

POST-ARCHAIC PERIOD¹

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Yazoo Basin

Locally known as the "Delta," the Yazoo Basin represents a vast expanse of westcentral and northwest portion of the state. This lenticular feature is bordered to the east by the steeply rising Loess Hills and to the west by the Mississippi River proper. At its widest point, it is 60 miles in width. Longitudinally the Yazoo Basin extends from the point at which the river and bluffs diverge at Memphis, Tennessee (just north of the Mississippi-Tennessee border) southward some 200 miles to Vicksburg, Mississippi, at which point the Yazoo and Mississippi Rivers converge and the Mississippi again abuts the eastern bluffs. Ten counties and portions of nine others covering approximately 7,000 square miles are encompassed by this physiographic feature.

Topographically the Yazoo Basin is a relatively flat feature with minimal vertical relief provided by the ridges, swales, natural levees, and backswamps which attest to the meanderings of the Mississippi River and its associated watercourses through the area (see Fisk 1944, Saucier 1968, 1974, 1981, Phillips, Ford, and Griffin 1951, Williams and Brain 1983, and Kelly 1973).

In pre-modern times the Yazoo Basin was densely forested with oak, gum, and cypress. However, the desirability of the rich alluvially deposited soils of the region for agricultural activities has precipitated the removal of the vast majority of associated with the lowland forest environment have been destroyed or greatly compromised.

Archaeological Background

The Yazoo Basin was intensively and extensively occupied during the majority of the prehistoric era. The abundant floral and faunal communities rendered it particularly desirable to early foraging groups. Similarly the fertile soils which are presently home to the most extensive farming activities in the state were likewise attractive to later prehistoric horticultural and agricultural populations.

¹Cautionary Note: Numbers presented in the text and tables should be viewed with appropriate caution. Site counts, component counts, etc., are approximations at best. Numerical values are included only for the purpose of illustrating general trends. In that this project has been ongoing for over 5 years, they are also somewhat out of date. An accurate reporting will be produced from the recently computerized data base which is currently being reviewed and updated. Hopefully, a more workable inventory will be accessible in the near future. To be included within the Comprehensive State Planning document for the State of Mississippi and submitted to the National Park Service. Not for Citation.

While the Yazoo Basin was certainly the most heavily occupied area of the state during prehistoric times, it is also the area which has been the most closely scrutinized archaeologically. Early investigation were primarily focused upon the numerous mound sites where burials frequently produced whole ceramic vessels and other museum quality artifacts (see Moore 1908, 1911, 1916, Brown 1926 and Ford 1936).

A large amount of information was amassed as a result of The Lower Mississippi Valley Survey, a combined effort of the Peabody Museum (Harvard University), Louisiana State University, the University of Michigan, and American Museum of Natural History of the 1940's and 1950's (see Phillips, Ford, and Griffin 1951). Two decades later specific investigations within the southern portion of the Yazoo Basin were detailed by Philip Phillips in his monumental work: Archaeological Survey in the Lower Yazoo Basin Mississippi: 1949-1955. This volume, published in 1970, continues to serve as the cornerstone for cultural chronology, phase definition, and ceramic typology for the entire Lower Mississippi Valley as well as several adjoining areas.

The following sections will discuss the post-Archaic prehistoric cultural sequence for the Yazoo Basin. A heavy reliance will be placed upon Phillips' (1970), Williams' and Brain (1983), and Brain's (1988) observations in the endeavor. All of the major archaeological contributions for this area and many less voluminous ones have also been incorporated into this summation.

Early Woodland (Gulf Formational Stage)

Traditionally, the first ceramic bearing sites in the Yazoo Basin have been attributed to an Early Woodland Period as is evidenced by the archaeological literature prior to the mid 1970's. This practice was discontinued, however, following the publication of a paper by Walthall and Jenkins in 1976 in which the Gulf Formational concept was formalized. Their argument, that the early ceramic manifestations below the Fall Line Hills along the Gulf Coastal Plain are distinctive and of separate genesis that those of the Woodland tradition to the north, has since become a mainstay in Southeastern archaeology.

In this scenario (see also Jenkins et al 1986), ceramics first appeared along the Atlantic seaboard of South Carolina, Georgia, and north Florida during the Early Gulf Formational (ca. 2500 B.C.) By the Middle Gulf Formational (ca. 1200 B.C.) variations of these early ceramics began to appear in the western portion of the Coastal Plain including the Yazoo Basin.

Interregional trade is characteristic of this period and it is at this time that the grate Poverty Point site rises to a position of dominance in this far-flung network of exchange and interaction. Phillips' (1970) Jaketown phase is the Yazoo Basin representative. Subsequent to the demise of Poverty Point and its affiliates, during the Late Gulf Formational (ca. 600

B.C.) several less grandiose cultural manifestations take root. In the Yazoo Basin this period is synonymous with the Tchefuncte culture.

Poverty Point (Middle Gulf Formational Stage)

The Middle Gulf Formational stage as expressed in the Poverty Point culture represents the initial post-archaic development within the lower Mississippi River Valley. Its success was predicated upon a previously operating and highly successful hunting and gathering strategy in the region. An elaboration of this system, indicated by the construction of monumental earthworks, pan-regional trade in (or direct acquisition of) exotic materials, and the production of non-utilitarian items, was achieved through the directed utilization of those surpluses generated by this preceding Late Archaic regime. According to Williams and Brain (1983:389) "Redistribution is the key to our concept of the Jaketown-Poverty Point phases." and as such it can also be considered the key to Poverty Point culture as a whole.

Nowhere are the achievements of this culture as exalted as at the Poverty Point site (16-WC-5) itself. In fact the magnitude of this (Louisiana) site in terms of number and size of earthworks, overall site size, and quantity and variety of exotic materials present place it in a unique and apparently dominating position among those occupations attributed to this culture. The amount of space taken up in the literature in dealing with this site (cf. Ford and Webb 1956, Ford, Phillips, and Haag, 1955; Gibson 1973, 1980, and 1984, Webb 1948 and 1977, and Phillips 1970 among others) as compared to other Poverty Point sites is indicative of the impressiveness of the Poverty Point site itself. The artifactual assemblage identified at this site (varying portions of which are also present at other sites attributed to this culture) includes a blade-core lithic technology producing microlithic stone tools, baked clay balls of various forms (including cylindrical grooved, biconical plain, biconical grooved, cross grooved, melon-shaped, and melon shaped with end grooves), clay human figurines, plain and zoomorphic stone beads (many made of red jasper), magnetite and hematite plummets and steatite bowls. Exotic raw materials include galena, novaculite, quartz, quartzite, and copper derived from widely dispersed source areas such as Arkansas, southeast Missouri, the upper Mississippi and Ohio River Basins, the Tennessee River, and the Great Lakes region.

Within the lithic assemblage are stemmed, corner-notched, and side-notched projectile points (many produced from extra-regional charts). Distinctive projectile point types include Motley Corner Notched, vars. Motley and Delhi; Epps Side Notched, var. Epps, Pontchartrain Stemmed var. Pontchartrain, and Gary Stemmed var. Gary.

While the question of the contribution of ceramic vessels to the cultural assemblage of the Poverty Point culture remains unresolved, their presence has been documented (Gibson 1984:37, 45). Jenkins et al

(1986:548) place the appearance of fiber tempered ceramics in the western portion of the Gulf Coastal Plain at ca. 1200 B.C. and refer to sites of this general age Middle Gulf Formational stage. Along with the Poverty Point site, Jaketown (22-Hu-505) and Teoc Creek (22-Cr-504) are specifically noted.

The temporal positioning of the Poverty Point culture is based upon an unusually large (yet still inadequate) number of radiocarbon and thermoluminescence dates (see Gibson 1973, Weber and Webb 1970 and Huxtable et al. 1972). Although some uncertainty persists concerning specific beginning and ending points, this culture is generally considered to span the period from ca. 1500-600 B.C. (Gibson 1974:11, Johnson 1980:260, and Lehmann 1982:11). Walthall and Jenkins (1976) place the beginnings of the Gulf Formational stage at the Poverty Point site and elsewhere at 1200 B.C.

Based upon evidence from the Poverty Point area of northeast Louisiana (the area of the proposed Poverty Point Interaction Basin), Gibson (1973) has outlined a developmental sequence for the Poverty Point culture. The stages represented within this model include 1) Nascent (1500-1200 B.C.), 2) Developmental (1200-1000 B.C.), 3) Florescent (1000-800), and 4) Post Florescent (800-600). The postulated sequence can be characterized as one of increasing emphasis upon the production and acquisition of status reinforcing items, a trend which may have ultimately contributed to the fragmentation and demise of the entire socio-cultural system. The occurrence of Poverty Point sites within the lower Mississippi Valley is extensive, spanning the area from the Gulf Coast to the Yazoo and Tensas Basins (Williams and Brain 1983:396). (The O'Bryan phase of southeast Missouri [Phillips 1970, Williams n.d.] and the Elliott's Point complex of coastal Alabama [Lazarus 1958, Thomas and Campbell n.d.] are also of relevance). This area has been divided into regional phases by several authors (see Gibson 1974, Webb 1977, Hunter 1970, and Phillips 1970). Although the main channel of the Mississippi River was apparently avoided by Poverty Point populations, "every aspect of the interior riverine system and related topography appears to have been utilized" (Williams and Brain 1983:354). This distribution is consistent with the interpretation that the subsistence base for this culture was non-agricultural, relying instead upon the abundant floral and faunal resources of the natural environment. Gibson (1973) has pointed out that (with two notable exceptions, i.e. the Yazoo Basin and Gulf Coastal Plain) Poverty Point phase representatives incorporate both upland as well as floodplain components. Sites are commonly situated in ecotonal settings in order to maximize resource accessibility.

In order to oversee the functioning of the Poverty Point complex, it is assumed that an elaborate socio-political system involving a socially stratified society and hierarchical ordering of sites was operational. It is

evident that the social organization during this period was considerably more advanced than that which existed either prior to or immediately following Poverty Point. Whether this system is representative of Service's (1962) chiefdom level of social organization continues to be debated (see Gibson 1973 and 1974, Johnson 1980, Lauro and Lehmann 1982, Williams and Brain 1983). Webb (1977) and Gibson (1974) have suggested that this system included a matrilocal pattern of residence.

The Poverty Point culture is thought to have developed along the Gulf Coastal Plain as a result of influences emanating from the southern Atlantic coast (see Walthall and Jenkins 1976, and Jenkins et al 1986). While Mesoamerica is sometimes credited with being a major extra-areal influence (Webb 1968, Ford 1969), others (Gibson 1973) contend this to be an indigenously derived cultural manifestation.

Jaketown Phase

The entirety of the Poverty Point culture within the Yazoo Basin is presently subsumed within a single phase: Jaketown. As perceived by Williams and Brain (1983:389) the Yazoo Basin represents the geographic focus and possible also the demographic and sociocultural foci of the Poverty Point culture. From an exchange standpoint, this area may have served as a trade link between the Poverty Point site and northern and eastern resource areas including Indiana, Illinois, the Appalachians, and the Tennessee River valley. These authors report that 50% of all known Poverty Point sites are situated within the Yazoo Basin (thirty-eight definite and probable Jaketown phase sites are mapped on figure 11.5 (1983:353). Following Webb (1977 fig.3) Lauro and Lehmann (1982:19) report ca. 50+ sites for this area. However, based upon the current consensus that multiple traits are needed in order to properly identify a Poverty Point component (cf. Lehmann 1986), it must be questioned what percentage of the Yazoo Basin "Poverty Point" sites are actually assignable Poverty Point occupations.

The Jaketown site has been the focus of extensive investigations over the last half century (see Phillips Ford, and Griffin 1951; Haag and Webb 1953; Ford, Phillips, and Haag 1955; Phillips 1970; Lehmann 1982). Aside from the Poverty Point site itself, this site represents the most complex and artifactually rich Poverty Point site in the lower Mississippi Valley. Deep midden deposits, extensive surface scatters of Poverty Point materials, and the presence of several small mounds (presumably attributable to this period) are indicative of the intensity of the early occupation at this site. Jaketown is commonly considered to be a regional center within the overall trade system associated with the Poverty Point culture.

To date, the Jaketown excavations provide the only convincing data concerning Poverty Point house structures. A post-mold pattern identified adjacent to Mound A at this site indicated the presence of a

circular structure of single post construction. A smaller section of a second circular (?) structure was identified in a nearby trench.

It has long been evident that the Poverty Point occupation of the Yazoo Basin had potential for division into several phases or subphases. Although recent surveys have filled in many of those gaps employed by Phillips (1970) in distinguishing areal groupings within the Yazoo Basin, a separation of sites along the Yazoo-Tallahatchie and Sunflower drainages may yet have certain utility in examining Poverty Point in this area (Lehmann 1982:9; Gibson 1980, Johnson 1980).

Due to the relatively larger amount of work carried out at Jaketown, and the specific focus of much of this work (both Ford, Phillips, and Haag's [1955] and Lehmann's [1982] investigations at this site were primarily concerned with the Poverty Point component) this site provides a large portion of the information presently available concerning the Poverty Point occupation of the Yazoo Basin. Substantiating the proposition that the Poverty Point occupation at this site was of considerable duration is a suite of radiocarbon and thermoluminescence (TL) dates spanning a maximum period of 1280 years. The earliest assay (1080 B.C. \pm 250) is a TL date from a Poverty Point object. The most recent, a radiocarbon date of 200 B.C. \pm 150, has been considered invalid (cf Ford 1969) due to its extreme lateness. Lehmann (1982:3) has characterized the Poverty Point occupation at this site as spanning a period of as much as 1500 years.

The initial occupation of the Jaketown site occurred sometime between 2800-600 B.C., the period in which the Mississippi River occupied the meander belt upon which the site is located according to Saucier's (1974, 1981) geomorphological reconstruction for this area (Lehmann 1982:9). Regardless of the temporal particular, all evidence points to a lengthy and intensive Poverty Point occupation at the Jaketown site. Artifacts diagnostic of this occupation include baked clay balls (mostly conical/laterally grooved), Pontchartrain and Gary projectile points, a microlith industry, and hematite and magnetite plummets.

Stratigraphic evidence from Jaketown was employed by Ford, Phillips, and Haag (1955) in pronouncing the Poverty Point occupation at this site to be pre-ceramic, including the handful of fiber tempered sherd at the site with the clay tempered Tchefuncte types of the following Tchula period. Conversely, Jenkins et al (1986) have apparently employed these sherd in assigning an early Wheeler (Middle Gulf Formational) component to this site.

As previously noted, the size (ca. 200 acres) and composition of the Jaketown site as well as its quantity and quality of artifactual materials, have been employed by researchers in establishing its status as a regional center. Eight small mounds at the site may be of Poverty Point construction. Excavation within the largest of these indicated it to be of this period (Phillips, Ford, and Haag 1955:37).

Aside from the Jaketown site, several other Poverty Point sites within the Yazoo Basin have received significant attention in recent years including Teoc Creek, Neill (22-Lf-500), and Slate (22-Hu-655). Extensive excavations were carried out at the Teoc Creek site (Connaway et al. 1977). Work at the Neill and Slate sites focused upon surface reconnaissance although a single test pit (1 x 1 meter) was excavated at the latter. The results of this investigation have contributed important information toward the understanding of the Poverty Point culture in this area and as such each site will be discussed at some length in the following section.

Teoc Creek Site (22-Cr-504)

The Teoc Creek site, located at the eastern periphery of the Yazoo Basin and just north of the latitude of Greenwood, has received the most extensive investigation of the three aforementioned sites, including a considerable amount of excavation. The site is situated on a high bank on the outside of an old river bend and consists of a semicircular and partially buried midden with a maximum depth of ca. 2.8 meters. Uncovered during these excavations were numerous prepared hearths of fired clay. The artifactual inventory included a variety of fired clay balls. The biconical version was most common and occurred throughout the excavation levels. Fragmentary basketry-impressed objects represent a second ceramic category. The largest fired clay artifact class consists of sherds from ceramic vessels. However, although a considerable number (211) of these items were recovered, the vast majority are from the site surface and most, if not all, are probably of post-Poverty Point origin. Among these are 43 fiber-tempered sherds. Again, most of these are from either disturbed or surface contexts leading to the investigators' conclusion that the fiber-tempered ceramics are associated only with the terminal portion of the Poverty Point occupation or completely unassociated with this component. Two fired-clay tubular pipes similar to ones from the Jaketown site were also recovered from the site surface.

A small number of steatite and sandstone bowl fragments compromise the remainder of the vessel assemblage from the site. Such items are commonly associated with Poverty Point occupations and are inferred to be representative of the Jaketown phase component at this site.

Within the lithic assemblage are a variety of chipped stone items including objects classified as cores, thick bifaces, thin bifaces, circular bifaces, adzes, and drills. A blade core industry is also evident with lamellar blade cores, utilized and unutilized blades, blade side-scrapers and end scrapers, perforators, gravers, and notched blades all being present. Unmodified flakes used as scraping and cutting tools were also identified.

The projectile point category is dominated by the types Pontchartrain, Kent, and Gary. Although sample size for the excavated proveniences is small, there is a suggestion of temporal trend from Gary (early) to Kent and Pontchartrain (later) forms. Most of the projectile points and other chipped stone tools are manufactured from locally available cherts. However, exotic cherts are also present and make their strongest showing in the projectile point category.

Ground stone artifacts include limonite and slate gorgets, plummets, celts, pitted stones, abraders, quartzite pebbles, and sandstone slabs and a bead. All but a small number of these items are from the site surface and as such cannot be confidently attributed to the Poverty Point component.

Subsistence remains from the Teoc Creek site are minimal. Faunal materials are practically absent, consisting only of a few charred and unidentifiable bone fragments. Floral remains are composed primarily of carbonized hickory nuts. Other identifiable plant remains include walnut, acorn, and persimmon.

Intrasite chronology at Teoc Creek is based upon a series of nine radiocarbon dates. These assays, ranging from 1700 B.C. \pm 160 to 1070 B.C. \pm 150, indicate site occupation and consequent midden accumulation over a 500-year period. A thermoluminescence determination derived from a sample of Poverty Point Objects produced a date (1070 B.C. \pm 220) falling within the range of the radiocarbon assays for the site (yet compatible with only two of those C-14 dates from comparable depths). Based upon this evidence Connaway et al. (1977:114) concluded that the Poverty Point occupation of the Teoc Creek site occurred between 1100 and 1700 B.C.

Absent from the Teoc Creek site are earthen mounds while "esoteric or ceremonial items such as copper ornaments, lapidary objects, zoomorphic or anthropomorphic carvings, clay figurines and decorated clay objects. . .are so far minimal or lacking" (Connaway et al. 1977:115). Such omissions from the cultural inventory have been employed in proposing that this occupation predates the occupations at Poverty Point and Jaketown and is prior to the Florescent stage of the Poverty Point culture in general.

Neill Site (22-Lf-500)

Investigations at the Neill site focused upon inventorying the artifactual assemblage with the intent of comparing it with that of the neighboring Teoc Creek site. The results of this project are reported in Connaway et al. (1977). Similarities and differences between the two sites and possible interpretations of these observations will be summarized here.

Basic similarities between the Teoc Creek and Neill sites are numerous and indicate definite cultural associations between the two.

Poverty Point Objects (primarily biconicals), fiber-tempered ceramics, Gary, Kents, and Pontchartrain projectile points, other stone tool types, and lithic reduction technologies are generally comparable.

However, differences are also apparent. Considerable more fiber-tempered sherds were recovered at Neill. Foreign raw materials, although minimal at both sites, show a greater representation among the Neill site projectile points as well as among the other tools, cores, and debitage. In terms of the biface manufacturing trajectory, a greater number of early stage bifaces are present at Teoc Creek, while late stage and finished bifaces have a greater representation at Neill.

Presence/absence differences are also noted in several categories. In terms of atlatl weights, the Teoc Creek sample is comprised of two-hole gorgets while bannerstones are characteristic of the Neill site. Additionally, Alexander series ceramics are present at Neill, but none were identified at Teoc Creek.

Based upon this evidence, Connaway et al. (1983:114) have concluded that the two sites represent temporally sequential yet partially overlapping occupations by different groups. The Neill site is thought to be the more recent yet was probably occupied coterminously with Teoc Creek for a period of 400-500 years. It has been pointed out that differences between the two site inventories may be partially due to differences in sample size and context. The Neill site materials represent only a relatively small surface collection while Teoc Creek has undergone considerable excavation (Connaway et al. 1977:109). It is also feasible that many of the observed differences are due to those portions of the respective assemblages that are not contemporaneous which when combined into single sample for comparative purposes tend to exaggerate the differences between the two site assemblages and indicate non-identity during the coterminous portions of the two occupations. Variation in site function at these two locales is a possible yet untested explanation for site assemblage differences.

Slate Site (22-Hu-655)

The final Yazoo Basin Poverty Point site to receive serious attention is Slate (Lauro and Lehmann 1982). This site is located in the neck of a large meander loop of the Stage 4 Mississippi River channel and in the extreme southeastern portion of the Yazoo Basin. Site size is ca. thirty-two acres. A lack of subsurface deposits is indicated by the negative results of the excavation of a single 1 x 1 meter test unit and several core tests. To date the Slate site is unique for the Yazoo Basin in that it appears to represent a functionally specific Poverty Point. (Jaketown phase) occupation. The ubiquity of finished and unfinished worked stone items (particularly beads) at this site suggests that it served as a station for lapidary production. As indicated by the site name, slate

served as the primary raw material utilized in the manufacture of the majority of these objects.

The focused orientation of this Jaketown phase occupation is illustrated by the lack of earthen mounds, midden, fire-cracked rock, and daub at this site. Also absent are Poverty Point Objects. Thus, as has previously been pointed out on several occasions (Phillips 1970, Williams and Brain 1983, Lehmann 1982, and Morgan and Raspet 1979) the absence of baked clay balls does not necessarily disqualify a site as Poverty Point occupation (cf. Ford, Phillips, and Haag 1955:Table 4). Lehmann (1982: 50, 51) cites the presence of numerous items including microliths, hematite plummets, jasper ornaments, bird-head and rattle effigies, butterfly bannerstones, and a variety of exotic raw materials in substantiating the Poverty Point occupation at Slate.

The character of the Slate site renders it unamenable to absolute dating techniques. Lauro and Lehmann (1982:61) interpret the available evidence as indicative of "the degree of autonomy developed within the Jaketown phase toward the end of the Poverty Point period." Further, they (1982:64) maintain that "Procurement of raw materials of non-indigenous nature from diverse sources indicated a rather well developed trade network. These facts seem to support the idea that Poverty Point in the Yazoo Basin did develop a relatively complex sociopolitical organization."

Issues of Relevance to Further Research

Considering the supremacy of the Poverty Point cultural system within the continental United States at the time of its existence (Williams and Brain 1983:396) and the importance of the Yazoo Basin as a focal point for this system, additional research in this locale is particularly relevant toward the achievement of an adequate understanding of this earliest of post-Archaic cultural manifestations. As indicated by the foregoing presentation, the necessary investigations have only begun. Considerable work remains to be done. Several of those issues yet to be adequately addressed will be discussed in this section.

Pivotal to any future research directives is a proper understanding of the functioning of the Poverty Point cultural system within the Yazoo Basin. Critical to such an investigation is the determination of whether a single Poverty Point cultural system actually existed.

While a developmental sequence during the Poverty Point period has been delineated by Gibson (1973), this sequence may only be applicable for the area within which it was defined (i.e., the Poverty Point Interaction Basin). Goad (n.d.:1) has discussed the inadequacy of supportive data even within this locale. Although this formulation is drawn upon by both Connaway et al. (1977) and Lauro and Lehmann (1982) in determining the temporal placement of the Teoc Creek and Slate sites, this developmental model has never been tested within the

Yazoo Basin. As pointed out by Johnson (1980:267) there is an important need for the developmental of an internal chronology for the Yazoo Basin.

The settlement-subsistence configuration espoused by Gibson (1974) is not directly applicable to the Yazoo Basin. Specifically, the upland component noted for most other areas of Poverty Point affiliation is yet to be identified here. Johnson (1980) has proposed that subsistence efficiency was maximized within the Yazoo Basin by locating sites at the confluence of major meander belts as in the case of the Norman (22-Qu-518) and Jaketown sites.

Finally, the contemporaneity for sites as conceived within Gibson's (1974) "Poverty Point Interaction Basin" is a contention which can be accepted at only a very general level. Thus, the applicability of such a concept to the Yazoo Basin must be critically evaluated before it is adopted as a basis for research in this area. As pointed out by Lehmann (1986:3) "Since little chronological control within the Poverty Point period exists, and the large number of components within the Yazoo Basin are not likely contemporaneous, the possibility exists that the large number of components represents occupations geared toward specific stages of abandoned channel evolution and may have been of relatively short duration."

Investigations at Yazoo Basin Poverty Point (i.e. Jaketown phase) sites indicates a considerable amount of intersite variation. To date, this variation has been interpreted in large degree as a reflection of temporal variation based in part upon the comparability of particular site assemblages to that which would be expected during certain portions of Gibson's (1973) developmental sequence. Again, the applicability of this sequence remains unverified. As such, it must be questioned whether the variation observed among Jaketown phase sites is reflective of a prevailing developmental structure or representative of a diachronic phenomenon specific to the Yazoo Basin. Lehmann (1988:4) has proposed that fluctuations in non-local materials at Jaketown phase sites are temporally sensitive and may correlate with changes in resource availability attributable to transition in the Mississippi River channel.

As previously noted, although a relatively large number of "absolute" dates are available for the Poverty Point period in both the Yazoo Basin and the Lower Valley as a whole, more are needed. In addition to the acquisition of dates by means of radiocarbon assays, direct dating of Poverty Point Objects by means of thermoluminescence techniques has also been employed. At present, the results of this procedure have been only limitedly successful. While dates derived in this manner consistently fall within the time frame generally accepted for the Poverty Point period, they do not always agree with C-14 assays from corresponding contexts (see Connaway et al. 1977:107). Further, standard deviations for TL dated samples have averaged 200+ years (see

Huxtable et al. 1972 and Weber 1970), minimalizing their use for specific temporal assignation.

An as yet unfulfilled potential for TL. dating concerns the temporal ordering of the recognized varieties of Poverty Point Objects. Based upon present evidence, correlations between the shapes of these objects and period chronology are tentative at best (see Gibson 1972). TL. dating results indicate that many (if not most) of the clay ball varieties have a considerable time range (see Weber and Webb 1970:Table 1). Biconicals are known to exist from earliest Poverty Point times into the following Woodland period. However, it has been noted that the later binoculars are comparatively smaller. Discussions at a recent (May 1986) Poverty Point conference indicate that large "potato-shaped" Poverty Point Objects are a relatively early form. Perhaps size will ultimately be found to be a more useful temporal indicator the shape. Alternatively, it may be discovered that neither size, shape, nor any other attribute of these items is chronologically sensitive.

It is in this vein that TL. dating may be most applicable. Even if standard deviations are considerable (a problem which will hopefully be resolved with additional refinement), this technique should be able to provide evidence for a relative temporal ordering of Poverty Point Objects if such an ordering actually exists. Conversely, it may provide evidence suggesting that these items might be more advantageously focused upon in discerning not-temporal issues such as function in food preparation (see Hunter 1975). Webb (1968:308) has even suggested that shape reflects personal or familial preferences. In any of these cases, our present state of knowledge would be advanced and as such these investigations should be pursued.

Considerable effort has gone into determining the level of social organization extant during the Poverty Point period. Gibson (1973) in particular has sought to establish the status of this culture at the chiefdom level. He further postulates this achievement to be locally obtained (i.e., not the result of direct Mesoamerican influences). Johnson (1980), employing regional data from the Yazoo Basin, argues that the Poverty Point culture within this area did not achieve chiefdom status. Others including Williams and Brain (1983) acknowledge that a complex and well organized socio-political system was required in order to maintain this culture yet question the need for expending undue energy in equating this configuration with that of a chiefdom because of the uniqueness of the Poverty Point culture among its contemporaries. It is maintained herein that further evaluation of the chiefdom issue both within the Yazoo Basin and the area of Poverty Point influence in general is one of legitimate importance which should not be de-emphasized due to its unique character.

Overall, while the basic chronology and cultural inventory of this period are fairly well established, finer grained inspections of this

manifestation have been infrequently undertaken. The potential for subdividing the Yazoo Basin into regional phases or subphases is apparent. The Yazoo-Tallahatchie and Sunflower drainages in particular have been singled out as candidates for such a separation (Gibson 1980, Lehmann 1982:9). Johnson (1980) has provided evidence indicating cultural differences between these two areas during the Poverty Point period.

Investigations at the Slate site raise an interesting issue concerning Yazoo Basin Poverty Point culture. As argued by Lauro and Lehmann (1982), this site is representative of the specialty site type anticipated within the Poverty Point manufacture and redistribution system. Yet the functioning of this system must be reconsidered (at least as it is manifest within the Yazoo Basin) based upon the results of the investigations at this site. Undoubtedly an extensive lapidary industry is present. An important question is why these items were being produced? Although worked stone beads are known from numerous Poverty Point sites, few (if any) are of the raw material (slate) which characterizes this assemblage. Such a situation does not speak well for a model of production for redistribution. Conversely, is it to be assumed that these items were manufactured by and for the residents of the Slate site? Perhaps the paucity of slate beads at other Poverty Point sites both within the Yazoo Basin and elsewhere is due to the lack of intensive site investigations although such an explanation seems unlikely. Notably, collectors from the Yazoo City area claim to know of several slate-bearing sites in the southern Yazoo Basin (Lehmann 1986, personal communication). Whatever the solution, this issue requires additional inquiry as it has important implications concerning the production and exchange aspects of the Poverty Point culture.

Further, additional investigation is necessary at several Yazoo Basin sites which have previously been cited in relation to the Poverty Point socio-political system. Among these are Norman, Savory (22-Sh-518), Spanish Fort (22-Sh-500), Little Spanish Fort (22-Sh-522), and Leist (22-Sh-520), all of which have been considered as regional or subregional centers. Only minimal (if any) excavation has taken place at any of these sites (Phillips 1970, Brookes and Taylor 1982). Leist, Spanish Fort and Little Spanish Fort are suspected to be members of the Poverty Point culture due primarily to their semicircular earthworks as few Poverty Point diagnostics are present. Considerable excavation will be required in order to properly assess the occupational history of these sites.

As noted by Lehmann, even the status of the Jaketown site is uncertain (1982:49). It is generally agreed that Jaketown represents a regional center of the Poverty Point culture. However, there is some question as to whether it should be characterized as representative of a regional phase as originally proposed by Phillips (1970:525). Due to the nature of the Jaketown and other Yazoo Basin Poverty Point sites it has

been suggested that a subphase designation might be more appropriate (Lehmann 1982:49). Additional research is needed to resolve this issue. Based upon the examination of the distribution of exotic materials and the persistence of Quachita derived specimens Lehmann (1986:5) has proposed that the presence of Quachita materials be a requirement for the inclusion of a site within the Jaketown phase.

Poverty Point subsistence continues as a topic of discussion. It is generally accepted that a forest and riverine exploitation strategy provided for the majority of the sustenance of these people. However, the potential for limited horticulture or agriculture has to been advocated by some researchers (cf. Webb 1975). Although agriculture cannot be completely ruled out, considering the accumulated evidence, it can be safely stated that even if agriculture did exist during this period, it comprised a relatively small portion of the overall subsistence regime.

Finally, the demise of the Poverty Point culture must be considered. Several explanations have been offered including a disillusionment of the general population due to an increased obsession by a social elite in obtaining exotic "status-reinforcing" items, a growing autonomy of regional groups, intergroup competition for desirable resources, and the rise of powerful groups in the northern valley. (See Gibson 1974 for a discussion of these and other contributing factors). As presented by Williams and Brain (1983:399) "Poverty Point must have been the result of social differentiation, and control of the society by an elite. When, for whatever reason, the elite ceased to function, the distinctive developments likewise ceased and Poverty Point came to an end." Undoubtedly the termination of this cultural system was the result of a combination of factors. Considering the influential role of the Yazoo Basin in the Poverty Point culture, this is an important area in which to search for, delineate, and determine the relative contribution of those elements which combined to affect the downfall of this system.

Two additional questions should be mentioned in relation to the Poverty Point culture. First, is the "Fiber-tempered horizon" issue. Having access to the evidence from the Jaketown excavations, Phillips (1970) was aware of the potential existence of a phase characterized by fiber-tempered ceramics temporally falling within the gap between the Poverty Point and early ceramic occupations with the Lower Valley. However, space was not allotted within his chronological chart (1970:figure 2) to allow for such a component because of the ambiguity of the available evidence. Subsequently, Williams and Brain (1983:354-356) formally proposed that fiber-tempered ceramics appear at a time transitional from the Poverty Point to Tchula periods and labeled this entity, which also includes baked clay balls (particularly small biconicals) and a microlithic blade core technology, the McGary phase. Due to the limited distribution of this phenomenon, considered to occur only within the southeastern corner of the Yazoo Basin, it was pointed out that this

phase is subregional in geographic dimension (Williams and Brain 1983:355). Excavations at the Lightline Lake site (22-Lf-504) also identified a component characterized by biconical clay balls and fiber-tempered ceramics (Morgan and Raspet 1979). The eastern valley border location of this site is comparable to that of sites included in the McGary phase. However, it is situated considerably farther north (immediately above the latitude of Greenwood) suggesting that the distribution of such sites may be more extensive than initially thought. Additional sites with similar assemblages have also been identified in Tallahatchie, Quitman, and Coahoma counties (see also Lehmann 1988). In the Jenkins et al (1986) scenario, these sites are all subsumed by the early Wheeler component of their Middle Gulf Formational period. Obviously, the issue of a fiber-tempered horizon and its association with both the earlier (Poverty Point) and later (Tchula) occupations in the Yazoo Basin requires further investigation.

A related issue concerns activities within the remainder of the Yazoo Basin during the Poverty Point period. That the Poverty Point culture did not dominate this entire area has been alluded to by several authors. Johnson (1980:256) notes that Poverty Point sites are known for a portion of the Yazoo Basin measuring 130 miles north-south and 40 miles east-west. The entire basin measures roughly 200 miles north-south with a maximum width east-west of 60 miles. In discussing the limited distribution of McGary phase sites within the Yazoo Basin, Williams and Brain (1983:356) state that "although we are not really certain what contemporary events were taking place in the rest of the Yazoo, it is clear that fiber-tempered pottery (and whatever it represents) was not a major factor in these events." Thus, discounting the possibility that a considerable portion of the Yazoo Basin was unoccupied at this point in time, it remains to be discovered what other cultural entities were present and how they interfaced (if at all) with the Poverty Point culture. This determination is important in relation to several issues but particularly to the character of the Archaic to Woodland developmental sequence and the role of the Poverty Point culture in this procession.

In summary, additional research is needed concerning numerous aspects of the Poverty Point culture as manifested within the Yazoo Basin. An inspection of internal chronology, developmental sequencing, and settlement-subsistence strategies is in order considering the potential inapplicability of the schemes formulated in other areas for addressing these topics. It is through this process that the nature of the Poverty Point occupation in the Yazoo Basin can be discerned and interpreted in terms of its interworkings with the overall Poverty Point cultural configuration within the lower Mississippi Valley.

Tchula (Late Gulf Formational)

In Phillips (1970) scheme the Tchula period is synonymous with Early Woodland within the lower Mississippi River Valley. Jenkins et al (1986) relegate Tchula to the Late Gulf Formational. In the southern portion of the valley this period is represented by the Tchefuncte culture while in the northernmost area it is associated with the Lake Cormorant culture. The temporal framework is ca. 500 B.C. to A.D. 1 (cf Brookes and Taylor 1986:23).

Occupations during this period are credited by Williams and Brain (1983:356) with being the first to include ceramic production as an important part of the overall cultural configuration. In general, Tchula period culture represents a modified and less elaborate version of the preceding Poverty Point/Middle Gulf Formational culture. A band level of social organization is inferred. While a cessation is indicated in terms of long-range trade and specialty item production, continuity is evident with Poverty Point, particularly in terms of settlement patterns. Characteristic of both periods is an apparent aversion for mainstream site locations; the trend being toward floodplain "slackwater" areas with access to upland loci during stages of high water. A decrease in number of sites is noted in relation to both the preceding Poverty Point and following Marksville period. It has been proposed that this may be due to the relatively lesser amounts of survey work which have been carried out in the lowland areas where sites of this period are most apt to occur (Toth 1988:23).

Diagnostics of this period are predominantly ceramic and include two distinctive ceramic series. The first is the Tchefuncte series consisting of vessels with clay tempered (or not-tempered), soft/chalky pastes. The quality of execution in the decorative aspect of these vessels suggests that these do not represent an indigenous development but were introduced from sources to the east where ceramic production had been underway for a considerable amount of time. Jenkins et al (1986:551) consider Tchefuncte to be developed from the immediately preceding early Wheeler occupations and cite influences from the St. Johns, Late Stallings Island, Thoms Creek, and possible Bayou La Batre ceramic complexes. Decorative treatments characteristic of the period include incising, simple stamping, drag-and-jab punctating, rocker stamping, rim bosses, and podal supports. Specific types associated with this ceramic series include Tchefuncte Plain, Tchefuncte Incised, Tchefuncte Stamped, Lake Borgne Incised, Orleans Punctated, and Tammany Punctated.

Jenkins et al (1986:551-552) have subdivided Tchefuncte into early (Jaketown) and late (Lake Pontchartrain) phases. (Note the potential for confusion here as Phillips [1970] had already utilized "Jaketown" as the name for his Yazoo Basin Poverty Pointy phase.). Considering the evidence from the Jaketown site, the authors maintain that the presence

of rim bosses, podal supports, lower occurrence of Tchefuncte Stamped and higher occurrence of Lake Borgne Incised are indicative of the earlier Tchefuncte occupations.

The second ceramic series is comprised of a distinctively sandy pasted ware which closely corresponds to the Alexander series from the Tennessee Valley of northern Alabama. Major decorative treatments include geometric incising (possibly indicative of a St. Johns influence), and fingernail pinching/punctating (possibly influenced by the Awendaw ceramic complex). Both St. Johns and Awendaw are southern east coast manifestations. Rim bosses and podal supports are both common in the Alexander series (Jenkins et al 1986:552). Specific ceramic types include Alexander Incised and Alexander Punctated. Alexander series material do not occur at all Tchula period sites. Brookes and Taylor (1986:26) point out that "some varieties of Mabin Stamped, Twin Lakes Punctated, and Churupa Punctated also make their appearance in the Tchula Period.

An additional ceramic complex is present in the northern area. Included types are Cormorant Cord Impressed and Withers Fabric Marked (Toth 1988:20). The wide range of decoration represented within these three ceramic entities may have served as a local pool from which some of the subsequent Marksville ceramic decorative treatments were drawn.

Non-ceramic artifacts attributed to the Tchula period include chipped stone (projectile points, drills, scrapers, knives, and blades), ground stone (boatstones, bar gorgets, and grooved plummets), sandstone (saws, abraders, and milling stones), bone and antler tools, shell (gouges, gorgets, chisels, and containers) and clay (tubular pipes and baked clay).

Two settlement types are evident: village middens (occasionally with considerable shell accumulations) and small conical mounds. Some researchers maintain that these earthen mounds are actually terminal Tchula manifestations resulting from Hopewellian-inspired Marksvillian influences (Toth 1988:27, Griffin 1979:270). Other point to the fact that mound building during Tchula times simply represents the continuance of a cultural pattern in the region beginning during the Archaic period (Gibson and Shenkel 1988). Interment of the deceased in shallow pits has been observed at coastal sites during this period. The aforementioned need for temporary upland refuge would indicate a third distinctive site type for the period.

To date, faunal remains identified at Tchefuncte sites include deer, raccoon, muskrat, alligator, and fish. Some evidence for horticulture during this period is present as pumpkin and bottle gourd remains have reportedly been recovered from the coastal Louisiana Morton Shell Mound (16-Ib-3) (Byrd 1974). In comparison to the Tchefuncte culture, relatively little is known of the contemporaneous northern Lake Cormorant manifestations. Williams and Brain (1983:400) maintain that

aside from their ceramic component, they are essentially comparable to the southern valley representatives. As summarized by these authors (1983:140) ". . . the Tchefuncte culture is most simply characterized by an extensive settlement pattern, hunting and gathering (and perhaps horticultural) subsistence base, locally oriented systems of social and economic integration, and the introduction of pottery."

In the following section each of the Yazoo Basin Tchula period phases will be critiqued. From south to north these include Tuscola, Norman, Boyd, and Turkey Ridge.

Tuscola Phase

The origins of the Tuscola phase are rooted in the excavations at the Jaketown site. Although certain alterations in nomenclature have occurred, the character of the phase remains generally as it did in its original formulation. The Yazoo River constitutes the primary focus of occupation during this phase with a scattering of Tuscola sites being present throughout the lower Yazoo Basin. Preferred settlement loci are "the more stable fluvial environments contiguous to active river channels"(Williams and Brain 1983:357).

According to Phillips (1970:532) the Tuscola phase is predicated entirely upon the presence of Tchefuncte ceramics. Further, Phillips (1970:534) reports that Jaketown and possibly Mabin (22-Yz-587) are the only adequately documented Tuscola phase sites. Considering the poor showing for Tuscola components, it is questioned whether the Jaketown component is actually a case of site-unit intrusion. Whether such is the case or Tuscola is an in situ component awaiting development by further research remains unresolved. Considering both Toth's (1988) and Williams and Brains (1983) Tchefuncte presentations, it is apparent that the latter of these two possibilities is favored by these authors. Documented Tuscola phase sites, however, remain few. Tuscola phase evidence has contributed little to answering the question of Tchula period mound building proclivities. Although several Tuscola phase sites have associated mounds, they also have both Poverty Point and Marksville occupations to which these earthworks might be attributable. Evidence from Trench 1 at Jaketown indicates the basal portions of Mound A to be related to the Tchula period occupation of the site. However, this section of the mound was considered to be the result of an accumulation of occupational debris and not an intentional mounding episode (Ford, Phillips, and Haag 1955).

Norman Phase

The Norman phase as defined by Phillips (1970:897-880) is derived from the Tchula period component at the Norman site in Quitman County, Mississippi. Apparently the relative distinctiveness of the ceramic assemblage from this site composes the bases for this

correlation. Specifically, as compared to contemporary Tuscola phase occupations, a much larger proportion of Alexander series ceramics is present. However, the tentativeness of the phase is well illustrated by Phillips' (1970:879-880) statement that "there is not much point in commenting on the pottery complex of the Norman phase until we can be sure there is such a phase (as distinct from Tuscola) and until the new site collections have been studied or better still, until the Norman site has been stratigraphically tested".

Toth (1988:23-36) goes into some depth in describing the early ceramics from Norman. Sandy, Alexander-like materials are reported to comprise approximately 35% of the assemblage. Note is made of the range of decorative variation present at Norman as well as Tchula phase components in general. However, considering that Toth's orientation is predominately Middle Woodland in this report, extensive effort is not made to institute Norman as a viable phase of the Tchula period.

The stratigraphic testing prescribed by Phillips (1970) was implemented in 1981 (Brookes and Taylor 1986). The results of these excavations, consisting of two 5x5 ft. test units and several shovel tests and bore holes indicated lack of depth to the side midden and consequently the data required for deriving an ordering of ceramic wares within this site could not be acquired.

As with most Lower Valley Gulf Formational phases, the question of mound construction persists. Again, although some sites with conical mounds also have Norman phase components the cultural association of the two has not been adequately substantiated.

Boyd Phase

Viewed as a Lake Cormorant affiliate by Toth (1988:20), the Boyd phase is fashioned around information derived from excavations at the Boyd site (22-Tu-531) situated upon Beaverdam Lake, a relict Mississippi River channel in Tunica County, Mississippi (Connaway and McGahey 1971). Ceramics recovered from Zone 1 (the lower midden) at this site are considered indicative of an Early Woodland (Late Gulf Formational) site occupation.

This early ceramic component consists of Withers Fabric Marked, var. Withers; Cormorant Cord Impressed, var. Cormorant; Twin Lakes Punctated, vars. Twin Lakes and Crowder; and Baytown Plain, var. Bowie. The ratio of plain to fabric marked sherds at the Boyd site was roughly 2:1. Churupa Punctated materials included var. Churupa as well as sherds considered distinctive enough to form the basis for a new variety (i.e. var. Boyd). The C-14 dates from Zone I pit features of 220 (+-90) B.C. and A.D. 85 (+-100) are indicative of the timeframe for the Boyd phase occupation at this site. Aside from the Boyd site, Boyd phase occupations have been identified at the neighboring Sterling (22-Tu-535) and McClintock (22-Tu-539) sites. Similarities are also noted with

several upland sites to the east including Clear Creek (22-La-542), Tidwell (22-La-517) and Bynum (22-Cs-503). Comparisons with Turkey Ridge phase sites to the north indicate the primary difference to be that the Turkey Ridge sites lack the type Twin Lakes Punctated var. Twin Lakes.

Non-ceramic items associated with Zone I at Boyd include corner notched projectile points, flake scrapers, limonite gorget fragments, grooved sandstone (shaft smoothers?), a core perforator, and hollow sandstone cove. Analysis of faunal remains from this site indicates a primary reliance upon fish and turtle with a lesser emphasis upon mammals in Zone I. Upper midden (Zone II) faunal remains indicate a similar subsistence base. Among the plant remains were pecan, persimmon, walnut, and acorn.

No mention is made of mound construction activities at those sites assigned to Boyd phase sites although mound building can be attributed to several contemporary upland sites including Tidwell, Bynum, and Little Spring Creek (22-La-636)(cf. Ford 1988 and Walling et al 1991).

Turkey Ridge Phase

The Turkey Ridge phase is attributed to the Lake Cormorant occupation of the northwestern portion of the Yazoo Basin. The phase name derives from what is reported by Phillips (1970:878) as a pure Early Woodland (Late Gulf Formational) component at the Turkey Ridge site (22-Ds-510). The small number of sites associated with this phase are tightly clustered suggesting this to the core area of a more expansive phase distribution. All of those sites presented by Phillips (1970:878) are distributed along the levees of a single cut-off channel.

The ceramic component of the Turkey Ridge phase consists of the types "Cormorant Cord Impressed, sherds classified with Tchefuncte types but with excessive latitude, and a rather special plainware known as Bowie Plain (Baytown Plain, var. Bowie) in some strength" (Phillips 1970:878). Withers Fabric Marked and Twin Lakes Punctated are also present yet not considered diagnostic. As noted by Connaway and McGahey (1971:29), the absence of Twin Lakes Punctated, var. Twin Lakes distinguishes Turkey Ridge phase sites from those of the Boyd phase.

As with the Boyd phase, mound construction is nonevident at Turkey Ridge sites.

Issues of Relevance to Further Research

As evidenced by the previous phase presentations, the Tchula period is badly in need of additional archaeological work. The lack of knowledge concerning this period, aside from its ceramic aspect, is apparent.

However, an adequate understanding of these ceramics is particularly important in that it was during this period that pottery was

wholeheartedly embraced by the Yazoo Basin inhabitants. The ramifications of this phenomenon must be evaluated in terms of its effects upon the overall cultural system. Further, an examination of the relationship between the non-tempered Tchefuncte materials and the sand tempered Alexander series should be further evaluated. Although these two ceramic complexes may derive from different locales, it would be interesting to determine whether any functional differentiation could be made based upon temper types, possible in association with vessel form. Differences in vessel form between Lake Cormorant materials and either Tchefuncte or Alexander series ceramics have previously been noted by Brookes and Taylor (1986:23). As regards Tchefuncte and Lake Cormorant culture, it has been proposed that the two are basically comparable entities aside from ceramic dissimilarities. Obviously, additional non-ceramic information will be required to evaluate the accuracy of this assessment. At present, both the paucity of sites as well as the inadequacy of information regarding them greatly restricts our ability to investigate this issue.

Diminished site frequency has been attributed to sites being located in areas where archaeological survey is difficult. Intensive survey of such areas would contribute important information toward determining whether this is actually the case or whether a more elaborate model is required to explain this apparent decrease in site frequency.

Settlement pattern studies are also needed. While a minimum of three site types have been proposed for this period, only the floodplain village has been documented. The existence of suspected temporary upland sites serving as highwater retreats requires further substantiation. Toth (1988:23) reports that sites of this type have been identified in the Natchez Bluff region. The third settlement type, i.e., mound sites, represent an important area of investigation. It has been proposed that if any mounds are associated with the Tchula period, they are on a time range paralleling the appearance of Hopewellian influences in the region and are in fact a reflection of those influences. Although reasonable, this contention is in need of verification in that the appearance of burial mounds in a pre-Hopewellian contact horizon would have serious implications in terms of developmental influences upon the cultural base of the lower Mississippi River Valley. Previous assessments including Phillips, Ford, and Griffin (1951:432) have attributed conical mounds to the Early Woodland component at several sites (e.g. Wilnot (22-Bo-534), Garner (22-Co-521), and Stover (22-Tl-517) and Henderson (22-Qu-517) and suggested that mound building was introduced into the valley from the south or eastern uplands (1951:436, see also Gibson and Shenkel 1988). The direction of north-south influence remains unresolved, however. Considering that Jenkins et al (1986:559) maintain that later ceramic complexes including Lower Illinois Valley Havana have a Gulf Tradition heritage, one might also question from

whence mound burial practices derived. Janet Ford (1988, n.d.) has reported several burial mounds from the uplands immediately to the east of the Yazoo Basin.

A final issue of importance originally raised by Connaway and McGahey (1971:61) concerns Tchula period chronology. Based upon the A.D. 85 (+-100) C-14 date produced for the Tchula period occupation at the Boyd site, these authors argued that the termination date for the period should be extended. Examination of Phillips' (1970) figure 2 indicates a time range of 350 to 100 B.C. Toth's (1988) presentation of this period establishes a temporal framework of 400 B.C. to 100 A.D. This alteration takes into consideration the Boyd site date as well as provides for a Tchula/Marksville overlap in which Tchula period mounds can be explained away as the result of Hopewellian influences. Brookes and Taylor (1986:23) have suggest 500 B.C. and A.D. 1 as bracketing dates for this period although noting that the present chronology is weak (1982:5). Jenkins et al (1986) terminate their Late Gulf Formational period at 100 B.C. Obviously, additional radiocarbon dates are needed to more firmly anchor this period in time.

Finally, a concentrated effort needs to be made in relating Walthall and Jenkins' Gulf Formational construct to the Yazoo Basin and in collaborating it with the Early Woodland period and its various phases as previously described by Phillips (1970), Williams and Brain (1983) and others.

The Woodland Stage

In current parlance, the Woodland Stage below the Fall Line Hills begins with Middle Woodland. As discussed by Walthall and Jenkins (1976, see also Jenkins et al 1986). Early Woodland manifestations are not evident in this area which was still participating in the (late) Gulf Formational tradition at the time. Thus, the Tchefuncte and Alexander cultures which had previously been labeled Early Woodland (Tchula period) (cf Phillips 1970:876-886) are no longer considered Woodland Stage constituents.

In general, the Woodland Stage in the Yazoo Basin is synonymous with that period at which northern and middle eastern tradition influences began to take hold (see Jenkins et al figure 21.8). This is particularly evident within the ceramic inventory where cordmarked and fabric marked vessels become prevalent. While some disagreement continues concerning the origins of certain Middle Woodland decorative treatments, particularly the Marksville types, there is no doubt that considerable interaction was occurring between the previously Gulf Formational occupants of the Yazoo Basin and those of more northerly clines by the onset of the Woodland Stage/Middle Woodland period.

Marksville Period (Middle Woodland)

Marksville and its subsumed phases comprise the Middle Woodland period within the lower Mississippi River Valley. As related by Toth (1988:9) "the entire span from the introduction of Hopewellian elements into the Lower Valley to the replacement of the Marksville system by a Baytown reformulation is known as the Marksville period." The general temporal framework for this period is A.D. 1 to 400 (Toth 1988:9).

Early archaeological investigations at Marksville period sites include excavations at Marksville (16-Av-1), Louisiana (Fowke 1927, 1928, Setzler 1933, 1934); Anderson Landing (22-N-25); (Moore 1908); and Dorr (22-Co-538) (Peabody 1904). A major focus of these and many subsequent endeavors (cf. Fowke 1927, 1928; Setzler 1933, 1934; Ford 1936; Ford and Willey 1940; Ford 1963) was the mortuary aspect of Marksville and the interrelationships between this culture and the Hopewell phenomenon. More recently, several studies (cf. Greengo 1964; Phillips 1970; Toth 1988; and Williams and Brain 1983) have placed an increased emphases upon the delineation of the internal composition of the Marksville culture.

As conceived by Toth (1988) the Marksville culture is a product of interaction between an indigenous Tchefuncte culture and northern Hopewellian groups. Correlations with Ohio Hopewell are intimated only by the possibility that the earthworks characteristic of this area may be present in less grandiose scale at certain lower Mississippi Valley sites (e.g., Marksville, Spanish Fort [22-Sh-500], Little Spanish Fort [22-Sh-522], and Leist [22-Sh-520]). Associations with the Illinois Valley Hopewell manifestations are more striking. Although the exact nature of the interaction between these areas remains poorly understood, the effect of these encounters is reflected within several of the subsystems of the Marksville culture. Particularly evident are the adoption of Hopewellian ceramic decorations including incised (Marksville Incised) and zoned stamped (Marksville Stamped and Mabin Stamped) motifs often incorporating the standardized Hopewell raptorial bird design. Highly diagnostic and easily identifiable even in fragmentary form is the Marksville Rim which most frequently occurs in the classic crosshatched form. Conversely, Jenkins et al (1986:559) maintain that most of Marksville decoration is derived from preceding Late Gulf Formational (Tchefuncte and Alexander) motifs (see also Gibson and Shenkel 1983 and 1988).

In the mortuary realm, appearance of small conical burial mounds is often attributed to Hopewellian influence. Most exemplary is the similarity between the mortuary program at the Helena Crossing site (3-pH-11) (Ford 1963) and the lower Illinois Valley Klunk site () (Perino 1968). However, aside from this single instance, direct comparisons between lower Mississippi Valley and Illinois Valley burial mound sites have been relatively non-productive. In general, Marksville

burial sites tend to exhibit many traits which are also present at Illinois Hopewell sites yet seldom do these occur in the same context. This lack of continuity is characteristic of mortuary sites during the Marksville period and suggests that aside from interment of human remains in conical mounds, strict conformance to a standardized mortuary program was not practiced.

The presence of a portion of the inventory of Hopewell "exotics" including worked copper (panpipes, earspools, bracelets, and beads), platform pipes, ceramic figurines, cut mica, galena, marine shell, freshwater pearls, carnivore canines, and greenstone celts at Marksville sites has been employed as evidence of participation of this area in the so-called Hopewell Interaction Sphere (Struever 1964). However, the minimal quantities of some of these items as well as the composition of other (ex. the majority of the platform pipes are clay as opposed to stone) does not suggest that trade interaction between Marksville and the northern Hopewellian manifestations was extensive or long lasting.

In evaluating Hopewell influence within the lower Mississippi River Valley, Toth (1979:199) has stated that "many standard Hopewellian products including copper cutouts, mica effigies, and obsidian, have yet to be found in Marksville site. Further, imported ceramics are minimal to absent. Therefore there is little evidence to indicate that the Lower Valley participated in any consequential interareal exchange system."

A change in site distribution from the Tchefuncte pattern of slackwater area occupation to one more closely oriented toward active stream channels is in part attributed to Hopewell influences and has been argued in support of the conception of Hopewell influences being introduced into the Lower Valley by means of the major waterways including the Mississippi, Yazoo, Sunflower, and Red Rivers.

At present, three types of Marksville sites are known: conical burial mounds, villages, and villages with conical burial mounds. Evidence is lacking which would indicate any hierarchical ordering of these site types. In general, most sites are rather small (1-2 acres) and exhibit a wide range of activities. Functionally specific sites such as hunting camps are yet to be documented. It has been suggested that the failure of archaeologists to identify such sites may be attributable to the possibility that they are located in floodprone areas and have thus been covered over.

Aside from its distinctive ceramics, the material inventory of the Marksville period is poorly delineated. Projectile point types include the Mabin variety of Gary Stemmed. Boat-shaped atlatl weights, small chipped celts, bipointed drills, and a blade core industry (another Hopewell introduction?) are also associated with this period (Toth 1979:197). McGahey (personal communication: 1986) has pointed out that although blades are not uncommon at Marksville period sites, the cores from which they were struck are. This observation, combined with

the fact that the majority of these blades are of exotic chert may indicate that these items represent non-locally produced (trade?) items transported to the Lower Valley in finished form by peoples located outside of this area. Several sites in the vicinity of Clarksdale have recently produced considerable amounts of Midwestern cherts including Cobden, Burlington, and Crescent Quarry. The lithic tool assemblages from these sites is also noteworthy, containing unifacial endscrapers of Midwestern cherts as well as Novaculite Snyders and North points! (John Connaway and Sam Brookes, personal communications: 1992).

In terms of subsistence, primary reliance appears to be upon hunting and gathering with intensive utilization of floodplain resources. A secondary interest in horticulture or agriculture is possible, yet undocumented. It has been suggested that knowledge of maize agricultural practices by the northern Hopewellians was an important influencing factor in the acceptance of these people (or at least their ideology) by the Marksville culture (Williams and Brain 1983:403). More recent studies, however, indicate that maize did not serve as an important subsistence staple until much later (cf. Fritz 1988).

A tribal level of social, political, and economic organization is inferred for the Marksville culture. The large number of individuals inferred within the Crooks (16-La-3) and Marksville mounds suggests a lack of social stratification within Marksville society.

Aside from these few observations, little to nothing is known of the social, economic, and subsistence subsystems for the Marksville period. The ceremonial aspect of this culture is indicated only by mortuary activities. To date, no information is available concerning housing or other structures.

In summary, Marksville is perceived as a time of "regional continuity with selective adoption and reinterpretation of Hopewellian ideas" (Toth 1979:199). Hopewellian influence is seen by Toth as the result of trait-unit intrusion accomplished by sporadic encounters with small Illinois Valley Hopewell groups. Others, including Gibson and Shenkel (1983,1988), place more emphasis on the regional and less on the interregional (i.e. Northern Hopewell) contribution to the Marksville culture and point to a south-to-north transmission of ceramic decorative techniques (see also Phillips 1970:119).

The Marksville period has been temporally subdivided into an early and late component based primarily upon ceramic evidence. Early Marksville corresponds to that period initiated by the appearance of Hopewell influence within the lower Mississippi Valley (the 1st century A.D.) and terminating with the cessation of this influence around A.D. 200. Ceramically, this period is characterized by vessels exhibiting crosshatched rims and/or the raptorial bird motif upon the vessel body. The zoned stamped decorative treatment referred to as Mabin Stamped is attributed to this period. Late Marksville encompasses that period of

time (ca. A.D. 200-400) in which the Marksville culture continues to develop outside the realm of direct Hopewellian influence. Ceramically, crosshatched rim and raptorial bird decorations give way to more abstract design types along with an improvement in the vessel manufacturing process. The following discussion of the Marksville culture as manifested within the Yazoo Basin will be structured along the lines of the early/late dichotomy.

