taskigi (1Ee8), with a value of .70. The weakest relationship, with a value of .29, occurs between one of the Wilcox County sites, Liddell (1Wx1), and the Baker site (1Tu49). A series of high similarity coefficients is seen among sites from the Black Warrior drainage, including Moody Slough (1Tu4), Big Prairie Creek (1Ha19), and Baker (1Tu49). Durant Bend (1Ds1), a site in the Alabama River drainage, was closest to Taskigi (1Ee8), with an agreement coefficient of .73. Durant Bend (1Ds1) was also close to Big Prairie Creek (1Ha19) with a value of .71, but showed low similarity coefficients with both the Wilcox County and the Black Warrior drainage sites.

Once the similarity matrix was analyzed, Table 14 was constructed to show the presence of each motif at each site. Within the table, sites were ordered by their similarity to one another based on the design motif analysis. Once this was completed, three sites with large vessel collections but with very small to no sherd collections, Pintlala Creek (1Lo85), Wiggins (1Tu43), and Lon Robertson (1Tu93/5), were added to the table. The presumed positions of these sites within the ordering of the table were figured based on the motifs present in the whole

Table 14. Motifs Occurring at Each Site

Sites	Decorative Motifs																
	Applique Motifs				Paint	Notch Rim	Incising Motifs									Hand & Long Bone	Dia- monds
	Vert. Lines	ZigZag w/nodes	Sinuuous line w/nodes	Dia- monds		Swas.	Semi	Vert. Lines	Pensacola Motifs	Cont. Guilloches	Stairs & Semi	Separate Guilloches	Separate Guilloches w/punctate				
Liddell 1WX1	+					+	+	+	+	+							
Goat Pasture 1WX12	+					+	+	+	+					+			
Durant Bend IDS1	+	+		+	+	+	+		+			+	+				
Pintlala Creek 1LO85*	+									+	+						
Moody Slough 1TU4	+	+			+	+	+	+		+	+	+			+		
Lon Robertson 1TU93/5*	+					+		+		+		+			+		
Wiggins 1TU43*	+				+		+	+							+		
Big Prarie Creek 1HA19	+	+			+		+	+		+	+	+	+				
Taskigi 1EE8	+	+	+		+	+	+	+	+	+	+		+	+			
Baker 1TU49	+	+			+	+		+			+	+	+				

* Indicates sites with minimal to no sherd collections

vessel collections. From the table, some of the distributions of motifs that account for the low similarity values between sites become clear. This is especially true for the Wilcox County sites, which are clearly differentiated from all other sites by their lack of painting on bowls and the lack of certain motifs associated with globular jars. The motifs associated with globular jars are limited to strictly vertical lines of both appliqué and incising at the Wilcox County sites, whereas the remainder of the sites with complete sherd collections all possessed additional motifs occurring on the rims of globular jars.

Another salient trend in vessel decoration is the lack of Pensacola Incised motifs at sites in the Black Warrior drainage. Although Little and Curren (1995:58) report the presence of Pensacola Incised sherds from Moundville IV phase assemblages of the Black Warrior River Valley, they do not specify from which sites sherds bearing these motifs were recovered. It is more than likely that they are only associated with Taskigi, since the site was included in the Moundville IV phase analysis because of similarities present between that site and those of the Black Warrior River Valley. None of the other motifs that were recorded showed distributions based on the geographical positioning of the sites.

Chapter 5 Discussion

Vessel Form Analysis

The principal components analysis performed for each type of vessel revealed trends in form within the Protohistoric vessel assemblages. The results from the globular jars were the most compelling, showing distinctly separate shapes in vessels between the Alabama and Black Warrior River Valleys. The vessels recovered from the Alabama River Valley clearly have a wider body relative to their height than those from the Black Warrior Valley (Figure 8). While vessels from Taskigi appeared at both ends of the factor score distribution, the majority of the vessels recovered from the site have shapes that group with others from the Alabama River. The question remains whether such a difference in form is the result of a fundamental cultural difference between the two populations.

To understand the cultural significance that can be ascribed to vessel shape, it is instructive to turn to ethnographic studies of pottery shape classes performed in Mexico. Kaplan and Levine (1983) showed Mexican potters a number of different vessel forms to obtain a folk taxonomy of pottery forms and check that taxonomy against ethnographic data on the same subject. They found that rims had little importance in vessel classification; rather, potters made distinctions based on the form of ear effigies (which double as handles), colors, shape, and design elements. Another study of the folk classification of Mexican ceramics was performed by Klempton (1981), who used non-potters as informants. Klempton (1981) presented informants with a sheet of line drawings with a range of vessel forms and attachments, such as handles, asking them to pick the variations of form that were most typical of a certain vessel type, such as the most typical jar. The result of this exercise showed that there were prototypical vessel shapes

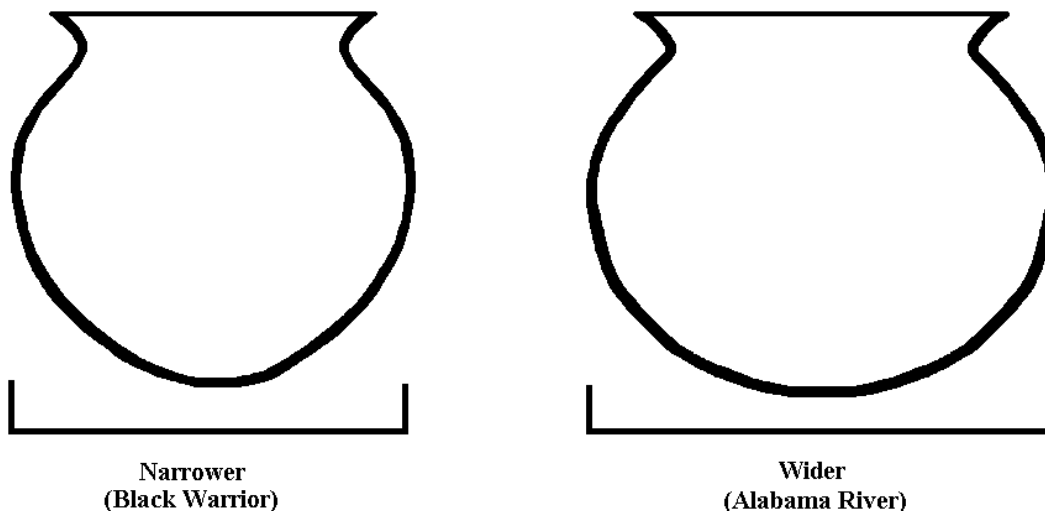


Figure 8. Illustration of globular jar form variation identified by Component 1.

for each form, based upon width to height ratio, rim height, and presence of handle or spout features (Klempton 1981). Once a vessel exceeded a certain range of shape, that vessel was no longer recognized as a member of a known class.

