

## CHAPTER VIII

### SUMMARY AND CONCLUSIONS

#### Summary of Plaquemine Phases in the Upper Tensas Basin

This thesis is concerned with the definition of three archaeological phases in the Upper Tensas Basin. These phases--Routh, Fitzhugh, and Transylvania--span a period extending from approximately A.D. 1200 to A.D. 1700. They have been defined entirely on the basis of pottery, and although an attempt has been made to fill out the cultural inventory of each, they should be viewed as segments of ceramic history rather than as total cultures.

Routh and Fitzhugh phases are manifestations of Plaquemine culture. Fitzhugh develops out of the earlier Routh phase almost entirely through the agency of indigenous ceramic change. This development appears to be gradual and uniform so that the distinction between the two phases is somewhat arbitrary; that is, phase separation could have been made at a different point in the cultural-temporal continuum. The ceramic features distinguishing the two phases, while limited in number,

are easily recognizable and widely distributed in the Survey Area. In short, the distinction between Routh and Fitzhugh phases as presently drawn marks a convenient place to subdivide the rather long period of Plaquemine occupation in the Upper Tensas Basin. It is estimated that the shift from Routh to Fitzhugh phase occurs around A.D. 1350.

Fitzhugh phase is replaced by Transylvania phase at approximately A.D. 1550 in the northern portion of the Survey Area. The Transylvania ceramic complex has many similarities to Mississippian phases located beyond the Tensas Basin to the north and northeast: shell tempering is the exclusive tempering agent; there is an abundance of pottery classified as Barton Incised and Winterville Incised; and the jar is a numerically important vessel shape. Since, in addition, several Plaquemine pottery types are not represented in the ceramic complex, Transylvania has been classified as a phase of Mississippian culture. It seems clear, however, that Transylvania is derived directly from Fitzhugh phase and that Mississippian influences have not been the sole factor in its development.

Throughout the remainder of the Survey Area and in the Natchez locality, Fitzhugh phase persists up to historic contact. During the approximately 300 years of

Fitzhugh phase existence there is considerable ceramic change, in fact, more than that which differentiates Routh and Fitzhugh phases. Few ceramic changes, however, occur over most of the area of Fitzhugh occupation or are contemporaneous throughout the area. Consequently, there is no practical way to subdivide the phase, and it has been left intact. Ceramic change during Fitzhugh phase can be attributed to three sources: indigenous development, influences from the west (central Louisiana and south-central Arkansas), and influences from Mississippian cultures to the north and northeast.

In the southern half of the Upper Tensas Basin and farther south, Plaquemine culture continues into the historic period. The historic Taensa pottery complex, however, is changing in the direction of Transylvania phase, and it seems likely that had European contact been delayed by fifty years or more the phase would have changed sufficiently to qualify as Mississippian. The Natchez pottery from Fatherland site is typical of Plaquemine and could actually qualify as Fitzhugh phase. In the present report, historic Natchez is classified as a phase of Plaquemine culture rather than as a distinct culture, Natchezan, which is the status usually assigned to it (Quimby 1941; Phillips 1970).

Geographical Distribution of Plaquemine Culture

For the most part, there is considerable ceramic uniformity throughout the geographical range of Plaquemine culture. Plaquemine phases in the Upper Tensas Basin differ little from manifestations as far distant as Greenville, Mississippi, and Baton Rouge, Louisiana. On the other hand, Plaquemine itself is relatively distinct ceramically from cultures in surrounding areas, and its geographical distribution can be delineated with some accuracy. On the west, it does not extend beyond the Alluvial Valley. Bossier focus (Webb 1948) in central and western Louisiana is closely related to Plaquemine culture, but is clearly a distinct entity.<sup>1</sup> Close parallels with the Plaquemine types, Mazique Incised, var. Manchac, Plaquemine Brushed; Evansville Punctated; Hollyknowe Ridge Pinched; Maddox Engraved; and L'Eau Noire Incised, var. Anna, do occur in the form of Dunkin Incised, Bossier Brushed, Wilkinson Punctated, 'Maddox Engraved', and Evangeline Interior Incised (ibid.:141, 1963: 13, 16, Table I). However, other Bossier focus types such as

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<sup>1</sup>Similarities between Plaquemine and Bossier are to be expected given the common base (Alto focus and late Coles Creek) from which they both developed. The extent of similarities is difficult to determine, however, as there are no "pure" Bossier focus sites described in print (Webb 1948:122).

