

MIDDLE ARCHAIC PERIOD¹

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Yazoo Basin

Less is known of this period in the Yazoo Basin than of any other. Currently only fourteen sites are recorded. The beginnings are shadowy and the end in the view of this author is also difficult to date. Fossil indicators such as Cypress Creek, Morrow Mountain and Eva projectile points which seem to initiate the period to the east are apparently absent here.² The period as it is defined in this chapter is approximately the same as that designated "Meso-Indian era" by Jeffrey Brain (1971:23). His Meso-Indian era is divided into three periods (6000 B.C.-5000 B.C., 5000 B.C.-3000 B.C., and 3000 B.C.-2000 B.C.). Where we differ from Brain is in the last of the three periods. Brain's 2000 B.C. date has no doubt been influenced by the initial date assigned to the Poverty Point Culture. Poverty Point is a very special development which, as presently understood, is confined almost exclusively to the Mississippi River Valley and the Gulf Coast. Our date of 3000 B.C. should coincide better with cultures in the rest of the state.

Certain projectile points illustrated by Brain (1971:27-28) and discussed by him as possibly being from this initial Meso-Indian Period could be cruder versions of Early Archaic for me such as Big Sandy, Pine Tree and Hardin and may belong in that time frame but barring stratigraphic or radiocarbon documentation, the author prefers to withhold judgment. There is no doubt, however, that with the end of the typological continuum of Paleo-Indian/Early Archaic bifaces there is a noticeable technological break, with Middle Archaic flaked stone tools being much cruder in appearance and generally larger. Brain suggests that the increased size in projectile points is correlated with the arrival of some new technology in the Basin. He sees the introduction of the Atlatl as being in his Meso-Indian Period II or 5000-3000 B.C., a time when there is a predominance of large heavy bifaces. It is implied that heavier

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 In that this project has been ongoing for over 5 years, they are also somewhat out of date.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.

²On the basis of information contained in two articles published in Mississippi Archaeology (McGahey 1984:3-7) and Heartfield 1984:30-39), the author takes issue with the purported existence of Morrow Mountain points in the Yazoo basin. Bifaces which appear to be Morrow Mountain are probably final stage preforms for Shumla or other similar Late Archaic point types in most if not all cases.

projectiles could be more effectively thrown with the Atlatl (Brain 1971:30-32).

The evidence for the Atlatl considered by Brain is the presence of bannerstones and bar weights on his Meso-Indian sites. It is certainly open to question as to whether or not bannerstones had any connection with Atlatls but they have been established as an Archaic artifact type and are to a certain extent diagnostic of particular increments of time (Kwas 1980). Numerous bannerstone are now known from the Yazoo Basin but thus far none which appear to be early have turned up. (Most are surface associations of points such as Denton and should date from ca. 4000-3000 B.C.) Shuttle-shaped forms have been found in what is assumed to be early Middle Archaic contexts at the Hester site in Monroe County (Brookes 1979:14) and similar forms have been widely dated over Eastern North American at or near the beginning of the Middle Archaic Period (e.g., Chapman 1964:90-92; Coe 1964:80; Lewis and Lewis 1961:66). Thus the early Middle Archaic diagnostics in both chipped and ground stone remain unverified in the Yazoo Basin.

What is assumed to be a technological innovation in bifaces signals the end of the Middle Archaic as understood here. Considerable work must be done before the date can be started with confidence but it appears to the author that around 3000 B.C narrower proportioned projectile points with such narrower stem widths began to be used and rapidly replaced the broader stemmed forms such as Benton, Denton, and Opossum Bayou. The new forms were such types as Pontchartrain, Kent, Evans and Shumla. The earlier broad-stemmed forms are often obtuse at the distal end with abundant evidence of heavy use other than as projectile heads and although the tradition of biface abuse continues in the Late Archaic, especially with the Pontchartrain type, it is not nearly so common.

There are two sites which have produced C-14 dates within this study unit. They are Denton, 22-Qu-522, with dates of 3280 B.C.+125 (UGA-212) and 3125 B.C.+130 (UGA 284) (Connaway 1977:137) and Longstreet, 22-Qu-523, with dates of 3050 B.C.+120 (UGA 337) and 2925 B.C.+145 (UGA 336) (Connaway 1981:7). Excavations at both sites (which are only about three miles apart) were limited and unfortunately did not recover adequate samples of diagnostics. Those which were recovered were broad-stemmed bifaces but surface collections at each site also revealed strong minorities of narrow stemmed points. Special circumstances at the Longstreet site strongly suggest the near contemporaneity of the total Archaic complex recovered there. The site was essentially a small oval-shaped hill with a Baytown component confined to the top, a layer of sterile sand, and a dark, rich midden which outcropped downslope on all sides of the hill. The Archaic points which were surface collected were almost exclusively from this oval band around the site. Perhaps the most interesting change in

Middle Archaic artifact complexes had to do with the new ways of working stone which effectively extended the range of lithic material's exploitable by the aboriginal population. Pecking and grinding and stone drilling are techniques which were not recorded earlier in the Basin. This new technology is seen from the beginning of the period in areas where there is adequate documentation but the initial appearance of ground and polished stone and stone drilling are not yet established for the Basin. Brain (1971:29) considers pecking and grinding to be a part of the material culture of the Still Gin phase of his Meso-Indian Period II (5000 B.C.-3000 B.C.) and illustrates two possible bar weights for an Atlatl in Figure 7. He sees drilled Atlatl weights (bannerstones) in the Valley for the first time in his Period III Meso-Indian. Nutting stones, another form of ground stone tool which was recorded throughout the entire Early Archaic sequence at the Hester Site (22-Mo-569) have yet to be confirmed for the Basin prior to the Late Archaic.

Circumstantial evidence suggests the development of a strong lapidary industry in the study area during the Middle Archaic Period. Although in-situ evidence is weak, the strong surface associations of broad stemmed points and stone beads at Denton and other sites suggest that the drilling and sculpting of small objects of hard stone had reached a high technological and aesthetic level prior to 3000 B.C. Although the count of small lapidary items, especially effigy beads in Mississippi and surrounding states is small, Denton, according to recent evidence, was by far the largest consumer of effigy beads from five states with approximately twenty-five of the approximately eighty known having been found there.

Considering the time required in the manufacture of such items brings one to the conclusion that this must have been a unique site. There are implications of greater wealth at Denton than for other sites of the period and it is inescapable that the basic needs of life were well taken care of if there was sufficient time for such time-consuming activities as were entailed in the manufacture of lapidary items. There is no evidence that the effigies were made at Denton although simpler bead forms certainly were made there.

