

**TESTING THE MOUNDVILLE MODEL: A STUDY OF STONE AT ALL
LEVELS OF THE SETTLEMENT HIERARCHY OCCUPIED DURING THE
REGIONAL CONSOLIDATION STAGE**

by

Kimberly Lauren Schaeffer

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Queens College
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Honors Thesis Committee:

Dr. Paul D. Welch

Dr. James A. Moore

Dr. Katherine A. Snyder

For my parents Michael and Miriam Schaeffer,
without whom I would not have been in college.
Thank you for always pushing me to finish.

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INTRODUCTION

The “Moundville model” is an empirical model of the political economy of a prehistoric chiefdom that explains the flow of distribution and consumption of goods. The model, proposed by Paul D. Welch (1991), was based on the prehistoric (AD 1120-1520) Moundville chiefdom in Alabama. Welch (1991) tested several models of the economic structure of chiefdoms then extant in the anthropological literature, and found that none of the published models fit the data from Moundville (see Welch 1991:6-22). Rejecting those models he constructed the Moundville model using archaeological data that were available at that time. He noted a potential problem, however, in that the data came from several different eras during the life of that chiefdom (Welch 1991:182-183, 198-199). The last decade’s research of the Moundville chiefdom has added to our knowledge and has caused the archaeological understanding of its history to change.

The information about Moundville has increased as more excavations were conducted. These excavations included work both at Moundville and at single mound sites. Also, surface collections have located a number of nonmound sites or “farmsteads”. Excavations at these sites have provided information about commoner activities that have been otherwise overlooked (Markin 1997). In addition to simply increasing the range of site types that have been excavated, there are now more excavated sites that are contemporaneous. In a recent study, Vernon J. Knight and Vincas P. Steponaitis (1998) argue that the Moundville chiefdom was not static throughout its history. They note changes in the subsistence practices, architecture, and spatial use at Moundville. For this study the most important change described by Knight and Steponaitis was that the amount of nonlocal stone present fluctuated through time. The

quantity of imported raw materials increased and peaked during the stage they call the Regional Consolidation Stage. In comparing the abundance of imported materials from different sites or contexts—as is required to evaluate a model of the chiefdom’s economy—it is therefore important that the sites be fully contemporary.

This paper sets out to test the robustness of the Moundville model using the current data. It tests the distribution of nonlocal lithic materials to see whether Welch’s model for craft production and prestige goods distribution still matches the more extensive, and more tightly chronologically controlled data now available from sites of the Moundville chiefdom. This study compares only the stone data from contexts of the Regional Consolidation Stage, or Late Moundville I/Early Moundville II phases(AD 1200-1300).

HISTORY OF MOUNDVILLE CHIEFDOM

History of Research

The Moundville chiefdom was located along a 40km stretch of the Black Warrior River Valley, Alabama (see Figure 1). Covering 75 hectares (185 acres), the large expanse of Moundville has attracted interest for over 140 years (Welch 1991:27-28). Extensive excavations have gone on at the mound center at Moundville (see Figure 2), while research at outlying sites has been limited to small-scale excavations. A number of single mound sites within the chiefdom have been partially excavated along with relatively few non-mound sites. Most of the non-mound sites have been identified by surface collections without further investigation. Clarence B. Moore and David L.

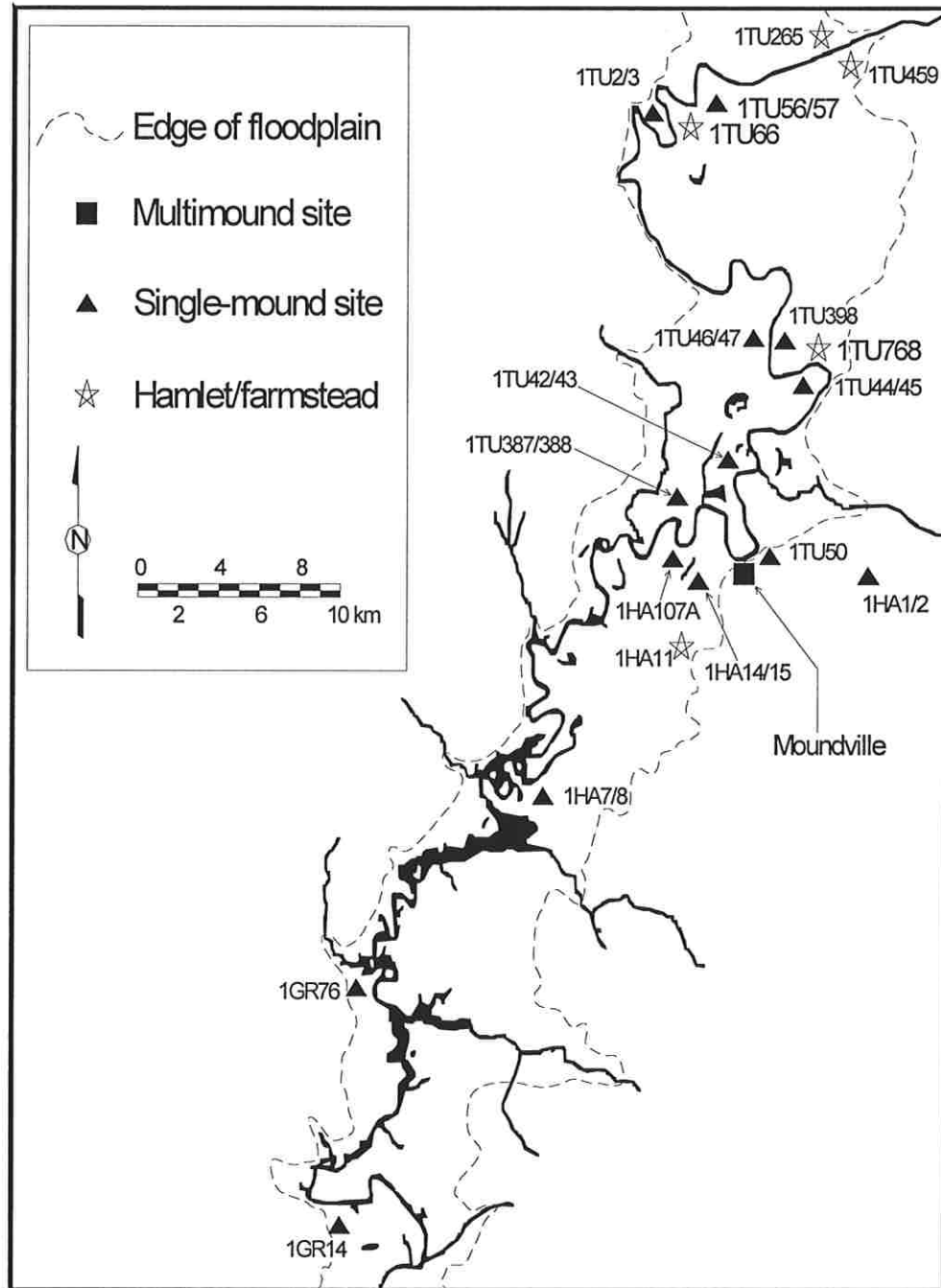


Figure 1: Archaeological sites of the Moundville Chiefdom.

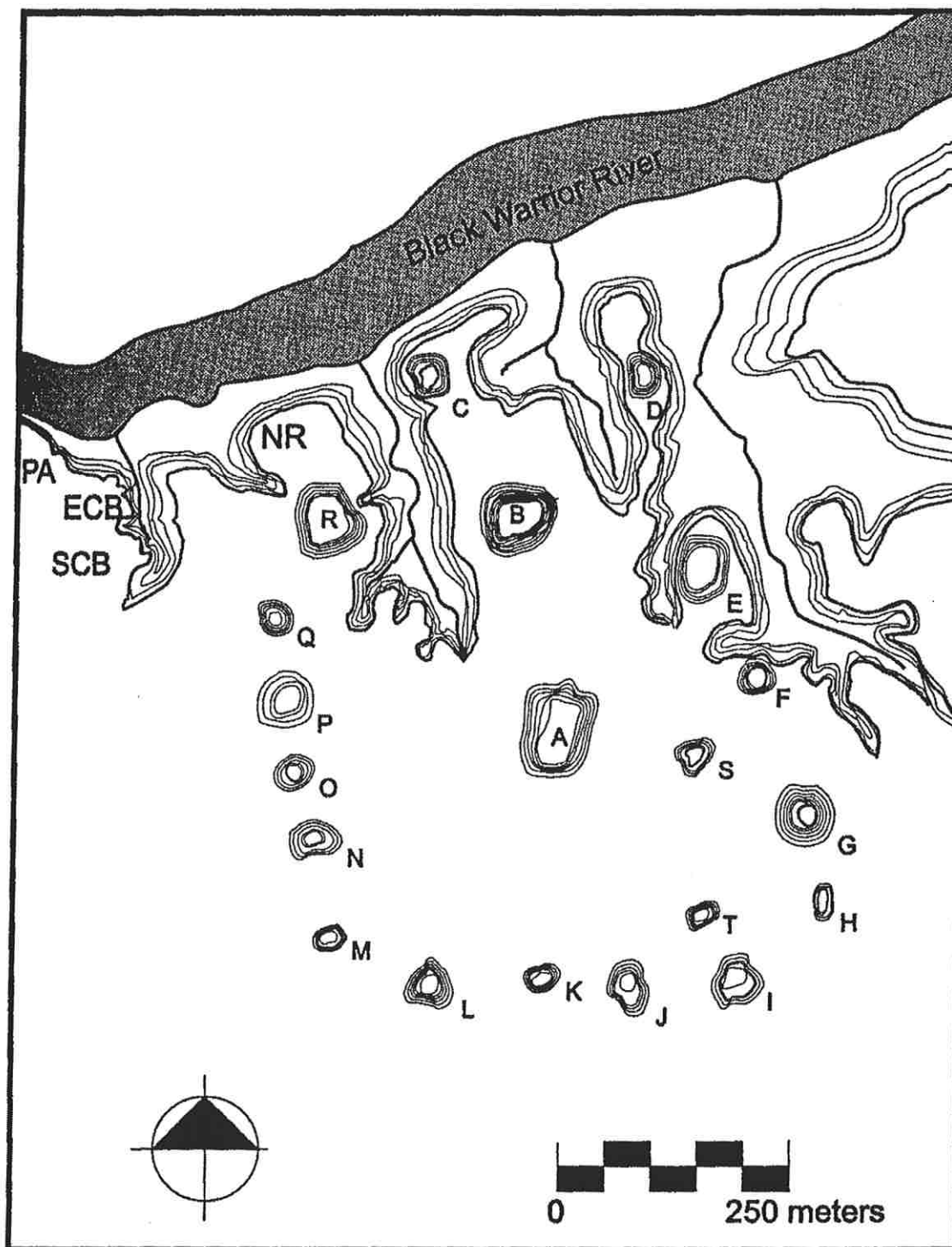


Figure 2: Location of excavations in Moundville I deposits at Moundville (Scarry 1998:65, figure 4.1).

DeJarnette pioneered the study of the Moundville chiefdom. Moore focused largely on the mounds and high status burials and precincts at Moundville (Welch 1991: 28). Outside of Moundville Moore (1905, 1907) also dug into most of the visible mounds on the Black Warrior floodplain. His field notes and published reports provide information almost exclusively about mortuary aspects of these sites (Welch 1991: 28). DeJarnette's excavations in the 1930's provided information about the non-mortuary aspects of Moundville, as well as mortuary data from two of the outlying mound sites. Although these excavations were extensive, generally the soil was not screened. This made the samples biased towards whole/large artifacts or artifacts that were unusual. DeJarnette continued excavations at Moundville into the 1970's. However, he did not publish anything about Moundville during this time (Welch 1991:27).

Christopher S. Peebles was the next archaeologist to conduct further research at Moundville starting in the 1970's (Welch 1991:27). His Moundville Project focused on controlled surface collections and mound stratigraphy testing at the outlying sites located within 25 km from Moundville (Welch 1991:29). This was done to obtain a clear chronology of pottery types and to obtain the first systematic collection of subsistence remains. Stratigraphic testing confirmed the pottery seriation based on grave goods (Steponaitis 1980, 1983). The controlled surface collections also helped identify non-mound sites.

Current Understanding

The picture of the Moundville chiefdom has changed over the years. As more outlying sites have been excavated a clearer picture of the chiefdom as a whole can be

seen. The Mississippian occupation at Moundville has been divided into four ceramic phases: Moundville I-IV (see Figure 3). In the Black Warrior River Valley the Mississippian occupation existed from approximately 1120 AD to 1650 AD (Knight, et al 1999, fig. 7). The cultural history of the Moundville chiefdom has also been divided into developmental stages (also shown in Figure 3) that do not necessarily correspond with the ceramic phases. The stages are a) Initial Centralization, b) Regional Consolidation, c) The Paramountcy Entrenched, and d) Collapse and Reorganization (Knight and Steponaitis 1998:8).

	Ceramic Phases (Subphase)	Developmental Stages
AD 1650	Moundville IV	Collapse and Reorganization
AD 1520	(late) Moundville III (early)	
AD 1400	(late) Moundville II (early)	The Paramountcy Entrenched
AD 1260	(late) Moundville I (early)	Regional Consolidation
AD 1120	(late) West Jefferson (early)	Initial Centralization
AD 1020		Intensification of Local Production

Figure 3: Ceramic Phases and Developmental Stages of Moundville
(Ceramic Phases from Knight, et al. 1999: fig. 7;
Developmental Stages from Knight and Steponaitis 1998, fig. 1.2)

Initial Centralization Stage

Early Moundville I corresponds with the Initial Centralization stage of the Moundville chiefdom. During this time distinct Mississippian diagnostics are visible. This includes platform mounds, quadrilateral wall trench architecture, and shell-tempered pottery. During this stage there is also a noticeable change in subsistence strategies, settlement patterns, and social structure. Small, nucleated towns are replaced by single farmsteads and a reliable agricultural economy emerged (Knight and Steponaitis 1998:12). Only two mounds were constructed during this phase: Asphalt Plant and Mound X. Asphalt Plant is less than 1 km northeast of Moundville and Mound X is located in Moundville (see Figure 4).

Regional Consolidation Stage

Late Moundville I through Early Moundville II phases correspond with the Regional Consolidation stage. This stage was marked by the building of all of the mounds (excluding X) at Moundville and at least three subsidiary mounds located along the Black Warrior River (see Figure 5). One of these subsidiary mounds was Hog Pen, 1TU56. There was a change in subsistence with evidence of provisioning of elites at Moundville by nonelites at outlying sites. The construction of both public and domestic buildings during this phase marked the change in architecture. The palisade, which surrounded the entire site, was also built and rebuilt during this phase. The palisade built over Mound X indicates it was not in use during this stage. The acquisition of non-local goods and raw materials intensified (Knight and Steponaitis 1998, 14-17). The data from excavations of one mound at Moundville, Mound Q, provide evidence for elite craft production at Moundville (see Markin 1994, 1997).