Early Marksville Period

Early Marksville archaeology has been summarized and evaluated in a doctoral dissertation by Alan Toth (1988). His synthesis is heavily drawn upon in producing the overview presented here and should be accessed for more detailed information concerning this period. Within the Yazoo Basin, the Early Marksville period is represented by four geographically separable phases. These include Anderson Landing for the southern portion, Kirk for the central, Dorr for the northern and Twin Lakes for the easternmost section bordering the adjacent bluffs and uplands. Temporally, Early Marksville spans the period from A.D. 1 to 200.

Anderson Landing Phase

The Anderson Landing phase was originated by Phillips (1970). His discussion of the phase and its components well substantiates his contention that this is a phase "dictated more by logical necessity than be the weight of archaeological evidence" (1970:534). Stratigraphic evidence is lacking. Neither are radiocarbon assays available. The relative earliness of the phase is predicated upon the Illinois Havana-like decorative treatments observed upon the ceramics from the Mabin site (22-Yz-587) and diagnostic Hopewell characteristics of vessels recovered from the Anderson Landing site (the actual location of this site is unknown and as such it has no official state site number). The fact that similar materials do not occur in the later Marksville early Issaquena deposits at Thornton (22 -Is-507) and Manny (22-Is-506) is employed as supportive evidence (Phillips 1970:535). Although Toth's (1988) examination of the Anderson Landing data provides some clarity for this phase he echoes Phillips' contention that it exists as a catch-all for lower Yazoo Basin Early Marksville sites. Moore's (1908) excavations at the site from which the phase name derives continues to be the only pertinent subsurface information.

The geographic area encompassed by the Anderson Landing phase is extensive, spanning the area from the juncture of the Yazoo and Sunflower Rivers to a point just south of Greenwood. Although the expansiveness of this area offers the potential for subdivision, thus far the archaeological data has not allowed for such partitioning.

Site distribution during this phase is focused primarily along the Yazoo River Meander Belt. Access to the uplands to the east of the floodplain is considered to be an important factor in relation to settlement location during this phase. Sites are primarily small villages which may or may not also be associated with conical burial mounds.

In consideration of the sandy-pasted pottery present as a minority element within Anderson Landing phase ceramic assemblages, interaction with Dorr and Twin Lakes inhabitants is inferred. Thus, it is speculated that "Early Marksville activity. . . was stimulated by contact with other Lower Valley societies rather than by direct interaction with Hopewellian representatives from Illinois or elsewhere" (Toth 1988:147). Closer similarities with the Kirk phase, thought to be the primary contact for Hopewellian groups along the Mississippi River, would be expected if more direct Hopewellian influence were the case. Anderson Landing phase populations are descended from resident Tchefuncte groups. The incorporation of Hopewellian characteristics into this culture signals the inception of the Marksville period in this portion of the Yazoo Basin.

The known material inventory for the Anderson Landing phase is weighed heavily toward the ceramic constituent and even the composition of this artifact class is tenuous due to small sample sizes. As reported by Toth (1988:159) the ceramic set for this phase includes the full range of Marksville rim types (particularly the crosshatched variety), along with bisected circle and raptorial bird motifs. Marksville Stamped, var. Marksville; and Marksville Incised, var. Sunflower are frequent occurrences. Minor decorations include Mabin Stamped, vars. Mabin, Point Lake, Joes Bayou, and Deadwater; Marksville Incised, vars. Marksville, and Prairie; and Marksville Stamped, var. Old River. Withers Fabric Marked is also considered an important minority type. The absence or minimal representation of the types Indian Bay Stamped, Mulberry Creek Cordmarked, and Twin Lakes Punctated serve to distinguish Anderson Landing phase sites from other Yazoo Basin Early Marksville manifestations.

Conical burial mounds are known to be associated with sites exhibiting components of this phase and are thought to be directly attributed to an Anderson Landing component at the Trammel (22-Yz-552) and Anderson Landing sites (Toth 1988:147). Although conical mounds are not unique to Anderson Landing phase sites as they occur with most Marksville period phases, their presence may provide a non-ceramic basis for differentiating sites of this phase and the preceding Tuscola occupations. Traditionally, conical burial mounds have been considered a reflection of Hopewell interaction and serve as a horizon marker for the Marksville period within the lower Mississippi River Valley although others have argued the case for the existence of burial mounds in pre-Middle Woodland contexts (Gibson and Shenkel 1988).

Kirk Phase

Kirk represents Early Marksville within the central portion of the Yazoo Basin. Formulated by Phillips (1970) based upon materials from the Kirk (22-Ws-542) and Silver Lake (22-Ws-515) sites, subsequent investigations have failed to add much substance to this construct. The geographical distribution of sites of this phase is relegated to the floodplain between the Mississippi and Sunflower Rivers opposite the confluence of the Arkansas and Mississippi Rivers. The southern extent is placed to the south of Greenville. Due to the lack of excavation at Kirk phase sites, neither stratigraphic evidence nor radiocarbon dates are available for use in determining the placement of this phase in the Marksville sequence. Its temporal positioning is based upon the identification of Early Marksville ceramics including the Marksville (Crosshatched) Rim and/or Gary Stemmed, var. Mabin projectile points. Settlement loci for this phase include natural levees adjacent to secondary streams and floodplain lakes. As the Mississippi River was also a favored occupational location, Kirk phase sites purported to have been in direct contact with Hopewellian influences as these were transmitted along the river (Toth 1988:147). Mounds are said to occur less frequently at Kirk phase sites than contemporary sites in adjacent areas. None can be positively attributed to Kirk components, a curious situation considering the above-noted relationship between Kirk phase peoples and Hopewellian groups. Subsistence information for the Kirk phase is practically non-existent. Although a considerable lithic assemblage is present at the Kirk site the multi-component character of this site limits interference concerning site activities employing stone artifacts as they relate to specific occupations.

Due to the minimal number of sites which can be accurately assigned to this phase and the small collections available from these sites, the artifactual assemblage for this phase remains poorly documented. According to Toth (1988:138) "the Kirk ceramic set is dominated by cordmarking (Mulberry Creek Cordmarked, vars. Sevier and Porter Bayou) and the type Marksville Stamped (var. Marksville). Compared to the nearby Dorr phase, Kirk ceramics are distinguished by extremely low frequencies of Indian Bay Stamped (vars. Indian Bay and Cypress Bayou) and Withers Fabric Marked (var. Withers). The Kirk ceramic set is differentiated from the Point Lake phase to the south and the Anderson Landing phase to the east by weak percentages of the Mabin Stamped varieties."

Twin Lakes Phase

The Twin Lakes phase was originated by Phillips (1970) to accommodate those sites with Early Marksville diagnostics situated along the eastern margin of the upper Yazoo Basin in the vicinity of the Tallahatchie, Little Tallahatchie, and Coldwater rivers. The location of

these sites as well as their ceramic components indicate associations with cultures from both the Yazoo Basin and the uplands to the east. further, this general location is considered to be an important one in terms of the introduction of cultural influences from the northeast Mississippi uplands into the lower Mississippi Valley. As pointed out by Toth (1988:132), this phase is poorly understood as practically nothing is known concerning settlement, subsistence, and cultural systems. Not surprisingly, ceramics represent the primary indicator for the phase. In addition to the presence of the Marksville (Crosshatched) Rim at Twin Lakes sites, an early Marksville temporal position may be supported by a C-14 date of A.D. 70-100 from the Womack (22-Ya-500) site in the uplands of Yalobusha County.

Conical mounds are associated with sites with Twin Lakes components. Ceramic similarities between Twin Lakes sites and upland sites such as Womack and Pharr (22-Ps-500) where nearly Marksville vessels have been excavated from village and burial mound contexts would imply that conical burial mounds are represented in the Twin Lakes phase.

Characteristic of the ceramics from Twin Lakes phase sites is their distinctively sandy paste. Chalky, clay tempered ceramics are also present although in much smaller quantities. The Twin Lakes ceramic set includes the Marksville rim (crosshatched variety only), Baytown Plain, var. Thomas; Mulberry Creek Cord Marked, var. Blue Lake; and Withers Fabric Marked, var. Twin Lakes. In general, Mabin Stamped, Marksville Stamped and Incised, and Indian Bay Stamped appear to give away to the decorated type Twin Lakes Punctated (vars. Twin Lakes and Crowder) and cordmarked and fabric marked types at Twin Lakes phase sites (Toth 1988:136). As indicated by the composition of its ceramic assemblage, the Twin Lakes phase represents a hybridization of contemporaneous Eastern Upland and Lower Valley cultural manifestations (see Toth 1988:132). Janet Ford's recent (1981, 1989) re-evaluation of the Twin Lakes phase investigates the validity of this construct and finds it lacking. (See the Woodland section of the Post-Archaic Prehistory of the North Central Hills for elaboration on this issue).

Dorr Phase

Dorr represents the Early Marksville period within the upper portion of the Yazoo Basin. The relatively large number of sites ascribed to this phase indicate this to be the most densely populated area of the entire lower Mississippi Valley during early Marksville times. Maximum density appears to be in the locale surrounding the present-day town of Clarksdale. However, while the preponderance of early Marksville sites in this area is undoubtedly legitimate, its representation is probably somewhat inflated by the increased amount of survey which has been

done to the area due to the location of an MDAH archaeological field office at Clarksdale.

Occupations occur along natural levees and ridges as well as within the interior along slower moving streams and backwater lakes. The lack of evidence for distinctive contact centers in this area combined with presence of an inland component in the general settlement pattern suggests to some (Toth 1988:89) that the introduction of Hopewellian traits into this region was accomplished through discriminate selection and transmission by the local population. Due to its strategic location at the headwaters of the Sunflower River and its impressive ceramic assemblage, the Dickerson site (22-Co-502) is believed to figure significantly among Dorr phase settlements in terms of cross-cultural interaction. Hopewell characteristics are indicated within the realms of ceramic decoration, lithic tools and mortuary practices. The usual difficulties are apparent in making positive determinations of mound affiliations.

Compared to other areas of Early Marksville occupation within the Yazoo Basin, a considerably larger amount of excavation has occurred at Dorr Phase sites although excavations have at times been inadequately recorded (Peabody 1904, Belmont 1961) or hurried due to the imminent threat of site destruction (Caldwell 1974, Connaway 1981). Materials attributed to Peabody's excavations at the Dorr site (22-Co-538) include Snyders-like projectile points. The presence of this distinctive artifact type allows for an expansion of the material culture for this period and points up additional corollaries with Illinois Hopewell. Subsequently similar points of exotic chert have been recovered from the Dickerson site (22-Co-502) in the Clarksdale vicinity.

Radiocarbon dates of relevance to the Dorr phase include an assay of A.D. 170 (+-100) associated with the clay figurine from the Dickerson site, excavations. A beginning date for this phase can be inferred from a date of 80 B.C. (+-150) attributed to late Tchula/early Marksville horizon materials at the Martin #1 site (22-Tu-533).

Relative temporal positioning for the Dorr phase as indicated by stratigraphic evidence is presently lacking. Supportive evidence may be derived from the yet to be analyzed excavated materials from the stratigraphic sequence at the Dickerson site.

As previously noted, ceramics attributed to the Dorr set are the primary indicators of Early Marksville occupation within the Northern Yazoo Basin. Diagnostic are the Marksville Rim (both crosshatched and others), non-rocked/zoned decorations including Mabin Stamped, vars. Mabin and Point Lake; and the rocked-dentate type Indian Bay Stamped, var. Cypress Bayou. Predominant decorative treatments include Indian Bay Stamped, var. Indian Bay; Withers Fabric Marked, var. Withers; and Mulberry Creek Cord Marked, vars. Sevier and Porter Bayou. Less frequently occurring, yet also considered dominant are Evansville

Punctated, var. Evansville; Marksville Incised, var. Sunflower; Marksville Stamped, var. Old River; and Twin Lakes Punctated, var. Twin Lakes. Sandy pasted wares including Mulberry Creek Cord Marked, var. Blue Lake and Withers Fabric Marked, var. Twin Lakes are minor occurrences as are Mabin Stamped, var. Deadwater and Cassidy Bayou; and Twin Lakes Punctated, var. Crowder. Red filming occurs more frequently within the Dorr set than any other and is considered particularly diagnostic in combination with the types Marksville Stamped and Mabin Stamped (Toth 1988:130-132).

Helena Phase

As portrayed by Phillips (1970: Figure 444), numerous sites within the upper portions of the Yazoo Basin are included within the Helena phase. However, the text concerning this phase allows that only the Helena Crossing (3-Ph-11) and Bowie (3-Ph-9) sites (both situated west of the Mississippi River) are good representatives (1970:888). In 1971, three of the sites assigned to the Helena phase by Phillips (Owens [22-Tu-512], Evansville [22-Tu-502], and Dundee [22-Tu-501]) were re-examined by John Connaway in order to determine their potential for National Register Nomination. None were found to have significant amounts of Helena phase materials. Further, Toth's (1988:83) discussion of the Helena Phase indicates that sites attributable to this phase are primarily confined to the St. Francis Basin and the western side of the Mississippi River. As such, this phase will not be further discussed. (For additional information on this phase see Phillips 1970:887-889 and Toth 1988:83-89).

Issues of Relevance to Further Research

Numerous research issues concerning the Early Marksville period remain to be adequately addressed. Toth's (1988) statement that aside from its ceramic and mortuary aspects, very little is known of Marksville culture is as accurate today as when it was originally made in 1977. For the most part, the social, economic, political, settlement subsistence, and religious subsystems remain unknown. The following section will point up several of the more important issues relating to early Marksville.

In that assertions of Hopewellian influence permeate the concept of Early Marksville, it is appropriate that these be addressed at the outset of this section. Given that direct contact did occur between northern Hopewellian groups and populations indigenous to the lower Mississippi River Valley and that this contact was probably both infrequent and short lived, a central issue concerns the "intent" of these interactions. Toth has described the bearers of Hopewellian culture as small unfocused groups, lacking in an economic base. Williams and Brain (1983) have disagreed with the lack of focus portion of Toth's summation. They envision a strategy in which small groups of northern Hopewellians

initially establish themselves within the same territory yet not within the same sites as the local populations. It would follow that unless these groups were able to rely upon the local population for their subsistence needs some sort of economic base would have to be established. Particularly curious in terms of an outside presence is the conspicuous absence of the Havana component of the Illinois Hopewell pottery assemblage within the Lower Valley. Apparently, two sherds with stamped decorations are the only examples of Illinois vessel ceramics in the entire Mississippi Valley. Toth's (1988:45) guarded suggestion that the possible Netler Stamped (Havana Series) sherd from the Point Lake site (16-Ma-90) is limestone tempered makes for a rather curious situation. Although limestone tempered Havana sherds do occur at Illinois Valley Hopewell sites, these items are rare, and as such it seems highly improbable that such an item would represent evidence for Illinois Valley vessels within the Lower Valley. A second (Hopewell series?) limestone tempered/stamped sherd from the Norman site (22-Qu-518) has been determined to be of lower Illinois Valley origin by Dr. James B. Griffin (Sam Brookes, personal communication 1986). Putting aside the issue of vessels as trade items, it remains difficult to comprehend why Havana or Havana-like vessels are not more common at Lower Valley sites. If separate settlements were present for the northern groups (as proposed by Williams and Brain), it could be assumed that remains of cooking and storage vessels of these people (i.e., Havana ware) would also be present. If such vessels were not brought along they would have had to have been manufactured locally and with locally available tempering ingredients (i.e., clay). However, the lack of correspondence in decoration between any known early Marksville ceramic assemblages and those exemplary of Havana ware is perplexing. Why would an outside group intent upon asserting their influences (for whatever reason) elect to adopt both the technological and decorative affinities of those groups upon whom they intended to influence? This rationale becomes increasingly untenable if it is maintained that Early Marksville decoration is Illinois Hopewell derived in the first place.

Two potential solutions to this dilemma are suggested. First, given the idea of small groups and sporadic contact, those sites which are actually attributable to inter-regional contacts would be few and consequently difficult to locate (a contention only verifiable by additional fieldwork). A second possibility is elicited by Toth's (1979:203) suggestion that women may not have been included among the Hopewell intruders. Lack of females might be used to infer a lack of potter producers. Thus an associated lack of Illinois Valley types of vessels.

Interestingly, the ceramic assemblages from the previously mentioned sites which have produced exotic lithics do not differ from the general Marksville configuration for this area (John Connaway, personal communication: 1992). Whether the apparent absence of Havana

ceramics can be employed as supportive evidence for the small group/sporadic contact hypothesis or the possibility of sexually segregated settlement remains to be determined.

Obviously, the mingling of such items as unifacial endscrapers, Midwestern chert, and Lower Illinois Valley point types produced from Quachita derived Novaculite at Clarksdale area sites indicates that we are far from fully comprehending trade and interaction patterns during this period.

What is evident is that site-unit intrusion is not the case. At least ceramically, selective trait adoption and modification may be indicated. Vessel shape, manufacturing technology, and decorative composition are similar between Marksville and northern Hopewell. In terms of decoration, it is possible that a portion of the Illinois Hopewell complex of ceramic decoration was taken and transferred to the entirety of the home based ceramic inventory. In this scenario the Hopewell treatments were accepted in-toto, while only the more elaborate of the Havana decorative treatments, namely the zoned stamped designs common to the central Illinois Valley mortuary sites, were taken on. Nowhere do the unzoned stamped rim treatments, which comprise a considerable proportion of ceramic assemblages from the Illinois Valley, occur in quantity. Conversely, it has been argued that Middle Woodland ceramic decoration from the Lower Mississippi Valley was introduced to more northerly cultures (cf. Gibson and Shenkel 1988:18).

The combination of nodes and the crosshatched rim are reported to co-occur upon Marksville vessels (cf. Toth 1988: plate xiv,g;129). Such a combination is practically non-existent among Illinois Hopewell materials as the former treatment is Havana, the later Hopewell. In this case, it is more likely that the noding represents a continuation of Late Gulf Formational decoration than a Hopewellian introduction.

While ceramics represent the foundation of Early Marksville phase constructions, difficulties are apparent even in this aspect. A case in point concerns the northern Yazoo Basin Boyd site (22-Tu-531). Toth (1988:118) considers a minority of the ceramics from the lower component at this site, including several unclassified and crudely made cross-hatched rims, and sherds classified as Twin Lakes Punctated vars. Twin Lakes and Crowder, Indian Bay Stamped, Marksville Incised, Baytown Plain, and possible portions of the Withers Fabric-Imprinted var. Withers and Baytown Plain var. Bowie to represent an Early Marksville Dorr Phase component. Conversely, Connaway and McGahey (1971) do not consider the evidence adequate for separating these materials from the remainder of the ceramics from the lower component including Cormorant Cord-Imprinted var. Cormorant and Churupa Punctated var. Boyd, incorporating all of these into their Tchula period Boyd Phase. Thus, the stratigraphic evidence at Boyd indicates that Twin Lakes Punctated (vars. Twin Lakes and Crowder) and cross-hatched

rims may precede Early Marksville at least in the area of the Upper Sunflower.

As previously indicated, there is a need for further documenting the non-ceramic and non-mortuary aspects of Early Marksville culture. This is required not only to clarify interregional relationships but also to provide a more well rounded picture of Marksville at the intraregional level. At present, even the chronological placement for the Marksville period is based in considerable part upon extra-areal inferences. In particular, the Illinois Valley sequence has been employed to a great extent (see Toth 1988:48-50). The beginning of the Marksville period has been positioned in correspondence to the appearance of Hopewell ceramics in the Illinois Valley. Further, the separation between Early and Late Marksville (ca. A.D. 200) is designed to correlate with the appearance of Pike and Baehr materials in the Illinois Valley, an event considered to signal a declining interest in interregional affairs. Recently, the Illinois sequence has been challenged by some (Farnsworth and Asch 1986) who contend that Hopewell, Havana, and Pike ceramic series may have simultaneous inceptions, at least in the lower Illinois Valley. These difficulties amplify the need for a chronology based upon intraregional evidence. As such, more radiocarbon dates and stratigraphic sequences, both of which can only be obtained through controlled excavations are badly needed.

Based upon present evidence, settlement models have been proposed for the Early Marksville period. In addition to a general trend in which sites shift from slackwater to mainstream environs, particular patterns are noted for the individual phases. For example, while the Kirk phase seems to be a predominately mainstream phenomenon, sites attributed to the Dorr phase occur along active stream channels as well as interior locations and Twin Lakes components are restricted to the eastern portion of the valley and adjacent to the uplands. Each of these settings have implications in respect to both subsistence strategies and cultural influences. Based upon these distributions it has been speculated that Kirk phase occupants were in direct contact with Hopewellian groups, Dorr phase people received Hopewellian influences through diffusion by local contacts and Twin Lakes phase occupants served as an intermediary between Hopewellian influences from the north (Midwest) and upland influences from northeastern Mississippi. However, these associations are less than certain. For example, a recent re-evaluation of the Twin Lakes phase evidence by Ford (1981, 1989) brings into question both the temporal placement and cultural integrity of this construct and thus the associations between upland and floodplain cultures during the Early Marksville period. Obviously, these contentions require further investigation.

Information relevant to site type must be generated in order to determine whether the basic tripartite scheme of mounds, villages, and

villages with mounds is adequate. It could be inferred that specialty sites also exist during Early Marksville and that site types vary according to settlement pattern as determined for the various phases. To date, subsistence studies are minimal. Yet to be analyzed floral and faunal remains from excavations at the Dickerson site contain potentially valuable information concerning exploitative practices during this period. Recovered materials (as reported by Toth 1988:104) include charred nuts, seeds, fishbone, turtle shell, and large amounts of bird and animal bone. While agriculture has been suspected as a component of Early Marksville subsistence, evidence remains lacking. In that Neuman and Byrd (see Byrd 1974) have found indications of horticulture at a Tchefuncte site in coastal Louisiana, it might be expected that a similar situation would also prevail during Early Marksville.

Although the mortuary aspect of the Early Marksville period is thought to be better understood than most of the other cultural subsystems, several problems are still unresolved. The most basic of these is the inability to attribute conical mounds at sites to particular occupations. Until this can be accomplished it will not be possible to make objective observations concerning mortuary practices or mound frequencies and distributions as they relate to specific phases.

In general, there is a serious need for elaboration and modification of the Early Marksville period. At this point, geographic location often plays a paramount role in phase assignation. The Anderson Landing phase represents a prime example. All Early Marksville sites within the Yazoo Basin south of Greenville have been more or less arbitrarily included within this one phase (Toth 1988:157). Although it has been suggested that the northern portion of the expansive Anderson Landing phase area be partitioned off (Phillips 1970:356), sufficient evidence has yet to be accumulated with which such a division can be justified (Toth 1988:147). The lack of excavated data from Anderson Landing sites undoubtedly contributes to these difficulties. A similar situation obtains to a somewhat lesser extent for all of the Early Marksville phases.

Late Marksville Period

Issaquena Phase

Issaquena represents the most closely scrutinized of the Yazoo Basin Late Marksville phases and is purported to "describe the success of the Hopewell culture" (Williams and Brain 1983:403). Gibson and Shenkel (1988:7) maintain that Late Marksville/Issaquena (and by implication late Marksville in general) post dates Marksville/Hopewell mortuary programs and is thus a Late Woodland manifestation. Within the Yazoo Basin, Issaquena settlements are situated along the lower Yazoo River and along the Mississippi River to the northwest. Inland occupations are also observed along the Sunflower River and the Bogue Phalia drainage. The overall distribution of sites attributed to this phase is expansive,

extending into the Tensas Basin as well as both sides of the Mississippi River south of the Yazoo Basin and into the lower Red River. The likely center for the Issaquena phase is reported to be southwest of the Yazoo Basin and west of the Mississippi River (Phillips 1970:893).

Stratigraphic evidence concerning this phase within the Yazoo Basin is drawn from excavations at the Manny site (22-Is-506) (see Greengo 1964 and Phillips 1970). Also based upon the Manny site excavations, early and late subphases have been proposed for Issaquena. To date, this subdivision has not proved particularly useful outside the site at which it was originated. As noted by Phillips (1970:696), ceramic change between the two subphases is continuous in nature, thus making differentiations at non-stratified sites difficult. Although several radiocarbon dates are available for the Issaquena phase occupations at Manny and Thornton (22-Is-507), all are considered to be too recent. None are earlier than A.D. 500 with the exception of a shell date of 470 B.C. (+-300) date from Manny which is apparently errant. Based upon little evidence aside from the fact that some Late Marksville sites share similar locations with earlier Tchefuncte occupation, a similarity in subsistence base is inferred (Williams and Brain 1983:403). Further, the large number of sites and their (stylistic homogeneity" is speculated by Williams and Brain to be a reflection of the introduction of corn agriculture as a "viable subsistence base" (1983:403). No direct evidence can be brought to bear upon this issue at the present time.

Although mound building activities are assumed to have continued into the Late Marksville period, it is suspected that the emphasis upon such projects decreased. While Phillips (1970:598) contends that the Thornton site excavations document the existence of an Issaquena phase multi-level platform mound, Williams and Brain (1983:363) have argued that this earthwork is actually derived from the Coles Creek occupation at this site. Moreover, aside from the equivocal evidence from Thornton, mound construction cannot be documented for any Issaquena phase occupation (1983:363). Ceramics represent the only diagnostic for the Issaquena phase. As presented by Williams and Brain (1983:314) this phase is characterized by the Satartia set. Included types and varieties are Alligator Incised var. Alligator; Churupa Punctated, vars. Churupa and Thornton; Evansville Punctated, var. Braxton; Marksville Incised, vars. Leist, Spanish Fort, Steele Bayou, and Yokena; and Marksville Stamped, vars. Manny, Newsome, and Troyville. Baytown Plain, var. Satartia represents the predominant ceramic type. Exemplary of the distinction between the Issaquena I and II subphases is an apparent decline in quality of decorative execution. Ceramic types not included within the Satartia set (as evidenced at the Lake George site [22-Yz-557]) yet included by Phillips (1970) within the Issaquena ceramic complex are Indian Bay Stamped, vars. Gammon and Shaw; and Marksville Incised, var. Goose Lake.

Non-ceramic artifacts associated with the Issaquena phase (yet not necessarily diagnostic of it) include the Gary Stemmed, var. Maybon and Anthony's Fork projectile points. Also included by Phillips (1970:544) are boatstones, plummets, and bone implements. Bear canine pendants may be associated with the ephemeral Issaquena phase component at the Lake George site (Williams and Brain 1983:Table 10.1).

Paxton Phase

The Paxton phase is the Late Marksville representative within the northeastern portion of the lower Yazoo Basin. The phase was established by Phillips (1970:545-546, 895) based upon surface collections from Marksville period sites along the upper Yazoo River which revealed a distinctive ceramic assemblage. Particularly characteristic of these sites were a combination of Marksville (Issaquena) and Baytown (Deasonville) material which appeared to be attributable to a single occupation. This configuration was interpreted to be as the result of the combined influences of southern (Gulf) and northern (Woodland) ceramic traditions and attributable to the particular geographic location of the Paxton components. Sites associated with this phase are situated within a backwater environment (the Bear Creek Meander Belt), presumably an area not easily accessible to the "Hopewellian thrust."

While Phillips (1970:545-546) makes ample reference to the tentativeness of the Paxton phase due to both the lack of supportive stratigraphy and single component sites, it has persisted (see Williams and Brain 1983:361-362). As described by these latter authors, Paxton phase sites are characterized ceramically by a combination of the Sataria set and Reed 1 subset. Divergent from the general trend for Marksville, Paxton phase sites are said to share similar geographic loci with earlier Tuscola phase sites thus exhibiting a temporal/cultural continuity for the area. Hopewellian occupation in this area is considered particularly short-lived and relatively non-influential. As presented by Phillips (1970:545), the ceramic component of this phase is comprised of Marksville types including Marksville Incised and Marksville Stamped, and Evansville Punctated, in combination with the Deasonville types Mulberry Creek Cord Marked and Larto Red. None of these are claimed to be Paxton phase diagnostics. The fact that Deasonville ceramics are present within this phase is thought to herald the beginnings of an uplands influence in the Yazoo Basin which was to become pervasive during the ensuing Baytown period.

Considering the tentativeness of the Paxton phase, practically nothing is known of its composition. Even the ceramic assemblage remains poorly documented. Further, no mention is made by either Phillips (1970) or Williams and Brain (1983) concerning evidence for mound building, the one category aside from ceramics which is consistently

discussed in relation to post-archaic occupations in the lower Mississippi River Valley.

Porter Bayou Phase

Although Porter Bayou is included among Phillips' phases for the Marksville period (1970:892) in the Yazoo Basin, it is a very tentative one. Basically, this formulation is predicated upon extensive surface collections from the Porter Bayou site (22-Bo-538) and a handful of addition sites in the area exhibiting more-or-less similar ceramic collections. The Late Marksville, non-Issaquena character of these materials suggests the possibility of a separable phase. As mapped by Phillips (1970:figure 444), Porter Bayou phase sites occur between MRC Tiers 17 and 20 with the largest number associating with the Sunflower River. Yazoo Basin archaeological research subsequent to that reported by Phillips (1970) has not served to proved greater credibility to the Porter Bayou phase. As such, his presentation as recounted herein represents the present state of knowledge concerning this construct. Notably this phase is not mentioned in Williams and Brain's (1983:358-363) Marksville period summary although both Issaquena and Paxton phase sites are plotted within that area attributed to the Porter Bayou phase by Phillips (compare Williams and Brain 1983:figure 11.8 with Phillips 1970:figure 444). As noted by Toth (1988:141), "the late Marksville period in the Greenville region still needs considerable attention."

Prairie Phase

The Prairie phase represents Late Marksville within the upper Sunflower region. As defined by Brookes (1980), it designates that cultural entity following the Dorr phase which Phillips (1970:890-891) suspected yet was unable to document. Due to lack of excavation, very little is presently known of this phase. Radiocarbon and stratigraphic evidence are both lacking as are floral and faunal remains which might be employed in assessing subsistence strategies. As with other Late Marksville phases, Hopewellian indicators such as "Mabin, early varieties of Marksville Stamped and Incised, Indian Bay Stamped, var. Cypress Bayou, the bird motif, the bisected oval motif, crosshatched rims and exotic artifacts such as human figurines" are absent at Prairie phase sites (Brookes 1980:31-32).

In comparison to the preceding Dorr phase, Prairie phase sites are noted to have a more clustered distribution although the two phases share propensities for occupation of natural levels along streams and lakes and the favoring of interior locations. Unlike Dorr, no evidence for mortuary practices involving conical burial mounds is indicated. The Prairie ceramic set includes Baytown Plain, var. Satartia; Churupa Punctated, var. Churupa; Evansville Punctated, var. Evansville; Indian

Bay Stamped, var. Indian Bay; Larto Red, var. Larto; Marksville Incised, vars. Yokena and Steel Bayou; Marksville Stamped, vars. Manny, Newsome, and Troyville; Mulberry Creek Cord Marked, var. Porter Bayou; and Withers Fabric Marked, var. Withers.

Issues of Relevance to Further Research

As is indicated by the preceding presentation, Late Marksville period research has attained to only a very fundamental level. While several phases have been developed, all are best characterized as tenuous, many to the point that even the ceramic component is only weakly substantiated. Considering the importance of ceramics in Yazoo Basin phase formulations, the implications of a minimally documented ceramic assemblage upon derivation of the remainder of the cultural system for any particular phase are considerable. Thus, of great importance in terms of further research is an effort to derive better defined cultural phases for the period. Critical to the production of such formulations is the inspection of secure stratigraphic sequences from multiple sites. To date, the Manny site has been resorted to for the Issaquena phase although it is obvious from Phillips' (1970) discussions that this is less than a straightforward situation, requiring a considerable amount of interpretive manipulation. Further, as pointed out by Phillips (1970:11), the location of the Manny site is marginal to the geographic distribution of the Issaquena phase within the Yazoo Basin. If the situation appears shaky for Issaquena, the predicament concerning the other Late Marksville phases (i.e. Paxton, Porter Bayou, and Prairie) is almost beneath discussion as no stratigraphic evidence is currently available for support of any of these constructs.

Inadequate chronology represents another area of serious deficiency. Applicable radiocarbon dates are practically non-existent. Both the beginning and ending dates (A.D. 200 and 400, respectively) are the result of extrapolation from the Illinois Valley sequence. A date of A.D. 250 from the upper habitation zone at the Boyd site apparent represents the only radiocarbon date from the entire Yazoo Basin which falls within the timeframe espoused for the Late Marksville period. Obviously, additional dates are required both to more accurately establish the chronological position of Late Marksville as well as ascertain the timing of changes within the period.

Phillips' (1970) proposal of early and late subphases for the Issaquena phase suggests a potential for documentation of significant cultural (or at least ceramic) changes during Late Marksville. To date, these changes have only been observed at the Manny site. Excavation at additional sites is necessary in order to evaluate the areal applicability of these trends.

One of the more intriguing issues concerning the Late Marksville period is illustrated in Williams and Brain's (1983:362) discussion of the

differences between the Issaquena and Paxton phases. In general, the two phases are conceived of as co-existing, yet reflective of distinctive cultural groups. While Issaquena is thought to manifest a continuation and alteration of Hopewellian derived cultural traits, the character of Paxton indicates lesser contact or less enthusiastic acceptance of Hopewellian influences coincident with an incorporation of certain Woodland traits (particularly in the realm of ceramic manufacture) which come to dominate in the following Baytown period.

To date, the Paxton phase has only been identified in surface collections. Although there are indication that the Marksville and Deasonville types which co-occur to make up the Paxton phase represent a single contemporaneous assemblage, stratigraphic support of this proposition is needed. This is particularly important considering the implications of this combination in terms of the dynamics of the transition between the Hopewellian influenced Marksville and Woodland oriented Baytown periods.

Late Marksville settlement and subsistence practices are also in need of delineation. Williams and Brain (1983:403) have proposed that the expanded site distribution evident during the Issaquena phase is a reflection of the adoption of agricultural practices. In this model, the increase in number of sites is indicative of short distance population movements necessitated by the continuing need for fertile land and as such does not necessarily connote a population increase. As with the preceding Early Marksville period, no direct evidence for horticulture or agriculture is presently available. Considering the lack of Late Marksville site excavations, the absence of cultigens may not be surprising. However, the fact that such evidence is also missing for the following Baytown and Coles Creek periods casts doubt upon the existence of agriculture during the Marksville period. Hopefully, additional excavations will provide evidence with which to support or refute the agricultural postulate.

Differences of opinion persist concerning the character of the settlement subsistence scheme. Specifically, these disagreements focus upon the existence of earthwork containing ceremonial sites and the corresponding organized cooperation required to produce such sites. While Phillips (1970:544-545) supports such an arrangement, Williams and Brain (1983:363) prefer a scheme in which ceremonial centers are lacking and a low order of social development is operative.

Along with a decrease in frequency of appearance of Hopewell associated decorative ceramic types, a decrease in mound building activities during the Late Marksville period is considered to be indicative of a withdrawal of Hopewell influences. While Phillips (1970:598) attributes the platform mound at Thornton to late Marksville activities, Williams and Brain (1983:362-363) suggest that these mounds are of Coles Creek origin and no sites of this period can be positively associated

with mounds. Again, extensive excavations of mounds and associated village sites will be necessary in order to properly address this issue.

Late Woodland Baytown Period

The Baytown construct has a long and varied history. Introduced in the volume reporting the activities of the 1940-1947 seasons of the Lower Mississippi Valley Survey (Phillips, Ford, and Griffin 1951), it originally encompassed an expansive time period beginning with the appearance of Hopewellian culture (Marksville) and terminating with the consolidation of Coles Creek culture. The definition of the Baytown Period has subsequently undergone revision (see Phillips 1970 and Williams and Brain 1983), its present character most closely corresponding to the middle portion of Phillips, Ford, and Griffin's (1951) Baytown period, spanning the running period from approximately A.D. 300-700 (350-800 according to Williams and Brain 1983:Figure 11.4).

Archaeological inquiry into the Baytown period within the Yazoo Basin is particularly important as it is the lower portion of this area which was employed by Phillips (1970) and Williams and Brain (1983) in developing the most recent incarnation of this period and the majority of the phases included therein. Generally, the period is characterized by a deterioration in the quality of artifactual materials including but not restricted to ceramic vessels. The elaborate treatments of ceramic decoration typical of the preceding Marksville period are replaced by ceramic assemblages dominated by plain and cordmarked wares and to a lesser extent red-filmed vessels. A dispersed settlement pattern and lack of major centers is noted, reflecting a de-emphasis on central organization first evidenced during Late Marksville. The subsistence subsystem is characterized by hunting, gathering and fishing. Though yet to be documented, horticulture and/or incipient agriculture are thought to first appear at this time. The introduction of the bow and arrow is also attributed to this period (Brain 1971). Therefore, although the Baytown period has often been envisioned as one of cultural decline, it is also one of economic progress in that the developments which occurred during this time were prerequisite to the success of subsequent events in the region (Williams and Brain 1983:390). In the following discussion of the Baytown period, the studies of Phillips (1970) and Williams and Brain (1983) will be heavily referenced as these documents provide synthesis of a large portion of the data concerning this period. Additional sources are also utilized when information contained within them bears upon those conclusions drawn by these authors and/or provides insights into other pertinent issues.

The Southern Subarea

The Southern subarea of the Yazoo Basin has received extensive archaeological attention in comparison to both the Northern subarea and the majority of the remainder of the state. Phillips points out that his sequence for the Yazoo Basin is based upon information derived from the southern half of the Yazoo River and its tributaries. His (1970) archaeological survey of the Lower Yazoo Basin summarizes a large amount of the archaeological research which has been undertaken in this subarea and provides the basis for much of the culture-historical reconstruction for this unit, particularly as concerns the Deasonville phase. The two phases for the Baytown period for the southern subarea of the Yazoo Basin (i.e., Deasonville and Bayland) will provide the subject matter for the following section.

Deasonville Phase

While the Baytown culture is considered a rather tenuous formulation (Phillips 1970:966, Williams and Brain 1983:364), the Deasonville phase is stated to be a "useful if not indispensable" concept representing "one of the strongest units in the Yazoo sequence" (Phillips 1970:546). The origins of what is presently termed the Deasonville phase are rather disparate. The name Deasonville is taken from the Deasonville site (22-Yz-527) a multi-component site located in the uplands some twenty miles to the east of the Yazoo Basin. Although it is located outside the area of the Lower Mississippi Survey, its location is pertinent to settlement-subsistence issues concerning the Deasonville phase which will be elaborated in a following section. (See the post-archaic prehistory of the Jackson Prairies for additional information on this site.)

Stratigraphic evidence in support of the positioning of this phase is based upon excavations at the Manny site (22-Is-506) where Issaquena phase materials were overlain by mixed Issaquena/Deasonville deposits. No "pure" Deasonville component was isolated at this site (Phillips 1970:696). Additional stratigraphic evidence is available at the Lake George site (22-Yz-557) where a Deasonville midden was reported beneath Mound C. Excavations in this mound indicate that construction was initiated during the succeeding Bayland phase (Williams and Brain 1983). Unfortunately, the Deasonville assemblage from Lake George was considered inadequate to contribute significantly to the definition of this phase (Williams and Brain 1983:364).

Although the relative temporal positioning of the Deasonville phase is fairly well established based upon stratigraphic evidence, its specific chronological frame work is not. This situation is well illustrated by Phillips' (1970:955-961) lengthy treatise on Lower Valley chronology including the presentation of alternative time-schemes (1970:fig. 450) for the Yazoo sequence. Williams and Brain's (1983 fig.11.4) modification of these earlier scheme shows close parallels to Phillips' Scheme A for the Baytown period. At present, the specific temporal underpinning of the

Deasonville phases is based upon the earliest C-14 date from the Lake George site which falls between A.D. 470 and 500. The cultural association for this sample are equivocal(see Williams and Brain 1983:346). A terminal date of ca. A.D. 600 can be inferred from the two earliest dates attributed to the Bayland occupation at the site.

As with the other phases for the Lower Mississippi Valley, Deasonville is formulated primarily on ceramic characteristics. Attributable to this phase are an extensive inventory of ceramic types. Baytown Plain, var. Reed; Mulberry Creek Cordmarked, var. Edwards; and Larto Red, var. Larto are the dominant types. Occurring in lesser quantities, yet considered more useful as phase designators, are Alligator Incised, vars. Alligator and Oxbow; Coles Creek Incised, var. Hunt; French Fork Incised, var. Wilzone; Salmon Brushed, var. Salmon; and Woodville Zoned Red, var. Woodville (Phillips 1970:547). Of these, Coles Creek Incised, var. Hunt (Phillips 1970:546) and the French Fork Incised lug (Phillips 1970:310) are considered to be the most diagnostic. The ceramic sample from the Hunt site (22-Lf-528) has been employed as the standard for evaluating other Deasonville assemblages (Phillips 1970:392). Certain of the ceramic types present at Jaketown (22-Hu-505) (namely Alligator Incised, var. Alligator; Coles Creek Incised, var. Hunt; Mulberry Creek Cordmarked, var. Edwards; and Salmon Brushed, var. Salmon) are reported as type representatives for the Deasonville phase (Phillips 1970:323). Williams and Brain (1983) have deleted Alligator Incised, var. Alligator and French Fork Incised, var. Wilzone as Deasonville indicators. Concurrently, they have amplified the significance of the "exotic" types Woodville Zoned Red, var. Woodville; Landon Red on Buff, var. Landon; and Quafalorma Red on White, var. Quafalorma, thereby producing their Reed and Quafalorma sets, which they considered representative of the Deasonville phase.

Non-ceramic Deasonville indicators include Deasonville Choppers (a.k.a. Mound C Scrapers), Gary Stemmed, var. Maybon; and Collins Stemmed projectile points and shell hoes (Williams and Brain 1983:364). Additionally, the presence of shell middens, often arranged in the circular configuration labeled the Tchula Lake pattern by Phillips (1970), is an important Deasonville marker. As can be inferred from these shell middens, shellfishing is also a Deasonville characteristic, and one which is not strongly associated with preceding or succeeding phases in the Yazoo Basin.

As with the presence of shell middens, site distribution for the Deasonville phase diverges from that of earlier and later phases. The preponderance of sites of this phase along the Yazoo Meander Belt is noted as thirty-two of the forty Deasonville sites mapped by Phillips (1970:fig. 246) are located along the Sunflower Meander Belt Ridge, supposedly also for shellfish exploitation. This is an area which was practically vacant during preceding phases.

The association of shell middens and Deasonville phase occupations has been interpreted as indicative of seasonal camps established for the exploitation of riverine mussel resources. The appearance of Deasonville sites (many with accompanying shell middens) along the previously minimally inhabited Sunflower River is considered to reinforce the proposed seasonal exploitation pattern.

Additional survey data presented in the Lake George report vastly increases the number of reported Deasonville sites within both the Yazoo and Sunflower Meander Belts (Williams and Brain 1983:fig. 11.9). A considerable number of sites along the Bogue Phalia drainage as well as along the present channel of the Mississippi are indicated. Absence of shell middens and portions of the Deasonville ceramic inventory among these latter two groupings of sites has required certain adjustments in the interpretation of the settlement and subsistence patterns of the Deasonville phase. While shellfish procurement remains an almost uniquely Deasonville trait, the absence of indications of shellfishing at some Deasonville sites, particularly those along the Bogue Phalia and present Mississippi drainage, suggests a less focused exploitative pattern. Thus, while gatherings of shellfish was undoubtedly practiced in those locales where they were available, shellfish may represent only a portion (and possibly a minor portion) of an overall subsistence pattern based upon generalized hunting and gathering. The relative importance of shellfish within the diet of these people remains to be determined. In a study of the cultural resources of the Yazoo River (Thorne and Curry 1982:125), it is pointed out that 24,398 fresh water mussels are required to provide the same amount of edible meat as a single, average size deer. The Deasonville phase midden excavated beneath Mound C at Lake George indicated a hamlet size permanent occupation with an emphasis upon riverine resources (Williams and Brain 1983:332).

Although incipient agriculture has been assumed for Deasonville phase peoples, it is yet to be documented. No cultigens were identified among the floral remains in the Deasonville midden at Lake George (Williams and Brain 1983:365). While possible maize fragments were identified at the Lightline Lake site (22-Lf-504), their context was questionable and their quantity was so small as to indicate that their contribution to the diet of the Baytown Period occupants was negligible (Morgan and Raspet 1979:176). Pollen analysis failed to discern indications of maize, further reducing the possibility that this cultigen was being utilized at the site (1979:178).

The distinctive Woodland cast of Deasonville ceramic assemblages, the interpretation of shell midden sites as seasonal encampments, and the eastern trending pattern of the lowland sites have been employed in interpreting the Deasonville culture as intrusive. The direction of this intrusion is inferred to be the uplands to the east of the Yazoo Basin.

A presently unresolved issue concerning the Deasonville phase is whether or not mound construction is included among the activities of this culture. Although numerous sites with Deasonville components also have associated mounds, due to lack of excavation none have been positively attributed to the Deasonville occupants at these sites. Potential candidates cited by Phillips (1970:550) include Clark's Ferry (22-Yz-597), Shellwood (22-Yz-600), Pete Clark (22-Yz-571), and Cold Lake (22-Hu-523). Upland Deasonville sites associated with possibly contemporary mounds include Gamewood (22-Ho-504) and York Hill (22-Yz-602). Regardless of the validity of these mound/village associations it is evident that the amount of mound construction had diminished considerably from the preceding phases in the region.

Issues of Relevance to Further Research

Questions pertinent to archaeological research concerning the Deasonville phase of the Baytown period are numerous. The Deasonville phase has been cited as unusual in that artifact classes other than ceramics have played a role in its construction (Williams and Brain 1983:364). Never-the-less, the contribution of the non-ceramic evidence remains only minimal, perpetuating the danger of conceptualizing aggregations of pot sherds as aboriginal cultures, a problem of which Phillips was aware (1970:247-248, 542). His hesitancy to incorporate non-ceramic materials stemmed from three factors. Firstly, non-ceramic cultural debris (particularly stone) is minimal in the Yazoo Basin. This situation is commonly thought to be due to a corresponding paucity of lithic raw material. However, the impact of this condition is undetermined. While lithic resources are generally scarce, gravels are available in considerable quantities in many stream beds. Exploitation of such localized resources should allow for adequate supplies of raw materials. A factor contributing to the lack of lithics identified at Yazoo Basin site may be the relatively small size of the material (i.e. stream gravel) being utilized in lithic tool production. Thus, both finished tools and associated debitage may be comparatively smaller than in areas where more sizable chert nodules or tablets were available. Secondly, the small number of single component sites within the area poses difficulties in attributing the ceramic and non-ceramic materials from a site to specific components. Finally, a projectile point typology for the Lower Valley had not (and still hasn't) been worked out.

In that Phillips' goal was "to achieve as economically as possible, a satisfactory working chronology for the area" (1970:248) his ceramic orientation is understandable. However, a delineation of the remainder of the material culture of Deasonville is now in order. Although projectile points should be represented in this compilation, other lithic categories must be given equal attention. Specifically, indicators of lithic tool manufacturing trajectories during the Deasonville phase should be

investigated. Further, collection and examination of stone tools and debitage can make an important contribution toward discerning various activities carried out at Deasonville sites. (See Raspet [1979], Thorne and Johnson [1979], and Johnson and Raspet [1980] for examples of this approach to lithic analysis in the Yazoo Basin).

Ceramic vessel function has been alluded to by Phillips (1970:349) in suggesting that the crudeness of Baytown Plain materials, particularly var. Reed is a reflection of their use in mussel processing. This is certainly a contention worthy of further investigation.

Central to the issue of settlement and subsistence during the Deasonville phase is the need for determining whether variations in site type are present. The association between Deasonville sites and shell middens has received considerable attention. The circular to semi-circular arrangement of midden concentrations at certain sites is thought to be as indicative of intrasite patterning of house structures. However, this impression remains to be evaluated through excavation. The potential for variation within shell midden sites is evident. Where "shell-ring" sites are thought to be seasonal (Phillips 1970), Williams and Brain (1983) attribute the more diffuse Deasonville shell midden at Lake George to a permanent hamlet.

Although a dichotomy can be derived based upon the presence or absence of shell midden at Deasonville sites, the important question is how sites differentiated in this manner compare in relation to other site activities. Specifically, is the abundance of shell at many Deasonville sites indicative of site specialization or do the overwhelming numbers of these items mask the presence of other activities which may have occurred at the site with equal or greater intensity? In areas of the Yazoo Basin where shell midden/Deasonville site associations are common, comparisons between shell midden and non-shell midden sites may indicate site specialization. Now that considerable areas have been identified in which Deasonville sites do not exhibit shell middens, the importance of shellfish exploitation in Deasonville subsistence must be questioned and investigated.

On a larger scale, determination of site function for Deasonville sites within the Yazoo Basin will necessarily reflect upon the nature of the association between these sites and the "hill culture" to the east thought to be responsible for them. If the lowland sites are not indicative of seasonal forays but are representative of a more permanent floodplain based settlement/subsistence strategy, a wider range of activities should be observable either in the form of multi-functional sites or a diversity of functionally specific sites each contributing toward the operation of an overall scheme.

Additionally, considering the contention that Deasonville sites within the Yazoo Basin are a product of influences emanating from the uplands to the east, direct comparisons of contemporary assemblages from these

two areas are needed. Phillips (1970:437) has noted that differences are present between Deasonville phase occupations of the hills and floodplain. These relate primarily to the ratio of plain to cordmarked ceramics. Further investigation should focus upon the degree of correlation within the remainder of the Deasonville assemblage between these two areas. Phillips (1970:425) further states that significant differences between floodplain sites and those at the bluff edge are not expected due to the ability of occupants of either location to access the same environmental zones. Again, intensive comparison of sites from these two areas would provide important insights into the comparability of the material inventory of the occupants of these two areas and elucidate the nature and degree of association between them.

Also germane to the issue of Deasonville phase settlement/subsistence is the question of whether agricultural was being practiced at this time. Although agriculture has been inferred (Williams and Brain 1983:364-365), it has yet to be substantiated by direct evidence. Analysis of carbonized floral remains from Deasonville phase sites will be necessary to resolve this issue. As with many of the other issues presented here, controlled excavation is essential.

Additional research is required to substantiate or refute mound building activities during the Deasonville phase. Resolving this question is important not only in terms of the activities of the people of the Deasonville phase but also in relation to the issue of cultural continuity from Marksville through Coles Creek in the Yazoo Basin.

Tighter temporal control for the Deasonville phase is also necessary. Obviously, addition radiocarbon assays from confirmed Deasonville contexts are required. Such data would be most easily derived from sites having only Deasonville components or multi-component sites with temporally and/or spatially separated components. Although single component sites are rare several are reported by Phillips, including Tchula Lake (22-Ho-546) (1970:270-272), Quafalorma (22-Ho-516) (1970:274), and Clark's Ferry (1970:347-348). Others such as McLean (22-Lf-513) (Phillips 1970:250-253), Shell Bluff (22-Lf-505) (1978:253-260), Roebuck (22-Lf-517) (1976:268), Hunt (1973:391-395), Kinlock (22-Su-526) (1970:438-441), Lake Dawson (22-Su-531) (1970:443-444), and Fort Place (22-Hu-504) (1970:268-270) are reported to have only Deasonville phase and Mississippi period components. The potential for separating pit features by component at these sites should be favorable. Contents of such pits may provide adequate carbonized remains for C-14 dating. Surveys by Penman (1980), Thorne et al. (1977), Thorne and Curry (1982), Thorne and Johnson (1979), Gagliano and Weinstein (1979), and Sisson (1979) have identified numerous additional sites, many of which may be pertinent in the investigation of this and other Deasonville issues.

To date, no "pure" Deasonville components have been identified at excavated Baytown period sites. Excavated sites containing Deasonville components include only the Deasonville site (Collins 1932), Lightline Lake (Morgan and Raspet 1979), and Lake George (Williams and Brain 1983). In view of the absence of excavations in an unmixed Deasonville deposit, identification and excavation of such contexts are of paramount importance as they would contribute greatly toward the evaluation of those issues discussed above and thus expand our knowledge of the Deasonville phase.

Bayland Phase

Bayland represents the second and final phase of the Baytown period within the southern portion of the Yazoo Basin. The phase was originated by Phillips (1970) with Lake George (22-Yz-557) specified as the type site. In that much of the Lake George data remained to be synthesized at the time that the report on the lower Yazoo Basin survey was published, Phillips presented only a brief outline of the phase (see Phillips 1970:12,550-551, 907). He (1970:12) describes Bayland as either "Baytown, Coles Creek, or transitional between them." Based upon its similarities with the preceding Deasonville phase, however Bayland has since been subsumed within the Baytown period. To date, the only extensive commentary on Bayland is contained within the treatise on excavations at the Lake George site (Williams and Brain 1983). Stratigraphic evidence from Mound C at Lake George confirmed the relationship between Bayland and Deasonville by documenting the superposition of a Bayland component over a Deasonville phase midden (1983:333). Three radiocarbon dates (all from Mound C at Lake George) are applicable. A terminal date for the phase is indicated by the A.D. 700 to 720 date associated with Aden phase construction activities at the site. As with the Deasonville phase, the Bayland phase is primarily identified by its ceramics. According to Williams and Brain (1983) the ceramic inventory is categorized by the Sharfit set consisting of the types Coles Creek Incised, vars. Chase, Stoner, Wade; French Fork Incised, var. Wilzone; Larto Red, var. Silver Creek; Mulberry Creek Cord Marked, var. Smith Creek and Baytown Plain, var. Sharfit. This set is considered to represent the final stage in the transition from the Reed set (Reed 2 subset) of the Deasonville phase. Non-ceramic Bayland indicators include Mound C scrapers (a.k.a. Deasonville Choppers), and Collins and Enola projectile points (Williams and Brain 1983:367). Other chipped stone, bone, turtle shell, and mollusc shell are also associated with the Bayland occupation at Lake George (Williams and Brain 1983:Table 10.2). Initial mound construction at the Lake George site was begun during the Bayland phase as indicated by evidence from Mound C. The lack of burials within this portion of the mound and its low platform profile suggest a ceremonial as opposed to a mortuary function during

the Bayland phase occupation. Mound construction is as yet undocumented for other sites with Bayland components. Site distribution during the Bayland phase is similar to yet more restricted than that of the preceding Deasonville phase as sites are predominantly confined to the lower portion of the Yazoo drainage. They are noticeably absent in two areas of extensive occupation during the Deasonville phase; the Sunflower and Bogue Phalia drainages (compare Williams and Brain 1983 figs. 11.9 and 11.11).

Based mainly upon the evidence from Lake George, a broad subsistence base is proposed for the Bayland phase. A continued interest in aquatic resources is inferred from the presence of carved bone fish hooks and numerous fish bones. However, neither at Lake George nor other Bayland phase sites are extensive shell middens present, suggesting a decreased emphasis upon shellfish as a dietary resource.

Considering the issue of the transitional character of the Bayland phase, Williams and Brain (1983) concur with Phillips' (1970) placement of this phase in the latter portion of the Baytown period. Although similarities with Coles Creek are apparent, they are primarily ceramic (Williams and Brain 1983:366). As previously noted, in comparison to the preceding Deasonville phase, a retracted settlement distribution is evident for the Bayland phase. Concomitant with this phenomenon is a considerable decrease in numbers of sites. Only twenty-five sites, ten of which are categorized as probable, are presented by Williams and Brain (1983:fig. 11.11) as having Bayland phase components.

Issues of Relevance to Further Research

Of primary importance to future research involving the Bayland phase is the need to expand the data base beyond the confines of the Lake George site. Although additional sites have been employed in evaluating the composition of the Bayland phase and inferring subsistence strategies, more and better information is needed. A concerted effort is required to identify and characterize more sites of this phase. Recent surveys have generally failed to identify Bayland phase sites. This is partially a reflection of the fact that the diagnostics for this phase were not reported until the publication of the findings of the excavations at Lake George (Williams and Brain 1983). Thus, sites which would qualify as Bayland phase were undoubtedly classified as Deasonville, Aden, or both. Reexamination of these collections would certainly reveal the presence of Bayland components at some of these sites.

Elaboration of the material inventory of the Bayland phase beyond its ceramic constituent is necessary. Determination of the lithic assemblage is particularly important. Once this is accomplished, intersite variation may be employed in distinguishing site types for the phase.

A change in subsistence strategies is thought to be indicated by the lack of Bayland sites having associated shell middens (Williams and

Brain 1983:368). Determination of subsistence indicators including site location, tool assemblages, and floral and faunal remains is necessary in order to evaluate this contention. At present, this task has not been undertaken for Bayland (or any other phase).

Williams and Brain (1983:268) have chosen not to associate the reduction in site numbers during the Bayland phase with a population decline, but rather to be indicative of a "backwoods" version of Deasonville culture which persisted in this portion of the lower Yazoo Basin. An alternative explanation is that the reduction in number of sites and more circumscribed distribution is indicative of a remission of population pressure. If shellfish exploitation can be interpreted as a reflection of population pressure (after Cohen 1977) might not the reverse also be true? Thus, the abandonment of those areas resorted to for exploiting this resource. The more circumscribed site distribution would be in line with the growing need for labor for the mound construction activities now documented for the phase. Smaller numbers of sites would also be compatible with this interpretation if individual sites accommodated larger numbers of inhabitants. At present, archaeological evidence is lacking in support of either of these models. Resolution of this issue poses an important task for future research and takes on particular importance when it is remembered that developments during this phase provided the foundation for additional developments in the succeeding Coles Creek and Mississippi periods. The association of these sites with the major waterways suggests to Williams and Brain (1983:369) that a renewed interest in interacting with cultures outside the Yazoo region was beginning to occur.

The documentation of mound construction during the Bayland phase is said to be of particular import in that this activity signals a resurgence in the interest in non-subsistence concerns (Williams and Brain 1983:367). The fact that Bayland phase mounds have not been identified at sites other than Lake George is suspected to be the result of their being covered over by subsequent mound building activities (1983:368). Considering the implications of the appearance of platform mounds in terms of social organization and settlement patterns, it is critical to determine whether mound construction during the Bayland phase is unique to the Lake George site or whether it has a more side-spread distribution during this phase. Obviously, large scale mound excavation will be necessary to resolve this issue.

Finally, there is a need for additional data which can be utilized in providing a firmer temporal framework for the Bayland phase. As previously noted, two dates from Lake George Mound C represent the entirety of the absolute dates for the phase. Procurement of more dates from a diversity of sites is required to derive the necessary level of chronological control. Again, this will only be accomplished through excavation.

The Northern Subarea

Compared to the southern portion of the Yazoo Basin, archaeological research within the northern Yazoo Basin has been minimal. Consequently, chronological framework and cultural content for the Baytown period in this area are poorly understood. Correlation is lacking between the Northern and Southern subareas in terms of temporal/cultural associations. This discrepancy has generally been attributed to the continued persistence of the Baytown culture in the Northern subarea long after the Coles Creek culture had established itself further to the south. This situation is illustrative of Phillips' (1970:9) contention that it is not possible to incorporate the cultural sequence for the entirety of the Yazoo Basin into a single scheme. A primary contributor to this problem is the lack of an isolatable Coles Creek manifestation in the Northern subarea, causing difficulty in establishing a terminus for the Baytown period.