Any ethnographic analogy must be applied to the archaeological record with caution, for there is always the danger of taking a cultural trait out of context and making a spurious connection. In this case, however, it seems that a broad comparison can be extended. Based on the Mexican studies, vessel shape has some effect on the classification of vessels by those who make and use them. Vessel shapes tend not to exceed the range of variation that would make them distinct from the prototype for their particular form. If this indeed can be applied to Protohistoric vessels, it would appear that potters from the Alabama and Black Warrior River Valleys began the construction of their vessels with different prototypical shapes in mind, suggesting at least one major difference between the material cultures of both of the phases. This is not meant to downplay the similarities that obviously exist between the two phases; clearly, the design analysis shows that the appliqué and incising motifs occurring on jars are distributed relatively evenly across both river valleys. What these shape trends imply is that

there are some previously unrecognized differences between the ceramics of the Alabama River and Moundville IV phases.

The second component that accounted for a significant amount of the variance in the globular jars broke down on the basis of size (Figure 9). The fact that the trend toward a round bottom and lower shoulder appears most prevalently on small vessels appears to be due more to the nature of vessel construction than to any intentional differentiation in form on the part of potters. Small vessels are simply much easier to construct with a rounded bottom and lower shoulder. One trend in the distribution of these smaller vessels does emerge, however. There are a number of “miniature” globular jars that are less than 10 cm high from the Black Warrior Valley and Taskigi. Such vessels bearing vertical strip appliqué about the rim and an incised swastika motif at their shoulders, as would be indicative of the Moundville IV phase, are even present in the vessel assemblage from the site of Moundville itself. Some provenience information remains for two of these vessels, which were discovered in close proximity to an urn burial at the Baker site (1Tu49). A third miniature vessel, a flaring rim bowl, was recovered from

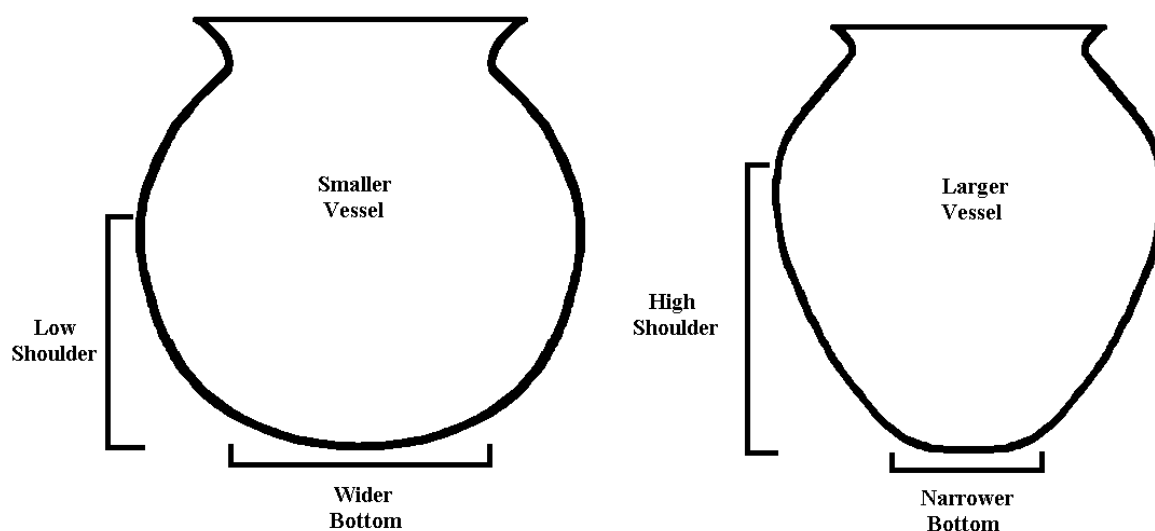


Figure 9. Illustration of globular jar form variation identified by Component 2

the same general area within the site. Miniature vessels have not been recovered from Protohistoric contexts in the Alabama River Valley. Moore (1899) does report the excavation of two miniature vessels from Durant Bend (1Ds1), however, neither of those possess forms that are traditionally associated with the Alabama River phase. No other miniature vessels have been reported for the Alabama River phase, and Moore (1899) did not report any from the Mississippian sites of the upper Alabama River.

The first component for the flaring rim bowls, which separated them into a deep and shallow grouping, was somewhat surprising (Figure 10). Steponaitis (1983:117) suggests that during the Moundville III phase the flaring rim bowl form tends to become deeper and more curving in profile. It was expected that the Moundville IV and Alabama River phase assemblages would be comprised of only deep flaring rim bowls, as are illustrated by Sheldon (1974:Figure 7). Nine of the 22 flaring rim bowls, or 40.91 percent, fell into the shallow category, meaning that they had a poorly defined shoulder and a relatively high ratio of radius to

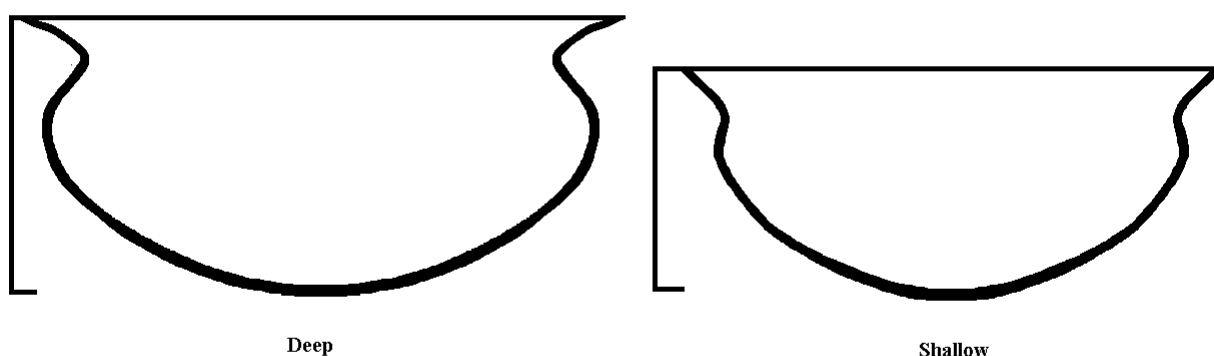


Figure 10. Illustration of flaring rim bowl form variation identified by Component 1

total height. The fact that the shallow form does occur in assemblages from both phases may provide some sort of clue as to their origin. The persistence of the shallow flaring rim bowl form may support the model that both phases arose out of a Moundville III population, rather than the Alabama River phase emerging as a result of contact with Moundville IV populations. However, compared to vessels from the earlier Moundville I-III phases, even the shallow, shoulderless flaring rim bowl form characteristic of the Burial Urn Culture is deeper and more curved in profile than its earlier predecessor. Whether the two emerged independently in their respective river drainages or as the result of influence from the Black Warrior River Valley still cannot be determined based on the evidence from the flaring rim bowls.