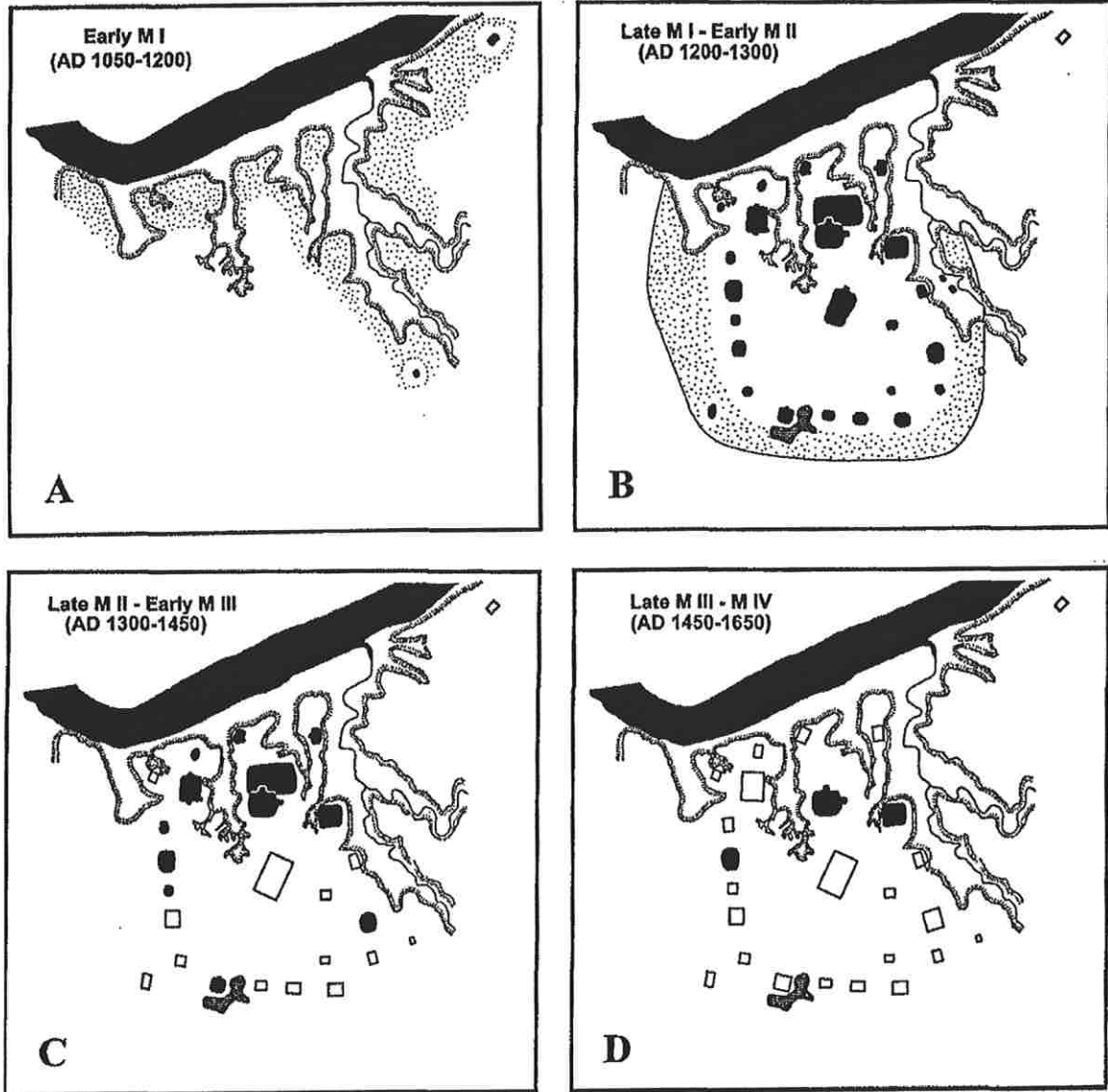


Figure 4: Settlement changes at Moundville. A, Early Moundville I. B, Late Moundville I-early Moundville II. C, Late Moundville II-early Moundville III. D, Late Moundville III-Moundville IV. Occupied mounds are black; abandoned mounds are open rectangles; domestic occupation area is stippled (from Knight and Steponaitis 1998:14).

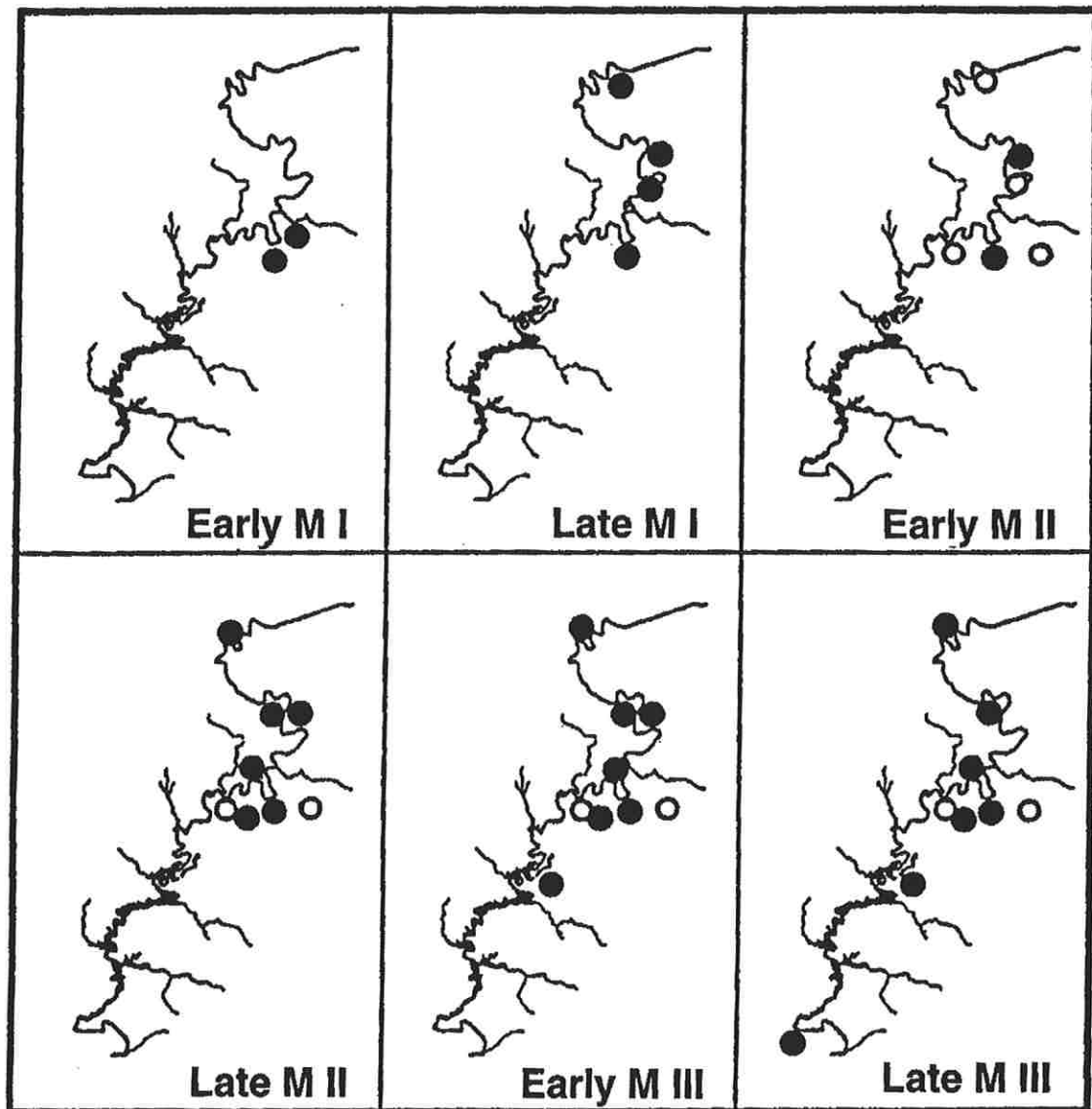


Figure 5: Settlement pattern of the Moundville chiefdom; closed circles represent occupied areas (from Welch 1998:161, figure 7.1).

Paramouncy Entrenched Stage

Late Moundville II and Early III phases correspond with the Paramouncy Entrenched stage. Moundville was mostly vacated and it became a ceremonial and mortuary center. Cemeteries replaced residential areas while more people were being buried at Moundville. Some of the mounds were also abandoned during this stage. At the same

time mounds were built at new subsidiary centers. There were at least seven single mound sites that were occupied at the same time during this stage. The palisade at Moundville was no longer rebuilt, either because of reduced threat of invasion or because there were insufficient residents to defend it (Knight and Steponaitis 1998:17-21).

Collapse and Reorganization Stage

Late Moundville III and all of Moundville IV phases correspond with the Collapse and Reorganization stage. Moundville was still being used for mortuary rituals. All of the mounds at Moundville were abandoned except for P, B, and E. Several outlying mounds were still occupied. Cemeteries appear at these sites for the first time. Nucleated villages reappear and the dependence on agriculture decreased in favor of wild foods. Towards the end of this stage the secondary mounds were largely abandoned and no evidence of political unity is evident (Knight and Steponaitis 1998, 21-24).

Moundville Model

Welch (1991) built an economic model based on the pattern of production and distribution of goods in the Moundville chiefdom. In addition to examining the modes of production and distribution of subsistence goods, Welch discussed the mode of craft production at Moundville. The Moundville model suggests that there are three levels in the settlement hierarchy: 1) paramount center (Moundville), 2) local center (single mound sites), 3) domestic unit (farmsteads). "Craft items" is the term used by Welch (1991:134) to refer to nonsubsistence goods. Ceramics and manufactured stone are just two types of craft items. According to the model, some craft items are locally produced and consumed, while others are made at the paramount center and distributed from there. The

paramount center controls the nonlocal goods, or prestige goods, coming in from other chiefdoms and in turn distributes some of those items to the local centers. There are some prestige items that are restricted entirely to the Paramount center. The prestige goods that are distributed to other chiefdoms are manufactured only at the paramount center and are often fashioned of nonlocal materials.

The model was constructed using the data available at that time. The data that were included mostly consisted of artifacts from one local center, the White site (1HA7), and from North of Mound R at Moundville, which were Late Moundville III contexts and Late Moundville I contexts respectively. Based on these data, Welch argued that elites at Moundville received the nonlocal goods and raw materials and had them fashioned into finished goods. It was in this way that the elites at Moundville controlled the manufacture and distribution of nonlocal crafts. Most utilitarian tools were manufactured at all levels of the settlement hierarchy, of local raw materials. In addition, utilitarian tools manufactured at Moundville made of nonlocal materials were distributed to all levels of settlement hierarchy because the distribution of tools was restricted by their use not by their nonlocal origin. This is evident in the distribution of Mill Creek Hoes. Mill Creek is a nonlocal chert that is often fashioned into hoes and can be found at all levels of the settlement hierarchy. Nonutilitarian items were usually made of nonlocal raw materials, which reached the subsidiary sites in finished or near finished forms. No primary work on the nonlocal stone was done outside of Moundville. In addition, the nonutilitarian goods that did reach the subsidiary mounds were in small quantities and were not further distributed to the domestic level (Welch 1991:176-178).

Welch acknowledges that there are a few limitations to his model (see Welch 1991:182-183). There were two assumptions made in order to construct the model. The first is that the economic relationship between all of the single mound sites is the same as the economic relationship between Moundville and the White site. The data from surface collections and small-scale excavations at the outlying single mound sites were consistent with the model. The second is that there is no change in the economic structure of the chiefdom over time (Welch 1991:182-183). Due to limited available data the analysis was performed on sites that were not contemporary. The differences found between these areas could be caused by differences in chronology rather than differences in hierarchical status or social context.

NEW RESEARCH

Markin 1994 and Maxham 1997

Julie G. Markin analyzed recently excavated materials from Moundville (Markin 1994, 1997). She was particularly interested in mound function and how the stone artifacts could shed light on the function of those mounds. She analyzed stone assemblages from Mounds Q and G, which were categorized as a “mortuary temple” mound and “elite residential” mound respectively. Although the abundance of craft materials is not equal on the mounds one thing is clear; craft production was taking place at Moundville in elite contexts. Many different nonlocal materials were found including nonlocal cherts, galena, and greenstone. Finding these materials in this context at Moundville conforms to the Moundville model as argued by Welch (see Welch 1991).

Mintcy D. Maxham (1997, 2000) analyzed data from two “farmsteads”, 1TU66 and 1TU768, along the Black Warrior River Valley. She was interested in determining whether materials from nonmound (domestic unit) sites conform to Welch’s model. She was mostly interested in how the pottery conformed to the model, however she did include some stone data. The vessel assemblages, with regards to the serving-to-cooking ratio, from 1TU768 and 1TU66 are very different from one another. The serving-to-cooking ratio from 1TU768 matches what one would expect to find at a “farmstead”. On the other hand, 1TU66 has a serving-to-cooking ratio that exceeds the ratio found in elite contexts at Moundville. The faunal remains at 1TU66 also did not match what one should find at a “farmstead”. Maxham concluded that while 1TU768 was most likely a farmstead, 1TU66 was not. She does not believe the people at 1TU66 were more elite than residents at Moundville, but instead that there is another kind of site that does not fit into the Welch’s Moundville model.

Predictions for Outlying Sites Based on Welch’s Moundville Model

The Moundville model posits that working of nonlocal stone is restricted to Moundville. This implies that there would not be any nonlocal stone in the early stages of the reduction sequence outside of Moundville. Any nonlocal stone outside of Moundville should be in finished or near finished form. It also implies that the local stone would be more abundant at the outlying sites than at Moundville. If the data from single mound sites fit the Moundville model one would expect to find nonlocal materials mostly in the later stages of the reduction sequence, or in other words very few in the primary stages of reduction. There should be no evidence of nonlocal craft production at

the single mound or nonmound sites. One would expect that the ratios of local materials to nonlocal materials would be different at the three tiers of the settlement hierarchy. The contexts at Moundville should contain more nonlocal stone than the contexts at the single mound sites and the domestic units. Only modified nonlocal stone should be present at the sites outside of Moundville. The following questions are asked of the stone data: How abundant is the nonlocal stone compared with the local stone? What stages of the reduction sequence are the nonlocal stones found in? Are there exotic stones (greenstone, galena, mica, etc.) present and in what quantities?

HOG PEN

History of Excavation at Hog Pen

Hog Pen (1TU56) is a single mound site located approximately 21 km from Moundville (see Figure 6). It was one of the few mound sites not visited by Moore. The first excavations took place in 1978 as a part of Peebles Moundville project. The area excavated included two 1x1 meter test units on the mound slope. Two episodes of mound construction were revealed along with a clay hearth on the first episode of construction (Bozeman 1982:59-75).

In 1990 and 1992 Welch excavated at Hog Pen. Welch (1998:150-152) reported that the 1990 excavation confirmed the two episodes of mound construction and revealed that the clay hearth was at the corner of the initial mound summit. Extensive testing, including six 1x3 meter trenches and soil augering revealed a midden deposit with a 3-

meter diameter on the terrace slope next to the mound. In 1992 the midden deposit was excavated.