Coahoma Phase

Baytown period sites are ubiquitous in the northern Yazoo Basin. (Phillips [1970:906] reports eighty-three sites with Coahoma phase occupations). However, excavation has occurred at very few of these; most being known only from surface collections. As presently conceived, the Coahoma phase comprises the primary representative of the Baytown culture within the upper Sunflower Region and the only substantive phase for the Baytown period in the northern Yazoo subarea. Although other phases may eventually be formulated for the Northern Yazoo Basin, the necessary groundwork is yet to be accomplished.

The history of Coahoma phase is lengthy. Originally introduced by Williams (1956), it has subsequently undergone substantial reworking. In that Phillips' (1970:904-907) conception represents the most recent formulation, and thus will be adopted here. Excavations carried out at the Oliver site (22-Co-503) by Harvard University and published in the Papers of the Peabody Museum (Peabody 1904) comprise the stratigraphic evidence for the phase.

Brookes (1983:fig 4) has tentatively established the time frame for the Coahoma phase as A.D. 400 to 850. Excavations at the Boyd site (22-Tu-531) in Tunica County (Connaway and McGahey 1971) provide radiocarbon assays relevant to Baytown period occupation in the general area. Three dates derived from charcoal from the upper midden at this site range from A.D. 250 to A.D. 540 and indicate a Late Marksville through Early Baytown time frame. Two additional dates of A.D. 525 and A.D. 675 were derived from the McKee mound (22-Co-582) in Coahoma County.

As usual, diagnostics of the Coahoma phase are primarily ceramic. Mulberry Creek Cordmarked and Baytown Plain dominate. Mulberry

Creek sherds generally occur in the greatest quantities, although the relative proportion of this type is said to decrease from north to south within the area encompassed by the Coahoma phase (Phillips 1970:906). According to Phillips (1970), minor ceramic types include Withers Fabric Marked, Larto Red, Alligator Incised, vars. Oxbow and Alligator; Salmon Brushed and Indian Bay stamped. Sandy textured sherd including Mulberry Creek Cordmarked, var. Blue Lake and Baytown Plain, var. Thomas are noted in small quantities among the clay tempered majority ware. Although the remainder of the material culture for the Coahoma phase remains to be inventoried, limited excavations at the Acree site (22-Bo-551) in Bolivar County indicate that shell hoes and bone and antler tools are present within the Baytown period assemblage (Connaway 1981).

Site distribution for the Coahoma phase is delineated by MRC Tier 19 to the south and Tier 13 (approximately the juncture of the Coldwater River with the Yazoo Basin) to the north. Overall, a rather dispersed distribution is noted. Unlike the Deasonville phase sites of the southern Yazoo Basin, shell middens occur only infrequently at Coahoma phase sites.

The mound building propensities of the Coahoma phase people are not yet fully substantiated. The only potential Coahoma phase mound construction which has been verified by excavation is from the Shady Grove site (22-Qu-525) (Connaway 1981). The aforementioned dates from the McKee mound may indicate burial mound use in this area during Late Baytown. What mound building did occur during this phase was apparently restricted to the conical variety generally associated with mortuary activities. No evidence concerning the burial program associated with mound construction is available. The extended position of one Baytown period burial at the Maddox #2 site (22-Co-586) (Connaway 1981) in a non-mound context, provides some information on burial practices during this phase. It is possible that many of the burials at the multi-component Bonds site (22-Tu-530) may be attributed to a Late Woodland cemetery area as only one was positively identified as Mississippian (see Connaway and McGahey 1970).

Issues of Relevance to Further Research

Considering the present state of knowledge concerning the Coahoma phase, additional research is required in practically every aspect of this phase. Even within the realm of ceramics this phase is primarily founded upon negative traits including the lack of Indian Bay Stamped and Coles Creek Incised (see Brookes 1980b:36). As usual, additional stratigraphic and chronological information are needed as is an elaboration of the non-ceramic cultural inventory. In terms of settlement/subsistence, sites attributed to the Coahoma phase appear widely dispersed, a pattern which would allow access to a wide range of

resources. However, whether this distribution is indicative of an integrated subsistence scheme and if so, how it operated is yet unknown. Intersite comparisons are needed to determine whether differences in site type are present which might provide insights into the organizational structure during this phase.

Phillips has mentioned the paucity of shell middens associated with Coahoma phase sites, a situation which might be inferred to indicate that shellfishing was not an important focus of activity for these people. Excavations at several sites within the northern Yazoo Basin including Acree (Connaway 1981) and Shady Grove (1981) have found considerable amounts of shell in both midden and pit feature contexts suggesting that shellfish do play a role in the subsistence practices of the Coahoma phase. Yet regardless of the role of shellfish, subsistence remains from pit features indicate primary emphasis to be on hunting, gathering, and fishing (Connaway 1986, personal communication). Although water screening was employed at the Acree, Shady Grove, and Boyd sites in order to recover subsistence remains, no cultigens were identified. Thus, horticulture and/or incipient agriculture in association with this phase remains undocumented.

Baytown Phase

The Baytown phase is considered by Phillips (1970:903) to encompass Baytown period sites west of the Mississippi River within the lower St. Francis Basin, lower White River Basin, and Arkansas lowland. However, several sites within the upper Yazoo Basin are also reported to have Baytown phase components including Lake Cormorant (22-Ds-501) and Withers (22-Ds-515). These sites were excluded from the local Coahoma phase due to the predominance of Baytown Plain over Mulberry Creek Cordmarked ceramics in their surface collections. Phillips notes that this phenomenon may be a reflection of the multi-component character of the sites in question. This possibility combined with questions as to the utility of employing ratios of surface treatment types in making phase determinations suggests that the designation of a Baytown phase component to these sites is too tentative to justify further discussion. However, an important research issue in relation to the Baytown phase as with many other of the Lower Valley phases is the degree to which the Mississippi River served as a barrier to cultural exchange and interaction at the local level.

Coles Creek Period

As related by Phillips (1970:552, 919), the Coles Creek culture was formulated by Ford based upon ceramic collections from sites within Natchez region including the Coles Creek (Gordon) site (22-Je-501) located in the uplands to the northeast of Natchez, Mississippi. In the lower Yazoo Basin survey report, Coles Creek is defined as that period

"beginning with the emergence of Coles Creek in the southern part of the lower Mississippi Valley and ending with the establishment of full-blown Mississippian culture in the northern part" (Phillips 1970:18). This period basically corresponds to Phillips, Ford, and Griffin's (1951) Late Baytown period. A temporal position of A.D. 700 to 1000 is proposed (Phillips, 1970, fig. 2).

Williams and Brain's Lake George report, which provides a recent commentary on this period, proclaims "the beginning of this period recognizes the ascendancy of that most important prehistoric expression in the Lower Valley, the Coles Creek culture" (1983:369). Coles Creek is maintained to be an in city development deriving from the preceding Baytown period occupations in the area. The Tensas Basin is said to be the homeland of this culture which ultimately spread across a considerable portion of the lower Mississippi Valley including the lower Red River and a portion of the Yazoo Basin. Belmont and Gibson (1988) have indicated that multiple "homelands" may be involved.

In general, Coles Creek is a manifestation characterized by considerable cultural homogeneity over a wide area and time span. An increased concern with socio-religious authority is indicated by the presence of a temple mound and plaza site configuration. The prevailing trend for sites to be located upon major waterways including the Mississippi and Yazoo Rivers indicates a renewed interest in interregional associations.

By late Coles Creek, Belmont and Gibson (1988) maintain that a highly developed site hierarchy exists including first magnitude centers, smaller multi-mound centers, three mound and one mound sites, and moundless villages. Analysis of faunal remains from the Coles Creek occupation at Lake George (22-Yz-557) indicates a shift from a generalized hunting and fishing strategy to one more focused upon the taking of specific terrestrial fauna including deer and rabbit (Belmont in Williams and Brain 1983). The high correlation of Coles Creek sites with the most arable portions of the alluvial bottoms is thought to be indicative of the agricultural emphasis of this culture. However, cultigens (including maize) have not been isolated from any Coles Creek sites.

Ceramics represent the most visible diagnostic of the Coles Creek culture. Particularly indicative are those vessels with horizontal lines upon the upper exterior rim which constitute the numerous varieties of the type Coles Creek Incised. Lithic items associated with this culture include small projectile points attributed to bow and arrow technology.

In its most recent incarnation, Coles Creek spans the period from A.D. 800 to 1200. The increased temporal dimension as compared to Phillips' 1970 scheme is due to the fact that the Crippen Point phase, previously attributed to the Mississippi period has been reassigned to the Coles Creek period due to its degree of continuity with the earlier Coles Creek phases (Williams and Brain 1983).

Cultural discontinuities within the Yazoo Basin are evident during the Coles Creek period. Thus, as with the preceding presentation of the Baytown period in this region, discussion of the Coles Creek period will be based upon Southern and Northern subdivisions. (See Belmont and Gibson [1988] for further observations concerning fluctuations in spatial groupings which occurred during the Coles Creek.

The Southern Subarea

Within the southern subarea of the Yazoo Basin, the Coles Creek period and the Coles Creek culture are synonymous. The history of Coles Creek proper in the Yazoo Basin is restricted to this subarea as this area represents the northern border for the culture. Lake George is the only adequately excavated site of this period. As such, the majority of the interpretations concerning this period and culture are derived from evidence from this site. Aden, Kings Crossing, and Crippen Point represent the three sequential phases for this period within the Southern subarea.

Aden Phase

The earliest evidence for Coles Creek culture within the southern Yazoo Basin is manifested in the Aden phase. The phase name is derived from the Aden site (22-Is-509) which is said to contain a good early Coles Creek component (Phillips 1970:12). At the Lake George site, the initiation of this phase is signaled by the first stage of construction of a subcultural mound atop the earlier Bayland phase platform mound at Location C. Stratigraphic support in terms of separable artifact assemblages, however, is lacking due to the fact that fill used in constructing this mound was derived from earlier site midden. Temporal positioning for the Aden phase is predicated upon a single radiocarbon date of A.D. 700/720 \pm 120 (Williams and Brain 1983:346) from the first mantle of Mound C.

A religious and mortuary function is attributed to Mound C during the Aden phase based upon the inclusion of burials within this first mantle of the mound and evidence for the construction of a structure atop the mound. Neither burials nor structures were associated with the preceding Bayland phase construction.

Thirty-seven sites within the lower Yazoo Basin are reported by Williams and Brain (1983:fig. 11.13) as having Aden phase or probable Aden phase components. Site distribution is concentrated along the Mississippi and lower Yazoo Rivers. Although similarities are present between Aden and Bayland phase site distributions, notable differences include the presence of Aden sites along the banks of Deer Creek and the northwestern portion of the lower Yazoo Basin. Coles Creek sites are lacking in the northern and eastern portions of the region both during

the Aden phase as well as the remainder of the Coles Creek period. In comparison to the Bayland phase, Aden phase sites are more numerous.

A distinctive site plan is evident for the Aden phase. Sites are generally characterized by one to three square, flat topped substructural (temple) mounds and an associated plaza area. Such sites are thought to be local, non-residential ceremonial centers designed to serve a dispersed settlement of small hamlets.

The ceramic inventory of the Aden phase is represented by the Valley Park ceramic set. Included within this set are the types Baytown Plain, var. Valley Park; Avoyelles Punctated, var. Avoyelles; Chevalier Stamped, var. Chevalier; Coles Creek Incised, vars. Coles Creek and Campbellsville; French Fork Incised, var. Larkin; and Mazique Incised, var. Mazique. Vessel forms are simple bowls or beakers. Distinctive non-ceramic artifacts include ground stone/grooved plummets, scraper-chopper tools, abraders, and Edwards Stemmed and Collins Side-Notched projectile points. Overall, the tool assemblage for the Aden phase is limited in variety.

Kings Crossing Phase

Kings Crossing represents the intermediary and theoretically "classic" phase of Coles Creek within the southern subarea of the Yazoo Basin. The Kings Crossing site (22-Wr-537), considered by Phillips (1970:556) to represent a single Coles Creek component, is the type site for this phase.

Stratigraphic evidence for the phase is reflected in the Lake George excavations within Mound C and beneath Mound D. No radiocarbon dates are presently available for this phase either at Lake George or elsewhere. A terminal date of ca. A.D. 1050 is proposed based upon the earliest Crippen Point phase dates from Lake George (A.D. 1090) and Winterville (22-Ws-500) (A.D. 1040).

Considerable continuity is indicated between the Kings Crossing and preceding Aden phase. Mound constructions is characterized by an expansion in the size and number of sub-structural mounds. Interment of burials within and placement of structures atop these mounds continues. Settlement patterns and distributions appear similar, while sites with mounds increase to a maximum within this period.

Ceramic characteristics also reveal considerable overlap with the preceding Aden phase materials as several types including Coles Creek, Avoyelles, Mazique, and French Fork persist. However, it is also in this material class that the greatest divergence exists. Ceramically, this phase is represented by the Vicksburg set including the types Baytown Plain, var. Vicksburg; Avoyelles Punctated, var. Kearney; Beldeau Incised, var. Beldeau; Carter Engraved, vars. Mud Lake and Shell Bluff; Coles Creek Incised, vars. Blakely, Greenhouse, and Mott; Evansville Punctated, var. Rhinehart; French Fork Incised, var. McNutt; and Mazique Incised, var. Kings Point. Vessel forms consist of beakers and

simple carinated bowls. Williams and Brain (1983:317) portray "the Vicksburg variety of Baytown Plain as the highest development of the lower Valley potter art." Decoration of Kings Crossing phase vessels, although not elaborate, is well executed. To date, non-ceramic diagnostics remain undetermined. The Alba Stemmed projectile point is the only potential candidate (Williams and Brain 1983:372).

Crippen Point Phase

Crippen Point represents the third and final phase of the Coles Creek period within the Southern subarea. The name of the Crippen Point phase is derived from Crippen Point, a geographical feature in the vicinity of Lake George. As previously noted, the Crippen Point phase was originally included within the Mississippi period due to suspected similarities with Early Mississippian manifestations in the area. However, the strong continuities between this phase and the Coles Creek culture indicated by the Lake George excavations required that it be reassigned to the Coles Creek period.

Even at the Lake George site, stratigraphic evidence for the positioning of this phase is limited. The construction of a third mantle of Mound C which has since been partially destroyed is possibly attributable to this phase. In other areas of the site, Crippen Point diagnostics underlie substructural mounds. Radiocarbon evidence consists of an A.D. 1040 date from Winterville and an A.D. 1090 date from a mixed context beneath Lake George Mound A. A terminal date of ca. A.D. 1200 is indicated by an early Winterville phase date from the Winterville site of A.D. 1230 (see Brain 1989:106 and table 10.)

Attributable to the Crippen Point phase are an increase in the size of individual mounds, the number of mounds at individual sites and a reorientation in site plan. The identification of large areas of midden at the Lake George site indicates a change from nonresidential to residential character for mound sites during this phase. Sites, although generally comparable in number to the Aden phase, are observed to be somewhat divergent from this earlier phase in terms of distribution. Sites appear to decrease in frequency in the northeast area while increasing within the northwest and Deer Creek areas.

As usual, ceramics represent the most visible diagnostic of the Crippen Point phase. However, unlike the ceramic composition of the two earlier phases, the ceramic component for this phase exhibits a more complicated makeup reflective of the Coles Creek-to-Mississippi transition occurring in the area at this time. Four ceramic sets (i.e., Addis, Powell, Coker, and Yazoo) are employed in characterizing the Crippen Point ceramic inventory at Lake George (Williams and Brain 1983:336-337). The Addis set, subdivided into subsets 1 and 2 based upon decorative differences, represents the final expression of Coles Creek as a ceramic tradition. Subset 1 consisting predominantly of

incised line designs with lesser occurrences of punctating and rocker stamping, includes the following types and varieties: Avoyelles Punctated vars. Dupree and Tatum; Beldeau Incised, var. Bell Bayou; Chevalier Stamped vars. Lulu, and Perry; Coleman Incised, var. Coleman; Coles Creek Incised, var. Hardy; Evansville Punctated, var. Sharkey; Harrison Bayou Incised, var. Harrison Bayou; and Mazique Incised, var. Manchac. Plainware for this subset is Baytown Plain, var. Addis (Addis Plain, see Brown 1985). Vessel forms include jars, beakers, and bowls. A degeneration is noted both in quality of manufacture and decorative technique for these materials when compared to those of the Vicksburg set of the preceding Kings Crossing phase.

This Addis 2 subset consists of only two types: Hollyknowe Pinched, var. Patmos and Plaquemine Brushed vars. Plaquemine. In both of these types decoration is applied to the entire vessel exterior as opposed to Addis 1 where decoration is restricted to the upper vessel portions. Addis 2 is perceived as slightly later in time than Addis 1, being contemporary yet longer lasting than the Powell and Coker sets and the Yazoo 1 subset.

The appearance of those ceramic types comprising Powell, Coker, and Yazoo signal the appearance of shell tempered pottery and Mississippian cultural influence in the Yazoo Basin. The Powell set is characterized by slipped and polished surfaces and a variety of previously unreported vessel forms including rolled rim/angular shouldered jars, and stem-handled cups. Decoration is restricted to incised or trailed designs above the vessel shoulder. The component types for the Powell set are Old Town Red, var. Cahokia; Powell Plain, var. Powell; Ramey Incised, var. Ramey; and Tippetts Incised, var. Tippetts. These materials, which occur only in minimal numbers at Lake George are apparently representative of vessels manufactured in the Cahokia area and transferred to the Yazoo Basin.

Coker and Yazoo 1 represent locally produced shell tempered ceramics. The Coker set consists of the types Cahokia Cord-marked, var. Montrose and Old Town Red, var. Sharbrough. Red slipped and cordmarked exteriors are characteristic. Vessel shape is generally that of a large, weak-shouldered jar. The Yazoo 1 subset consists of the types Cahokia Cordmarked, var. Buford; and Old Town Red, var. Old Town. Vessel form is that of a weak-shouldered jar, sometimes with loop handles. Thicker vessel walls and coarser paste distinguish these materials from those of the Coker set.

In contrast to the large number of ceramic indicators for this phase, non-ceramic diagnostics include only the Alba Stemmed projectile point. Associated with, yet not necessarily diagnostic of the Crippen Point phase occupation of the Lake George site, are round clay earplugs, copper earspools, Edwards Stemmed, var. Sunflower and Mississippi Triangular, var. Titterington projectile points, chipped scrapers, ground

stone palettes, grinders, ocher, and bone pins (Williams and Brain 1983:326 and tables 9.22 and 9.23).

Issues of Relevance to Further Research

As currently perceived, the Coles Creek period within the southern portion of the Yazoo Basin is a time of cultural dynamism when compared to the immediately preceding Baytown period. Events occurring during this period from the initiation of substructural mound construction to the incorporation of Mississippian traits indicate its importance in the developmental prehistory of the Lower Mississippi Valley. To date, excavations at the Lake George site provide the only substantive subsurface information for this period and as such weigh heavily in its present characterization. At this point, an expansion of the Coles Creek data base is required to evaluate those interpretations generated by the work at Lake George, thereby providing a wider vision of the overall composition of the Coles Creek culture within the southern Yazoo Basin.

Expansion of the present data base will require the identification and evaluation of additional Coles Creek sites as well as intensive investigation of certain of those sites which have already been recorded. Particular emphasis should be placed upon examination of sites with potential for possessing either single components or stratified deposits.

Several basic tasks are yet to be accomplished. Included among these is establishing firmer chronological control. Chronology for the entire Coles Creek culture rests upon a minimal number of radiocarbon dates, some from questionable contexts and all from either Lake George or Winterville. Additional stratigraphic support for the phase sequence as well as the material composition of the individual phases is needed. In large part, the evidence from Lake George is based upon the sequencing of mound construction activities at the site. As pointed out by Williams and Brain (cf. 1983:334), the artifact content of the fill from these mounding episodes is scant and/or highly mixed in many instances. Excavation of sites with good stratigraphic sequences will go a long way toward evaluating the areal utility of the constituent assemblages of the Coles Creek phases elicited from the Lake George data base.

As with the preceding phases of the Baytown period, intensive research is needed in order to delineate the non-ceramic portions of the Coles Creek assemblages. Such work will be required not only to identify other diagnostics which can be used in making phase assignments for sites but also in determining site function.

At present, the settlement pattern for the Coles Creek culture is primarily based a bipartite division of sites based upon the presence or absence of substructural mounds. Mound sites are inferred to serve as ceremonial centers for a collection of hamlets comprised of a single or small number of families subsisting on a combination of hunting and

agriculture. To date, very few of these hamlets have been identified and whether they functioned as self-sufficient entities remains untested. The comparability of hamlet sites should be assessed based upon such criteria as tool assemblages, site permanence indicators, and subsistence remains. Such comparisons are necessary in order to determine the potential for variability among sites and the possibility of site specialization.

Unlike the preceding Baytown phases, variation in site plan plays a considerable role in phase formulation during the Coles Creek period. In general, a trend is seen toward elaboration and reorientation of site plan for those sites classified as ceremonial centers. Although such a directional trend is reasonable, supportive evidence is presently inadequate. The majority of the sites employed in substantiating this contention remain unexcavated. Williams and Brain's (1983:371) statement that "many other mound sites have Aden phase components as well, but without excavation it is quite impossible to identify positively structures with specific occupations" illustrates the need for subsurface verification.

Similarly, the assertion that Coles Creek ceremonial centers change from non-residential to residential sites during the latter (Crippen Point) phase is in need of additional supportive evidence. Presently, this situation is only indicated by the extensive Crippen Point phase midden at the Lake George site.

A very important and yet unresolved issue concerning Coles Creek is the role of agriculture within the subsistence strategy of this culture. The consistent association between Coles Creek sites and highly arable alluvial soils has been employed in inferring the existence of agriculture during this period. However, archaeological evidence in the form of actual remains of cultigens is yet to be produced. Brain (1971:60) has attributed this situation to the lack of excavated sites. While this may be the correct explanation, until cultigens are produced in good context, the contribution of agriculture toward the perpetuation of the Coles Creek culture must continue to be questioned. Recent studies of Coles Creek subsistence practices (in Louisiana) indicate that maize did not play a significant role (Fritz 1988, Rose et al 1984). It has alternatively been postulated that intensive cultivation and storage of wild plants served as the subsistence base for Coles Creek (Kidder 1988).

A further expansion of the cultigen issue concerns the assertion that environmental factors are responsible for the failure of the Coles Creek culture to penetrate into the northern portions of the Yazoo Basin (Williams and Bran 1983:408). Others contend that the absence of the Coles Creek culture in the area is due to cultural factors (Brookes and Potts 1981). Considering the minimal evidence for the existence of agriculture during the Coles Creek period, an argument predicated upon environmental deterrence is certainly premature at this point.

Obviously, the resolution of this issue is critical in the arrival at an accurate conception of the Coles Creek culture. Finally, in terms of subsistence issues the role of the bow and arrow and its effect upon the overall cultural configuration during the Coles Creek period is in need of further investigation. Brain (1971) and Williams and Brain (1983) contend the resulting changes are wide ranging, in large part accounting for the success of the Coles Creek culture.

An additional subsistence related issue concerns an inferred change in subsistence strategy based upon the available faunal evidence. As previously noted, Belmont (in Williams and Brain 1983:468) perceives and increased interest in the taking of particular terrestrial animals with an emphasis upon those susceptible to communal drives, ultimately causing a decrease in the amount of time expended in hunting activities. The verification of this pattern outside of the confines of the Lake George site is required. Again, close examination of numerous sites will be necessary to determine the legitimacy of this proposed innovation.

A most noteworthy achievement exists in relation to the development of the definition of the latter (i.e., Crippen Point) phase of the Coles Creek culture. Unlike the majority of the phases for the Post-Archaic period, ceramic evidence does not serve as the overriding factor in the formulation of the Crippen Point phase. Thus, although shell tempered ceramics a Mississippian marker, are present within this phase, these materials are not taken to automatically imply a Mississippian cultural pattern, thus illustrating the importance of cultures being perceived as functioning entities and not just pottery aggregations.

The fact that shell tempered pottery appears in the latter part of the Crippen Point phase does, however, signal the appearance of Mississippian influence within the Coles Creek culture. As such, sites with late Crippen Point components should be closely monitored in order to evaluate the manner in which the Mississippianization of locally rooted cultures came to pass.

The Northern Subarea

Similar to the situation for the Baytown period in the northern subarea, relatively little is known of the Coles Creek period in this locale. While the Coles Creek culture had firmly established itself within the southern portion of the Yazoo Basin during this period, the available evidence indicates that the Baytown culture persisted to the north. Aside from the presence of a few of the Coles Creek ceramic types, evidence of the influence of the Coles Creek culture in this area appears to be lacking. Thus the somewhat awkward situation of having a Coles Creek period occupied by a predominately Baytown culture in this portion of the Yazoo Basin.

Peabody Phase

The Peabody phase is synonymous with the Coles Creek period in the majority of the northern Yazoo subarea. As proposed by Phillips (1970:917-918), it is a very tentative formulation. Distinguishing characteristics, as might be expected, are ceramic. Considered indicative by Phillips are a relatively greater proportion of Baytown Plain than Mulberry Creek Cordmarked, lesser amount of Larto Red and minimal quantities of Coles Creek Incised, Chevalier Stamped, and Baytown Plain with an incised, broad and inslanting lip. Withers Fabric Marked and Indian Bay Stamped, both of which were present during the preceding Coahoma phase (according to Phillips), are absent. The continuity between Coahoma and Peabody phases is illustrated by Phillips' (1970:917) statement that of the twenty-eight sites identified as having Peabody components, twenty also have components of the Coahoma phase.

Although working from limited evidence, Brookes (1983; 1988) has brought some clarity to the definition of the Peabody phase. His observations are based in large part upon salvage excavations at the Barner site (22-Co-542). While non-ceramic evidence is considered, ceramics continue to comprise the foundation of the Peabody phase. Brookes maintains, however, that several of the ceramic criteria employed by Phillips, particularly the preponderance of Baytown Plain over Mulberry Creek Cordmarked, are unsubstantiated. Further, while concurring that Withers Fabric Marked and Indian Bay Stamped are absent in Peabody phase assemblages, they are also said to be missing during the preceding Coahoma phase, restricting these types to the Marksville period in this area. Coles Creek Incised, var. Barner is coined to identify those Baytown Plain materials with incised, broad lips. Shellwood Cord Impressed, var. Big Creek is created to designate those sherds of Coles Creek derivation where cord-impressing replaces incised line decoration. These two newly designated ceramic types along with French Fork incised are important indicators for the Peabody phase. Brookes (1988) also considers Officer Punctate and Keo Incised to be Peabody phase diagnostics.

While Edwards Stemmed and Gary var. Mayborn points are present during this phase, Collins points predominate and herald the appearance of the bow and arrow in this area (Brookes 1988). Alba and Scallorn points (made of exotic chert) are also noted from the Bonds (22-Tu-530) site.

For settlement pattern purposes Brookes (1980,1988) includes twenty-three sites, only four of which were employed by Phillips. A linear pattern of sites situated upon old natural levees away from the active Mississippi River channel is noted with sites clustering within MRC Tiers 15 and 16. The large quantities of sherds in combination with bell-shaped pits and wall trench structures indicate long term occupations. Based upon floral and faunal remains at Barner, a subsistence strategy

incorporating a wide range of exploitative techniques is indicated with a focus upon resources typical of a riverine environment. No mention is made of shell middens or large quantities of shell within pit features. As with the preceding Baytown period, evidence for horticulture and/or agriculture is lacking with the notable exception of charred maize fragments recovered from a debatably Peabody phase pit feature at the Bobo site (Brookes and Potts 1981).

Although no stratigraphic data are available for the Peabody phase, two radiocarbon dates are employed in establishing the A.D. 850-1000 chronological framework for the Peabody phase (Brookes 1980:Fig. 4). The first, A.D. 875, was derived from wood charcoal excavated from a bell-shaped, sherd-lined pit at the Barner site. The second, from a wall trench structure at the Bobo site (22-Co-535), produced a date of A.D. 890. The association of the Bobo site date with a wall trench house is used to argue that wall trench houses occur prior to the appearance of Mississippian cultures in the area. A wall trench structure at the Barner site is also attributed to the Peabody phase as is a square, possibly unroofed one from Oliver (22-Co-503). However, it should be noted that although this site is considered to be primarily a Peabody phase site, an areally isolated Mississippian component is also present and a third C-14 date from the site (A.D. 1275) recovered from a maize containing pit feature, falls within the Mississippi period.

Issues of Relevance to Further Research

As discussed above, the chronological alignment of the Peabody phase is predicated upon two radiocarbon dates, one of which is controversial due to its association with a potentially Mississippian wall trench structure. Additional C-14 assays are needed for resolving this issue. Stratigraphic data is also needed in order to gain a better perspective on the nature of the relationship between this phase and the preceding Coahoma phase. A delineation of the Peabody phase beyond its ceramic and projectile point assemblages is needed. Brookes (1983) has made a start by suggesting that bell-shaped pits and wall trench houses are components of the overall cultural inventory for this phase.

An expansion of the data base from which settlement-subsistence studies can be undertaken is also needed. Materials from Phillips' Peabody sites should be reevaluated. Combining of relevant sites with Brookes' Peabody phase sites will provide an important step in further assessing settlement patterning and its implication for subsistence strategies.

The minimal evidence for maize within this area suggests that agriculture was not an important component in the subsistence regime of the Coles Creek period inhabitants. Contrasting explanations have been offered as to why this is so. Williams and Brain (1983) speculate that the absence of this cultigen is due to climatic variable, specifically the

incompatibility of tropical flint corn with the relatively cooler temperatures of the northern Yazoo. Alternatively, Brookes and Potts (1981) maintain that the paucity of maize is due to cultural factors, particularly the hesitancy for groups with a successful hunting/gathering subsistence base to adopt agricultural innovations. A final resolution of this question remains to be achieved, although considering the present lack of evidence for maize agriculture within the Yazoo Basin during the Coles Creek Period, this may prove to be another "moot point".

The appearance of pyramidal mound construction within the Lower Mississippi River Valley is generally attributed to the Coles Creek period. However, to date, there is no direct evidence to indicate that mound construction (of any type) was carried out during the Peabody phase. Although Phillips (1970:918) notes several sites with Peabody phase components and associated rectangular mounds, later components which may be responsible for their construction are also present. Excavation at Peabody phase sites with associated mounds will be necessary to resolve this issue.

Walnut Phase

Coles Creek period sites within the uppermost reaches of the Yazoo Basin are included within the Walnut Bend phase (Phillips 1970:914:916). Sites associated with this phase are most numerous within Tiers 12 and 13. Distribution of sites of the Walnut Bend phase is coincident with those of the preceding Baytown phase in this area. The only diagnostic of this phase is the ceramic type Wheeler Check Stamped. Baytown Plain and Mulberry Creek Cordmarked dominate the ceramic assemblage. Minority types include Larto Red, Evansville Punctated, Coles Creek Incised, and French Fork incised. The sandy version of Baytown and Mulberry Creek (i.e., vars. Thomas and Blue Lake, respectively) are also noted in small amounts.

Phillips (1970:915) indicates hesitation in assigning several sites in the upper Yazoo Basin, including Wither (22-Ds-515) and Lake Cormorant (22-Ds-501), to this phase, questioning the legitimacy of Wheeler Check Stamped as an accurate indicator in this area. Information concerning this phase is apparently derived completely from surface collections. As such, both stratigraphic evidence and radiocarbon information are unavailable. Phillips' (1970:916) states that Walnut Bend may in fact span the entirety of both the Baytown and Coles Creek periods. What is known about the phase is that although it is attributable (in part) to the Coles Creek period, it is certainly not a component of the Coles creek cultural tradition.

Issues of Relevance to Further Research

The present state of knowledge concerning the Walnut Bend phase is basically the same as that presented by Phillips (1970), that is, practically nil. Thus, research is needed into literally every avenue of archaeological inquiry associated with it.

Mississippi Period

During the late prehistoric period, an interregional florescence occurred throughout much of the Eastern Woodlands. This climax, associated with the Mississippian complex, is closely correlated with the major river valleys in this region and most easily identified by the presence of substructural mounds and shell tempered ceramic (see Muller 1978).

During this period, a hierarchical arrangement of sites prevails including major ceremonial centers, local centers, smaller settlements, farmsteads, and special function sites. Social structure is also hierarchical and a stratified society evident. A redistributive economy indicative of a chiefdom level social organization is in operation.

Increased hostility and warfare are apparent as many sites exhibit fortifications such as palisades and moats. This climate is further indicated by arrow point/human skeletal associations suggestive of individuals killed as the result of hostile encounters.

An increased emphasis upon religion is also evident which may be partially associated with the Southeastern Ceremonial Complex (Southern Cult) although the exact relationship between this phenomenon and the Mississippian complex is yet to be adequately discriminated (Galloway 1989).

At the base of all the Mississippian cultural subsystems was a concern for the continuation of the agricultural subsistence strategy upon which this social structure was dependent for survival.

In the lower Yazoo Basin this final prehistoric period has been extensively reported in a publication concerning archaeological investigations at the Lake George site (22-Yz-557) (Williams and Brain 1983) (see also Brain 1988). The authors of this volume have had considerable input into previous treaties on the Mississippi period in this area (see Phillips 1970, Williams 1954 and n.d., Brain 1969, 1971), and will be extensively cited in the following presentation.

The northern portion of the basin has received less attention. Major sources of reference for this subarea are Phillips (1970) and Brain (1988). Others will be cited where appropriate.

In general, the Mississippi period constitutes that portion of prehistory during which local, indigenous cultures were exposed to and internalized various aspects of a pervasive and pan-regional Mississippian "culture." Traditionally, the core of this Mississippian regime has been attributed to a "heartland" within the Central Mississippi Valley from which influence and ultimate domination

emanated. Recently, many researchers have set aside this scenario in favor of one place greater emphasis upon local development and selective adoption of extraregional inputs (see Smith 1984 for an overview of this position, see also Griffin 1990).

As portrayed by Williams and Brain (1983:408) "from the perspective of the southern portion of the Lower Mississippi Valley, 'Mississippian' denotes those elements that are foreign to the indigenous Coles Creek culture of the Lower Valley tradition but were increasingly adopted, adapted, and absorbed during the last half-millennium of prehistory." Further, "Mississippian is defined as a particular subsistence pattern and attendant behavior (i.e., male dominated/intensive maize, bean, and squash agriculture)" (Williams and Brain 1983:416).

The temporal span for the Mississippi period within the Yazoo Basin is ca. 1200 to 1700 (Williams and Brain 1983:414 and fig. 11.4). However, in order to adequately address this period it is necessary to regress another 200 years to a time characterized by the Crippen Point phase of the Coles Creek period for it is during this period that Mississippian characteristics can first be observed. Initially, these relate only to ceramic technology, particularly the use of shell as a tempering agent. This introduction was evidently the result of "secondary diffusion" and had little affect upon the overall cultural system or even the ceramic component of the indigenous population at this early stage.

However, with time, an increasingly larger portion of the Mississippian cultural inventory was adopted with the ultimate result being the "Mississippianization" of the majority of the Yazoo Basin. Characteristic of this phenomenon are an increased (?) and spatially expanded population, a subsistence base incorporating agriculture, and the rise of large ceremonial centers exhibiting elaborate and well designed configurations of large platform mounds and plazas.

Williams and Brain (1983) have organized the events associated with this period into three stages (i.e., initial contact, ecumene, and demographic displacement). This scheme will be summarized here in reviewing the general trends associated with the Mississippi period. More specific information will be provided in following sections wherein the various phases which have been constructed for this period of Yazoo Basin prehistory are addressed.

Initial Contact

The period attributed to initial Mississippian contact in the lower Yazoo Basin (ca. A.D. 1000-1200) occurs within the framework of the terminal phase for the Coles Creek culture (i.e., Crippen Point). The Mississippian character of this phase is indicated by the fact that earlier cultural/chronological reconstructions (cf. Phillips 1970:fig. 2) placed the Crippen Point phase within the Mississippi period. Williams and Brain's (1983) rationale for relegating this phase to the Coles Creek period is

based on the assertion that Mississippian associations are present only within the ceramic subsystem at this point and are the result of indirect contact with extraregional cultures. This initial intermingling of Coles Creek and Mississippian traits characterizes what has come to be known as the local expression of the Plaquemine culture in this area.

As the Crippen Point phase begins to draw to a close, much stronger and more direct ties with northern Mississippian cultures (particularly the Cahokia area of west-central Illinois) are indicated. This increased identification of local groups with extra-regional populations the transition from the initial contact to ecumene stages.

Examination of the distribution of Cahokia diagnostics within the lower Mississippi Valley suggest to Williams and Brain (1983) that direct contact was established with local populations along the active channel of the Mississippi River with a particular affinity for locales associated with junctures of the Mississippi and major tributary streams. An additional grouping of sites distributed along the Yazoo River is distinguished from those along the Mississippi by the lack of Cahokia diagnostics. Although inadequately documented, it has been proposed that these sites reflect a continuation of a pattern of colonization begun at the upper Yazoo Buford site (22-Tl-501) (see Marshall 1988), and initiated by the early Mississippian occupants of the Big Lake phase in northeastern Arkansas (Williams and Brain 1983:411).

Ecumene

As previously noted, the establishment of direct contact with the Cahokia area heralds the ecumene stage within the Yazoo Basin. For the most part, the direct introduction of Mississippian traits appears to have been accomplished through the efforts of small groups as no evidence of large scale population movements into the area are indicated at this time. Although the nature of this contact remains poorly understood, the material evidence in support of this contact is irrefutable.

Indicative of the temporal placement of this interregional contact are the presence of the ceramic types Powell Plain, Ramey Incised, Tippetts (bean pot), and Cahokia Cord Marked. The co-occurrence of these types is characteristic of the Moorehead phase at Cahokia. The beginning of the ecumene stage (ca. A.D. 1200) corresponds with the A.D. 1150-1250 timeframe for the Moorehead phase in the Cahokia area. Griffin (1986) argues for an earlier (Sterling phase) Cahokian contact.

Aside from the incorporation of additional Mississippian ceramic characteristics including new vessel forms and decorative techniques into the local cultural base, the increased use of rectangular wall trench houses and Mississippi Triangular projectile points are indicative of an increased Mississippian influence in the area. Further, settlement patterns, site plans, and mound construction activities point to a Mississippian presence.

In general, the ecumene stage is distinguished by massive public works projects as signified by an increased emphasis on mound construction, alteration in site plan orientation, and an enhancement of site size. Major centers, located at critical junctures of the Mississippi River and its tributaries, become local points for their particular locales and a nucleated settlement pattern is evidenced.

It is also during this stage that the broadcast boundaries of Mississippian influence were established. While the entirety of the Yazoo Basin ultimately becomes subsumed by this Mississippian scheme, Lower Valley manifestations to the south and west of this area only partially assimilate Mississippian characteristics, thus comprising the late prehistoric Plaquemine culture. The ecumene stage connotes an interregional florescence, "a climax of classic proportions" (Williams and Brain 1983:413), involving both the Mississippian and Plaquemine cultural traditions within the lower Mississippi Valley.

Demographic Displacement

The period from A.D. 1400-1700 within the Lower Valley is one characterized by a decrease in population as well as a marked increase in population movement within the valley. Although initially small and short-reaching, these movements steadily increased in size and scope, eventually culminating in long-distance mass migrations. In summary this stage marks the last gasp of prehistoric aboriginal culture within the Lower Valley and represents an unfortunate epilogue to the vitality of the Mississippian culture which had prospered only a short time before.

Mississippian Phases within the Yazoo Basin

Comprising the Mississippi period within the Yazoo Basin are a myriad of phases, some much better substantiated than others. Those associated with the lower portions of the Yazoo Basin (i.e., Winterville, Lake George, Wasp Lake, and Russell) have received the most extensive documentation. As such, these temporally sequential phases will be presented first, followed by the remaining and generally more tenuous phase constructs which have been proposed for the remainder of the basin.

The Southern Subarea Winterville Phase

Winterville is the earliest of the phases for the Mississippi period within the lower Yazoo Basin. As expressed by Williams and Brain (1983:378) it represents a cultural climax, the magnitude of which was never again attained by the aboriginal inhabitants of this area. Diagnostic of this phase are a considerable array of this area. Diagnostic of this phase are a considerable array of ceramic and non-ceramic items. The diversity of this assemblage and the vitality of this cultural

expression is attributed to the coalescing of local (Coles Creek) and foreign (Cahokian) traits which occurred at this time.

Most characteristic of the Winterville phase is the implementation of large public works projects resulting in the elaboration of specific site plans, particularly the embellishment of a single mound to produce a focal point consistently occurring at the western edge of a multi-mound and plaza arrangement. This trend is one which can be documented at several sites including Lake George (22-Yz-557), Winterville (22-Ws-500), and Mayersville (22-Is-500). It is assumed that the local (indigenous) population was responsible for these impressive constructions as an influx of large numbers of people is not indicated by either a change in settlement pattern or an increase in population density during this time.

Site distribution is oriented toward the active Mississippi River channel. The consistent occurrence of major Winterville phase sites at junctures of the Mississippi River and primary tributary streams suggests (to Williams and Brain) an attempt to control the avenues of communication. Although the Lake George site is not situated at such a location, its placement at the center of the interior drainage system is thought to provide this site with a considerable amount of control within the basin (Williams and Brain 1983:378).

During this phase, the Lake George and Winterville sites are characterized as vacant ceremonial centers. That is, although a small "elite" may have occupied these sites the majority of the local population was dispersed in neighboring hamlets. Presumably the situation at these two sites is representative of the settlement configuration for the phase in general. A repopulation of the upper Yazoo Basin at this time is also evident. However, with the exception of the Shell Bluff site (22-Lf-505), these sites are distinguishable from those along the Mississippi River by their lack of Cahokia diagnostics. As previously noted, one explanation for this divergence is that sites in this area are the result of a separate Mississippian thrust originating in northeast Arkansas (see Marshall 1987,1988).

Ceramically, the Winterville phase is characterized by the Yazoo 2 and Yazoo 3 subsets (both apparently representing local imitations of northern Mississippian assemblages) and the Greenville set (considered in city development). Component types of the Yazoo 2 subset include Barton Incised, var. Barton; Grace Brushed, var. Grace; Pouncey Pinched, var. Patmos; Winterville Incised, var. Blum; and Winterville Incised, var. Rising Sun. Some imported vessels also are present. Yazoo 3 represents a Mississippian influenced yet almost completely locally produced ceramic subset. Component types include Barton Incised, var. Estill; Mound Place Incised, var. False River; Parkin Punctated, var. Holland and Transylvania; and Winterville Incised, var. Winterville. Vessel forms are predominantly jars and simple bowls.

Finally, the Greenville ceramic set is also present. Local/foreign hybridization is apparent within this category. The Addis-like paste and surface treatment are of local (Coles Creek) origin. However, Mississippian influences are also present as evidenced by the range of vessel forms (including complex and carinated bowls, plates, and bottles), elaborate incised and engraved designs (both interior and exterior) and the use of shell as the primary (although not exclusive) temper.

As previously noted, the non-ceramic inventory for this phase is also extensive. The Bayougoula point (Bayougoula Fishtailed, var. Bayougoula) is considered diagnostic although its origins are uncertain (Williams and Brain (1983:338). Other lithic items associated with this phase (at Lake George) include the Edwards Stemmed, var. Sunflower projectile point, plane scrapers, chunky stones, irregular palettes, grinders, and ocher. Bone and antler tools including awls, pins, projectile points, and flakers are also present. Within the non-vessel ceramic category are elbow pipes, figurines, knobbed earplugs, and ladies (Williams and Brain 1983:fig. 9.23).

Analysis of faunal remains from Lake George provides no specific information concerning the Winterville phase occupation. However, Belmont's (in Williams and Brain 1983:468-469) comment that a trend is evident in which generalized exploitation of wild faunal resources during the earlier Bayland phase is abandoned in favor of the hunting of deer and rabbit might be employed to infer that the latter might characterize Mississippian hunting strategies, at least in the southern portions of the Yazoo Basin.

Based upon evidence from both the Lake George, and Winterville, sites the temporal placement of the Winterville phase is fairly well established. Relevant C-14 dates include assays of A.D. 1220, 1230, and 1310 at Winterville and a date of A.D. 1330 from Lake George. According to Williams and Brain (1983:fig. 11.4), the Winterville phase extends from A.D. 1200-1350.

Lake George Phase

The Lake George phase represents the period in which the lower Yazoo Basin become totally immersed in the Mississippian cultural pattern. Although the transition from the Winterville to Lake George phases is gradual, the two can be compared and contrasted using several lines of evidence. While the population expansion noted during the Winterville phase continues, an inland orientation becomes evident. Lake George phase sites occur throughout the lower Yazoo Basin, including the Sunflower drainage which had been practically uninhabited since the Marksville period. An increase in numbers of ceremonial centers is observed yet these are generally smaller and more widely distributed than those attributed to the Winterville phase and

there appears to be a reduction in occupancy of these major centers. It is believed that the Lake George site was abandoned by the end of the Lake George phase. However, some construction continues as it is during this phase that the moat at the site was created.

Although minimal indications of "Southern Cult" influences are apparent during this phase, the religious subsystem of the Lake George phase is a continuation of the Mississippian ideology practiced during the preceding Winterville phase. A direct correlation between Mississippian religious practices and the "Southern Cult" are as equivocal within the Yazoo Basin as in the majority of the extensive portion of the eastern United States falling under direct Mississippian influences.

The agricultural base utilized during the Winterville phase expanded during the Lake George phase. Floodplains of major and lesser drainages alike are extensively employed for crop propagation. Again, this agricultural base is supplemented by exploitation of the rich floral and faunal floodplain resources.

The ceramic inventory of the Lake George phase is represented by the Yazoo 4 and 5 subsets and the Holly Bluff set. The Yazoo 4 and 5 materials which dominate the Lake George phase ceramic assemblage are continuations of the earlier Yazoo subsets and display an "overwhelming Mississippian cast" (Williams and Brain 1983:381). Only the finer (ceremonial?) vessels attributed to the Holly Bluff set reflect a connection with the indigenous ceramic tradition. Ceramic types included within the Yazoo 4 subset include Barton Incised, vars. Arcola, Midnight, and Togo; and Winterville Incised, var. Belzoni. Vessel forms are simple and complex bowls and small jars. According to Williams and Brain (1983:323), "in the many individual characteristic, this subset most closely approximates a 'Classical' regional expression." The Yazoo 5 subset is comprised of the types Owens Punctated, vars. Menard, Poor Joe, and Widow Creek; and Winterville Incised, var. Ranch. Jars comparable to those of the Yazoo 4 subset represent the most common vessel form.

As previously noted, the Holly Bluff set which composes a small portion of the overall ceramic assemblage for the Lake George phase represents the only ceramic link with the local manufacturing technology. This ware generally exhibits a finer paste than its Yazoo counterparts. The Holly Bluff set is divided into two subsets based upon subtle differences in paste and decorative intent which are thought to have temporal significance at the Lake George site (Williams and Brain 1983:320).

The Holly Bluff 1 subset consists of simple bowls and short necked bottles of the types Leland Incised, vars. Leland and Ferris; and Maddox Engraved, var. Silver City. The Holly Bluff 2 subset exhibits a coarser paste and less well executed decoration with designs becoming simpler

and more widely spread. Component types include Leland Incised, vars. Blanchard, Deep Bayou, Fatherland, Russell, and Williams; and Owens Punctated, var. Beland City. Vessel forms are similar to those of Holly Bluff 1 although generally larger and composite (carinated) bowls are said to occur with greater frequency (Williams and Brain 1983:320). Also included within the ceramic inventory are the painted trade wares Nodena Red and White and Avenue Polychrome.

Non-ceramic Lake George phase diagnostics are considerable Madison (Mississippi Triangular, var. Madison) projectile points, pebble celts, pipe drills, and certain scraper types are associated with the phase. Evidence from the Lake George site indicates an increased emphasis upon chipped and ground stone tools at the expense of bone and antler items more common in earlier (Plaquemine) phases.

Temporal placement for the Lake George phase is based upon three radiocarbon dates from the Lake George and Winterville sites. The assays all correspond to the middle portions of the phase. The two dates from Lake George are both A.D. 1420 (+-115). An additional date of A.D. 1410 (+-110) is cited from Winterville. Thus, the beginning of the Lake George phase is designated as A.D. 1350 with the phase coming to a close ca. A.D. 1500 (see Williams and Brain 1983:fig. 11.4).

Wasp Lake Phase

Wasp Lake represents the final prehistoric phase within the lower Yazoo Basin. It can be considered protohistoric as well since it was during this period that initial contact was made with Europeans as a result of the De Soto entrada. However, this initial cross-cultural encounter appears to have had little if any immediate effect upon the indigenous population. Whether this is due to the effect upon the indigenous population. Whether this is due to the temporary nature of these exchanges, the lack of refinement in archaeological investigations or other factors remains to be determined.

Exemplary of this phase is a decline in the size of the aboriginal population (see Ramenofsky 1984). An occupational shift is observable as the mainstream Mississippi River focus falls into disfavor in preference for interior locales with the upper portions of the Yazoo River and Deer Creek serving as primary settlement loci. The presence of the Haynes Bluff site (22-Wr-501) at the confluence of these two streams suggests a continuing interest in riverine lines of communication.

Some mound construction continues with site plans becoming oriented toward a focal mound at the northern side of the site. Small, multi-mound and plaza arrangements persist.

Again, ceramics represent the primary diagnostic. This artifact class is characterized by the Holly Bluff 2 and Yazoo 5 subsets, both of which are also attributed to the latter portion of the Lake George phase and have been discussed under that heading. Exotic painted and engraved

wares are also present which indicate an association between the Wasp Lake phase and the St. Francis Basin of northeast Arkansas.

At present, non-ceramic diagnostics are unknown due to the lack of intensive investigations at Wasp Lake phase sites. Again, this is the phase (spanning the years 1541-1673) coinciding with the De Soto entrada and terminating with European (French) contact (see Williams and Brain 1983:fig. 11.4).

Russell Phase

The Russell phase constitutes that period within the lower Yazoo Basin in which the European cultural tradition is introduced. As such, it also represents the final phase of Indian occupation in this area (Williams and Brain 1983:382). By this point, the aboriginal population was drastically reduced and restricted to a small area at the bluff base along the eastern margin of the basin (see Williams and Brain 1983:fig. 11.22). Apparently the remainder of the lower Yazoo Basin contained no permanent occupation at this time.

Considering the extensive movement of peoples during this period, it is highly probable that a mixture of cultural groups are represented by the artifactual remains associated with this phase. As evidenced by the early historical account, small politically independent groups were organized at the tribal level. The chiefdom level social organization had apparently disappeared by this time as had the majority of the Mississippian cultural base.

Haynes Bluff, an important site during the Wasp Lake phase, also figures significantly in the Russell phase. This situation suggests a demographic continuity between the two phases (Williams and Brain 1983:384).

While items of European origin are the primary diagnostic of the Russell phase, aboriginal artifacts are also present. The native ceramic component is completely Mississippian. These materials comprise the final component of the Yazoo ceramic set (Yazoo 6 ceramic subset?). Included types are Barton Incised, var. Portland; Winterville Incised, var. Tunica; Owens Punctated, var. Menard; Wallace Incised and Old Town Red. Other diagnostics include small, snub-nosed end scrapers and the Russell projectile point (Williams and Brain 1983:384).

Although mound building is probably not an important aspect of this phase, some construction was noted during the 1974 excavations at Haynes Bluff (Brain 1988:247), and pyramidal mounds continued to be utilized by Russell phase populations.

The temporal framework for the Russell phase is a matter of historical record, beginning with contact between French explorers and native populations at the end of the seventeenth century and terminating with the dispersal of the various historic tribes of the Yazoo Basin ca. 1730.

Central and Northern Subareas

In addition to the lower Yazoo Basin phases discussed above, others have been instituted for the Mississippi period occupations of central and northern portions of the basin. Included among these are the Buford, Walls, Kent, Quitman, and Hushpuckena, Oliver, and Parchman phases.

Buford Phase

The Buford phase was instituted to characterize a group of sites within the Cassidy Bayou area of the Upper Yazoo Basin (Marshall 1988). As conceived, this phase is representative of what has come to be known as Emergent Mississippian in recent years (Marshall 1987). The phase is tenuously supported by limited work at the Buford site (22-Tl-501) where excavations in midden deposits at the foot of the platform mound produced a mixed collection of Late Woodland and Mississippian ceramics. Among these were found a considerable number of Varney Red Filmed sherds, a ceramic type which had previously served as a marker for Emergent Mississippian cultures in other areas, particularly Northeast Arkansas and Southeast Missouri. similar materials also known from a shell number of widely dispersed sites throughout the Yazoo Basin including Winterville (22-Ws-500), Carson (22-Co-505), Craig (22-Co-566), and French (22-Ho-565) (Marshall 1988:197).

Unfortunately, due to the mixed nature of the Buford deposits and the small amount of work done at the site, little more can be said of this phase at this point. Brookes (Marshall 1988:198) has suggested that microlithic tools and while (Crescent Quarry) chert recently recovered from the site surface may also belong to this component. If so, these provide additional shared traits with the Emergent Mississippian complexes of Northeast Arkansas, Southeast Missouri, and the Cahokia area. As of yet the Buford phase cannot be dated as no materials appropriate for C-14 dating have been recovered. Marshall (1987:163) speculates that this phase represents an intrusion from the Big Lake Phase population of Northeast Arkansas prior to the end of the Coles Creek period and before the onset of Cahokia area influences. Whether or not the Buford phase represents a cultural intrusion remains a point of contention (see Brain 1971:75, Marshall 1988, Appendix B; Gibson 1988). Regardless, at this point it shows the greatest potential for an Emergent Mississippian expression within the northern portions of the Yazoo Basin.

Walls Phase

The Walls phase represents the northernmost grouping of Mississippian sites within the Yazoo Basin. Geographically sites attributed to this phase are centered within that area directly to the south of Memphis, Tennessee. Phillips (1970:936) asserts that components of this phase represent a contemporaneous and tightly

clustered cultural grouping possible comprising the most satisfactorily reported phase in his investigations.

Artifactual indicators listed for this phase are entirely ceramic (see Phillips 1970:936). typical ceramic types include Bell Plain; Mississippi Plain, var. Neeley's Ferry, Parkin Punctated, Barton Incised, and Old Town Red. Of lesser occurrence are Barton Incised, var. Kent; Winterville Incised, var. Ranch, Rhodes Incised, Walls Engraved, var. Walls; Nodena Red and White, Avenue Polychrome, Fortune Noded, Tyronza Punctated, Walls Engraved, var. Hull, Mound Place Incised, and Carson Red on Buff. Characteristic of this phase is the predominance of Bell Plain over combination with well executed painted and incised wares is indicative of Walls components. Excavations by the Lower Mississippi Valley Survey (see Phillips, Ford, and Griffin 1951) at the Walls Site, represent the only stratigraphic evidence for the Walls phase. Although subdivision of this phase is suggest by the evidence from the Walls site, corroborative information has yet to be documented at other sites.

Kent Phase

The Kent phase is predicated upon ceramic differences with the neighboring Walls and Parkin phases (see Phillips 1970:938-939). In general character this phase is more closely associated with the Walls phase. However, it was separated out based upon relatively greater proportions of the types Barton Incised var. Kent, Old Town Red, and other painted types.

Although the type site is located to the west of the Mississippi River, according to Phillips (1970:938) the Kent phase was extended into the Yazoo Basin in an attempt to preserve the integrity of the Walls phase. More recently Brain et al. (1974:282) have reassigned several of Phillips' east-of-the Mississippi Kent phase sites including Hollywood (22-Tu-500), and Commerce (22-Tu-504) (as well as Belle Meade [22- -]), to the Walls phase based upon settlement pattern information.

The northern boundary for the Kent phase coincides with the southern boundary of the Parkin phase within the St. Francis River Basin at approximately the latitude of MRC Tier 13. The southern boundary corresponded with the northern terminus for the Old Town phase.

The chronological positioning of this phase is inferred to be relatively late based upon the later look of the Kent phase vessels as compared to those of the Walls phase (Phillips 1970:939). A possible Kent phase affiliate is the Flowers #3 site (22-Tu-518). Salvage excavations at this site revealed a cemetery and village area (see Connaway 1981). The cemetery area was composed of 10 burial pits including a minimum of 14 individuals, all bundle burials. Twenty-four house patterns were also identified. All of these were rectangular, wall trench structures with the exception of a single circular structure. Floral remain from the site

include corn, persimmon, wild bean, wild grape, sedge, knotweed, hickory, and pecan. Four radiocarbon dates from the site range from A.D. 1380 to 1705, suggesting an extensive period of occupation.

Quitman Phase

Quitman can be summarily described as the phase comprised of those sites within the Tallahatchie drainage exhibiting shell tempered pottery. Although not considered ceramically comparable to the Parchman, Hushpuckena, or Oliver phases, samples are generally inadequate (Phillips 1970:940). Brain et al. (1974:283) maintain that, based upon the lack of European artifacts at Quitman phase sites, this phase had terminated prior to contact. Interestingly, this phase is not even referenced by Brain (1988) in his discussion of Yazoo Basin Mississippi phases.

Hushpuckena-Oliver Phase (and derivations)

Hushpuckena-Oliver was employed by Phillips (1970) in addressing the Mississippian period within the middle Sunflower and Bogue Phalia drainages. Although subdivided into an early (Hushpuckena) and late (Oliver) component by Belmont (1961) the two were recombined by Phillips (1970) due to lack of adequate information from sites other than Oliver (22-Co-503) which could be employed in making appropriate phase assignments. Thus he, was unable to produce separate areal distribution plots for the two subdivisions. In its combined form Hushpuckena-Oliver phase sites are located within MRC tiers 16-19.

In Phillips' rendering, the ceramic assemblage for this phase is typified by a complete dominance of Mississippi Plain (over Bell Plain), Barton Incised (over Parkin Punctated) rare occurrence of Barton Incised var. Kent; and Walls Engraved, and the common occurrence of Old Town Red and painted wares. Types categorized as "southern" (Phillips 1970:942) include Owens Punctated, Leland Incised, vars. Leland and Blanchard; and Winterville Incised, var. Belzoni. A discussion of the topological differences between Belmont's Hushpuckena and Oliver phases is presented by Phillips (1970:939-940).

The large percentage of unclassifiable ceramics within Hushpuckena-Oliver phase assemblages is attributed in part to a breakdown in the Mississippian ceramic inventory and is considered indicative of cohabitation at sites by several decimated cultural groups during the terminal portions of the Mississippi period. Belmont's (1961) identification of European (French) trade items within Oliver phase burial contexts indicated the continuation of this phase into the eighteenth century A.D. and as pointed out by Phillips (1970:942) brings up the possibility of associating ethnographic groups with this latter (i.e., Oliver) portion of the phase.

As discussed in Brain et al. (1974), the Hushpuckena-Parchman phase corresponds with the territorial units documented at this time by the De Soto entrada. Within this scheme, and as earlier pointed out by Belmont (1961), Oliver represents a later phase of the same area and was extant during the period of French contact.