A discovery reported by Rau (1878) and Fulton (1898), and discussed by Connaway (1977:125) strongly suggests craft specialization. The discovery consisted of a cache of several hundred items including essentially unaltered raw material, blanks, and partly manufactured effigy beads. These were probably the work of one individual. The find was situated in Lawrence County, Mississippi, approximately one hundred fifty miles south of the Denton site.

Grooved, ground stone axes which are abundant in Northeast Mississippi and are not uncommon in North Central Mississippi are so far represented by one specimen in the study area. It was found at the Denton site. Whether the scarcity of grooved axes and nutting stones in

the Basin is the result of environmental differences with the hills or the result of sample error will perhaps be resolved as more collections are recorded in the area.

There certainly seems to have been interaction with the area to the northeast of the Basin in this period. To the author it appears that since Early or perhaps Middle Paleo-Indian times, there was very little commerce in exotic lithic materials in the Basin until the arrival of the Middle Archaic. At the Denton site there is a strong minority of blue-gray Fort Payne chert some of which is in the form of Classic Benton points and one Elk River point (Connaway 1977:34). Williams and Brain (1983:396) report "northern" material being present in the form of "Kirk Points." It is doubtful if the points were Kirk but their statement concerning raw material is interesting and adds to the impression of increased trade. There are also a few Novaculite points and a large lump of Galena present at Denton demonstrating some contact with the north and west. Fort Payne Chert Benton points are also present in the Basin near Sledge about thirty miles north of Denton.

Before any sweeping statements can be made concerning the reawakening of trade connections in the Mid-Archaic, more careful counts must be made of the actual numbers of Mid-Archaic points in collections in the area and the percentages of exotics calculated. An initial impression based on what is known is that there is an increase but that it was nowhere near the importance of the Paleo-Indian trade in exotics.

Another suggestion of a northeastern connection is the occurrence of over-sized bifaces at the Denton site and a site in Leflore County. Numerous Middle Archaic caches of extremely large, very carefully made, unused bifaces have been found in the Tombigbee River area. They are usually of Fort Payne chert and other exotics and generally consist of over-sized Benton and Turkey Tail points. Two very large, unusually well made bifaces of an unclassified exotic raw material were found on the surface near each other at Denton. These phenomena may represent burial offerings.

Issues of Relevance to Further Research

As is the situation with Paleo-Indian/Early Archaic in the Yazoo Basin, the first priority is an increased database. The number of sites and artifacts recorded for this Period are woefully inadequate. Survey to record such data will be most profitably spent on braided stream surfaces and meander belts 1, 2 and 3 which should date from around 9000-7500 B.P., 7500-6000 B.P. and 6000-4000 B.P., respectively (Saucier 1971:55-59). An effort should be made in recording the distribution of chronologically diagnostic artifact types to tabulate them according to the particular meander belt on which they are found. If the above dates are correct, earlier artifact types will be rare on later

meander belt surfaces. In addition, where possible, C-14 dates should be obtained from good archaeological contexts. Such studies will assist in verifying or correcting age estimations of the recent geology of the Basin.

As state previously, diagnostics for the earlier part of this period are yet to be identified. There are several possible explanations for this. Perhaps they have been seen but not recognized. They may never have been there in appreciable numbers. The Early Archaic technology may have persisted longer than was commonly believed to be the case. Whatever the explanation, if these years are represented in the Basin the sites must be located and tested. As is true of most of the state's study units, good single component sites and deeply stratified sites are both highly desirable. Discoveries of such valuable sites should also be of assistance in more firmly establishing the termination of the period. As was stated earlier, the author thinks the logical place for this division is the introduction of such "narrow stemmed bifaces as Kent and Pontchartrain and arbitrarily pegged the terminal date for the end of Mid-Archaic and beginning of Late Archaic at 3000 B.C.

The physical as well as the chronological parameters of this study unit should also be examined. Brain (1971:26) has stated that in his Period I of Meso-Indian the presence of "the same artifacts" back in the hills indicates that "established" sites were only seasonal occupations. Were earlier inhabitants of the Basin there only on a seasonal basis? It is not until Period II of Meso-Indian that Brain is willing to concede the possibility of permanent valley settlement (ibid:39).

Northeast Mississippi

For the same reasons that were presented under the section on Paleo-Indian-Early Archaic, the Middle Archaic in the region must be presented for now as a consolidation of the Tombigbee Hills, the Black Prairie, the Flatwoods and the Pontotoc Ridge. There is, however, a relatively larger body of literature and a greater number of sites (402 as opposed to 173 in the earlier period). Most of what is known of this period is from midden mounds such as Vaughan (Lo-538) F. L. Brinkley (Ts-729), Moore's Creek (Al-521) W.C. Mann (Ts-565) and those investigated by Bense (1987).

Chronology

According to Judy Bense, the Middle Archaic of the upper Tombigbee Valley is characterized by homogeneity and stability (1987:398) and dates from 8000-5000 B.P. Apparently she considers the earliest Middle Archaic remains to be Eva-Morrow Mountain. She sees a gap between the early Archaic "Kirk" and Eva-Morrow mountain (1987:382). The existence of such a gap has been suggested before for various sequences across the southeast (McGahey 1975:13) (Morse 1969). It appears

almost universal within the state of Mississippi. It is known at present if this situation is due to a depopulation of the area, although it is generally thought that there was a significant environmental change during this time as the climate got hotter and drier. The outstanding point technologically is that there is a definite break in continuity in bifacial tool forms with a seemingly abrupt deterioration in the quality of workmanship.

There are a few projectile point forms which seem to be present in the area between the termination of the Early Archaic and Eva-Morrow Mountains. The Beachum point (Brookes 1979:41) is one such type. It appears to be a crude relation of the Stanley point and is found in the Hester site stratigraphically between the Eva-Morrow Mountain and the earlier Pine Tree point. A C-14 date of 5015±180 BC was obtained (Brookes 1979:127). the Beachum type is rarely seen or recognized, however, and probably has its' major distribution to the north and east of our area.

Another candidate for initial Middle Archaic status is the Cypress Creek point. Bense (1987:71) alludes to "distinctive, stemmed, corner-notched, hafted bifaces" as Cypress Creek. These are said to be stratigraphically late, Early Archaic or early, Middle Archaic (8500-8000 BP). They are thought to fall between "Kirk" or late to terminal Early Archaic and Eva-Morrow Mountain at the Walnut site (It-539). The Cypress Creek type is said to be technologically very little different from Eva-Morrow Mountain (Bense 1987:254). And is even considered as possibly being part of one multi-stage type with Eva and Morrow Mountain (Bense 1987:298). Personal observation of Cypress Creek points from the Toby Thornhill site (Ld-521) near Meridian in east central Mississippi revealed a few specimens which were well made to the point of being almost indistinguishable from the earlier Lost Lake (Early Archaic) points present on the site. This is an unusual circumstance and an apparent rare exception to the generally sharp break in continuity between Early and Middle Archaic. There are, however, only a handful of such specimens in a huge collection. These few, nevertheless, definitely suggest the type as the initial Middle Archaic form.