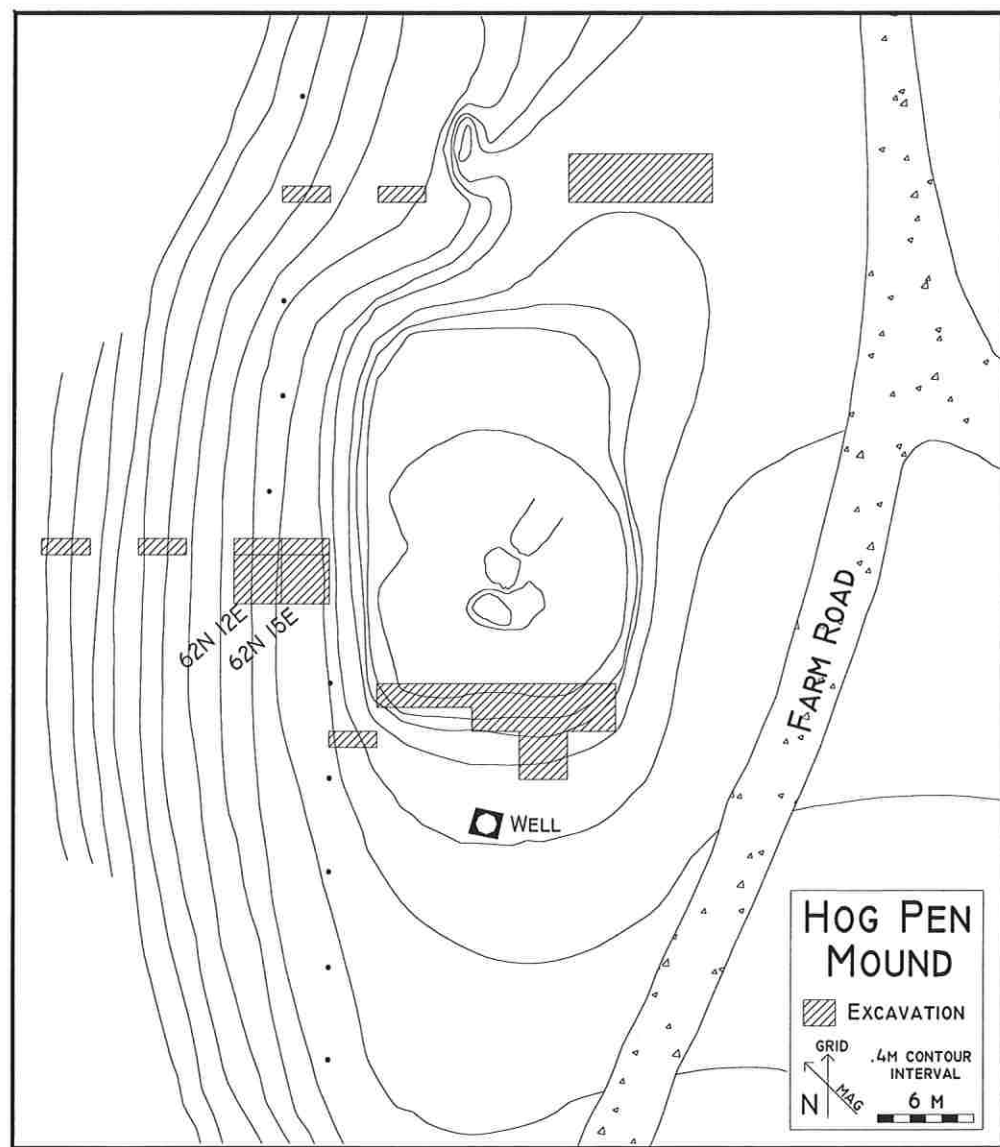


Figure 6: Excavations at Hog Pen Mound, 1TU56/57; 62N12E and 62N15E represent the midden deposit.

Deposits Analyzed in this Report

For the purposes of this report, the stone from the midden deposit that was excavated at Hog Pen were analyzed. The midden was located on the terrace slope, just below the mound slope, and is thought to contain refuse from activities on the mound summit (Welch and Scarry 1995:401). The stone assemblages include local stone, nonlocal cherts and sandstone. Small quantities of other types of stone were also found.

The pottery analyzed by Welch (1998:151; Welch and Scarry 1995:401) aided in determination of the chronology of the site. “The pottery diagnostics include folded jar rims, a few folded-flattened jar rims and sherds of Moundville Incised, *vars. Moundville, Carrollton, and Snows Bend*”(Welch 1998:151). Those diagnostics represent Late Moundville I/Early II phases. There were also two radiocarbon samples taken from the midden deposit. The first sample yielded a calibrated radiocarbon determination of AD 1230, with a date range of 1170-1280 (Welch 1998:140-141, 151). This fits the dates obtained from the pottery nicely. The second date, however, yielded an unexpectedly late determination of AD 1400, with a date range of 1310-1420 (Welch 1998:140-141, 151). Because this sample was obtained from a layer that was below the first sample, and because it does not match well with other radiocarbon determinations associated with Late Moundville I/Early II pottery, Welch rejects the AD 1400 date as too recent.

The midden was excavated in arbitrary units that conformed to the slope of the terrace. The deposit contained stone, pottery and food byproducts. These deposits were likely to have been formed by the elites who occupied the mound and from communal gatherings that took place on the mound summit (Welch and Scarry 1995:401). While the pottery and food byproducts have been analyzed (Holland 1995; Welch and Scarry

1995), the stone has not. The midden layer has little chronological mixing making it ideal for analysis. However, undifferentiated layers below the midden contained many diagnostic projectile points that date to Early, Middle and Late Woodland periods. Since these deposits antedate the Mississippian occupation, they have been excluded from this analysis. The lots that are excluded are FS #'s 13-22 from the 1992 field season and FS #'s 25, 86, and 98 from the 1990 field season. A list of all stone from the midden, from all FS units, is presented in the Appendix.

Laboratory Processing (methods)

Cataloging procedures had already separated the stone artifacts into crude categories. This analysis required finer classification. The raw material typology used generally follows that of Ensor (1981:119-128, see Scarry 1995:69-85). Below is a general classification of technological types of stone. This classification provides information about the kinds of activities that individuals were performing at these sites.

The stone was separated into two categories: unmodified stone and modified stone. The modified stone category was subdivided into two categories: flaked stone and ground stone. All of the stone was separated by stone type and origin (local vs. nonlocal), counted and weighed.

Flaked Stone

Flaked stone was further classified by its place in the reduction sequence or technological form. The reduction sequence is the stepwise process by which stones are modified from raw form into a finished product, plus any subsequent resharpening or reshaping. The raw form is the unmodified stone and the finished products are stone

tools. The steps in between include the production stages of the tool type and the manufacturing debris or debitage. If the form could not be ascertained the stone was put into the category “shatter”.

Cores are blocky pieces of chert or quartzite from which flakes and/or blades have been detached leaving negative flake scars. *Shatter* refers to irregular, angular pieces of chert or quartzite that lack platforms or other flake characteristics. *Noncortical flakes* are pieces of chert or quartz that have been deliberately removed from a cobble or core after the cortex has been removed. *Cortical flakes* are formed during the removal of cortex either initially from a core (Primary Decortication) or from later stages of cortex removal (Secondary Decortication). For the purposes of this paper, I did not make the distinction between Primary Decortication Flakes and Secondary Decortication Flakes. *Biface thinning flakes* have platforms or remnants of platforms. Such flakes are generally curved in cross section, have negative flake scars, and have no cortex on their surfaces. This classification was used only to refer to flakes that were formed by biface thinning and reduction. *Blade-like flakes* have lengths that are more than twice their widths and they generally have parallel edges on their long axes. *Tool Flakes* (Utilized Flakes) are pieces of debitage (by products of manufacture) that have been used resulting in one or more irregular, minutely chipped edges. *Bifaces* are chert or quartzite artifacts that have been shaped by the removal of flakes from both surfaces. This category was used if the finished tool type was indeterminate. *Drills/Perforators* are relatively long, narrow bifaces with thick bits that are often diamond-shaped in cross-section. Drills are often used to work shell or hides. *Hoes* are large, ovoid bifaces that often exhibit polish that is the result of abrasion from particles. *Hoe flakes* are resharpening flakes identified by the

presence of hoe polish. *Microblades* are small blades that are often used to work shell. *Projectile Points* are bifacially flaked, hafted tools, which have been used as either the tips of spears or arrows.

Ground Stone

The ground stone was separated into technological categories such as abrader, pitted stone, chunky stone, with “stone, ground” as a residual category. An *abrader* is a stone exhibiting local grinding or smoothing. Specimens classified as *ground* have surfaces that appear to have been deliberately smoothed. Polished specimens are ones on which surfaces are not only smooth but have a lustrous glossy appearance. *Palettes* are relatively thin, flat cut and ground stone disks or rectangles. Typically they are made of fine gray micaceous sandstone and it is proposed that they were used to grind mineral pigments (Steponaitis 1992). A *hammerstone* is a rounded stone that exhibits evidence of battering on one or more surface or edge. *Pitted stones* are stones that exhibit an indentation on one or both sides and exhibit no other signs of grinding and are used in nut processing. *Chunky-stones* are highly polished rounded stones that have an indentation in the center. They were used as gaming pieces (DeBoer 1993).

Stone was classified as local or nonlocal depending on the proximity of the raw material source to Hog Pen. The local stone is either from the Tuscaloosa gravel formation, within 20km of Hog Pen, or from the Upper and Lower Pottsville formation, approximately 10km from Hog Pen. This formation includes Tuscaloosa chert, quartz pebbles, conglomeratic sandstone, coal and petrified wood. The Tuscaloosa chert is available as pebbles that are sometimes quite small. Red ocher, which is used as a pigment, is also found in the Tuscaloosa formation. The majority of the sandstone in this

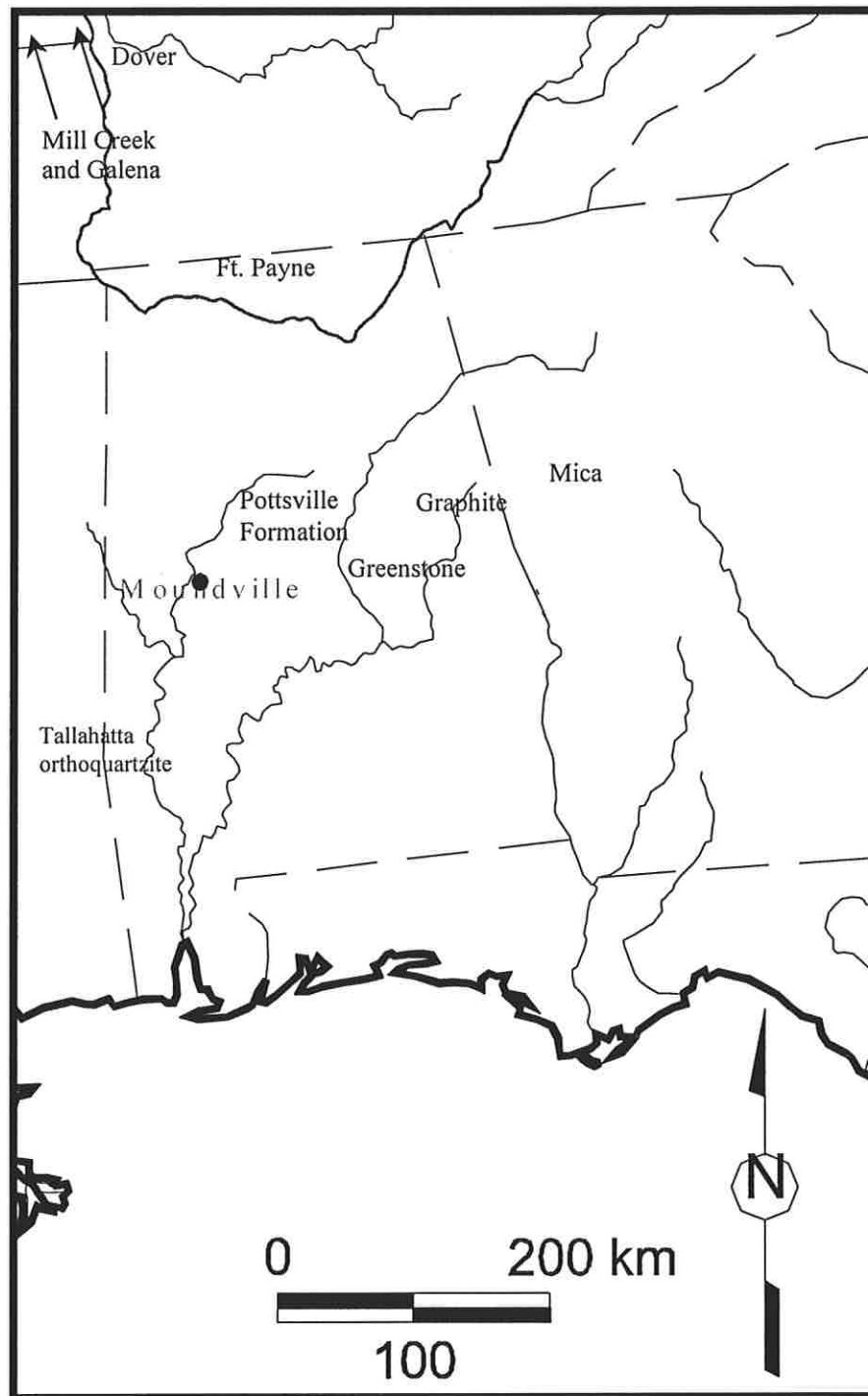


Figure 7: Distribution of nonlocal raw materials present in the Moundville chiefdom.

assemblage was from the upper and lower Pottsville formation that is located in north central Alabama near the fall line hills. There were also some nonlocal cherts included in the Hog Pen assemblage. The nonlocal sources are defined as being more than 100km from Hog Pen. Those identified were Ft. Payne from north Alabama (see Figure 7), Dover from Tennessee, Mill Creek from Illinois (Welch 1991:161). Mill Creek and Dover are available in large slabs, which make them ideal for fashioning larger tools, such as hoes, than can be made with the local materials. Flaked stone of unidentified origin was classified as nonlocal. Some Tallahatta quartzite was also found which is from south Alabama (Welch 1991:161). The greenstone found was probably from the Hillabee formation in Chilton County, Eastern Alabama (Gall 1993).

DATA

Chert/quartz

The Moundville flaked stone tools were predominantly made of chert. The only unmodified chert found at Hog Pen was the local Tuscaloosa chert (see Table 1). All of the nonlocal varieties of chert that were present were modified. More over, even the local variety was not abundant in unmodified form: only 38 Tuscaloosa chert pebbles were found. Although unmodified chert was not abundant, quartz pebbles were. Quartz pebbles were five times as abundant as chert pebbles. This is not surprising since the quartz is locally available and not used as often to make finished tools. There were three pieces of orthoquartzite present in unmodified form. The origin of this orthoquartzite is not known, but it does not resemble Tallahatta orthoquartzite.

Table 1: Unmodified Stone counts from Hog Pen.

Material	Sum of item count
Sandstone, brown or hematitic	1029
quartz	180
chert, Tuscaloosa	38
reddish slate	36
red ocher	15
Sandstone, hematitic conglomerate	7
Sandstone, fine gray micaceous	4
graphite	4
orthoquartzite	3
greenstone	1
limestone	1

Both Tuscaloosa chert and the nonlocal varieties were present in modified form. The local chert and quartz made up 89% (see Table 2) of the total debitage (byproducts of manufacture) and approximately 76% of the tools (see Table 3). The local stone is present in all phases of the manufacturing process, with 79% representing primary reduction (cortical flakes and shatter) of the stone. The data also show that nonlocal stone is represented in all stages in the manufacturing process as well though items from late stages predominate. Primary reduction accounts for only 27% of the nonlocal debitage. Most of the nonlocal debitage represents later stages of reduction, and 24% of the tools are made from nonlocal stone. There are fewer nonlocal tools than there are local tools. Also there is a marked difference in the types of tools present. There are more technological types of local tools than there are nonlocal. The only technological type of nonlocal stone available that was not also available in a local form was a hoe flake. This is not surprising because hoes were often made of nonlocal materials and was available in all levels of the chiefdom settlement hierarchy.