Belcher Ridged and Sinner Linear Punctated clearly have no Lower Valley equivalents, while Glassell Engraved and Taylor Engraved are stylistically different from their Lower Valley counterparts, L'Eau Noire Incised and Leland Incised.

Subsequent to Bossier focus, relations between the Alluvial Valley and the Caddoan area become even more attenuated. With the exception of brushed pottery (Karnack Brushed-Incised) and the occurrence of some Leland Incised and L'Eau Noire Incised designs on vessels of the types Keno Trailed and Hudson Engraved,<sup>1</sup> Belcher and Mid-Ouachita foci show few specific similarities to either Routh or Fitzhugh phase. It is apparent that the Plaquemine and Caddoan area ceramic traditions are developing in different directions and are becoming more distinct through time.

It is difficult to assign the Lower Ouachita Basin sites to either Lower Valley or Caddoan area cultures. Prehistoric sites such as Sycamore Landing yield numerous Plaquemine types but include Bossier focus types as well. Glendora focus likewise is characterized by ceramic

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<sup>1</sup>See, for example, Moore's Figures 22 and 25 (1909) for L'Eau Noire Incised design variant A and Figure 16 for Leland Incised design A. The style with which these designs are portrayed differs in the two areas.

features of both areas. Probably these Lower Ouachita Basin developments should be excluded from Plaquemine culture. Lying in close proximity to the Lower Mississippi Valley and having ready access to the Caddoan area by way of the Ouachita River, archaeological manifestations in the Lower Ouachita Basin should show affinities to both areas and may be crucial to our understanding of relationships between them.

Winterville site (19-L-1), during the Winterville phase, would seem to mark the northernmost extension of Plaquemine culture in the Lower Yazoo Basin. Mississippian influences have had considerable effect on the ceramic complex, however, and we see there for the first time important ceramic changes that are duplicated ultimately throughout the Lower Yazoo Basin and in the northern half of the Upper Tensas Basin. Beginning in Winterville phase, the northern limit of Plaquemine culture shrinks southward through time until the process is terminated with European contact near the latitude of Vicksburg, Mississippi.

Little is known about the Alluvial Valley west of the Mississippi River in southeast Arkansas. Published sites (Lemley and Dickinson 1943; Ford 1961), with the exception of Menard site (17-H-1), appear to have very late occupations that are predominantly Mississippian

in nature. At Menard, pottery of the types 'Manchac Incised', 'Plaquemine Brushed', 'Greenhouse Incised', 'Hardy Incised', 'Dupree Incised', and 'Baytown Plain', may constitute an early Plaquemine component, but without larger and better stratified sherd collections this possibility can not be verified. It seems probable that Plaquemine culture did extend into the Alluvial Valley portion of southeast Arkansas, but how far north it is represented and for how long are questions which can not be answered at present.

Little information is available for cultural developments east of the Alluvial Valley in Mississippi. In the historic period, Choctaw (Collins 1927) and Chickasaw (Jennings 1941) pottery from east-central and northeast portions of the state are clearly divergent from Plaquemine culture. The eastern-most Plaquemine penetration known presently is represented by sites that Ford and Chambers surveyed along the Big Black River. Developments there seem to correspond rather closely with those in the Lower Yazoo and Upper Tensas Basins. The Dupree site, apparently with two components, has an occupation of Crippen Point affiliation (see Ford 1936: Fig. 23, b, e, g, m). Pocahontas site with "early Tunica" rims, L'Eau Noire Incised, var. Carter, Evansville Punctated, var. Sharkey, Mazique Incised, var. Manchac,

Barton Incised, and Parkin Punctated (ibid.:Fig. 21), can be roughly equated with Fitzhugh phase. Shell tempering and jars with handles occur with some frequency in collections from several sites<sup>1</sup> and indicate that, as in the Lower Yazoo Basin, Mississippian ceramic influences are stronger there than in the Upper Tensas Basin.

Plaquemine culture is distributed along the Alluvial Valley southward at least as far as Baton Rouge. There two sites, Rosedale (31-K-1) and Peter Hill (31-K-2), have yielded surface sherd collections that bear marked resemblance to the Fitzhugh phase ceramic complex. Phillips (1970:Fig. 447) places these sites in his Delta Natchezan phase along with the historic component at Bayou Goula and a small number of sites further south in the Delta. The ceramic features diagnostic of Delta Natchezan include: 'Fatherland Incised', 'Natchez Incised', 'Plaquemine Brushed', and 'Manchac Incised' (ibid.:953). The phase as a whole can probably be included in Plaquemine as that culture has been defined in the present report.