Again, as with Paleo-Indian-Early Archaic technological continuum, after the break between Early and Middle Archaic, there appears to be another era of continuity. As previously state, continuity is seen from Cypress Creek to Eva-Morrow Mountain. The later White Springs point is thought to overlap with Morrow Mountain morphologically and temporally (Bense 1987:298). The common use of the term "Sykes-White Springs-Benton" by Bense (1987) seems indicative of sorting problems within this grouping. She cites Futato (1983:124) as viewing White Springs as the earlier of the three types with Sykes in the Middle and overlapping morphologically and temporally with Benton (Bense 1987:298).

According to Dye et al (1985 8-5) (Draft Report) Sykes had originally been thought to be the earliest of the Sykes-White Springs-Benton series but these and the related form Buzzard Roost Creek were not separable stratigraphically at the W.C. Mann site (Ts-565). Similar attempts at sorting at the Moore's Creek site also proved fruitless (Weinstein 1981:4-5). Thorne et al (1981:85) suggest that Sykes is the earliest, perhaps extending back into the Early Archaic.

There is thus no consensus concerning the sequence of the Benton-like points of the Middle Archaic. What does seem to be true, however, is that the heavy use of Blue-Gray Fort Payne chert is primarily a Benton phenomenon. (It-567 for example yielded a 71.5% Fort Payne chert Benton component as compared with a 16.8% for Sykes-White Springs) (Bense 1982) and Benton does appear to be the final form of the continuum. The C-14 and archaeomagnetic dates at It-539 (Bense 1987:68) seem to confirm this, with those dates considered Benton being later than the "Sykes-White Springs" or "Sykes-White Springs-Benton" dates (Bense 1987:68).

Benton is often considered the initial Late Archaic form (Bense 1982:7.49), (Otinger et al 1982:18), and (Rafferty 1980:285). Bense (1987:14), however, considers Benton to be one of the primary temporal markers for the Middle Archaic and defines Late Archaic as the period between 5000 and 3000 B.P. Considering the continuity between Benton and the Sykes-White Springs point, it does not seem logical to arbitrarily divide the sequence with Benton, and it is regarded here as Middle Archaic.

The Vaughan point (Atkinson 1974:126) is possibly an Early Middle Archaic type but its position relative to the other types being discussed remains to be seen. One specimen was found by Atkinson at the Vaughan site (Ld-538) between two burials dated 4646 + 95 B.C. and 3800 - 85 B.C. (1974:132). Another was found in a stratum at site 1-Sw-26 which was dated at 5515 + 1058 B.C. (Ensor 1980:99). Bense refers to the "Eva-Morrow Mountain-Vaughan -Demopolis horizon" ca 8000 - 7500 B.P. (1987:14). According to Ensor, the Vaughan type "looks like" the Sykes type (1980:99).

There are probably other unrecognized and unnamed projectile point forms in the area which may fit into the earlier portion of the Middle Archaic sequence. The later end of the period also presents a problem not of where certain types lie in the sequence so much as the possibility that they may be found to date later than Benton and therefore be Late Archaic by definition. Types such as McIntyre and Elora with relatively broad stems may represent the termination of a mostly Middle Archaic continuum of broad stemmed points.

Settlement and Subsistence Patterns

Based on available data, there seems to be not only a significant change in Lithic technology with the beginning of the Middle Archaic period but also definite changes in the settlement pattern. The percentage of components on major streams as defined in the Paleo-Indian - Early Archaic study unit increases from 68% in our sub period five of that era to 80.05% for the Middle Archaic. Of the sites for which there is a Mid Archaic designation on the site form and there are known diagnostics, the percentages are even more impressive with 84.6% of sub period I (Morrow Mountain, Eva, and Cypress Creek) being on the larger streams and 91.4% of sub period II (Benton, Sykes, White Springs) being on the larger streams (fig. 1). This trend corroborates the findings of Peacock for Union, Pontotoc and Lee Counties (Peacock 1988:26).

The tendency toward increased occupation of the Black Prairie continues with 41% of the sites with identified diagnostics being from that region in the earlier portion of the Middle Archaic, but in the latter part of the period it falls back to 27% (fig 2).

Although many sites are simply designated as "Mid Archaic" on the site form and the specific components remain to be ascertained, it is apparent, as previously mentioned, that there are many more sites of this period than of any preceding period and many more artifacts were produced. The implication is that there was a larger population. This was also apparently at a time of readjustment to environmental change. Although there is no perfect agreement among scholars at this time and much more work is required in the field of environmental reconstruction, it is generally agreed that much of the period from 8000 - 5000 B.P. was definitely hotter and drier than the bracketing periods. It is within these millennia that shellfish exploitation reaches its peak with such notable sites as Eva in West Central Tennessee. Shellfish were thought to be much more available during this period (known as the altithermal or hypsithermal) because of lower water levels.

As has already been shown, the major streams became the preferred settlement areas (even more so than in preceding periods). Apparently at least in part because with the prevailing xeric conditions, food resources were more restricted in their range to low areas which retained more moisture.

There are more indications of stability during this period with storage pits and possible houses becoming much more common (Bense 1987:15) (Rafferty et. al. 1980:285) (Otinger et. al. 1982:214), and burials are seen for the first time.

According to Bense (1987:14), there was a change at this time from a series of relatively homogenous small encampments at many locations, to large base camps with small satellite camps, with base camps in the Tombigbee drainage situated in or overlooking the flood plain. This change was initiated with the "Eva-Morrow Mountain - Vaughan -

Demopolis horizon" (8000 - 7500 B.P. by Benton times these sites are thought to have become year round or semi-permanent base camps (Bense 1987:24). The latter part of the Mid Archaic (or Sykes - White Springs - Benton) seems to have seen an intensification of cultural activity. According to Bense, at It-576, the deposit was distinctly different, with dense, black midden, heavily concentrated deposits of charcoal and hickory nut shell, lithics and fired clay. this situation, together with the presence of burials and other factors was interpreted as representing a long term, multi-purpose base camp (Bense 1987:53). This intensification of activity is characterized thusly. "The swiftness and degree of adaptive change in the Middle Archaic period is the most dramatic recorded in the prehistoric period (1987:379)."