Table 2: Counts and Weights of Local and Nonlocal Debitage from Hog Pen

Debitage Category	Local				Nonlocal			
	count	% ¹	weight	% ¹	count	% ¹	weight	% ¹
Core	3	0.3	31.9	2.9	1	0.7	16.2	14.2
shatter	438	38.4	784.8	72.5	18	12.8	34.3	30.0
cortical flake	465	40.8	204.3	18.9	19	13.5	26.8	23.4
noncortical flake	227	19.9	59.4	5.5	94	66.7	30.5	26.7
bifacial retouch	7	0.6	1.9	0.2	6	4.3	4.3	3.8
flake								
hoe flake	0	0.0	0	0.0	3	2.1	2.2	1.9
Total Debitage	1140	89.0	1082.3	90.4	141	11.0	114.3	9.6

¹ Percentages calculated separately except for local and nonlocal stone, except for totals

Table 3: Raw Material Types for Chipped Stone from Late Moundville I/Early Moundville II Midden Deposit, Hog Pen

Artifact Type	Tuscaloosa Gravel	Local Stone Quartz	Ft. Payne	Dover	Mill Creek	Unidentified	Tallahatta orthoquartzite
Tools							
Madison Points	10	0	0	0	0	2	0
Hamilton Points	2	0	0	0	0	1	0
Bradley Spike	0	0	0	0	0	1	0
Stemmed point	2	0	0	0	0	0	0
Projectile Point fragments	4	0	1	0	0	1	0
Drill	2	0	0	0	0	0	0
Graver	1	0	0	0	0	0	0
Biface	2	0	0	1	0	2	1
Preform	11	0	0	1	0	3	0
Microblade	1	0	0	0	0	1	0
Scraper	2	0	0	0	0	0	0
Tool flakes	9	0	0	0	0	0	0
Uniface	1	0	0	0	0	0	0
<i>All tools (%)</i>	47 (75.8)	0 (0)	1 (1.6)	2 (3.2)	0 (0)	11 (17.7)	1 (1.6)
Debitage (%)	1102 (86.0)	38 (3.0)	40 (3.1)	33 (2.6)	3 (.2)	60 (4.7)	5 (.4)

Based on the data it is clear that people at this site were manufacturing stone tools using both local and nonlocal materials. Flaked stone tools are made using the inside of the chert. The cortex or weathering rind that encases the rock interferes with the flaking process and therefore is removed. The Tuscaloosa chert is usually present as very small pebbles. This means that there is more cortex that must be removed to get to the workable portion of the stone. Since the Tuscaloosa chert is so small, the size of the Tuscaloosa chert could have contributed to the abundance of local cortical flakes. It is clear, however, that local chert was used more than the nonlocal chert. There is a greater proportion of local stone to nonlocal stone as well as more technological types of the local stone. It is also important to note that there were projectile points present that are not diagnostic of this period of occupation (stemmed points and Bradley Spike). They were present in both local and nonlocal cherts and represent some intrusion from lower layers. It is uncertain how many of the other stones are also intrusive.

Sandstone

A large portion (79%) of the stone assemblage was made up of unmodified sandstone, nearly all of which (99%) was brown or hematitic sandstone (see Table 1). Hematitic conglomeratic and fine gray micaceous sandstone makes up the other 1%. The brown or hematitic sandstone probably comes from the Lower Pottsville formation located in north Central Alabama. Cynthia Armendariz (1999: 4) described the formation as “a beach or barrier system with the sandstone characterized as a massive pebbly quartzose sandstone”. The fine gray micaceous sandstone probably comes from the Upper Pottsville Formation, which she describes as “a high deltaic complex, with a shale-

sandstone sequence containing thick, continuous coal seams. ...(and) is characterized by its gray color and mica content” (Armendariz 1999: 4). The fine gray micaceous sandstone from the Upper Pottsville formation is thought to be the source for many of the Moundville palettes, which are circular, or rarely rectangular, carefully shaped slabs used for grinding mineral pigments. The origin of the raw material for paint palettes is hypothesized to be the Upper Pottsville because of the characteristics of the sandstone, the proximity to the source, the resemblance to sandstone from the known source, and from the lack of other nearby sources (see Armendariz 1999). The hematitic conglomeratic sandstone is present in the Tuscaloosa gravel formation and is therefore most likely from there.

The modified sandstone shows the same pattern as the unmodified sandstone (see Table 4). The brown or hematitic variety makes up 91% of the modified sandstone assemblage. Sandstone is usually ground to modify it; however, this variety was chipped/flaked as well. None of the other varieties are present in chipped form.

The fine gray micaceous sandstone present had at least one ground surface. It was originally thought that at Hog Pen stone palettes were being manufactured (Welch and Scarry 1995:403). Indeed there was a thick piece of fine gray micaceous sandstone that appeared to have saw marks on it, but was otherwise unfinished. This potential palette fragment was in one of the chronologically mixed layers (lot 86- 1990) so it is impossible to date. There were no saws recovered from this deposit and most of the abraders were in the chronologically mixed layers. Sandstone saws are used to manufacture sandstone artifacts such as paint palettes. Abraders are also used in the manufacturing process of sandstone.

Table 4: Modified sandstone counts by technological type

Sandstone type:	Object name	Count
<u>Fine gray micaceous</u>	Ground Stone	2
<u>Hematitic Conglomeratic</u>	Chunkey Stone	1
<u>Brown or hematitic</u>	Abrader	2
	Biface	2
	Pitted Stone	2
	Preform	1
	Shatter	2
	Ground Stone	23

The only modified hematitic conglomeratic sandstone was a chunkey stone fragment. It is believed that chunkey-stones were used as gaming pieces. They are highly polished and have an indentation in the center. Chunkey stones are made of a variety of materials (DeBoer 1993).

Other Stone (greenstone, graphite, etc.)

There are very few exotic stones present in this deposit (see Table 1). There was only a small piece of unmodified greenstone, which most likely comes from a source in Eastern Alabama. In addition, there are four pieces of unmodified graphite. The source of this graphite is not known, but cannot be closer than the belt of metamorphic rocks in central Alabama.

Conclusions

According to the data, Hog Pen fits the Moundville model. The local stone made up 88% of the flaked stone assemblage and the majority of the nonlocal stones were present in the later stages of the reduction sequence. The people at Hog Pen were working both local and nonlocal stone. Although, the local stone represents all stages of the manufacturing process, the nonlocal only represents 27% in the early stages of reduction. Nonlocal cherts are present only in modified form. The data did not show that there was any sandstone palette manufacturing taking place during the Regional Consolidation stage. Also there are relatively scarce amounts of exotics stones such as greenstone and graphite. No mica or galena is found in this deposit. There is little evidence to suggest that the residents of Hog Pen had direct access to exotic lithic material.

COMPARISON OF MOUNDVILLE, NR, ECB, SCB, TU66, TU768 WITH HOG PEN

Until recently, excavations of non-mound sites have been rare. The two excavated sites that were occupied during the Regional Consolidation stage are 1TU66 and 1TU768. Limited stone data have been reported by Maxham (2000:249). Excavations at Moundville have uncovered off-mound residential areas that were occupied during the Regional Consolidation stage. These areas include East of the Conference Building (ECB), South of the Conference Building (SCB) and North of

Mound R (NR) reported by Scarry (1986, 1995, and 1998). Elizabeth Ryba and Carey Oakley (1997) reported the Craft Pavilion (CP) excavation, also located in Moundville. Mound Q was also occupied during the Regional consolidation stage and the data was reported by Markin (1994,1997). Due to the incompatibilities in the reporting formats, Markin's data from Mound Q cannot be directly compared with any of the other Moundville contexts or with Maxham's data from 1TU66 and 1TU768, but the Hog Pen data can be compared with all of these contexts. These incompatibilities are discussed later in this section.

Does the Moundville Model Fit the Current Data?

The Moundville model posits that artifacts of nonlocal stone were manufactured at Moundville, and that nonlocal stone was worked at lower ranking Moundville sites only in limited quantities. It also presupposes that the manufacture of nonutilitarian items from nonlocal stone would be limited to Moundville and distributed to single mound sites only from Moundville. Further more, the nonlocal stone that is present outside of Moundville would represent the late stages of the reduction sequence. If these sites conform to the Moundville model then there should be a gradation of nonlocal stones from Moundville, to single Mound site (Hog Pen) to non-mound site (1TU768 and 1TU66). In other words, the ratio of non-local stone should be the highest at Moundville, Hog Pen should have the second highest and 1TU768 and 1TU66 should have the lowest.

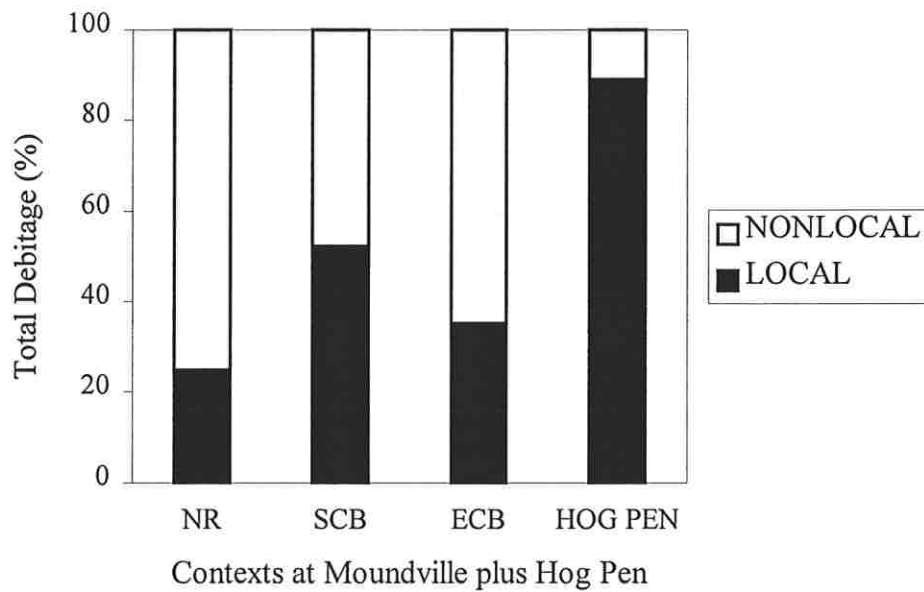


Figure 8: Comparison of the percents ofdebitage between the contexts at Moundville and Hog Pen.

Chert/quartz

The data from NR, ECB, and SCB (the contexts at Moundville) show that nonlocal stone is relatively abundant compared with local stone. The debitage from NR is only 25% local stone, the debitage from ECB is only 35% local stone and the debitage from SCB is 52% local stone (see Figure 8, Table 5). The difference between the areas may be due to status differences, or may be insignificant given the small samples of stone from the NR and SCB excavations. The pattern still shows that both early and late reduction of nonlocal stone is present at Moundville. The Hog Pen data shows that 88% of all of the flaked stone is of local materials and the nonlocal stone present is mostly in the later stages of the reduction sequence. The stone data from TU768 (nonmound site) shows that 90% of the flaked stone was nonlocal (see Figure 9). However, Maxham (1997: 27)

Table 5: Counts and Weights of Local and Nonlocal Debitage from Excavations at Moundville

Debitage Category	Local				Nonlocal			
	no.	% ¹	wt. (g)	% ¹	no.	% ¹	wt. (g)	% ¹
<u>North of Mound R²</u>								
Core	0	0	0	0	0	0	0	0
Shatter	6	24	3.9	13.6	20	26.3	40.5	50.6
cortical flake	12	48	21.2	73.9	7	9.2	9.5	11.9
noncortical flake	7	28	3.6	12.5	39	51.3	26.6	33.2
bifacial retouch flake	0	0	0	0	10	13.2	3.5	4.4
Total	25	24.8	28.7	26.4	76	75.2	80.1	73.6
<u>South of the Conference Building²</u>								
Core	0	0	0	0	1	9.1	117.2	92.9
Shatter	0	0	0	0	0	0	0	0
cortical flake	8	66.7	8.2	88.2	1	9.1	0.3	0.2
noncortical flake	2	16.7	0.5	5.4	7	63.6	8	6.3
bifacial retouch flake	2	16.7	0.6	6.5	2	18.2	0.3	0.2
Total	12	52.2	9.3	6.9	11	47.8	126.2	93.1
<u>East of the Conference Building³</u>								
Core	3	4.1	42	24.1	21	15.4	329	63.8
Shatter	39	52.7	87	50	58	42.6	112	21.7
cortical flake ⁴	11	14.9	21	12.1	12	8.8	26	5
noncortical flake	6	8.1	9	5.2	0	0	0	0
bifacial retouch flake	15	20.3	15	8.6	45	33.1	49	9.5
Total	74	35.2	174	25.2	136	64.8	516	74.8

¹ Percentages calculated separately for local and nonlocal stone, except for totals

² From Scarry (1986)

³ From Scarry (1995)

⁴ This category is the combination of Primary and Secondary Decortication flakes.

states that the lithics from this site conform to the Moundville model because the majority of non-local lithics (91%) represent the end of the reduction sequence. The data from 1TU66 show that the local material only comprises 64% of the flaked stone assemblage (Maxham 1997:27, 2000:349). The nonlocal stone is present in both early (31%) and late (69%) stages of the reduction sequence as well.

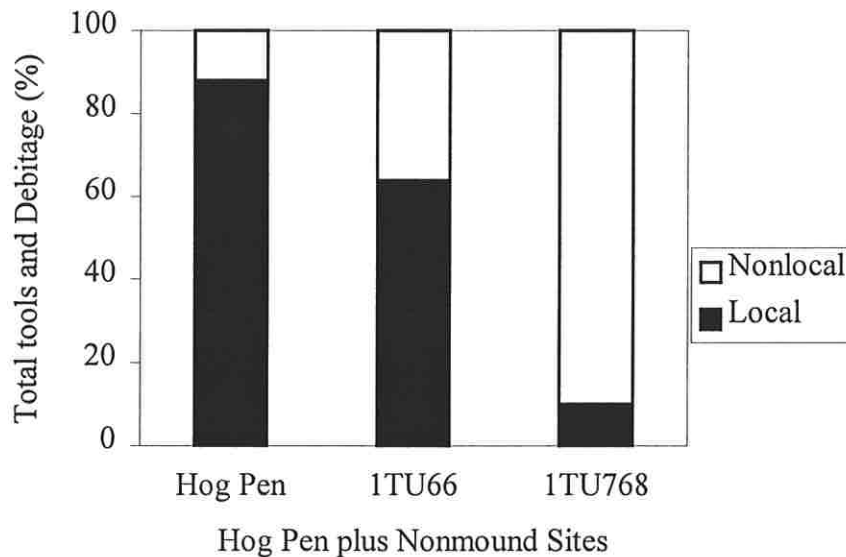


Figure 9: Comparison of percents debitage and Tools for Hog Pen and nonmound sites.

Sandstone

The sandstone that is present in Moundville comes from the Upper and Lower Pottsville Formation. The fine gray micaceous sandstone in some contexts at Moundville

is very abundant compared with Hog Pen (see Scarry 1995:81). Sandstone data are not available for 1TU768 and 1TU66. The ECB assemblage at Moundville shows that 51% of the modified sandstone was fine gray micaceous, compared with the 6% present at Hog Pen. There is no evidence from the sandstone that contradicts the Moundville model.

Other Stone (greenstone, graphite, etc.)

The quantity of exotic stone found at Moundville far exceeds what was present at Hog Pen. The contexts at NR, ECB, CP and Mounds G and Q all contain worked greenstone pieces. Greenstone makes up 25% of all of the stone present in the NR excavation (Welch 1991:163). Data from the other areas and sites were not readily available. In addition, mica was present at ECB and Mound Q. Graphite was present at Hog Pen, but in very small quantities compared with the abundance of the rest of the stone. Thus far the exotic stones are largely restricted to Moundville and therefore Hog Pen conforms to the Moundville model.