Phillips (1970:951-3) identifies most of the late components in the eastern two-thirds of the Delta as Bayou Petre phase. Diagnostic of this phase are the types

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<sup>1</sup>Gross, Chapman, and late component at Dupree. These observations are based on the Ford and Chambers pottery collections at the Mississippi State Historical Museum and Louisiana State University.



Moundville Incised, Ft. Walton Incised, and Pensacola Incised. Despite the fact that there appears to be some overlap in the distribution of the two phases, Delta Natchezan and Bayou Petre, indicated by sites with pottery types characteristic of both, Bayou Petre is obviously related to cultural developments further east along the Gulf coast, cultural developments referred to variously as Moundville, Fort Walton or Pensacola culture (McIntire 1958; Sears 1964) and should not be considered as Plaquemine.

#### The Origin of Plaquemine Culture

Two problems in the interpretation of Upper Tensas Basin culture history have received considerable attention in the present report. These are the origin of Plaquemine culture and the importance of Mississippian influences on indigenous ceramic developments. Turning to the former problem, it should first of all be noted that there is apparently a gap in the LMS site record for the time interval between the end of Balmoral phase (Coles Creek culture) and the beginning of Routh phase (Plaquemine culture). Until large unmixed pottery collections are available from this period, the problem of Plaquemine culture origins in the Survey Area will be difficult to solve.

Typically archaeologists (Ford 1951, Sears 1964, Belmont 1970) have derived much of the Plaquemine pottery complex from the Caddoan area, and in particular from Alto focus. Ford (1951:127) lists the following possible Alto focus contributions to Plaquemine culture: the "carinated bowl form, bottle form, engraved technique for pottery decoration, bowls with interior engraved designs ('molcajete-like'), 'stepped designs', brushed decoration, polishing on decorated vessels, (and) large beaded rims."

Radiocarbon dates and ceramic cross-ties indicate that Alto focus is roughly contemporaneous with the late Coles Creek phases, Balmoral, Kings Crossing, and Crippen Point. Several of Ford's traits listed above--carinated bowl form, engraving, stepped designs, polishing on decorated vessels--are known to occur in these three phases. These traits may have been derived from Alto focus, but it is equally possible that they represent parallel developments in the two areas, east Texas and the Alluvial Valley. However, they are accounted for, these and other ceramic similarities between Alto focus and Balmoral-Kings Crossing-Crippen Point phases indicate a relative uniformity of ceramic styles over the entire area stretching from east Texas to the Alluvial Valley at approximately A.D. 1000. Similarities between Crenshaw site in southwest Arkansas and earlier Coles Creek

phases in the Alluvial Valley (Dickinson 1936, Belmont 1970), furthermore, suggest that close cultural relationships existed throughout this area as early as A.D. 700.

The author postulates that Plaquemine culture in the Lower Mississippi Valley is primarily a development out of local Coles Creek antecedents. Alto focus, or a related manifestation west of the Alluvial Valley, may have made some contribution to this development, specifically the technique of brushing, but most of the ceramic innovations characteristic of Plaquemine seem to have been developing over a wide area within and to the west of the Alluvial Valley. Bossier focus, with obvious similarities to Plaquemine culture, developed from this same late Coles Creek-Alto base.

#### Mississippian Influences in the Upper Tensas Basin

The problem of the nature and extent of Mississippian influences on cultural developments in the Upper Tensas Basin has been touched upon frequently in the preceding chapters. It is intended here to summarize the evidence relating to this problem and to offer a set of hypotheses concerning Plaquemine-Mississippian interaction within and beyond the Survey Area.