From the Sykes - White Springs - Benton time level, Mid Archaic groups in the area are thought to have been involved in a "logistic mobility pattern (Bense 1987:236). This arrangement is distinguished from the earlier "residential mobility patten" (ibid.) by the presence of base camps where the activities of a total group, perhaps occupying the site year round, are represented. This pattern also includes residential camps (occupied for only a short time, and/or extraction camps.

Evan Peacock (1988:20) proposes a settlement model for the Benton phase with spring and summer occupation at temporary campsites and special purpose sites: late summer and fall would have been spent at secondary and major base camps and winter at the major base camps.

Concerning subsistence resources, perhaps the most obvious change from earlier times from a regional perspective is the abundance of shellfish remains in the Mid-Archaic, where shell middens are known for the first time. Although this development is most notable along the Tennessee River, the Vaughan Mound situated near the Tombigbee River yielded considerable mussel shell in the Mid Archaic strata.

For some unknown reason, shellfish remains are scarce in northeast Mississippi Middle Archaic deposits, Vaughan being an exception. Their presence at that site demonstrates that they were probably available locally and their virtual absence from other sites could possibly be due to adverse soil conditions. a survey of Lowndes County during 1976-77 revealed a site distribution pattern which suggested not only hunting and gathering but considerable dependence on fish and shellfish (Brookes and Connaway N.D.:167).

Faunal material in this period is generally scarce in the area with few precisely identifiable remains. In site 22-It-576 the Poplar site, which was the object of a major excavation, the faunal material was mostly calcined and charred bone fragments, but from the late Middle Archaic deposits turtle, fish, squirrel, snake, fish, bird, deer and unidentified mammal bone was recovered with the mammal bone comprising over 90% of the material (Bense 1982:296 and 301). Another sizable excavation at the W.C. Mann site (22-Ts-565, revealed no bone and the

writers suggest that the numbers of projectile points indicate deer killing and butchering nearby with none of the bone discarded on the Mann site itself (Dye and Watrin 1982:9-1). At the East Aberdeen site (22-Mo-819) turtle, deer, rabbit and opossum are reported for the Benton Component (Rafferty et. al. 1980:286). Moore's Creek (22-Al-521), yielded only one shell fragment which together with one fossil shell, constituted the entire faunal collection (Weinstein 1981:4-70); although Weinstein concluded from analysis of the tool kit that hunting was heavily emphasized (Weinstein 1981:5-5). Faunal material at the Vaughan Mound was relatively more abundant, with deer, raccoon, opossum, rabbit, squirrel, beaver, bird, (including turkey), turtle, and fish (including drum) reported in presumably Mid Archaic deposits (Atkinson 1974:143).

Floral remains are much more abundantly represented with nut processing considered the primary activity in the Benton component at East Aberdeen (Rafferty et. al. 1980). Dye and Watrin believe that plant foods were emphasized at the W. C. Mann site (22-Ts-565) with a late summer or fall occupation suggested (1982:9-7, 9-9). At the Brinkley Midden (22-Ts-729), hickory nuts, walnuts and acorns were found, suggesting an occupation in fall and winter (Otinger et. al. 1982:218). It is strongly suggested that hickory nut shells were used largely for heat. The midden mounds investigated by Bense yielded large quantities of floral remains, primarily in late Mid Archaic levels. The Poplar site 22-It-576, had a great density of charcoal and hickory nut shells (Bense 1987:53), as well as acorn, yellow star, grass seed, pokeweed seed, and fruit skin (Bense 1987:219). At the Walnut site (22-It-539, grape, hickory nut, persimmon pokeweed, hackberry and walnut were recovered (Bense 1987:223). Hickory nut shells were recovered at the Moore's Creek site (Weinstein 1981:4-70).

Apparently subsistence at this time involved exploiting a broad spectrum of flora and fauna as hunting and gathering continued to be practiced. At this point, however, it is premature to speculate on the relative importance of the various available resources or to be too certain about how the distribution of resources influenced settlement.

As previously stated, it seems likely that with the onset of the Altithermal, the scarcity of water forced a retrenchment into flood plains of the larger streams. Beyond this apparent trend there is very little said concerning site distribution correlating with resource distributions. Blakeman (1975:99) reports a series of sites along the ecotone between the Black Prairie and the Tombigbee Hills. He says they were seasonally occupied hunting camps and were occupied for several millennia between Early Archaic and protohistoric times. He thinks an abundance of game along this ecotone is responsible for the settlement pattern. Weinstein (1981:525) reporting on the Moore's Creek site (22-Al-521) thinks that there was relatively more hunting there than at the Eva site or the Mann site (22-Ts-565). This determination is based on the

predominance of projectile points (81:5:25) not on faunal remains since no faunal remains survive (81:4-68). Moore's Creek is considered an upland environment and demonstrates that the uplands were not completely depopulated because of the climate change.

Exchange Systems

The latter portion of the Middle Archaic is most noticeable in northeast Mississippi by the abundance of blue-gray Fort Payne Chert in late Middle Archaic tool complexes. This material, initially seen with Clovis points in the area, is generally the majority lithic raw material of Benton components. Blue-Gray Fort Payne chert and other chert which probably also originates in the Tennessee Valley area comprise the majority of flaked biface raw material with this culture all across north Mississippi into the Yazoo Basin. This represents an unusual degree of adherence to one specific material type.

Since the primary sources of blue-gray Fort Payne Chert are outside of northeast Mississippi, the question arises as to the implication of this use of a foreign material for the understanding of settlement patterns. Considerable effort was expended by the Midden Mound Project in attempting to solve this problem (Bense 1987). It was concluded that immigration by outside groups and socio/political changes did not account for the phenomenon since change in lithic raw material was the only basic change observable and continuity seemed to be demonstrated (Bense 1987:398). The hypothesis that sediment covering locally available gravel bars accounted for the radical increase in the material was not supported since exposed deposits remained available at the valley margins (Bense 1987:397).

Johnson and Brookes (1988:53) taking note of the presumed ceremonial bifaces which occur over most of the territory where blue-gray Fort Payne Chert Bentons are found, hypothesize the existence of a parallel sacred and secular exchange system which functioned to maintain trade network which are needed to insure the movement of subsistence items in periods of resource fluctuation. Need for such a system supposedly intensifies as population grows and sedentism increases. This seems to be the case with the Benton culture in the Tombigbee area (Bense 1987:402).