The second trend identified within the flaring rim bowl form is a bit more perplexing (Figure 11). This trend, which accounted for only 10.1 percent of the variance in the sample, making it quite weak, was related to the height at which the mouth occurred on the vessel. No differences in factor scores were found between river drainages or shallow and deep vessels for this component, nor are they related to the overall height of the vessel or whether the vessel is decorated. However, the component clearly represents a difference in form for vessels. For

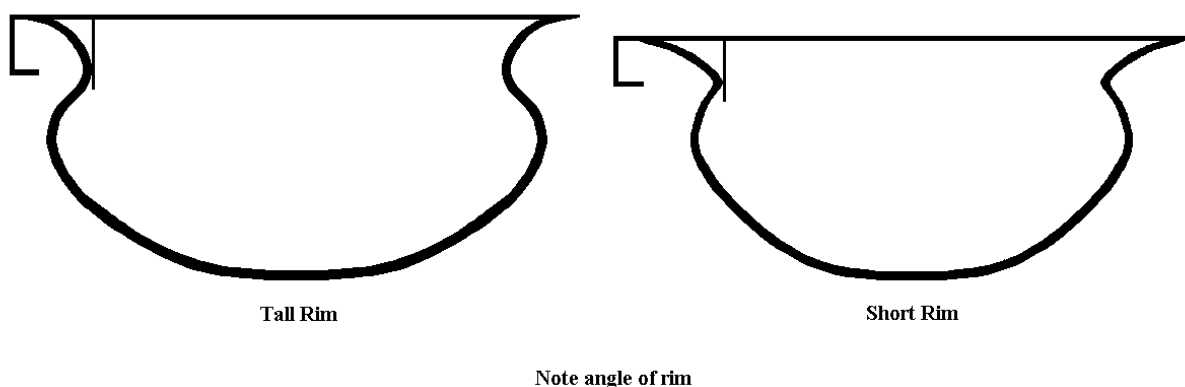


Figure 11. Illustration of flaring rim bowl form variation identified by Component 2

vessels in which the mouth height represents a larger portion of the total height of the vessel, the angle of the rim as relative to a line drawn tangent to the mouth is smaller, meaning that the rim flares even more. This trend obviously represents some sort of difference in vessel manufacture, but any patterns that it may follow in its distribution are still not understood.

The vast majority of the variance in the carinated bowl form is based upon the width of the vessels with respect to their total height (Figure 12). The vessels at either end of the factor score distribution were from Taskigi (1Ee8), which may be because 10 of the 16 carinated bowls were recovered from that site. Of the remaining six vessels, four were from the Alabama River Valley, at Durant Bend (1Ds1), and two were from the Black Warrior River Valley, at Baker (1Tu49) and Lon Robertson (1Tu93/5). Unfortunately, the sample size is really too small to make any conclusions about differences between river drainages; however, the variation in form present in Taskigi (1Ee8) is interesting in itself. A number of the vessels, particularly those vessels that scored high on Component 1, superficially resemble the short-necked bowl form from the Moundville assemblage. However, rather than having the short, vertical rim that Steponaitis (1983:68) describes, these vessels may have a lip, which is no more than a strap of

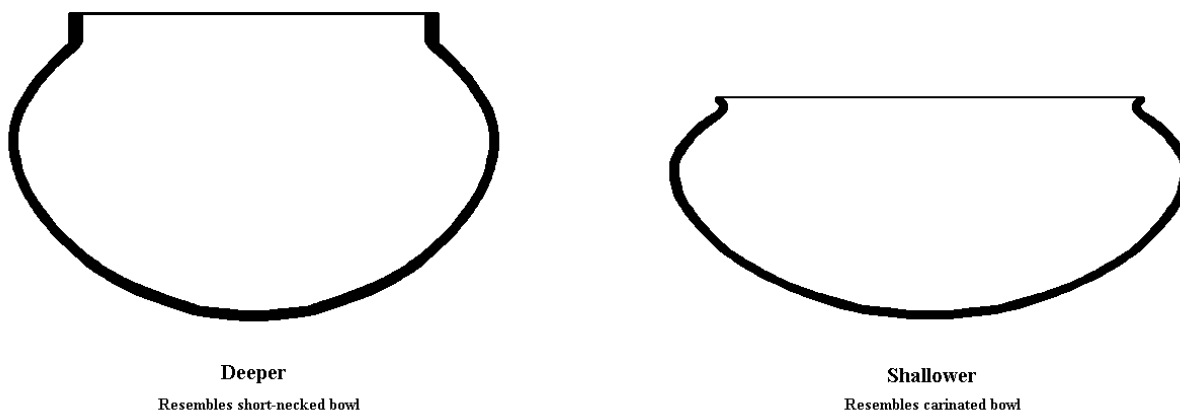


Figure 12. Illustration of carinated bowl form variation identified by Component 1

clay applied around the vessel, that flares out slightly. In several examples, another strip of clay, which occasionally exhibited notching, and is thus referred to as a notched fillet, was attached directly below this lip. All of these examples occurred at Taskigi (1Ee8). The remainder of the carinated bowls displayed very little variation; all appear to be direct descendants of the Moundville III short-necked bowl form.

The vessels that scored particularly low on the single component look quite different from the short-necked bowls of the Moundville III phase. These vessels most closely resemble the carinated bowl form that is part of the Atasi phase vessel assemblage described by Knight (1985). The flared lip and second notched strip below the lip that occur only at Taskigi also occur on Atasi phase carinated bowls (Knight 1985:84-85). This phase dates from approximately AD 1600-1715. Geographically it is distributed across the lower Tallapoosa, and appears to be the direct predecessor of Upper Creek Tallapoosa phase populations (Knight 1985). The presence of vessels that resemble Atasi phase ceramics at Taskigi is not surprising, and probably is simply the result of influence from that adjacent style area, because they are located in close geographic proximity.

The open bowl category, which contained only seven vessels, became a sort of catch-all for vessels that did not fit the other three categories. Five of the vessels, which were recovered from Pintlala Creek (1Lo85), Taskigi (1Ee8), and Liddell (1Wx1), appeared to fall into the same category, that of a shallow, poorly made plate. Sherds of similar vessels from Atasi phase assemblages were described by Knight (1985:87), who called them a “crude plate-like form.” The vessels are tempered with very coarse shell particles and have an irregularly shaped lip and lumpy exterior that shows no evidence of smoothing. The interiors, while still lumpy, are typically smoother than the exteriors. These vessels, which served as covers, were probably

hastily made for the exact purpose of serving as covers for urn burials. None of these vessels have been reported from sites in the Black Warrior Valley.