Most archaeologists<sup>1</sup> working in the eastern United States would agree that Mississippian culture is characterized by the following traits: intensive maize agriculture; pyramidal mounds and mound-plaza arrangement; large, compact villages, frequently palisaded; rectangular structures, frequently of wall-trench construction; inhumation burials with grave goods that are placed in cemeteries or scattered throughout village areas; shell-tempered pottery; a wide variety of new pottery vessel forms and decorative techniques; and triangular arrow points. It is generally accepted that this complex of traits originated, or was assembled, prior to A.D. 1000 within an area encompassing the Mississippi Valley between St. Louis and Memphis and the lower portions of the Illinois, Ohio, Tennessee, and Cumberland river valleys (Caldwell 1958:59; Griffin 1967:189; Sears 1964:277); and Willey and Phillips 1958:169), and subsequently spread by diffusion and/or population movement over a large portion of the eastern United States (Caldwell 1958:64-65; Griffin 1964:249; Sears 1964:277-8; and Willey and Phillips *ibid.*). The question of Mississippian origins is complicated by the fact that some traits--pyramidal mounds and their arrangement around a plaza, and certain

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<sup>1</sup>C. F. Phillips et al. (1951:445-53), Griffin (1964:249, 1967:189-90), Sears (1964:277-8), Willey (1966:292), Caldwell (1958:59, 65) and Brain (1969:286).

pottery vessel forms and decorative techniques--seem to occur earlier along the Gulf Coastal Plain than in the Mississippian heartland north of Memphis, Tennessee (Caldwell 1958:59; Sears 1964:278). Although they are derived from beyond the heartland area, such traits are seen to be reformulated within the developing Mississippian culture, and, in this context, ultimately spread throughout the east, even back to their point of origin along the Coastal Plain.

It is generally agreed that the area around East St. Louis, Illinois, is the nuclear zone for this culture and its oldest known manifestations are there. This fact is one difficult to reconcile with a Middle American origin but the culture may have diffused through the Caddo area, up the Mississippi River Valley, and then returned in a more vigorous form, . . . (Haag 1965:309).<sup>1</sup>

Although unambiguous statements on the matter are lacking in the literature, one gets the impression that all archaeological cultures classified as Mississippian have attained their typological status as a result of diffusion or migration either directly from the heartland area or indirectly by way of colonial outposts such as Aztalan and Macon Plateau.

The only real exceptions to this general picture of Mississippian culture history are taken with regard to

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<sup>1</sup>See also, Willey and Phillips (ibid.) and Sears (ibid.).

the integrity of the radiating trait complex. Phillips (1970:570), for example, refers to the "familiar problem of the forward radiation of Mississippian ceremonialism [represented by the 'Southern Cult' and the mound-plaza complex] ahead of Mississippian ceramics."

The appearance of Mississippian culture in the southern half of the Lower Mississippi Valley is usually interpreted in a manner similar to that described above, developing Mississippian culture to the north spreads down the Valley by way of migration or diffusion.

. . .; a third expansion, at about the same time [A.D. 1500], was down the Mississippi from above the mouth of the Arkansas (Griffin 1967:189).

The downstream radiation of Mississippian culture appears to have petered out about at the latitude of Vicksburg (Phillips 1970:19).

Griffin does not specify the nature of the Mississippian expansion downstream, although the context of his statement indicates he is thinking of an actual movement of people. Phillips sees two Mississippian thrusts into the Lower Yazoo Basin: one during Crippen Point phase which had little lasting effect on the developing Plaquemine culture; and a second initiating Deer Creek and Lake George phases, which terminated Plaquemine culture in the area and can be attributed, in part at least, to actual population movement (ibid.;13, 170).

Brain (1969:299, 3), whose Ph.D. dissertation is largely concerned with the nature of Mississippian

influences at the Winterville site, offers a more detailed account of the appearance of Mississippian culture in the Lower Yazoo Basin. Following an initial period of contact between Plaquemine and Mississippian cultures at Winterville (Crippen Point phase), there is a period of occupation characterized by hybridization between the two cultures (Winterville phase) which in turn is followed by a final period of occupation in which only Mississippian traits occur (Deer Creek phase). Brain feels that Mississippian traits reached the Winterville site during Crippen Point and Winterville phases primarily through diffusion, although, at the close of the earlier phase, he postulates the arrival of a small group of people from the Cahokia area.

It would seem that the general picture of Mississippian development and spread described in the preceding pages applies to the late cultural developments in the Upper Tensas Basin. During the last few centuries before European contact in this area, most common Mississippian traits appear including shell-tempered pottery, jars with handles and bottle forms, pyramidal mounds with plaza arrangement, rectangular wall-trench structures, triangular arrow points, and inhumation burials with grave goods. Most notable is the gradual shift from clay tempering to shell tempering that begins in Routh

phase and culminates in Transylvania phase when pottery is exclusively tempered with shell.