Markin

The stone data from Mound Q was not published in raw form. Markin combined the categories of craft materials in her analysis (see Markin 1997:125). Since absolute values of stone can be affected by differences in the volume excavated, and information on excavation volume was not available to Markin, she needed to find an alternate way to standardize the data. Timothy Pauketat, in the American Bottom of Illinois, demonstrated that the count of jar sherds correlated strongly with the volume of feature fill (Pauketat 1989: table 6). He was then able to use the quantity of jar sherds as an

“activity standard” by which to measure the abundance of other items of interest, including exotic stone. Markin wanted to use something from the stone database to construct an activity standard for her data. Finding that the sum of the weight of brown sandstone and tabular hematitic/limonitic sandstone had the highest correlation to jar sherds (Pearson’s $r=0.924$), she divided the counts of the exotic craft materials by the total sandstone weight for each context:

$$\text{index of occurrence} = \left[CRI / (BSS + TSS) \right] \times 10^4$$

where CRI= count of craft related items, BSS= weight of brown sandstone in grams, and TSS= weight of tabular sandstone in grams (Markin 1997:124).

The difference of reporting format used by Markin creates difficulties for intersite comparisons of the abundance of craft items. I tested the Hog Pen data to see if the sum of the weights of brown and hematitic sandstone correlates with the counts of jar sherds. The jar sherds did correlate with the sandstone (Pearson’s $r= .6067$, significant at the .05 level). I created an index similar to Markin’s comparing the Hog Pen data to data for the Regional Consolidation stage/Early Moundville II contexts (see Table 6). Markin’s data was only available in the categories that she formed. I was therefore unable to compare her data with the other data sets used in this paper.

The data show that for two of the categories in Markin’s table, Hog Pen has more craft related items (see Table 6, Figure 10). These categories are “tools” and “total nonlocal”. For the category of “pigments” Hog Pen and Mound Q are equal and in the categories “other exotic” and “total BGFP” Mound Q has more. It is important to note that although Mound Q has more exotic stone and pigments, the stone included in that category does not include graphite, which was present at Hog Pen and was used as a

Table 6: Summary table of artifact counts and weights for major categories of stone analyzed and index of occurrence.

Area and Context	Counts and Weights	Index of Occurrence $[CRI/(BSS + TSS)] \times 10^4$
<u>MDV-Q¹</u>		
Stage II		
Early MDVII		
Tools ²	6	26
Pigments (glaucanite, galena and hematite)	4	17
Other Exotics (galena, copper and mica)	1	4
Total Blue Gray Ft. Payne	14	60
Total Nonlocal	18	77
Brown Sandstone + Tabular Sandstone ³	2327.9	
<u>Hog Pen</u>		
Late MDV I - Early MDVII		
Tools ²	32	35
Pigments (glaucanite, galena and hematite)	15	17
Other Exotics (galena, copper and mica)	0	0
Total Blue Gray Ft. Payne	41	45
Total Nonlocal	150	166
Brown Sandstone + Tabular Sandstone ³	9043.0	

¹From Markin (1997)

²Tools analyzed include ground sandstone, sandstone abraders and saws, blade flakes, perforators and microdrills, greenstone celts and adze blades, polished greenstone chips, and greenstone and sandstone discoidals.

³ Weight in grams

pigment. This leaves the Blue Gray Ft. Payne chert. It is not surprising that Mound Q has more Ft. Payne chert present. What is surprising though is that Hog Pen has more tools and more nonlocal stone. Does this mean that there is production of items from nonlocal materials also taking place at Hog Pen during the Regional Consolidation stage? That is unclear at the moment. There could be other explanations for these phenomena in the data. There may be problems with the standardization procedure. Mound Q has a higher correlation ($r = .924$) of jar sherds counts to sandstone weights than Hog Pen does

($r=.6067$). If there were less sandstone at Hog Pen than at Mound Q then the Hog Pen indices would be inflated when compared with Mound Q data. Another possible factor is that there was some intrusion of pre-Mississippian stone in the lots analyzed. Although it is not clear what caused the data to look this way it is clear that the Hog Pen data does not appear the way we would expect it to when compared with a mound at the paramount center.

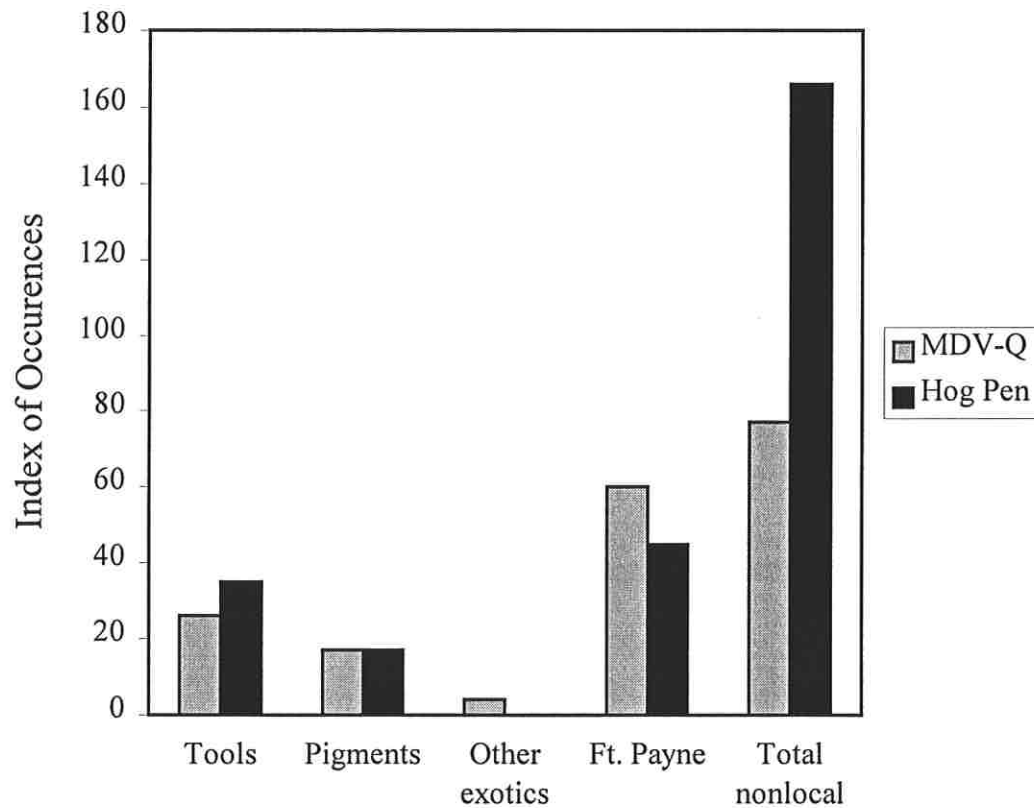


Figure 10: Index of Occurences for Mound Q and Hog Pen

Conclusions

The Moundville model restricts the manufacture of nonlocal chipped stone and exotic stone to Moundville (Welch 1991:177). The excavated contexts at Moundville have more nonlocal stone than they do local stone, while Hog Pen has more local than nonlocal. The analysis for Mound Q does not include data about the abundance of local stone. This may distort the existing explanation. The data from Mound Q originally suggested that there was indeed craft production taking place at Moundville and therefore fits the Moundville model. Upon closer examination though Mound Q has less nonlocal stone than Hog Pen. This implies that Mound Q also has considerably less nonlocal stone than all of the areas at Moundville. In light of the current comparison it would be difficult (or at least inconsistent) to say that there is evidence of craft production using nonlocal materials present on Mound Q, at least not more than there is at any other area in this study. With that said I do not think that the Moundville model can be rejected based on this comparison. What could be said is that the people at Moundville are not carrying out the same activities in every area at Moundville. It would be ludicrous to suggest that craft production was taking place on every square inch of the 75 hectares that make up the site.

The nonmound site of 1TU768 has more nonlocal stone than local, however the nonlocal stone are primarily in the later stages of reduction. Even so, one would expect that a farmstead would have more local stones present. Even the fine gray micaceous sandstone, which is a local stone, is primarily restricted to Moundville. The exotic stones are also abundant at Moundville, while Hog Pen's assemblage consisted of only five small pieces of exotic stone. Data about exotic stones from the nonmound sites is not

available. The nonmound 1TU66site, originally proposed as a farmstead, does not conform to the Moundville model. There are a higher percentage of nonlocal stones present (26%) than would be expected and the nonlocal stone is present in the early stages of the reduction sequence (31%). According to the lithic data 1TU66 clearly is not a farmstead (Maxham 1997, 2000).

CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH

The purpose of this paper was to determine whether the Moundville model fits the current data on use of stone in the Moundville Chiefdom during the Regional Consolidation stage. The Regional Consolidation stage was a time of change in the Moundville chiefdom. The paramount center (Moundville) was constructed, thus marking the political consolidation of the region. Local centers (including Hog Pen) were also constructed during this stage. There was an increase in craft production using nonlocal materials as is evident in the data collected from Moundville. The data from the excavations at Moundville, the single mound site (Hog Pen) and the nonmound site (1TU768) fit the Moundville model. The ceramic, faunal and lithic data from 1TU66 contradict what one would expect in a farmstead. The data show that this site is not a farmstead and clearly some other kind of activity is going on here as proposed by Maxham (1997, 2000). While all of the other data presented do not contradict the Moundville model, the 1TU66 data do. The logic of the Moundville model does not permit the existence of this kind of site.

A new model that includes a wider range of sites needs to be developed. The new model should also take into consideration relationships between individuals, who also facilitate trade. The nonlocal stone that was present at Hog Pen was mostly of unidentified chert. A reexamination of the Hog Pen lithics by an individual more familiar with lithic sourcing could shed some light on where the stone from Hog Pen was coming from. It would also be interesting to see how data from the other stages fit this discussion. Once more data is collected a thorough comparison of stone from contemporary sites should be undertaken. A comparison of the off-mound contexts at Moundville with the Mound contexts should be done in order to make it clear what type of activities are taking place and where.

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APPENDIX

Stone Inventory by FS

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 01	No Lithics					0	0.0	62N/12E L.1
Lot 02	No Lithics					0	0.0	62N/15E L.1
Lot 03	Concretion				rock		7.0	62N/15E L.2
Lot 03	Fired clay				clay		26.2	62N/15E L.2
Lot 03	Flake	cortical			chert, Ft. Payne	1	0.2	62N/15E L.2
Lot 03	Flake	cortical			chert, Tuscaloosa	10	3.4	62N/15E L.2
Lot 03	Flake	noncortical			chert, Dover	2	0.6	62N/15E L.2
Lot 03	Flake	noncortical			chert, Ft. Payne	2	0.3	62N/15E L.2
Lot 03	Flake	noncortical			chert, nonlocal black/white	1	0.2	62N/15E L.2
Lot 03	Flake	noncortical			chert, nonlocal dk. lavender gray	1	0.2	62N/15E L.2
Lot 03	Flake	noncortical			chert, Tuscaloosa	7	2.1	62N/15E L.2
Lot 03	Projectile Point	Madison	incomplete base		chert, nonlocal	1	0.4	62N/15E L.2
Lot 03	Shatter	shatter			chert, Tuscaloosa	6	7.4	62N/15E L.2
Lot 03	Stone, ground				Sandstone, brown or hematitic	1	10.4	62N/15E L.2
Lot 03	Stone, ground				Sandstone, fine gray micaceous	1	2.6	62N/15E L.2
Lot 03	Stone, unmodified				chert, Tuscaloosa	2	5.8	62N/15E L.2
Lot 03	Stone, unmodified				Quartz	15	224.3	62N/15E L.2
Lot 03	Stone, unmodified				Sandstone, brown or hematitic	35	394.3	62N/15E L.2
Lot 03	Stone, unmodified				Sandstone, hematitic conglomerate	1	0.9	62N/15E L.2
Lot 04	Concretion				rock		6.5	62N/12E L.2
Lot 04	Fired clay				clay		45.5	62N/12E L.2
Lot 04	Flake	cortical			chert, nonlocal mottled	1	0.4	62N/12E L.2
Lot 04	Flake	cortical			chert, Tuscaloosa	8	3.7	62N/12E L.2
Lot 04	Flake	noncortical			chert, Dover	2	0.4	62N/12E L.2
Lot 04	Flake	noncortical			chert, Ft. Payne	2	0.7	62N/12E L.2
Lot 04	Flake	noncortical			chert, Tuscaloosa	5	1.2	62N/12E L.2
Lot 04	Projectile Point	Madison	incomplete		chert, Tuscaloosa	1	1.1	62N/12E L.2

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 04	Shatter	shatter			chert, Dover	1	0.6	62N/12E L.2
Lot 04	Shatter	shatter			chert, Tuscaloosa	1	3.4	62N/12E L.2
Lot 04	Shatter	shatter			Quartz	1	0.7	62N/12E L.2
Lot 04	Stone, unmodified				chert, Tuscaloosa	2	1.0	62N/12E L.2
Lot 04	Stone, unmodified				Quartz	3	3.5	62N/12E L.2
Lot 04	Stone, unmodified				Sandstone, brown or hematitic	37	292.4	62N/12E L.2
Lot 04	Unknown material				unknown material, Black	1	2.3	62N/12E L.2
Lot 05	Biface	biface	fragment		chert, Dover	1	0.4	62N/12E L.3
Lot 05	Biface	biface	fragment		chert, nonlocal	1	1.9	62N/12E L.3
Lot 05	Coal				coal	10	1.7	62N/12E L.3
Lot 05	Concretion				rock		149.0	62N/12E L.3
Lot 05	Drill	drill	incomplete		chert, Tuscaloosa	1	0.5	62N/12E L.3
Lot 05	Fired clay				clay		937.7	62N/12E L.3
Lot 05	Flake	bifacial retouch			chert, Dover	2	1.2	62N/12E L.3
Lot 05	Flake	bifacial retouch			chert, nonlocal gray	2	0.8	62N/12E L.3
Lot 05	Flake	bifacial retouch			chert, Tuscaloosa	5	1.0	62N/12E L.3
Lot 05	Flake	cortical			chert, Ft. Payne	2	1.0	62N/12E L.3
Lot 05	Flake	cortical			chert, nonlocal gray	1	0.4	62N/12E L.3
Lot 05	Flake	cortical			chert, nonlocal lt. gray	4	1.1	62N/12E L.3
Lot 05	Flake	cortical			chert, nonlocal lt. blue/gray	3	1.2	62N/12E L.3
Lot 05	Flake	cortical			chert, Tuscaloosa	151	60.5	62N/12E L.3
Lot 05	Flake	hoe			chert, Dover	2	1.7	62N/12E L.3
Lot 05	Flake	noncortical			chert, Dover	1	0.1	62N/12E L.3
Lot 05	Flake	noncortical			chert, Ft. Payne	5	0.9	62N/12E L.3
Lot 05	Flake	noncortical			chert, Mill Creek	1	0.4	62N/12E L.3
Lot 05	Flake	noncortical			chert, nonlocal black	1	0.2	62N/12E L.3
Lot 05	Flake	noncortical			chert, nonlocal cream/tan	1	0.2	62N/12E L.3
Lot 05	Flake	noncortical			chert, nonlocal flesh	1	0.2	62N/12E L.3
Lot 05	Flake	noncortical			chert, nonlocal gray	5	2.7	62N/12E L.3
Lot 05	Flake	noncortical			chert, nonlocal lt. blue/gray	12	3.2	62N/12E L.3