In discussing the Mississippi period, Williams and Brain (1983:382) allude to a Hushpuckena phase, presenting it as a central Yazoo Basin phase contemporaneous with, yet "probably ethnically distinct from the Wasp Lake phase." Brain (1988) expands upon this statement in his *Tunica Archaeology* volume. Therein the Hushpuckena phase dominates the Sunflower-to-Mississippi River portion of the Yazoo Basin during the fifteenth and sixteenth centuries A.D. The early portion, Hushpuckena I, is characterized by the indigenous Yazoo 5 ceramic subset, along with Avenue Polychrome and Nodena Red and White. The latter portion, Hushpuckena II, is characterized by the Yazoo 7 ceramic subset and Old Town Red and indicates a continuation of the indigenous ceramic tradition. According to Brain (1988:269) Hushpuckena II and its Lower Valley counterparts "are the archaeological manifestations of those vital proveniences encountered by De Soto and his army at the conclusion of the period."

As presented in *Tunica Archaeology*, the Oliver phase is relegated entirely to the early historic period (see Brain 1988:277-280), beginning with the 1673 expedition of Marquette and Joliet. Brain proposes that the Oliver phase occupants of the Yazoo Basin (upper Sunflower River) were of Quapaw derivation. A contemporary and considerably larger Quapaw occupation (the Quapaw phase) is located immediately west of the Oliver phase in the area of the confluences of the Arkansas and Mississippi Rivers.

Ceramically, the Oliver phase is characterized by "Wallace Incised, Old Town Red, and other diagnostics of the Quapaw complex" (Brain 1988:277). A distinctive stone tool assemblage labeled the Oliver Lithic Complex appears at this time which is said to relate to the European influenced deer skin trade which was taking hold to the north and west. By this period the vast majority of the Yazoo Basin, previously a mainstay of Mississippian culture, had been abandoned (cf Brain 1988:fig. 198).

Salvage excavations at the Powell Bayou site (22-Su-516) have provided evidence concerning Hushpuckena phase subsistence, housing, and mound building practices (Connaway and McGahey 1970, Starr 1991 a and b). Recovered food remains included both charred corn and acorns. A pyramidal mound at the site is believed to relate to the Hushpuckena occupation as is one of the wall trench houses atop it. Another wall trench house from another area of the same mound produced a C-14 date of A.D. 1280 \pm 100 (Starr 1991a:32-33) equating this structure with an earlier Mississippian component and indicating

that mound construction began in pre-Hushpuckena times. Although presently unexcavated, the Spendthrift site (22-Co-520) offers similarly promising potential as does the limited work at the Sunflower Landing site (22-Co-713) (Weinstein et al 1985 and Johnson 1990).

Parchman Phase

Parchman was originally presented by Phillips (1970:939) who compared it with the neighboring Kent phase. Although both phases exhibit similar and equal proportions of Mississippi Plain (var. Neeley's Ferry) and Bell Plain, a much greater proportion of Barton Incised (except for var. Kent) as compared to Parkin Punctated is attributed to the Parchman phase. Additionally, Walls is the prevailing variety of Walls Engraved at Kent phase sites while Hull is more characteristic of Parchman. According to Phillips (1970:940) "what it boils down to is the relative numerical importance of Barton Incised var. Barton and the possibility that Hull is a marker for the phase.

Stratigraphic evidence in support of this phase was derived from the Parchman-like ceramic assemblage from the Walls site (22-Ds-500) excavations. The presence of Walls Engraved, var. Hull in the lower component at this site may indicate the Parchman phase to be earlier than the Walls phase.

Rectangular, flat-topped pyramidal mounds are associated with Parchman components including those at Shady Grove (22-Qu-525) (Phillips, Ford, and Griffin 1951; Connaway 1981) and West (22-Tu-520) (Buchner 1990). Investigations at Shady Grove also revealed that Parchman phase mortuary practices incorporated both cremation and bundle burial.

As plotted by Phillips (1970:fig 447), Parchman phase sites are confined to MRC Tiers 14 and 15 east of the Mississippi River. Brookes (1980:fig. 4) presents Parchman as the Mississippi period phase for the upper Sunflower Region, dating from A.D. 1000-1200. Brown (1978:2) maintains that the Carson Mound Group (22-Co-505) is the major Mississippian center in the area at this time while Humber-McWilliams and Bramlett (22-Co-501) are principle village sites (1978:43).

A re-examination of the Parchman phase (Starr in Connaway 1984) generally substantiates Phillips' (1970) formulation. However, two modifications are suggested. First, based upon the ceramic composition of Parchman phase sites, it is proposed that the phase may require extension into the protohistoric period. Two C-14 dates from the Clover Hill site, (22-Co-625) (A.D. 1510 and 1525) are attributed to the earlier portions of this phase. Excavations at the Wilsford site, (22-Co-516) produced a series of dates corresponding to the fifteenth and sixteenth centuries (Connaway 1981:91-92), while Parchman Place (22-Co-511) (Connaway 1985) and Hays (22-Co-612) (Connaway 1981:84) have produced dates of A.D. 1610 and 1705, respectively. Investigations at

the West site (22-Ts-520) have produced several C-14 dates placing occupation at ca. A.D. 1650 (Buchner 1990:20-21). Second, sites within the Coldwater drainage which have been assigned to the Parchman phase may be distinctive enough to be separated out following further investigations (Starr 1984).

Brain (1988:272-273) considers the Parchman phase to be coincident with the protohistoric period in the upper half of the Yazoo Basin. The Yazoo 8 ceramic subset and particularly Winterville Incised var. Tunica and the Tunica Mode of punctuation are said to be diagnostic. From his perspective these artifacts reveal the appearance of the ancestors of the historic Tunica in the area.

Due primarily to salvage archaeology activities carried out by Mississippi Department of Archive and History personnel in the vicinity of Clarksdale (the location of MDAH branch office) a relatively greater amount of data has been accumulated for the Parchman phase than for other Mississippian phases in the upper Yazoo Basin. Included among this information is subsistence evidence. Charred maize fragments have been identified at numerous sites including Parchman Place, Wilsford (Connaway 1984), Hays (Connaway and McGahey 1970), Craig (Connaway and McGahey) Powell Bayou, and Clover Hill (Connaway 1981). Additional flora include hickory nuts (Parchman Place, Hays), persimmons (Parchman Place, Hays, Clover Hill), and goosefoot (Parchman Place). Beans were also identified at Parchman Place, Wilsford, and Clover Hill (Connaway 1981:49) and sunflower is present at Wilsford. Also revealed by investigations at the Wilsford site is the existence of raised platform house structures, a form known from only one other site in this area (Hays).

Issues of Relevance to Further Research

Many questions concerning the Mississippi period in the Yazoo Basin remain to be adequately addressed. Although numerous phases have been introduced in reporting this period, few (if any) are sufficiently delineated. Williams and Brain (1983:340) have pointed out the need for deriving culturally relevant phases, that is phases consisting of more than ceramic assemblages. This goal has been at least partially achieved for the Winterville, Lake George, and Wasp Lake phases of the lower Yazoo Basin by employing inter- and intra-site patterning evidence. However, even in these instances, the reality of these phases as cultural entities remain debatable. The heavy reliance upon information derived from excavations at the Winterville and Lake George sites causes concern as to the applicability of these phase constructs to the overall area thought to be subsumed by them. As illustrated by the previous discussion of other Yazoo Basin Mississippian phases, non-ceramic documentation is minimal-to-absent in most cases, and even the ceramic evidence is often equivocal with sites being assigned to a particular

phase based almost entirely upon their geographical location (cf. Starr's 1984 discussion of the problems with Mississippi period phase identifications within the Upper Yazoo Basin).

The chronological placement of phases within the Mississippi period is based upon inadequate information. Radiocarbon assays are available for only the Winterville, Lake George, Parchman, and Hushpuckena phases. Similarly, stratigraphic evidence is scant. The Winterville and Lake George excavations provide the majority of the information for phase sequencing. As previously noted, some stratigraphic support for the placement of the Parchman phase is indicated by the existence of Parchman-like materials in the lower units of the excavations at the Walls site.

Rectangular wall trench houses have been documented for Mississippian components at several sites and are considered indicative of the period in general. However, radiocarbon evidence suggest that such structures were also present during the latter portions of the preceding late Woodland period (see Connaway 1981:Appendix II). Further, the identification of a circular structure at the Flowers #3 site (Connaway 1981) indicates the continued use of this house form. The discovery of elevated platform structures at the Parchman phase Wilsford site reveals an additional house type for the period. The presence of such structures may have implications beyond increasing the house type inventory. It is necessary to determine whether these are unique occurrences or have a wider distribution among sites of this period. Do such structures reveal an adaptation allowing for year-round occupation of flood prone locations, an alternative to substructural platform mounds, or simply an unusual and site specific phenomenon? Salvage operations at the Hays site (Connaway and McGahey 1970) indicate the presence of similar structures providing additional evidence for the first of these three possibilities. Also in terms of Mississippi period structure types, Hyatt (1975) reports a problematic structure at the late Mississippi Knox Lake site (22-Ws-575) where a square-to-rectangular house exhibited no associated post molds.

In terms of settlement systems, the Mississippi pattern for all but the terminal portion of the period is perceived of as one of ceremonial centers with only a small number of full-time residents present for overseeing groups of smaller villages and hamlets interpreted as farming communities. Although specialized sites such as hunting and resource extraction camps are also assumed to exist, few if any have been isolated or excavated. To date, the larger and more impressive ceremonial sites with their multiple mound and plaza arrangements have received the majority of the attention. As a result, the characteristics of less grandiose and more subsistence oriented sites have been insufficiently examined.

While Mississippian mound sites are considered to function in a ceremonial/religious capacity, the nature of the attendant religious ideology is not well understood. Some have suggested the Southern Cult as the spiritual aspect of the Mississippian lifestyle, although most maintain that within the Mississippi Valley this phenomenon was only minimally embraced. The interrelationship between the Mississippian "culture" and "Southern Cult" remains to be adequately explicated. Considering the limited cult associated evidence within the Yazoo Basin and the Lower Valley in general, the associations between the two appears to be weak although additional research is required to resolve this issue.

Of primary relevance to the issues of settlement, subsistence, and social structure during the Mississippi period is the question of the role of agriculture. As presented by Williams and Brain (1983:416), intensive corn agriculture "may well have been the spark that contributed to the success . . . of the whole Mississippian phenomenon." Finally, during this period we have direct evidence (i.e., charred maize fragments) with which to defend the existence of agriculture. De Soto's chroniclers report the presence of crop surpluses during the mid-sixteenth century. Although the impact of the introduction of this domesticate was undoubtedly substantial, the uniformity of its utilization in Mississippian contexts is still open to question. Based upon the Wilsford site investigations, Connaway (1984:94) has suggested that subsistence at this site was probably as reliant upon hunting, fishing, and gathering as agriculture.

The issue of emergent Mississippi cultures within the Yazoo Basin remains a poorly understood yet critical consideration (see Marshall 1987, 1989). Inherent in any consideration of the appearance Mississippian "culture" in the Lower Valley is the question of the role of extraregional influences. One theory involves the intrusion of small yet influential groups of northerners into the Lower Valley via the major river systems, particularly the Mississippi. However, the presence of early Mississippi materials at inland sites such as Buford, Shell Bluff, and French (22-Ho-565) indicates that the appearance of Mississippian influences is not a simplistic issue.

The genetic composition of the Yazoo Basin during the Mississippi period remains unresolved. Williams and Brain contend that the work force responsible for the major earthwork projects is of local origin (1983:376), a view consistent with the interpretation that northern influences are not the result of mass migrations. However, it is also proposed that "by the end of the aboriginal occupation, the Yazoo was Mississippian genetically as well as culturally" (ibid:392). As pointed out by Williams and Brain (1983:376), these observations are untested using osteological data.

Also attributed to the appearance of Mississippian influences within the Lower Valley is the rise of the Plaquemine culture. While the encounter between northern Mississippian and indigenous Coles Creek groups ultimately resulted in the total acculturation of Yazoo Basin into the Mississippian pattern, the majority of the lower Mississippi River Valley continued within an indigenous (yet Mississippian influenced) cultural pattern (i.e., Plaquemine) throughout the remainder of prehistory. The question remains as to why this differential acceptance of Mississippian traits occurred. Although this situation may be partially attributed to the more northerly position of the Yazoo Basin (as compared to the Plaquemine core-area), and thus the location of most direct impact, such a simplistic explanation is certainly inadequate.

Equally important a research issue as the introduction and proliferation of the Mississippian complex within the Lower Valley is the subsequent demise of this system. Concurrent with this phenomenon are the drastic decline of the aboriginal population of this area, initial European contact and eventual domination.

Although the period of northern aboriginal contact appears to have been relatively short, its impact is considerable contributing significantly to the cultural florescence during the Winterville phase. However, a decline becomes evident with the abandonment of such large ceremonial systems as Winterville and Lake George by the termination of the following Lake George phase. While smaller and more numerous centers appear at this time, a trend indicative of diminished central control has been established and by the Wasp Lake phase even the mainstream site orientation is relinquished in favor of locales at the floodplain/bluff base interface. By the time of contact by the French in the late seventeenth century, the aboriginal population had decreased to the point where practically no permanent occupation is evident within the Yazoo Basin.

Reasons for the aboriginal decline are manifold. An increase in intertribal warfare due to competition for favorable agricultural land is suggested. Further, it can be postulated that the adoption of corn agriculture (considered necessary for sustaining an adequate population base for maintaining the Mississippian complex) may have ultimately contributed to its demise. Such a subsistence base would have allowed for the independent survival of small sedentary groups. Further, some skeletal studies have shown a positive connection between maize consumption and decreased health and longevity (). The European presence contributed the dual detriments of increased population pressure (and thus inter-group hostility over land rights) and the presence of foreign diseases to which the aboriginal inhabitants had no immunity. Evidence for these and other factors must be searched for within the archaeological record in order to determine to what degree these variables contributed to this decline.

Several other issues of importance are also related to native/foreign contacts within the region. In terms of late prehistoric chronology, the ability to identify contact sites, particularly those associated with the mid-sixteenth-century De Soto entrada, would provide a firm temporal bench mark for assessing the cultural inventory of Yazoo Basin inhabitant during this terminal period of aboriginal occupation. Additionally, identification of such sites should provide information concerning which groups were encountered by the Spanish thus providing a means for correlating late-prehistoric and historic Indian groups in the area.

In conclusion, while the Yazoo Basin is archaeologically the best known of all the physiographic regions within the State of Mississippi, as indicated in the above discussion considerable investigation remains to be done.

NORTHEAST MISSISSIPPI

Aside from the Yazoo Basin, northeast Mississippi has received the greatest amount of archaeological attention. Included within this section of the state are four physiographic zones paralleling one another and extending in a roughly northwest to southeasterly direction. As related by Kelly (1974) these are 1) the Tombigbee Hills, 2) the Black Prairie, 3) the Pontotoc Ridge, and 4) the Flatwoods (see figure 1).

These regions differ in terms of topography, geology, and biotic composition, and the characteristic features of each area will be delineated in a following section. They share one important feature, however, in that each comprises a portion of what had been defined as the Tombigbee River Basin (see Stephenson and Monroe 1940, Muto and Gunn n.d.). Thus considering the combined influence of physiographic setting and drainage patterns upon the distribution of aboriginal populations, the subsuming of the four above mentioned physiographic areas within a single geographic zone-defined herein as the Northeast Mississippi Physiographic Region provides a useful framework for undertaking archaeological research.

The fact that the Miller sequence (see Jennings 1944, Jenkins 1982, Jenkins and Krause 1986) is applicable to the Woodland sequence for most, if not all of this area is indicative of its cohesiveness in an archaeological sense. As discussed by Johnson (1988:49), the western edge of the Miller Tradition correlates with the western limit of Paleocene and older sediments in eastern Mississippi as well as the eastern edge of the Yazoo Basin watershed. The eastern boundary for this tradition extends into west-central Alabama.

Yet even in this region archaeological research has considerably less time depth and coverage than in the adjacent Yazoo Basin. In fact, as

lamented by Rucker in 1974 "... not a single reliable absolute date derived from radiocarbon determination or any other absolute dating technique, was available for the entire Tombigbee Basin or surrounding localities when this project was initiated" (Rucker 1974:4). Major work has been primarily the result of two federally funded construction projects. The first involved investigations along the "Lee segment" (Jennings 1944) of the Natchez Trace Parkway right-of-way. During this project the Miller (22-Le-506) and Bynum (22-Cs-503)

Mounds were excavated providing both the foundation (Jennings 1941 and 1944) and first refinement (Cotter and Corbet 1951) of the Miller sequence for the area. Later excavations at the Pharr Mounds (22-Ps-500) by Bohannon (1972) served to modify and further elaborate the Miller sequence.

More recently, construction of the Tennessee-Tombigbee Waterway has provided an opportunity to carry out large scale archaeological research in the area. Results of activities associated with this project include Bense's (1987) extensive reporting of the previously neglected Archaic manifestations of northeast Mississippi. A second major contribution is represented by Jenkins' (1981) construction of a ceramic chronology for the area as seen from the central Tombigbee drainage. An overview of this endeavor, including observations on the relationship between the various ceramic components and other considerations such as settlement-subsistence strategies, exchange activities, and mortuary and ceremonial proclivities, is presented in the summary volume of the archaeology of the Gainesville Lake area (Jenkins 1982), and Jenkins and Krause (1986) (see also Futato 1989). Numerous other small scale archaeological projects have been undertaken in recent years both as a result of the Tennessee-Tombigbee Waterway as well as non-waterway funded activities (e.g. Marshall's 1987 recap of archaeological investigations in Clay, Lowndes, Noxubee and Oktibbeha Counties). The contributions of many of these investigations will be discussed in the following section.

The following presentation will first offer a general overview of the post-Archaic archaeology of northeast Mississippi (see table 1). This section will be followed by discussions of the individual physiographic divisions pointing out the contribution of each toward our present understanding of the area as a whole. Further, the specific potential of each area in providing additional information toward producing a more accurate understanding of the prehistoric manifestations in this portion of the state will be addressed.

General Prehistory

The post-Archaic prehistory of northeast Mississippi can be separated into three general cultural stages. These are 1) the Gulf-Formational 2) the Woodland, and 3) the Mississippi. Numerous summaries of this

procession have been presented with those by Jenkins (1982), Jenkins and Krause (1986), Bense (1987) and Futato (1989) being the among the recent. Others (e.g. Rucker 1974, Blakeman 1976, Atkinson et al. 1980, Weinstein 1981, Futato 1986, Dye and Watrin 1985, Rafferty and Starr 1986, and Johnson 1988) have discussed the relationship between sites in northeast Mississippi and the scheme as generally perceived. In this section predominant characteristics of each stage will be presented with a heavy reliance upon the above cited works. Additional references are employed where needed.

The Gulf Formational Stage

The Gulf Formational stage represents that segment of prehistory in which ceramic technology is introduced (ca 2000 B.C.) into the Southeast and exhibits its initial development. Prior to (and for sometime following) the introduction of the term "Gulf Formational" by Walthall and Jenkins (1976) the period was referred to as the Archaic-Woodland Transition cf. Blakeman et al. 1976, Jenkins et al. 1975, Atkinson 1978). Inherent in this earlier appellation is the implication that aside from the presence of ceramic vessels, lifeways during this period remained relatively unchanged from those of the immediately preceding Terminal Archaic often referred to as "central based wandering. Rafferty (1986c) has since argued the case for sedentism in the Tombigbee Valley during this stage. Although the Gulf Formational Period has been subdivided into early, middle, and late expressions, only the latter two of these are of concern to northeast Mississippi (as well as the rest of the Central and Western Coastal Plain). This period is assigned to a time frame of ca. 1000 to 100 B.C.

Middle Gulf Formational

The Middle Gulf Formational is heralded by Wheeler ceramics. Aside from the presence of these fiber tempered sherds, diagnostics include projectile points with broad blades and incurvate, horizontal shoulders. Other tool types include chipped stone bifaces and expanded base drills, and bone and antler artifacts. Ground stone bar gorgets of the expanded center-perforated variety are also associated with this period (Walthall 1980). A summer/floodplain, winter/upland settlement strategy is proposed by Walthall (1980). Subsistence data from the western Middle Tennessee Valley (Dye 1980) reveals the utilization of a wide range of floral and faunal resources during this period. Steatite, sandstone, Tallahatta quartzite, and pottery all served as exchange items.

Regional phases attributed to the Middle Gulf Formational include the Bluff Creek phase of the western Middle Tennessee Valley and the Broken Pumpkin Creek phase of the central and upper Tombigbee Valley. Poverty Point was the dominant culture in the Yazoo Basin at this time.

The Middle Gulf Formational stage represents that time at which ceramics are first introduced into the central and western Gulf Coastal Plain, apparently from centers farther to the east including the Orange and the Stallings Island cultures of the Atlantic coast with closer associations attributed to the latter. Their appearance is postulated to be a byproduct of east-west interaction possibly associated with steatite trade (Jenkins 1982, 1986; Jenkins and Krause 1986).

The Broken Pumpkin Creek Phase

The northeast Mississippi manifestations of the Middle Gulf Formational are presently subsumed within the Broken Pumpkin Creek phase (Jenkins et al. 1975) employing data primarily from the central Tombigbee Valley. Again, the presence of fiber tempered ceramics is the hallmark of this phase. These earliest of pottery vessels in the area are characterized by plain, punctated, and simple stamped and dentate stamped exteriors, and flat based beaker and simple bowl vessel forms. Type names attributed to these materials are those of the Wheeler series, including Wheeler Plain, Wheeler Dentate Stamped, Wheeler Simple Stamped, and Wheeler Punctated (see Sears and Griffin 1950).

Lithic technology during the Broken Pumpkin Creek phase appears to be a continuation of Late Archaic patterns. Raw material consists primarily on non-heat treated local chert, although some Tallahatchie quartzite is also employed. Little Bear Creek and Flint Creek are the primary projectile point types at this time. The Little Bear Creek point is also a common occurrence in the Late Archaic contexts in this area.

Minimal subsistence data indicate that deer and nuts (particularly hickory) were utilized. Site type and distribution indicates a central-based wandering settlement system to Jenkins (1982:54) with most sites exemplifying small, temporary occupations. Within the Gainesville Lake area, sites are restricted to the slope forest between the upland prairies and floodplain forest. Within the Upper Tombigbee drainage area Futato (1989:105) maintains that Middle Gulf Formational sites are frequent and occur in a range of settings including floodplain midden mounds and upland scatters. Most are both small and disturbed. The site from which the phase is derived (James Creek #1: 22-Lo-617), located in Lowndes County, Mississippi, near the confluence of James Creek and the Tombigbee River, is considered representative of a seasonal base camp during this phase. The Turtle Pond site (22-It-643) a small midden site in the Tombigbee floodplain represents another substantial Middle Gulf Formational occupation.

Although sites with fiber tempered Wheeler series ceramics occur over a wide area ranging from the Tennessee Valley to the north and the Gulf Coast as far as the Poverty Point site to the south and west, northeast Mississippi and west-central Tennessee are considered to be the homeland for these materials.

The Broken Pumpkin Creek phase encompasses the central and upper Tombigbee River drainages and adjacent portions of the lower Black Warrior (Jenkins 1982:55). At present, however, materials from sites within this area cannot be distinguished from those of other Wheeler manifestations on any grounds except geographic locations (Futato 1989:112). As noted by Jenkins (1982:54), the areal distribution of the Broken Pumpkin Creek phase is poorly delineated outside of the central and upper Tombigbee River Valley.

No absolute dates are available for the Broken Pumpkin Creek phase. The chronological placement for this phase is based upon interregional similarities in ceramics from dated contexts including the Tennessee Valley, Yazoo Basin, and coastal Mississippi (see Jenkins 1982:55). The Middle Gulf Formational period and the Broken Pumpkin Creek phase are assigned a temporal span of 1000-500 B.C. (Jenkins 1982:50).

Radiocarbon dates from the recently excavated Sanders Site (22-CI-917) located along the Tombigbee River north of Tibbee Creek indicate a Late Gulf Formational occupation dating as early as 800 B.C. (O'Hear 1980:100). This information suggests that the termination date for Middle Gulf Formational is too recent or that there is a considerable overlap between Wheeler and Alexander in this area.

Late Gulf Formational

According to Jenkins (1982:60) "The Late Gulf Formational period is characterized by three major events: 1) the disappearance of fiber tempered pottery; 2) the development of the related Tchefuncte and Alexander series on the Western Gulf Coastal Plain; and 3) the appearance of the paddle stamped southern Appalachian tradition Early Woodland Deptford pottery on the Eastern Coastal Plain." Thus, in northeast Mississippi the Late Gulf Formational represents that period in which Alexander series ceramics replace those of the Wheeler series and is characterized by a shift from fiber to sand tempering and from stamped and punctated to incised and pinched decoration. Both nodding and podal supports are also associated with the Alexander series. Other diagnostics include Flint Creek projectile points. A continuation with Wheeler is seen in terms of lithic technology, other tool types, and settlement-subsistence strategies. Regional phases attributed to this period include the Hardin phase of the western Middle Tennessee Valley, the Henson Springs phase of the central and upper Tombigbee, and Bayou La Batre in the Lower Tombigbee and Mobile Bay area. The western Middle Tennessee Valley and the headwaters of the Tombigbee represent the center of Alexander development. The Tchefuncte culture is operational with the Yazoo Basin at this time .

The Henson Springs Phase

The Henson Springs phase represents the Late Gulf Formational period within northeast Mississippi (and west-central Alabama). It has been considered "provisional because its variability in space and time are not well defined." (Jenkins 1982:60). Data from the west-central Alabama Crump site (1-Lr-20) weigh heavily in the definition of this phase. Considerable contributions have also been made as a result of excavations at the Kellogg Village (Atkinson et al. 1980), Aralia (Bense 1986), Yarborough (Solis and Walling, 1982) and Sanders (O'Hear 1990) sites.

Alexander Pinched and Alexander Incised ceramics are diagnostic. Plainware is identified as Baldwin Plain var. O'Neal. Only a minimal ceramic continuity is seen between this and the earlier Wheeler series (Jenkins et al. 1986, Futato 1989:113), an unexpected situation in that the Broken Pumpkin Creek and Henson Springs phase exhibit considerable continuity in most other aspects. Inspection of the Sanders site ceramic assemblage, however, indicates that some decorative continuity is present between Middle and Late Gulf Formational ceramics (O'Hear 1990:100-101).

Flint Creek var. Tombigbee represents the dominant projectile point type. Lithic raw material consists primarily of non-heat treated local chert. As with the Broken Pumpkin Creek phase, some use of non-local materials including Tallahatta quartzite and Camden and Fort Payne chert is indicated.

The Sanders site investigations provide the best look at subsistence strategies during the Late Gulf Formational. Faunal analyses by Susan Scott (in O'Hear 1990:60-76) served to identify a considerable number of species including squirrel, mouse, muskrat, salamander, gar, redhorse, and sunfish. Large mammals, particularly deer, however, dominated the faunal assemblage and apparently served as the primary nutritional contributor. Of next-most importance were aquatic species including fish, mud-musk and pond turtles, and mussels. Scott (in O'Hear 1990:73) concludes that "all seasons of the year are represented by the fauna from this site, suggesting that it was used continuously or intermittently throughout the year."

Examination of the floral remains at Sanders have been similarly enlightening (Scarry in O'Hear 1990:80-96). Scarry reports acorns, walnuts, persimmons, grapes, and plums; all of which were obtainable from the floodplain environment surrounding the site. Interesting is the identification of domesticated sunflower seeds, the first evidence of plant husbandry by Alexander populations.

Settlement patterns during this phase is seen by Jenkins (1982:64) as one of small transitory floodplain sites in conjunction with larger/more permanent occupation along smaller tributary streams. Subsequent investigations at the Sanders site have revealed that floodplain sites may be intermittent-to-continuous occupation loci. O'Hear has proposed that

Sanders may be a dumping site for the nearby Late Gulf Formational occupation at the Kellogg Village (1990:105).

Based upon C-14 dates from Kellogg Village and Aralia, Jenkins (1982:64) placed the Henson Springs phase between 600/500 B.C. and 100 B.C. More recent work at the Sanders site, however, suggests a beginning date closer to 800 B.C. (O'Hear 1990:100). O'Hear (1991:5) places Alexander occupation of the Tombigbee and Tennessee River areas at 900-400 B.C.

The Woodland Stage

The beginning of the Woodland stage is marked by "the appearance of cord and fabric marked pottery, an elaborate burial ceremonialism, a marked increase in trade and barter, and the wide distribution of distinctive art styles, and the introduction of agriculture" (Jenkins 1982:67). At this time a shift is evident from Gulf Tradition influences toward those emanating from the northern and eastern U.S. Within the region of Northeast Mississippi, the Woodland stage is characterized by the Miller sequence.

As previously noted, the Miller sequence is an outgrowth of archaeological researching activities predominantly focused upon the Tombigbee River drainage. First described by Jennings (1941 and 1944) as a result of work along the Natchez Trace, it has subsequently been modified on several occasions (see Cotter and Corbett 1951 and Bohannon 1972). Its current configuration reflects extensive work associated with the Tenn-Tom Waterway (cf. Blakeman 1975, 1976; Blakeman et al 1976, Jenkins 1979 and 1982, Jenkins and Krause 1986). To date, Jenkins' version is most applicable to the central and upper Tombigbee drainages and has been adopted in whole or part by most researchers in this area (cf. Atkinson et al. 1980, Solis and Walling 1982, O'Hear et al. 1981, Thomas et al. 1982, Rafferty and Starr 1986, and Futato 1986). Although the degree of correspondence between the Miller sequence as manifested in the central and upper Tombigbee and the remainder of the northeast region remains to be ascertained, it is assumed for the purposes of this presentation that is generally applicable in that the vast majority of this region is drained by the Tombigbee system. (See Johnson [1988] for a view of the Miller sequence from outside the Tombigbee). Within the upper and central (southwestern) Tombigbee drainage Futato (1989:132) reports that Woodland site locations are similar yet more diverse than for the preceding Archaic period and include riverine, small tributary valley, and upland settings.

Over the years, the basic outline for the Miller sequence has remained relatively unaltered. Its three sequential divisions (i.e. Miller I, Miller II, and Miller III) are primarily based upon a temporally sensitive sequence of changes in ceramic characteristics in which sand tempered fabric marked wares develop into sand tempered cordmarked pottery and

finally into grog tempered cordmarked materials (Johnson 1988:49). The composition of each division, however, has changed considerably. The most radical of these transformations occurred with the introduction of the concept of the Gulf Formational period (see Walthall and Jenkins 1976). This alteration precipitated the removal of the Wheeler and Alexander series from the Miller sequence and the reassigning of the previously Early Woodland Miller I to the early Middle Woodland period. Others, including Rucker (1974) and Weinstein (1981), have proposed additional formulations for inclusion in the Miller sequence, although these suggestions have not met with widespread acceptance.

In Jenkin's (1982) version, Miller I, II, and III are presented as phases, each having a series of subphases totaling nine in all. Temporally, this sequence spans the period from ca. 100 B.C. to 1100 A.D. Miller I and II correspond to the Middle Woodland period (ca 100 B.C. to A.D. 600), while Miller III corresponds to the Late Woodland period (ca A.D. 600 to A.D. 1100). In spatial extent the Miller sequence is coterminous with those physiographic zones comprising the Northeast region. In the state of Mississippi this area extends from the eastern border of the state to the western edge of the Flatwoods district.

Middle Woodland - Miller I

Miller I heralds the inception of the Woodland stage in northeast Mississippi and is generally comparable to Middle Woodland manifestations throughout the Eastern U.S. As perceived by Walthall and Jenkins (1976), the initial expressions of the Woodland tradition (i.e. Early Woodland) do not occur in the south of the Fall Line where contemporary occupations are attributed to the middle to late portions of the Gulf Formational period. The presence of burial mound ceremonialism and indicators of interregional trade attributable to northern influences including the Crab-Orchard tradition of southern Illinois and western Kentucky and the Hopewellian manifestations of Illinois and Ohio are seen to coincide with the beginning of the Woodland period.

Miller I is characterized by the presence of sand tempered fabric marked (Saltillo Fabric Marked), cordmarked (Furrs Cordmarked), and plain (Baldwin Plain ceramics). The appearance of these ceramic types does not appear to represent a continuation of the preceding Alexander series but rather a reflection of external (i.e. northern) influences. Some continuity in ceramic technology is indicated, however, by the similarity in tempering characteristics (i.e. coarse sand) between Late Gulf Formational and Miller I material (see Connaway 1980).

According to Jenkins (1982:70) vessel form for Baldwin Plain includes inverted and averted rim hemispherical bowls and globular jars with slightly averted rims. Atkinson reports that simple bowls and jars are characteristic of Baldwin Plain in the Mississippi portion of the

Tombigbee (personal communication 1987). Saltillo Fabric Marked forms are less variable, being typified by large conical jars with slightly globular jars with inverted to straight rims characterize the Furrs Cordmarked assemblage. Aside from the presence of podal supports on some Furrs Cordmarked vessels, appendages are not reported for Miller I ceramics.

Evidence for cremation and charnel structures at the Bynum and Pharr sites has been used to propose closer associations with Ohio Hopewell as opposed to Illinois Hopewell (Bohannon 1971, Jenkins 1982:76). More immediate influence is seen as emanating from the Pinson Mounds complex located in the west Tennessee upland close to its border with the West Tennessee Plains physiographic zone. The influence of Pinson is also cited by Jenkins and Krause (1986:116) as responsible for the Boyd phase of the northern Yazoo Basin and the Twin Lakes phase of the Yazoo Basin and upland northwest Mississippi, and the Womack Complex of northcentral Mississippi.

The lithic technology base for the Miller I phase is characterized by thermal alteration of locally available chert nodules. Projectile points are lanceolate, expanded haft forms (particularly of the type Mud Creek) and the lanceolate spike cluster typified by the Bradley Spike.

Subsistence evidence for the Miller I phase indicates a primary reliance upon deer. Floral remains are predominantly hickory and acorn.

Three site types have been identified for this phase: 1) valley loci base camps, 2) transitory camps, and 3) ceremonial centers. Habitation sites are commonly found to occur upon fine sand soils. According to Jenkins (1982) settlement pattern during this phase is similar to the central based wandering pattern noted for the preceding Henson Springs phase. Again, a case has been made for sedentism during the Woodland period (see Rafferty 1986 and 1990). The large round-to-oval postmold patterns observed at the Bynum site provide indications of house form during the Miller I phase. Smaller/less substantial structures were reported at the Okashua Site by Wynn and Atkinson (1976). Futato (1989:114) notes a relatively heavy concentration of Miller I sites in the upper Tombigbee drainage with later Middle Woodland (Miller II) sites being more frequent further to the south.

Miller I is considered to represent the period of maximum extra-regional contact. The Gainesville Lake evidence suggests a decrease in broad ranging interaction toward the close of the phase.

Chronologically, the Miller I phase is postulated to run from 100 B.C. to 300 A.D. (Jenkins and Krause 1986:61). This temporal positioning is based primarily upon extrapolations from the lower Mississippi Valley, as pertinent absolute dates from the region of northeast Mississippi are few.

The Miller I phase has been divided into three sequential subphases based upon variations in frequencies of the dominant ceramic types. The Bynum subphase, as exemplified by the materials at Bynum mound D, represents early Miller I. The ceramic assemblage for this unit is

composed of the types Baldwin Plain and Saltillo Fabric Marked, with the former being most common. The subphase is proposed to have lasted from ca. 100 B.C. to A.D. 1. Recently run C-14 dates on materials recovered from Bynum mounds A and B indicate that these two mortuary earthworks date to the first two centuries B.C. (Walling et al 1991:60) Thus, these two mounds may also belong within the Bynum subphase.

The Pharr subphase represents Middle Miller I. This subphase is signified by the appearance (in minor quantities) of Furrs Cordmarked in combination with Baldwin Plain and Saltillo Fabric Marked. Basin Bayou Incised, Alligator Bayou Stamped, and Mound Field Net-Marked(?) represent minority types. Evidence at several mound sites including Marksville vessels imported from the lower Mississippi Valley and Flint River Cordmarked vessels from the Tennessee Valley, indicates interregional connections at this time. Marine shell, copper earspools, galena, panpipe fragments, and carved stone platform pipes reflect general Hopewellian interaction, while the presence of caches of Snyders (Gibson or Norton according to Griffin 1979:270) points (beneath Bynum Mound B) indicate associations with Illinois Hopewell. Relative dating predicated on interregional associations places the Pharr subphase at A.D. 1 to 200. Recently run C-14 dates on materials recovered from Pharr Mound I suggest that it was constructed ca. A.D. 50 to 150 (Walling et al 1991:60).

The Late Miller I subphase is labeled Craigs Landing. Ceramically it is characterized by an increase in the type Furrs Cordmarked, although this type continues to be less frequent than Baldwin Plain and Saltillo Fabric Marked which occur in relatively equal proportions. Minority types include Basin Bayou Incised, Alligator Bayou Stamped, Santa Rosa Stamped, and Santa Rosa Punctated. Evidence indicating interregional exchange during this subphase is restricted to the presence of a small number of Marksville decorated sherds at a limited number of sites. Futato (1989:115) points out that the most common extra-group contacts for Miller I (and II) people is the Lick Creek phase of the adjacent Bear Creek watershed of northwest Alabama.

Practically all of the data relevant to this phase is derived from a single site in the Gainesville Lake area, the Craigs Landing site (1Gr2). Again, chronological placement for this subphase (A.D. 200-400) is tentative, being cross-dated with the lower Mississippi Valley based upon the presence of late Marksville ceramics.

Miller II

Miller II is distinguished from the preceding Miller I phase primarily by the increased presence of the type Furrs Cordmarked and a corresponding decline in Saltillo Fabric Marked to the point where the former is dominant. Indicated by the fact that the ceramic changes

represent an alteration in relative frequencies of the same type, Miller II appears to be derived from Miller I and represents a continuation of the overall Miller (Woodland) tradition. As noted by Jenkins (1982:85), "The Miller II phase, or at least the earlier part of it, is one of the least understood segments of the Miller sequence." Evidence concerning Early Miller II (i.e. the Tupelo subphase) is minimal. The Late Miller II Turkey Ridge subphase is much better known and provides the majority of the data concerning the phase as a whole.

Lithic technology during this phase continues to focus upon thermal alteration and local raw materials. Predominant projectile point forms are tapering shouldered, straight-to-tapering stemmed types classified as Tombigbee Stemmed (vars. Tombigbee and Turkey Paw). Other chipped stone tools include unifaces and bifaces produced on cobbles, unifacial perforators, and utilized flakes and spalls. Mammal bone awls are associated with the latter portion of the phase.

Limited subsistence data indicate an increase in exploitation of second line resources such as acorns, walnuts, and shellfish. Deer, however, continues to be the major faunal resource. An increase in the variety of annual herbaceous seeds is also indicated, an observation which may indicate the clearing of expanses of previously forested areas at this time and/or the increased role of these seeds in subsistence (Futato 1989:176).

Settlement strategy remains relatively unchanged from the preceding Miller I phase. Base and transitory camps as well as mortuary site have been identified, and (according to some) the central based wandering pattern continues. House structures are round-to-oval and of single post construction.

Although mortuary mound sites are present, a drastic reduction in artifacts attributable to Hopewell interaction is noted. A decrease in elaboration of burial practices is also indicated with a cessation of cremation. During the latter portions of the phase, however, ceramic evidence indicates increased contact with other cultures including Copena, McLeod, and Weeden Island.

Temporal placement for the Miller II phase is established at A.D. 300 to 700. C-14 dates range from A.D. 420 \pm 170 to A.D. 680 \pm 75 (Jenkins and Krause 1986:70). Number and location of Miller II sites indicate an increase in overall population as well as increased settlement within the Black Prairie region during this period.

As previously noted the Miller II phase has been subdivided into early (Tupelo) and late (Turkey Paw) subphases. As with the preceding Miller I phase, these are predominantly founded upon ceramic evidence. Notably, at this point excavated evidence is lacking which would elucidate the nature of a transitional subphase between these early and late components (Jenkins 1982:85).

The Tupelo subphase represents early Miller II. Jennings' work at the Miller Mounds in Tishomingo County, Mississippi represents the only extensive excavations attributable to this phase. Additional information is derived from limited testing at two sites within the Gainesville Lake area (1Gr1 and 1Gr5) and numerous potentially Early Miller II sites in the same area known only from surface collections. The Tupelo subphase ceramic assemblage is characterized by a predominance of the type Furrs Cordmarked, followed by Baldwin Plain, and Saltillo Fabric Marked. Small amounts of limestone tempered (Mulberry Creek Plain and Flint River Cordmarked) and bone tempered (Turkey Paw Plain) sherds may also be associated with the Tupelo subphase at the Miller Mound Site.

Subsistence data for this subphase is inadequate, as is information concerning lithic technology. Although an increase in transitory camps may have occurred at this time based upon evidence from the Gainesville Lake area, this assessment remains tentative in that it is derived from surface data. Circular and oval single post patterns present at the Miller Mounds site indicate housing type during the Tupelo subphase.

The temporal placement for this subphase (A.D. 300-450) is designed so as to coincide with the termination of the Late Miller I Craigs Landing subphase and "by relative dating with lower Mississippi Valley Marksville" (Jenkins 1982:96). Recently run C-14 dates materials recovered from Miller mound B indicate a construction data ca. A.D. 250-300 (Walling et al 1991:0-62).

Late Miller II is characterized by the Turkey Paw subphase. As previously noted, data from Turkey Paw subphase sites have been heavily drawn upon in delineating the Miller II phase. Thus, those characteristics presented in the general discussion of Miller II are equally applicable in exemplifying this subphase and only the attributes with specific relevance to this subphase need be provided here.

Ceramically, this phase is exemplified by a predominance of the sand tempered plain type Baldwin Plain. A narrow cord-wrapped-dowel impressed variant of Saltillo Fabric Marked (var. China Bluff) is the next most common sand tempered ceramic, followed by relatively small amounts of Furrs Cordmarked. It is also during this subphase that grog tempered ceramics begin to appear. The majority of this material is plain. Formerly labeled Tishomingo Plain, Jenkins has adopted the name Baytown Plain due to the similarity of this material to the lower Mississippi Valley supertype with vars. Tishomingo and Roper established based upon the ratio of sand to grog within the paste (var. Tishomingo being sandier). Correspondingly, its less common cordmarked counterpart, formerly Tishomingo Cordmarked, has been classified as Mulberry Creek Cordmarked var. Tishomingo and Aliceville. An increase in the dense grog varieties is observed as the subphase progresses. Large loophandles occur on both sand and grog tempered

plain beakers. Bone tempered plain, fabric marked, and cordmarked ceramics associated with the Turkey Paw series compose a minority of the assemblage for this subphase.

Ceramics from several other contemporaneous complexes occur in minimal amounts within Turkey Paw subphases assemblages. Included are certain of the sand tempered early Weeded Island - early McLeod types and limestone tempered Copena types. Small amounts of Marksville Incised *var. Yokena* are also attributed to this subphase. The Weeded Island Culture is considered influential during this subphase, although it does not serve to redirect the pervasive Woodland pattern.

Based upon evidence from sites 1Grx1 and 1Gr2 in the Gainesville Lake area, habitation structures appear to be of the oval/single post variety. To date, no Turkey Paw burial mounds have been excavated, thus precluding assessment of construction methods and burial treatment during this subphase.

The temporal placement for the Turkey Paw subphase has been set at ca. A.D. 450-600 although three radiocarbon dates from Gainesville Reservoir sites of A.D. 420+170, A.D. 490+50, and A.D. 680+75 (Jenkins 1982:96) suggest a somewhat more expansive timeframe.

Miller III

Miller III is synonymous with the Late Woodland period for the majority of northeast Mississippi and derives from the preceding Miller II (Middle Woodland) phase. It is during the Miller III phase that several innovations appear which are to have considerable ramifications in the future cultural development of the region. The presence of small triangular projectile points heralds and appearance of the bow and arrow, and important addition to hunting (and warring) weaponry, while charred maize fragments (albeit in small number) reveal a swing toward the agricultural subsistence base which will later become pervasive throughout the Southeast and Eastern U.S.

Contemporaneous cultural manifestations include Baytown (particularly Deasonville) in the lower Mississippi Valley and McKelvey of northwestern Alabama. Due to their perceived cultural similarity, Miller III, Baytown, and McKelvey are grouped as the "Baytown variant" by Jenkins (1982:98). All three of these are considered to be a result of earlier Middle Woodland influences from the west-central Tennessee Pinson complex, with the north central hill country serving as the avenue of introduction (Jenkins 1982:115).

Ceramics provide the predominant artifactual diagnostic for the phase. Although sand tempered vessels continue to be manufactured, grog tempering becomes more common. Primary ceramic types during this period are Baytown Plain and Mulberry Creek Cordmarked. Withers Fabric Marked, Wheeler Check Stamped, and Alligator Incised also occur

in much smaller quantities. Subphases are constructed primarily around relative percentages of these and other recurring ceramic types.

As reported in Jenkins (1982:103), "Miller III lithic technology is characterized by five basic changes: 1) the appearance of the small triangular projectile or arrow point; 2) the reduction in size of Miller III arrow points over Miller II projectile points; 3) the almost complete absence of cores in Miller III phase assemblages; 4) changes in the color and luster of lithic materials, most Miller III lithics were more lustrous and a deeper red; and 5) overall reduction in flake sizes from Miller II to Miller III ..." [An] unusually large quantity of red firecracked chert is also characteristic of Miller III middens" (Jenkins 1982:104). This material has been alternatively interpreted as part of the lithic reduction technology (Ensor 1986) or as a byproduct of cooking activities (Rafferty 1986a). Thermal reduction appears less common in the Columbus Lake area than the Gainesville Lake area farther to the southeast (Futato 1989:176).

Aside from the characteristic triangular points, other stone tools are mostly utilized flakes and spalls which continue relatively unchanged throughout the phase. Futato (1989:176) reports that a microlithic industry characterized by perforators made on small flakes is also representative of Miller III.

Subsistence strategies during Miller III indicate a decreased emphasis on deer along with a markedly increased reliance on other mammals, reptiles, fish, and shellfish. Shell middens are present at some sites. It should be pointed out, however, that deer (as measured by bone weight) is still the primary faunal resource, exceeding 70% of the faunal remains in all reported Miller III contexts (see Jenkins 1982: 105-108) except the Shell Buff site (22-Lo-530), where a decreased occurrence (57%) may possibly be attributable to small sample size (Futato 1986:240). As previously noted, corn first appears during this phase, although primary plant resources continue to be hickory nut and acorn. A large number of wild seeds is also present, yet no more than in Late Miller II contexts. In general, Miller III reflects "a culmination of floodplain forest efficiency" (Jenkins 1982:110).

Jenkins (1982) portrays the settlement system during this subphase as a continuation of the Miller II central-based wandering type, with both base camps and transitory sites being present. An increase in site size and midden density at base camps, combined with an overall increase in number of sites, suggests a larger and more sedentary population. Base camps are predominantly located on upper terraces of larger streams including the Tombigbee and Noxubee rivers. Geographically, sites of this type are concentrated in the floodplain from immediately north of Columbus, Mississippi southward to Demopolis, Alabama, an area generally corresponding to the Black Prairie region. Transitory sites are somewhat more diffusely distributed. Rafferty (1986a) has disagreed

with Jenkins' smaller site/transitory camp association, suggesting that at least some of the smaller sites are also permanent settlement loci. In general, site in the central Tombigbee are larger than those farther north (Jenkins 1982:112). Osteological evidence indicates increased disease (as well as increased violence) during Miller III (Hill 1981).

Indicators of ceremonialism during this phase are minimal. Burial in village areas is common and grouped interments indicative of cemetery areas have been identified. According to Jenkins (1982:111) no mounds are known for this phase. The Thelma Mound (22-Cs-501), located in Chickasaw County, Mississippi, may represent an exception to this general observation (see discussion of the Pontotoc Ridge for more information concerning this mound site).

According to Jenkins (1982), Miller III house structure evidence suggests a switch from traditional single post/oval forms to semi-subterranean (sometimes with wall trenches) types. The latter form is similar to edifices of the early Mississippian phase in the area and has been considered a reflection of Mississippian influences. Others find the evidence for a shift in house form at this time less convincing, citing the presence of areas of postmolds at several sites indicating round-to-oval structures with widely spaced individual posts (Futato 1987;1989:177).

Temporal placement for Miller III is ca. A.D. 600-1100, a framework supported by radiocarbon dates from both the Gainesville Lake and Mississippi portions of the central Tombigbee drainage. Subphases, although in large part sequential, exhibit considerable overlap, particularly during the latter portions of the phase. According to Jenkins (1982:108) "all of the Miller III subphases are defined by relative frequencies of certain ceramic variables rather than by the presence of certain diagnostic types." These subphases will be the subject of discussion in the following section. The subphases (i.e. Vienna, Catfish Bend, Gainesville Cofferdam) are based primarily upon ceramics excavated from four sites in the Gainesville Lake area (1Grx1, 1Gr2, 1Pi33, and 1Pi61).

Vienna represents the earliest of the Miller III subphases. Ceramically, the subphase is characterized by plain vessels with sand and grog tempering. The relative proportion of grog or sand exhibits a directional temporal trend and is employed in separating the subphase into early and late components (subsubphases?!).

Early Vienna subphase assemblages are characterized by a dominance of the sand tempered type Baldwin Plain (var. Blubber) followed by the grog tempered Baytown Plain var. Roper. Both sand (Furrs Cordmarked var. Pickens) and grog (Mulberry Creek Cordmarked var. Aliceville) tempered cordmarked vessels also occur in considerable quantities. Alligator Incised vars. Oxbox and Gainesville appear for the first time at this point and continue in consistent yet small quantities

throughout the Miller III sequence. Withers Fabric Marked is minimally present as are sherds of Weeden Island and McLeod derivation.

During the late Vienna subphase grog tempering increases, although relative frequencies of plain to cordmarked sherds remain consistent. Among the minority types associated with this subphase are Withers Fabric Marked var. Gainesville, which is observed to increase slightly in popularity when compared to the earlier portion of the subphase.

The Pickens Triangular var. Pickens point is associated with the Vienna subphase. A recent study by Peacock (1986) contends that this chipped stone form was actually employed primarily as a cutting tool as opposed to a projectile tip. The higher temperature utilized in thermal alteration of chert is evidenced by an increase in spalled and fire-cracked rock and darker reddish coloration of lithic material by the beginning of this subphase.

An increase in the utilization of shellfish as a food resource is noted among the faunal remains from Vienna subphase sites. The trend toward lessened emphasis upon deer characteristic of Miller III in general is said to have begun by this subphase.

House form, as evidenced by two structures excavated at the Tibbee Creek site (22-Lo-600), is characterized by round-to-oval dwellings of single post construction.

Temporal placement for the Vienna subphase is established at ca A.D. 600-900 (Jenkins 1982). Radiocarbon dates attributable to the early portion (placed at A.D. 600-750) are from the Kellogg Village site (22-CI-527). The two dates from this site associated with early Vienna subphase assemblages are, however, too recent (both dating A.D. 780) are further rendered ineffective by their large standard deviations (205 and 430). Dates for the latter portion of this subphase (placed at A.D. 750-900) range from A.D. 730 (+50) at 1Gr2 to A.D. 965 (+55) at Tibbee Creek (22-Lo-600) Jenkins and Krause (1986:84) have foreshortened this time frame to A.D. 600-800.

The Catfish Bend subphase follows Vienna. To date, the only excavated components are from the Gainesville Lake area. Ceramically, it is typified by an increase in grog tempering almost to the point of completely replacing sand tempering. In terms of surface treatment, cordmarking increases at the expense of plain sherds; both occurring in relatively equal amounts at this point. Dominant types are Mulberry Creek Cordmarked var. Aliceville and Baytown Plain var. Roper. Withers Fabric Marked is more common than during the Vienna subphase.

The projectile point type Madison var. Gainesville is characteristic of this phase (as well as the Gainesville and Cofferdam phases). Intense heat thermal alteration continues.

Settlement and subsistence practices are apparently a continuation of those identified during the Vienna subphase. Tentative temporal placement of A.D. 900-1000 is determined by the designated termination

date for the Vienna subphase and the beginning date for the Gainesville subphase (Jenkins 1982:114).

Gainesville represents one of two ceramic complexes which appear following the Catfish Bend subphase. A primary distinction between Catfish Bend and Gainesville is the presence of a small amount of shell and shell-and-grog tempered pottery in the latter. Grog tempered vessels with loop handles suspected to be copies of contemporaneous Mississippian examples are also present during the Gainesville subphase. Grog tempered sherds with Mississippian characteristics have been recovered from Cofferdam and several other sites in the Mississippi portion of the Tombigbee drainage (Blakeman et al 1976:44-45). The predominant projectile point type is Madison var. Gainesville.

Excavations at 1Pi61 in the Gainesville Lake area reveal the presence of a distinctive house form. Four features at this site have been interpreted as rectangular/semi-subterranean structures incorporating wall trench construction techniques. However, controversy persists as to the temporal placement of these structures (cf. Jenkins 1982 and Futato 1987).

The Gainesville subphase is assigned a time frame of A.D. 1000 to 1100. Three radiocarbon assays from two different Gainesville Lake sites produced identical dates of A.D. 1030+55. A fourth, considered inappropriate, is A.D. 1240+80.

Cofferdam represents the second late Miller III complex. This subphase is considered to be at least partially contemporaneous with the Gainesville phase and may overlap with both the Catfish Bend subphase (Jenkins 1982:114) and post-Gainesville occupations (1982:107).

Ceramically, the Cofferdam subphase is distinguishable from both Catfish Bend and Gainesville. Mulberry Creek Cordmarked (var. Aliceville) sherds predominate, followed by Baytown Plain (var. Roper). Withers Fabric Marked sherds are again present in minimal quantities. Shell tempered sherds occur in much smaller quantities than during the partially contemporaneous Gainesville subphase indicating a lessened Mississippi influence according to Jenkins (1982:102).

Projectile point types characteristic of the Cofferdam subphase are Madison var. Gainesville and Hamilton var. Gainesville. One oval structure from the Bynum site (22-Cs-503) may be attributable to a Cofferdam subphase component. This structure, however, might be associated with the pervasive Miller I site occupation.

The Cofferdam subphase is also distinctive in terms of subsistence remains. Both shellfish and animal bone quantities are considerably lower than for other Miller III subphases. Although differential disposal, seasonally, and sampling vagaries have been offered as reasons for the difference, the final explanation remains to be discerned (Jenkins 1982:107-108).

The lack of standardization in orientation of human interments is also considered distinctive of the Cofferdam subphase as compared to other Miller III subphases, where more conventional patterns are noted.

A considerable number of radiocarbon dates are available for Cofferdam subphase components. Unfortunately, many of these appear anomalous. Present evidence suggests that this subphase may have begun as early as A.D. 900 and continued until ca. A.D. 1200. Compared to the other Miller III subphases, this timeframe is unusually expansive.

The Mississippian Stage

Characteristics of the Mississippian stage in northeast Mississippi are generally similar to those evidenced throughout the Eastern U.S. These indicators have been discussed in a previous section of this report (see the Mississippian stage within the Yazoo Basin) and will not be repeated here except where notable differences exist.

The most direct influence upon the Mississippian expression within northeast Mississippi derives from the major center at Moundville in western Alabama. Extensive research at this site and the surrounding Black Warrior drainage, in the Lubbub Archaeological District, and at Gainesville Lake have provided a considerable amount of data concerning Mississippian developments in this area. Additional information is provided primarily by research in the vicinity of the Lyon's Bluff site (212-Ok-521) (Marshall 1973, 1977, 1986) located on Tibbee Creek, a tributary of the Tombigbee River in northeast Mississippi.

Considering the similarity in the cultural evidence among these areas, Jenkins (1982:132-139) has incorporated them into what he terms the Moundville variant. Included are "all sites at which the Moundville ceramic series (Mississippi Plain, Bell Plain, Moundville Incised, Carthage Incised, and Moundville Engraved) are found as a major complex" (1982:122). Recently, Atkinson (1986) has proposed a phase sequence for the post-Woodland period between Tibbee/Line Creeks and Tupelo, Mississippi. This sequence is presently undergoing revision (Atkinson, personal communication, 1989). Although the ceramic assemblages are not discussed in depth, reference is made to the comparability between certain of his phases and those of the Lyon's Bluff sequence. A portion of Atkinson's sequence has been included in the Moundville variant for the purposes of the following presentation. The central Tombigbee drainage is considered to represent the western periphery of the Moundville variant.

According to Jenkins and Krause (1986:102) "...all of these Moundville variant phases are so similar that it is difficult to determine where the artifact assemblage of one ends and the other begins." Considering the similarity between these units, each will not be discussed separately; thus Early, Middle, and Late Mississippian will

serve as topic headings with appropriate phase names being cited under each in the following discussion.

The Early Mississippian Period

As concerns the region of northeast Mississippi, the early Mississippian period is represented by the Summerville I phase of the Gainesville Lake/Lubbub Creek area, the Tibbee Creek phase at Lyon's Bluff, and the Owl Creek phase of the Tibbee/Line Creeks-to-Tupelo area. While the major component at the Owl Creek Mounds (22-Cs-502) appears to be Middle Mississippian, several sites in the vicinity, including the Thelma (22-Cs-501) and Inzer (22-Mo-500) mounds have strong early Mississippian components. This period marks the appearance of the Mississippian cultural manifestation in this region.

Although the impetus for the development of the Mississippian complexes of the Southeast is attributable to northern (midwestern) influences, following their inception considerable interregional variability occurs as a reflection of local development as influenced by the proceeding Woodland stage. At present, the effect of extraregional variables remains undetermined. Three scenarios, as presented by Jenkins and Krause (1986:120-130), include immigration and displacement, transformation through diffusion, and resident/immigrant fusion. While these authors subscribe to the last of these three models, Jenkins' earlier (1982:118) statement that: "One thing is clear, we do not yet have adequate control of the data pertinent to the initial phases of Mississippian development to prove any hypothesis on the subject" continues to be relevant.

During this period floral remains are similar to those of the Late Woodland (Miller III) period, with the exception of a sharp increase in the quality of maize. A continued decrease in deer exploitation is also noted. The small Madison triangular point continues to be the dominant projectile point type and high intensity thermal alteration prevails as a lithic technology.

Numerous breaks with the Woodland regime are apparent. Most notable is the appearance of a nucleated settlement system, including ceremonial/administrative precincts marked by the presence of sites with specifically arranged flat-topped earthen mounds. These edifaces, in combination with an array of ritual paraphernalia and iconography (Jenkins 1982:47) provide the first evidence for the Southeastern Ceremonial Complex in this region. Rafferty (1986c) maintains that nucleated settlements (sans Mound-building and site hierarchy) also occurred during Miller III.

Also characteristic, as well as most ubiquitous in terms of artifactual remains, is a distinctive ceramic assemblage incorporating shell tempering and myriad design types and vessel forms. Ceramic types attributed to the early Mississippian period include Mississippian Plain,

Bell Plain, Moundville Incised, Carthage Incised, and Moundville Engraved. Plain vessels compose the vast majority of the ceramics during this as well as the remainder of the Mississippian stage. At Summerville I sites, Mississippi Plain var. Warrior and Moundville Incised var. Moundville make up approximately 90% of the ceramic assemblage (Jenkins 1982:124).

The Mississippian stage is present in this region by ca. A.D. 1000. As the Late Woodland period is not thought to terminate before ca. A.D. 1100 to 1200, a certain amount of overlap is apparent between the two. Early Mississippian has been placed at A.D. 1000-1200 based upon C-14 dates from Summerville I sites.