That Mississippian cultures, probably located further up the Mississippi Valley, have had some influence on cultural development in the Upper Tensas Basin can not be denied. On close scrutiny, however, the Upper Tensas data does not support the simple picture of an expansive Mississippian culture engulfing indigenous Plaquemine culture. Rather, it can be hypothesized that the appearance of Mississippian culture in the Survey Area is largely the result of indigenous development. Diffusion certainly played a role in this process, but it can be argued that cultural influences were moving up the Mississippi Valley as well as down. The similarities ultimately existing between Transylvania phase, as well as Deer Creek and Lake George phases in the south, and phases such as Parkin, Walls, and Nodena in the north, are to be seen as resulting from both parallel development and mutual influence.

We turn now to a review of the evidence upon which these hypotheses are based. Traits occurring in the Upper Tensas Basin that would generally be accepted as Mississippian are: pyramidal mounds; mound-plaza arrangement; wall-trench construction; inhumation burials with grave goods; triangular arrow points; shell-tempered



pottery; the bottle and jar-with-handles vessel forms; and the pottery types, Barton Incised, Parkin Punctated, Pouncey Ridge Pinched, and Mound Place Incised. Brain (1969:298, Table 18) would add to this list, rectangular elbow pipes, pebble celts, and the pottery types, 'Winter-ville Incised', 'Belzoni Incised', 'Blum Incised', and 'Grace Brushed.' Mississippian traits for which there is no good evidence in the Survey Area, but which can not be ignored in the following discussion, are palisaded villages and intensive agriculture.

Of the numerous "Mississippian" ceramic features occurring in the Upper Tensas Basin, only two, shell tempering and the jar with handles, can be derived with some certainty from a Mississippian culture center farther up the Valley. Shell tempering is diffused into the Survey Area over a period of several centuries. Small amounts of shell-tempered pottery first occur in Routh phase components and may represent trade items from Mississippian cultures to the north and northeast. By Fitzhugh phase, there is evidence that local potters themselves are utilizing the new temper, and with Transylvania phase shell has become the sole tempering agent in use.

The occurrence of jars with handles in Fitzhugh phase is a less clear-cut case of diffusion. There are no local antecedents for handles in the general area of the

Tensas Basin, but jars--vessels with globular bodies, constricted necks and flaring rims--are present as early as Routh phase in Plaquemine contexts. Furthermore, differences in shape existing between the "standard Mississippi jar" and jars of the Fitzhugh and Transylvania phases, indicate that there has been no simple direct diffusion of this vessel form into the Survey Area from the Mississippian heartland. The category, jar, would seem to be too general and inclusive to be useful as a marker for Mississippian culture in the Upper Tensas Basin. Only the jar-with-handles form would seem to have diagnostic value and can be considered as deriving from Mississippian cultures in the northern half of the Lower Mississippi Valley.

Information on bottle forms from the Survey Area is poor. The closest similarities are with Memphis area bottles (Phillips et al. 1951:158). The fact that bottles occur as early in the Plaquemine culture, Routh and Fitzhugh phases, as they do farther north<sup>1</sup> and most commonly in association with the Plaquemine type, Leland Incised, indicates this similarity does not necessarily reflect Mississippian influence on the Upper Tensas Basin.

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<sup>1</sup>Available radiocarbon dates for Walls phase all fall in the 15th to 17th centuries (Phillips 1970:Table 18.

In contrast to the evidence for diffusion of shell tempering and the jar-with-handles form, a number of ceramic modes and types clearly indicate developmental continuity between the Plaquemine and Mississippian occupations of the Upper Tensas Basin. Plaquemine plain ware modes such as "Tunica" rim and "Walnut Bayou" bowl continue from Fitzhugh phase into Transylvania phase with little modification, as do the pottery types Leland Incised and L'Eau Noire Incised.

A number of pottery types, Parkin Punctated, Winterville Incised, Barton Incised and Pouncey Ridge Pinched, occurring in late Upper Tensas Basin phases are commonly identified with Mississippian culture. All of these are preceded in the Basin, however, by clay-tempered Plaquemine types--Mazique Incised, var. Manchac; Hollyknowe Ridge Pinched, var. Patmos; Evansville Punctated, var. Sharkey; and Winterville Incised, var. Coleman--to which they show close similarities. The roots for some of the latter go back to the Coles Creek period. There is no valid reason why these Plaquemine types should not be seen as developmental antecedents for the later Mississippian types in the Survey Area.