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 05	Flake	noncortical			chert, Tuscaloosa	83	20.0	62N/12E L.3
Lot 05	Flake	noncortical			orthoquartzite, Tallahatta	1	0.2	62N/12E L.3
Lot 05	Flake	noncortical			Quartz	1	0.3	62N/12E L.3
Lot 05	Flake	noncortical			reddish siltstone	2	0.5	62N/12E L.3
Lot 05	Pitted stone	pitted stone	incomplete		Sandstone, brown or hematitic	1	74.3	62N/12E L.3
Lot 05	Preform	preform			chert, nonlocal	1	1.9	62N/12E L.3
Lot 05	Preform	preform			chert, nonlocal cream/tan	1	7.7	62N/12E L.3
Lot 05	Preform	preform			chert, Tuscaloosa	2	1.8	62N/12E L.3
Lot 05	Projectile Point		fragment	tip	chert, Tuscaloosa	1	0.4	62N/12E L.3
Lot 05	Projectile Point		fragment	midsection	chert, Tuscaloosa	1	0.2	62N/12E L.3
Lot 05	Projectile Point	Hamilton	incomplete base		chert, nonlocal gray	1	0.5	62N/12E L.3
Lot 05	Projectile Point	Hamilton	incomplete base		chert, Tuscaloosa	1	0.4	62N/12E L.3
Lot 05	Projectile Point	Madison	incomplete		chert, Tuscaloosa	2	2.6	62N/12E L.3
Lot 05	Projectile Point	stemmed point	complete		chert, Tuscaloosa	1	3.5	62N/12E L.3
Lot 05	Projectile Point	stemmed point	fragment	stem	chert, Tuscaloosa	1	1.2	62N/12E L.3
Lot 05	Shatter	shatter			chert, Dover	7	10.9	62N/12E L.3
Lot 05	Shatter	shatter			chert, Ft. Payne	1	0.6	62N/12E L.3
Lot 05	Shatter	shatter			chert, nonlocal cream/tan	1	1.7	62N/12E L.3
Lot 05	Shatter	shatter			chert, nonlocal gray	2	0.7	62N/12E L.3
Lot 05	Shatter	shatter			chert, Tuscaloosa	156	244.6	62N/12E L.3
Lot 05	Shatter	shatter			Quartz	7	50.1	62N/12E L.3
Lot 05	Stone, ground				reddish siltstone	2	5.4	62N/12E L.3
Lot 05	Stone, ground				Sandstone, brown or hematitic	5	273.8	62N/12E L.3
Lot 05	Stone, unmodified				chert, tuscaloosa	14	35.9	62N/12E L.3
Lot 05	Stone, unmodified				graphite	1	0.3	62N/12E L.3
Lot 05	Stone, unmodified				Limestone	1	79.3	62N/12E L.3
Lot 05	Stone, unmodified				orthoquartzite	3	10.2	62N/12E L.3
Lot 05	Stone, unmodified				Quartz	81	354.9	62N/12E L.3
Lot 05	Stone, unmodified				red ocher	1	2.7	62N/12E L.3
Lot 05	Stone, unmodified				Sandstone, brown or hematitic	426	2369.4	62N/12E L.3

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 05	Stone, unmodified				Sandstone, fine gray micaceous	1	4.7	62N/12E L.3
Lot 05	Stone, unmodified				Sandstone, hematitic conglomerate	3	8.5	62N/12E L.3
Lot 05	Stone, unmodified				shale	1	0.5	62N/12E L.3
Lot 05	Stone, unmodified				siltstone	12	11.5	62N/12E L.3
Lot 05	Tool flake	tool flake	complete		chert, Tuscaloosa	3	4.7	62N/12E L.3
Lot 06	Abrader				Sandstone, brown or hematitic	2	588.0	62N/15E L.3
Lot 06	Biface	biface	fragment		chert, nonlocal blue/gray	1	0.6	62N/15E L.3
Lot 06	Biface	biface			chert, Tuscaloosa	2	6.6	62N/15E L.3
Lot 06	Biface	biface			orthoquartzite, Tallahatta	1	0.6	62N/15E L.3
Lot 06	Biface	biface	incomplete		Sandstone, brown or hematitic	2	11.4	62N/15E L.3
Lot 06	Coal				coal	1	0.2	62N/15E L.3
Lot 06	Concretion				rock		341.4	62N/15E L.3
Lot 06	Coral Fossil				fossil coral	1	54.4	62N/15E L.3
Lot 06	Core	core			chert, Tuscaloosa	3	31.9	62N/15E L.3
Lot 06	Drill	drill			chert, Tuscaloosa	1	2.4	62N/15E L.3
Lot 06	Fired clay				clay		258.7	62N/15E L.3
Lot 06	Flake	bifacial retouch			chert, Dover	1	1.0	62N/15E L.3
Lot 06	Flake	bifacial retouch			chert, nonlocal gray	1	1.3	62N/15E L.3
Lot 06	Flake	bifacial retouch			chert, Tuscaloosa	2	0.9	62N/15E L.3
Lot 06	Flake	cortical			chert, Dover	1	0.5	62N/15E L.3
Lot 06	Flake	cortical			chert, Ft. Payne	2	0.7	62N/15E L.3
Lot 06	Flake	cortical			chert, nonlocal brown	1	0.6	62N/15E L.3
Lot 06	Flake	cortical			chert, nonlocal pink	1	0.9	62N/15E L.3
Lot 06	Flake	cortical			chert, Tuscaloosa	225	94.7	62N/15E L.3
Lot 06	Flake	cortical			Quartz	1	0.8	62N/15E L.3
Lot 06	Flake	hoe			chert, Dover	1	0.5	62N/15E L.3
Lot 06	Flake	noncortical			chert, Dover	9	3.0	62N/15E L.3
Lot 06	Flake	noncortical			chert, Ft. Payne	21	8.9	62N/15E L.3
Lot 06	Flake	noncortical			chert, Mill Creek	2	0.5	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal black	1	0.2	62N/15E L.3

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 06	Flake	noncortical			chert, nonlocal cream/tan	1	0.2	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal dk. gray	6	1.6	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal flesh	1	0.2	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal gray	2	0.6	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal gray/yellow	1	0.2	62N/15E L.3
Lot 06	Flake	noncortical			chert, nonlocal mottled gray	3	0.7	62N/15E L.3
Lot 06	Flake	noncortical			chert, Tuscaloosa	104	25.1	62N/15E L.3
Lot 06	Flake	noncortical			orthoquartzite. Tallahatta	1	0.3	62N/15E L.3
Lot 06	Flake	noncortical			Quartz	3	4.9	62N/15E L.3
Lot 06	Graver	Graver			chert, Tuscaloosa	1	0.3	62N/15E L.3
Lot 06	Microblade	microblade			chert, nonlocal pink	1	0.9	62N/15E L.3
Lot 06	Microblade	microblade			chert, Tuscaloosa	1	1.0	62N/15E L.3
Lot 06	Preform	preform			chert, Dover	1	0.6	62N/15E L.3
Lot 06	Preform	preform			chert, nonlocal gray	1	3.6	62N/15E L.3
Lot 06	Preform	preform			chert, Tuscaloosa	9	24.7	62N/15E L.3
Lot 06	Preform	preform			Sandstone, brown or hematitic	1	2.5	62N/15E L.3
Lot 06	Projectile Point		incomplete midsection		chert, Ft. Payne	1	1.1	62N/15E L.3
Lot 06	Projectile Point		incomplete distal		chert, Tuscaloosa	1	0.6	62N/15E L.3
Lot 06	Projectile Point	Bradley Spike	incomplete		chert, nonlocal	1	1.6	62N/15E L.3
Lot 06	Projectile Point	Hamilton	fragment	base	chert, Tuscaloosa	1	0.3	62N/15E L.3
Lot 06	Projectile Point	Madison	complete		chert, Tuscaloosa	3	3.6	62N/15E L.3
Lot 06	Projectile Point	Madison	incomplete base		chert, Tuscaloosa	3	1.7	62N/15E L.3
Lot 06	Scraper	Scraper			chert, Tuscaloosa	2	4.3	62N/15E L.3
Lot 06	Shatter	shatter			chert, Ft. Payne	1	1.8	62N/15E L.3
Lot 06	Shatter	shatter			chert, Tuscaloosa	211	321.1	62N/15E L.3
Lot 06	Shatter	shatter			orthoquartzite	1	13.4	62N/15E L.3
Lot 06	Shatter	shatter			Quartz	14	40.5	62N/15E L.3
Lot 06	Shatter	shatter			Sandstone, brown or hematitic	2	19.9	62N/15E L.3
Lot 06	Stone, ground				Sandstone, brown or hematitic	17	367.4	62N/15E L.3
Lot 06	Stone, ground				Sandstone, fine gray micaceous	1	24.7	62N/15E L.3

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 06	Stone, ground	Chunky Stone	fragment		Sandstone, hematitic conglomerate	1	65.8	62N/15E L.3
Lot 06	Stone, unmodified				chert, Tuscaloosa	13	78.8	62N/15E L.3
Lot 06	Stone, unmodified				graphite	2	0.7	62N/15E L.3
Lot 06	Stone, unmodified				greenstone	1	0.8	62N/15E L.3
Lot 06	Stone, unmodified				Quartz	56	349.0	62N/15E L.3
Lot 06	Stone, unmodified				red ocher	11	32.6	62N/15E L.3
Lot 06	Stone, unmodified				reddish siltstone	8	14.7	62N/15E L.3
Lot 06	Stone, unmodified				Sandstone, brown or hematitic	423	3294.5	62N/15E L.3
Lot 06	Stone, unmodified				Sandstone, hematitic conglomerate	3	5.2	62N/15E L.3
Lot 06	Tool flake	tool flake			chert, Tuscaloosa	3	1.5	62N/15E L.3
Lot 06 - 1990 No Lithics						0	0.0	
Lot 07	Fired clay				clay		96.0	62N/12E L.3
Lot 07	Projectile Point		fragment	tip	chert, nonlocal gray/white	1	0.5	62N/12E L.3
Lot 07	Shatter	shatter			chert, Tuscaloosa	1	0.3	62N/12E L.3
Lot 07	Shatter	shatter			orthoquartzite, Tallahatta	1	0.7	62N/12E L.3
Lot 07	Stone, unmodified				Sandstone, brown or hematitic	8	33.2	62N/12E L.3
Lot 07 -1990 Concretion							11.3	65N/12E L. 2
Lot 07 -1990 Fired clay							12.6	65N/12E L. 2
Lot 07 -1990 Fired clay						4	8.9	65N/12E L. 2
Lot 07 -1990 Flake		cortical			chert, Tuscaloosa	1	0.5	65N/12E L. 2
Lot 07 -1990 Projectile Point		Madison	incomplete		chert, nonlocal gray	1	1.2	65N/12E L. 2
Lot 07 -1990 Projectile Point		Madison	incomplete		chert, Tuscaloosa	1	1.1	65N/12E L. 2
Lot 07 -1990 Shatter		shatter			chert, Tuscaloosa	1	3.6	65N/12E L. 2
Lot 07 -1990 Stone, unmodified						3	7.3	65N/12E L. 2
Lot 07 -1990 Stone, unmodified						10	84.0	65N/12E L. 2
Lot 09	Concretion				rock		5.8	62N/15E L.3
Lot 09	Core	core			chert, Ft. Payne	1	16.2	62N/15E L.3
Lot 09	Fired clay				clay		11.5	62N/15E L.3
Lot 09	Flake	cortical			chert, nonlocal	1	0.9	62N/15E L.3
Lot 09	Flake	cortical			chert, Tuscaloosa	24	11.5	62N/15E L.3

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 09	Flake	noncortical			chert, Dover	1	0.1	62N/15E L.3
Lot 09	Flake	noncortical			chert, Ft. Payne	1	0.2	62N/15E L.3
Lot 09	Flake	noncortical			chert, Tuscaloosa	8	2.0	62N/15E L.3
Lot 09	Shatter	shatter			chert, nonlocal tan	1	2.8	62N/15E L.3
Lot 09	Shatter	shatter			chert, Tuscaloosa	16	17.1	62N/15E L.3
Lot 09	Stone, unmodified				graphite	1	0.1	62N/15E L.3
Lot 09	Stone, unmodified				Sandstone, brown or hematitic	10	299.1	62N/15E L.3
Lot 10	Fired clay				clay		40.7	62N/12E L.3
Lot 10	Stone, unmodified				Sandstone, brown or hematitic	1	2.4	62N/12E L.3
Lot 11	Concretion				rock		5.6	62N/12E L.3 shell/daub deposit
Lot 11	Fired clay				clay		40.0	62N/12E L.3 shell/daub deposit
Lot 11	Flake	cortical			chert, Tuscaloosa	1	0.2	62N/12E L.3 shell/daub deposit
Lot 11	Stone, unmodified				Quartz	1	0.7	62N/12E L.3 shell/daub deposit
Lot 11	Stone, unmodified				Sandstone, brown or hematitic	3	1.5	62N/12E L.3 shell/daub deposit
Lot 12	Concretion				rock		4.0	62N/12E Shell/daub zone
Lot 12	Fired clay				clay		273.9	62N/12E Shell/daub zone
Lot 12	Flake	cortical			chert, Dover	1	18.9	62N/12E Shell/daub zone
Lot 12	Flake	cortical			chert, Tuscaloosa	15	7.3	62N/12E Shell/daub zone
Lot 12	Flake	cortical			Quartz	1	0.3	62N/12E Shell/daub zone
Lot 12	Flake	noncortical			chert, Ft. Payne	1	0.5	62N/12E Shell/daub zone
Lot 12	Flake	noncortical			chert, nonlocal tan	1	0.6	62N/12E Shell/daub zone
Lot 12	Flake	noncortical			chert, Tuscaloosa	7	1.4	62N/12E Shell/daub zone
Lot 12	Projectile Point		incomplete tip		chert, Tuscaloosa	1	1.0	62N/12E Shell/daub zone
Lot 12	Shatter	shatter			chert, Tuscaloosa	6	20.6	62N/12E Shell/daub zone
Lot 12	Stone, unmodified				chert, Tuscaloosa	3	53.1	62N/12E Shell/daub zone
Lot 12	Stone, unmodified				Quartz	3	4.3	62N/12E Shell/daub zone
Lot 12	Stone, unmodified				red shale	1	0.3	62N/12E Shell/daub zone
Lot 12	Stone, unmodified				Sandstone, brown or hematitic	16	323.3	62N/12E Shell/daub zone
Lot 12	Uniface	Uniface			chert, Tuscaloosa	1	1.2	62N/12E Shell/daub zone
Lot 13	Rejected core	Rejected core			chert, Tuscaloosa	1	5.9	62N/15E L.4

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 13	Awl	Awl	incomplete		chert, Tuscaloosa	2	0.8	62N/15E L.4
Lot 13	Biface	biface			chert, nonlocal gray	1	1.7	62N/15E L.4
Lot 13	Biface	biface			chert, Tuscaloosa	3	2.9	62N/15E L.4
Lot 13	Concretion				rock		26.9	62N/15E L.4
Lot 13	Core	core	fragment		chert, Tuscaloosa	1	0.8	62N/15E L.4
Lot 13	Fired clay				clay		108.5	62N/15E L.4
Lot 13	Flake	bifacial retouch			chert, Ft. Payne	9	2.4	62N/15E L.4
Lot 13	Flake	bifacial retouch			chert, nonlocal blue/gray	1	0.4	62N/15E L.4
Lot 13	Flake	bifacial retouch			chert, Tuscaloosa	1	0.4	62N/15E L.4
Lot 13	Flake	cortical			chert, Ft. Payne	8	7.5	62N/15E L.4
Lot 13	Flake	cortical			chert, nonlocal	3	1.1	62N/15E L.4
Lot 13	Flake	cortical			chert, nonlocal dk. gray	1	0.3	62N/15E L.4
Lot 13	Flake	cortical			chert, Tuscaloosa	363	146.2	62N/15E L.4
Lot 13	Flake	cortical			Quartz	2	1.2	62N/15E L.4
Lot 13	Flake	hoe			chert, Dover	3	2.7	62N/15E L.4
Lot 13	Flake	noncortical			chert, Dover	3	1.2	62N/15E L.4
Lot 13	Flake	noncortical			chert, Ft. Payne	53	13.0	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal	7	1.2	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal grainy gray	2	3.6	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal speckled gray	3	0.8	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal banded gray/tan	3	2.9	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal cream	2	1.0	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal gray	3	0.4	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal mottled black	1	0.2	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal mottled gray	5	1.5	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal reddish tan	9	2.9	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal tan	1	0.2	62N/15E L.4
Lot 13	Flake	noncortical			chert, nonlocal lt. blue/gray	3	1.6	62N/15E L.4
Lot 13	Flake	noncortical			chert, Tuscaloosa	160	36.2	62N/15E L.4
Lot 13	Flake	noncortical			Sandstone, brown or hematitic	1	0.3	62N/15E L.4