Ritual exchange seems to have occurred over a much wider area than northeast Mississippi in Middle Archaic times. Benton and Elk River points of blue-gray Fort Payne Chert and a triple grooved axe of ferruginous sandstone were recovered at the Denton site (220-Qu-522) in Quitman County in the Yazoo Basin to the west. These artifacts, much more at home in northeast Mississippi, are apparently coeval with the numerous zoomorphic effigy beads from Denton (Connaway 1977:96). The Zoomorphic bead forms are a rare item apparently confined to the Middle Archaic period. Several have been found in northeast Mississippi

and one of an unusual variety was recovered from one of the midden mounds (2-It-539) although this bead was thought to be associated with Eva-Morrow Mountain remains (Bense 1987:402).

The only evidence for manufacture of the effigy bead forms comes from southwest Mississippi (Connaway 1981). Although it is premature to conclude that they were all made there none have been found elsewhere that are not finished. This area would thus appear to have been involved in exchange with both northwest and northeast Mississippi.

There were also trade connections with east central Mississippi during Benton times. The Toby Thornhill site (22-Ld-521), large Tallahatta Quartzite workshop which produced several hundred Middle Archaic points also yielded several Benton points of blue-gray Fort Payne chert. Quartzite points from the east central Mississippi area are often included in the Benton caches in northeast Mississippi.

The known surviving evidence of exchange in the Middle Archaic is all of imperishable lithic material. It would appear likely that much more was involved in these transactions than can be ascertained at present. Food no doubt changed hands and perhaps objects such as basketry, skins, and wooden craft items.

Issues of Relevance to Further Research

The topics discussed above: chronology, settlement and subsistence patterns and exchange systems all have major unanswered questions. All questions developed below beg for additional survey to increase the size of the inventory of sites, particularly in the more poorly represented Pontotoc Ridge and Flatwoods physiographic regions. It should go without saying but seems to need emphasizing that survey should include conscientious efforts to locate and record private collections since entire components' surface representations are often in collector's cigar boxes. This is a major problem for pre ceramic cultures.

Concerning chronology, as in other historical contexts, there is a need for both more single component sites and more undisturbed multi-component stratified sites. The single component sites should contribute considerably to defining the total complexes accompanying diagnostic bifaces and the stratified sites will be required to work out the chronological sequence which is not yet as defined as that of the preceding Early Archaic period.

The trends indicated in figures one and two pertain almost exclusively to the Black Prairie and Tombigbee Hills physiographic regions and within those contexts may not be representative because of the unsystematic nature of the survey. Again, as with the Paleo-Indian-Early Archaic context, the Tennessee-Tombigbee waterway project has accounted for the bulk of the data and archaeology consequently had to

be confirmed to the construction areas. Future survey in the region should attempt to verify the trends suggested in figures one and two.

As indicated in the section on settlement and subsistence patterns, there are differing theories on base camps or whether there were year round base camps. A site or series of sites including possible base camps with good faunal preservations would contribute to the resolution of this question and also yield data on diet and food preservation. The faunal material recovered in Middle Archaic sites in northeast Mississippi has been minimal to none existent.

Bearing on the question of sedentism or degree of sedentism as the question of the "large basin shaped features" found in the Brinkley site, 22-It-729. While these are thought by some to be house remains, possibly heated by nut hulls, this remains to be proven. There is also the question, if they are house patterns, of their geographic distribution, and if they are houses, were there houses of other types in the area in this period?

The assumption that the Altithermal period was an influence on the areas settlement pattern should be tested. The Moore's Creek site (Weinstein 1981:1-1) seems to contradict assumptions made previously concerning the concentration of Middle Archaic groups in the larger alluvial valleys.

Perhaps the most interesting question regarding the exchange networks is that of what left our study area in exchange for exotic chert. As it may well been perishable material this may be a difficult problem to solve.

Another major need in understanding the Middle Archaic is to obtain an adequate sample of human remains for osteological analysis. To date very few have been found and most of those were fragmentary or in poor condition.

South Mississippi

While it is considered that ultimately with the accumulation of sufficient data, most historical contexts will be best understood in terms of the various physiographic regions, that situation has not yet developed for much of the state. This context includes all of the Coast Pine Meadow, the Longleaf Pine Belt, the Jackson Prairie and the Loess Hills from the Yazoo-Holmes County line south to the state line. The consolidation of these specific geographical units has been determined by technological differences which seem to this writer to draw a contrast between this part of the state and regions to the north. These technological differences will be discussed later in the section on settlement and subsistence.

There has been no field work in this area which made more than a minimal contribution to our understanding of the Middle Archaic. There have been few large scale investigations published. Brooks and Inmon

(1973) performed a survey of Claiborne County, primarily, an informant based survey which attempted to locate as many sites as possible within the three month allotted period. This work followed an intensive survey of a 2200 acre nuclear power plant facility site. The total effort resulted in the location of sixty-three sites. Padgett and Heisler (1979) performed a "predictive model survey" of a portion of the Leaf River watershed, including transects in Covington and Forrest counties, forty-six sites were recorded. Penman (1974) performed surveys of various Soil Conservation Service projects over the state, including work in Copiah, Lincoln, Simpson and Covington counties and in the process recorded nineteen sites in this region. Brookes (n.d.) lists ninety-four sites recorded in a survey of the Buffalo River watershed in Wilkinson county. Brown (1985) reports on his study of ten sites in Adams and Jefferson counties. Hyatt (1982) reporting on a highway right of way survey lists forty-four sites in Adams and Franklin counties. Survey in the Tallahalla Creek area in Jasper County by Tesar (1974), Blakeman (1975) and Atkinson and Elliott (1979) added a total of thirty-one sites to the inventory. DeLeon performing a 27% sample survey of 13,454 acres of Camp Shelby recorded thirty-four sites in Perry county, and Newell Wright (1981) reports eight sites from the Leaf River in Perry county. The net result of this work is a total of 3151 recorded sites in the region. A file survey of information on the site cards, together with drawings, photographs etc. has revealed a total of 239 known Middle Archaic sites in the study area.

Chronology

The basis of the above cited statistics on Middle Archaic sites is primarily that of the chronology listed on the site cards. In many cases there are no other data available and the forms usually do not list projectile point types. Many cards list the occurrence of "broad-stemmed" points and this term is not defined. There is a common but unverified assumption that "broad-stemmed" points are indicative of the Middle Archaic. This is also a working assumption of this writer. The typology of these broad-stemmed specimens is more difficult to deal with than that of earlier periods. Some specimens such as O'Possum Bayou (Connaway 1978) or Denton (Connaway 1978) can fit into existing typology. Others closely resemble but do not completely conform to the type descriptions of Sykes (Lewis and Kneberg 1941:40) or Wacissa (Neill 1963:99). Most cannot or have not been classified. Of a sample of sixty-eight presumed Middle Archaic points from South Mississippi which were photocopied from private collections, the stem widths ranged from 17-45 mm and averaged 28 mm (MDAH Historic Preservation Division Archaeological County files).