The type, Mound Place Incised, presents a somewhat similar situation. Although no shell-tempered specimens are known from the Survey Area, clay-tempered sherds and vessels which otherwise conform to the general criteria

for Mound Place Incised do occur in Routh and Fitzhugh phases. The major characteristic of the type, two or more horizontal lines incised below the rim of bowls, furthermore, is a logical derivative from Coles Creek Incised in its later varieties such as Hardy and Blakely.

One wonders how the types Mound Place Incised, Parkin Punctated, Barton Incised, Pouncey Ridge Pinched, and Winterville Incised, have become so firmly and exclusively associated with Mississippian culture. As far as present evidence goes, there are no antecedents for them in the northern half of the Lower Mississippi Valley. Rather, the Baytown and Coles Creek period ceramic complexes in that area are characterized almost exclusively by plain, cord-marked, painted, or check stamped pottery (Phillips 1970:901-908, 912-18). Furthermore, with the possible exception of Nodena, Mississippian phases with incised, punctated, and pinched pottery in that area are relatively late, probably post A.D. 1300 (ibid:Table 18). It seems quite possible that Mississippian incised, punctated, and pinched pottery in the northern half of the Lower Mississippi Valley is derived from late Coles Creek-early Plaquemine developments farther south. Rather than a simple down-river spread of shell-tempered Mississippian pottery types, there may well have been a northward spread of decorative techniques and designs and a

contemporaneous southward spread of traits such as shell tempering and the jar-with-handles vessel form. Mississippian pottery types such as Barton Incised and Parkin Punctated then in one sense can be seen as hybrid forms, and they may occur earlier in intermediate areas such as the Yazoo Basin than in the Mississippian heartland above Memphis. What looks like a southward diffusion of Mississippian pottery types, may in reality be only the down-river progression of the application of shell tempering and certain vessel modes to resident Plaquemine pottery types.<sup>1</sup>

Leaving aside the question of origins for Mississippian ceramic features occurring in the Upper Tensas Basin, it should be noted that Transylvania phase alone manifests what can be called a Mississippian ceramic complex. This phase is late, post A.D. 1550, and is restricted in distribution to the northernmost part of the Basin. In it shell tempering has completely replaced clay tempering, but there is ceramic continuity with the preceding Plaquemine phases in the form of plain ware modes, Leland Incised, and probably L'Eau Noire Incised.

A number of authorities (Caldwell 1958:59; Phillips et al. 1951:442; Phillips 1970:570) have cited

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<sup>1</sup>The role of Caddoan area development in this scheme can not be ascertained with present evidence. It is likely, however, to have been an important one.

the lack of congruence between the distribution of the pyramidal mound-plaza complex and other aspects of Mississippian culture. The Upper Tensas Basin is no exception to this picture. Small groups of small, pyramidal mounds are present in the Survey Area at least since Ballina phase (roughly A.D. 700) long before the appearance of other traits generally recognized as Mississippian. With Routh phase "large ceremonial centers" (Phillips et al. 1951:325), characterized by a single dominant mound and numerous smaller mounds surrounding a plaza, occur. Shell-tempered plain pottery is present in Routh components, but the ceramic complex of this phase is otherwise entirely Plaquemine. This large mound-plaza arrangement continues into Fitzhugh phase as evidenced by similarities in the layout of the Routh and Fitzhugh sites. Mississippian ceramic traits first occur in strength during Fitzhugh phase, but it is not until Transylvania phase, some 300 years after the first appearance of "large ceremonial centers," that we can identify a fully Mississippian ceramic complex in the Survey Area.<sup>1</sup>

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<sup>1</sup>Phillips (1970:967-8) has also noted the association of "large ceremonial centers" with Plaquemine culture in the Lower Yazoo Basin and suggests that it may be incorrect to attribute this feature to Mississippian influences.

The double plaza arrangement at Transylvania, whether it dates to the Fitzhugh or Transylvania component, represents somewhat of a departure from the arrangement characteristic of Routh and Fitzhugh phase sites elsewhere in the Basin. Similar site plans occur in the Lower Yazoo Basin at Winterville and Lake George sites and date to the Winterville (Brain 1969:Table 22) and Lake George (Phillips 1970:288-9) components respectively. Since this double plaza site plan is not known to occur beyond the Lower Yazoo Basin and Upper Tensas Basin, it is in all likelihood a local development.