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 13	Flake	possible fluted flake			chert, nonlocal gray	1	0.3	62N/15E L.4
Lot 13	Grinding Stone				Sandstone, brown or hematitic	1	68.3	62N/15E L.4
Lot 13	Microblade	microblade			chert, Tuscaloosa	1	0.5	62N/15E L.4
Lot 13	Microblade	microblade			orthoquartzite. Tallahatta	1	1.1	62N/15E L.4
Lot 13	Pitted stone	pitted stone	fragment		Sandstone, brown or hematitic	1	43.2	62N/15E L.4
Lot 13	Polishing Stone	polishing Stone	fragment		Quartz	1	54.9	62N/15E L.4
Lot 13	Preform	preform			chert, Tuscaloosa	2	5.7	62N/15E L.4
Lot 13	Projectile Point		fragment	distal	chert, nonlocal dk. gray	1	1.0	62N/15E L.4
Lot 13	Projectile Point		fragment	distal	chert, nonlocal med. gray	1	0.6	62N/15E L.4
Lot 13	Projectile Point	Bakers Creek	complete		chert, nonlocal gray	1	2.3	62N/15E L.4
Lot 13	Projectile Point	Hamilton	complete		chert, Tuscaloosa	2	0.9	62N/15E L.4
Lot 13	Projectile Point	Hamilton	incomplete base		chert, Tuscaloosa	1	0.4	62N/15E L.4
Lot 13	Projectile Point	Jacks Reef Corner Notched	fragment	stem	chert, Ft. Payne	1	0.8	62N/15E L.4
Lot 13	Projectile Point	Madison	incomplete base		chert, Tuscaloosa	4	1.7	62N/15E L.4
Lot 13	Projectile Point	Madison	complete		chert, Tuscaloosa	2	0.9	62N/15E L.4
Lot 13	Projectile Point	side notched	fragment	stem	chert, nonlocal blue/gray	1	0.6	62N/15E L.4
Lot 13	Projectile Point	stemmed point	incomplete	distal	chert, nonlocal dk. gray	1	3.9	62N/15E L.4
Lot 13	Retouched Stone	Retouched Stone			Sandstone, brown or hematitic	1	8.3	62N/15E L.4
Lot 13	Scraper	Scraper	complete		chert, Ft. Payne	1	0.4	62N/15E L.4
Lot 13	Shatter	shatter			chert, nonlocal gray	1	9.5	62N/15E L.4
Lot 13	Shatter	shatter			chert, nonlocal gray/red	1	0.2	62N/15E L.4
Lot 13	Shatter	shatter			chert, nonlocal tan	1	0.4	62N/15E L.4
Lot 13	Shatter	shatter			chert, nonlocal tan/pink	1	13.5	62N/15E L.4
Lot 13	Shatter	shatter			chert, Tuscaloosa	81	232.0	62N/15E L.4
Lot 13	Shatter	shatter			Quartz	6	48.7	62N/15E L.4
Lot 13	Stone, ground				Sandstone, fine gray micaceous	1	17.2	62N/15E L.4
Lot 13	Stone, unmodified				chert, Tuscaloosa	12	35.9	62N/15E L.4
Lot 13	Stone, unmodified				graphite	1	0.3	62N/15E L.4
Lot 13	Stone, unmodified				orthoquartzite	1	2.1	62N/15E L.4
Lot 13	Stone, unmodified				Quartz	28	175.6	62N/15E L.4

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 13	Stone, unmodified				red ocher	2	3.8	62N/15E L.4
Lot 13	Stone, unmodified				reddish siltstone	9	5.2	62N/15E L.4
Lot 13	Stone, unmodified				Sandstone, brown or hematitic	154	1885.0	62N/15E L.4
Lot 13	Stone, unmodified				Sandstone, hematitic conglomerate	5	5.9	62N/15E L.4
Lot 13	Tool flake	tool flake			chert, Tuscaloosa	6	3.3	62N/15E L.4
Lot 14	Concretion				rock		3.2	62N/12E shell/daub layer
Lot 14	Fired clay				clay		72.5	62N/12E shell/daub layer
Lot 14	Flake	cortical			chert, Tuscaloosa	1	0.5	62N/12E shell/daub layer
Lot 14	Flake	noncortical			chert, Tuscaloosa	3	1.3	62N/12E shell/daub layer
Lot 14	Stone, unmodified				Quartz	1	6.5	62N/12E shell/daub layer
Lot 14	Stone, unmodified				Sandstone, brown or hematitic	3	39.3	62N/12E shell/daub layer
Lot 15	No Bag					0	0.0	No Bag
Lot 16	Concretion				rock		0.4	62N/15E Shell Deposit
Lot 16	Fired clay				clay		1.7	62N/15E Shell Deposit
Lot 16	Flake	cortical			chert, Tuscaloosa	1	0.6	62N/15E Shell Deposit
Lot 16	Shatter	shatter			chert, Tuscaloosa	1	0.5	62N/15E Shell Deposit
Lot 16	Stone, unmodified				Sandstone, brown or hematitic	4	50.6	62N/15E Shell Deposit
Lot 17	Biface	biface	fragment		chert, nonlocal gray	1	1.2	62N/15E L.5
Lot 17	Biface	biface			chert, Tuscaloosa	1	0.2	62N/15E L.5
Lot 17	Biface	biface	fragment		Quartz	1	4.8	62N/15E L.5
Lot 17	Coal				coal	8	2.8	62N/15E L.5
Lot 17	Concretion				rock		62.6	62N/15E L.5
Lot 17	Core	core			chert, nonlocal dk. gray	1	2.1	62N/15E L.5
Lot 17	Core	core			chert, Tuscaloosa	3	14.2	62N/15E L.5
Lot 17	Fired clay				clay		197.2	62N/15E L.5
Lot 17	Flake	bifacial retouch			chert, Ft. Payne	2	0.6	62N/15E L.5
Lot 17	Flake	bifacial retouch			chert, nonlocal	3	1.3	62N/15E L.5
Lot 17	Flake	cortical			chert, Ft. Payne	1	0.2	62N/15E L.5
Lot 17	Flake	cortical			chert, Tuscaloosa	248	112.9	62N/15E L.5
Lot 17	Flake	cortical			Quartz	2	1.0	62N/15E L.5

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 17	Flake	hoe			chert, Mill Creek	1	0.4	62N/15E L.5
Lot 17	Flake	hoe			chert, nonlocal tannish orange	1	1.0	62N/15E L.5
Lot 17	Flake	noncortical			chert, Ft. Payne	14	4.4	62N/15E L.5
Lot 17	Flake	noncortical			chert, Mill Creek	1	0.5	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal	12	4.2	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal dk. gray	1	0.2	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal gray/tan	7	1.5	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal reddish tan	3	1.3	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal, Flesh	1	0.2	62N/15E L.5
Lot 17	Flake	noncortical			chert, nonlocal, pink	1	0.1	62N/15E L.5
Lot 17	Flake	noncortical			chert, Tuscaloosa	113	26.7	62N/15E L.5
Lot 17	Flake	noncortical			Quartz	2	2.6	62N/15E L.5
Lot 17	Flake	noncortical			Sandstone, brown or hematitic	6	1.6	62N/15E L.5
Lot 17	Hoe	hoe, retouched	fragment		chert, Dover	1	4.5	62N/15E L.5
Lot 17	Microblade	microblade			chert, Tuscaloosa	2	0.4	62N/15E L.5
Lot 17	Preform	preform			chert, Tuscaloosa	1	2.7	62N/15E L.5
Lot 17	Projectile Point		fragment	distal	chert, Ft. Payne	1	0.5	62N/15E L.5
Lot 17	Projectile Point		fragment	distal	chert, Tuscaloosa	2	0.5	62N/15E L.5
Lot 17	Projectile Point		fragment	base	chert, Tuscaloosa	1	0.4	62N/15E L.5
Lot 17	Projectile Point		fragment	distal	Quartz	1	3.5	62N/15E L.5
Lot 17	Projectile Point	Hamilton	complete		chert, Tuscaloosa	1	0.8	62N/15E L.5
Lot 17	Projectile Point	Jacks Reef Corner Notched	incomplete		chert, Ft. Payne	1	1.8	62N/15E L.5
Lot 17	Projectile Point	Madison	complete		chert, Tuscaloosa	4	4.5	62N/15E L.5
Lot 17	Projectile Point	Madison	fragment	base	chert, Tuscaloosa	1	0.6	62N/15E L.5
Lot 17	Shatter	shatter			chert, Ft. Payne	1	1.2	62N/15E L.5
Lot 17	Shatter	shatter			chert, nonlocal	4	12.3	62N/15E L.5
Lot 17	Shatter	shatter			chert, Tuscaloosa	66	163.4	62N/15E L.5
Lot 17	Shatter	shatter			Quartz	15	194.8	62N/15E L.5
Lot 17	Stone, ground				Sandstone, brown or hematitic	2	64.0	62N/15E L.5
Lot 17	Stone, ground				Sandstone, fine gray micaceous	7	118.6	62N/15E L.5

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 17	Stone, unmodified				chert, Tuscaloosa	11	7.9	62N/15E L.5
Lot 17	Stone, unmodified				greenstone	1	1.5	62N/15E L.5
Lot 17	Stone, unmodified				Quartz	34	178.9	62N/15E L.5
Lot 17	Stone, unmodified				red ocher	10	94.5	62N/15E L.5
Lot 17	Stone, unmodified				red shale	15	12.3	62N/15E L.5
Lot 17	Stone, unmodified				Sandstone, brown or hematitic	280	2016.0	62N/15E L.5
Lot 17	Stone, unmodified				Sandstone, fine gray micaceous	2	5.6	62N/15E L.5
Lot 17	Stone, unmodified				Sandstone, hematitic conglomerate	3	1.9	62N/15E L.5
Lot 17	Tool flake	tool flake			chert, Ft. Payne	2	0.9	62N/15E L.5
Lot 17	Tool flake	tool flake			chert, nonlocal gray	1	0.4	62N/15E L.5
Lot 17	Tool flake	tool flake			chert, nonlocal reddish tan	1	1.1	62N/15E L.5
Lot 17	Tool flake	tool flake			chert, Tuscaloosa	5	6.2	62N/15E L.5
Lot 18	Concretion				rock		20.4	62N/12E L.4
Lot 18	Drill	drill	incomplete		chert, Tuscaloosa	1	1.2	65N/12E 30-50 cms
Lot 18	Fired clay				clay		37.2	62N/12E L.4
Lot 18	Flake	bifacial retouch			chert, Ft. Payne	1	0.1	62N/12E L.4
Lot 18	Flake	cortical			chert, nonlocal white	1	0.1	62N/12E L.4
Lot 18	Flake	cortical			chert, Tuscaloosa	17	6.5	62N/12E L.4
Lot 18	Flake	noncortical			chert, nonlocal dk. gray	1	1.1	65N/12E 30-50 cms
Lot 18	Flake	noncortical			chert, Tuscaloosa	9	1.2	62N/12E L.4
Lot 18	Projectile Point		fragment	base	chert, Tuscaloosa	1	0.2	62N/12E L.4
Lot 18	Projectile Point	Madison	incomplete	base	chert, Tuscaloosa	1	1.4	62N/12E L.4
Lot 18	Shatter	shatter			chert, Tuscaloosa	1	1.0	62N/12E L.4
Lot 18	Stone, ground				Sandstone, brown or hematitic	1	7.0	62N/12E L.4
Lot 18	Stone, unmodified				chert, Tuscaloosa	2	5.5	62N/12E L.4
Lot 18	Stone, unmodified				orthoquartzite	1	5.7	65N/12E 30-50 cms
Lot 18	Stone, unmodified				orthoquartzite	1	0.3	62N/12E L.4
Lot 18	Stone, unmodified				Quartz	6	29.7	62N/12E L.4
Lot 18	Stone, unmodified				Sandstone, brown or hematitic	54	577.0	65N/12E 30-50 cms
Lot 18	Stone, unmodified				Sandstone, brown or hematitic	26	505.0	62N/12E L.4

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 18	Stone, unmodified				Sandstone, fine gray micaceous	1	0.4	62N/12E L.4
Lot 18	Tool flake	tool flake			chert, Tuscaloosa	1	0.1	62N/12E L.4
Lot 18 - 1990	Concretion				rock		1.0	65N/12E 30-50 cms
Lot 18 - 1990	Fired clay				clay		69.0	65N/12E 30-50 cms
Lot 18 - 1990	Fired clay				red clay	2	5.2	65N/12E 30-50 cms
Lot 18 - 1990	Flake	cortical			chert, Tuscaloosa	15	15.4	65N/12E 30-50 cms
Lot 18 - 1990	Flake	noncortical			chert, Dover	2	1.7	65N/12E 30-50 cms
Lot 18 - 1990	Flake	noncortical			chert, Tuscaloosa	4	0.9	65N/12E 30-50 cms
Lot 18 - 1990	Flake	noncortical			Quartz	1	0.4	65N/12E 30-50 cms
Lot 18 - 1990	Pitted stone	pitted stone	fragment		Sandstone, brown or hematitic	1	98.7	62N/12E L.4
Lot 18 - 1990	Shatter	shatter			chert, Tuscaloosa	7	17.7	65N/12E 30-50 cms
Lot 18 - 1990	Shatter	shatter			Quartz	2	11.4	65N/12E 30-50 cms
Lot 18 - 1990	Stone, unmodified				Quartz	9	61.9	65N/12E 30-50 cms
Lot 18 - 1990	Stone, unmodified				red ocher	2	14.8	65N/12E 30-50 cms
Lot 18 - 1990	Tool flake	tool flake			chert, Tuscaloosa	3	1.8	65N/12E 30-50 cms
Lot 19	Biface	biface			chert, Tuscaloosa	1	0.4	62N/15E L.6
Lot 19	Concretion				rock		38.6	62N/15E L.6
Lot 19	Core	core	fragment		chert, Tuscaloosa	1	1.3	62N/15E L.6
Lot 19	Fired clay				clay		50.2	62N/15E L.6
Lot 19	Flake	bifacial retouch			chert, nonlocal gray	1	0.2	62N/15E L.6
Lot 19	Flake	bifacial retouch			chert, nonlocal blue/gray	1	0.1	62N/15E L.6
Lot 19	Flake	cortical			chert, Ft. Payne	4	3.5	62N/15E L.6
Lot 19	Flake	cortical			chert, Tuscaloosa	69	25.7	62N/15E L.6
Lot 19	Flake	cortical			Quartz	1	0.2	62N/15E L.6
Lot 19	Flake	hoe			chert, Dover	2	0.8	62N/15E L.6
Lot 19	Flake	noncortical			chert, Ft. Payne	29	15.5	62N/15E L.6
Lot 19	Flake	noncortical			chert, nonlocal	7	3.0	62N/15E L.6
Lot 19	Flake	noncortical			chert, nonlocal cream/tan	1	0.3	62N/15E L.6
Lot 19	Flake	noncortical			chert, nonlocal dk. gray	3	0.5	62N/15E L.6
Lot 19	Flake	noncortical			chert, nonlocal gray	20	3.6	62N/15E L.6