The other two open bowl forms were recovered from Taskigi and Liddell. The open bowl recovered from Taskigi appears to be the base of a carinated bowl that broke below the shoulder. The lip of this vessel, around which remains parts of what were incised semicircles, was smoothed down to be approximately even. This use of a broken vessel as an urn burial cover is by no means unique. A number of bases of broken globular jars were used for the same purpose within both river valleys (Moore 1899:318; Brannon 1938:230). The presence of these broken vessels and the hastily-made cover vessels calls into question the view that urn burials denote status (Hill 1996). It appears that whatever was at hand was used as a cover, and if there was nothing suitable, one was quickly thrown together, with little care in manufacture. The final open bowl, which was recovered from the Liddell site (1Wx1), is a wide and shallow sand-tempered bowl with a slightly rounded lip and effigies opposite each other at one point on the lip. One of these effigies is wide (40mm) and flat (6 mm) while the other is narrow (16 mm), but thick (20 mm). This bowl stands apart from any of the other bowls recovered from Protohistoric sites.

Design Motif Analysis

The design motif analysis suggests three basic grouping of sites, comprised of (a) the Black Warrior Valley sites, including Moody Slough (1Tu4), Baker (1Tu49), Big Prairie Creek (1Ha19), Lon Robertson (1Tu93/5), and Wiggins (1Tu43), (b) the upper Alabama sites Taskigi (1Ee8), Durant Bend (1Ds1), and Pintlala Creek (1Lo85), and (c) the Lower Alabama River sites located in Wilcox county, Liddell (1Wx1) and Goat Pasture (1Wx12). The Wilcox County sites are also relatively close to Taskigi in their distribution of design motifs, but not to Durant Bend.

They are set apart from the ceramics of the Black Warrior River Valley primarily because of the presence of Pensacola Incised motifs at the Wilcox sites, and their lack of red and white painting and complex appliqué motifs. These sites appear to be more strongly tied to the Pensacola culture of the south, rather than to the Moundville culture. This can be seen in the presence of vessel forms associated with the Bear Point (Ginhouse Island) phase and in the lack of red and white painting, a decorative mode present within the Moundville assemblage from late Moundville III times (Steponaitis 1983:129). It is possible that the shared motifs associated with the Alabama River phase sites in Wilcox County are merely part of a broader Protohistoric horizon style, and are not specifically associated with Moundville, as Carleton (1994) notes for Choctaw assemblages.

Moving further up the Alabama River, the next cluster of sites shows a stronger presence of Moundville motifs with the inclusion of red and white painting, and thus greater similarity to the Moundville IV phase sites. Once again, Pensacola Incised motifs are present within the sherd collections. No sherds bearing Pensacola Incised motifs were recovered from sites within the Black Warrior River Valley. The site within the Black Warrior River Valley that shows the strongest ties to the Alabama River phase sites is Big Prairie Creek (1Ha19), which in itself is somewhat of an anomaly in that it is located well south of Moundville and does not lie directly on the Black Warrior River.

In addition to the Moundville influence, as reflected in the presence of Carthage Incised motifs, stylistic influences from the west are quite prominent in the vessel assemblage from central Alabama. The appliqué tradition appears to be rooted in western ceramic types, possibly tracing its origins to the Campbell Appliqué type that appears in the late fifteenth century in southern Missouri and northern Arkansas (O'Brien 1994:41). Campbell appliqué typically

exhibits notching on the appliquéd strips, an example of which is seen on a vessel from Liddell (1Wx1), although whether this is a coincidental resemblance is unclear. The presence of incised swastika scrolls at the shoulder of vessels, which occurs at both the sites of Moundville and Liddell (1Wx1), also resembles ceramic traditions reported in southern Missouri and northern Arkansas (O'Brien 1994). The western origin of the appliqué tradition is also suggested by the late fifteenth century radiocarbon dates for features bearing appliqué sherds reported by Solis and Walling (1982) in eastern Mississippi. It is probable that this appliqué tradition evolved from the non-functional multiple triangular strap handles that commonly occur on Protohistoric jars, especially since some of these strips bear resemblance to the handles (Smith 1969).

Another Protohistoric decorative mode that occurs on globular jars, Barton Incised, also appears to be derived from the west, since it is quite prominent throughout the Central and Lower Mississippi valleys (Sheldon and Jenkins 1986:99). Motifs associated with Barton Incised include incised vertical lines and diamonds. The more complex appliqué designs, such as the zigzag and crossed lines, may in fact have emerged as a way of executing Barton Incised motifs in appliqué.

From the perspective of the analyses of vessel shape, two groups of Protohistoric sites emerged, distinguished by their location within each of the two river drainages. The analysis of decorative motifs yielded somewhat different results, showing three groups of sites, those of the Black Warrior Valley, the Upper Alabama River Valley, and the Middle Alabama River Valley. This difference between vessel form and design motifs is not entirely surprising, given the nature of change in the two aspects of vessel styles. Hodder (1979:20) notes that similarity in design motifs are more variable and change more quickly because they reflect ties within small settlement clusters. Form, however, is more conservative and is likely to reflect traditional

connections across broader local groups. What this suggests then, is that the analysis of the more slow to change style of vessel forms suggests a fundamental and deep-seated difference between the potting practices of the Black Warrior and Alabama River Valleys. The fact that Protohistoric sites of the Alabama River Valley can then be further separated based upon design motifs suggests that, although these sites may be related, they are further divisible into two groups consisting of the sites from Wilcox County to the Cahaba-Alabama junction and those from Durant Bend to the Coosa-Tallapoosa junction. The three groupings that emerge as the result of a stylistic analysis suggest that the two previously defined phases are inadequate for explaining the ceramic variation present within the originally defined Burial Urn Culture of Central Alabama. What has not yet been determined is what happened to these groups between the Hernando De Soto and Tristan de Luna expeditions of the mid-sixteenth century and the expedition of Marcos Delgado of 1686. It is known that between these years, the Black Warrior River Valley was completely emptied of people and the Alabama River Valley became home to a number of refugee groups from the north and west. A hypothesis concerning how the people of the burial urn cultures of the Black Warrior and Alabama River Valleys fit into these new populations still must be put forth.

Chapter 6

Conclusion

Based upon the study of Protohistoric vessels, as well as the survey of relevant historical and archaeological evidence, it is now possible to attempt to reconstruct the events of the years between AD 1540-1686. An early date of 1686 for the end of the Alabama River and Moundville IV phases corresponds with the expedition of the Spaniard Marcos Delgado. In truth, the Burial Urn culture was probably in its waning years, if not altogether unrecognizable, by the time of the Delgado expedition. By the late seventeenth century, the Black Warrior River Valley was completely emptied of people, and the Alabama River Valley, especially at its upper reaches, had become home to a number of refugee populations fleeing deeper into the interior in the wake of slave-raiding carried out by armed aboriginal groups from the north. By the dawn of the eighteenth century, trade goods coming from the English settlement at Charles Towne, South Carolina and the Spanish mission province at Apalachee had been flowing into the area from the east and south for several decades (Waselkov 1989). Regardless, the groups indigenous to the Alabama River Valley, while trading for European goods, did not experience direct prolonged contact with European settlers until the founding of Fort Toulouse by the French in 1717.