There are several known instances of rectangular wall-trench structures in the general area of the Upper Tensas Basin. The best documented examples are found at Gordon (Cotter 1952) and Fatherland (Neitzel 1965) sites in Mississippi, but segments of wall trenches from what are probably rectangular structures have been encountered in Routh, Fitzhugh, and Transylvania phase contexts within the Survey Area. In all but the Transylvania case (Cut 3, Transylvania site), association is with Plaquemine ceramics. Belmont's (1967) reanalysis of Greenhouse site stratigraphy indicates that rectangular structures with individually set posts replace circular structures in Spring Bayou phase at a time roughly equivalent to that of Balmoral phase in the Upper Tensas

Basin. There is some evidence that circular structures with individually set posts are part of the Balmoral component at Gordon site (Mound B, Feature 5). It is probable that rectangular wall-trench structures appear relatively late in the general area of the Upper Tensas Basin, perhaps in association with the "large ceremonial center." They are not, however, associated with the arrival of Mississippian ceramics.

During two field seasons, the LMS found burials that can be attributed with certainty to Plaquemine or Mississippian components at only one site, Burroughs (22-M-10) in Warren County, Mississippi. Other workers in the general area of the Tensas Basin have recorded burials accompanied by grave goods at the following sites: Canebrake and Turkey Point Landing (Moore 1913:46-54), Oak Bend Landing and Glass (Moore 1911:378-88), Transylvania (Moore 1918:577), Swift Mound (Smithsonian Institution, Accession Number 1869-1496, Gordon (Cotter 1952), Fatherland (Neitzel 1965), Ring (Ford 1936:69), and Burthe (Clausen 1932). Extended, flexed, and bundle burials are reported for most of these sites. Burials occurred in mounds at all sites except Burroughs, Ring, and Burthe, where they had been placed in ground level cemeteries. Fitzhugh, Transylvania and historic components are represented at several of these sites. Mississippian



ceramics are found at all sites but Turkey Point Landing. With the exception of Transylvania and possibly Burroughs, however, Plaquemine pottery types predominate. As with the pyramidal mound-plaza complex and rectangular wall-trench structures, burials with grave goods appear in and around the Survey Area prior to the arrival of strong Mississippian ceramic influences.

Madison type triangular points occur only at the very end of the archaeological sequence in the Upper Tensas Basin. Their association with Mississippian ceramics, however, is not very good. Madison points occur in the historic Natchez and Taensa components at Fatherland, Beasley, and Clark Bayou sites, but these yield both Plaquemine and Mississippian ceramics with the latter decidedly in the minority at Fatherland. On the other hand, no triangular points are known from Transylvania site where the most "Mississippian" ceramic complex is found.<sup>1</sup> It seems, in fact, that a stemmed point, the Burthe point, is found in the latest sites in the northern half of the Upper Tensas Basin. The evidence as it now stands indicates that triangular points appear in the

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<sup>1</sup> Sampling error may be a factor here, but considering the number of test pits excavated and their distribution over the site, it seems unlikely that such points wouldn't have shown up were they present.

Survey Area in association with neither Mississippian ceramics nor the other Mississippian traits described to this point.

Brain (1969:220) describes the pottery elbow pipe occurring in the Winterville and Deer Creek occupations at Winterville as a "good Mississippian artifact." A single stone example of this kind of pipe is known from the Survey Area, occurring in the Swift collection from a mound west of Vicksburg, Mississippi. The burials with which this pipe was probably associated were accompanied by pottery vessels of both Plaquemine and Mississippian types. Beyond the Survey Area pottery, elbow pipes are known from most of the Glendora phase sites in the Lower Ouachita Basin and from Fatherland and Mayes sites to the south. Glendora phase evidences Mississippian influences in the form of shell-tempered pottery, but all components at Fatherland site are basically Plaquemine and Mayes site is identifiable as terminal Coles Creek or early Plaquemine. These associations argue against identifying the elbow pipe of pottery or of stone exclusively with Mississippian culture.

According to Brain (1969:220), the pebble celt, occurring in only the latest stratigraphic contexts at Winterville site, is a "good Mississippian artifact" in

the Lower Yazoo Basin. In the Upper Tensas Basin, it is known only from the Transylvania component at the type site. Several specimens are also known from the Burthe cemetery in Warren County, Mississippi. Of all the Mississippian traits described to this point, the pebble celt shows the closest association with Mississippian ceramics in the Survey Area.