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 19	Flake	noncortical			chert, nonlocal reddish tan	7	1.4	62N/15E L.6
Lot 19	Flake	noncortical			chert, nonlocal, flesh	1	0.3	62N/15E L.6
Lot 19	Flake	noncortical			chert, Tuscaloosa	43	9.3	62N/15E L.6
Lot 19	Microblade	microblade			chert, nonlocal stripped gray	1	1.1	62N/15E L.6
Lot 19	Preform	preform			chert, Tuscaloosa	1	0.7	62N/15E L.6
Lot 19	Projectile Point		incomplete		chert, Ft. Payne	1	2.6	62N/15E L.6
Lot 19	Projectile Point	Jacks Reef Corner Notched	incomplete		chert, Ft. Payne	1	2.6	62N/15E L.6
Lot 19	Projectile Point	Madison	incomplete base		chert, Tuscaloosa	1	0.7	62N/15E L.6
Lot 19	Projectile Point	Madison	incomplete		chert, Tuscaloosa	1	0.6	62N/15E L.6
Lot 19	Projectile Point	Morrow Mountain I	complete		chert, nonlocal	1	3.2	62N/15E L.6
Lot 19	Shatter	shatter			chert, Tuscaloosa	25	28.6	62N/15E L.6
Lot 19	Shatter	shatter			Quartz	2	0.9	62N/15E L.6
Lot 19	Stone, ground				Sandstone, brown or hematitic	1	1.3	62N/15E L.6
Lot 19	Stone, unmodified				chert, Tuscaloosa	5	5.0	62N/15E L.6
Lot 19	Stone, unmodified				Quartz	16	41.0	62N/15E L.6
Lot 19	Stone, unmodified				red ocher	3	5.5	62N/15E L.6
Lot 19	Stone, unmodified				Sandstone, brown or hematitic	69	553.6	62N/15E L.6
Lot 19	Stone, unmodified				Sandstone, hematitic conglomerate	3	10.8	62N/15E L.6
Lot 19	Tool flake	tool flake			chert, nonlocal dk. gray	1	0.3	62N/15E L.6
Lot 19	Tool flake	tool flake			chert, Tuscaloosa	3	2.2	62N/15E L.6
Lot 20	Concretion				rock		4.4	62N/12E profile cleaning
Lot 20	Fired clay				clay		10.2	62N/12E profile cleaning
Lot 20	Flake	cortical			chert, Tuscaloosa	1	0.7	62N/12E profile cleaning
Lot 20	Flake	noncortical			chert, Ft. Payne	1	0.2	62N/12E profile cleaning
Lot 20	Flake	noncortical			chert, Tuscaloosa	1	0.2	62N/12E profile cleaning
Lot 20	Stone, unmodified				Quartz	1	7.8	62N/12E profile cleaning
Lot 20	Stone, unmodified				Sandstone, brown or hematitic	7	6.4	62N/12E profile cleaning
Lot 21	Concretion				rock		3.7	62N/15E profile
Lot 21	Fired clay				clay		5.8	62N/15E profile
Lot 21	Flake	cortical			chert, nonlocal dk. gray	1	0.5	62N/15E profile

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 21	Flake	cortical			chert, nonlocal gray	1	0.2	62N/15E profile
Lot 21	Flake	cortical			chert, Tuscaloosa	12	4.3	62N/15E profile
Lot 21	Flake	noncortical			chert, Dover	1	1.3	62N/15E profile
Lot 21	Flake	noncortical			chert, Ft. Payne	8	3.6	62N/15E profile
Lot 21	Flake	noncortical			chert, nonlocal gray/yellow	1	0.3	62N/15E profile
Lot 21	Flake	noncortical			chert, nonlocal blue/gray	2	0.7	62N/15E profile
Lot 21	Flake	noncortical			chert, Tuscaloosa	10	1.8	62N/15E profile
Lot 21	Preform	preform			chert, Tuscaloosa	1	0.8	62N/15E profile
Lot 21	Projectile Point		fragment	tip	chert, Tuscaloosa	1	0.5	62N/15E profile
Lot 21	Shatter	shatter			chert, Tuscaloosa	6	12.2	62N/15E profile
Lot 21	Shatter	shatter			Quartz	1	5.3	62N/15E profile
Lot 21	Stone, unmodified				chert, Tuscaloosa	1	0.5	62N/15E profile
Lot 21	Stone, unmodified				Sandstone, brown or hematitic	6	33.5	62N/15E profile
Lot 21	Tool flake	tool flake			chert, nonlocal black	1	0.7	62N/15E profile
Lot 21	Tool flake	tool flake			chert, Tuscaloosa	1	0.4	62N/15E profile
Lot 22	Fired clay				clay		3.5	62N/15E L.7
Lot 22	Flake	bifacial retouch			chert, nonlocal reddish tan	1	0.4	62N/15E L.7
Lot 22	Flake	cortical			chert, Ft. Payne	3	1.6	62N/15E L.7
Lot 22	Flake	cortical			chert, nonlocal cream/tan	1	0.6	62N/15E L.7
Lot 22	Flake	cortical			chert, Tuscaloosa	15	6.6	62N/15E L.7
Lot 22	Flake	hoe			chert, Dover	1	0.3	62N/15E L.7
Lot 22	Flake	noncortical			chert, Ft. Payne	34	9.4	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal brown	1	1.2	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal cream	2	1.9	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal gray	2	0.6	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal mottled gray	3	0.4	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal reddish tan	5	1.1	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal tan	2	4.7	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal tan/gray	4	1.7	62N/15E L.7
Lot 22	Flake	noncortical			chert, nonlocal blue/gray	1	0.9	62N/15E L.7

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 22	Flake	noncortical			chert, Tuscaloosa	17	4.0	62N/15E L.7
Lot 22	Microblade	microblade			chert, Tuscaloosa	1	0.2	62N/15E L.7
Lot 22	Preform	preform			chert, Tuscaloosa	1	1.7	62N/15E L.7
Lot 22	Projectile Point	Jacks Reef Corner Notched	incomplete		chert, Ft. Payne	1	2.0	62N/15E L.7
Lot 22	Projectile Point	Steuben Expanded Stemmed	incomplete		chert, unidentified, heat treated	2	4.6	62N/15E L.7
Lot 22	Shatter	shatter			chert, Tuscaloosa	8	3.6	62N/15E L.7
Lot 22	Stone, unmodified				chert, Tuscaloosa	1	0.8	62N/15E L.7
Lot 22	Stone, unmodified				Sandstone, brown or hematitic	4	105.3	62N/15E L.7
Lot 22	Tool flake	tool flake			chert, Ft. Payne	2	1.8	62N/15E L.7
Lot 22	Tool flake	tool flake			chert, nonlocal dk. gray	1	0.5	62N/15E L.7
Lot 22	Tool flake	tool flake			chert, nonlocal reddish tan	1	0.4	62N/15E L.7
Lot 25 - 1990 Coal					coal	3	1.4	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Concretion					rock		20.0	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Fired clay					clay		68.0	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Fired clay					red clay	9	4.7	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		bifacial retouch			chert, nonlocal	1	0.3	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		cortical			chert, Ft. Payne	1	1.0	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		cortical			chert, Tuscaloosa	21	10.6	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		cortical			Quartz	2	1.8	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			chert, Ft. Payne	3	1.2	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			chert, nonlocal gray/tan	2	0.3	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			chert, nonlocal gray/yellow	1	0.1	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			chert, Tuscaloosa	12	3.1	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			Quartz	1	0.8	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Flake		noncortical			reddish siltstone	1	0.2	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Graver		graver			chert, nonlocal cream/black	1	2.7	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Projectile Point		Hamilton	complete		chert, Tuscaloosa	1	0.8	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Projectile Point		Madison	incomplete base		chert, Tuscaloosa	1	0.9	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Projectile Point		Madison	complete		chert, Tuscaloosa	1	0.6	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Shatter		shatter			chert, nonlocal gray	1	0.5	65N/12E Level 4 40-60 cms

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 25 - 1990 Shatter		shatter			chert, Tuscaloosa	10	27.9	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Shatter		shatter			Quartz	3	4.3	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					Quartz	13	32.8	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					red ocher	1	0.5	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					Sandstone, brown or hematitic	69	377.0	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					Sandstone, fine gray micaceous	1	21.5	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					Sandstone, hematitic conglomerate	1	2.8	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Stone, unmodified					steatite.	1	0.9	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Tool flake		tool flake			chert, Dover	1	0.3	65N/12E Level 4 40-60 cms
Lot 25 - 1990 Tool flake		tool flake			chert, Tuscaloosa	4	1.8	65N/12E Level 4 40-60 cms
Lot 77 - 1990 Concretion					rock		59.0	65N/15E 10-30 cms
Lot 77 - 1990 Fired clay					clay		19.0	65N/15E 10-30 cms
Lot 77 - 1990 Flake		cortical			chert, Tuscaloosa	12	5.8	65N/15E 10-30 cms
Lot 77 - 1990 Flake		cortical			Quartz	1	0.2	65N/15E 10-30 cms
Lot 77 - 1990 Flake		noncortical			chert, nonlocal lt. gray	1	0.2	65N/15E 10-30 cms
Lot 77 - 1990 Flake		noncortical			chert, nonlocal gray	1	0.3	65N/15E 10-30 cms
Lot 77 - 1990 Flake		noncortical			chert, Tuscaloosa	2	0.3	65N/15E 10-30 cms
Lot 77 - 1990 Flake		noncortical			Quartz	2	0.8	65N/15E 10-30 cms
Lot 77 - 1990 Shatter		shatter			chert, nonlocal	1	0.8	65N/15E 10-30 cms
Lot 77 - 1990 Shatter		shatter			chert, Tuscaloosa	5	11.1	65N/15E 10-30 cms
Lot 77 - 1990 Shatter		shatter			orthoquartzite. Tallahatta	1	0.3	65N/15E 10-30 cms
Lot 77 - 1990 Shatter		shatter			Quartz	4	35.2	65N/15E 10-30 cms
Lot 77 - 1990 Stone, unmodified					chert, Tuscaloosa	4	6.3	65N/15E 10-30 cms
Lot 77 - 1990 Stone, unmodified					Quartz	9	12.0	65N/15E 10-30 cms
Lot 77 - 1990 Stone, unmodified					red ocher	1	2.8	65N/15E 10-30 cms
Lot 77 - 1990 Stone, unmodified					Sandstone, brown or hematitic	63	504.0	65N/15E 10-30 cms
Lot 86 - 1990 Abrader					Sandstone, brown or hematitic	1	127.3	65N/15E 30-50 cms
Lot 86 - 1990 Coal					coal	18	9.7	65N/15E 30-50 cms
Lot 86 - 1990 Concretion					rock		89.0	65N/15E 30-50 cms
Lot 86 - 1990 Core		core			chert, Tuscaloosa	1	3.6	65N/15E 30-50 cms

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 86 - 1990	Fired clay				clay	77.0	65N/15E 30-50 cms	
Lot 86 - 1990	Fired clay				red clay	3	2.0	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			chert, Ft. Payne	1	5.0	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			chert, nonlocal brown/black	1	0.6	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			chert, nonlocal tan	2	1.6	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			chert, nonlocal lt. blue/gray	1	1.8	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			chert, Tuscaloosa	118	55.1	65N/15E 30-50 cms
Lot 86 - 1990	Flake	cortical			Quartz	6	30.7	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, Ft. Payne	4	1.6	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, nonlocal black	1	0.3	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, nonlocal cream	1	0.5	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, nonlocal gray	6	2.8	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, nonlocal lt. gray	3	1.1	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, nonlocal reddish tan	1	0.3	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			chert, Tuscaloosa	46	10.8	65N/15E 30-50 cms
Lot 86 - 1990	Flake	noncortical			Sandstone, brown or hematitic	2	3.6	65N/15E 30-50 cms
Lot 86 - 1990	Palette fragment		fragment		Sandstone, fine gray micaceous	1	25.9	65N/15E 30-50 cms
Lot 86 - 1990	Preform	preform			chert, Tuscaloosa	3	10.0	65N/15E 30-50 cms
Lot 86 - 1990	Projectile Point	Bradley Spike	incomplete		chert, Tuscaloosa	2	7.1	65N/15E 30-50 cms
Lot 86 - 1990	Projectile Point	Copena Triangular	incomplete base		chert, Ft. Payne	1	3.6	65N/15E 30-50 cms
Lot 86 - 1990	Projectile Point	Kirk Corner Notched	incomplete		chert, nonlocal dk. brown	1	4.1	65N/15E 30-50 cms
Lot 86 - 1990	Projectile Point	Madison	incomplete		chert, Tuscaloosa	2	0.9	65N/15E 30-50 cms
Lot 86 - 1990	Shatter	shatter			chert, Ft. Payne	1	3.1	65N/15E 30-50 cms
Lot 86 - 1990	Shatter	shatter			chert, Tuscaloosa	45	119.4	65N/15E 30-50 cms
Lot 86 - 1990	Shatter	shatter			Quartz	5	12.8	65N/15E 30-50 cms
Lot 86 - 1990	Stone, ground				Sandstone, brown or hematitic	2	46.7	65N/15E 30-50 cms
Lot 86 - 1990	Stone, ground				Sandstone, fine gray micaceous	1	1.7	65N/15E 30-50 cms
Lot 86 - 1990	Stone, unmodified				chert, Tuscaloosa	7	12.5	65N/15E 30-50 cms
Lot 86 - 1990	Stone, unmodified				Metamorphic.	1	14.8	65N/15E 30-50 cms
Lot 86 - 1990	Stone, unmodified				Quartz	27	171.3	65N/15E 30-50 cms

FS #	Object Name	Description 1	Descrip 2	Descrip 3	Material	Count	Measure	Provenience
Lot 86 - 1990 Stone, unmodified					red ocher	5	124.7	65N/15E 30-50 cms
Lot 86 - 1990 Stone, unmodified					Sandstone, brown or hematitic	206	1967.0	65N/15E 30-50 cms
Lot 86 - 1990 Stone, unmodified					Sandstone, fine gray micaceous	2	1.8	65N/15E 30-50 cms
Lot 86 - 1990 Tool flake	tool flake				chert, Tuscaloosa	2	2.7	65N/15E 30-50 cms
Lot 98 - 1990 Concretion					rock		7.8	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Fired clay					clay		30.7	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	bifacial retouch				chert, Tuscaloosa	1	0.1	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	cortical				chert, nonlocal gray	1	0.1	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	cortical				chert, Tuscaloosa	8	2.6	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	noncortical				chert, Ft. Payne	2	0.8	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	noncortical				chert, nonlocal lt. gray	1	0.1	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	noncortical				chert, nonlocal cream/tan	2	1.4	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	noncortical				chert, Tuscaloosa	2	0.6	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Flake	noncortical				orthoquartzite, Tallahatta	2	0.5	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Preform	preform		fragment		chert, nonlocal	1	1.1	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Projectile Point	Madison		complete		chert, Tuscaloosa	1	0.3	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Shatter	shatter				chert, Tuscaloosa	4	10.0	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Shatter	shatter				orthoquartzite, Tallahatta	1	2.0	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Shatter	shatter				Quartz	1	1.2	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Stone, ground or carved Bowl			fragment		Sandstone, brown or hematitic	5	68.4	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Stone, unmodified					Quartz	2	25.9	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Stone, unmodified					Sandstone, brown or hematitic	21	96.7	65N/15E Level 4 50-70 cms
Lot 98 - 1990 Stone, unmodified					Sandstone, fine gray micaceous	1	66.9	65N/15E Level 4 50-70 cms