The roots of the Protohistoric period began at the turn of the sixteenth century, when central Alabama, most especially the Black Warrior River Valley, was on the cusp of a period of decline. Late Mississippian society in central Alabama can be divided into three distinct cultural manifestations (Figure 13). The site of Moundville, once the center of a paramount chiefdom, was only sparsely inhabited by a group of once-powerful elites whose control over the surrounding area was slipping from their grasp. Occupation was occurring on only three of

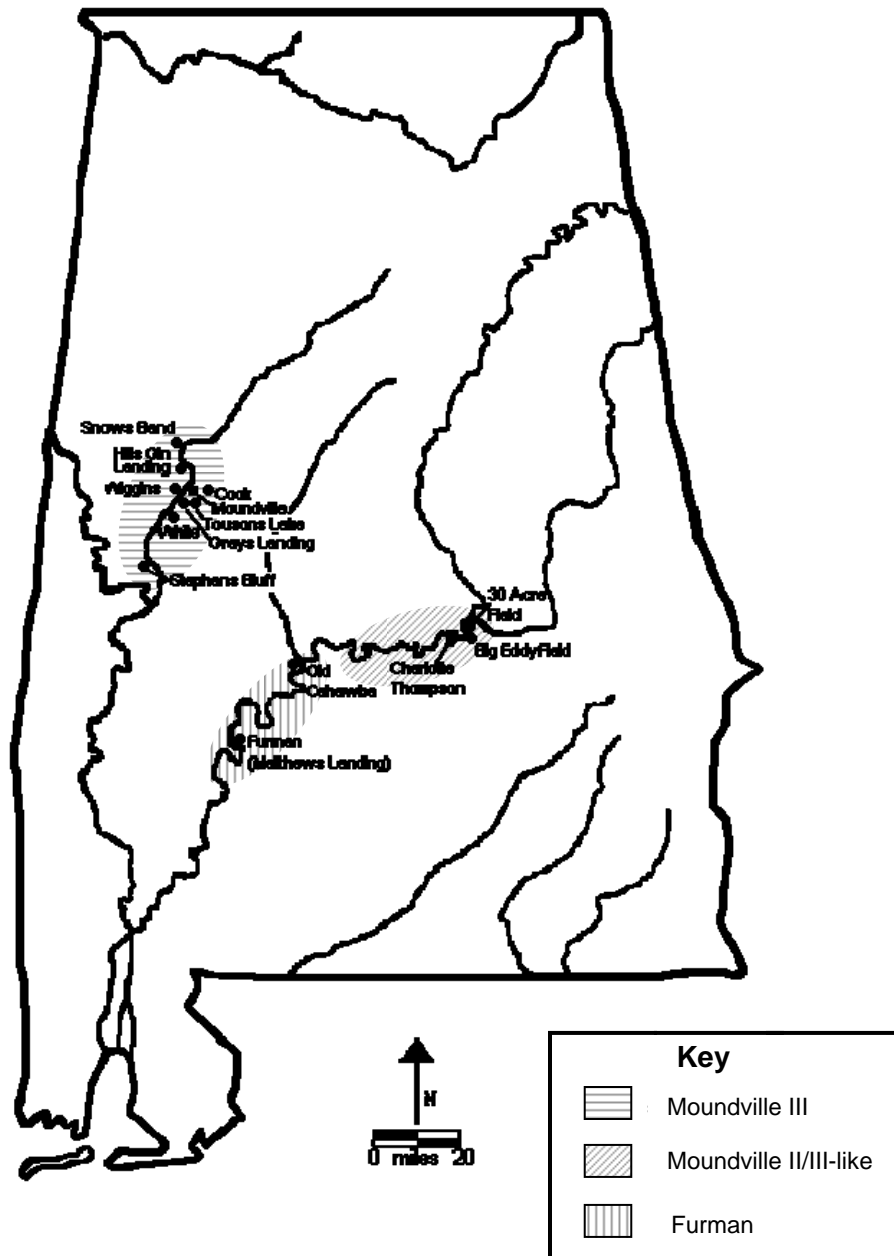


Figure 13. Map illustrating the distribution of Late Mississippian cultural manifestations in central Alabama. The sites designated are major mound sites.

the mounds at the site. Up and down the river valley, outlying centers had shifted the focus from the site of Moundville itself. This decentralization of power was symbolized by mound

construction and burial that reflected the emergence of a localized elite at these secondary outlying mound centers (Knight and Steponaitis 1998:21).

Far less is known about what this era was like on the upper Alabama River Valley. During the late prehistoric, it is known that a Moundville II/III-related Mississippian culture emerged at several sites located along the upper 25 miles of the river. Even a rough date for the emergence of this culture is unknown. Current evidence suggests that the expression of the Moundville culture that occurs in east-central Alabama may have emerged as the result of intrusive populations. This hypothesis is supported by the interesting ceramic pattern discerned by surface collections at the Big Eddy Field site (1Mt5), which is known to possess a Moundville II/III-related component. The results of surface investigations demonstrated that only around three percent of the sherds recovered from the mound and surrounding area were shell-tempered; the remaining sherds were grit-tempered types associated with the Late Woodland in that region. Sheldon (2001:23; Sheldon et al. 2001) reports that this trend is by no means unique to Big Eddy Field (1Mt5), and suggests that it may be indicative of intrusive Mississippian populations. Although this evidence is compelling, whether the Moundville culture came to be in the region as a result of trait diffusion or actual population movement remains unknown. What is known about the few sites that yield Moundville components is very scarce, although it is assumed that the Moundville II/III-related culture was well established in this region by the early sixteenth century.

Further down the Alabama River, in Wilcox County, the picture is equally unclear. Based on evidence from the Furman site (1Wx169), at the turn of the sixteenth century a culture that appears to be a localized expression of the Pensacola culture was present along the Alabama River from Monroe county to near present-day Selma. This manifestation, known as the Furman

phase, is dominated by the presence of Pensacola Incised ceramics. The Furman phase also differs from more southerly manifestations of the Pensacola in that it displays a reduction in the presence of D'Olive Incised varieties (Little and Curren 1990:172). Since the Furman site is the only extensively excavated and reported site from this time period, once again, very little is known about the culture associated with this time period.

Thus, by the beginning of the sixteenth century, traits associated with the Moundville culture had clearly diffused into the Upper Alabama River Valley. While the influence of material culture traits is clear, little is known about the social systems of the late prehistoric on the upper Alabama. The presence of elaborate grave goods, such as sheet copper, ground stone celts, and shell gorgets and beads, in a number of burials as reported by Moore (1899:161-173) may suggest that a local elite had emerged in the upper Alabama. Whether or not this holds true for the sites of Wilcox County cannot be determined from the current archaeological data.