Radiocarbon dates from several sites within the Mississippi portion of the central Tombigbee drainage including Lyons Bluff (22-Ok-520), Kellogg Village, Barnes Mound (22-L0-564), and Coleman Mound (22-Lo-507) are also pertinent. Marshall (1977) tentatively places the beginning of the Tibbee Creek phase at A.D. 1100 based upon an A.D. 1210 (corrected to 1130) C-14 date from Lyons Bluff, although he suggests that its inception may be as early as the beginning of the 2nd Millennium.

The Middle Mississippian Period

As presently conceived, the Middle Mississippian period in the Northeast Mississippi Region is represented by the Summerville II and III phases in the central Tombigbee drainage and the Lyon's Bluff Phase in the vicinity of Tibbee Creek. Futato (1989:179-180) maintains that the Lyon's Bluff phase includes both the Middle and Late Mississippi period which he terminates at A.D. 1550. Atkinson's (1986:2) discussion of the Tibbee/Line Creeks-to-Tupelo area proposed that that locale had been abandoned. However, in reworking the sequence for this area he now maintains that it was occupied yet to a much lesser degree than the area south of Tibbee/Line Creek (Atkinson 1987:64).

Middle Mississippi represents the period of Mississippian cultural florescence. By this point (ca. A.D. 1200-1300) both institutionalized offices and regularized descent group ranking had emerged (Jenkins 1982:130). In northeast Mississippi occupation is focused upon the central Tombigbee Valley. The increased emphasis upon this locale is attributed to the need for adequate floodplain area for maize production, an opportunity not available in the upper Tombigbee (Johnson and Sparks 1986, Sparks 1987). Settlement patterns consist of compact communities clustered around centers of mound and plaza configuration. Mound/village sites in this area include Lyon's Bluff, Butler Mound (22-Lo-500), the Chowder Springs Mounds (22-Lo-554 and 555), and the Coleman Mound (Rucker 1974, Jenkins 1982:137).

The ceramic assemblage during the Middle Mississippian period represents a continuation of that identified with Early Mississippian.

Plain vessels continue to predominate, with Mississippi Plain (var. Warrior) and Bell Plain (var. Hale) being most common. A change in vessel form is noted for these two types with bottles becoming wider and exhibiting short or slab bases. An increase in number of strap handles on plain vessels is observed. New additions include filleted rims and the fine ware types Carthage Incised vars. Carthage and Foster. Peebles (1981:279) designates Moundville Engraved vars. Hemphill and Taylorville as indicative of Summerville II/III at Lubbub Creek. Marshall (1977) reports common incising, effigy appendages, and red and white filmed and negative painted wares among the ceramics of the Lyon's Bluff phase.

Lithic technology and diagnostics remain relatively unchanged during this period. Subsistence strategies also appear similar to those of the Early Mississippian period. As noted above, the central Tombigbee Valley represents the primary settlement focus. While Jenkins (1982:137) envisions settlements during this period as unfortified, Marshall (1977) suggests that protective walls may be associated with the Lyon's Bluff site during this period. Owl Creek (22-Cs-502) (Brookes 1985) and Inzer (22-Mo-500), Elliott 1980) are also known to be fortified sites. Peebles (1981:397) notes that Summerville I fortifications at Lubbub Creek may continue into early Summerville II-III.

Several house structures have been excavated which are attributed to Middle Mississippi period occupations. As during the preceding periods, round-to-oval and rectangular forms are present, with both single post and wall trench construction techniques being employed.

Indicators of the Southeastern Ceremonial Complex are yet to be identified during this period in the Mississippi portion of the Tombigbee Drainage. However, the fact that such items are present in the Alabama portion of the Central Tombigbee (at 1Pi33), the lower Mississippi Valley and the Black Warrior Drainage at this time suggests that their absence in the former area may be due to lack of excavation at appropriate sites, as this is generally considered to be the period of maximum elaboration and intensity for the Southern Cult (Jenkins and Krause 1986:90).

The temporal framework for this period is placed at A.D. 1200-1540 (Jenkins 1982:135). Dates reflecting the beginning of this period include those from, the Barnes Mound (22-Lo-564) (A.D. 1180+67, Blakeman 1975) and Kellogg Village (22-CI-527) (A.D. 1185+90, Atkinson et al. 1980) and A.D. 1189 + 76, Blakeman 1975). The latest date of A.D. 1410+45 (Jenkins 1981) was derived from a Gainesville Lake site. The terminal date for this period corresponds with De Soto's Spanish entrada, a transcultural encounter which may have sounded the death knell for a once vital aboriginal cultural tradition already in decline at this point. In later work Jenkins and Krause (1986:102) shortened this time frame by 100 years (to A.D. 1450), bringing it more into line with the C-14 evidence.

The Late Mississippian Period

Inherent in the concept of Late Mississippian are the occurrence of an indigenous cultural decline and the ultimately fatal extra-cultural encounters marking the beginning of the protohistoric era. Included in this period are the Summerville IV phase in the central Tombigbee Valley and the Sorrells phase in the Tibbee/Line Creeks area. Atkinson n.d. has proposed several phases for the Tibbee/Line Creeks-to-Tupelo area which are generally coeval with Sorrells and Summerville IV. Among these is the Chuquatonchee Creek phase, considered a late Sorrells subphase.

Both similarities and differences are apparent when comparison are made with the preceding Middle (and Early) Mississippian period(s). The ceramic assemblage of Summerville IV, characterized (at Lubbub Creek) by Alabama River Applique, Alabama River Incised and other ceramics associated with the Protohistoric period (Peebles 1981:397), is considered an outgrowth of those of the earlier Mississippian phases. Fossil shell (as opposed to live shell) tempering has been employed in separating Late Mississippian occupations from protohistoric and early historic ones (Stubs 1982). Differentiation of this basis, however, is questionable even in the area around Tupelo where it was initially thought to be most effective. To the south along Tibbee Creek, researchers have resorted to distinctive rim modes to achieve a temporal separation (Johnson and Sparks 1986, Johnson et al 1991).

As in the preceding Mississippian phases, sedentism and agriculture prevail. Dietary staples are altered to some extent as an increase in acorn usage and a corresponding drop in maize intake is observed. Most notably, Summerville IV differs from previous Mississippian phases in terms of burial practices and mortuary ceremonialism. A shift is seen from single interments toward the employment of a wide variety of burial practices, including the use of ossuaries as well as urn burials for children and infants. This latter practice is the identifying characteristic of what has come to be known as the Burial Urn Complex. Within the upper Tombigbee drainage evidence for this complex is minimal. Solis and Walling (1982) report a burial urn at the Yarborough Site (22-CI-814). Marshall (1977) also alludes to ceramics with Alabama Burial Urn Culture affinities in the Sorrells Phase component at the Lyon's Bluff site.

At Lubbub Creek a ditch-like fortification encircles the area of Late Mississippian occupation, indicating the need for protection at this time. Whether this situation is reflective of a wider-spread concern is unknown. Evidence of defensive measures had not been reported for the Sorrells phase component at Lyon's Bluff and is questionable for the Moundville IV and Alabama River (?) phases of the Warrior drainage. Considering the inter-tribal hostilities reported at the time of European

contact, the presence of such protective enclosures would not be unexpected. Late Mississippian house structures have been identified at both Lubbub Creek and Lyon's Bluff. All are apparently circular and of single post (non-wall trench) construction.

Areal variability is observed during this period. While the Lubbub Creek evidence indicates a continuation of occupation of the main river valleys, Atkinson (1986:4) notes a pattern of upland prairie settlements exhibiting dispersed family dwellings during the Chuquatonchee Creek phase, a situation unlike the first terrace concentrations on Tibbee/Line Creeks during the Middle Mississippian. Temporal variation may be a factor since Chuquatonchee is portrayed as a late subphase of Sorrells. A consistent trend throughout the area is one in which settlements become less nucleated with time. Similarly, over time subsistence practices become more diversified (Johnson and Sparks 1986, Sparks 1987) reflecting a composition similar to that of the previous Late Woodland period.

Radiocarbon dates of A.D. 1345+90 and A.D. 1500+70 are associated with house structures at Lubbub Creek. Carbonized wood charcoal and corn cob from a (probably) circular structure attributed to the latter portion of the Mississippian occupation at the Lyon's Bluff site produced a C-14 date of A.D. 1557 (+65).

As summarized by Peebles (1981:65) "The Late Mississippian period, which has also been called the Mississippi 'Decline', begins at approximately A.D. 1450 or 1500 and continues to the point at which the Native American societies of the Southeast have been subjected to major disruptions and dislocations by European settlers and traders." For northeast Mississippi, the appearance of the De Soto Expedition of 1540 proved to be the first such "major disruption." As such, the year 1550 is frequently employed as a dividing line between Mississippian and protohistoric occupations of the region (cf. Jenkins 1982, fig. 21 and Futato 1989:116-118).

Whether, left unaffected by European influences, Mississippian culture would have ultimately evolved to that of a state is unknown. According to Jenkins and Krause (1986), the weight of the evidence at this point suggests that the Late Mississippian configurations are indicative of an organizational recession unlikely to have recovered and attained greater levels of social complexity.

TOMBIGBEE HILLS

Introduction

The Tombigbee Hills (also known as the Tennessee River Hills, the Fall Line Hills, and the Northeast Highlands) represent that portion of the Northeast Mississippi physiographic unit extending from the state

border on the east to the Black Prairie on the west (see fig._). All but a small portion of the Tombigbee River is situated within this zone. To date, more prehistoric aboriginal sites have been identified in this area than in any other portion of the northeast region.

Physical Description

Discussion of the physical characteristics of the Tombigbee Hills has been included in numerous publications concerning the physiographic regions of the state (cf. Milgard 1860, Jones and Patton 1966, Kelly 1974, Lowe 1913, 1921, 1925; Miller 1973, Muto Gunn n.d., Stephenson et al 1928, Thomas 1974, and Vanderford 1950, 1962). Summations base on these description can be found in many archaeological site and survey reports as this information provides a necessary backdrop in addressing prehistoric occupation and adaptation in the region (cf. Rucker 1974, Blakeman 1975).

Considering the volume of available literature, no in-depth discussion of the physiographic region will be undertaken here. Instead, a brief outline based upon information as presented by Lowe (1925:22-25) and outlined by Connaway, Brookes, and Corso (1980) is offered.

The Tombigbee Hills can be characterized as follows: Geology: Limestone, sandstone, chert beds (Paleozoic group), loose sands, clays and gravels of Tuscaloosa and Eutaw formations (Cretaceous group). Topography: Northern portion- Rugged, steep, rough terrain: deep ravines. Southern and Western portions- Less rugged terrain; slower-moving creeks. Soils: Hills- Thin, red, sandy and pebbly loams. Bottoms: Rich, black, sand loams. Vegetation: Northern (Divide Hills ecosystems)-Post Oak and Black Jack Oak, alder, and sweetbay. Central (Eutaw Hills ecosystem)-Cypress/Tupelo gum, Southern red oak, hickory. Southern (Tombigbee Sand Hills ecosystem)-Cypress/Tupelo gum, overcup oak, cherrybark oak, swamp chestnut oak, water oak, sweetgum, and various elms. Elevation: Up to ca. 700 feet (amsl). Location: Tishomingo, Itawamba, and portions of Alcorn, Prentiss, Lee, Monroe, Clay, and Lowndes counties (see figure 1).

Archaeological Overview

More prehistoric sites are presently recorded for the Tombigbee Hills than for any other portion of northeast Mississippi. Further, more sites have been reported for Tishomingo county than any other county in the state. The Yellow Creek Power Plant and Tennessee-Tombigbee Waterway projects are responsible for the identification of the majority of these sites. Of the total site number, a large portion is not classifiable as to cultural affiliation due to the lack of diagnostic materials. Most of these sites consist of non-ceramic debris scatters attributable to workshops associated with lithic procurement and reduction processes.

Raw material in the form of Fort Payne chert is readily available in this area, particularly the northern portion.

Of the total ___ aboriginal sites recorded for the Tombigbee Hills, ___ exhibit post-Archaic components. Included among this number is the Pharr site (22-Ps-500) which has figured significantly in the delineation of the Miller sequence. Aside from Pharr, excavations have also been undertaken at L.A. Strickland I (22-Ts-765), Aralia (22-It-563), the Dogwood Mound (22-Mo-531), Okaf Iti (22-It-606), Cofferdam (22-Lo-599), East Aberdeen (22-Mo-819), Tibbee Creek (22-Lo-600), River Cut #1 (22-Lo-860), River Cut #2 (22-Lo-861), Yarborough (22-CI-814), Kellogg Village (22-CI-527), the Bear Creek Mound (22-Ts-500), Moore's Creek (22-Al-521), Turtle Pond (22-It-643), the Mingo Mound (22-Ts-511), White Springs (22-Ts-537), Shell Bluff (22-Lo-530), East Aberdeen (22-Mo-819), Self (22-Mo-586), W.C. Mann (22-Ts-565), Mackey's Creek (22-Ps-521), Emmett O'Neal (22-Ts-954), 22-Le-507, 22-Le-508, the Barnes Mound (22-Lo-564), the Coleman Mound (22-Lo-507), the Sanders site (22-CI-917), and 22-It-581.

The Gulf Formational Stage

Gulf Formational occupations have been identified at ___ sites in the Tombigbee Hills. Late components are most frequent. Middle Gulf Formational sites have been identified in lesser numbers (see Table 2).

Middle Gulf Formational

Middle Gulf Formational diagnostics have been identified at 61 sites in the Tombigbee Hills but excavations have occurred at only a small number of these. At the W.C. Mann site (Dye and Martin 1985), the Wheeler occupation represents the last component evidencing any depositional integrity. Analysis of the Wheeler ceramics from this site indicates that the tempering material consisted of processed palmetto fibers and that vessels were constructed by the slab technique. Sand inclusions in the ceramic paste were determined to be natural and not indicative of a Wheeler-to-Alexander transition in ceramic manufacture. The fiber tempered component at this site is assigned to the Bluff Creek phase, apparently due to the fact that the site is situated on a tributary of the Tennessee River. Futato (1987:132) assigned the Middle Gulf Formational component at the Shell Bluff site to the Bluff Creek phase citing the minimal amounts of Wheeler Dentate var. Warsaw and the lack of the sandy variety of Wheeler Plain (var. Noxubee).

At the Mingo Mound site Gulf Formational materials were found in a 4-to-6 inch deep midden beneath a Woodland burial mound. As Wheeler and Alexander series ceramics were reportedly mixed within this midden, the entirety was removed as a single unit (Jolly 1971:5). The presence of two fiber/sand tempered sherds with dentate stamped exteriors was employed in proposing an overlap in Wheeler and Alexander types during

the Gulf Formational occupation at this site. A considerable number of Flint Creek projectile points were also recovered.

Wheeler component projectile points were also identified at the Tibbee Creek site where contracting stemmed Gary-like forms are said to be associated with Wheeler (and possibly Alexander) ceramics (O'Hear et al 1981:238). A prepared clay area similar to those associated with Wheeler pottery in the Tennessee Valley is also present at this site. This feature comprises the entirety of the evidence for house structures of this period for northeast Mississippi.

A corrected C-14 date of 922 B.C. (+86) was derived from burned mussel shell associated with an Alexander series vessel at Kellogg Village. Blakeman et al (1976:109) suggest that a C-14 date of 1705 B.C. +140 acquired from charcoal from a circular pit containing both Wheeler and Alexander ceramics at the Cofferdam site may indicate that the appearance of these ceramics may predate the established date for the beginning of the Gulf Formational stage in this area. Differences in decorative attributes for the Wheeler ceramics among these excavated sites may be of importance. The lack of dentate stamped/fiber tempered sherds at Cofferdam and Kellogg Village (?) may be indicative of an earlier temporal placement for these occupations than the Tibbee Creek and Yarborough components.

Middle Gulf Formational materials were also identified during testing of the Barnes Mound (Blakeman 1975), the East Aberdeen site (Rafferty et al 1980), the Moore's Creek site (Weinstein 1981), the Emmett O'Neal site (Alexander 1983b), 22-Le-507 (Jennings 1941), the Self site (Wynn and Atkinson 1976), and the Sanders site (O'Hear 1990).

Late Gulf Formational

Excavated sites producing Late Gulf Formational components include Aralia (Galm et al 1983, Bense 1986), Turtle Pond (Thomas et al 1982), W.C. Mann, the Mingo Mound, Tibbee Creek, Cofferdam, Yarborough, Kellogg Village, and the Sanders site. In most instances, excavation has revealed the Late Gulf Formational components to be rather ephemeral in character suggesting that they represent transitory camps with a primarily hunting and gathering focus.

Inspection of the ceramic assemblages from Tombigbee Hills Late Gulf Formational sites has contributed to a better comprehension of the Henson Springs phase. Particularly noteworthy is the obliquity of Alexander series ceramics at the Yarborough site. Solis and Walling (1982:43) have proposed that this phenomenon is attributable to the site's being regularly revisited by aboriginal groups. Connections with north Florida are indicated by the recovery of a small number of St. John's Incised sherds. This large ceramic assemblage in combination with pit features is indicative of a more sedentary occupation. In terms

of lithic diagnostics, Flint Creek and Little Bear Creek points have both been found in Henson Springs phase pit contents at this site.

The Aralia site an intact Henson Springs phase midden, is the largest excavated Late Gulf Formational site in the largest excavated Late Gulf Formational site in the Tombigbee drainage. Evidence from this site is indicative of a semi-permanent base camp at which multiple activities were carried out including stone tool manufacture and wood and hide processing.

The predominance of punctated Alexander sherds, presence of the type Columbus Punctate (considered a sand tempered derivative of Wheeler Punctate), and the absence of noded sherds was thought by Galm et al (1983) to suggest a relatively early placement of the Henson Springs component at this site. It was believed that this placement was further substantiated by a C-14 date of 429 B.C. (+50). Interestingly, considering the proposed early placement of the Henson Springs component at this site, Wheeler series ceramics were few. Wheeler sherds are usually found in considerable numbers at Henson Springs phase sites regardless of the component's relative placement within the phase.

In addition to the previously noted C-14 dates, excavations at the Kellogg Village site produced hickory nuts, shellfish, opossum, snake, fish (including bowfin), and unidentified mammal bone from the Late Gulf Formational pit features. Floral and faunal analyses of materials from the C-14 dates feature at the Cofferdam Site identified deer, mammal, bird, turtle, hickory nut and shell. Nut processing is also indicated by the contents of the Late Gulf Formational pits at the Yarborough Site. Although pit features could not be identified, subsistence remains from the midden are attributed to the Henson Springs phase due to the apparent single component character of the site. Floral remains are dominated by nuts and seeds, all of which were obtainable within the Tombigbee floodplain. Nut processing is also indicated by the contents of Late Gulf Formational pits at the Yarborough site. Faunal materials at Aralia were scarce and for the most part too small for identification.

Two kilometers south of the Aralia site a Henson Springs phase component has been identified at the Turtle Pond site. Although many Wheeler sherds are present, they were incorporated along with Alexander decorated and Baldwin Plain sherds in the Henson Springs component. It was proposed by the excavators that the presence of both Wheeler and Alexander series ceramics be used to mark the Henson Springs phase. Subsistence evidence from this site was inadequate for determining subsistence strategies for this Henson Springs phase component.

The dominance of Alexander series ceramics and Flint Creek projectile points indicates that the major village occupation at the Mingo Mound site may be attributed to the Late Gulf Formational. Faunal materials in

the midden at this site included deer, turkey, turtle, and freshwater mussel. The presence of several manos at the site indicates processing of plant foods. No faunal remains are reported but there is no indication that flotation was employed for the recovery of such materials. Neither are pit features noted, although it cannot be safely inferred that they are lacking in light of the limited amount of area excavated.

Although a considerable number of Alexander series sherds was recovered during excavations at the W.C. Mann site, they are from a mixed context, so little can be said of the overall character of this Late Gulf Formational component. Late Gulf Formational diagnostics have also been identified in small numbers and/or mixed contexts at several other Tombigbee Hills sites including Moore's Creek (Weinstein (1981), White Springs and Shell Bluff (Futato 1986), East Aberdeen (Rafferty et al 1980), Self (Wynn and Atkinson 1976), Pharr (Karwedsky 1980), Hester (22-Mo-569)(Brookes 1979), Emmett O'Neal (Alexander 1983b), and the Barnes Mound (Blakeman 1975).

As indicated in the introduction to this section, recent investigations at the Sander's site (see O'Hear 1990) have greatly enhanced our comprehension of the Late Gulf Formational occupation of northeast Mississippi. In terms of chronology, radiocarbon assays from this site indicate that this Henson Springs phase occupation dates as early as 800 B.C.

Analysis of the ceramics from the site suggests that the previously proposed decorative sequence in which punctating is considered to be a relatively earlier than incising (cf. Dye and Galm 1976, Bense and Jenkins in Bense 1987) may be incorrect, with the reverse actually being the case. The latter sequence would prove much more workable in supporting the cultural continuum between Wheeler and Alexander populations which is already indicated by non-ceramic evidence.

Subsistence remains from the site indicate that it was occupied on at least a semi-permanent basis. Floral and faunal evidence alike indicate occupation during "most if not all seasons of the year." (O'Hear 1990:105). Further, the presence of domesticated sunflower seeds at the site points to plant husbandry during the Late Gulf Formational, if only at a minimal level. A second husbanded plant, unidentified cucurbit, had previously been reported from a Gulf Formational hearth at the Poplar site (22-It-576) by Sheldon (Bense 1987:220).

Bense (1987:229) had previously interpreted the Gulf Formational subsistence data as indicating and increased use of second-line resources, probably reflecting increasing population pressures. Interestingly, analysis of the Sanders site subsistence remains does not appear to corroborate this pattern as they are said to reflect a "relatively relaxed, unpressured hunting-gathering subsistence strategy." (Scott in O'Hear 1990:76).

The Woodland Stage

The Woodland stage is well represented in the Tombigbee Hills. Middle and Late Woodland components occur in comparable frequency.

Middle Woodland

Of those sites classified as Middle Woodland, more specific information concerning site occupation can be discerned for several at which excavation has taken place. Early Middle Woodland (i.e. Miller I) diagnostics have been identified at the Dogwood Mound (Bense 1987), Pharr (Bohannon 1972, Karwedsky 1980), Cofferdam (Blakeman et al 1976), Bear Creek (Bohannon 1972), Turtle Pond (Thomas et al 1982), East Aberdeen (Rafferty et al 1980), Moores Creek (Weinstein 1981), Hester (Brookes 1979), the Emmett O'Neal site (Alexander 1983b), Yarborough (Solis and Walling 1982), Okashua (Wynn and Atkinson 1976), Vaughn (Atkinson 1974), Doss (McGahey 1971), Tibbee Creek (O'Hear et al 1981), and 22-Ts-954 (Alexander 1983b).

The best known of these is the Pharr site. This multi-mound and village site was used by Bohannon (1972) in reworking the Miller sequence and was later employed by Jenkins (1982) in formulating the Pharr subphase, which represents his period of maximum interregional interaction during the Woodland period. The mortuary program at this site includes both cremation and inhumation. Grave goods include pottery from the lower Mississippi Valley (Marksville Incised and Alligator Bayou Stamped) and north Alabama (Flint River Brushed and Flint River Cordmarked), copper earspools, silver plated conjoined tubes, and galena, indicative of long distance trade. Recently run C-14 dates from charcoal from three contexts at the base of Mound E indicate a construction date ca. A.D. 50-150 (Walling et al 1991:60).

Aside from the mound excavations at Pharr, portions of the associated village have also been investigated. Bohannon (1972) recovered materials which indicated occupation in the village area to be contemporaneous with mound building and use activities at the site. Of the few pit features reported, only one (a shallow pit) contained appreciable amounts of cultural debris, including Saltillo Fabric Marked and Baldwin Plain ceramics comparable to those from the mounds.

A considerable number of pit features and post-molds were identified during laster (1978) village excavations at Pharr (Karwedsky 1980), but analysis of the contents of these pits revealed them to be consistently earlier or later than the mound occupation. A possible circular structure was assigned to the Miller I phase based upon its similarity to structures at Bynum. One pit feature in this structure contained a Marksville Incised sherd, the only one reported for these excavations. Atkinson (1974) reports a large bowl fragment from the Vaughn Mound (22-Lo-538) also attributable to contact with the Lower Mississippi Valley Marksville culture. Hopewell influences are also revealed by the

presence of a clay sparrow-hawk effigy platform pipe and copper tube at the Doss Mound (22-Ps-507) in Prentiss county (McGahey 1971).

At the Okashua site, post-mold patterns indicated small, open structures possibly utilized as part of an occupation exclusive of the winter months. The identification of nutshells at the site suggests fall habitation. Based upon the proportions of Saltillo Fabric Marked, Furrs Cordmarked, and Baldwin Plain ceramics present, Jenkins (1982:69) included this component among the five excavated sites attributed to the Middle Miller I, Pharr subphases.

Several features at the Cofferdam site were attributed to Miller I. Among these was a pit partially filled with trash and subsequently used as a burial pit. A C-14 date of A.D. 125 (+228), obtained from skeletal remains in this feature has been used to argue that the proposed date for the Miller I to Miller II transition may be too recent (Blakeman et al 1976:108-109). Two other Miller I pit features from this site produced deer, turtle, unidentified mammal and bird, shell, hickory nut, and black walnut.

White Saltillo Fabric Marked sherds indicate a Miller I presence at Tibbee Creek and Yarborough, little can be said of these components due to their ephemeral and/or disturbed nature.

Although Middle Woodland materials at the Turtle Pond site do not occur in unmixed context, several interesting questions have been raised concerning the interpretation of these materials (Thomas et al 1982). Primary among these is the relationship between Late Gulf Formational and Middle Woodland manifestations, both at this site and in the region as a whole. Specifically, can significant shifts in settlement and subsistence be documented between these two periods as should be expected if the appearance of the Miller complex is in fact the result of outside influences? The contextual mixing present at this site, however, makes it unsuitable for addressing this issue.

Testing at the Dogwood Mound has indicated that the earthwork at this site is of Middle Woodland origin (Bense 1987:139). On-mound features were scant. Further, no aboriginal cremations or burials were encountered. Unfortunately, excavations designed to determine the possibility of burials being located at the base of the center of the mound were halted when a Euro-American interment was encountered, a classic example of differential and discriminatory attitudes concerning the treatment of aboriginal and non-aboriginal human burials. Ironically, historic (and undoubtedly prehistoric) burials had been disturbed and destroyed by irresponsible digging by relic-hunters in recent years.

Although Miller I and Miller II diagnostics are present at the Moores Creek site, their co-occurrence in mixed contexts greatly reduces their interpretive value at this site and consequently the utility of the site is understanding the Middle Woodland period in the region. Weinstein's (1981) discussion of the Miller sequence in his report on this site makes

several suggestions concerning alterations of the Miller sequence. Particularly notable is his proposal that Jenkins'(1982) Bynum and Pharr subphases be elevated to phase status and employed in the upper Tombigbee, since the Middle Woodland components at the Bynum and Pharr sites are more relevant to this area than those of the Gainesville Reservoir (Weinstein 1981:2-10).

Later Middle Woodland (Miller II) diagnostics have been recovered at several Tombigbee Hills sites including L.A. Strickland I, Bear Creek, Moores Creek, Turtle Pond, East Aberdeen, Hester, Self, Tibbee Creek, Yarborough, Okashua, and Emmett O'Neal. The Miller II component at L.A. Strickland I is the primary occupation at the site, but unmixed contexts attributable to this occupation are restricted to three pit features. Examination on these indicates that the site served as a temporary camp employed in foraging for fall nut and fruit resources. Radiocarbon dates from the site, averaging A.D. 644±62 (O'Hear and Conn 1978:43), are among the latest for the Middle Woodland occupations in northeast Mississippi.

Work at the Mackey's Creek site revealed this to be a single component Miller II occupation (Karwedski 1980). Among the features investigated at this site was a large circular depression interpreted as a semi-subterranean house. If this assessment is accurate, this structure is highly unusual for this time period, the only other structures of this type being reported for the Marksville site (Haag 1978:6). A C-14 date of .D. 520+80 was obtained from carbonized materials from the central hearth in the Mackey's Creek structure.

A Miller II component was also identified at the East Aberdeen site, although evidence in good context is present only in a 10 cm level of a single 4x4 meter test unit (Rafferty et al. 1980:82,289). Investigation of this component indicates it to be non-sedentary and (as at L.A. Strickland I) transitory in character. Subsistence remains of any sort were scant at this site.

Bense (1983) reports the results of excavations of the small early Miller II component at 22-It-581. Deer and hickory nut represent the primary subsistence remains at this site which has been interpreted as a seasonal (fall) encampment utilized both intensively and frequently.

Excavations at the Self site were able to document a spatially restricted Miller II occupation at this multi-component site, but extensive disturbance attributed to modern agriculture activities made it impossible to interpret the nature of this occupation (Wynn and Atkinson 1976).

Other Miller II components are considerably less substantial. Although a spatially segregated Miller II component may be present at Okashua, little cultural information can be derived from this occupation. Ceramics indicative of a Miller II component were also identified at

Tibbee Creek and Yarborough although the occupation in both instances may be characterized as ephemeral.

Late Woodland

According to the state files, 245 sites in the Tombigbee Hills have Late Woodland (Miller III) diagnostics. Excavation has been undertaken at several of these including Okaf Iti, Bear creek, Moore's Creek, White Springs, Shell Bluff, East Aberdeen Self, Hester, Emmett O'Neal, Pharr, W.C. Mann, Cofferdam, Tibbee Creek, River Cut #1, Yarborough, Kellogg Village, and the Vaughn Mound.

The Late Woodland occupation at the Kellogg Village site is attributable to the early portions of the Miller III phase (i.e. the Early Vienna subphase). This early placement is suggested by a series of C-14 assays predating A.D. 800. These represent the only available radiocarbon dates for the Early Vienna subphase. Unfortunately, in all but a single instance the standard deviations for these samples are quite large (ranging from 205 to 430 years), thus greatly reducing their utility in establishing the temporal positioning for this subphase. Small triangular projectile points which are characteristic of the latter portions of the Late Woodland (as well as Mississippian) period and indicative of the introduction of the bow and arrow are absent within the Miller III features at this site (Atkinson et al 1980:262), providing additional support for a relatively early placement.

The presence of small numbers of sherds classified as Marksville Incised at this site may indicate interaction between this area and the Lower Mississippi Valley during the terminal portion of the Middle Woodland period in the latter area. Charcoal associated with the Marksville Incised var. Yokena vessel fragment recovered from a pit feature at the Vaughn Mound site has been C-14 dated at A.D. 355+70 and A.D. 665+90 (Atkinson 1974:129). A Coles Creek Incised var. Coles Creek sherd was also recovered from this pit. A date of A.D. 780±205 has also been derived from a pit feature at the Kellogg Village site which included a Marksville Incised var. Yokena vessel section.

Sturgeon remains from Miller III pit features at Kellogg Village indicate that this site was occupied in the spring (Atkinson et al 1980:241). Overall, a rather diverse faunal assemblage was present at the site. The usual fall/early winter occupation is also indicated by the recovery of large quantities of nuts.

An early Miller III component has also been identified at the River Cut #1 site. A C-14 date of A.D. 790+50 was obtained from a pit feature at this site. The quantity of debris and presence of midden, pit features, structures, and burials has been employed by Rafferty and Starr (1986) in proposing that this and other Miller III sites represent permanent settlements and are not seasonal encampments in a central-based wandering regime as advocated by Jenkins (1982).

The Miller III component at the Tibbee Creek site was well represented. Jenkins considers this site to be a Late Vienna subphase representative, although the single Miller III C-14 date from the site (A.D. 965-55) falls outside the proposed A.D. 900 terminus for this phase. Small, triangular projectile points are present among the Late Woodland materials at this site, indicating that the introduction of the bow and arrow had occurred by the time of this occupation.

Evidence for the exploitation of a wide range of faunal resources is indicated, including both terrestrial and aquatic species. Mussel shell is abundant. The floral assemblage is dominated by nuts, with hickory and acorn being most common.

One small, circular structure and evidence for a second (incomplete) structure are probably attributable to the Miller III occupation at Tibbee Creek (see O'Hear et al 1981:241-243). The first of these is oval and constructed of small, individually set posts. The close-spaced arrangement of these posts and presence of a central fire pit suggest cold weather habitation.

The major component at the Cofferdam site is also Miller III. This occupation is characterized by a regularly spaced pattern of large pit features. Floral and faunal remains from these pits indicate a subsistence strategy based on mussels and forest mast, augmented by hunting with bow and arrow. Additionally, the presence of charred corn kernels with the Miller III features indicates the likelihood of cultivation.

Evidence from the Cofferdam site was originally employed by Blakeman et al in defining the Cofferdam phase. Tentative dating was established at ca A.D. 500 to 750 based upon C-14 dates from the site. Subsequently, Jenkins (1982) has adopted Cofferdam as a designator for one of his four Miller III subphases. Temporal placement for this subphase is based on four C-14 dates from two Gainesville Reservoir sites as well as a different subset of the Cofferdam site dates. Atkinson (1990) maintains that the majority of the Miller III dates for this site range between A.D. 750 and A.D. 1250 and suggests that at least a portion of this occupation falls within an Emergent Mississippian timeframe.

In the case of the Self site, a radiocarbon date of A.D. 805±75 (obtained from a burned post) indicates the temporal placement of the Late Woodland occupation. Unfortunately, additional information concerning this plowzone component is minimal.

No pit features and only two post molds could be attributed to the Late Woodland component at the East Aberdeen site. Whether additional pits and posts were destroyed by plowing is unknown. The recovery of a considerable amount of daub indicates that structures were probably present at one time. Miller III debris at this site suggests its use as an extractive or transitory camp with the quantity and type of lithic debris present suggesting the former. The few identifiable subsistence remains

included hickory shell, acorn, turtle, bird (including turkey), small mammal, and possibly deer. Seasonal indicators point to a fall occupation at the site.

Late Woodland occupations at the Shell Bluff and White Springs sites are attributed to the Cofferdam subphase based upon the predominance of clay tempered ceramics at both (Futato 1986:144). Although a series of nine radiocarbon dates is available for these sites, they are considered too all-encompassing to aid in interpreting the specific cultural sequence (Futato 1986:233).

The Shell Bluff site is characterized by an extensive shell midden and numerous pit features and burials. Post-molds are also common, yet no structures were indicated by the distribution of these features. While a considerable midden was also present at the White Springs site, it differed from the one at Shell Bluff, as well as excavated Miller III sites in general, by its paucity of pit features and cultural debris and absence of post molds. This evidence marks Shell Bluff as the more permanent of the two occupations. The more northerly location of the White Springs site may indicate that observed differences are spatial ones according to Futato (1989:116) who cites a comparable situation at Pharr.

Examination of the faunal remains from these sites reveals a utilization of a wide diversity of both terrestrial and aquatic species, all of which would have been available in the surrounding river and backwater environs. Notably, the representation of deer at Shell Bluff is the smallest of any analyzed Miller III site.

Burials at these sites are generally flexed. Orientation is inconsistent, a trait which had previously been reported at the Cofferdam site and considered characteristic of the Cofferdam subphase. Shell beads and gorgets are associated with several of the burials at the Shell Bluff site, while no ornamentation is present among the White Springs burials. Differential preservation due to varying soil chemistry is proposed as a possible explanation for this difference as well as the previously observed infrequency of grave goods for Miller III burials in general.

Bense (1987:118) employs the term Late Woodland/Mississippian in discussing the situation at the Okaf Iti site. This designation reflects the nature of the ceramic assemblage at the site, where the primarily grog tempered assemblage (i.e. Baytown Plain and Mulberry Creek Cordmarked) also contained considerable quantities of mixed grog/shell and shell tempered ceramics (Jenkins in Bense 1987). The occurrence of shell tempered sherds within this assemblage, the largest of any Late Woodland site in the Tombigbee drainage, indicates this site to be terminal Late Woodland. Radiocarbon dates from the site indicate occupation as late as A.D. 1200, extending the timeframe for Late Woodland by approximately 100 years and indicating as much as a 200 year overlap between Late Woodland and Mississippian manifestations in the region.

Although seven pit features are attributed to this component, “the lack of prepared areas, ceremonial features, burials, or structural remains reflects a utilitarian and short-term use of the site (Bense 1987:123). The ceramic and C-14 evidence suggests that the occupation at Okaf Iti occurred during the period associated with the Late Woodland-to-Mississippian transition in this area and thus inspired.

Maize was present in the contents of the pit features at this site although wild foods appeared to represent the primary staple in the diet of this population. Maize has also been recorded in minimal amounts at several other Late Woodland sites in the Tombigbee Hills including Shell Bluff, and Okaf Iti.

The Mississippian Stage

Although considerably less common than sites of the Woodland stage, numerous Mississippian sites have also been recorded in the Tombigbee Hills. The majority of these have been identified as Mississippian based upon the presence of plain, shell tempered ceramics and as such cannot be assigned to a more specific timeframe (see table 2).

Several of the sites which have been excavated in this area including White Springs, Shell Bluff, Moore’s Creek, Turtle Pond, Pharr, Emmett O’Neal, Tibbee Creek, Yarborough, Kellogg Village, Vaughn, River Cut #1, and the Coleman, Barnes, Bear Creek mounds contain diagnostics of this period.

While evidence for a Mississippian occupation at the River Cut #1 site is minimal, it has important implications concerning the nature of the Woodland-to-Mississippian transition in this area. Rafferty (1986a) contends that the presence of small numbers of shell tempered ceramics within the Late Woodland features at this site is a result of the incorporation of Late Woodland debris into Mississippian features. A similar view has been proposed by Futato (1986). This interpretation contrasts with that of Jenkins (1982) who views such contexts as indicators of the early stages of a Late Woodland-to-Mississippian developmental sequence of the sort characterized by the West Jefferson phase in the upper Black Warrior drainage.

Investigations at the Tibbee Creek site indicate the presence of a Lyon’s Bluff phase component (O’Hear et al 1981). Although several C-14 dates were obtained from this component, they are apparently unreliable and thus are unable to provide for a more specific dating of this component. The evidence indicates that this site represents a farmstead composed of a large, rectangular, two room, wall trench house; a prepared cemetery; and multiple pit features. Although probably belonging to the Late Woodland component at the site, the round house structure at this site may also be Mississippian and may represent the second shelter in a summer house/winter house arrangement. As might be expected, corn was present among the floral

remains in this component in amounts indicative of its role as a major food source. To date, the Lyon's Bluff phase component at Tibbee Creek represents the best example of a small Mississippian community in the Northeast Mississippi physiographic region.

The Mississippian occupation at the Kellogg Village site is temporally anchored by C-14 dates of A.D. 1185 + 90 and A.D. 1195+76, aligning it with the Moundville I phase of central Alabama and the Lyon's Bluff phase at Lyon's Bluff. Significant findings at this site include the identification of one (and possibly as many as three) round/single post structures. Mortuary evidence reveals standardized burial practices and age-, sex-, and status-related grave goods. Subsistence remains substantiate the importance of maize and indicate that the site was occupied throughout most, if not all, of the year (see Atkinson et al 1980).

Radiocarbon dates attributable to the early portions of the Mississippian stage in the Tombigbee Hills have also been returned from the Coleman Mound and Barnes Mound. At Coleman, an A.D. 1265+105 date was produced from the upper levels of the large platform mound (Rucker 1974:56) while the accretional midden at Barnes produced a date of A.D. 1185±60 (Blakeman 1975:96).

Similar to the situation at Tibbee Creek, the Mississippian component at the Yarborough site also indicates a farmstead occupation (Solis and Walling 1982). These two sites, along with a third from the Gainesville Reservoir (1Gr2), represent the entirety of the excavated data for Mississippi stage farmsteads in the Tombigbee and northeast Mississippi.

As summarized by Solis and Walling (1982:169), "occupation of the Yarborough site was physically represented by a house of single-set post wattle and daub construction, an adjacent refuse dump on the levee slope, and various other features on the natural levee surface. Quantities of botanical and faunal remains collected from the refuse dump have allowed us to infer a basically year-round settlement, agriculturally based but with a well mixed, broad spectrum economy exploiting a wide variety of available resources in this environment."

Radiocarbon dates of A.D. 1520+70 and A.D. 1550+65 (Solis and Walling 1982:170) indicate the Yarborough site to be Late Mississippian. This evidence, in conjunction with the composition of the ceramic assemblage, has been used to assign this occupation to the Sorrells phase of the Lyon's Bluff sequence. Further, it is posited that the evidence indicates that what Marshall (1977) suspected to be mixed assemblages among the Sorrell's ceramics at the Lyon's Bluff site are in fact a single assemblage representing multi-directional influences. Alabama River phase associations from the Moundville area to the east are exemplified by a burial urn and sherds from additional burial urns at Yarborough, while lower Mississippi Valley (Almoral phase) associations

are indicated by ceramic types such as Parkin Punctate, Campbell Applique, Fortune Noded, and red-on-white and red-on-buff painted types.

The round-to-oval house pattern identified at Yarborough supports the contention that the wall trench structures common during the preceding portions of the Mississippi stage are no longer a dominant form at this time.

The Bear Creek site consists of a small platform mound and associated habitation area. Aside from the mound itself, the Mississippian occupation is represented by numerous shallow pit features, burials, and house structures. One of the structures is sub-rectangular and of single-post construction while the other is of the rectangular-wall trench type. The ceramic assemblage from this site is dominated by plain, coarse shell tempered sherds. Plain, fine shell tempered sherds as well as examples of Moundville Incised vars. Moundville and Carrollton and Barton Incised indicate this to be a Middle Mississippian occupation. Unfortunately, subsistence evidence is scant. Charred corncob fragments are reported in the soil horizon beneath the mound (Bohannon 1972:14).

Evidence from the Pharr site also indicates a Mississippian presence. A single pit feature from the village area contained over one hundred shell tempered sherds (Bohannon 1972:23). A linear post-mold pattern interpreted as a "palisade and bastion", uncovered during the 1978 excavation (Karwedsky 1980) is probably associated with a Mississippian occupation at the site. (Fortifications have been noted at both the Lyon's Bluff site during the Middle Mississippian Lyon's Bluff phase and at Gainesville Reservoir sites during the latter portions of the Mississippi stage.) With the exception of the above mentioned pit feature, the relative sparseness of shell tempered ceramics at this site suggest a rather limited duration for the Mississippian presence at Pharr. Apparently, all of the shell tempered ceramics recovered from the site are either plain or eroded, greatly reducing their value for more specific temporal placement of the component.

Although the evidence is scant, a certain amount of information concerning Mississippian occupations in this area can be derived from the excavations at the Shell Bluff site. Several pit features at this site were attributed to a Mississippian component based upon the presence of shell tempered ceramics in their fill. Significantly, a considerable number of those features at Shell Bluff which were classified as Mississippian contained only minimal amounts of shell tempered pottery among larger numbers of Late Woodland sherds. Included are sherds classified as Parkin Punctated (var. Bridgeville), Leland Incised and Barton Incised, indicating a Late Mississippian placement. Others (cf Jenkins 1982 and Jenkins and Krause 1986) have chosen to interpret such contexts as representatives of the Late Woodland-to-Mississippian

transition. This occupation is considered to be similar to Mississippian farmsteads and hamlets of this period in the central Tombigbee.

The question of component mixing of feature debris cannot be easily determined by the Shell Bluff evidence. Only two decorated Mississippian sherds are from feature contexts; a Moundville Incised var. unspecified sherd in association with 88 grog tempered sherds in feature 1-53 (a possible post-mold cluster) and a Barton Incised sherd recovered from another post-mold. The proper interpretation of such contexts is crucial in understanding Late Woodland/Mississippian relationships in this region.

BLACK PRAIRIE

Introduction

The Black Prairie (also known as the Northeastern Prairie and the Black Belt) represents that portion of the Northeast Mississippi physiographic unit bordered by the Tombigbee Hills on the east and the Pontotoc Ridge on the west (see figure 1). That its role in the prehistoric occupation of this region has been considerable is well illustrated by the large number of archaeological sites reported therein.

Physical Description

The Black Prairie can be characterized as follows: Geology: Outcrop of Selma chalk or rotten limestone (Cretaceous group) from which derive Black Prairie soils. Topography: Broad, low-lying land of slight relief; nearby lower, open prairies. Land belt 10 to 25 miles wide; lower level than hills; slopes southward. Soils: Black, calcareous clay loams; infertile red or yellowish clay or sandy loam on elevated areas. Vegetation (early historic): open grasslands and cedar groves. Elevation: Ca: 179 to 400 feet (amsl). Location: Belt running from northeastern border of state south and turning eastward, touching eastern border in Noxubee and northern half of Kemper counties (see figure 1).

Archaeological Overview

The archaeology of the Black Prairie is in large part responsible for our present knowledge of the prehistory of northeast Mississippi. In fact, the Miller site (22-Le-506), one of the two sites upon which the definition of the Woodland sequence for this area was originally based (see Jennings 1941, 1944) and the site from which its name derives, is situated in the Black Prairie. The Miller sequence alone (spanning the interval from 100 B.C. to A.D. 1100-1200) amounts to roughly half of the post-Archaic prehistoric record in this region. As previously noted, a sizable number of prehistoric Indian sites is known in this area.

The concentration of sites in the Black Prairie has been noted by several authors (cf. Johnson 1988, Bense 1987, Jenkins 1982, Marshall 1991, nd.c). This propensity can in part be attributed to the trend toward an increasing reliance on subsistence strategies involving plant domestication. Given this scenario, the relatively more fertile soils of the Black Prairie were a desirable commodity, but as Johnson (1988) has noted, land use within the Black Prairie changes through time. The particulars of these changes will be discussed in greater detail in a following section of this report.

Included among the inventory of sites in the Black Prairie are several which have been excavated, analyzed, and reported to varying degrees. Aside from the previously noted Miller site (22-Le-506) these include the Lyon's Bluff site (22-Ok-520), the Metzger #1 site (22-CI-502), North Nashville Ferry Cutoff (22-Lo-553), the Waide Site (22-CI-764) and James Creek #1 (22-Lo-617). The particular contributions of these and other Black Prairie sites toward our present comprehension of the post-Archaic prehistory of the Northeast Physiographic region will be cited in the appropriate portion of the ensuing discussion. See table 2 for a listing of components by subarea and cultural affiliation for northeast Mississippi.

The Gulf Formational Stage

Gulf Formational occupations have been identified at ___ sites in the Black Prairie. Components at these sites have been designated as Middle Gulf Formational based upon the presence of fiber tempered (Wheeler series) ceramics and/or Late Gulf Formational based upon the presence of sand tempered (Alexander series) pottery. A third "unspecified" subdivision has been utilized in order to record those sites identified as Gulf Formational on site cards yet not providing a listing of identified or collected materials. A total of 167 components are recorded within these three categories (see table 2).

Middle Gulf Formational components can be identified at forty-nine Black Prairie sites. Included among these is the James Creek #1 site (22-Lo-617) at which an extensive surface scatter of Wheeler (and Alexander) series ceramics was observed. This site was employed by Jenkins et al. (1975) and Jenkins (1982) in establishing the Broken Pumpkin Creek phase. The discrepancy between the site and phase names is the result of an unfortunate mix-up concerning the location of this site (Jenkins personal communications 1986, Bense 1987, Brookes and Connaway 1977). Based upon the quantity of materials present upon the surface of this site, it has been considered to be a base camp associated with a central-based wandering subsistence strategy (Jenkins et al. 1975, Jenkins 1982). While O'Hear (1991) returned to this site in 1990, testing provided very little additional information on the Gulf Formational occupation.

Other sites exhibiting Middle gulf Formational (i.e. Wheeler series) ceramics include Metzger #1 (Marshall nd.a) and North Nashville Ferry Cutoff (Blakeman 1975). In each of these instances, however, the evidence is minimal and provides little additional information concerning this period. The inability to separate Wheeler and Alexander series ceramics based upon context here and elsewhere in northeast Mississippi has caused concern as to the temporal relationship of Wheeler and Alexander occupations and the validity of employing separate phase names for Gulf Formational occupations in this region.

Late Gulf Formational (Henson Springs phase) components are present at sixty-one sites in the Black Prairie. None of these have been excavated.

The Woodland Stage

Woodland stage components have been identified at ___ sites in the Black Prairie. The entirety of the Woodland stage for this region is subsumed in the Miller sequence. Sites can be attributed to portions of this sequence based upon diagnostic materials, particularly ceramics (as indicated in table 2). Both the Middle (Miller I and II) and Late (Miller III) phases are well represented. Unfortunately, due to numerous difficulties encountered in interpreting site card data in such a manner as to make consistent phase and subphase level determinations, cultural assignments are recorded as only Middle or Late Woodland in the present report. Again, an indeterminate category is employed for recording ceramic sites and other sites with insufficient information available for making a more specific assignment.

At this level of generalization, sites exhibiting Middle Woodland and Late Woodland components are relatively equal in number. This observation is not particularly surprising when it is pointed out that the majority of the sites at issue contain both Middle and Late Woodland components. Employing a finer breakdown (and a more limited sample), Johnson (1988) was able to document a trend toward increasing usage of the Black Prairie through the Woodland sequence, with maximum occupation of this area occurring within the Columbus to Demopolis area during Late Woodland (Miller III) times. Most of the sites which have been excavated in the Black Prairie have Woodland components. Several of these investigations have been influential in the creation and refinement of the Miller sequence.

Middle Woodland

Sites from northeast Mississippi and the Black Prairie have contributed significantly to the formation of the Middle Woodland portion of the Miller sequence (i.e. Miller I and Miller II). Several excavated sites in the Black Prairie have produced Miller II diagnostics. Among these the Miller site (22-Le-506) plays a primary role as it represents not only the

namesake for the Miller sequence but also the site upon which the Miller II construct was based. Mounds A and B at this site attest to the continuation of Hopewell influenced burial practices. The lack of crematories and charnel houses at the Miller Mounds indicates less mortuary elaboration while the paucity of trade goods suggests a discontinuation of active participation in interregional exchange by this time.

Two round and two oval structures of single post construction at the site provide examples of houses of this period. Lacking good evidence for early Miller II in the Gainesville area, Jenkins (1982) has employed the Miller Mounds evidence in establishing the Tupelo subphase. Recently run C-14 dates derived from materials from Mound B at Miller indicate a construction date sometime between A.D. 250 and 350 (Walling et al 1991: 61-61). O'Hear (1991) identified a late Miller II component at the James Creek #1 site which shows potential for spatial separation. Further work at this site may thus provide valuable data on the Middle Woodland period in the Black Prairie.

Late Woodland

A considerable number of sites with Late Woodland (Miller III) components have been reported in the Black Prairie. None have been excavated.

The Mississippian Stage

Although less common than Woodland sites, Mississippian occupations are numerous in the Black Prairie. Employing site card data, a total of ___ sites with Mississippian components have been recorded. These have been subdivided into early, middle, and late expressions based upon diagnostic artifacts (table 2). An "unspecified" category has been implemented for those situations where diagnostics are either not present or were not reported. Roughly one-third of the total number of Mississippian sites falls into this latter category. Excavated sites with Mississippian components include Lyon's Bluff (22-Ok-520) and Waide (22-C1-764).

As noted in the introductory section, several regionally specific phase sequences (jointly referred to as the Moundville variant) have been proposed for the area in and around northeast Mississippi. Among these is the sequence constructed from the evidence of excavations at the Lyon's Bluff site located on Line Creek, a western tributary of the Tombigbee. A series of four sequential(?) phases: two mature Mississippian (Tibbee Creek and Lyon's Bluff) and two late Mississippian (Sorrells and Moon) phases have been identified (Marshall 1973, 1977 and 1986). The phases derived from this single mound Mississippian center have been extensively cited. Considering the similarity between these phases and those of the other Moundville variants, all of which

have been summarized in a preceding section, they will not be re-reviewed at this point. The occupational sequence at this site spans the entirety of the Mississippian stage, chronicling the appearance, florescence, and demise of this manifestation. Two of the radiocarbon dates for the site (A.D. 1210±65 and A.D. 1630±65) provide general bracketing dates for the occupation of this site.

Recent (1989) excavations at the Waide site have revealed it to be a single component late prehistoric/early protohistoric occupation. Two radiocarbon assays derived from bone collagen samples from pit features at Waide produced a central intercept date of A.D. 1490 (Johnson et al 1991:6). Johnson interprets the date from this site as indicative of a shift from the riverine focused classic Mississippian pattern to a dispersed settlement within the upland prairie environs prior to initial European contact via the De Soto entrada (1991:69).

THE PONTOTOC RIDGE

Introduction

The Pontotoc Ridge represents that elevated region separating the Black Prairie to the east and the Flatwoods to the west (see figure 1). Archaeological sites in this area are considerably less common than in either the Black Prairie or Tombigbee Hills. The acreage encompassed by the Pontotoc Ridge is the smallest of those areas composing the Northeast Mississippi physiographic region, but size alone cannot account for this under representation of sites as both physiographic and ecological factors also have a considerable influence on site frequency and distribution.

Physical Description

The Pontotoc Ridge is characterized by Connaway, Brookes, and Corso (1980) as follows: Geology: Sands and marls of the Ripley formation (Cretaceous group).

Topography: High land bordering the west side of the northern half of the Black Prairie; backbone ridge with rugged, broken hills dropping suddenly into lowlands on either side of crest. Soils: Red, sandy loam derived from weathered Ripley formation.

Vegetation (early historic): mixed oak and hickory forest. Elevation: More than 500 feet (amsl). Location: Small, wedge-shaped region entering the state at Tippah and Alcorn Counties, running south to a point near Houston in Chickasaw County (see figure 1).

Archaeological Overview

As noted above, archaeological sites on the Pontotoc Ridge are relatively few, only ___ being reported in the MDAH site files. Of this

number, ___ exhibit post-Archaic components. The majority of these are Woodland, with Middle Woodland occupations being most common. The Gulf Formational and Mississippian stages have been considerably less representation (see Table 2). Excavated sites containing post-Archaic diagnostics are also few, including only the Thelma Mounds (22-Cs-501), the Owl Creek Mounds (22-Cs-502), the Ingomar Mounds (22-Un-500) and the Bynum Mounds (22-Cs-503). The latter of these has figured significantly in the derivation of the post-Archaic sequence for northeast Mississippi.

The Gulf Formational Stage

A total of ___ sites with Gulf Formational components are recorded for the Pontotoc Ridge. In all instances, these occur at multicomponent sites. Four sites: Tubba's Ridge (22-Po-500), Little Houlka (22-Cs-522), Lancaster B (22-Cs-526), and McClain (22-CI-516) exhibit Middle Gulf Formational diagnostics. With the exception of McClain (where a single fiber tempered sherd was recovered), each of these sites also exhibits Late Gulf Formational materials.

Late Gulf Formational occupations have been identified at five sites: Tubba's Ridge, Little Houlka, Lancaster B, CI-841, and CI-865. In the last two instances, the Late Gulf Formational materials are not accompanied by Middle Gulf Formational ones. Aside from shovel tests employed to determine midden depth and composition at various sites, the 1x1 meter test at CI-865 represents the only reported sub-surface investigations at a Gulf Formational site on the Pontotoc Ridge.

Surface surveys have identified two additional sites with Gulf Formational components: Muddy Creek (22-Ri-514) and Edwards #2 (22-CI-780). Phase designations have not been made for either of these sites due to the lack of diagnostic ceramics.

In sum, Gulf Formational occupations appear scant in this area. However, most of those which have been identified exhibit considerable midden. Although all occur at multicomponent sites, component integrity is possible in that some of the midden units extend below the plow zone. Excavation at such sites may provide data concerning both the composition of individual Gulf Formational components as well as the association of these components with earlier and later occupations.

The Woodland Stage

Sites exhibiting Woodland components comprise the majority of the Pontotoc Ridge sites. As pointed out by Johnson (1988), this occupational peak coincides with an areally diverse Miller II/III settlement pattern and reflects the desirability of this locale in terms of access to the resources of adjoining areas. Excavations have been carried out at only three sites, the Bynum (22-Cs-501)(Cotter and

Corbett 1951), Thelma (22-Cs-503)(Johnson and Atkinson 1985), and Ingomar (22-Un-500) (Rafferty 1983 and 1990a) mounds.

The Bynum site has figured significantly in the formulation of the Miller Sequence, particularly that portion presently referred to as Miller I (a la Jenkins 1982). The ceramic assemblage from Mound D at Bynum, consisting almost entirely of Saltillo Fabric Marked and Baldwin Plain, comprises the type assemblage for early Miller I, labeled the Bynum subphase. Excavation of this mound, revealed a central pit and subpit containing human remains apparently cremated in situ. A copper bead and earspool were associated with this context.

The majority of the Bynum mounds are attributed to the Middle Miller I Pharr subphase based primarily upon the minor occurrence of Furrs Cordmarked ceramics along with the predominant Saltillo Fabric Marked and Baldwin Plain types. Both Mounds A and B contained central features with cremated and in-flesh interments. A subfloor pit in Mound B may have functioned as a charnel house. Associated with the human remains in these mounds were copper earspools, galena, marine shell fragments, and Gibson or Norton projectile points. The presence of these exotic items is indicative of interregional trade, the projectile points is revealing contact with Middle Woodland (Hopewell) groups from the Illinois Valley. The recovery of a partially reconstructable Marksville Stamped var. Marksville vessel (with raptorial bird motif) from the village area at Bynum also indicates lower Mississippi Valley associations at this time. Recently run C-14 dates on materials from mounds A and B indicate that both date to the 1st two centuries B.C.

The Bynum site has also provided evidence for house structure types during the Miller I phase. Of eight circular-to-oval postmold patterns identified at the site, seven are aligned in a northwest-to-southwest pattern. These large structures, ranging from 35 feet to 78 feet in diameter, are all attributed to the Bynum and/or Pharr subphases. The eighth structure is considered to relate to a later (Miller III) site occupation because of its differing ceramic assemblage.

Aside from the identification of a single Miller III structure and a grouping of flexed (Cofferdam phase?) burials at Bynum, the only other excavated evidence concerning Late Woodland occupation of the Pontotoc Ridge comes from the Thelma mound group. Two surface collections and a single test pit recently excavated into the only remaining mound at this site provide a ceramic collection dominated by grog tempered Woodland materials, although shell tempered Mississippian and historic Choctaw sherds are also present. The dissimilarity of the Late Woodland ceramic assemblage at this site in relation to that of the local Miller sequence is evidenced by the dominance of plain sherds at Thelma. Parallels between this assemblage and that of the West Jefferson phase of central Alabama suggest a transitional Late Woodland-to-Mississippian placement for this site.

Although the remaining mound at Thelma is of the flat topped and ramped variety, its elongate form is cited in arguing that it is non-Mississippian in origin. If this assessment is correct, Thelma would represent the earliest post-Middle Woodland mound group in the Northeast Mississippi physiographic region and as such, it is valuable in its potential for monitoring the beginnings of the Mississippian tradition in this area. A single radiocarbon date of A.D. 680±130 from the remaining mound at Thelma indicates that this flat-topped earthwork is pre-Mississippian (Johnson and Atkinson 1985:8). Unfortunately, it is apparently too early to help collaborate a Woodland-to-Mississippian transitional placement.