Several of the diagnostics for the Middle Archaic in North Mississippi seem to be missing in the South Mississippi area. there appears to be no

Cypress Creek, Morrow Mountain or Eva points, all diagnostics of the earlier portion of the Middle Archaic. The "broad-stemmed" forms would seem to be more closely related to types of the late Middle Archaic such as Benton, Denton, O'Possum Bayou, Sykes etc. The best candidates for early Middle Archaic at present would seem to be those specimens labeled St. Helena and "Kirk like". These types seem to be essentially restricted to South Mississippi and the adjacent Florida parishes of Louisiana (east of the Mississippi River and north of Lake Pontchartrain). A heavily serrated type named "Kirk" by Gagliano (1967) is currently represented by 123 specimens from Mississippi and is recorded from 27 known Mississippi sites (fig 1). See also Brookes (1974) and McGahey (1974). The other type, a multiple notched form has been named St. Helena by Gagliano (1980). It is represented by 51 specimens from 14 known sites in Mississippi (fig. 2). Both types are basically large, heavy, broad-stemmed, points which exhibit a generally Middle Archaic technology. Hafting area variations in both types suggest to this writer that considerable time depth may be involved. The serrated form is much more like the type Kirk Serrated (Coe 1964:74) than any named type. It differs primarily in usually having an apiculate distal end (see Cambron and Hulse 1975:fig.31) and in having a different geographical distribution. Kirk serrated points occasionally occur in northeast Mississippi, have not been found in central Mississippi and the form described by Gagliano does not appear on current evidence to exist out of south Mississippi and Louisiana. This type has much in common with the terminal Early Archaic Pine Tree Point (Cambron and Hulse 1975:105). An occasional specimen has a thinned and ground base. Coarse serration are generally gone from the southeastern United States with the end of the Early Archaic period. There are occasional specimens which exhibit the features of both the notched (St. Helena) and the serrated (Kirk-like) forms fig. 3. This, together with a near identical distribution indicates a close relationship between the two types.

Continuing with the notched blade tradition in the area are narrow stemmed distinctly late Archaic points. According to Richard Weinstein (1990 personal communication) these points, currently called Tangipahoa in Louisiana, are like the earlier Middle Archaic points discussed above, apparently confined to the Florida parishes. Identical or closely similar forms are found in Mississippi in the same area as is being defined for this context. The continuation of the blade notching tradition into the Late Archaic period adds to the appearance of the cultural cohesiveness of the area as defined.

The best two candidates for an Early Middle Archaic age, St. Helena and "Kirk-like" are relatively rare, posing the same dilemma as for the rest of the state-the question of whether or not much of the state was relatively unoccupied during certain portions of the Middle Archaic period. There does appear to be sufficient variation for considerable time

depth but there are no known stratified sites with Middle Archaic components. The establishment of a sound regional chronology must await their discovery and excavation.

As is the case with north Mississippi, there is a radical change in biface technology with the end of the Early Archaic period. The projectile points are abruptly larger and cruder. There are few if any specimens which cannot be sorted at a glance between Middle and Early Archaic forms. The termination of the Middle Archaic is more difficult to see in the morphology of bifaces but is considered here to be the point where the broad-stemmed earlier forms are replaced by narrow-stemmed, more carefully made forms such as Pontchartrain, Shumla and Evans.

Settlement and Subsistence Patterns

Most of what has been said above was based primarily on the sporadic observation and recording of privately owned artifact collections over a period of many years. There have been few professional investigations which have yielded pertinent material with one major exception: The negative findings of the vast acreages surveyed by the U.S. Forest Service in recent years. Over 40,000 acres have been surveyed in the DeSoto National Forest (unpublished reports on file at U.S.F.S. in Jackson and at M.D.A.H.) Only three Middle Archaic components have come to light. The upland setting of most of the survey is a probable explanation for this sparcity since the overwhelming majority of Middle Archaic sites are in close association with a sizable stream. Lest this be thought to reveal something especially pertinent to Middle Archaic settlement\subsistence patterns, it should be pointed out that surveys in such upland areas in the National Forest seldom yield diagnostics of any period. There are prehistoric cultural remain in these areas and no doubt, some of them are of the period under consideration here. In the absence of diagnostics and undisturbed contexts, which seem to be exceedingly rare or non-existent, however, the assignment of the lithic material which is found there to specific periods is a daunting task. The homogeneity of the raw material is depressing in that it is almost 100% local gravel chert. There are general exotic lithic preferences per time period in north Mississippi, for instance fort Payne chert in early Paleo-Indian and Benton Middle Archaic components or Novaculite in Late Archaic Poverty Point but such possibilities in south Mississippi are relatively scarce.

As is state above, most of the diagnostic yielding sites of the Middle Archaic period are closely associated with large streams (defined here as a stream which is named on the U.S.G.S.1:500,000 scale map of Mississippi, edition of 1972). These sites are either on the terraces overlooking the floodplains or are on high spots in the flood plain. Seventy-four per cent are on large streams as defined above. This is approximately the came percentage as for the Paleo-Indian, Early Archaic

components of the area. To the knowledge of the present writer, no floral or faunal remains of the Middle Archaic Period have been identified.

There are notable technological differences between the Middle Archaic complexes of north Mississippi and south Mississippi which probably related to differences between the settlement-subsistence systems of the two areas. The apparent absence of banner stones and ground stone axes from south Mississippi as opposed to their relative abundance in the north Mississippi Middle Archaic is particularly interesting. The notching and heavy serrating of the two previously discussed projectile point types in south Mississippi and the near absence of such phenomena in north Mississippi are also interesting. Although five physiographic regions have yielded the "Kirk-like" and St. Helena types, most are from either the Loess Hills or the Longleaf Pine Belt. Of the thirty-nine sites where either or both occur, fifteen are in the Longleaf Pine Belt and sixteen are in the Loess Hills. There are 129 Middle Archaic components recorded in the Longleaf Pine Belt as opposed to 75 for the Loess Hills. Considering the relative size of that part of the Loess Hills within our study area as opposed to the rest of south Mississippi, these figures suggest much greater density of Middle Archaic sites in the Loess Hills than for the rest of the area. The area encompassed by the Loess Hills is only ca. 1/3 to 1/4 the size of the total area under consideration. A recent pipeline survey which crossed Claiborne, Copiah, Simpson, Smith and about 7/8 of Jasper County yielded 83 prehistoric sites. Thirty-four of these were in the Loess Hills which comprised only about 16% of the total mileage of the pipeline. (Confidential report cannot site) Few of the sites yielded diagnostics but may well reflect a general preference for the Loess Hills over thousands of years. France et. al. (1992:38) have encountered a similar trend in north Mississippi in a project which encompasses thousands of acres in the Loess Hills and in the North Central Hills. They cite as a probable explanation the fact that the Loess Hills was a more productive environment in terms of deer food (France et. al. 1992:5).