Based on a series of radiocarbon dates from Burial Urn Culture contexts in the Black Warrior River Valley, it appears that the transition between Moundville III and the Burial Urn Culture occurred in the early sixteenth century, shortly before the arrival of Hernando De Soto in AD 1540 (Knight et al. 1999). Thus, by the time De Soto visited the Black Warrior River Valley, the fundamental shift in Moundville populations to decentralized villages with less dependency on maize agriculture and an egalitarian social structure characteristic of the Burial Urn Culture had already occurred (Figure 14). Whether or not the Apafalaya of the De Soto chronicles corresponds to the Moundville chiefdom still cannot be definitively answered, but it is clear that, contrary to what Peebles (1986) and Little and Curren (1995) have suggested, De Soto did not encounter Moundville III phase populations. With respect to material culture, the influence of ceramic styles such as the Alabama River Appliqué and Barton Incised modes of

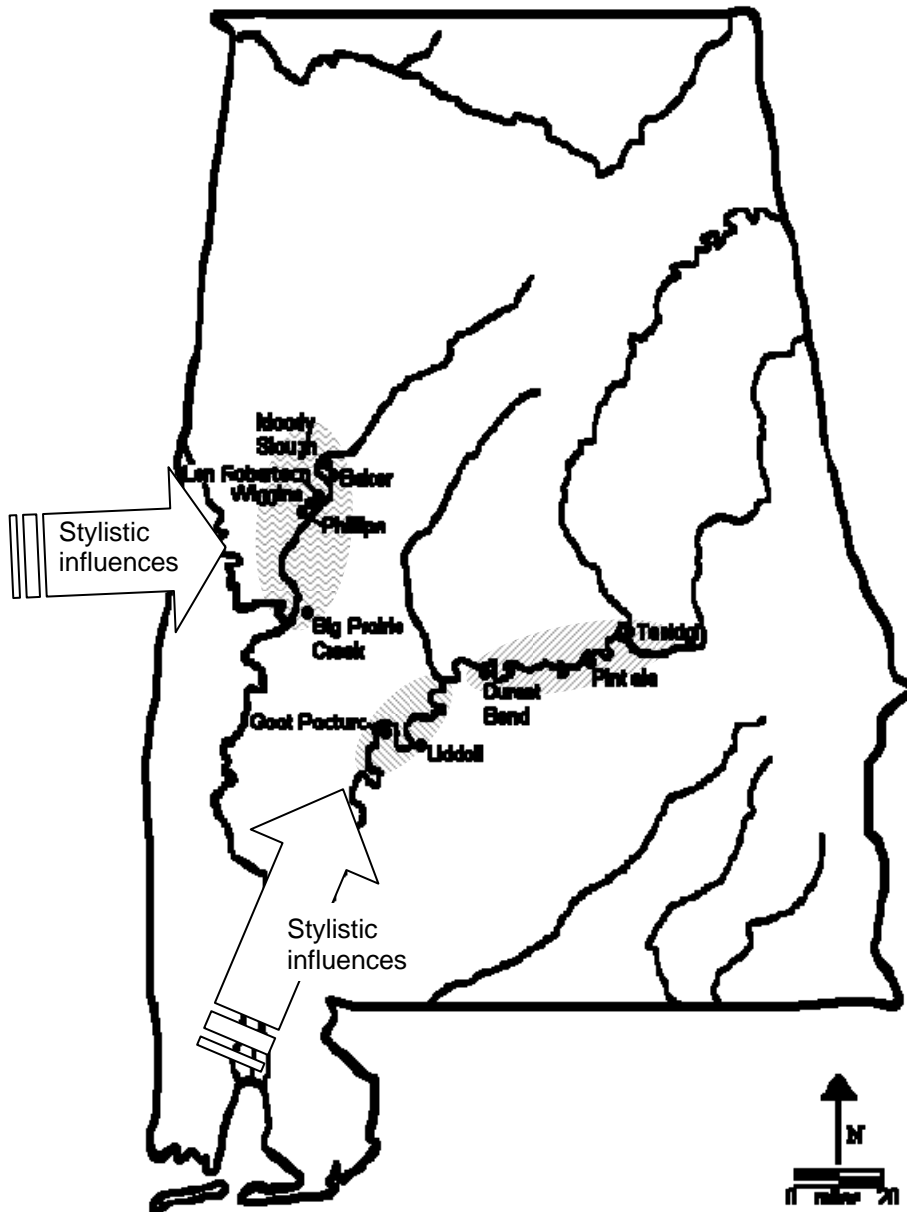


Figure 14. Distribution of related site-clusters during the Protohistoric as determined by this study, showing external ceramic stylistic influences.

decoration had diffused eastward from the Lower Mississippi Valley into the Black Warrior.

The tradition of urn burial, whose origins remain murky, had most likely already begun by this point as well.

Whether the transition from the Moundville II/III-related phase to the Alabama River phase occurred at the same time as the Moundville III-Burial Urn Culture tradition is unclear. Based on Hudson's (1994:87) reconstruction of the De Soto route, the towns of Atahatchi and Piachi in the province of Tascalusa were in the vicinities of the headwaters of the Alabama River and present-day Selma and the Durant Bend (1Ds1) site, respectively. The prominence of Chief Tascalusa and his ability to stage such a large attack at Mabila may suggest an organized chiefdom in this area that developed later and was still flourishing at the time of DeSoto's expedition. This claim is supported by such sites as Charlotte Thompson, where the presence of early trade goods suggests that mound-building activities continued well into the mid-sixteenth century (Sheldon 2001).

Following the De Soto route proposed by Little and Curren (1990), Athahatchi and Piachi were located in Wilcox County, with the Furman phase serving as the center of Tascalusa's chiefdom. Hudson (1989:36) argues that Nanipacana, the first village that Luna expedition members encountered on their journey into the interior in search of provisions, is most likely the Furman site (1Wx169). Members of the expedition also report that Nanipacana was surrounded by several smaller hamlets. The residents of the town reported to the members of the expedition that their town was once great, but had been destroyed by an earlier group of Spaniards, presumably the De Soto expedition (Hudson et al. 1989:36). While this bit of evidence supports the idea that Furman (1Wx169) may have been the capital of a larger polity, it is somewhat misleading, since the Luna expedition called the area around the Upper Alabama Atache, part of the province of Tascalusa. Hudson et al. (1989:37) notes the similarity of this name to that of the De Soto-era Atahatchi, where the 1540 expedition was first met by Chief Tascalusa. Following Hudson et al.'s (1989, 1990) placement of Mabila, it is more likely that the cluster of

relatively small sites in Wilcox county during the sixteenth century are settlements at the edge of the influence of the Bottle Creek phase rather than the center of a complex chiefdom. Following this reconstruction, then, Tascalusa's capital was where Hudson (1994) suggests, at the headwaters of the Alabama.

Regardless of where the heart of the polity governed by Tascalusa lies, it appears that by the time of the Luna expedition, it had declined considerably, in the same way that the once powerful Coosa chiefdom of northeast Alabama and northwest Georgia had declined in influence (Galloway 1995:156-159). By the year 1560 it is likely that the Alabama River valley had taken on the characteristics generally attributed to the Protohistoric phases. The question that remains to be addressed is how the three clusters of sites identified through stylistic analysis are related to one another. Based on the analysis of ceramic vessel forms, it appears that each arose independently in place from each of their Mississippian antecedents. Each absorbed ceramic styles from the west into their decorative repertoires, with the populations of the Alabama River also incorporating influences from the southerly Pensacola variant.