The Mississippian Stage

To date, very few Mississippian components have been reported for the Pontotoc Ridge. Only nine are recorded in the state site files. Included among these are the Thelma mound group (see McGahey 1970, and Johnson and Atkinson 1985) and the Owl Creek site (a palisaded village including five to seven flat topped mounds) investigated by Moreau Chambers in 1935 (see Brookes 1985) and Rafferty in 1991 and 1992(?). Work at these sites represents the only excavated data on Mississippian sites in this area. The paucity of Mississippian sites in this area correlates with the increase in sites in the Black Prairie during this period. Thus, with the increasing importance of agriculture within the subsistence base, expanses of bottomland such as were available in the latter area became more desirable. Consequently the Pontotoc Ridge, although never heavily occupied, apparently became virtually abandoned, a trend which continued into the Late Mississippian/Protohistoric and early historic periods.

FLATWOODS

Introduction

The Flatwoods, also known as the Interior Flatwoods, represents the westernmost of the four areas constituting the Northeast physiographic region. Fewer sites are presently known for this area than for any other in the region (see Table _).

Physical Description

The Flatwoods is characterized by Connaway, Brookes, and Corso (1980) as follows:

Geology: Flatwoods or Porter's Creek clay: tenacious joint clay (Eocene group).

Topography: Narrow band of low, flat land bordering the west side of the Pontotoc Ridge and Black Prairie; two to eight miles wide; surface mostly

featureless, but hilly in places. Soils: Gray, sticky clay; cracks and hardens when dry. Vegetation (early historic): Scrub oak and pine. Elevation: Location: Narrow band bordering Pontotoc Ridge, sweeping in open crescent around west and south margin of Black Prairie (see figure 1).

Archaeological Overview

Reported archaeological sites in the Flatwoods are sparse. This situation is due in part to the paucity of archaeological work in this area. A survey of the upper and middle portions of Line Creek (Johnson et al. 1984), the Clay county survey by Brookes and Connaway (1977), and survey by Rafferty (see 1990:101) in the vicinity of the Ingomar Mounds represent the only substantive surface reconnaissance's. Given the relatively large size of this area, however, site density must be considered low. Undoubtedly the lack of physiographic relief and small number and order of streams in this area also contribute to the reduced aboriginal presence. Further, poor soil quality provided neither forage vegetation for wildlife which could be taken by hunter-gatherer groups nor adequate nutrients for the crops of later agriculturists.

The Gulf Formational Stage

Very few sites are reported for the Gulf Formational stage within the Flatwoods. With the exception of Ok-642, at which the entire aboriginal occupation is represented by a bifacially worked piece of chert, a piece of ferruginous sandstone, and a single Alexander Incised sherd (Rafferty 1978), all of these sites are multicomponent. No Middle Gulf Formational components have been identified. This is unusual in that Middle Gulf Formational occupations are present throughout the remainder of the Northeast region and commonly co-occur at sites which also have Late Gulf Formational components. Subsurface investigations for Gulf Formational stage sites consist of shovel test to document midden depth at various sites and a single (unproductive) 1x1 meter test unit at Ok-642.

The Woodland Stage

As with the other areas in this region, Woodland sites dominate the post-Archaic occupational sequence. With a few notable exceptions, these consist of surface scatters of ceramic and lithic debris.

At least one mound site, Andrews (22-C1-909), in the Flatwoods district can be attributed to Middle Woodland populations. It was identified during Brookes and Connaway's Clay County survey and is characterized by a single conical mound. This site is located at the Flatwoods/Black Prairie interface immediately below the southern terminus of the Pontotoc Ridge and within 5 miles of the Powell site (22-C1-792), another single mound Middle Woodland site situated within the

Black Prairie. A badly disturbed mound which is presumably also of Middle Woodland origin is present at the McVay Site (22-Po-514). This mound is located roughly halfway between Ingomar and Andrews/Powell. Ingomar (22-Un-500), a major Middle Woodland mound center located at the Pontotoc Ridge/Flatwoods interface is discussed in the preceding section concerning sites along the Pontotoc Ridge.

Site exhibiting Late Woodland diagnostics are only slightly less common than those with Middle Woodland ones. Half of those sites with Late Woodland materials also contain Middle Woodland indicators. Again, component identifications are based almost entirely upon scatters of surface debris, and substantive subsurface excavation has been undertaken at none of these sites. Shovel tests indicate that subplowzone midden survives at some sites, thus potential exists for the acquisition of subsurface data concerning the Late Woodland period in this area.

The Mississippian Stage

Information concerning the Mississippian stage within the Flatwoods district is practically nonexistent. The general lack of Mississippian sites in the Flatwoods can be attributed to the same causes as those discussed for the Pontotoc ridge, particularly the lack of expansive floodplain areas amenable to agriculturally based/sedentary settlement-subsistence economies.

Issues of Relevance to Further Research

As evidenced by the preceding discussions, archaeology in the Northeast Mississippi physiographic region is relatively young. Thus, many basic issues are yet to be resolved. At present much of the cultural sequence for this region as well as the character of its constituent components must be extrapolated from work in the central Tombigbee Valley. Investigations in the Gainesville Reservoir area of west-central Alabama have been particularly influential as interpretations based upon this work have been widely disseminated and utilized. A primary issue for further research, therefore, concerns examining the relationship between the prehistoric record as observed in the Central Tombigbee and the remainder of northeast Mississippi and evaluating the adequacy of this scheme for representing this larger area.

It is apparent that alterations will be necessary. Although Jenkins (1981:___) maintains that his sequence is applicable to both the Central and Upper Tombigbee drainage, he also makes reference to the fact that comparisons are difficult between the central and upper portions of the valley due to the lack of a developed type-variety ceramic typology in the latter (1981:___). There is no unanimous agreement, however, that a type-variety approach is desirable or even necessary (cf. Rafferty 1988b, Starr 1986, and Peterson 1990). Never-the-less, as pointed out by

Jenkins (1981:___), adequate ceramic description is essential in order that comparisons between areas can be made.

At this point it is obvious that the prehistory of northeast Mississippi is little more than a general sketch of the cultural milieu of the Tombigbee Valley as constructed from evidence gleaned from various segments of that drainage. While the Gainesville Lake area has figured most prominently in the late Middle Woodland and Late Woodland portions of the sequence, earlier portions are derived primarily from data obtained from sites in the central and upper Tombigbee within the bounds of the state of Mississippi.

Due to concerns as to the inter-areal comparability of cultural manifestations, some researchers have advised caution in the de facto adoption of proposed phases. In 1975, Blakeman (1976:53) maintained that only two phases in the Central Tombigbee (i.e. Bynum and Cofferdam) were adequately delineated. He points out that information concerning settlement pattern, subsistence base, and social variables is necessary if phases are to represent more than "super-refined ceramic chronologies" (Blakeman 1976:53). Additional archaeological investigations in this area have provided an expanded data base, however, Blakeman's suggestion of proceeding with caution continues to be good advice in insufficient data concerning phases is apparent in numerous instances considerable research in the past decade.

The Gulf Formational

Although the concept of a Gulf Formational stage is now generally accepted among researchers in this region, the composition of its constituent phases as well as the interrelationship between phases is not well understood. The earliest phase (i.e. Broken Pumpkin Creek) is thought to be established on a central-based wandering settlement-subsistence regime by some researchers. Others point out that possible base camps have been identified by surface reconnaissance. The most notable of these is represented by the extensive scatter of debris on the surface of the James Creek #1 site in Lowndes county, Mississippi. Unfortunately, limited testing at this site by O'Hear in 1990 encountered no subsurface deposits attributable to the Gulf Formational component (O'Hear 1991).

Presently, Middle Gulf Formational components are assigned to phases based primarily upon locational characteristics. Thus, Broken Pumpkin Creek equals Middle Gulf Formational in the central and upper (?) Tombigbee Valley while Bluff Creek is the Middle Tennessee representative. It has been suggested that the frequency of indicative of a developmental sequence from Wheeler to Alexander series ceramics. Tempering constituents, however, may simply reflect access to different clay sources and as such are not necessarily culturally significant in either a temporal or associational sense.

That the ceramic evidence must be resorted to in order to derive cultural differentiation's is illustrative of the paucity of information at our disposal for evaluating the Middle Gulf Formational. How phases differ in characteristics other than their ceramic inventory remains to be determined. While indications are that Late Archaic lifeways continue during the Gulf Formational stage, virtually nothing is known of mortuary practices, housing types, and many other characteristics. Drawing upon negative evidence, Atkinson (1990) has suggested that the lack of in-flesh burials in Gulf Formational components may be significant in terms of mortuary behavior. Increased knowledge of these constituents is an important goal for further research.

Further illustration of our present lack of knowledge concerning the Broken Pumpkin Creek phase is revealed by the fact that even the temporal placement of this phase remains uncertain. In fact, no absolute dates are available. Although a 1000 BC to 500 BC positioning is proposed by Jenkins (1982) based upon extraregional evidence, 1200 BC dates from Gulf Formational occupations from the Mississippi gulf coast Claiborne site and the northern Yazoo Basin Teoc Creek site may indicate an earlier inception. Obviously, radiocarbon dates from sites in the Northeast Mississippi physiographic region itself are badly needed in order to resolve this issue.

As previously noted, sites exhibiting Middle Gulf Formational diagnostics are present in but three of the four northeast subareas. Broken Pumpkin Creek components are most common in the Black Prairie and Tombigbee Hills, less frequent on the Pontotoc Ridge, and yet to be identified in the Flatwoods. It has been suggested that the information of fiber tempered pottery into the western portion of the gulf coastal plain is a result of the trade in steatite which was taking place at this time. If the Tombigbee River served as an avenue of transport in this exchange process the frequency of Middle Gulf Formational sites may be directly related to proximity to this waterway, thus the apparent under representation of such sites along the Pontotoc Ridge and Flatwoods. Inspection of associations between site location and the presence of steatite at Middle Gulf Formational sites should prove an informative exercise in evaluating this premise.

The Late Gulf Formational period is also in need of further investigation. Although the Henson Springs phase is purported to follow the Broken Pumpkin Creek phase, the cultural relationship between the two is uncertain. The available evidence suggests a considerable temporal and cultural overlap between them (see Blakeman 1975, Atkinson 1980:14-15, and O'Hear 1990). While similar settlement-subsistence patterns are proposed for these two phases, the character of their material inventories (i.e. their ceramic assemblages), is disturbingly dissimilar. Although the change from fiber to sand as temper could be attributed to the technological advantages of the latter, the advances

evidenced in vessel design, construction, and decoration are not so easily interpreted in developmental terms. However, the Sanders site evidence suggests that this sequence may not be as unlikely as previously thought. Jenkins (1982:65) has proposed that those attributes characteristic of the Alexander series are a result of introduction from outside areas including the Bayou La Batre culture of the Mobile area to the south, the upper Pearl and Pascagoula drainages to the southwest, and the Orange culture of the East Coast (Jenkins et al. 1986). If this is the case, it will be important to determine what affect such interaction might have had upon other aspects of Late Gulf Formational culture in northeast Mississippi.

Site investigations have revealed instances in which continuity is indicated between Middle and Late Gulf Formational manifestations and others where it is not. Most interesting among the latter examples is the Aralia site. While this site is considered to fall relatively early within the Late Gulf Formational based upon radiocarbon evidence, Middle Gulf Formational materials (i.e. fiber tempered ceramics) are unusually sparse. Subsequently, O'Hear (1990) has argued that Aralia is likely a relatively late Henson Springs phase component. Based upon the nature of the association between Middle and Late Gulf Formational debris at the Turtle Pond site, Thomas et al. (1982) proposed that Wheeler and Alexander ceramics be a requisite for assigning a component to the Henson Springs phase.

As with the Broken Pumpkin Creek phase, the temporal placement of the Henson Springs phase is in need of further refinement. Among the few available radiocarbon dates is one from the Kellogg Village site indicating that the ceramics diagnostic of this phase (i.e. the Alexander series) may predate 1000 BC. Also similar to the Broken Pumpkin Creek phase, little non-ceramic evidence is available, thus indicating the need for intensive investigations at single component and/or stratified Gulf Formational sites. The most recent projection for the temporal framework of this phase is ca 800-400 BC (O'Hear 1990).

Overall, the changes in interpretation of the Gulf Formational stage which have been precipitated by the excavation of a single, very small site in good context (i.e. Sanders) provides ample insight into how much more is still to be learned about the early ceramic using cultures in northeast Mississippi.

The Woodland Stage

Correlated with the inception of the Woodland stage in northeast Mississippi is the appearance of northern influences. Further research into the nature and timing of interactions between extra-regional groups and the indigenous population is necessary. Particularly needed are investigations into the roles of the westernmost of the northeast Mississippi subareas (i.e. the Pontotoc Ridge and Flatwoods). If the

proposal that Middle Woodland manifestations in northeast Mississippi are a result of transmissions from the Pinson Mounds via the North Central Hills is viable, intercultural contact should have first occurred in these areas. Curiously, the Ingomar site, which is situated at the Flatwoods/Pontotoc Ridge interface and speculated to have interacted with Pinson, displays a noticeably different ceramic assemblage. This is an unexpected scenario requiring further exploration.

Blakeman et al. (1976:38) has pointed out the possibility that several contemporaneous groups may have existed during the Middle Woodland period, not all of which participated in the activities characterizing Hopewellian interaction.

Evidently, evidence for the initial portions of the period (i.e. Miller I and early Miller II) is minimal within the Gainesville Lake area. The lack of early Middle Woodland occupation in this area reflects a site distribution pattern in which Miller I sites occur more commonly in the upper Tombigbee Valley with site density increasing to the south during Miller II and III. At present, work at a small number of sites in northeast Mississippi has provided the basis for interpreting much of the Middle Woodland period, yet the question remains as to the Middle Woodland period, yet the question remains as to the representatives of these sites.

Excavations at Bynum, Pharr, and Miller have been employed in characterizing Middle Woodland subphases for the region. The relative temporal placement of these sites and the subphases which they represent is predicated largely upon mortuary evidence, particularly burial complexity and frequency of exotic grave goods. As previously noted, recently returned C-14 dates for the Bynum site indicate that mounds A & B, which were used by Jenkins in describing the Pharr subphase, are probably contemporaneous with Bynum subphase mound D.

An important issue concerning mound sites is the proposed demise of construction and use of mound sites during the latter portions of the Middle Woodland period. To date, very few mortuary sites have been excavated and thus the accuracy of this assumption remains to be assessed.

Numerous conical (burial?) mound sites are present in northeast Mississippi (cf McGahey 1970). Intensive investigation is needed at a sample of these sites in order to evaluate the legitimacy of the cultural configuration of this period as presently conceived.

Although mound sites are commonly classified as ceremonial and may offer insights into "non-utilitarian" cultural practices, it is unclear how activities at such sites differ from those carried out at non-mound sites during this period. This is an issue which can only be resolved through excavation of village sites and comparison of the recovered evidence with that from contemporary mound sites. A pertinent example of this situation is reflected by the presence of unusually large house

structures (10.67m to 23.77m in maximum diameter) at the Bynum site. While these structures have been employed in characterizing house types during the Bynum subphase, it is not known how these structures compare to those at contemporary, non-mortuary sites.

The inadequacy of the Gainesville sequence for covering the cultural sequence for the entirety of the Tombigbee drainage and northeast Mississippi has been pointed out by several researchers (Weinstein 1981, Futato 1984, and Rafferty 1990). Weinstein observes that based upon the Gainesville scheme (i.e. Jenkins 1982), a 200 year gap exists for the upper Tombigbee. Thus, while Bynum and Pharr subphase components are present, none are attributable to the Craig's Landing subphase (i.e. late Miller I). This predicament is undoubtedly due to interareal differences in artifact assemblages at this time and the lack of excavation at pertinent sites. Radiocarbon and ceramic evidence from the Vaughan Mound and the L.A. Strickland I site documents that occupations are not only present but that interregional contact with lower Mississippi Valley (Marksville) and Tennessee Valley (McKelvey) cultures were continuing at this time. The duration of the lower Mississippi Valley contacts remains undetermined. Rucker (1974:25) proposed a late "facet" to account for the presence of Marksville ceramics in relatively late contexts within the Tombigbee drainage.

A similar inequality in available date is evident for the Miller II phase. Thus, while early Miller II (i.e. the Tupelo subphase) is based upon inadequate data from the Miller Mound group which is situated in the Black Prairie district of Mississippi, late Miller II (i.e. Turkey Paw subphase) is based upon Gainesville Reservoir evidence. Again, the character of Middle Woodland occupations outside the Gainesville Lake area is virtually unknown during this latter period, although such components certainly exist. Considering the tentativeness of the subphase sequence for Miller II, our lack of knowledge of the settlement, subsistence, and social aspects of this phase is predictably poor.

Critical areas for Late Woodland research are also numerous. Relatively early in the history of archaeological research in northeast Mississippi, Rucker (1974) proposed an alteration of Miller III, with a Miller IV period being appended to deal with the (ceramic) diversity in evidence during the Late Woodland period. More recently, the variability present among components during this period has been dealt with by the creation of several subphases. Difficulties encountered in producing a chronological sequence for these subphases is indicative of the fact that subphase variability is spatial as well as temporal. Jenkins' (1981:265) assignment of a Woodland component at the Mackey's Creek site to the early Late Woodland period despite the lack of grog tempered pottery is indicative of this phenomenon. Atkinson *et al* (1980:22) suggest that this variation is a result of differing cultural contacts. At present,

relationships between the post-Vienna Miller III subphases (i.e. Cofferdam, Catfish Bend, and Gainesville) are unclear.

Although more information concerning settlement and subsistence is presently available for the Late Woodland than for the preceding periods, the interpretation of this data is varied. While Jenkins (1982) sees a continuation of the central-based wandering settlement-subsistence pattern, Rafferty (1986) argues that most occupations are more permanent during Miller III. In either case, as pointed out by Futato (1986), increased sedentism is apparent. He further points out the ubiquity of such sites and the need to better interpret their place within the overall cultural configuration.

The dominance of clay tempered, plain ceramics at the Thelma Mound group is unusual for a Late Miller III site. The composition of the ceramic assemblage from this component is said to compare favorably with that of West-Jefferson, the terminal Woodland phase of the Black Warrior Drainage in Alabama (Johnson and Atkinson 1985). Atkinson has subsequently employed this and several other sites in the vicinity of Thelma in establishing the Thelma phase, characterized as the phase "that represents the initial acceptance of Mississippian traditions by the indigenous populations in the upper Tombigbee River Valley" (1986:2).

The estimated dates for the Thelma phase (AD 800-1000) reflect the generally accepted time period for the Late Woodland-to-Mississippian transition. However, the manner in which this transition was accomplished continues to be debated with some researchers questioning the legitimacy of a terminal Late Woodland complex as represented by the Gainesville subphase (Futato 1987, Rafferty and Starr 1986). Critical to this debate is the interpretation of predominantly grog tempered ceramic assemblages in which small amounts of shell tempered pottery are also present. This situation illustrates the dangers of constructing phases from ceramic data from potentially mixed contexts, a difficulty occurring not only during the terminal Late Woodland but throughout the post-Archaic prehistoric sequence.

The incorporation of maize into the Late Woodland subsistence regime is commonly assumed to have played an integral part in the switch from Late Woodland to Mississippian cultural patterns, although analyses of floral remains from Late Woodland sites consistently identify this domesticate in only small quantities while such remains are ubiquitous at Mississippian sites. Thus, the role of maize in this "transition" is yet to be resolved.

Radiocarbon dates from the Okaf Iti site indicate the Late Woodland occupation within the Tombigbee Hills subarea may have persisted as late as AD 1200. Therefore, the potential for contemporaneous Woodland and Mississippian groups during this period within northeast Mississippi is apparent and presents another important research topic.

The Mississippian Stage

Although Mississippian sites are common in the Northeast Mississippi physiographic region, in most instances they cannot be assigned a specific temporal placement. A primary difficulty is that the majority of the ceramic assemblage for Mississippian sites is plain and shell tempered regardless of phase association. Thus, minimally occurring decorated types and distinctive vessel forms must be relied upon in making phase assignments. Whether this situation can be alleviated through more intensive ceramic analyses remains to be determined.

Recent work with Mississippian lithic assemblages, particularly triangular points, indicates some promise for employing this artifact class in deriving finer temporal placement for Mississippi components (cf Ensor 1981, Geir 1983, and Peacock 1986 and nd).

Examination of thermal alterations of lithic materials has also proven productive. Ensor (1981) maintains that a change in heat treating strategies accompanies the use of small triangular points during Late Woodland and Mississippian time. Additionally, he has pointed out that frequency of heat treatment fluctuates through time. At present, these observations are based primarily upon data from the Gainesville Lake area and need to be evaluated for applicability for a larger geographic area. Studies from outside this area suggest that these trends in lithic heat treatment may not be mirrored elsewhere (Rafferty 1986a).

Two phase sequences have been generated for the Mississippian stage within northeast Mississippi: Marshall's Lyon's Bluff sequence and Atkinson's sequence for the Tibbee/Line Creeks-to-Tupelo area. Based upon present information, the Lyon's Bluff sequence and several others including those of Lubbub Creek and Moundville, can be differentiated only by location.

Close inspection is needed in order to determine the relationship between the Lyon's Bluff sequence as manifested at the Lyon's Bluff site and other sites in the surrounding area. Further, a determination must be made as to how those Mississippian components included in the Lyon's Bluff sequence relate to those composing the remainder of the Moundville variant,

In terms of settlement patterns, Atkinson (1986:2) has pointed out the need for evaluating the association among the several Mississippian mound groups in north Mississippi. General contemporaneity has been assumed for the Tombigbee mound centers, including Butler, Coleman, and Chowder Springs. However, the interrelationships among these sites as well as their connection with Moundville and non-floodplain mound sites in northeast Mississippi, including Thelma, Lyon's Bluff, and Owl Creek, remain to be adequately delineated.

As discussed by Futato (1986:229-230), increased emphasis should be placed upon investigating simple Mississippian site types, specifically residential farming villages (farmsteads) in that such sites represent "the

basic unit within the larger Mississippian economic and social organization.” Although numerous sites of this type have been identified within the region (Knight and Solis 1983, Solis and Knight 1983, Solis and Walling 1982) very few have been excavated; Tibbee Creek (O’Hear et al. 1981) and Yarborough (Solis and Walling 1982) being the only examples.

Mississippian ceremonialism in the region is also in need of further explication. While correlations are often made between climax stage Mississippian cultures and the Southeastern Ceremonial Complex (Southern Cult), evidence of the influence of this phenomenon in northeast Mississippi is negligible. Jenkins (1982) notes Southern Cult evidence only within the early portion of the Mississippi Stage within the Gainesville Lake area and Lubbub Creek. Aside from the presence of considerable Southern Cult paraphernalia at the Moundville Complex itself, few cult indicators have been recorded for those cultures included in the Moundville Variant. Considering recent rethinkings of Mississippian/Southern Cult associations (e.g. Brown 1976, Knight 1986, and Galloway 1990) it is important that the relationship between Mississippian society as evidenced in northeast Mississippi and this pan-regional religious/ceremonial phenomenon be delineated. Excavation at certain of the northeast Mississippi mound groups should shed considerable light on this topic.

Finally, additional work is needed concerning the shift from Middle to Late Mississippian cultural configurations. Present evidence indicates an abandonment of the floodplain agriculture/ceremonial center regime in favor of one characterized by more dispersed upland settlements and a renewed emphasis upon a wide range of subsistence resources (and a corresponding reduction in maize agriculture). Recent investigations by Johnson and Sparks (1986) discuss this trend in Mississippi based upon survey data from Clay county. An adequate comprehension of this development is essential for characterizing the Late Mississippian stage and also serves as important background data for monitoring the origins and early development of the historic Indian groups in the region (see also Marshall 1986, Sheldon and Jenkins 1986, and Galloway 1986).

Summary

The preceding discussion has presented an overview of the post-Archaic prehistory of northeast Mississippi and highlighted several of those issues of concern for future research. Most urgent among these concerns is an expansion of the present data base, as inequalities exist in the amount of information available for the various portions of this region. The bias toward information derived from stream bottom surveys is apparent and is exemplified by the weight presently given to the cultural sequence of the central Tombigbee drainage.

Despite differences in quality (and quantity) of the available data, inspection of the archaeological record as organized by physiographic areas indicates numerous culturally relevant trends and supports the use of such zones in carrying out archaeological research. Further subdivisions of these zones may also serve as useful frameworks for investigation (cf. Blakeman 1975 and 1976, Atkinson 1978, and Brookes and Connaway's 1977 inspections of the Tombigbee Hills ecosystems).

As pointed out by several reviewers of this report, a revision of the boundaries for the various physiographic zones employed in the present study is needed in order to assure that sites located in close proximity and in similar setting are not included in different zones. This appears to present a particular problem with sites within the Tombigbee floodplain. Physiographic region associations for sites discussed in this report are based upon an unpublished map developed by the Mississippi National Heritage program which is on file at the State Museum of Natural Science in Jackson.

Obviously, archaeological data can be organized in many ways other than by culture period and physiographic region. Connaway (1980) has proposed that studies based upon drainage systems of watersheds will ultimately prove more workable (for predictive modeling) than those based upon physiographic areas in that individual drainages "are directly related to settlement patterns and environmental exploitation systems...since these, as well as settlement patterns, tend to crosscut physiographic units..." (1980:274). In recent years, soil type characteristics have been given greater consideration in settlement pattern studies (cf. Blakeman 1975, Connaway 1980, Lafferty and Solis 1980, Futato 1989).

Multi-variate approaches are also being employed. Sparks (1987) looked at changes in lithic assemblages, site type, and site location through time. Johnson (1988) has inspected site patterning in terms of physiographic zone, cultural affiliation, soil type, and stream order. His is also one of the few studies in the region to use a statistically valid research design.

Regardless of the research approach taken, a critical need is apparent for a consensus as to the terminology to be used in communicating the culture-historical sequence for this area. While the Miller sequence continues (in considerably modified form) as the general framework for the Woodland period, the terminology presently employed within it is inconsistent and often confusing. The terms period, phase, and subphase are utilized by different researchers in discussing similar phenomena (cf. Rucker 1974, Blakeman 1975, and Jenkins 1982). More disconcerting is the wholesale borrowing of names of previously defined and temporally bounded cultural manifestations in labeling new cultural formulations (cf. Blakeman et al. 1976:37, Atkinson et al. 1980:16, Jenkins 1981: , and Weinstein 1981:2-10). The rectification of this

situation, along with more detailed and consistent reporting of archaeological sites in northeast Mississippi, represent two of the most important tasks to be accomplished before more adequate and efficient research can be accomplished in this region.

NORTH CENTRAL HILLS

The North Central Hills compose a considerable upland expanse in Mississippi. This physiographic feature extends from the northern border of the state southward into the central and eastcentral portions (figure 1). To the west it is bordered by the Loess Hills and adjoining Yazoo Basin. Several streams originating within the North Central Hills including the Yalobusha, Coldwater, Little Tallahatchie, and Yocona comprise the major tributaries of the Yazoo River. To the east the Hills are bordered by the Flatwoods, the first of a series of eastward draining linear belts composed of Pleistocene and older sediments.

To the south the region is crosscut by the Jackson Prairies. The area is characterized by Kelly (1973:7-8) as follows: "The North Central Hills...is the most extensive upland in the state, lying from 400 to 600 feet above sea level." "... The soils of the region are derived from soft rocks of the Wilcox Formation composed of sands, clays, loams, reddish to orange in color and very susceptible to erosion. The streams, flowing westward and southwestward, have cut rather deep broad valleys. These bottomlands (are) composed of sandy silt loam..." "Along the south side of the North Central Hills...is a ridge of the most rugged hills found in the Coastal Plain. This ridge is formed by the very resistant Tallahatta formation..."

Archaeological Background

In general, Archaeological investigations in this area have been few, the majority associated with various reservoir projects. As such, interpretations have necessarily resorted to areas with better known archaeological sequences, particularly the Tombigbee drainage to the east and the lower Mississippi Valley to the west. For the purposes of the following discussions the North-Central Hills will be divided into three areas based upon drainage system and subsequently will be referred to as the 1)Northwestern, 2)Eastern, 3)Southcentral areas. While some archaeological investigation has taken place in each of these, quantity and quality of research has varied considerably.

The Northwestern Area

Due primarily to extensive reservoir construction activities of the last three quarter century, the Northwestern area of the North Central Hills has received the bulk of the archaeological attention in this

physiographic region. As previously noted, the headwaters of several streams ultimately constituting the Yazoo River are located in this area. The four largest have been subjected to damming in an attempt to manage downstream flooding. From north to south these are the Coldwater river (Arkabutla Reservoir), the Little Tallahatchie River (Sardis Reservoir)(see Squire and Davis 1848, Brown 1926, Landreth 1967 and 1970, McGahey 1968, Thorne and McGahey 1968, and Thorne 1981), the Yocona River (Enid Reservoir)(See Landreth 1967, Thorne 1968), and the Yalobusha River (Grenada Reservoir)(see Haag 1952, Connaway 1968, Thorne 1968, and Koehler 1966). With the exception of Arkabutla, which is situated in the Loess Hills, all of these reservoirs fall within the North Central Hills. Archaeological investigations in these drainages have varied histories and combined, provide the primary contribution to our present knowledge of the archaeology of the area. A survey was also carried out by Barry Lewis (1975) within the Hotopha Creek floodplain, one of the larger tributaries of the Little Tallahatchie between Sardis and Enid reservoirs.

Prior to Broyles et al's (1982) surveys, Grenada and Sardis were the only two of these reservoirs in which any formal cultural resources investigations had been undertaken, Haag (1952) having made a pre-inundation survey of the Grenada Lake area and McGahey (1968) having done limited survey in the Sardis reservoir. Virtually no work had occurred within the Enid Reservoir area.

Broyles et al (1982) report a total of 574 sites in their Four Reservoir Survey. However, information provided and conclusions drawn are both very general. Few sites were assigned to specific time periods and activities carried out at these sites were not assessed. Mounds as well as villages are evident within the survey area. Most mounds are conical in form and interpreted as Woodland burial structures, a contention borne out by excavation at several (Thorne 1968, Koehler 1966). Also present, yet much less common, are truncated pyramidal mounds. Examples are reported for Sardis (Thorne 1981) and Grenada (Haag 1952:27).

As a result of the Four Reservoir study, prehistoric settlements were inferred to occur primarily along the first terrace and elevated benches above active floodplains (Broyles et al 1982:219) although it was pointed out that inadequate information was available for upper reaches of the investigated streams. The authors (1982:11) also maintained that the reservoir surveys were intended to generate baseline reconnaissance level data. While general conclusions are offered, it is asserted that in the future more particularistic research designs will be required to adequately investigate each of these reservoir areas (Broyles et al 1982:220).

While relatively little archaeological research has been undertaken in the North Central Hills, this region has often been referenced by Lower Mississippi Valley researchers (e.g. Phillips, Ford, and Griffin 1951,

Phillips 1970) as it is maintained to be the source area of the sandy-textured ceramics often occurring within the northeastern portions of the Yazoo Basin. While this assessment was initially intended to have only regional implications, it has since acquired very specific temporal ramifications whereby sandy textured pottery has been attributed to the Twin Lakes phase of the Early Marksville Period (Phillips 1970:891-892). In recent years considerable effort has gone into evaluating this contention. In a series of papers Janet Ford (1977, 1981, 1989a and b) has evaluated the potential of sandy texture as a primary temporal indicator within the North Central Hills and found it lacking. She has pointed out that surface treatment (a consciously selected process in ceramic manufacture), particularly the change from fabricmarking to cordmarking, is more temporally sensitive in this area. However, she maintains that non-plastic inclusions (which are not necessarily volitional on the part of the potter) may still be pertinent as a secondary consideration.

At this point, resorting to ceramic chronologies of adjacent regions no longer seems tenable as the prehistoric sequence for the North Central Hills cannot be adequately delineated by these area-specific constructs (see Johnson 1989). According to Ford, this "region seems to be a full participant in the spread of current fads and fashions in utilitarian pottery manufacturing (nd:16). Thus, while a ceramic-based chronology is of paramount importance for understanding the cultural sequence for the area, its development is still in the initial stages. As will be seen in the following sections, this reality seriously impinges on our ability to expound upon the post-archaic portions of the prehistoric aboriginal sequence for this region.

The Gulf Formational

Evidence from the earliest portions of this stage (referred to as the Middle Gulf Formational throughout the western Gulf Coastal Plain) is relatively scarce within the North Central Hills. The primary diagnostic, fiber tempered sherds, were not recovered in the surveys by Broyles et al (1982:218). McGahey (1968:102) reports such sherds from only two Sardis Reservoir sites and Landreth (1970:21) reports them from two sites in her Yocona River survey. Far and away the largest number of fiber tempered sherds in the Northwestern portion of the North Central Hills are from the Slaughter site (22-La-513)(see Ford 1977). Unfortunately, these are from mixed contexts and provide no information on aboriginal activities other than ceramic production and function.

Based upon the majority representation of fabricmarked sherds at many sites in the area, a late Early Woodland (Late Gulf Formational) occupation has been ascribed to this portion of the North Central Hills (cf McGahey 1968:103). The recent recovery of an Alexander Pinched (?) vessel from the Little Spring Creek Mound (22-La-636) in Lafayette Co.

has rekindled an interest in Late Gulf Formational research in general and specifically, the possibility of mound construction during this period (see Ford 1988, 1990). The McQuorquodale Mound on the lower Tombigbee River in southwest Alabama has also produced an Alexander series (O'Neal Plain) vessel (see Wimberly and Tourtelot 1941).

While some have maintained that the burial mounds of the Southeast are a result of Middle Woodland/Hopewell influence (Toth 1979:199, Walthall 1980:106), others have defended pre-Middle Woodland mound ceremonialism in portions of the Southeast including Tchefuncte of the southern lower Mississippi Valley and Deptford areas of Georgia, Tennessee, and Alabama. The possibility has been raised by Ford (1988:51) and others (Shenkel 1984:64) that mortuary mound construction may actually be a southern phenomenon which migrated north, was elaborated and returned southward during the period of pan-regional Hopewell interaction.

Examination of the data from several of the North Central Hills burial mound excavations including Tidwell (22-La-517), Tyson (22-La-673), McCarter (22-Pa-502), and Clear Creek (22-La-542) suggests to Ford (1990) that these constructions are of Late Gulf Formational origin. No Marksville pottery was reported at any of these sites while Late Gulf Formational vessels are present at all but Clear Creek. An additional ceramic complex (Cormorant) has been identified at several sites including Tyson (Ford 1990), Slaughter (Ford 1977), and Clear Creek (Thorne and McGahey 1968). Recently returned bone collagen dates from the Clear Creek and Tyson mounds have not served to clarify the picture. An AD 185+60 date was produced from the Tyson sample while that from Clear Creek as calibrated to AD 500+50 (Janet Ford, personal communication 1989).

The Woodland Stage

Known primarily from surface evidence recovered during various surveys, the Woodland period is relatively well represented in the North Central Hills. Diagnostics are predominately ceramic, consisting of plain, fabricmarked, and cordmarked pottery. As in the Late Gulf Formational, sand is the primary tempering agent throughout the period although grog is also present. Projectile points include various straight stemmed types with smaller arrow points appearing during the Late Woodland interval.

In only two instances have investigations at village sites taken place. A mound was or previously had been present at both of these sites. Although limited excavations in the village portion of the Womack site (22-Ya-500) identified no stratigraphy, some useful information was obtained (see Koehler 1966). A possible structure of single-post construction and circular plan represents the only Woodland period house pattern to be excavated within the North Central Hills. Further, a

C-14 sample was obtained from the base of a pit feature. This sample produced a date of A.D. 70 = 100. While no artifacts could be confidently associated with the dated charcoal (see Ford 1989a:62) it does provide for a degree of temporal anchoring. Interestingly, the assay predates the earliest date from the adjacent mound by almost 200 years. Ford has argued that the ceramics from the village area are more recent than the dated context and as such may indicate at least partial contemporaneity between mound and village.

Excavations at the Slaughter site, focused upon a midden accumulation originally thought to be a burial mound, found the deposit to be quite homogenous in artifact content and distribution. However, two important contributions to the archaeology of the North Central Hills resulted from this work. First, employing the floral materials from the site, Ford (1977) produced the first structured settlement-subsistence analysis for the area, suggesting that Slaughter was a mid-summer-to-fall occupation, probably representing only a portion of a seasonal round with a primarily floodplain focus. She has subsequently revised this assessment, interpreting Slaughter as a year-round occupation (Ford 1980:44). Second, while several researchers had previously pointed out the inadequacy of tempering materials in ceramics as a temporal indicator (Haag 1952:18,19-23; Phillips 1970:891; Koehler 1966:77; and Lewis 1975:31), the investigations at Slaughter were employed by Ford as a starting point for formally evaluating and resolving this issue.

Excavation of Woodland mound sites has been undertaken on several occasions. Considering how poorly the Woodland chronology is understood for this area, the assigning of a mound to this period is generally dependent upon whether or not non-local ceramics and/or exotic exchange items are encountered during excavation. For example, a Middle Woodland presence is attributed to the Womack Mound (Koehler 1966) due to the recovery of a small number of broad-incised and crosshatched rim sherds attributable to the lower Mississippi Valley Marksville culture. Radiocarbon dates from the mound are AD 250, 300, and 670 (all \pm 80). Middle Woodland/Marksville influence is also evident at the Great White Mound (22-Gr-531) where two Issaquena-like (Late Marksville) vessels were recovered. Connaway (1968:49) suggest that lacking evidence for an associated burial pit, these vessels may be later intrusions into the mound. No comparable sherds were recovered during the mound excavations. Thus, he interprets the mound to be early Middle Woodland based on the predominately sandy textured, plain, fabricmarked, and cordmarked ceramic assemblage (Connaway 1968:48,50).

Other artifacts from this mound attributable to interregional interaction include an engraved conch shell gorget and a conch shell bowl, both associated with a single burial, an adult male interred in an extended position. Another extended adult burial contained biotite mica

fragments possible from a cut-out ornament. A Hopewell-like flake knife was also recovered.

Excavation at the Clear Creek Mound also produced evidence of Middle Woodland occupation as sheet copper, galena, and marine shell vessels (items often associated with Hopewell interaction) are all present.

Aside from documenting interregional exchange, mound excavation have shed light upon Woodland mound construction and mortuary practices. Excavation at the Womack and Great White mounds revealed numerous similarities between the two. Both are conical and of comparable size (12' in height by 85' in diameter, and 11.5' by 65', respectively). Both were built in several stages and include a primary mantle, secondary mantle, and capping layer. Numerous burials were present in both mounds. Posture of the skeletal remains is varied ranging from extended, to semi-flexed, to flexed with secondary interments and cremations also present. Lack of identifiable burial pits and the presence of burials at various levels throughout these mounds suggest that interments were added in an accretional manner. Burials exhibit no consistent orientation. Connaway (1968:53) suggests that an egalitarian society is indicated at the Great White Mound in that the skeletal population from this mound includes individuals of both sexes and a wide range of ages. Further, very few individuals were accompanied by burial furniture which might be used to imply social differentiation, the possible exception being the adult male accompanied by both a marine shell (conch) gorget and bowl. Similarly, very few individuals at Womack were interred with burial furniture.

The possibility of Woodland period earthworks other than burial mounds has also been indicated. As early as the first half of the 19th century, Squire and Davis (1848:110-112) reported the presence of two prehistoric earthwork enclosures within the Northwestern portion of the North Central Hills. Subsequent efforts have failed to verify these accounts. Calvin Brown (1926:8), being unable to locate these structures, suggested that they may have fallen victim to the plow. The effort to identify the location of one of these is reported by Landreth (1969) and Lewis (1970). Surface collecting, several trenches and a single test pit were employed at site 22-La-506 in an attempt to document it as that reported by Squire and Davis (1848). The results were suggestions yet inconclusive. If this is in fact the same site, both the rectangular earthwork and associated mounds have been totally obliterated and the artifactual materials recovered from the site show little promise of providing further enlightenment on this minimally documented Woodland site type thought to be a reflection of interaction between Ohio Hopewell, lower Mississippi Valley Marksville, and the uplands of North Central Mississippi (Lewis 1970:16).

Very little specific information has been derived for the latter portions of the Woodland period. This is in large part due to the difficulty with

which sites are attributed to this period. The available evidence suggests that a transition from fabricmarked to cordmarked ceramics occurs during the Woodland period, thus given a single component situation, those sites with a larger quantity of cordmarked sherds should fall somewhat later in the period than their predominately fabricmarked counterparts. Ford (n.d. 10-11) proposes that this transition occurs later in the North Central Hills than the adjoining lower Mississippi Valley where it occurred shortly after A.D. 250. A C-14 date of Ad 640±50 (uncalibrated) has recently been returned for the West Mound (22-Ca-502), a flat-topped Middle Woodland mound in the upper reaches of the Yalobusha drainage (Baca nd, see also Haag 1952).

In spite of the present difficulties it is evident that Late Woodland sites are not only present but may comprise the major representatives of the Woodland culture in the North Central Hills. Johnson et al's (1984:60-61, see also Johnson 1989) investigations in the Line Creek watershed found such sites to be second only in density to those from the Ripley Sands portion of the Pontotoc Ridge. Unfortunately, as pointed out by Johnson et al (1984:60-61), this observation is distorted due to the small amount of area surveyed within the North Central Hills. McGahey (1968:100) maintains that Late Woodland/Mississippian projectile points are the most commonly encountered types within the Sardis Reservoir. Considering the general lack of Mississippian ceramics in this area, it may be inferred that the majority of these are indicative of the intensity of aboriginal occupation in the area during the latter portions of the Woodland period.

The Mississippian Stage

The Mississippian stage is very poorly known and apparently very poorly represented within the Northwestern portion of the North Central Hills (see Haag 1952:18, Broyles et al 1982:148). Sites producing shell tempered ceramics, the primary Mississippian diagnostic, are few and in those instances where they do occur, they generally compose a relatively minor proportion of predominately Woodland collections. McGahey reports that shell tempered ceramics were identified at only two sites in his Sardis survey and represented the majority type at only one (1968:104). Thorne (1981:7-8) maintains that while shell tempered ceramics are rare in the area, an abundance of triangular projectile points at Tallahatchie River sites is indicative of Mississippian use of smaller upland drainages.

The only excavations within the area associated with a Mississippian occupation involve the recovery and preservation work at the Hurricane Landing Mound (22-La-516) in the Sardis Reservoir (Thorne 1981). Because the primary focus of the work at this site concerned the preservation of the mound which was fast eroding due to fluctuations in reservoir water level, very little subsurface investigation was undertaken.

However, important house form and mound construction information was recovered. This truncated pyramidal mound was constructed in several stages with the primary stage consisting of a vertical sided block subsequently supported by outsloping buttresses and then covered with a capping layer or layers.

Three wall trench house patterns were observed atop the mound: two rectangular and another circular. Considering that the mound had lost some 9 feet in height between visits in 1964 and 1980 (Thorne 1981:1) it can be assumed that the observed house structures were erected at an intermediate stage of mound use. At present the mound has been covered with filter cloth and rip rap to retard further erosion.

While the vast majority of the ceramics recovered from the mound surface were shell tempered, sherds from the surface and test units in the off-mound portion of the site are primarily tempered with clay-grit or sand. While this contrast may indicate different occupational sequences for the two areas, this conclusion is yet to be substantiated since there is some concern as to the representativeness of the samples in question. Three C-14 dates were obtained from mound fill and submitted for dating. Two of the three (1090±90 AD and 1120±90 AD) suggest that mound construction occurred at approximately AD 1100. The third date (AD 10±190) is thought to reflect the use of soil from an earlier habitation area for mound fill.

Obviously, our present knowledge of the Mississippi stage within the Northwestern portion of the North Central Hills is woefully lacking.

The Eastern Area

The Headwaters of two major river drainages fall within the eastern area of the North Central Hills: the Tombigbee and the Pascagoula, both eventually emptying into the Gulf of Mexico. The post-archaic prehistory of these is as follows.

The Tombigbee Headwaters Area

A portion of the North Central Hills drains south and eastward, eventually emptying into the Tombigbee River. While this area has been only minimally investigated, parts of it have been systematically studied (see Voss and Blitz 1983, Blitz 1984 and 1985). Blitz's (1984) research in the Ackerman Unit of the Tombigbee National Forest located at the headwaters of the Noxubee River, in Winston and Choctaw counties, employs a stratified sampling of the area based upon topography. His findings indicate aboriginal utilization of the survey area throughout the post-archaic prehistoric sequence. (See DeLeon 1983: 46- 48-49) for additional discussion of cultural resources on National Forest properties in the North Central Hills).

Gulf Formational sites are few and appear to generally cluster along the larger drainages although Blitz (1984:6) points out that the

distribution and content of sites of this period are still poorly understood. Woodland sites are more common and compose the bulk of the prehistoric occupation. Woodland ceramic types recovered from the survey area include Baytown Plain, Mulberry Creek Cordmarked, Baldwin Plain, and Furrs Cordmarked. No fabricmarked sherds are reported. The straight-based/straight-stemmed projectile types usually attributed to Late Archaic through Middle Woodland populations are the most common form within the survey area and most are probably associated with the Woodland groups. Lithic raw materials are Citronelle gravel and Tallahatta Quartzite. Blitz (1984) observes differences in debris density and diversity at sites based upon topographic setting. Those site with greater artifact density and diversity, labeled transitory camps, most frequently occur on benches along stream drainages. Alternatively, smaller sites with less dense and varied artifact assemblages, labeled temporary activity loci, tend to occur upon dividing ridges or along side slope ridges. An earlier survey in Kemper County had also found relatively level, non-floodplain locations to be favored occupational surfaces (Voss and Blitz 1983).

Mississippian sites, as indicated by plain, shell tempered sherds are scant within that area reported by Blitz (1984). It is presumed that this situation is a reflection of the inadequacy of the uplands for fulfilling the subsistence and occupational requirements of large late prehistoric populations.

In general, Blitz's findings indicate that upland occupation throughout the prehistoric sequence was temporary in nature consisting mostly of hunting and gathering camps which comprise only a portion of a settlement subsistence system, the main focus of which was the larger lowland river valleys. To date, subsistence data is not available for determining the seasonality of these impermanent upland ventures.

The Pascagoula Headwaters Area

Relatively little archaeological research has been undertaken in the Pascagoula Headwaters. Marshall (1982) reports on survey and testing activities along Archusa Creek in central Clark County and Conn (1978) has reported on the testing at 22-Ld-515 located on Sowashee Creek in Lauderdale County. (See also Hony 1971, Atkinson 1976, and Penman 1977). Marshall's survey found evidence of aboriginal occupation spanning the post-archaic with Gulf Formational, Woodland, and Mississippian occupations all being represented. Salvage excavations at 22-Ck-526 produced Wheeler, Bayou la Batre - Alexander, and Baytown sherds. Gulf Formational types comprised the majority of the ceramic assemblage. Lithic raw material at this site and throughout the survey area is most commonly Tallahatta quartzite. Citronelle gravel is present in considerably smaller amounts. Marshall interprets the area as one utilized primarily for food procurement, proposing that permanent

habitation sites are probably located further to the south along the Pascagoula River. In general, an increase in occupation is noted from the Archaic to Woodland with a decline occurring during the Late Woodland. While Mississippian artifacts are present, their numbers indicate only the most ephemeral usage by late prehistoric groups.

Conn's (1978) excavations at 22-Ld-515 produced similar results. While projectile points from the site reveal a considerable Late Archaic occupation, a Woodland resurgence is thought to be indicated by the predominately sand tempered ceramic assemblage. Gulf Formational types including Wheeler and Alexander are next-most common. The minimal representation of grog tempered sherds is interpreted as indicative of diminishing activity during the Late Woodland while only two shell tempered sherds attest to a Mississippian presence. Indicators of permanent occupation such as house patterns, hearths, burials and pit features were not revealed by excavations at this site. As in Marshall's survey, Tallahatta quartzite represents the primary raw material for stone tool manufacture (see also Penman 1977:281 and Lehmann n.d.). Cherts are reported in minimal quantities.

As noted previously, prehistoric occupation in this area is predominately transient. Occupation at 22-Ld-515 is certainly temporary. However, recovered artifacts reveal a range of activities carried out at the site including hunting, wood working, hide processing, food processing, and tool production and maintenance. Density and variety of artifactual materials recovered from 22-Ld-521 also indicate that a considerable range of activities occurred at this site (Lehmann n.d.). The presence of midden also suggest longer term occupation. While a few Middle-to-Late Archaic. Thus, it is difficult to interpret the nature of the post-archaic component(s). Limited testing at 22-Ld-529 produced considerable Gulf Formational and Woodland ceramics suggesting less-transitory occupation. Notably, both of these sites are located in small streambottoms.

While mounds are not abundant in the area, they do exist. In the 1920's, several conical mounds were excavated by Collins, who perceived them to be the products of the historic Choctaw and their prehistoric predecessors (1927). Blitz's (1986) re-examination of Collins' work at the McRae Mound (22-Ck-533) finds this to be a Middle Woodland construction complete with a copper covered-silver overlaid panpipe, lamellar blades of exotic chert, and a small amount of Marksville ceramics including several cross-hatched rim sherds. Other minority ceramic types indicated associations with the Tennessee River Valley, and lower Alabama or northwest Florida. The site is considered to be a local variant of the Miller (Miller I) culture which is well established in the Tombigbee drainage to the east.

The mound appears to be the result of the laying down of a series of distinctively colored soil lenses then covered with a final capping layer. A

yellow clay structure at the center of the mound is suggested to be a mortuary platform. However, as pointed out by Blitz, Collins found no burials, leaving open the possibility that this mound may not have served a mortuary function although some ritualistic focus is certainly indicated (1986:31). According to the Mississippi Department of Archives and History files, shovel testing by Lehmann in 1983 identified a midden deposit adjacent to the mound indicating that mound associated village sites may comprise an additional site type for the area.

Investigations within the Pascagoula Headwaters indicate external contacts in several directions and at several time levels. The presence of Ft. Payne chert and Mulberry Creek Plain ceramics indicates contact with the Tennessee River area. Gulf Formational ceramics reveal affinities with the Alexander culture of the Upper Tombigbee and Western Middle Tennessee Valley and Bayou la Batre of southwest Alabama. Bone tempered sherds recovered from 22-Ld-515 (Conn 1978:40) and Mulberry Creek Plain (Penman 1977:282) also indicate Alabama influences. Input from the lower Mississippi Valley is evidenced in the reporting of Marksville ceramics in a Lauderdale County survey by Atkinson (1976) and mound excavations in Clarke County (see Blitz 1983). Blitz also reports complicated stamped sherds at McRae attributable to Woodland cultures of lower Alabama (1986:24). The lamellar blades and panpipe from McRae reveal Hopewell associations, with the chert from which the blades are made suggesting these ties are strongest with southern Illinois and the Illinois Valley.

The Mississippian evidence is too scant for interpretation. Most of the shell tempered ceramics from the area are attributed to early historic Choctaw inhabitants (cf Penman 1977:285).

The Southcentral Area

The Southcentral portion of the North Central Hills is bisected by two southwesterly flowing streams, the Pearl and the Big Black. After exiting the North Central Hills, the Pearl turns southward, emptying into the Gulf of Mexico while the Big Black continues its southerly direction to its juncture with the Mississippi River.

The Upper Pearl Drainage

The post-archaic prehistory of the North Central Hills portion of the upper Pearl River is known primarily from surface evidence. As indicated by ceramic diagnostics, Middle Gulf Formational, Middle Woodland, and Late Woodland occupations are all present (cf Penman 1977, Atkinson 1976). Late prehistoric materials are also present although scant, and suggest a combination of Plaquemine and Mississippian influences. Neitzel's (1970) overview of the archaeology of the Upper Pearl characterized the area as "rather colorless" and lacking in sizable village and farming communities. Further, he considered the archaeological

potential of the area to be unimpressive due to its low hunting and agricultural desirability.

Neitzel favorably compares the predominately conical mounds of the Upper Pearl to those previously excavated along the Big Black which proved to be of late prehistoric origin. However, excavations at the Alligator Lake Mound (22-Md-520), reported by the Capitol City chapter of the Mississippi Archaeological Association, found no evidence of post-Woodland occupation (Dempsey n.d.). The mound produced plain, cordmarked, and red filmed sand and grog tempered ceramics while an associated village midden was found to contain a small number of Marksville decorated sherds and a single Twin Lakes Punctated sherd along with the above-mentioned types.

Surface collections from the vicinity of the conical mound at the Steep Mound Site (22-Lk-526) produced Marksville sherds suggesting that this is also a Middle Woodland earthwork (Lauro n.d.a).

Atkinson's (1976) survey of the Edinburg Lake area of Neshoba County reported sites spanning the entire post-archaic sequence. sites were discovered in all topographic situations including first terrace, lower hills, and upland ridgetops with first terrace loci being most common. Unfortunately, the Pearl River floodplain proper could not be investigated at the time of this survey due to flooding. It is noted that upland ridges become an occupational focus only during the late prehistoric period as emphasis increased for well-drained settings more amenable to permanent habitation. Atkinson cited the flat-topped temple mound at Nanih Waiya (22-Wi-500) as evidence for a stratified social structure during this final prehistoric era.

Among the more recent investigations in the area are those which address the archaeological status of the proposed Shoccoe Dam area. Heartfield, Price, and Greene (1982) report 12 sites, all but two of which are situated on terraces and ridges above the general floodlevel. The remaining sites are located in the Pearl River swamp. Dunbar and Coulters (1988) report some 61 sites from the same area, the increased site inventory primarily the result of Mississippi Department of Archives and History survey activities in recent years. Comparing geomorphic and site location data it is observed that nearly all of the archaeological sites are associated with fluvial features; terraces and abandoned channels being the most common site locations. For Woodland stage sites, valley slopes and terraces predominate (Dunbar and Coulter 1988: Table 5). However, it is pointed out that this observation is undoubtedly influenced by the disproportionate number of sites within the Yockanookany drainage (a major Pearl River tributary) for which cultural affiliation has been recorded. Notably, there are no floodplain point bar sites in the Yockanookany while this setting is one common to sites along the Pearl.

While the entirety of the Shoccoe Dam area does not fall within the North Central Hills, the majority does and studies by Heartfield, Price, and Greene (1982) and Dunbar and Coulters (1988) provide important insights into general aboriginal settlement preferences as well as the potential for drainage specific variability in locational strategies within the southcentral portion of this physiographic province.

The Upper Big Black Drainage

The upper portions of the Big Black River and its tributaries fall within the North Central Hills. Archaeological investigations in the Big Black date back to the 1920's at which time Chambers and Ford undertook their inspection of this area (Ford 1936, see also Schaffer and Steponaitis 1982). Several conical mounds were excavated during these expeditions; all were found to contain burials. None of these mound excavations occurred within the North Central Hills portion of the Big Black (see *The Post-Archaic Prehistory of the Jackson Prairies and Loess Hills* for more on this work). However, Ford (1936) does comment on at least two Upper Big Black sites, Joe Cowsert Place (22-Ho-507) and the Old Hoover Place (22-Ho-502) which are of relevance here.

Based in large part on Chambers and Ford's work, Neitzel produced a synthesis of the archaeology of the Big Black Basin (Neitzel 1968). Village sites, burial mounds, and temple mounds are all reported and the observation is made that at those sites having small burial mounds, the mounds commonly post-date the associated village. Early Woodland sites were considered rare as were later sites within Coles Creek affinities. In general, Woodland associations were seen with Alabama and Tennessee although it was pointed out that particularly during later times, exchange and interaction were primarily with the Yazoo Basin and Lower Mississippi Valley. Sites appeared to be more frequently associated with tributary valleys and adjoining uplands rather than the Big Black proper. Few, if any, sites provided potential for stratified deposits and as such excavations at the weakly stratified Wills site (22-Hi-512) of the adjacent Pearl River drainage (see Rands 1958 and 1959) were resorted to for chronological purposes. Thus, prehistoric sites in the area were found to be both shallow and small. Further, they were rapidly being destroyed as a result of row-agriculture and associated sheet erosion. New sites and even previously known sites were becoming increasingly difficult to locate as large tracts of agricultural land had been taken out of production and subsequently become overgrown.

These trends, as reported by Neitzel (1968), have continued up until the present. A recent reconnaissance level survey of the Upper Big Black by the Mississippi Department of Archives and History was abandoned due to unfavorable survey conditions. Instead, an intensive survey of Long Creek, an Upper Big Black tributary was undertaken (Lehmann, N.d.). Of the eighteen sites identified by this survey, seven have

Woodland components (1 Middle Woodland, 3 Late Woodland, and 3 general Woodland). All are characterized as small-to-very small and of minimal research potential (Lehmann, n.d.). An earlier survey in the Long Creek Water shed by Penman (1977:156-163) had produced similar results.

Investigations of a portion of the Orange Evans site (22-Md-519) represent one of the few Woodland period excavations in the Upper Big Black. Limited subsurface testing at this shell midden site revealed a primarily Late Woodland/Deasonville occupation. Among the more interesting of the results of the work at this site was the identification of a portion of a possible wall trench (Heath 1971).

In neither Lehmann nor Penman's surveys were any Mississippi period sites recorded. Lehmann (n.d.) suggests that this may be a reflection of a general propensity for occupations of this period to focus upon major floodplains. The Old Hoover Place site (22-Ho-502), originally reported by Ford (1936:166-167) may shed light upon upland Mississippian occupation. Materials recovered by Chambers from the vicinity of the pyramidal mound at this site indicated Middle Woodland (Marksville) and Late woodland (Deasonville) components. However, recent excavations by Lorenz (1990 and 1991) within the mound itself produced shell tempered ceramics indicating that it was constructed during the Mississippi period, with radiocarbon assays indicating a use-span ca AD 1250-1500 (1991:6).

Excavations at the immediately adjacent habitation site found it to be multicomponent including a small Mississippian occupation. Two partial structures (one single-set post and one wall trench) were identified in this area and recovered charcoal produced C-14 dates ranging from AD 1278 to 1492, indicating contemporaneity between this component and the mound (Lorenz 1991:8). This habitation area also included a considerable Middle Woodland component including several large pit features. A C-14 date from this component indicated an occupation between ca AD 322 and 755 (Lorenz 1991:8).

Reconnaissance level survey identified seventeen Mississippi hamlets and farmsteads within a 5 km radius of the Old Hoover Place. Excavations at one of these, Rebecca Springs #1 (22-Ho-650) uncovered postmolds from a single-set post rectangular structure and C-14 dates ranging from AD 1378 to 1415 (Lorenz 1991:10). Based on his investigations, Lorenz characterizes the Mississippian occupation of the Upper Big Black as a two tiered settlement system involving a relatively small population primarily concerned with "common household activities typical of maize horticultural societies" (1991:12). Interregional interaction appears minimal and much less emphasis is placed upon centralized control when compared with the major Mississippian three tiered societies in the Yazoo Basin to the west and Moundville to the east.

Issues of Relevance to Further Research

As indicated by the preceding discussion, the prehistory of the North Central Hills is poorly known. Unsurprisingly, the northwestern portion of this region has received the greatest amount of attention principally due to its presumed relationship with the adjacent Yazoo Basin. However, even this area is badly in need of further investigation.