Most of the sites which have yielded the Kirk-like and St. Helena types have produced from one to three specimens of one or both types. Six sites have yielded both and two sites have produced relatively large collections of these types. Sit 22-Li-508 has produced thirteen St. Helena and one of the serrated "Kirk-like" form. 22-Ad-563 has produced forty-four "Kirk-like" serrated specimens and one St. Helena. Many from each site show heavy use and breakage. this is especially noteworthy on the St. Helena specimens from 22-Li-508 where none are complete and all have seen heavy use or loss of the distal end of the point.

Heavy use of the distal ends of projectile points seems to be common or prevalent over much of Mississippi during the Middle Archaic period. Of the ninety-six specimens of Denton points analyzed from the Denton

Site (22-Qu-522) in the Yazoo Basin, two thirds have distal ends which are broad or obtuse and smooth to this end was common (Connaway 1978:24). Many south Mississippi sites have this general type of use wear. Twenty of thirty Middle Archaic points from site 22-Cp-521 exhibit this general pattern (see fig.4 for examples from two sites). Specimens H and I approach the "Screwdriver tip" morphology of the St. Helena point. At ends exhibit a wide variety of macroscopically visible signs of dulling or other abuse including at least one "screwdriver tip"(fig.4A). These alterations to large and heavy bifaces underscores the already striking differences between Middle Archaic biface technology and the biface technologies of bracketing periods. While there were frequent alterations of Early and Late Archaic bifaces into end scrapers, wedges etc., most are easily believable as projectile points designed to pierce game animals. That is decidedly not the case with most Middle Archaic bifaces from south Mississippi. It seems reasonable to ask if projectile points of this period were actually made of wood, bone, or antler and the little bifaces used primarily as chisels wedges, knives or some other function in processing shell, bone, antler or wood.

Exchange Systems

There is far less evidence of trade in south Mississippi than for the rest of the state. The most frequently occurring "exotic" material is Tallahatta quartzite, which occurs in massive deposits in east-central Mississippi and in south Alabama. Occasional flakes or artifacts of this material can be found anywhere in Mississippi including the southern counties under consideration here. The predominant distribution of the material within Mississippi would appear to be in the south but it isn't common on sites which are very far removed from the source areas. Most of the trade in Tallahatta quartzite seems to have been in the Middle Archaic period. Two large caches of the material have been found in south Mississippi in the last few years. One cache was of 28 large blanks which were discovered in a field in Simpson county. These artifacts were appropriately sized for the production of Middle Archaic bifaces. Another cache of between twenty and thirty preforms probably for Shumla or Shumla-like Late Archaic points was found at Petal in Forrest County on the Leaf River.

There are sporadic instances of the discovery of large bifaces of exotic material. Two Novaculite Benton points and two of Fort Payne chert have been recorded within the study area. There have been no reported caches of Benton and Turkey tail points such as those documented by Johnson and Brookes, in NE MS, however.

Archaic effigy beads and other zoomorphic representations in stone are rare but are widely spread over the mid-south area in Mississippi, Louisiana, Arkansas and Alabama. Two large lapidary finds from this part of the state are interesting. One is a cache found in Lawrence

County and consisting of the 469 items, apparently constituting a lapidary's stock of material ranging from unworked pebbles to substantially completed effigy forms (Rau 1878:291-298)(Fulton 1898:91-92). Another collection from a site in neighboring Lincoln County totaled 30 completed "Jasper" beads including nine effigy forms (Fulton 1898:93). So far as is known, the Lawrence County cache is the only such cache recorded. Although ordinary stone beads are seen on numerous Middle Archaic sites in an unfinished state, this is the only find where effigy forms are seen in incomplete stages. Strangely, the Denton site, (22-Qu-522) in the Yazoo Basin, which has produced approximately 1/3 of the known inventory of effigy beads, has yielded none which are unfinished but has produced numerous other specimens which are unfinished (Connaway 1977:79-129). It seems possible, based on this limited evidence, that southwest Mississippi, was the point of origin of many if not all of the effigy beads. If they were traded out, however, there is little evidence of trade material returning to the area in exchange for them.

Issue of Relevance to Further Research

The reality of this unit as geographically defined needs to be examined. The northward extent of the notched and serrated projectile points primarily used to define the area seems to be correct. The known southern and western distributions may be effected by the recent geology south of Lake Pontchartrain and the activities of the most recent Mississippi River meander belts to the west (Gagliano 1967:6) or to the south of Mississippi's coastal counties by the rise of sea level to it's present stage, a process which may well have inundated numerous Middle Archaic and earlier sites. In the eastern part of the study area as defined, much of the state is forested and this may well have resulted in a distorted picture of artifact distributions and certainly does product an inadequate picture.

Most of what has been said above was based on the observation of privately owned artifact collections over a period of many years. There have been few professional investigations which yielded Middle Archaic data. The validity of the data presented is therefore questionable. Perhaps the greatest need within this area is for scientific data gathering in the form of large scale survey which includes sufficient sampling of food plains and contiguous terraces of larger streams.

The chronology remains to be worked out. It would appear that the St. Helena and "Kirk-like" serrated points discussed above are the earliest or are among the earliest Middle Archaic types in the area. This has not been demonstrated through stratigraphy or c-14, however. There are numerous other forms which appear on the basis of technological similarity to fall into the Middle Archaic period, later in time than these two types. An urgent need therefore, is for stratified

sites hopefully with sufficient organic material for dating and enough typological diversity for stratigraphic comparison.

Settlement and subsistence patterns have not begun to be worked out. This will require the large scale survey previously discussed. In all probability the question of the absence of the grooved axes and bannerstones for the defined area as opposed to their frequent occurrence to the north, will ultimately be found to be related to subsistence matters as well as the heavily serrated and notched projectile points in the area which are not found to the north.

Finally, as in any relatively unknown area, single component sites are needed in order to reveal the technological inventories of groups previously known only by their projectile points.