The clear difference in utilitarian vessel construction, as represented by the shapes of the globular jars from the two river drainages, supports the theory of independent evolution. If the populations of the Alabama River phase were simply migrant members of the Moundville III populations from the Black Warrior River Valley, such a difference in jar shape between sites from each of the river drainages would not be so abundantly clear. Also, if the antecedents of the Alabama River phase were in the Moundville III phase, the sites of Wilcox County would display much stronger stylistic influence from Moundville. Based upon the way in which the Wilcox County sites stand apart in the stylistic analysis, it is clear that they are the most heavily

Pensacola-influenced sites in the current analysis, and emerged as such in place, out of the Late Mississippian Furman phase.

Between the exit of Luna and the entry of Delgado, it is clear that a fundamental population shift took place in central Alabama (Figure 15). In his overland route Delgado made

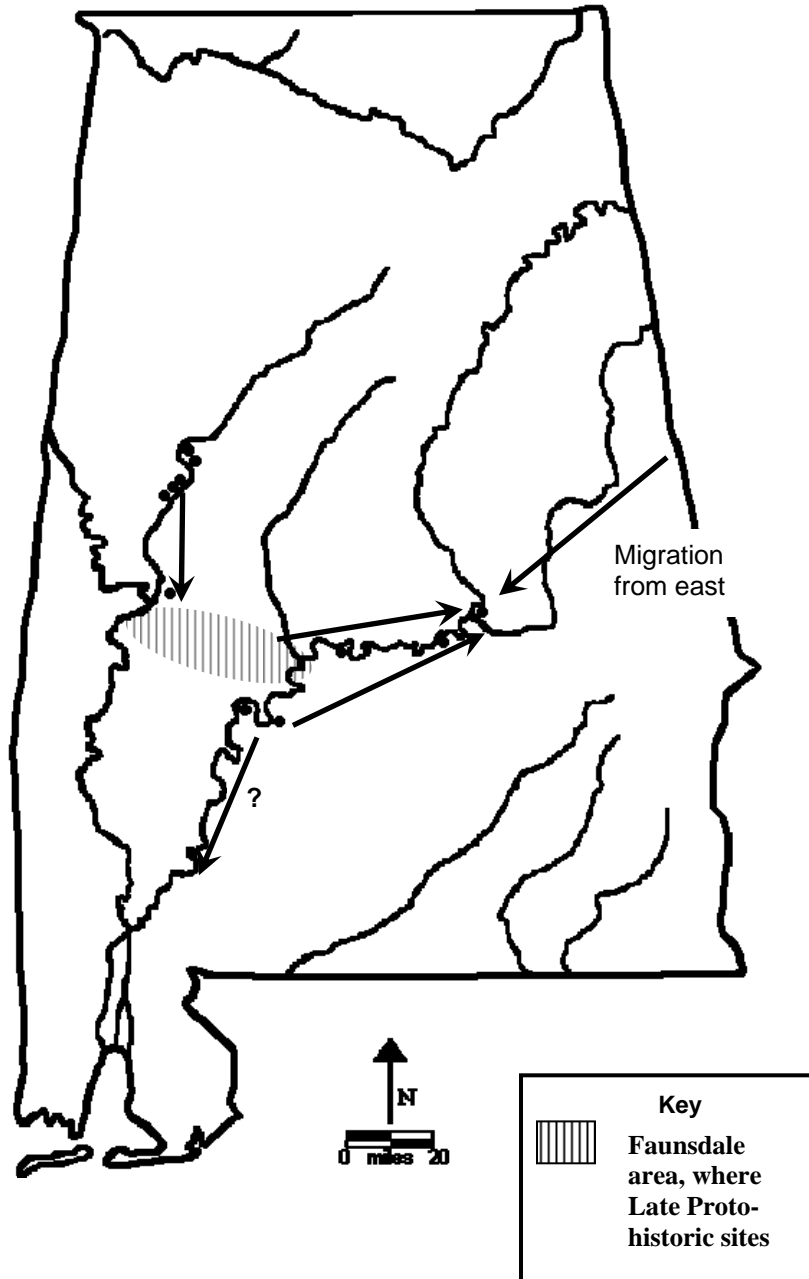


Figure 15. Possible migration trajectories for Protohistoric populations

it as far north as the Lower Coosa/Tallapoosa area, identifying a number of newly settled groups in the region, whose settlements divided into two groups, one containing the Pagna, Qulasa, and Aymamu, and the other containing the Qusate and Tubani (Boyd 1937). These recent immigrants were by no means consolidated under one chief; rather, Delgado had to meet with a different leader for each of the groups. Delgado was able to determine that the Pagna, Qulasa and Aymamu had been driven from the west by the Choctaw, while the Qusate and Tubani had been driven from the north by the English colonists and the Westo (Galloway 1995:180). Based on Delgado's observations, then, it seems that some time during the nearly 130 years between the Luna expedition and his arrival, a fundamental change had occurred among the people of central Alabama. This shift in population was from several somewhat cohesive groups organized into loose political confederations living within both river drainages to a cluster of refugee groups, all of whom appeared to be of different ethnic identifications, settled around the Coosa-Tallapoosa junction.

The question of what may have happened to the people of the once powerful Moundville chiefdom, and of the Protohistoric Alabama River Valley towns in the years between these two expeditions still remains. The traditional association of the Alibamo with the groups of the Protohistoric phases has been previously discussed. Evidence as to their archaeological association with the Alibamo is confusing at best. Swanton (1998) notes that the names that the De Soto expedition recorded for the province of Apafalaya were taken from the Choctaw language. This leads Knight (1996) to conclude that the residents of Apafalaya spoke a dialect of western Muskogean.

The Alibamo language, however, is not a western Muskogean dialect; rather, it is most closely related to Koasati and Apalachee (Hopkins 1999). Why these three languages are so closely related to one another is puzzling. At the time of De Soto, the presumed ancestors of the Alabama were located in eastern Mississippi, the Apalachee were in the central panhandle of Florida, and the Koasati were in east Tennessee. The links between the Koasati and the Apalachee of De Soto and historically recognized groups have been reasonably established (Smith 2000:80; Hudson 1994). This, of course, is not true for the Alibamo mentioned by De Soto. The Alibamo and the Koasati were neighbors in central Alabama during the late Protohistoric; however, their linguistic similarities with each other and Apalachee are much more deeply-rooted, suggesting that the three languages only split apart and branched into separate languages sometime between AD 1000-1500 (Hopkins 1999).