In that it is becoming apparent that the North Central Hills comprise an independent cultural entity, an internal cultural sequence and chronology must be developed for the region. The initial steps toward this end are now being undertaken. Considering the lack of depth of the cultural deposits at most North Central Hills sites, identification, protection, and investigation of sites with potential stratification or single components is essential. One such site, the Joe Cowser Place (22-Ho-507), has recently been listed on the National Register of Historic Places. A dense shell and black earth midden at this site may offer important data on chronology, subsistence practices, and external (Deasonville) associations during the Late Woodland period.

The implications of variation in temper types and surface treatments in ceramics should be pursued as such studies may provide insights into numerous issues including temporal positioning and extraregional cultural associations.

Investigations of site types and settlement systems are also required. While much of the North Central Hills appears to be very sparsely populated, it is important to know how groups organized and distributed themselves across this physiographic feature.

It is evident that population density as well as settlement location varied both through time and across space within the North Central Hills. These trends require examination. Are such variations drainage specific and, if so, to what factors can this diversity be attributed?

Burial practices are one area in which intra-areal variability is apparent. Conical mounds within the northwestern sector contain Late Gulf Formational and/or Middle Woodland artifacts. However, mounds of similar form within the Upper Pearl and Big Black drainages have consistently been found to contain late prehistoric (Plaquemine/Mississippian) interments.

Sites with flat-topped pyramidal mounds are rare throughout the region. Only a handful, including Nanih Waiya, West, and Hurricane Landing Mound, are known for the North Central Hills. Recent excavations at the Old Hoover Place mound indicates that it served as the substructure for a Mississippian house. Alternatively a C-14 date from the West mound indicates that it is of Woodland origin. In that considerable Middle Woodland material is present at the Nanih Waiya Mound site, its late prehistoric origin may require reevaluation.

While early reports of aboriginally constructed earthen enclosures is intriguing, it is doubtful that much more evidence relevant to such

earthworks will be discovered at this late date although relevant sites should certainly be watched for.

Evidence concerning aboriginal housing types within the North Central Hills is relegated to a only a small number of sites including Old Hoover Place, West, Womack, and Orange Evans. As such, delineation of aboriginal house types remains an important research issue.

In general, occupations throughout the North Central Hills have been considered non-permanent, with primary settlement being relegated to adjoining regions. Recovery and analysis of floral and faunal remains which would provide important subsistence information has been infrequently accomplished. Ford's work at the Slaughter site represents a notable exception although her findings are far from definitive.

Extra-areal associations and influences from several directions have been asserted for the North Central Hills. During the Woodland period, communication with the Yazoo Basin is indicated by the occasional presence of Marksville ceramics. Burial mound construction in the "Hills" has traditionally been thought to have been initiated during the Middle Woodland period as a result of Marksville/Hopewell influences. However, recent investigations have brought this assumption into question and further research is needed to resolve this issue.

Interestingly, "Lower Valley" influences appear to wane during the Late Woodland. A small number of Deasonville-like sites have been reported while Coles Creek evidence is practically non-existent. Most sites within the southcentral area of the North Central Hills dating to the late prehistoric show closer affinities to Plaquemine culture. The few late prehistoric sites which have been identified within the eastern portion of the hills are most likely associated with the Mississippian occupation of the Tombigbee River. The minimal number and ephemeral nature of North Central Hills late prehistoric sites attests to the undesirability of this area for permanent settlement within a Mississippian subsistence scheme. However, the character of late prehistoric upland occupation remains to be delineated and represents an important research issue. Considering the vastness of this area, it is apparent that in order for it vastness of this area, it is apparent that in order for it to be adequately interpreted, subdivision will be required. Inspection by watershed shows promise in discriminating prehistoric cultural variability within this physiographic region and should be given serious consideration in future investigations.

LOESS HILLS

Introduction

The Loess Hills represent that physiographic region of Mississippi serving as the eastern border for the Mississippi Valley. Consisting of a

relatively narrow (5-30 mile wide) strip of uplands, this zone stretches from the northwestern to the southwestern borders of the state (see figure 1). Characteristic of this zone are carbonaceous, aeolian soils (Loess) occurring to a depth of over 100 feet at the valley margin and gradually thinning in an easterly direction. The erosional qualities of these soils provide the area with a notably rugged topography (see Snowden and Priddy 1968).

Archaeological Overview

In comparison to the two previously discussed physiographic regions (i.e. the Yazoo Basin and Northeast Mississippi) considerably less archaeological research has been undertaken in the Loess Hills. For the most part, the work that has been done has been focused upon the bluffs' edge immediately overlooking the Mississippi Valley. Investigated sites are commonly discussed in terms of the cultural chronology which has been constructed for the better known Mississippi Valley floodplain with differences between the two being speculated to be a reflection of a combination of influences between these floodplain cultures to the west and upland cultural manifestations farther to the east (cf. Phillips 1970:425-437). Obviously, the direction in which these influences move varies through the course of prehistory. Brown's (1973:180) statement that cultural patterning is not always consistent throughout a region is particularly applicable in this area.

Aside from spotty investigations throughout the Loess Hills, two areas have been the focus of more extensive research: 1) the Natchez Bluffs Region, and 2) the Yazoo Bluffs. These areas will serve as discussion headings for the following presentation.

The Natchez Bluffs

The Natchez Bluffs region has been defined as the Loess Hills along the eastern margin of the Mississippi Valley between Vicksburg and the southern Mississippi-Louisiana border (Brown 1973, Brown and Brain 1983)(see figure 1). Of the two areas to be discussed within the Loess Hills this area has received the greatest amount of archaeological attention due in large part to the activities of the Lower Mississippi Survey in 1971 and 1972 (see Williams and Brain 1979). A considerable amount of information is available concerning the late prehistory of this area (i.e. the Coles Creek and Plaquemine/Mississippian periods). However, much less is known of the earlier periods.

In lieu of a forthcoming volume concerning the archaeology of the Natchez Bluffs (Brain et al. n.d.), the works of Phillips (1970), Steponaitis (1973), the Neitzel discourse. Table 1 provides the cultural chronology for this area.

Poverty Point and the Gulf Formational Stage

Very little is known of the Poverty Point and Gulf Formational stage in the Natchez Bluffs. Although Phillips' (1970:425) comment that the presence of earlier land surfaces in the hills presents the potential for the identification of earlier sites in the Yazoo bluffs region is equally applicable here, few early post-archaic sites have been identified. Phillips (1970: figure 442) maps no Poverty Point sites in this area. Similarly, stating that Poverty Point (and Marksville) is a predominately floodplain phenomenon, and thus did not affect the bluffs to a significant degree, Brown (1973:170) does not include a phase for the Poverty Point tradition in his Natchez Bluffs chronology (ibid: figure 1). More recently, Brain et al. (n.d.) have established the Fraiser phase as the Poverty Point representative in this area (see Brown 1985: table 1).

Tchefuncte tradition sites in the Natchez bluffs are seen as the successors to the archaic occupations in the region. Tchefuncte components are assigned to the Panther Lake phase (see Brown 1973: figure 1, and Brown 1985: table 1), a phase originally designed to encompass the Tchefuncte components of the Tensas Basin of Louisiana (Phillips 1970:880). According to Brown (1973:171) these Panther Lake phase occupations are predominately situated upon major tributaries of the Mississippi River along upland exteriors. Tchefuncte occupations within the Natchez Bluffs and Valley proper are proposed to be of eastern uplands origin (ibid). Diagnostic of this phase are the ceramic types of Alexander Incised, Alexander Pinched, Lake Borgne Incised, Tammany punctated, Tchefuncte Incised, and Tchefuncte Stamped (see Brain et al. n.d.).

The Woodland Stage

As elsewhere in Mississippi the Woodland stage is ushered in with the Middle woodland period. In its lower Mississippi Valley configuration (i.e. Marksville) two phases are predicated for the Natchez Bluffs. The Grand Gulf phase represents the earlier of the two and represents the period of contact with northern Hopewellian cultures (Williams and Brain 1983:402).

Excavations at the Grand Gulf Mound (22-Cb-522)(Brookes 1976) revealed a mortuary program characteristic of the Marksville tradition. This site, located at the crest of the bluff/valley interface, reflects the floodplain orientation typifying the early and middle portions of the Marksville Stamped vars. Marksville and Mabin (see Brain et al. n.d.). Marksville cross hatched rims as well as examples of the types Marksville Stamped var. Troyville, Marksville Incised var. Marksville, Churupa Punctuated var. Unspecified, Baytown Plain var. Marksville and Indian Bay Stamped var. Indian Bay were also recovered from the mound and immediate vicinity (Brookes 1976) and are inferred to also relate to the Grand Gulf phase occupation at this site.

Later Middle Woodland occupations within the Natchez Bluffs region are included within the Issaquena phase. Based upon surface survey data and excavation at the Sardine site (22-Ad-521), observes several trends. An increase in population (as reflected in increased site frequencies) is noted. Additionally, occupational intensity is said to shift from the area around the Homochitto River to more northerly drainages such as Coles Creek and the Big Black. A diversification of ecological zones is also indicated with both interior and exterior upland loci being utilized. Phase diagnostics include the ceramic types Marksville Incised vars. Yokena and Spanish Fort, and Marksville Stamped vars. Manny, Newsome, and Troyville (Brain et al. n.d.).

The Late Woodland period in the Natchez Bluffs is characterized by the “cultural regression” attributed to this period throughout much of the Southeast. The early portion of this period (associated with the Deasonville tradition) is labeled the Hamilton Ridge phase. a population decrease has been proposed during this phase within the Natchez Bluffs (Brown 1973:173). A continuation of settlement patterns from the preceding Middle Woodland Issaquena phase is suggested although a trend toward increased usage of interior ridge locales is also indicated (1973:173). Ceramic types associated with this phase include Alligator Incised var. Alligator, Chevalier Stamped var. Cornelia, Coles Creek Incised var. Phillips, Larto Red var. Larto, Mulberry Creek Cord Marked vars. Centers Creek and Porter Bayou, and Woodville Zoned Red var. Woodville (see Brain et al. n.d.).

Plaquemine/Mississippian

Plaquemine represents the final pre-contract aboriginal tradition within the Natchez Bluffs. The evidence indicates that this culture reflects the assimilation of foreign traits resulting from Mississippian influence into the indigenous Coles Creek cultural base. The northern boundary of the Plaquemine culture (the mouth of the Yazoo River) is basically coincident with that of the Natchez Bluffs. The Mississippian influences within the Plaquemine tradition are readily discernible. The local ceramic tradition acquires attributes of vessel form and decoration common to Mississippian cultures. However, unlike “classic” Mississippian assemblages in which shell tempering is the norm, the Plaquemine ceramics of the Natchez Bluffs are characteristically tempered with a combination of inorganic and organic materials which may include bone and crushed shell. The result is the distinctive paste/temper representative of the type Addis Plain which dominates the Plaquemine ceramic assemblage and also serves as the paste/temper for most decorated types attributed to this period.

Similar to their Mississippi neighbors, Plaqueminers placed a considerable emphasis upon the construction of large scale politico-religious centers characterized by multiple mounds and plazas commonly

incorporating one larger (focal) mound. However, a distinction can be made between these two cultures in terms of overall settlement pattern. Where the Mississippian pattern is generally one of nucleated settlements, dispersed settlements are more characteristic of Plaquemine (Steponaitis 1974:199).

As manifested within the Natchez Bluffs, the Plaquemine tradition has been subdivided into four phases: Anna, Foster, Emerald and Natchez (see table 1). Excavations at the Emerald (22-Ad-504), Foster (22-Ad-503) and Fatherland (22-Ad-501) sites have figured significantly in the construction of this phase sequence (see Steponaitis 1974, Neitzel 1965 and 1983, and Brain et al. n.d.).

The Anna phase represents the inception of the Plaquemine culture. It is during this phase that large scale earthwork construction is initiated, revealing an increased emphasis upon social, religious and political ceremonialism. An attendant decrease in funerary elaborations is noted. Locations of major sites such as Anna (22-Ad-500), Windsor (22-Cb-508) and Yokena (22-Wr-500) indicate a Mississippi River focus for religious and administrative activities. Anna phase diagnostics are almost completely ceramic. See Steponaitis (1981) for a detailed discussion of ceramic types and vessel forms for this period. Addis Plain var. Addis is the predominate non-decorated ceramic type during this phase (and throughout the Plaquemine period). Anna Incised var. Anna and Plaquemine Brushed var. Plaquemine are the most commonly occurring decorated types. Shell tempered Mississippian ceramics have "not been firmly established in Anna phase contexts." (Steponaitis 1981:11). However, the variety of vessel forms observed during this phase, including beakers, plates, and carinated bowls (1981:9) is indicative of Mississippian ceramic tradition influences.

Lithic diagnostics include only the Bayougoula Fishtailed var. Bayougoula projectile point (see Williams and Brain 1983:222). The paucity of lithic diagnostics during this phase is exemplary of the sparsity of lithic materials in general at Plaquemine sites (of all phases) in the Natchez Bluffs. It has been proposed that bone and cane served as alternative materials for producing tools commonly associated with the chipped stone assemblage. Considering that these mediums are known to have been used to a great extent during early historic times (see Swanton 1911:58), such an interpretation is certainly feasible. Further, the apparent abundance of cane in this region during pre-modern times (see Johnson et al. 1983:5) would have provided a desirable tool manufacturing resource. Unfortunately, due to the relatively poor preservation properties of bone and wood, it is difficult to document the extent of their use in prehistoric contexts.

During the Foster phase, a reworking of Steponaitis' Emerald I subphase (see Neitzel 1983:138), Mississippian influences became more apparent within the Plaquemine tradition. According to Steponaitis

(1974:180) this phase is “primarily marked by the ascendancy of a new set of decorative ideas, epitomized by the types Leland Incised, Maddox Engraved and Fatherland Incised. All made use of flowing curvilinear designs generally characterized by unbroken patterns of scrolls, meanders, or spirals.” Leland Incised vars. Foster and Ferris are considered the best diagnostics of this phase (1974:181). Broad exterior rim straps on beakers and decoration incorporating horizontal bands of herringbone are also indicative of this phase (Steponaitis 1981:9). Mazique Incised var. Manchac, a type also known from late Coles Creek (i.e. Gordon phase) contexts, reappears after a postulated absence during the Anna phase (1981:9). Simple and carinated bowls are the most common vessel forms. Additionally, the presence of grave goods such as ceramic vessels and carved stone pipes in burial contexts is considered to be a result of Mississippian cultural inputs (Steponaitis 1974:184). Mississippian ceramic types attributed to this phase include Mississippi Plain, Baron Incised and Winterville Incised var. Belzoni.

By the beginnings of the Foster phase a reorientation in site distribution is noted, a shift which was initiated during the latter portions of the Anna phase. The most prominent example of this situation is the massive Emerald Mounds site, located some seven miles into the upland interior. Rationales proposed for this relocation include political reorganization associated with an avoidance of Mississippian contacts (Steponaitis 1974:185, 203 and Brain 1978:354) and increased defense requirements made necessary by an escalation in warfare during the late prehistoric period (Brown and Brain 1983:48). It is during this phase that the primary subsistence base for the Plaquemine period (i.e. corn agriculture) can be positively documented.

The Emerald phase represents a continuation of those patterns evident during Foster. The interior settlement orientation persists with Emerald, Foster, Gordon (22-Je-501) and Fatherland all being occupied at this time. Mississippian influences, particularly in the form of larger (yet minority) frequencies of Mississippian ceramic types including Barton Incised var. Unspecified, Avenue Polychrome var. Avenue, Owens Punctated var. Poor Joe and Nodena Red and White (see Brain et al. n.d.). Addis Plain var. Addis continues as the predominant plainware and the finely manufactured Addis Plain var. Junkin occurs early in this phase. Decorated types include Mazique Incised vars. Manchac and North, and Fatherland Incised vars. Stanton and Fatherland. Leland Incised appears in reduced frequency.

Simple and carinated bowls, wide-necked bottles and pedestalled bowls, jars and bottles are noted. The “classic” Mississippian (i.e. globular, constricted neck, flaring rim) jar is also incorporated into the ceramic inventory at this time.

Also present during this phase are artifacts associated with Southeastern Ceremonial Complex. However, their small numbers (being

identified only at Emerald and Mangum [22-Cb-584]) is indicative of the minimal influence of this phenomenon upon the occupants of the Natchez Bluffs (Brain 1978:365).

The Natchez phase represents both the final phase of the Plaquemine culture and the Historic Indian period. Reflected in this phase is the incorporation of numerous Mississippian and Plaquemine groups into a single social structure. In this scenario, the Natchez Indians served as the host group, taking the remnants of other previously vigorous groups who had suffered severe depopulation and consequent collapse of their infrastructure due to the ravages of the protohistoric period. Fatherland, the Grand Village of the Natchez, is a primary focus during this phase (see Neitzel 1965 and 1983). Settlement was oriented toward St. Catherine's Creek.

As pointed out by Steponaitis (1974:189, 191 and 1981:11) difficulties in sorting Emerald and Natchez phase assemblages (in the absence of European trade items) make identification of the Natchez Phase diagnostics difficult. Unfortunately, the most diagnostic are also the least common including Fatherland Incised var. Bayou Goula, Chickachae Combed, and Nachitoches Engraved; all of non-local origin. The four-line incised decoration classified as Fatherland Incised var. Nancy also appears to be restricted to this phase (Steponaitis 1981:11). In general, the Natchez phase ceramic inventory includes Fatherland Incised vars. Fatherland, Stanton, and Bayou Goula, Mazique Incised var. Mazique, Maddox Engraved var. Emerald, and Chicot Red var. Grand Village. Addis Plain var. Addis continues as the predominate plainware. The presence of Mississippian, Caddoan, and Choctaw types possibly reflects the intercultural assimilation's which were taking place at this time (Steponaitis 1974:189-190).

Vessel forms are the same as those for the Emerald phase with the exception of the absence of barrel-shaped bottles, an infrequently occurring Emerald phase form.

Like the preceding phases, the lithic assemblage of the Natchez phase is sparse. However, it is during this phase that the Mississippian Triangular projectile point is recorded, probably as a result of the influx of Mississippian (Tunica?) refugees groups in the region (Steponaitis 1974:190).

Obviously, the presence of European trade goods is the most distinctive Natchez phase indicator. However, such items are not found at all sites of this period, a factor which has caused a considerable amount of difficulty in determining settlement patterning at this time. Hopefully, additional archaeological excavations in this area will serve to alleviate this difficulty.

Issues of Relevance to Further Research

As previously noted, the Natchez Bluffs have received the greatest amount of attention within the Loess Hills physiographic region. However, the archaeological picture of this area is far from complete and additional work is in order. The following section will point up some of the more important areas of concern.

Poverty Point and the Gulf Formational Stage

To date, very few Poverty Point sites are recorded for the Natchez Bluffs. Two are reported by Brown (1973:122) and a third by Johnson et al. (1983:157). Although this situation has been reconciled by the fact that Poverty Point is predominately a floodplain phenomenon, some concern continues as to whether the lack of such sites in the Natchez Bluffs might also be a result of insufficient survey in the area. Considering the location of the Poverty Point site itself (i.e. the edge of Macon Ridge) it would be suspected that bluff edge locations within the Natchez Bluffs might have also been occupied at this time. One of Brown's Poverty Point sites (Nall)(22-Je-542) occupies such a provenience. further, considering the potential role of the Natchez Trace in interregional exchange and travel during the later prehistoric period, the likelihood of earlier sites along this route must also be considered. The establishment of the Fraiser phase to accommodated sites of the Poverty Point period in this area allows for the possibility that larger numbers of Poverty Point sites exist in this locale.

Considering the paucity of Poverty Point sites in the Natchez Bluffs, Gulf Formational (i.e. Panther Lake phase) sites are thought to represent the successors of the Late Archaic occupants of the area. However, sites with Panther Lake phase components are also minimal. Of the six sites reported by Brown (1973:124) only one (Armstrong)(22-Ad-620) could be classified as other than superficial. Further, no Panther Lake phase components have been excavated. As such, the present data is insufficient for making any statements concerning the Gulf Formational stage in this area aside from the fact that a few sites of this age are known. Both additional survey and excavation are needed in order to remedy this situation.

The Woodland Stage

Woodland sites are more common than Gulf Formational sites in the Natchez Bluffs. In terms of Middle Woodland sites, prior to the excavation at the Grand Gulf Mound only a single artifact (a Marksville Crosshatched Rim) from the Catledge site suggested an early Marksville presence in the area. However, a considerable number of sites have been assigned to the later Marksville Issaquena phase. The Grand Gulf excavations have now documented this to be an early Marksville site, and one sufficiently different from those of the Point Lake phase of the Upper Tensas basin the justify a separate phase name (i.e. the Grand Gulf

Phase). Yet aside from the Grand Gulf site itself, no representatives of this phase have been documented. This is a predicament which obviously requires further investigation. Even if the early occupation of this area is minimal, a resident population must have been responsible for the mound at Grand Gulf. A useful starting point for unraveling this mystery would be a reexamination of known Middle Woodland sites in the vicinity of the Grand Gulf site (and the Natchez Bluffs in general) in light of the work at Grand Gulf. Possibly some of those sites previously attributed to the Grand Gulf phase or have Grand Gulf phase components. The presence of a Marksville Crosshatched Rim at the Catledge (22-Cb-533) site certainly indicates this possibility.

Following what is reported as a population increase during the Issaquena phase of the Middle Woodland period, a decreased occupation is reported during the Late Woodland period. This proposed population decrease requires further investigation in that the Late woodland period in general is one characterized by an increase in population with both the Yazoo Basin and Yazoo Bluffs being exemplary of this phenomenon. It might be proposed that the observed decrease in population during the first half of the Late Woodland period (i.e. the Hamilton Ridge and Sundown phases) may be associated with the above mentioned Middle Woodland phase dilemma. That is, if Middle Woodland sites are eventually found to be more evenly divided between the Grand Gulf and Issaquena phases, a more consistent population profile can be projected between the Middle and Late Woodland periods.

The latter portions of the Late Woodland period witness the development of the Coles Creek culture. By the Balmoral phase an increase in population is evident, a phenomenon which has been attributed to the adoption of maize agriculture. As elsewhere within the Coles Creek domain, the use of maize during this period remains to be documented. Trends in mound construction and settlement pattern have been monitored through the Coles Creek period. However, for the most part these observations are based upon surface collections. Both mound and village site excavations are badly needed in order to assess the accuracy of these proposed patterns.

The Plaquemine/Mississippi Stage

Plaquemine represents that period during which Mississippian influences are first evidenced within the Natchez Bluffs. However, while the Anna phase heralds the inception of the Plaquemine culture, Mississippian (i.e. shell tempered pottery is yet to be identified within the ceramic inventory for this phase. An additional ceramic issue with obvious cultural ramifications concerns the type Mazique Incised (var. Manchac). While this type is present both within the late Coles Creek Gordon phase as well as the Foster phase of the Plaquemine period, it is reportedly absent during the intervening early Plaquemine Anna phase.

That a ceramic type exhibiting such a standardized decorative motif would disappear and then reappear in comparable form following a 150 year hiatus is problematic. Both of these situations illustrate the need for acquiring a better understanding of the nature of the initial interaction between indigenous and Mississippian cultures in this area, a task requiring the excavation of sites with single or isolatable Anna phase components.

Further, there is a need to more explicitly delineate the differences between Plaquemine and Mississippian traditions. While variation in temper type provide the most obvious separation criteria, dissimilarities in settlement pattern have also been proposed. However, it is unclear whether this represents a culturally controlled phenomenon or is related to differences in landscape morphology and area available for occupation between the two regions and/or other factors.

Subsistence data is derived through floral and faunal analyses are minimal for the Mississippian period as well as the remainder of the prehistory of the Natchez Bluffs. An analysis of floral remains from the Anna phase midden at 22-Je-530 (the Mud Island Complex) reveals that although corn agriculture is evident, mixed foraging and agriculture characterize the subsistence strategy at this site. Both the wild floral species and minimal faunal remains indicate an emphasis upon stream bottom resources (Johnson et al. 1983:164-170). Interestingly, remains from the Emerald phase at the Gordon Mounds (22-Je-501) indicate an even more diverse subsistence base and not the expected increased emphasis upon agriculture (1983:164-170). Analysis of the faunal materials from the Fatherland site indicate that this diversified subsistence pattern persisted into the historic period (see Penman 1983).

The rationale for the relocation of late prehistoric Natchez Bluff inhabitants to the upland interior is also at issue. It has been proposed that this move was a conscious attempt by Plaquemine peoples to avoid the primary route of communication of Mississippian influences (i.e. the Mississippi River). At present, this interpretation represents a reasonable yet untested hypothesis. Additional research will be required in order to determine the validity of this interpretation.

Finally, further effort is needed in assessing the relationship between late prehistoric and early historic Indian groups in the Natchez Bluffs. Ceramic comparisons are generally very useful for such studies. Continuity between these two periods is indicated as ceramic types appear consistent. In fact, they are consistent to the point that without the presence of European trade items at a site, the two ceramic assemblages can often not be distinguished. More in-depth analysis is necessary in order to determine what (if any) characteristics are distinctive. Isolation of the four line incised decoration known as Fatherland Incised var. Nancy as a purely historic type provides a first step in this process and indicates the level of detail at which it may be

necessary to undertake such studies in order to prove the desired results.

The Yazoo Bluffs

As discussed herein the Yazoo Bluffs region is coincident with that segment of eastern uplands bordering the Yazoo River portion of the Mississippi River Valley (see figure 1). Thus, Vicksburg serves as the southern terminus with the northern boundary arbitrarily assigned to that point at which the Tallahatchie and Yalobusha Rivers unite to form the Yazoo just northeast of Greenwood (see figure 1).

Two segments of this area have been the focus of a relatively greater amount of archaeological investigation. The approximately fifteen mile long stretch of bluffline immediately to the north and east of Vicksburg (see figure 1) has been reported in some depth by Brown (1979). Although he labels this area the Yazoo Bluffs, the term Vicksburg Bluffs will be employed herein, reserving Yazoo Bluffs for that larger region as defined above and more in keeping with Phillips' (1970) usage. Note that only half of those sites which Phillips (1970) discussed under his Yazoo Bluffs heading fall within that area defined by Brown (1979) as the Yazoo Bluffs. Approximately forty miles of that area of the Yazoo Bluffs is a region labeled the Tchula-Greenwood Bluffs (see figure 1)(Brown 1977:1) which served as the focus of a bluffline survey in 1977.

Brown's investigations in the Vicksburg (1979) and Tchula-Greenwood (1977) areas and Phillips (1970) reporting of a scattering of sites in the Yazoo Bluffs region constitute the majority of the available data concerning this portion of the Loess Hills. As such, our present state of knowledge concerning the archaeology of the Yazoo Bluffs precludes a detailed presentation of the post-archaic prehistory of this area. Therefore, the general headings Poverty Point/Gulf Formational, Woodland and Mississippian will be employed in the ensuing discussion.

Poverty Point and the Gulf Formational Stage

Despite the relatively greater age of this upland surface (in comparison to the adjacent Mississippi Valley floodplain), early post-archaic materials are rare. No Gulf Formational components (and only two possible Poverty Point components) are included reports among those sites reported by Phillips (1970) and Brown (1977 and 1979).

The Woodland Stage

Although no abundant, a considerably larger number of sites with Woodland components are known within the Yazoo Bluffs. The majority of the Middle Woodland components are mound sites which also exhibit Mississippian occupations. With the exception of the Phillips (22-Ho-506) site, Middle Woodland diagnostics (i.e. Marksville ceramics) are minimal

at these sites. Some (e.g. Pine Bluff [22-Cr-503]) are apparently assigned Middle Woodland components based entirely upon similarity with better known Marksville tradition mound groups (see Brown 1977:11,15). Interestingly, only one of the six sites reported by Brown (1979) for the Vicksburg Bluffs exhibits any Middle Woodland diagnostics. Four Marksville Stamped var. Troyville sherds were identified among the 13992 sherds from the St. Pierre (22-Wr-514) site, one of the two most southernmost sites included in that study.

The available evidence indicates a considerable increase in occupation within the Yazoo Bluffs during the Late Woodland times. Baytown period sites, as indicated by the presence of Baytown Plain and Mulberry Creek Cordmarked ceramics, are numerous. Among the more intriguing of these sites is York Hill (22-Yz-602)(see Phillips 1970:429, and Ford 1936:155). Phillips(1970:429) has suggested that the four conical mounds arranged about an open square(?) at this site are attributable to the Deasonville component which represents the primary occupation.

Contrary to the Middle Woodland evidence for the Vicksburg Bluffs, all of those sites reported by Brown (1979:table 2) contained materials attributable to either the Deasonville or Bayland phase of the Baytown period although in no instance do these materials represent the predominate site component. Later, Late Woodland (i.e. Coles Creek period) occupations are also fairly common within the Yazoo Bluffs. However, a distinctive distribution for these sites is noted. Similar to the situation during the Baytown period, of all those sites reported by Brown (1979) for the Vicksburg Bluffs exhibit Coles Creek diagnostics as do two of Phillips (1970) sites which fall into the same general area (i.e. Blakely [22-Wr-543] and Haynes Bluff [22-Wr-501]). No Coles Creek components, however, are identified among the sixteen sites reported for the Tchula-Greenwood Bluffs (see Brown 1977). Brown (1977:32) points out that the lack of Coles Creek sites in this area is not unexpected as they are also minimal in the adjacent portions of the Yazoo Basin (see Phillips 1970:fig. 446 for a graphic illustration of this phenomenon).

The Mississippi Stage

It is during the Mississippi stage that the best known occupation of the Yazoo Bluffs is evidenced. However, it should be pointed out that such sites are predominately situated at the valley margin. All of those sites reported by Brown (1979) for the Vicksburg Bluffs exhibit Mississippi period occupations as do twelve to sixteen of the Tchula-Greenwood Bluffs sites. Further, Mississippian occupations are noted for nine of the twelve Yazoo Bluffs sites reported by Phillips (1970).

The Late prehistoric evidence from the Vicksburg Bluffs segment of the Yazoo Bluffs has been closely scrutinized in that a number of sites in this area compose the subject matter for Brown's (1979) doctoral thesis. Based upon ceramic diagnostics, Mississippian period sites are assigned

phase diagnostics, Mississippi period sites are assigned phase designations. Phase names employed for this area are the same as those for the Yazoo Basin (see Grown 1979:fig. 30) and include Winterville, Lake George, Wasp Lake and Russell. The reader is referred to the discussion of these phases within the Yazoo Basin for additional information concerning their characteristics. Worthy of note at this point is the fact that shell tempered (Mississippi Plain) ceramics predominate the Mississippi Assemblages at the Yazoo Bluff sites and provides a basic distinction between the late prehistoric sites in this area and those of the Natchez Bluffs where the non-shell tempered type Addis Plain prevails.

Not surprisingly considering the focus of Brown's research in the Vicksburg Bluffs, the majority of those sites which he investigated reveal predominant Russell phase (i.e. Historic period) components. However, historic period occupations are also found to be most common among the sites in the Tchula-Greenwood Bluffs (Brown 1977:32), an area in which sites were not specifically selected for their potential in investigating European contact period issues. Thus, the apparent dominance of late prehistoric sites in the Yazoo Bluffs is evidently more than a reflection of the interests of archaeological researchers in the region.

Issues of Relevance to Further Research

The brevity of the preceding presentation of the archaeology of the Yazoo Bluffs bears witness to the need for additional work in this area. Although research in the Vicksburg Bluffs and Tchula-Greenwood Bluffs provides a small yet intriguing glimpse into the prehistory of this region, much more work will be required before the archaeological record is adequately investigated and deciphered.

Brown (1979:582) has commented that "What is needed now in the area is a more rigorous archaeological examination of settlement patterns, and the like. As yet, we have only a slight clue as to what these people were actually eating, and our knowledge of house plans and village layouts of the Yazoo Bluffs Indians is confined to but one floor plan at the Haynes Bluff site." Although this statement was made over ten years ago and in reference to the historic archaeology of the Vicksburg Bluffs it is equally applicable today for the entirety of the prehistoric sequence within the Yazoo Bluffs.

Poverty Point and the Gulf Formational Stage

As in the Natchez Bluffs area, Poverty Point sites are a rarity within the Yazoo Bluffs. Of the two potential candidates, one (Gamewood [22-Ho-504]) is classified as such due to the presence of Motley, Epps and Delphi projectile points and a single baked clay artifact (not positively identifiable as a Poverty Point Object). The second site (Jack Leflore [22-Gr-539]) produced a microblade core (see Brown 1977:6). Obviously,

such evidence is insufficient for delineating the character (or even documenting the existence) of a Poverty Point occupation in this area.

Even more ambiguous is the issue of a Gulf Formational presence in the Yazoo Bluffs. At present, no sites of this age are known, an interesting situation in that such sites have been identified within the more southerly portions of the Loess Hills (i.e. the Natchez Bluffs). Based upon present evidence it would have to be inferred that the upper segments of the Loess Hills were circumvented during the transmission of Gulf Formational cultural traits into the Mississippi Valley from those areas farther to the east where such manifestations are known to have considerably greater time depth. Information accumulated to date is totally inadequate for evaluating this or any other supposition concerning this matter. Additional and intensive survey work will be needed before even the most basic archaeological concerns can be addressed. Excavation will ultimately be necessary in order to determine the cultural chronology for the region as well as to address subsistence issues.

Although a greater number of sites have been identified which are attributable to the Woodland period, the character of the Loess Hills occupation during this period remains poorly discerned. Based upon the ceramic evidence, Brown (1977:2) has pointed out the likelihood that there may be considerable differences between Middle Woodland expressions of this area and the Yazoo Basin, an observation which points up to the dangers in employing the better known Mississippi Valley manifestations in determining cultural patterns for upland groups.

As previously noted, occupations presently associated with the Middle Woodland period are commonly correlated with mound sites. In some instances, lacking the necessary diagnostic materials, the mounds themselves have been cited as evidence of a Middle Woodland component. It is apparent that our lack of knowledge of the archaeology of the Yazoo Bluffs precludes any attempt at making an informed judgment concerning the development of mound building cultures in this area. Several sites within the Tchula-Greenwood Bluffs have been identified as Middle Woodland centers. Included among these are Phillipi, Millstone Creek (22-Cr-578) and Pine Bluff (Brown 1977:17). Aside from rectangular (Mississippian) house floor excavated by Ford and Chambers at Phillipi (Ford 1936:167), no professional excavation has been undertaken at any of these sites.

Due to fortuitous circumstances, an additional Woodland mound group (the Frances Lee Mound Group [22-Ho-654]) has been recently reported by two local amateurs and verified by Mississippi Department of Archives and History personnel (Morgan 1988). Noteworthy concerning this site are its placement and size. Situated some six miles from the point at which Fannegusha Creek enters the Mississippi Valley floodplain and approximately three miles southeast of the nearest point of the

valley/bluff intersection, this is the farthest inland of any mound site to be reported in the Yazoo Bluffs. Additionally, exhibiting six conical mounds, it provides to be the largest site to be reported for the entire Loess Hills for the Woodland period. Four mounds are recorded for both Phillipi and Pine Bluff, some or all of which may be of Middle Woodland origin. The four mounds identified at the York Hill site have been attributed to the Late Woodland (Deasonville) occupation (Phillips 1970:429).

The paucity of Coles Creek sites within the Yazoo Bluffs in general and their apparent absence in the Tchula-Greenwood Bluffs requires further investigation. As pointed out by Brown (1977:32) Coles Creek sites are also small in number within the alluvial valley at this latitude. However, this fact does not elucidate the character of the extant Late Woodland situation in this area in order to assess its cultural composition during that period in which the Coles Creek culture was pervasive within a considerable portion of the Lower Mississippi Valley (as well as the Natchez Bluffs).

In that Woodland cultures within the Valley are generally thought to have had considerable input from areas to the east, an understanding of the character and workings of Woodland cultures within the Loess Hills is important in achieving an adequate comprehension of innerareal cultural interactions and influence during this period. Phillips (1970:437) made an initial attempt in this direction, citing differences in pottery type frequencies, particularly the ubiquity of cordmarked (Mulberry Creek Cord Marked) ceramics at upland Late Woodland sites. He further suggested that floodplain occupations might reflect seasonal visitations of upland groups for exploitive purposes. Examinations of Phillips data for his Yazoo Bluffs sites indicates insufficient evidence upon which to make useful assessments to artifact inventories for sites of this period. A good example is the Gamewood (22-Ho-504) site where equal numbers of Baytown Plain and Mulberry Creek Cord Marked rims are reported while 132 cordmarked body sherds and no plain body sherds are listed. In fact, no Baytown Plain body sherds are reported for any of Phillips' (1970) Yazoo Bluffs sites. Discussing the ceramic inventories from his Tchula-Greenwood Bluffs sites, Brown (1977:32) concludes that "It seems that the Baytown period within this area is a bit more complex than expected..."

The Mississippi Stage

The Yazoo Bluffs appear to have been rather intensively occupied during the Mississippi period. As during the Woodland period, many of the Mississippian sites are classifiable as mound complexes. Included among their number are Phillipi, Haynes Bluff and Kings Crossing (22-Wr-537). The tendency for sites of this period to be associated with mounds points to one of the most serious deficiencies within the present

data base: the inadequate documenting of non-mound sites. Such is the situation commonly associated with informer oriented survey. The smaller sites are often overlooked and/or go unreported as it is the larger sites that are both more spectacular and more easily identified by amateur and professional alike. To remedy this situation more comprehensive and systematic survey is required. In this manner it will become possible to better comprehend the overall structure of the Mississippian complexes of the Loess Hills. Certainly, as elsewhere throughout the Southeast, it is the smaller, crop producing sites which served as the subsistence base and primary source of production for these Mississippian manifestations. Although smaller sites are presently underrepresented within the archaeological site inventory, they have been documented and should serve as a primary topic for further research.

Summary

As indicated by the preceding presentation, the shortcomings of the archaeological data base for the Loess Hills are numerous. Available information ranges from an intensive coverage of the Natchez Bluffs resulting from a two season survey by the Lower Mississippi Survey to a one and one half week Cottonlandia sponsored survey of the Tchula-Greenwood Bluffs. However, the vast majority of the Loess Hills was undergone no organized survey at all.

In those locales where in-depth study has taken place it has been primarily focused upon the late prehistoric and early historic periods. Although this is certainly an important period and by all indications one of intensive aboriginal occupation, it is important that future studies give increased emphasis to the earlier prehistory of the area. It remains to be determined whether the cultural chronology of the Lower Mississippi Valley can be successfully applied to adjacent areas of the uplands (see Brown 1977:2-3, and Williams and Steponaitis 1974:154). Before such an evaluation can be accomplished, more extensive survey is required. Again, aside from the Natchez Bluffs area very little survey work has been done anywhere except along the bluff/valley margin; that location at which influences from the floodplain would be expected to be most evident. The cultural composition of those groups farther inland as well as their associations with groups both to the east and west remains undetermined.

What is evident is that cultural variability exists within the Loess Hills along a north-south axis. At present, this differentiation is most obvious during the latter portions of the prehistoric period (i.e Coles Creek and Plaquemine). This situation is illustrative of the fact that although the Loess Hills are easily defined as a physiographic unit, the area does not exhibit cultural cohesion and considering its size and dimensions would not be expected to. However, at least one common attribute is shared by the entirety of this region; it serves as the cultural and geographic

interface between the Mississippi Valley to the west and upland areas to the east. As such it is undoubtedly a dynamic area in terms of cultural exchange and interplay worthy of closer study at both the intraregional and interregional levels.

Basic to the achievement of an accurate understanding of cultural development within this region is the establishment of a chronological framework in which cultural variation can be objectively evaluated. Although excavation and survey work have provided a certain amount of data for constructing the general cultural sequence for the area, the absolute dates needed to establish the temporal backdrop for the various events within this sequence are inadequate and for the most part nonexistent.

Only within the Natchez Bluffs are radiocarbon dates available (see Neitzel 1968 and 1983, and Johnson et al. 1983) and in these instances dates are either Plaquemine or early historic in age. Thus, evidence from other areas, particularly the Upper Tensas and Yazoo basins has been heavily drawn upon in formulating the chronological sequence for this area (see Steponaitis 1981:7). Considering the previously noted concerns in employing extraregional evidence for such purposes, archaeological investigations within the Loess Hills oriented toward the production of a temporal framework for the region are of utmost importance at this stage.

THE JACKSON PRAIRIES

The Jackson Prairies are a 10-to-40 mile wide northwest to southeast trending belt of calcareous and clayey soils transecting central Mississippi. It is bordered to the north by the North-Central Hills, to the south by the Longleaf Pine Belt, and to the west by the Loess Hills. The Mississippi/Alabama state line constitutes the eastern boundary (see fig.1). Encompassed within this region are portions of ten counties: Hinds, Madison, Yazoo, Rankin, Smith, Scott, Jasper, Newton, Clarke, and Wayne.

As described by Kelly, source (1973:9) the Jackson Prairies are a "flat-to-undulating area underlain by limestone, marl, and clays of the Vicksburg and Jackson formations. The original vegetation cover was open patches of grassland, interspersed with wooded areas." Two major river drainages cross-cut the Jackson Prairies in a northeast-to-southwesterly direction maintaining roughly parallel courses some 30-to-40 miles apart. The Pearl River, the more easterly of the two, turns southward as it passes from the Pine Meadows, finally emptying into the Gulf of Mexico. After crossing the Jackson Prairies, the second major watercourse, the Big Black River, cross-cuts the Loess Hills before entering the Mississippi Valley and emptying into the Mississippi River.

In the eastern portion of the Jackson Prairies are several streams which contribute to the Pascagoula River. In the eastern portion of the Jackson Prairies are several streams which contribute to the Pascagoula River. Included are Buckatunna and Archusa creeks which later converge to form the Chickasawhay River, the major eastern tributary to the Pascagoula. To the west the Tallahalla Creek and Leaf Rivers converge to form the Pascagoula's major western tributary.

Archaeological Overview

Known archaeological sites within the Jackson Prairies are few as are archaeological investigations and reports for the area. Like other regions of the state, post-archaic sites appear to be primarily located within the major river basins. Within the Jackson Prairies surveys have been concentrated upon the Pearl and Big Black drainages (Connaway and McGahey 1970; Neitzel 1966, 1968; Rands 1958a, Heartfield, Price, and Green 1982 a and b) and the tributaries of the Pascagoula and Leaf Rivers (Atkinson and Blakeman 1975, Atkinson and Elliot 1979, Penman 1977).

The prehistory of the Jackson Prairies is poorly understood. Although several chronologies have been offered for the region (Mangum 1963, Atkinson and Blakeman 1979, Neitzel 1968, Rands 1958b, Bohannon 1965a) all are highly generalized and rely heavily upon neighboring areas, including the Lower Mississippi Valley, the Tombigbee drainage, and coastal Alabama in their formulation.

Considering the expansiveness of the Jackson Prairies and the potential for intra-regional variability and differences in extra-regional contacts, the following presentation will provide separate discussions of three major drainage areas: the upper Pascagoula basin, the north-central Pearl, and the central Big Black.

The Upper Pascagoula Basin

The numerous streams comprising the upper reaches of the Pascagoula drainage serve as the primary watershed for major portions of south-central and southeastern Mississippi. Of these, several have received attention concerning their archaeological resources. Most notable are Tallahoma Creek, a tributary of Tallahalla Creek; and Souinlove Creek, a Chickasawhay River tributary (see Penman 1977). Penman reports small (5 acre), seasonal camps on first and second terraces in these drainages (1977:81). Recovered Woodland period ceramics include Baytown Plain vars. Thomas and unspecified, Marksville Incised var. unspecified, Baldwin Plain var. unspecified, Furrs Cordmarked var. unspecified, and Tishomingo Plain var. unspecified. The presence of a small number of Mulberry Creek Plain sherds from a single site in the Chickasawhay River are considered indicative of trade between this area and inhabitants of northwest Alabama (Penman

1977:282). The most common raw material utilized in lithic manufacture is Tallahatta Quartzite, apparently brought into the area from outcroppings near Meridian, Mississippi and/or southwest Alabama.

Mississippi period ceramics include Plaquemine Brushed vars. Grace and Thomas and Mississippi Plain. The Mississippi Plain sherds were attributed to the newly devised var. Enterprise due to their sandy (shell tempered) paste (Penman 1977:286).

The majority of the sites in the Souinlovey and Tallahalla survey areas produced Chickachae Plain and Chickachae Combed sherds indicating a substantial historic Choctaw occupation in this area.

Considerable archaeological survey work has also been undertaken along Tallahalla Creek in the vicinity of the Tallahalla reservoir in Jasper, Jones, Forrest, and Perry counties (see Tesar 1974, Atkinson and Blakeman 1975, and Atkinson and Elliot 1979). Although only a small portion of this survey area falls within the Jackson Prairies (the majority being in the upper portions of the Longleaf Pine Belt) several of the observations made in these investigations are pertinent due to the proximity of the two areas.

Atkinson and Elliott's (1979) volume summarizes previous work within the Tallahalla drainage. A full compliment of post-Archaic manifestations is indicated in this area by Wheeler, Tchefuncte, Alexander, Marksville, Baytown, and Mississippian ceramics (see Table 1). The presence of Tchefuncte and Marksville types and paucity of cordmarked ceramics is considered to indicate closer ties to the Gulf Tradition cultures of the Lower Mississippi Valley than to the Tombigbee occupatins to the north. Citing the scarcity of shell tempered sherds in the area as well as the lack of ceremonial centers or mounds, the Mississippian presence is inferred to be relatively small (Atkinson and Elliott 1979:113). Although earlier attempts had been made to subdivide the shell tempered Mississippian ceramics from this area (see Tesar 1974, Atkinson and Blakeman 1975, Penman 1977) all of these were lumped by Atkinson and Elliott pending the acquisition of a larger sample and better contextual data (1979:13). Similarly, where Atkinson and Blakeman (1975:18) had suggested associations with the central Tombigbee, Atkinson and Elliot (1979) make no comment as to regional allegiances for the Mississippi occupations.

Settlement patterns in the Tallhalla survey area indicate a preference for low bottomland terraces providing convenient access to the varied plant and wildlife communities of the associated wetlands (Atkinson and Elliot 1979:114).

Although officially falling into the North-Central Hills physiographic region, Marshall's (1982) Archusa Creek investigations in central Clarke County are also pertinent to prehistoric occupation of the eastern portions of the Jackson Prairies. As in the Tallahalla Reservoir area, recovered ceramics (including Wheeler, Alexander, Tchefuncte, Baytown,

and Mississippian types) indicate an extensive post-archaic occupational sequence. Several sherds are also tentatively classified as Bayou La Batre implying associations between this area and the Gulf Formational manifestations of the Mobile Bay area. One Late Woodland ceramic series alluded to for Archusa Creek which was not identified in the Tallahalla drainage is Coles Creek. However, none of the horizontally incised rims characteristic of this series are reported suggesting that this assignation may be in error.

Sites within the Archusa Creek survey area are interpreted by Marshall (1982:61) as indicative of short-term or seasonal occupations of people residing for the majority of the year within the Longleaf Pine Belt).

Among the few mound sites in the upper Pascagoula is Hiwanne (22-Wa-500). This Wayne County site was excavated by Collins (1926). Mangum includes Hiwanne within the McCrae Phase, the Marksville period representative for his Chickasawhay region, the southern portion of which extends into the Jackson Prairies (1963:54).

The North-Central Pearl

Compared to the upper Pascagoula drainage, a larger amount of archaeological work has been undertaken within the Pearl River portion of the Jackson Prairie. The bulk of these investigations were carried out as a result of planning for the Natchez Trace Parkway (Bohannon 1964, 1965a and b) and Pearl River (Ross Barnett) Reservoir (Rands 1958 and 1959).

Rands' (1959) excavations at the Wills site (22-Hi-512) have been employed in constructing a general cultural chronology for this portion of the Pearl. Artifactual materials from this site reveal a long occupational time-span ranging from Poverty Point through Late Woodland. However, considering the thinness of the cultural deposits at this site (10-70cm) and the small amount of material recovered, Rands warned that the cultural sequence for the site should be viewed with caution (1959:2).

The Poverty Point Period

As noted above, a Poverty Point occupation was identified at the Wills site and this component continues to be the best evidence of initial post-Archaic occupation in the North-Central Pearl. To date, no other Poverty Point sites have been reported in the Jackson Prairies. The component represented is identified totally by the presence of Poverty Point Objects, the majority of which are of the biconical/plain variety. Due to the lack of other Poverty Point diagnostics (microliths, Motley points, steatite vessels, exotic raw materials, and lapidary items, etc.) and the small size of the site (100 x 30 meters), Willis is considered to be a small satellite community,, possibly associated with the impressive

Poverty Point occupation at the Claiborne site (22-Ha-501) located at the mouth of the Pearl River.

Gulf Formational

Gulf Formational occupations are also indicated at the Wills site based upon the identification of Wheeler and Tchefuncte-like ceramics. Similarities between the Tchefuncte-like materials at this site and Bayou La Batre ceramics were used to infer associations with gulf coast manifestations of the Mobile Bay area. Gulf Formational occupations are known from only a few other sites in the area (Table 2). Rands reports a small number of fiber tempered sherds from the Gibson Brothers Mound (22-Md-509)(1958:2). Fiber tempered sherds have also been identified at the Blake Bell (22-Hi-548) and Interstate Bridge (22-Ra-527) sites (Crusoe 1980, Heartfield, Price, and Green 1983). Withers Fabric Marked sherds are reported from the multi-component Armstrong site (22-Ra-576)(Lauro n.d.b). Alexander series sherds have been recovered from two other Rankin County sites: Interstate Bridge (22-Ra-527) and Trailer Park (22-Ra-520) as well as the White Perch Paradise (22-Md-541) site in Madison County (Lauro n.d.c.). Finally, considerable Wheeler and Tchefuncte ceramic collections have recently been recovered from the Photon (22-Ra-588) site along the Pearl River.

Woodland

A considerable number of Woodland sites are recorded for the Jackson Prairies (Table 2) and a large percentage of these are located along the north-central Pearl. As noted by Rands during his survey of the Barnett Reservoir, most of the sites in the area are of the Woodland period as indicated by conical mounds and Baytown Plain pottery (1958:2). A minority of these can be further subdivided into Middle and/or Late Woodland categories (Table 2).

Due to the present state of affairs concerning cultural chronology in the Jackson Prairies, it is difficult to assign sites to the Middle Woodland period unless they contain Marksville diagnostics. Although several sites have been classified as Middle Woodland (Table 2), only three would qualify based upon the Marksville stipulation. Interestingly, none of the conical burial mounds in the north-central Pearl have produced Marksville diagnostics.

More information is available for Late Woodland sites in the area primarily due to excavations at two sites along the Natchez Trace: Bod (22-Md-512) and Fireplace (22-Md-506). Located at the Boyd site are six burial mounds and a small occupational area. Excavation of three of these and mounds revealed numerous burials (a minority accompanied with ceramic vessels, shell beads, and other artifacts). The mounds are primarily accretional in nature with burials in most cases simply being laid upon the mound surface and covered over. Bohannon (1965:57)

proposed the mounds are of Mississippian construction citing similarities with neighboring Big Black drainage. Shell tempered ceramics are present within the fill of these mounds indicating that they were at least partially constructed during the Mississippian period. However, both Baytown and Mississippian vessels are associated with burials in these mounds, revealing initial construction and use occurred during the preceding Woodland period.

Unfortunately, problems in correlating text, tables, and plates in the 1965 Boyd site report make it difficult to construct a defensible interpretation of the sequencing of mound building activities at this site.

Within the village area of the site were located the outline of one house structure and portions of a second. Both exhibit a circular floorplan and walls constructed of individual posts set within a trench. The diameter of the measurable housefloor was 50 feet. As noted by Bohannon (1965a:57), the size and method of construction compare favorably with the largest of the structures at the Deasonville (22-Yz-527) site located in the Big Black drainage in Yazoo County (see Collins 1932). however, while Collins draws parallels between the large structure at Deasonville and historic Cherokee and Creek council houses, Bohannon proposes that the size of the Boyd structure indicates its use as an extended kin-group habitation (1965a:65). The predominance of Baytown Plain ceramics within the structure is employed in assigning it to the Late Woodland (Deasonville) period (n.b. a "Dupree Incised" vessel is reported from the house fill in Table 5 and Plate 16 of Bohannon's report). Also within the village area at Boyd are two individuals placed in oval burial pits. Shell tempered vessels accompanied both. Thus, assuming that the Late Woodland placement of the large circular structure is correct (a rather tenuous proposition in itself), these burials post-date it. A third burial was located within the remnants of the second structure at the site. No grave goods were associated with this burial. Like the other two off-mound interments, this is a secondary burial.

The discussion of subsistence at the Boyd site (Bohannon 1965a:54) indicates the relevant materials were not systematically recovered. Splintered bone and mussel shell are the only reported faunal remains and no floral remains are discussed, thus interpretations of subsistence practices cannot be derived.

A single radiocarbon date of AD 870 80 was obtained from a charred log beneath Mound 2. Although this date falls within the Late Woodland period, numerous interpretational difficulties are apparent and thus it is of little use in assessing mound construction activities at this site.

Excavations at the nearby Fireplace Mound provide comparative data for the Boyd site evidence. Like the Boyd site, the conical burial mound at this site was found to contain numerous burials and associated Baytown and Mississippian vessels incorporated into the mound in an

unpatterned and accretional manner. However, unlike Boyd, a much larger percentage of the interments at this site are accompanied with burial furniture. As in the Boyd site report(s) considerable difficulties are encountered in correlating text, tables, and figures for ceramic vessels and associations. These discrepancies cause problems in interpreting cultural components and activities (particularly mound building) at the site.

In an attempts to order the Late Woodland cultural sequence for the area, Bohannon drew together evidence from Deasonville sites in the Pearl, Big Black, and contiguous portions of the Mississippi River Valley in formulating a Deasonville Regional Sequence (1965a:59-61). Unfortunately, considerable reworking of the cultural sequence and correlated ceramic associations for the Mississippi Valley was underway at the time of Bohannon's work, thus many of the assumptioins upon which his sequence was based proved incorrect. This factor ultimately caused Bohannon to abandon the entire scheme(1966:1-5).

Lauro (n.d.c.) has recently reported a multi-component site (White Perch Paradise, 22-Md-641), now isolated as an island within the Barnett Reservoir, which promises to provide valuable information concerning the Woodland occupations sequence within the north-central Pearl.

Mississippian

Numerouse sites of the Mississippian period are recorded within the north-central Pearl as evidenced by the presence of shell tempered ceramics. Mounds are present at several of these sites. As a rule these mounds are of the conical form generally associated with the Woodland period in other areas; particularly in the Lower Mississippi Valley.

Boyd and Fireplace represent the most noteworthy sites with excavated Mississippian components. Comparing his work at these sites with Ford's (1936) work at mortuary sites along the Big Black, Bohannon proposed ties between these two areas (1965a:57, 1965b:11). Shared characteristics include mound form (conical), unpatterned distribution of burials, iberal burial furniture, and burial types (primary extended and flexed, and bundle) (Bohannon 1965a:57). However, while ceramics from the Boyd site and the Big Black drainage sites are considered highly similar (1965a:55), those from Fireplace are said to indicate a "major schism" (Bohannon 1965b:11). Bohannon (1965a:57) alows that differences may be due to the small sample size at the Fireplace site.

Minimal amounts of Mississippian material were recovered during excavations at the Wills (Rands 1959a) and the Spann (22-Ra-504) sites (Rands 1959b). however, in neither of these instances did investigations contribute significantly to our knowledge of the Mississippian occupation of the area. Rands (1959b:2) cites the mound at Spann as being the only pyramidal structure in his survey area. Subsequent archaeological investigations have been unsuccuessful in identifying similar mounds

along the north-central Pearl. The Spann site was inundated by the Barnett Reservoir. An additional site directly affected by this reservoir is the Armstrong site (22-Ra-576). Previously situated upon a hammock on the Pearl River floodplain, it now occupies a small island within the reservoir. due to its isolated location, this multi-component site has remained undisturbed and as such holds considerable promise for providing important information on Mississippian period habitation in the area (Lauro n.d.b.).

The Central Big Black

Like the rest of the Jackson Prairies, the prehistory of the central Big Black drainage is poorly understood. While archaeological survey and excavation have been undertaken in this area, coverage has been spotty and focused primarily upon mound sites (see Ford 1936, Rucker 1976). Our present state of knowledge is rather accurately presented by Neitzel's archaeological summation of 1968. In this discourse the chronology of the north-central Pearl (based on Rands' Wills site excavations) is employed (Neitzel 1968:23). The limited merits of this formulation have been presented in a preceding section. Neitzel concludes that "judging from the distribution and depth of archaeological sites in counties comprising the study basin, the present scattered and sparse population with few urban concentrations is typical of what transpired in prehistoric times" (1968:28).

Gulf Formational

Virtually no sites are recorded for this period within the central Big Black. As related by Neitzel "the Big Black drainage does not appear to have been popular with Early Woodland (i.e. Gulf Formational) peoples" (1968:24).

Woodland

The Woodland period is better represented in the area with both Middle and Late Woodland occupations being identified. However, the Middle Woodland "occupation" apparently resembles that of the preceding Gulf Formational. While numerous sites with conical mounds have been identified, those which have been excavated have consistently been found not to be Middle Woodland but Mississippi/Plaquemine. To date, the only site in the central Big Black to produce noteworthy quantities of Middle Woodland materials is the Deasonville site (22-Yz-527). It should be pointed out that the Middle Woodland materials at this site are actually diagnostics of the Marksville occupations of the Mississippi valley. Neitzel has characterized the Marksville horizon in the Big Black as "rather specious" (1968:24).

Only during the Late Woodland does a more substantial amount of data on the Woodland period begin to accumulate. However, sites

remain sparse and the majority of the available information again derives from a single site: Deasonville. Considering that excavations at this site covered a total of one week and three days (Collins 1932:1), this site would certainly vie for honors as the most decorated in the state! Among its most prestigious recognitions is the use of its name in denoting the Deasonville phase. (See Phillips 1970:11,546-550 for discussion of the evolution of the Deasonville concept). In general, Deasonville is considered to be a Late Woodland manifestation extending from the Yazoo Basin on the west into the uplands as far eastward as the Big Black, Pearl, and Chickasawhay drainages (Phillips 1970:549).

The outstanding characteristic of the Deasonville site is the presence of several features described as house rings. Each consists of a series of circular trenches in which individual posts have been set. The largest of these "house rings" is ca. 60 feet in diameter. Based upon its size and technique of construction Collins suggested that the largest ring (House Ring no.1) might represent a council house. The smaller rings, ranging from 39 to 45 feet in diameter, are interpreted as family dwellings.