There is no direct evidence from the Upper Tensas Basin for two commonly cited Mississippian traits: intensive maize agriculture and palisaded villages. The former, however, can be inferred from the large size of Routh, Fitzhugh, and Transylvania phase ceremonial sites and the few ethnohistoric references to Natchez agriculture (Swanton 1911:73-75). These data suggest that intensive maize agriculture is characteristic of Plaquemine culture and therefore precedes Mississippian ceramics in the area. Palisaded villages are known archaeologically and ethnohistorically (Quimby 1957) for the Bayou Goula near Baton Rouge. This trait then also is more widely distributed in the Lower Valley than are Mississippian ceramics.

Several hypotheses of varying generality and accuracy can be formulated on the basis of the foregoing evidence:

1) Culture traits that would be identified as Mississippian by various scholars make their initial appearances in the Upper Tensas Basin over a period of eight centuries or more. They do not appear together at one point in time as a single, unified complex.

2) At no time subsequent to the Ballina phase of Coles Creek culture is it possible to document the arrival of a large population element in the Survey Area. Rather, ceramic continuity indicates that non-local Mississippian traits entered the Survey Area by diffusion or, at most, in the hands of a small group of immigrants.

3) The Transylvania phase ceramic complex, for the most part, developed in the general area of the Upper Tensas Basin from Plaquemine antecedents. Shell tempering and the jar-with-handles vessel form are the only features which seem to derive ultimately from the Mississippian heartland to the north.

4) The eventual "Mississippianization" of portions of the Upper Tensas Basin is the result of a complex interplay of indigenous development and outside influences. Shell tempering, the jar-with-handle vessel form and the Madison point almost certainly originated further up the Mississippi Valley and spread into the Tensas Basin. The pyramidal mound, the mound-plaza

arrangement, and local varieties of several "Mississippian" pottery types quite probably developed locally, at least beyond the Mississippian heartland from local antecedents. Burial with grave goods, rectangular wall-trench structures, the elbow pipe, and the pebble celt can not be assigned a place of origin with presently available data. The fact that their distribution in time and space do not coincide with that of Mississippian ceramics indicates that they are not necessarily derived from developing Mississippian cultures to the north. Finally, intensive maize agriculture is quite possibly widespread in the Lower Mississippi Valley prior to the development of Mississippian and Plaquemine cultures and may have contributed equally to the rise of both.

5) The belief that Mississippian culture arose in a relatively restricted area, including the Lower Mississippi Valley north of Memphis, and subsequently radiated out over the Southeast engulfing pre-existing cultures is a gross oversimplification of a complex historical situation. For the Lower Mississippi Valley, at least it is possible to see new ideas emanating from several sources and spreading up as well as down the Valley. Eventually, as a result of the interplay of diffusion and parallel development, the Lower Mississippi Valley as far south as Vicksburg manifests a marked

uniformity of culture. This we refer to for taxonomic purposes as Mississippian culture.

It remains to comment upon Brain's conclusions (1969) concerning Mississippian-Plaquemine interaction at the Winterville site. Brain characterizes the Middle or Winterville phase occupation at that site as a thoroughgoing blend of Mississippian and Plaquemine elements. It is the result, he says, of a process of transculturation in which both cultures made significant contributions to the resulting Winterville phase.

It appears that Brain and the present author are in general agreement concerning the interrelationship of Plaquemine and Mississippian cultures in the southern portion of the Lower Mississippi Valley. This author wonders, however, if Brain has not attributed too much importance to Mississippian culture in the formation of the hybrid Winterville phase. Specifically, Brain lists several non-ceramic traits characteristic of that phase--large site size, multiple mound-plaza arrangement, intensive maize agriculture, and rectangular wall-trench structures--which he feels are of Mississippian origin (1969:285, 298). At the Winterville site, these first appear in association with Mississippian ceramic traits such as shell tempering and the jar vessel shape. From the perspective of Winterville site, it is logical to attribute a Mississippian origin to them.

These non-ceramic traits first occur in the Upper Tensas Basin during Routh phase, and are therefore of roughly the same age in both areas. In the Upper Tensas Basin, however, they are associated with a Plaquemine ceramic complex which is almost totally devoid of Mississippian features. From the perspective of the Upper Tensas Basin, it is possible to conclude that large mound sites with plazas, rectangular wall-trench structures, and intensive maize agriculture are Plaquemine developments, and that their initial occurrence in the Lower Yazoo Basin in association with Mississippian ceramic features is largely coincidental.