Since the linguistic evidence does not seem to clarify anything, it is necessary to turn to the archaeological record to understand these 150 years. Based upon ceramic evidence, Galloway (1995) argues that the people of the Moundville chiefdom migrated to the west and joined with the historic Choctaw. Carleton (1994) has disputed Galloway's hypothesis, noting that the motifs associated with Moundville ceramics that are present on historic Choctaw sites are simply part of a larger Protohistoric decorative horizon common to sites from the Central Mississippi Valley to the Coosa/Tallapoosa, rather than indicative of direct ancestry. Carleton (1994) instead argues that the ceramic styles of the Eastern Division of the Choctaw were derived directly from those of the Doctor Lake ceramic complex of the Lower Tombigbee River.

The archaeological evidence from the lower Black Warrior, near present-day Faunsdale, may provide the key to the final destination of the people of the Black Warrior. These sites, located south of the site at Big Prairie Creek (1Ha19), which yielded urn burials used in this

analysis, were first noted by Chase (1981), who recognized the presence of a Choctaw-related ceramic complex at two sites in Marengo County. Several other surveys, most notably the excavations led by Mistovich (1985), recovered similar ceramics, and noted similarities to Choctaw settlement patterns. A survey of the Black Prairie region of Alabama, including Dallas, Marengo, and Perry counties undertaken by Patterson (1990) also suggested dense Protohistoric settlements in the region. The late identifications of these sites may indicate a possible destination for the descendants of the people of the Moundville chiefdom. Based on these data and Carleton's ceramic data it seems unlikely that the remnant peoples of the Moundville chiefdom moved west to join the Choctaw.

In the Alabama River, the situation is more complex. Due to the rapid influx of refugee groups beginning the mid-seventeenth century, it is difficult to tell exactly who came from where and when they arrived. The mention by Delgado of the three groups from the west, the Pagna, Qulasa, and Aymamu, may suggest that some of the people of the Black Warrior Valley moved east as well as south to the Lower Black Warrior. What happened to the people of the Alabama River Valley is difficult to discern. It is possible that the people of the Wilcox County sites joined the Mobilian tribes, since their material culture reflects strong connections to the cultures of the Mobile-Tensaw delta. They may instead have migrated north and joined the coalescing groups of the Coosa/Tallapoosa/Upper Alabama.

Durant Bend (1Ds1) and Pintlala Creek (1Lo85) were abandoned by the late seventeenth century. It seems likely that these people afterward moved up the Alabama River towards Taskigi (1Ee8), probably settling in that vicinity. The sheer size of Taskigi and the great ceramic diversity present at the site may be indicative of a ballooning population due to refugees. The name of the site, which by all accounts was not established until much later during the historic

period, is actually adopted from a group living in Tennessee that was forced out by slave-raiding pressure (Worth 2000; Smith 2000). The ceramics of Taskigi appear to have taken on more and more resemblance to the coalescing Creek groups to the east over time. This is reflected by the analysis of the carinated bowls, which shows the transition from forms related to the Moundville short-neck bowl to the carinated bowl of the Atasi phase at the lower Tallapoosa. Taskigi is also the only one of the sites with a significant Protohistoric component whose occupation continued well into the colonial period.

A simplified picture for the Protohistoric, then, is as follows. It should be noted that this reconstruction is only a best guess based on the limited archaeological evidence at hand; it is entirely possible that archaeological evidence could completely rewrite this history. By the early sixteenth century, some twenty years before the arrival of the Hernando De Soto expedition of 1540, the radical social reorganization attributed to the Protohistoric period was already in place on the Black Warrior River. Based on evidence from the De Soto expedition, the corresponding transition appears to have occurred later on the Alabama River, since, drawing from the chronicles of the expedition, the domain of Chief Tascalusa in the vicinity of the Alabama River Valley was still at its height in AD 1540. By the Luna expedition of 1560, it appears that the polity once controlled by the powerful Chief Tascalusa had declined considerably and the transition to the more egalitarian social organization of the Protohistoric period was well underway. Based on the analysis of ceramic forms, there were three separate manifestations of the Burial Urn Culture in Central Alabama. These three separate manifestations appear to have emerged in place out of Moundville III-like and Pensacola-influenced populations, while also adopting traits diffused from the west, such as the appliqué and red and white painting decorative techniques.

By about 1650, the populations of the Black Warrior River Valley had disappeared. The river valley itself came to serve as a buffer zone between the Choctaws and the proto-Creeks (Knight 1982). While it has been suggested by Galloway (1995) that the groups from the Black Warrior River Valley represent one of the core constituents of the eastern Choctaws, this does not appear to be the case. The core of the eastern group of Choctaws instead appears to have been formed when the people associated with the Doctor Lake ceramic complex of the lower Tombigbee migrated westward (Carleton 1994). The limited archaeological evidence from the Black Prairie region suggests instead that the people of the Black Warrior Valley migrated to the south, settling around present-day Faunsdale, with some of these groups possibly continuing eastward into the Alabama River Valley to settle in the vicinity of the site of Taskigi, where a number of groups pushed from both the east by slave-raiding and encroaching colonists and the west by Choctaw aggression had settled.

By the eighteenth century, the Middle Alabama River Valley, from present day Clarke to Autauga counties was also largely abandoned (Craig T. Sheldon, personal communication 2001). The residents of Pintlala Creek and Durant Bend most likely migrated up the Alabama River to settle in the vicinity of Taskigi. The people of the sites in Wilcox County most likely moved to the southwest and were absorbed into the Mobilian tribes, since their material culture connection with the Pensacola culture is quite strong. It should be noted that although the groups of the Alabama and Black Warrior River valleys had not experienced prolonged direct contact with Europeans, their numbers had most likely been thinned as a result of disease epidemics and subsistence stress well before the time that the Black Warrior River Valley was emptied of people (Smith 1987; Hill 1996).

The question still remains whether the Protohistoric populations can be tied to any specific historic groups. The Alibamo have most frequently been identified as the remnants of these populations. The Alibamo are first mentioned by the De Soto chronicles on the western side of the Tombigbee River. They later appear in the accounts of Marcos Delgado's 1686 expedition, which noted the presence of a group known as the Aymamu on the upper Alabama who were recent immigrants from the west. Since, around 1650, the Black Warrior River Valley emptied out and the river became known as the "Potagahatchee," or "river on the margin," it is certainly possible that the Aymamu mentioned by Delgado are the people of Moundville who were driven out by the Choctaw. The similarity between the Choctaw and the Alibamo, specifically with respect to burial practices in the form of secondary inhumation, has been noted by Swanton (1998). While the Protohistoric cultures are best known for their urn burials, secondary inhumation is actually the most common form of burial practiced by the Protohistoric groups in the Black Warrior and Alabama River Valleys, which suggests that the groups who later became the Alibamo and the Choctaws were part of an interaction sphere at some point. Unfortunately, the early history of the Alibamo remains unclear, and no material culture continuities have been established between the Protohistoric phases and the historic Alibamo (Knight 1996). Regardless, the Alibamo remain the most likely candidate for the historic ethnic group tied to the people of the prehistoric Moundville chiefdom.

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