A major difficulty arises in attempting to associate these structures with the Late Woodland occupation(s) at the site. While both Late Woodland and Mississippian diagnostics are present, Collins assumed that these materials represented a single occupation characterized by a culture employing primarily clay tempered, non-decorated ceramics. In evaluating the circular structures at the Boyd site, Bohannon considered these to be Late Woodland and cited the high degree of similarity with the structures at Deasonville, intimating that they were also Late Woodland. However, the presence of shell tempered ceramics at both of these sites suggests that these structures are more likely of Mississippian origin. While no specific provenience is provided for any of the ceramics from the Deasonville site (with the exception of a plain, clay tempered(?) bowl from Trench C of Structure 1) Collins reports that "there was no distinction between the sherds from difference parts of the site; the same mixed type of pottery was found on the surface, in the three house rings, in the post holes, and in the various sections of House Ring no. 1" (1932:13). Further, there is some question as to the validity of Bohannon's statement that no shell tempered pottery occurred in the Boyd structure (1966:3) since five shell tempered sherds are reported from the plowzone above this structure (Bohannon 1965a:52). Additionally, the "compound jar or bottle" morphology of the partially restorable clay tempered vessel classified as Dupree Incised and provenienced as "house fill" (Bohannon 1965a:48, Table 5, and Plat 16b) probably indicates that it post-dates the Late Woodland occupation at this site. Similar vessels (with shell tempering) are reported for the Mississippi period occupation at the Pocahontas (22-Hi-500) site (Rucker 1976:39).

Among the clay tempered ceramics from Deasonville are several incised rims which are classifiable as Coles Creek Incised indicating that the Late Woodland occupation at the site probably extended beyond the time range of the Deasonville phase.

While Collins reports faunal remains from post holes and trenches at Deasonville, it is not possible to attribute these materials to a specific component. Since the wall trenches of this structure were reported to be "filled with the rich black earth and refuse of the village site" (Collins 1932:2) it can be inferred that these remains, like the ceramics from this context, are representative of mixed Late Woodland and Mississippian assemblages. Two-and-one-half feet of midden are reported in the area of House Ring no. 1 (1932:2).

While no mounds are present at the Deasonville site, Collins (1932:1)(see also Ford 1936:141) reports several at distances of one-and-one-half miles or less. Artifactual materials were found in none of these, thus their relationship to the Deasonville site is unknown. To date, these neighboring sites have not been relocated.

Plaquemine/Mississippian

The archaeology of the Plaquemine/Mississippian period has received the largest amount of attention within the central Big Black. However, even during this period investigations are relatively few, often meagerly reported (see Ford 1936:115 and Schaffer and Steponaitis 1982) and almost always focused upon mound sites. Ford (1936) provides brief summaries of several of the sites investigated by himself and Moreau Chambers in the late 1920's including Chapman (22-Hi-515), Dupree (22-Hi-502), Smith (22-Md-501), Woodbine (22-Yz-547), and Pocahontas (22-Hi-500), all of which are located along a 40 mile long segment of the Big Black River (Ford 1936:115). Characteristically the sites exhibit small conical mounds containing numerous burials laid out in a variety of positions with little patterning evident in orientation or sequencing. Burial furniture (primarily ceramic vessels) is frequently associated with these interments. Ford initially assigned these sites to his "Tunica Complex" based upon ceramic similarities with the historic Tunica Indians. Subsequent archaeological work in adjacent regions, particularly the Lower Mississippi Valley, indicates the vessels from these mounds are attributable to the late Prehistoric (Plaquemine/Mississippian) period. Preliminary analyses by Schaffer and Steponaitis (1982) indicate a placement ca. AD 1000-1500.

While most of the sites reported by Ford are located within the Loess Hills physiographic region, two (Chapman and Pocahontas) fall within the western portion of the Jackson Prairies. Ford's published presentation of excavations at the Chapman Mounds consists of a single paragraph reporting a small, relatively flat, mound remnant containing 15 burials and 8 ceramic vessels (1936:122). Working with Ford and

Chamber's field notes, Schaffer and Steponaitis (1982, 1983) have elaborated Ford's original presentation. Among the findings of these later researchers is the observation that primary extended and flexed burials are much less frequent than various forms of secondary interments which dominate the mortuary program at this site (1982:8). However, they also point to difficulties in assessing the representativeness of the burial assemblage since the entirety of the mound was not excavated.

The second site investigated by Ford and Chambers is the Pocahontas site (Ford 1936:123-125). Located upon Limekiln Creek, a tributary of the Bogue Chitto which drains into the Big Black, it is situated roughly halfway between the Big Black and Pearl rivers. Interestingly, this site exhibits the only pyramidal mound (Mound A) within the Big Black portion of the Jackson Prairies. In addition to this mound, a smaller conical burial mound (Mound B) is also present at the site. The second mound was partially excavated by Chambers and Ford (see Rucker 1976:6). Based upon comparisons of materials recovered by this team and those contributed by local school children (a portion of the mound falls on public school property) with ceramics from the vicinity of Mound A, contemporaneity was established between this and the larger mound at the site.

A second round of investigations at the Pocahontas site was undertaken by the Mississippi Highway Department in the mid 1970's as a result of alterations to Highway 49 (Rucker 1976). During this work excavations were restricted to two areas immediately to the east and southeast of Mound A. Uncovered in these locations were a considerable area of (mostly) disturbed midden and portions of a midden filled borrow pit. Although lenses of mussel shell within the latter area revealed sequential episodes of infilling, Rucker asserted that variation in the sizable ceramic collection from these deposits did not indicate that an extended period of time was involved in this deposition. Thus he proposed the shell lensing was representative of seasonal deposition over short number of years (1976:35). Several radiocarbon samples taken from this area all produced grossly inaccurate dates which could not be employed in assessing the seasonal deposition hypothesis or even providing a general temporal framework for occupation of the site.

Based upon the ceramic evidence from the 1974/1975 excavations, a single component site occupation dating to the Late Mississippian period is proposed (Rucker 1976:34,112). While Rucker argues that the small number of Coles Creek Incised var. Hardy sherds recovered from the site are part of this component, they are probably associated with a less substantial Late Woodland presence. Williams and Brain attribute Hardy to the Addis set representative of the Coles Creek period, Crippen Point phase at Lake George (1983:151, fig. 9.4) and presumably throughout the lower Yazoo Basin.

Due to the conscious effort to recover floral and faunal remains from the site, considerable subsistence data were obtained during the highway department excavations at Pocahontas (Rucker 1976:91-102). These represent virtually the only such information available for the entire Big Black portion of the Jackson Prairies. In descending order of representation white-tailed deer, wild turkey, squirrel, cottontail rabbit, and turtle were identified among the faunal remains. While vegetal materials are not as extensively discussed, two types of grapes and several varieties of corn (including 10-rowed) are reported.

In assessing Mound A/Mound B relationships Rucker cites the three intact shell tempered vessels from Mound B in proposing that the two are "at least partly contemporaneous" and draws parallels with other mound sites throughout the Big Black (1976:112). However, he reserves judgment concerning the relationship between the Pocahontas site and Ford's Tunica Complex pending the accumulation of a more comprehensive data including the yet-to-be published Lower Mississippi Valley Survey investigations at the valley edge Haynes Bluff (22-Wr-501) site. Williams and Brain represent the Tunica as recent immigrants to the Yazoo Basin from northwest Mississippi and as such should not be associated with Mississippian phases for the area (1983:383). Similarly, it is not likely that Tunica populations are of relevance to the occupation at the Pocahontas site.

Based upon a ceramic seriation of vessels from the mounds along the Big Black excavated by Ford and Chambers, and comparisons with stylistically similar materials from the lower Mississippi Valley, Steponaitis (1989) has proposed a three phase chronology for the area consisting of the Dupree Phase (ca. A.D. 1000-1200), the Chapman Phase (A.D. 1200-1350) and the Smith Phase (A.D. 1350-1500), noting that these phases generally parallel the Moundville I, II, and III sequence. He further proposes that the early stages of Mississippian development in the Big Black was comparable to that evidenced elsewhere in the Southeast, that is "one of relatively small centers and localized settlement hierarchies, presumably indicative of small scale chiefdoms" (1989:18). However, a major and more complex chiefdom appeared in the lower Mississippi Valley and the Moundville region. The Big Black seemed to have lost momentum and influence, possibly assuming a tributary status to the huge center at Lake George only a short distance to the northwest. As indicated by evidence for settlement and mortuary ritual, Steponaitis (1989:17) concludes the Big Black to be an area of relative stability for the 500 year period of Mississippian occupation.

Issues of Relevance to Further Research

Considering the present state of affairs in the Jackson Prairies, advances in archaeological knowledge are badly needed. As indicated in the preceding presentation even basic information concerning chronology

and culture history of the area are all but lacking and more complex issues concerning settlement, subsistence, and regional associations are yet to be systematically addressed. Several of the most impending issues will be discussed in this section..

Chronology

Among the more basic issues to be resolved in the Jackson Prairies is the cultural chronology of the region. At present the temporal framework for the area is sketchily outlined based upon information from adjoining regions with the Lower Mississippi Valley serving as a primary focus. The ineffectiveness of this approach is evidenced by the inability to assign Woodland and Mississippi period sites to more specific contexts. While this situation may indicate that the region was only minimally occupied during these periods, it is also likely that specific components are rendered invisible due to lack of recognizable diagnostics.

To date only a single Poverty Point site (Wills) is reported for the entire region and this occupation is indicated only by the presence of biconical plain baked clay balls, an artifact type that occurs throughout the Gulf Formational and into the Woodland period in other areas, thus, even the legitimacy of this component may also be in question (N.B. fiber tempered ceramics were associated with the clay balls in one instance at the Wills site). The identification of fiber tempered sherds at Wills and a small number of additional sites as well as other early ceramic types including Bayou La Batre, Withers, and Tchefuncte reveal the presence of a small, if poorly defined, Gulf Formational presence in the Jackson Prairies. Further testing at the Photon site may indicate that this site possesses considerable potential for researching the Gulf Formational period.

The paucity of Middle Woodland sites in the area is partially a reflection of the minimal representation of Lower Mississippi Valley Marksville diagnostics, particularly pottery. To date, only the Deasonville site has produced significant numbers of Marksville sherds. However, the lack of Marksville diagnostics in the area may be as much a result of lack of interaction between the two regions as an absence of occupation at this time. Undoubtley the unspectacular character of the ceramic assemblages from the Jackson Prairies sites has played an important role in the assignment of these sites to the general Woodland (or Late Woodland) period.

Similar difficulties are evident for Mississippian period sites in the region. While sites with shell tempered ceramics are commonly assigned to this period, only at the Pocahontas site has a more specific placement been proposed (see Rucker 1976).¹

Investigations at several sites have indicated the potential for the construction of a n intra-areal chronology. An extensive post-archaic sequence is indicated by ceramic diversity within all of the major

drainages in the Jackson Prairies. Excavations at the Pearl River Wills site have been employed in constructing a chronology for this area. However, the cultural deposits at this site are far from adequate for establishing a regional or even local sequence. As a result of his excavations along the Natchez Trace, Bohannon (1965a) claimed to see temporal variation within burial practices. It is also possible that house construction practices will be found to have chronological implications here as they have in other areas of the state. The combination of wall trench construction (typically a Mississippian practice) with circular structures (more commonly a Woodland form) is particularly intriguing. One interpretation is that these structures represent a transitional Late Woodland-to-Mississippian form. Bohannon (1965b) pointed to differences between the ceramic assemblages from the Boyd and Fireplace sites although it was proposed that small sample size at the latter site might be responsible. In view of the proximity of the two sites, time must also be considered a likely explanation for these differences.

In terms of Mississippian chronology, Rucker maintained that occupation at Pocahontas Mound A covered only a short temporal span. However, several factors indicated that greater time depth may be present at this site including the recovery of Late Woodland (Coles Creek Incised) sherds. Also, previous work by Chambers and Ford (Ford 1936) produced ceramic types not included within the collection recovered during highway department excavations at the site. Additionally, Rucker's (1976) statement that mounds A and B are partially contemporaneous suggests a greater length of site occupancy.

Finally, upon inspecting the ceramic vessels and field notes from Chambers and Ford's Big Black mounds excavations, Schaffer and Steponaitis (1982) suggest bracketing dates of AD 1000 and 15000 for these sites. As noted previously, variation among the ceramic assemblages from these sites has been used by Steponaitis (1989) to formulate a preliminary phase sequence.

Excavation of sites with good stratigraphic integrity using modern archaeological techniques is needed to substantiate this construct. Undoubtedly such sites exist. Two within the North Central Pearl have recently been listed on the National Register of Historic Places (Lauro n.d.a and b). Only with good contextual data will it be possible to delineate the cultural sequence for this region. Where it is now necessary to look for artifact similarities with outlying areas, controlled excavations should provide the evidence for outstanding and interpreting internal cultural developments. It is probable that the now vague ceramic sequence for the area will be greatly clarified, allowing what appear to be scantily represented cultural periods to be better characterized and more easily recognized.

Excavation will also be necessary in order to assign chronological dating to any discerned cultural sequence. At present there are no acceptable radiocarbon dates for the entire Jackson Prairies.

Settlement-Subsistence

Settlement within the Jackson Prairies has been traditionally characterized as sparse and transitory with sites in the area being attributed to people whose permanent settlements were located in surrounding areas. Although this assessment is certainly not without merit, inadequate survey coupled with difficult survey conditions (surface visibility being unfavorable due to lessened agriculture in the area) have contributed to this interpretation. Unquestionably some degree of permanency is indicated for the Jackson Prairies. Subsurface remains of substantial edifices have been identified in both the Pearl (Boyd site) and Big Black (Deasonville site) drainages. While there is some question as to whether these are actually domiciliary structures they were undoubtedly constructed for long term use. Similarly the mortuary mounds of the Pearl and Big Black indicate a continued aboriginal interest in the Jackson Prairies. The location of the large flat-topped mound at Pocahontas (the only such mound in the region) also points to a less-than-fleeting concern with the area. Situated roughly halfway between the Big Black and Pearl rivers, this location may be pivotal in terms of subsistence, trade, and interaction within this area.

Extensive midden at the Pocahontas site also points to intensive if not permanent occupation. As previously noted, this site represents the only one at which subsistence remains have been systematically recovered. The sparsely occupied/transitory characterization may best apply to the eastern portions of the Jackson Prairies. Archaeological investigations in this area have revealed neither mounds nor intensively occupied sites.

Delineation of the settlement-subsistence scheme within the Jackson Prairies will require a combination of area-wide survey and excavation of pertinent sites.

Mortuary Activities

A considerable amount of information concerning mortuary activities of post-archaic populations of the Jackson Prairies has accumulated due to the disproportionate number of mound sites which have been excavated. In fact, with the exception of Deasonville and Wills, literally every excavated site in this region has been a mound site. Interestingly, in contrast to neighboring areas, these conical mound sites have consistently been found to date to the late prehistoric period. Unfortunately, for the most part information concerning these sites is insufficient for precisely determining the period of mound construction and use. Present evidence suggests the continued use of conical mounds as burial structures from the Late Woodland into the Mississippian

period. Similarity between mound sites within the Big Black and Pearl drainages again point to close associations between the two, an assessment in need of further investigation through controlled excavation of mound sites in both areas. Both a pyramidal mound and several conical mounds were reported from the North Central Pearl River Hoag site, classified by Ford (1936:62) as Deasonville. While this site could provide important information concerning mortuary activities, its exact location was not provided by Ford and has not been relocated.

The large, circular, wall trench structure at the Boyd site may have implications for the mortuary activities at this site. However, a similar structure is also present at the Deasonville site where no mounds are reported. Although it is possible that this structure may be related to non-mound mortuary activities, this speculation remains unsubstantiated. No burials were reported in the portion of this site which was excavated. This situation further illustrates the need for further mortuary site excavations within the Jackson Prairies.

Cultural Associations

Intraregional

The east-west expanse encompassed by the Jackson Prairies indicates the need to subdivide the region when assessing cultural associations; thus the separation by major drainage basins in the preceding presentation. The more westerly of these basins (the Pearl and Big Black) appear to exhibit a considerable degree of similarity, while the easternmost (the upper Pascagoula) is notably different. A primary distinction is the lack of sites with associated mounds in this area. This condition suggests that the occupants of the upper Pascagoula differed in mortuary behavior, possibly indicating a more transitory occupation of this area than other portion of the region. Similarly, while intensive habitation sites are few in the Pearl and Big Black, they appear virtually absent within the upper Pascagoula. Certainly additional archaeological research will clarify the picture concerning intra-areal relationships. At present information is inadequate to justify delving deeper into this issue.

Extraregional

Due to the paucity of knowledge concerning the post-archaic archaeology of the Jackson Prairies, numerous outside areas and cultures have been looked to in order to interpret the prehistory of this region. For the poverty Point period associations have been drawn to the Coastal Pine Meadows Claiborne site and ultimately to the northeast Louisiana Poverty Point site. Gulf Formational influences are inferred from the Lower Mississippi Valley Tchefuncte cultures, Bayou La Batre of the Mobile Bay area, and northeast Mississippi/northwest Alabama/westcentral Tennessee Alexander manifestations. Middle

Woodland association are inferred with Marksville of the Lower Mississippi Valley although few sites in the region have produced Marksville diagnostics. While some had presumed that the conical mounds of the Jackson Prairies were of Marksville derivation, those which have been excavated have consistently proved to date to later time periods. However, it is noteworthy that excavations at the McRae mound in the Buckatunna drainage did produce both Hopewellian items as well as Marksville diagnostics. While this site is not within the Jackson Prairies proper (being located slightly to the north in Clarke county) it does attest to the statewide extension of Marksville influence. Further, considering the non-Marksville associations of the conical mounds of the Big Black and Pearl rivers and scantiness of Marksville diagnostics throughout the region, the McRae site exemplifies the fact that geographic proximity and degree of cultural influence are not necessarily positively correlated. It should also be noted, however, that Miller I and II materials are also present at the site, indicating influences from the Middle Woodland occupants of the Tombigbee drainage to the north and east.

Late Woodland ties with the Lower Mississippi Valley are again inferred through the identification of Deasonville and Coles Creek ceramic types. Interestingly, while Deasonville is considered to be an upland phenomenon and its name derives from a site within the Jackson Prairies, next to nothing is known of the Deasonville occupation in this area. Adopting the view that the Jackson Prairies were only sparsely and seasonally occupied, it is likely that the Deasonville impetus was stronger further to the north within the North Central Hills physiographic region. The resolution of the origin and influences of Deasonville culture remains an important research issue with considerable ramifications for interpreting the prehistory of the Jackson Prairies.

Lower Mississippi Valley Late Woodland influences are also manifest in the Jackson Prairies in the form of Coles Creek ceramics. making the fateful leap from ceramic types to overall cultural configurations, it has been inferred that the minimal number of Coles Creek ceramics observed is indicative of only minimal cultural influence by this group. Again, an assumption in need of testing.

During the late prehistoric period Heartfield, Price, and Green (1982a:4.42) characterize the Pearl River as the interface between the Coles Creek derived Lower Mississippi Valley Plaquemine and west-central Alabama Moundville cultures. While excavations within the Big Black and Pearl indicate closer association with the Lower Mississippi Valley, additional work is required to assess the influences of Moundville and Mississippian occupations along the central Tombigbee. Atkinson and Blakeman (1975:18) maintain the artifactual materials from sites

with Mississippian components within the Tallahala drainage indicate central Tombigbee associations.

Summary

The Jackson Prairies remain a minimally understood physiographic region in terms of prehistoric cultural sequencing, settlement-subsistence strategies, mortuary practices, and internal and external associations. Considerable archaeological research will be required in order to remedy the present predicament. Intra-areal variability is indicated and will require that in-depth analyses be conducted based upon areal subdivisions such as major drainages within the region. During these studies an assessment should be made of the legitimacy of the Jackson Prairies as a distinctive study unit. While physiographically this region is an east-west trending belt, drainage of the area is accomplished by several generally north-south trending watersheds. As such it may ultimately be found that occupation within the various sections of the Jackson Prairies are better interpreted in relation to neighboring occupations in the southern portions of the North Central Hills and northern portions of the Longleaf Pine Belt (two other poorly known regions).

In any case, extensive survey and controlled excavation will be required before even the basic framework of the post-archaic prehistory of this region can be constructed, framework which is prerequisite to any furthering of knowledge of the archaeology of the Jackson Prairies.

LONGLEAF PINE BELT

The Longleaf Pine Belt, also known as the Piney Woods and the Pine Hills, is an extensive physiographic region extending from southeast Virginia to west Texas. It incorporates the majority of the lower one-third of the state of Mississippi, including all or portions of 31 counties. Within Mississippi the Longleaf Pine Belt is bounded to the south by the ca. 20 mile wide strip of coastal frontage known as the Coastal Pine Meadow. Along the lower portion of the Pearl River, the Coastal Pine Meadow also serves as the southwestern border of this region, while the Loess Hills comprise the remainder of the western boundary. To the north the Longleaf Pine Belt is succeeded by the Jackson Prairie. The Mississippi-Alabama state line functions as the Eastern border (Figure 1).

Generally considered an unspectacular landscape characterized by an undulating landsurface and expansive pine forests, two major river systems, the Pearl and Pascagoula, flow through the region providing both drainage and topographic variation. See DeLeon (1981) and Wright (1982) for more on the natural environment of the area.

Archaeological Overview

Until recently the archaeology of this area was virtually unknown. As late as the early 1970's Marshall (1973:67) declared "there are no archaeological data" for that area encompassing the Longleaf Pine Belt. He maintained that this situation was as much reflection of the lack of surveys in the area as an actual paucity of sites (Marshall 1973:67). Neitzel (1968:2) commented that this under representation of archaeological research was due to the absence of spectacular sites in the area comparable to those which characterize the Lower Mississippi Valley to the west.

Beginning in the mid-70's increased investigations in the Longleaf Pine Belt, primarily due to the work of land management agencies, have served to document a considerable number of prehistoric sites in the area (cf. Penman 1977, and DeLeon 1981). In general, these studies have found the Longleaf Pine Belt to be an extensively, yet not intensively, occupied area throughout most of the prehistoric time period. To date, the most in depth investigations have been those of Padgett and Heisler (1979) and DeLeon (1981). In both instances a portion of the Pascagoula drainage was examined. Padgett and Heisler's (1979) investigation was commissioned by the Mississippi Department of Archives and History as a pilot study for developing a predictive model to be used in effectively monitoring endangered archaeological resources in the state. Employing the central Leaf River drainage as their research universe, these investigators found elevation and topography to be the primary settlement factors and ultimately arrived at the unsatisfying conclusion that "of the total range of archaeological sites represented in the area, there is a greater likelihood that sites will be located on ground that is higher than the surrounding ground within certain limits" (Padgett and Heisler 1979:76).

DeLeon's (1981) study also relies heavily upon environmental considerations. His research was focused upon Black Creek, the largest tributary of the Pascagoula River. As the Black Creek drainage falls entirely within the Longleaf Pine Belt, DeLeon considered this area to be representative of the region in general. Based on data from this locality, it was concluded that upland locations were favored by prehistoric populations with ridge spurs preferred due to their strategic positioning in relation to the several microenvironments of the region. Sites were found to be frequent yet impermanent. Upland site location combined with the ephemeral character of the sites encountered, suggested a subsistence strategy more geared toward hunting and gathering than horticulture.

One difficulty with both of the above mentioned studies (and pointed out in each) is that temporal and cultural variability are not accounted for. Thus, neither the dynamics of culture change nor the cultures

involved can be properly evaluated. That a cultural/chronological framework is not utilized in these studies is indicative of the tentativeness of our present grasp of even the basic archaeology of the area.

Blitz (1983:37) considers the southeastern Mississippi Woodland complexes to be most strongly influenced by interaction along an east-west axis. DeLeon (1981:33) maintains that the area is more closely aligned with the Lower Mississippi Valley to the west than areas to the east yet point out the possibility that the Longleaf Pine Belt cultures may be relatively distinct and independent of external influences.

Available overviews of the region range from those which are couched in such generalities as to be practically useless (Wright 1982:23-26) to others which depend almost entirely upon inferences from outside areas (Padgett and Heisler 1979, Blitz 1982, 1983). The following discussion will employ previous overviews as well as draw upon data available in the State Archives archaeological site files. Until further research in the Longleaf Pine Belt is carried out, the nomenclature used in discussing the archaeology of this region must be borrowed from neighboring and better known areas. The general framework for the post-archaic archaeology of the region is presented in Table 1.

The Poverty Point Period

To date no Poverty Point sites have been reported within the Longleaf Pine Belt. Considering the riverine focus of this culture this is not a surprising situation. It appears that the inhabitants of the Longleaf Pine Belt persisted in their archaic lifeways throughout that period when the Poverty Point culture rose to dominance within other areas of the state, particularly the Lower Mississippi Valley. Significant sites of Poverty point association have also been reported for the Coastal Pine Meadow to the south. Most noteworthy of these is the Claiborne (22-Ha-501) site situated near the mouth of the Pearl River. Although this river serves as a primary drainage within the Longleaf Pine Belt, Poverty Point peoples apparently had little inclination to inhabit the non-coastal portions of it.

The Gulf Formational Stage

Unlike the situation during the Poverty Point period sites with Gulf Formational components have been identified within the Longleaf Pine Belt (see Table 2). Blitz (1982:22) has summarized our knowledge of the Gulf Formational archaeology of the region in stating that "small amounts of Tchefuncte and Alexander sherds have been surface collected from sites in the Hattiesburg area. Other than the acknowledgment that these early ceramic types are present in southeastern Mississippi there is little that can be said at this time about the societies that used them." Padgett and Heisler (1979:10) maintain that Alexander series ceramics are the most common Early Woodland (Gulf Formational) type in the

central Leaf River basin and are representative of the primary Early Woodland (Gulf Formational occupation of the area. However, it should be pointed out that even these ceramics are relatively scarce as indicated by the fact that a total of five sand tempered sherds were recovered during Padgett and Heisler's survey of this area (see Padgett and Heisler 1979: Table 2). Examination of the state site files indicates that fiber tempered Wheeler ceramics which have been attributed to the earliest ceramic-bearing cultures in other areas of the state are present (in minimal numbers) here.

The Woodland Stage

Woodland sites have also been recorded for the Longleaf Pine Belt. However, as with the Gulf Formational stage, our knowledge of this period is almost totally based upon the ceramic evidence. The presence of materials comparable to the Marksville ceramic types common to the Lower Mississippi Valley serve as Middle Woodland diagnostics. Although none of the conical mounds in the area have been professionally excavated, it is inferred that at least some of these are burial mounds associated with Middle Woodland activities.

Late Woodland materials have also been identified in the region. Again,, evidence is primarily ceramic. Materials comparable to the Baytown Plain and Mulberry Creek Cordmarked types of the Lower Mississippi Valley predominate. The Coles Creek types which characterize the latter portions of the Late Woodland period to the west have been identified. Apparently Baytown ceramics continued throughout the Late Woodland. Possibly some of the conical mounds in the area are of Late Woodland origin although this remains to be documented.

The Mississippian Stage

Mississippian occupations within the Longleaf Pine Belt are no better understood than those of the preceding periods. Shell tempered sherds are the primary indicators of a Mississippian presence. Mississippian sites are considerably less well represented than their Woodland predecessors (see Table 2). Conspicuously absent are the permanent habitation sites and ceremonial mound centers which have come to be known as the hallmarks of Mississippian culture in other areas. Mound sites which have been attributed to Mississippian occupation are primarily situated along the Pearl River exemplifying the primarily horticultural focus of these peoples.

Late Prehistoric/Early Historic

Late prehistoric/early historic evidence from this area consists primarily of sherds classified as Chickachae Combed, a type attributed to the Choctaw in historic times. In the Tallahoma and Souinlovey

drainages, Penman (1977:282) reports Choctaw sites in numerous physiographic settings. To date the Choctaws are the only native American Indian group to have been given any archaeological attention in the area with research dating back to Henry Collins' work of the 1920's (Collins 1926 and 1927). However, as pointed out by Blitz (1983:31) there are numerous other groups of the Muskogean and Siouan linguistic families which are yet to be investigated.

Although not attributable to any particular cultural group, a fishweir site on the Homochitto River has provided some unexpected insights into late prehistoric fishing and woodworking techniques. Six radiocarbon dates derived from the materials composing this structure are among the very few available for the Longleaf Pine Belt (Connaway 1981, Appendix II, Connaway 1982).

Issues of Relevance to Further Research

Our present state of knowledge of the archaeology of the Longleaf Pine Belt is reflected in Blitz's above quoted statement concerning the Gulf Formational stage: i.e. very little is known. As such, both extensive survey and intensive excavation are badly needed in the area. Until a culture-historical framework can be constructed which is not dependent upon those from adjoining areas, it will be difficult if not impossible to make accurate assessments of cultural process and change. In that the same basic issues are in need of attention for each period, the following section will not discuss the various periods individually.

Considering the potential of ceramic variation in monitoring the temporal-cultural sequence, a primary emphasis should be placed upon the excavation of ceramic bearing sites holding a high potential for stratified deposits. Toward this end several ceramic issues require immediate attention. Although sand tempered sherds have sometimes been associated with the Alexander type O'Neal Plain and consequently attributed to a Gulf Formational occupation, the Middle Woodland type Baldwin Plain is characterized by a sandy paste as well (see Connaway 1980). Further, the Middle-to-Late Woodland type Baytown Plain var. Thomas is also sandy textured. Similar problems are present for the grog tempered sherds from the area which are commonly classified as Baytown Plain var. unspecified. If the Lower Mississippi Valley scenario is applicable, the assignment of a sherd to the Baytown category says little more than that the occupation which produced it occurred sometime within the 1000+ year time span of the Woodland period. A closer scrutiny of the "Baytown" ceramics of this area is badly needed in order to alleviate this situation. Lack of chronological control within the Woodland period is exemplified by the site counts in Table 2 where the largest number of components is recorded within the "Woodland, general" category. It should also be noted that the Gulf Formational count in this table is probably inflated due to the fact that non-ceramic

sites with debatable Gulf Formational count in this table is probably inflated due to the fact that non-ceramic sites with debatable Gulf Formational projectile points have sometimes been included.

The situation within the Mississippi stage is not much better. Basically the equation is: shell temper equals Mississippian component. Based upon evidence from the Tallahala Creek area, Atkinson and Blakeman (1975:1) have made a start toward refining the ceramic chronology of southeast Mississippi. However, it should be noted that the collections utilized by these investigators all come from sites falling not within the Longleaf Pine Belt proper but in the Jackson Prairie immediately to the north. In that the Tallahala drainage flows through both of these regions it would be expected that a certain amount of ceramic (and cultural) similarity obtains between the two. None-the-less, inter-regional differences should also be expected and collections from the two areas closely examined for evidence of such.

In addition to issues of ceramic chronology, site excavation will also be necessary in order to pin down the temporal sequence for the region via radiocarbon dating. At present, C-14 dates are minimal. Late prehistoric dates were derived from the Sturdivant Fishweir with assays ranging from A.D. 1460 to 1615 (Connaway 1981: Appendix II) and a dugout canoe (also from the Homochitto River) which has been dated at A.D. 1465±60 (McGahey 1974:4). Finally, a single C-14 assay of 3620 (1670 B.C.) dates the Late Archaic occupation at the August Bluff site (Wright 1982:75).

To date, only indirect evidence has been employed in addressing subsistence practices in the area. Noting the predominately upland loci of sites in the Black Creek area, DeLeon (1981:76) suggests that a hunting and gathering (i.e. non-horticultural) economy characterizes prehistoric subsistence of the Longleaf Pine Belt. Analysis of subsistence remains from excavated contexts would greatly aid in explicating this issue.

Settlement patterns also remain poorly understood. In general upland/ semi-permanent occupations prevail. However, the presence of conical mounds in the region can be used to argue for some degree of permanence. Further, at least one Mississippian mound center (Mill Creek, 22-Lw-510 [see Wright n.d.]) and several single platform mound sites (cf. Lauro n.d.a.) are present in the area, again indicating some degree of sedentism. The presence of mounds in the region has other implications as well. While conical mounds have traditionally been considered Woodland manifestations (particularly within the Lower Mississippi Valley and Tombigbee drainage) excavation of several mounds of similar morphology in the Big Black drainage of central Mississippi have found these structures to be Mississippian in age (Ford 1936). Two sites with single conical mounds are presently listed on the National Register. The L'Dora Lewis Mound (22-Si-512) has been

assigned to the Woodland period based upon the presence of sand tempered sherds within the mound fill (Lauro n.d.f.). No cultural affiliation is given for the George Mound (22-Lw-591) due to the absence of diagnostics (Lauro n.d.e.). Thus lacking excavation, the temporal placement and cultural affiliation of the Longleaf Pine Belt conical mounds cannot be stated with confidence.

The mound form/cultural affiliation situation may be employed to point out the need to better understand the inter-regional character of the inhabitants of the Longleaf Pine Belt. Blitz (1983:29) has labeled southeast Mississippi as "a frontier or interaction zone between dynamic developments to the north, west, and east." Based upon present evidence the Longleaf Pine Belt has been seen as most strongly influenced by the occupants of the Lower Mississippi Valley with Tchefuncte, Marksville, Baytown, and Mississippi/Plaquemine influences all being noted. However, relationships between these two areas during the latter portions of the Late Woodland are undocumented. Blitz (1983) has pointed out the absence of Coles Creek ceramics in the area. Similarly, while the Plaquemine culture is taking hold in adjacent portions of the Lower Valley during the early Mississippian times, Plaquemine materials appear scant within the Longleaf Pine Belt. Possibly this situation is attributable to the non-expansionary nature of Coles Creek and Plaquemine peoples.

Coastal (i.e. Santa Rosa-Swift Creek and Weeden Island) and eastern (i.e. Tombigbee Valley) influences do not appear to affect the Longleaf Pine Belt to any significant extent. Evidently this region had little to offer the groups from these areas which would encourage them to establish permanent settlements within the region.

Considering the size of the Longleaf Pine Belt, it is likely that subdivision of the region will eventually be required in order to obtain an adequate comprehension of the prehistory of the region. A logical starting point would be a comparison of cultural manifestations within the Pearl and Pascagoula drainages. Undoubtedly variability will be found as both a result of intra-regional subsistence practices as well as inter-regional contacts. Pending the establishment of a firmer archaeological framework for the region as a whole this contention and related issues should be addressed.

THE COASTAL PINE MEADOWS

The Coastal Pine Meadows is the most southerly of the physiographic regions in the state. Consisting of a narrow strip of beachfront, swamp and marshland, it is bounded to the south by the Mississippi Sound and barrier islands, to the west by the Pearl River and to the east by the Mississippi-Alabama border. To the north it is succeeded by the Longleaf

Pine Belt (see figure 1). Portions of four counties are subsumed by this area. Included are the southernmost portions of Jackson and Harrison counties, the southern and western portions of Hancock County, and the westernmost portion of Pearl River County. Mixed pine and hardwood forests predominate the vegetation for the majority of the area. Much of the area is either swamp or marshland.

Archaeologically the Coastal Pine Meadows are an important area. In comparison to the other physiographic units in the state, it is unique in its aboriginal focus upon marine and estuarine resources, representing one example of a coastal adaptation which can be observed along the Gulf from Texas to Florida.

At present this area represents an archaeologically poorly known and little investigated region falling between two much better known areas (i.e. southeast Louisiana and south Alabama/northwest Florida). Considering its intermediate geographic positioning, accurate interpretation of this area is essential to acquiring an overall comprehension of prehistoric cultural adaptation and interaction along the coast.

Among those factors influencing the prehistoric occupations of the Gulf Coast are fluctuations in sea level. It is known that at certain periods sea level was considerably lower than at present, exposing as much as an additional 100 kilometers of southern shoreline. It is believed that sea level had stabilized at its current level ca. 3500 B.P. (Gagliano 1978:1), thus the potential for drowned sites associated with Poverty Point and later occupations, the topic of this report, should not present a major consideration. However, several other factors must be kept in mind including loss of sites due to land subsidence, beach erosion, and foul weather (particularly hurricane activity). Additionally, damage and destruction have occurred in historic times as countless shell midden sites have been dug up and carted away for road paving projects. Finally, the alarmingly rapid rate of "progress" along the Gulf Coast threatens the continued existence of archaeological resources in this area.

As previously noted, archaeological investigations within the Coastal Pine Meadows have been few and much of the work that has been done remains unpublished. Thus, overviews of this region have relied heavily upon evidence from adjoining areas. Among the available summarizations of the archaeology of the region are those by Marshall (1982), Walker and Taylor (1982 and 1983), Blitz (1982 and 1983), and Lauro (1986). Barry Lewis has undertaken considerable research in the area in the last ten years (cf. Lewis 1980, 1982, 1988, and n.d.). To date, his investigations provide the most comprehensive information as he has incorporated all of the site data available from the Mississippi Department of Archives and History site files. His observations vary to some degree with those reported herein. Lewis' most in-depth study (see

Lewis 1988) encompasses sites in both the Coastal Pine Meadows as well as the southern portion of the Longleaf Pine Belt.

An additional Gulf Coast summary is that of Mr. Dale Greenwell (1984), one of the most active investigators of aboriginal sites in the area. Unfortunately Mr. Greenwell's credibility as an archaeologist has been so frequently questioned by respected professionals in the discipline (cf. Gibson 1974 [see also Greenwell's 1975 response to Gibson], Mistovich et. al. 1983, Weinstein 1984, Bruseth 1986, and Lewis 1988) that it is ill-advised to employ his observations in more than a very guarded fashion. It is for this reason that his work will not be referenced to any great degree in the following text.

Most illustrative of the state of affairs of Mississippi Gulf Coastal archaeology is the necessity for employing cultural and historical frameworks from outside the area in order to discuss its prehistory. The chronology for the Lower Mississippi Valley has been most frequently utilized (cf. Marshall 1982 and Lewis 1988). As sufficient data continues to be lacking for constructing a workable intra-areal chronology, a similar approach will be employed in the following presentation.

The Poverty Point Period

As in the Lower Mississippi Valley, Poverty Point represents the initial post-archaic manifestation within the Coastal Pine Meadows. Evidence for this culture is primarily derived from this single site: Claiborne (22-Ha-501). Situated in western Hancock County, at the mouth of the Pearl River, this site has produced an impressive array of Poverty Point diagnostics including 12,000+ Poverty Point objects and the majority of the steatite sherds and fiber tempered ceramics from the Coastal Pine Meadows. An accurate earthwork is present at the site and at one time a single conical mound was also present. In artifact content, Claiborne is more similar to the Poverty Point site than any other presently recorded site (Bruseth 1986:24).

The Claiborne site evidence is indicative of a cultural adaptation entailing year round settlement and exploitation of coastal resources. While a shift is seen in shellfish utilization from oyster to mussel, this may be a reflection of environmental and not cultural changes in the area (Lewis 1988:113). Aside from clam and oyster, faunal remains from the site include white-tail deer, squirrel, rabbit, crane, turkey, raccoon, opossum, catfish, and drum (Lauro n.d. and Henebry n.d.).

Citing the radiocarbon dates from the site (ranging from 1150 to 2040 B.C.) along with the rich and diverse material culture. Bruseth (1986:33) has suggested that Claiborne represents a gateway community of equal importance as the Poverty Point site early within the Poverty Point period, possibly as early as 2000 B.C.

Some have interpreted the Claiborne site as the result of a relocation by the occupants of the Late Archaic Cedarland site (22-Ha-506) located

less than fifty meters to the north (Gagliano and Webb 1970:69). Conversely, Bruseh (1986:27) interprets the “transition” from Cedarland to Claiborne as a population replacement citing the large degree of difference in artifact assemblages, technological traits, and site layouts at the two sites.

Further, he maintains that the Poverty Point occupation at Claiborne and its “support camps”, including Linsley, Garcia, and Jasmine Bayou (all located in south Louisiana) are unique to the archaeology of this area and as such do not necessarily reflect the general character of the coastal communities at this time (Bruseh 1986:28). To this point, aside from Claiborne very few sites with Poverty Point components are known for the Coastal Pine Meadows (see table 1). The better known of these components are Apple Street (22-Ja-530), Greenwood Island (22-Ja-576), and Bone Yard (Point Aux Chenes)(22-Ja-537).

As summarized by Mistovich et. al (1983:5), at none of these sites does the Poverty Point occupation appear to be the primary one. Information relevant to issues other than cultural affiliation and chronological position is scant at these sites. Aside from the stratigraphy encountered during the excavations by the University of Southern Mississippi at Greenwood Island, contextual data are lacking for the Poverty Point occupations at these multi-component sites.

In general, the paucity of Poverty Point sites along the Mississippi Gulf Coast has brought about the inference that the Pascagoula River may represent an Eastern frontier for this culture (Mistovich et. al. 1983:6).

The Gulf Formational Stage

The Gulf Formational stage within the Coastal Pine Meadows heralds several notable changes in the character of the occupation of the area. Firstly, a settlement-subsistence adjustment is indicated. Whereas, based upon the Claiborne site evidence, a permanent coastal adaptation had been proposed for the Poverty Point period, Gulf Formational sites in the area appear to be much more temporary and extraction oriented with base camps situated inland along major river drainages. This is a pattern which continues throughout the Woodland and into the Mississippian times in this area.

Additionally, a diversity of influences from other (adjoining) areas is observed. Continued influence from the Lower Mississippi Valley is evidenced by the presence of Tchefuncte ceramics at Coastal sites. Also, associations with peoples farther to the east are indicated by the occurrence of Bayou La Batre ceramics, materials attributable to a Gulf Formational complex focused upon the southwest Alabama, Mobile Bay area. Wheeler and Alexander series ceramics appear at this time, indicating associations and influences with northeast Mississippi and west-central Alabama. In general, Tchefuncte influences appear more

widespread while those of the Bayou La Batre culture occur more frequently at those sites located in extreme southeast Mississippi such as Pascagoula Bay.

Subsistence continuities with the Poverty Point period are revealed in the exploitation of mussels. However, evidence is lacking in support of the proposition that estuarine-adapted resident populations are present as has been proposed for southern Louisiana (Neuman 1984). While it has been observed that a shift from mussel to oyster exploitation occurs in the area to the east of Belle Fontaine Point in Jackson County, this can be reasonably attributed to environmental factors (Lewis 1988:114).

While evidence from southern Louisiana suggests the adoption of limited horticulture during the Early Woodland period, it was apparently a relatively insignificant entry in the overall subsistence scheme. Horticultural evidence for this period has not been recovered from Coastal Pine Meadow sites within Mississippi although excavations have admittedly been few.

Test excavation at two sites in the Pascagoula Bay area, Escatawpa I (22-Ja-543) and Escatawpa III (22-Ja-545) recovered ceramics indicative of Gulf Formational occupation. Unfortunately, only minimal amounts of floral remains were recovered, the botanical evidence consisting of only small amounts of walnut shell and wood charcoal (Marshall 1982:53,55).

Recent salvage excavations at the Greenwood Island site (22-Ja-516) (Lehmann and Hill 1991) have generated several interesting insights into Middle-to-Late Gulf Formational occupation along the Mississippi Coast. A bundle burial with a fiber tempered sherd and biconical baked-clay object in association was uncovered suggesting that this burial treatment may predate its common Tchefuncte association. Ceramics recovered during these excavations indicated interaction with both the Mobile Bay and Pontchartrain Basin.

Temporal positioning for the Gulf Formational stage in the coastal Pine Meadows is not firmly established. Four radiocarbon dates are presently available ranging from 2900 \pm 70 B.P. (950 B.C.) at Cedar Island (22-Ha-520) (Eleuterius and Otvos 1979) to 2350 \pm 100 B.P. (400 B.C.) at the Jackson Landing/Mulatto Bayou site (22-Ha-515) (Williams 1987). Considering the paucity of absolute dates from sites within this area, extra-regional chronologies have been employed. Marshall (1982:60) has placed the Early Woodland (gulf Formational) period at 375 B.C. to 100 B.C. See also Marshall (1982:Figure 12) for a comparison of cultural periods for Mississippi and surrounding coastal states.

Difficulties are obvious in aligning the available absolute dates for the Coastal Pine Meadows with the timeframe generally accepted for the Gulf Formational period. At present, three of the four C-14 assays precede 500 B.C. It is probably significant that all three of the early assays are derived from mussel shell (*rangia cuneata*) while the 400 B.C. date from

Jackson Landing/Mulatto Bayou was derived from a concentration of wood charcoal (Williams 1987:27). Undoubtedly this issue will eventually be rectified with the general scheme. For the purposes of this presentation Walker and Taylor's (1982:12) bracket dates of 500 B.C. and A.D. 1 are provisionally adopted.

The Woodland Period

Based upon the present site inventory (see table 1), a population increase is indicated for the Woodland period. As during the preceding Gulf Formational period, Coastal sites appear to be both temporary and extraction oriented. Middens composed of mussel shells reveal a continued emphasis upon the exploitation of this estuarine resource.

Again, both eastern and western influences are evident within the material assemblage of Mississippi Coastal populations. During the Middle Woodland period, the primary influence is apparently ascribable to the Lower Mississippi Valley Marksville culture. As envisioned by Phillips (1970:898), the westernmost of the Middle Woodland sites within the Coastal Pine Meadow would fall into the Magnolia phase, a construct encompassing "Marksville period components east of the present Mississippi river on relict natural levees of the Metarie-Mississippi course and its distributaries."

Among those Magnolia phase sites is Jackson Landing/Mulatto Bayou, one of the few excavated and reported Middle Woodland sites in the region (Williams 1987). As pointed out by Phillips (1970:899), this site, situated at the mouth of the Pearl River, may not be representative of the Magnolia phase at all. Further, considering the layout and contents of the site, it probably cannot be considered "typical" of any phase.

Most notable at the site is the presence of a large earthen embankment. ceramic and C-14 evidence indicate earthwork construction took place primarily during the Middle Woodland to Early Late Woodland period. Radiocarbon dates of A.D. 215±315 and A.D. 290±80 (Williams 1987:27) were derived from charcoal samples recovered within the earthen wall. An additional date of 400 B.C.± 100 (400 B.C.) was also recovered from a charcoal cluster within the earthwork suggesting that construction may have been initiated during Gulf Formational times (Williams 1987:27). The single conical mound at the site remains undetermined as to cultural affiliation.

The relatively small number of Middle Woodland diagnostics on the site, 174 Baytown Plain var. Unspecified (Troyville?) and 36 Marksville decorated sherds are reported by Williams (1987:Table 2), in combination with the presence of the earthwork at the site have been employed in suggesting this site to be a vacant ceremonial center (Lewis 1988:115).

Excavations at the Harvey site (22-Hr-534) have recovered evidence which may be more representative of a typical Middle Woodland habitation (Greenwell n.d.). Several house structures and burials are reported as well as a ceramic assemblage reflecting a combination of Marksville and Santa Rosa influences (Greenwell n.d.). Middle Woodland (Marksville) ceramics have also been recovered from limited excavations at Greenwood Island (22-Ja-515) and Little Greenwood Island (22-Ja-618) (Solis and Walling 1982, Mistovich et. al. 1983) and the Goode Lake sites (Marshall 1982). Mistovich (et. al. 1983:88) has suggested that additional investigations at the Greenwood Island site would provide data concerning subsistence and chronology, two areas in which additional information is badly needed for this period.

In addition to the two radiocarbon dates from the Jackson Landing/Mulatto Bayou site, a C-14 date has been reported from the Redfish Bayou site (22-Ha-525). This assay of 2035±65 B.P. (85 B.C.) was derived from a *Rangia Cuneata* sample (Eleuterius and Otvos 1979). Finally a C-14 date of 2060±85 B.P. (110 B.C.) is reported by Greenwell (n.d.) from the Harvey site. The primary occupation is maintained to be Late Marksville. In that the composition of this sample is not provided, the validity of this interpretation cannot be evaluated.

One of the aspects of Middle Woodland culture which is commonly addressed is mortuary behavior. Within the Coastal Pine Meadows, numerous mound sites have been recorded. However, to date none of these have been professionally excavated. Undoubtedly some of these mounds belong to the Middle Woodland period. Proper excavation of a sample of these would provide information concerning Middle Woodland mortuary practices as well as insights into the extra-areal interactions during this period. Greenwell (1984:147) has reported a Marksville midden beneath a "truncated platform" mound at the Graveline site (22-Ja-503) indicating that it is constructed no earlier than the Middle Woodland period. However, it is unclear what, if any, materials were recovered from within the mound itself. Neither are on-mound burials reported. Construction work in recent years has destroyed the majority of the site. By examining ceramics in the vicinity of the only (?) remaining burial mound (which has since been placed upon the National Register of Historic Places), Lauro (n.d.a.) has suggested this to be a Middle Woodland mound with apparent Marksville associations.

During the latter portion of the Woodland period a reduction in site numbers is evident (see table 1) which may be used in arguing for a population reduction at this time. Lewis, pointing to the paucity of documented mound sites and large and/or intensively occupied sites in both the coastal zone and Pine Hills cites the shift of the main Mississippi River distributaries to the west by this time (1988:116). Marshall's identification of several short-term Late Woodland sites in the

freshwater environs of the Escatawpa River indicated some utilization of inland resources during this period.

Temporal positioning for the Late Woodland period for the Coastal Pine Meadows is tentatively set at A.D. 400 to 1200 (Walker and Taylor 1982). At present, only two radiocarbon assays (both shell dates) are potentially pertinent to this period. The earlier of the two, 1295±90 B.P. (A.D. 655) is from the Campbell Bayou I (22-Ha-513) site (Eleuterius and Otvos 1979). The other (from an unnamed site) is 1190±110 B. P. (A.D. 760)(1979). neither of these dates are assigned to an archaeological period due to lack of supportive cultural evidence (Lewis 1988:Table 3).

A subdivision of the Late Woodland period into early and later categories is indicated in that both Baytown (Troyville) and Coles Creek influences from the Lower Mississippi Valley are in evidence. However, such a division has yet to be substantiated by the local archaeological evidence (cf. Phillips 1970:911, Mistovich et. al. 1983:8). An increase in eastern influences (i.e. western Alabama) is indicated by the presence of Weeden Island ceramics in the area at this time.

Excavations at Late Woodland sites are minimal. Subsurface testing at three sites in the Pascagoula Harbor area in Jackson County produced limited amounts of Late Woodland ceramics (Mistovich et. al. 1982:9). Marshall has assigned Late Woodland components to two of those sites investigated in the Goode Lake project, also in Jackson County. The most extensively excavated of these, 22-Ja-543, produced Late Woodland ceramics indicative of Baytown and Coles Creek occupations. Walker and Taylor (1982:25) have tested a site (22-Ja-663) containing Coles Creek ceramics. Lehmann (1984:29) reports four additional Late Woodland (Baytown period) sites in the Shepard State Park vicinity.

As previously note, numerous mound sites are recorded for the Coastal Pine Meadows although little is known of their contact and consequently their cultural affiliation. Mistovich (et. al. 1982:9) has proposed that the multiple mound Graveline site may have represented a Weeden Island-Coles Creek mound group, possibly a "small regional ceremonial center."

Attribution of conical mounds to Late Woodland occupants on the Coastal Pine Meadows can be inferred from the presence of such structures at sites associated with the Tates Hammock phase, a Weeden Island-Coles Creek manifestation in southwestern Alabama (Walthall 1980). As related by Mistovich (et. al. 1983:8), sites attributed to this phase differ from Late Woodland sites in southeast Mississippi (particularly the Pascagoula region), primarily in the relatively greater amount of Coles Creek influence in the latter.

The Mississippi Stage

Based upon the state site file, there are more sites exhibiting components of the Mississippian period than any other period (table 1).

The composition of the Mississippi occupation of the Coastal region must be viewed in respect to the physical character of this area, particularly its lack of potential for successful agricultural use (cf. Knight 1984:209-211). Undoubtedly the inability to engage in large scale agriculture is an important influence upon Mississippian settlement and subsistence along the Coast.

As with the majority of the post-archaic prehistory of the Coastal Pine Meadows, Mississippian occupation of this area appears to be predominately transitory in character. Test excavations at several sites have supported their temporary nature (see Lewis 1988:117-118 and Marshall 1982:64). However, investigations at another Coastal site, Deer Island (22-Hr-500)(cf. Lauro 1986 and n.d.b.), indicate that exceptions to this trend exist. The areal extent, midden thickness, and density of cultural material at this site indicate an occupation of considerable intensity and duration. However, to what degree the character of this site is dictated by its barrier island setting remains to be determined.

Several sites with platform mounds are also attributed to the Mississippi period in this area. Included in this category are the Michelle (22-Ja-578) and Ramsey (22-Ha-528) sites. The existence of sites of this type indicates that some degree of permanency of the Coastal Pine Meadows.

Ceramics from the Deer Island site (Lauro 1986:59-59) and others in the area suggest that the Coast is affiliated with the Pensacola Complex (Knight 1984), with closest similarities being the Middle Mississippi Bottle Creek phase of the Mobile Bay/ Mobile Tensaw delta area. This phase has been assigned a temporal span of A.D. 1250-1500 (Mistovich et al. 1983:10). Area ceramics also indicate associations of lesser degree with the Moundville Complex of western Alabama and the Plaquemine culture of the Lower Mississippi Valley.

Absolute dates for Mississippi period sites within the Coastal Pine Meadow are minimal. Only two dates are presently available. both come from the Diamondhead site (22-Ha-550), a site interpreted as a clam processing station (Lewis 1988:117). These radiocarbon dates are 300+70 B.P. (A.D. 1550) and 570+70 B.P. (A.D. 1380)(Lewis 1988: table 3). Mistovich (et al. 1983:10-11) maintains that the entire early, middle, and late Mississippi sequence will eventually be documented in the Mississippi Coastal area.

An early Mississippi presence is indicated by the presence of shell tempered ceramics in the Pascagoula area with characteristically early traits (Mistovich et al. 1983:10). Late Mississippi/ Protohistoric evidence has been reported from several sites in the Coastal Pine Meadows including 22-Ja-543 (Marshall 198), Deer Island (Lauro n.d.b.), the Richard site (22-Hr-635)(Lauro n.d.c.) and the Raymond Bass site (22-Hr-636)(Lauro n.d.d.). Marshall (1982:64) considers the small number of Leland Incised vars. Fatherland and Natchez sherds at 22-Ja-

543 as indicative of Lower Mississippi Valley Natchezean influences at this late date. Leland Incised ceramics are also reported for the protohistoric/Early Historic Indian component at the Jackson Landing/Mulatto Bayou site (Williams 1987:38) suggesting continuity between the late prehistoric and early historic occupations in the region.

Lewis (1988:118), employing accounts of historic Choctaw groups in this area, has proposed that late prehistoric settlement and subsistence strategies consisted of a seasonal round in which the region was visited by family-based groups, primarily during the late spring, in order to gather Coastal resources.

Issues of Relevance to Further Research

From the preceding presentation it is obvious that our knowledge of coastal prehistory within Mississippi is grossly inadequate. In large part the cultural composition of this area has been inferred from the adjacent portions of Louisiana and Alabama. However, as pointed out in Davis (1984:315-332), large amounts of interaction along the Coast are not indicated, increasing the danger of deriving erroneous interareal correlations.

The Coastal Pine Meadows portion of Mississippi has been described as an area adjacent and peripheral to better known cultures to the east and west and represents a cultural amalgam of these. Question arises as to the validity of this interpretation. In short, is it factual or simply a reflection of the lack of archaeological investigations in the area? While it is unlikely that an entirely distinctive cultural manifestation will be identified, additional research will undoubtedly serve to better elicit the character of this area and help in assessing the similarities and differences between this and adjoining areas.

Paramount among archaeological concerns at this point is the construction of an internal chronology for the area as such a framework is a necessary prerequisite to the successful investigation of numerous other issues. The cultural chronology of the Lower Mississippi Valley is generally applicable and has been employed (hesitantly) by several researchers (cf. Lewis 1988:110 and Marshall 1982:60). However, as pointed out by Lewis (1988:110), this sequence is most applicable to the western portion of the Mississippi Coast.

If ceramics are to be successfully employed as sensitive temporal indicators, investigation of both single component and stratified multiple component sites will be required. At present it is difficult, if not impossible, to make temporal assignments for sites exhibiting ceramic collections which do not contain Lower Mississippi Valley or eastern Alabama types. Additionally, good context radiocarbon assays must be obtained. At present, absolute dates are few (see Lewis 1988, table 3).

In general it appears that those few sites in the Coastal Pine Meadow which have received more intensive analysis may not necessarily be

representative of the overall cultural pattern. While Claiborne represents a highly visible site during the Poverty Point period, it appears unique in this area in both its permanency and degree of inter-regional interaction. Thus, as pointed out by Bruseth (1986:28), this site should not be considered representative of the activities of the general populace at this time. A similar lack of representation is evident at the Jackson Landing/Mulatto Bayou site. How this site relates to the general Middle Woodland settlement-subsistence system remains unknown. Certainly the site cannot be considered "typical" of any aspect of this culture.

The impact of external influences throughout the prehistory of the Coastal Pine Meadows is in need of further documentation. While Lower Mississippi Valley influences are considered dominant, these appear strongest in that portion of the Coast in closest proximity to this area such as the mouth of the Pearl River. South Alabama/northern Florida influences are more evident in locales further to the east such as Pascagoula Bay. Obviously, this issue becomes increasingly more difficult to address when viewed from a diachronic perspective due to the fact that the amount, extent, and origin of outside influences vary through time.

Also varying with time are population densities. Based upon present evidence, a trend of population increase characterizes the Gulf Formational and Middle Woodland periods. However, a population decline is indicated during the Late Woodland. This is a particularly interesting situation in the Coastal portions of Louisiana are experiencing a growth in population at this time. Lewis (1983:14) has suggested that this population peak may be artificial, reflecting difficulties in distinguishing earlier (Baytown) and later (Coles Creek) sites based upon surface collections. Regardless, based on site totals an overall population decrease is indicated for the Mississippi Coastal region during the Late Woodland period. Explanation of this trend must be reserved until additional data are accumulated.

In terms of settlement-subsistence strategies, impermanent occupations focused upon seasonal resource exploitation is said to characterize the Coastal Pine Meadows following the Poverty Point period. While a permanent settlement scheme has been proposed for post-archaic cultures of Coastal Louisiana, evidence is lacking for such a regime in adjacent portions of Mississippi (Lewis 1983:26).

The apparent seasonal character of the Coastal Pine Meadow occupations indicates that interior portions of the state must be looked to in order to understand the overall settlement-subsistence scheme, as it is in these areas that more permanent occupations are expected. Unfortunately, at present these areas are as poorly known as the Coast.

As previously noted, some degree of permanency of Coastal occupations may be inferred in the presence of mounds in this area. However, until these structures can be accurately assigned temporal

positions and cultural associations little can be said to their relationship and contribution to local settlement strategies..

Based upon general assumptions of mound form, function, and temporal placement it may be inferred that the majority of the conical mounds in the area represent burial mounds of the Woodland period. While several sites also exhibit single flat-topped pyramidal mounds indicative of Mississippian construction and use, the apparent lack of multiple mound centers typical of Mississippian complexes in other areas suggest that Coastal Mississippi was not an area of intensive permanent occupation during the late prehistoric era.

The status of the archaeology of the Mississippi Coastal Pine Meadows has been concisely summarized as follows: As all archaeologists, and all archaeology reports, consulted in regard to Coastal Mississippi archaeology agree, the prehistory of the area is inadequately understood and will remain that way until more sites are investigated and reports on the investigations are issued. Cultural chronology may need only a relatively small amount of refining and/or elaboration; but data on settlement patterns, site functions, and subsistence patterns are as yet almost totally lacking; and on few, if any, sites have topics such as diet, size of social unit, or season of occupation being addressed (Walker and Taylor 1982:13).

Needless to say, more work is in order and considering the rapid rate at which archaeological resources are disappearing in this area, time is of the essence.

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