North-Central Mississippi

The geographical extent of this context is the North Central Hills and the northern part of the Loess Hills from the Tennessee state line south to the Yazoo-Holmes county line. This is the last of the four historical contexts to be prepared for the Middle Archaic period in Mississippi. As discussed under the other contexts, it has become necessary at this state of our knowledge to combine some of the physiographic regions while keeping the ultimate goal of eventually preparing a context for each of the ten regions. As with other areas in all periods, there is an inadequate amount of information, although some work has been done. The major publication on archaeological work in the area as defined is still in draft form at this writing. Over 65,000 acres in both the North-central Hills and the Loess Hills have been surveyed by the University of Mississippi (France et. al. 1992). Other work in the area has been reported by Broyles and Thorne (1982), Fortune (1985), McGahey (1968), O'Hear and Lehmann (1983), McGahey and Dockery (1992), Mistovich, Cole and Martin (1990), Penman (1977), Conn (1978), and Marshall (1982).

Chronology

Stratigraphic evidence pertaining to this area is non-existent. The same basic chronological sequence is proposed for this area as for Northeast Mississippi. Cypress Creek, Eva, Morrow Mountain, Sykes, White Springs, Benton, Denton and O'Possum Bayou points are present in surface collections and are thought to occur in approximately that order. As was discussed in the section on Northeast Mississippi, some of the specimens of Cypress Creek points from site 22-Ld-521 closely resemble Hardin or Lost Lake points of the terminal Early Archaic era and constitute a rare example of sorting difficulties between Early and Middle Archaic bifaces, which are usually sortable at a glance, with the Middle Archaic material being much more carelessly made, larger and heavier. As with the other contexts, the Middle Archaic is thought to

have ended with the advent of narrow-stemmed points such as Little Bear Creek, Flint Creek, Wade, Kent etc. The time is not precisely defined but is assumed to be ca. 5000 B.P. Further speculation on the chronology of this context would contribute little in the absence of stratigraphy or absolute dates.

Settlement and Subsistence Patterns

Settlement patterns are hard to determine in the absence of diagnostic artifacts, and as with the other Middle Archaic contexts, these are questions about the earlier end of the Middle Archaic sequence. The early Middle Archaic bifaces would seem to be Cypress Creek, Morrow Mountain and Eva. The latter two, in the opinion of the writer, may be entirely absent from much of this context. The Morrow Mountain-like bifaces which occur over much of Mississippi outside of the northeastern counties are thought likely to be preforms for Late Archaic bifaces as was stated in the context on the Yazoo Basin. Eva points occur in the northern part of the area but are relatively rare. Cypress Creek points are present over a wider but poorly defined area. We are thus left with the possibility of a very low population or vast areas which were unpopulated during the Eva-Morrow Mountain era. This appearance may of course be ultimately found to be the result of our lack of understanding of the time range of diagnostic bifaces.

What can be said, based on currently available data, is that the preference for the utilization of major streams which is seen in earlier periods continue through this era as well as with 83.76% of the components being situated in the flood plain or on the terraces of larger streams as previously defined (fig.1). As was true of the south Mississippi context, there seems to be a relatively denser population in the Loess Hills physiographic region when compared with the area to the east. Of the 197 recorded Middle archaic components in this context, forty-six or slightly over 23% are in the Loess Hills area which constitutes considerably less than 20% of the area as defined. The sample of 197 sites is thought to be biased, however. An unbiased sample in the survey by France et al. reveals that 54.5% of the Middle Archaic sites were found in the Loess Hills which constituted only 35.4% of the project area (1992:39). These are some interesting statistics but only 22 Middle Archaic sites were recorded in the course of the survey (ibid.39).

The distributions of Middle Archaic ground stone tools, as was discussed under the south Mississippi context, has interesting regional dimensions that would appear to have some pertinence to settlement/subsistence patterns. Grooved stone axes and bannerstones, which are abundant in the northeastern context are also common in the north-central area. One site (22-Ca-539) has yielded nine grooved axes of limonite in various stages of completion. As was pointed out in the

South Mississippi context, these items are relatively rare or nonexistent in South Mississippi. It would seem that there were some technological functions being fulfilled in the northern part of the state that weren't done in the south.

Exchange Systems

Evidence of trade, exchange, or the long distance procurement of exotics is recognized at present only through the discovery of exotic lithics. there are three main sources of flakable raw material in this context. the most utilized is that of the gravel deposits, mostly in the Loess Hills area. This material, primarily chert with a significant minority of quartzite, underlines the Loess formation and is found in streams cutting through the loess deposits. Tallahatta quartzite from the Tallahatta Formation in East-central Mississippi, was available in heavy concentrations at certain outcrops where it is saw massive quarrying operations largely in the Middle Archaic period (O'Hear and Lehmann 1983), (McGahey and Dockery 1992). In the areas around the outcrops the predominant type of flaked stone on prehistoric sites is this material. The frequency with which it is encountered diminishes with distance from the source area, which extends from the Meridian area into southern Alabama. One cache of large blanks on the material was found in Simpson County several years ago about 50 miles from the nearest known outcrops. These specimens were appropriately sized to yield large, heavy, Middle Archaic bifaces. Many of the caches of late Middle Archaic Benton and turkey-tail points of Fort Payne Chert found in the northeast Mississippi context also contain large bifaces of Tallahatta Quartzite. And as was mentioned under the Northeast Mississippi context, Fort Payne Chert Benton points were found in association with Middle Archaic points of Tallahatta quartzite at the Toby Thornhill site (22-Id-522) in Lauderdale County. This site appears to have functioned largely as a quartzite reduction station where quarry blanks were transformed into later stage bifaces and projectile point/knives. The other major source of flakable stone in the area is Kosciusko Quartzite, a light gray, very fine grained quartzite which occurs in massive outcrops in the north central part of the state with perhaps the greatest available quantities near the town of Kosciusko. Strangely, this material was seldom used during the Middle Archaic Period, being primarily used during the terminal Early Archaic and the Late Woodland-Mississippian era.

The primary sources of raw material imported into the area are Tuscaloosa gravel chert and Fort Payne Chert, both found to the east and north of the area. There are difficulties in sorting Tuscaloosa gravel from Citronelle or pre-loess gravels and in many cases the sources are about equi-distant from sites in north-central Mississippi. Fort Payne Chert, although it has a wide range of color variation, can be more easily

identified. The most commonly recognized variety of Fort Payne, is the blue-gray variety which is thought to originate in north-central Alabama along the Tennessee River. Fort Payne as has already been pointed out in the Northeastern Mississippi context, is the preferred material for the manufacture of Benton points. Caches of ceremonial blades of Fort Payne are seen as evidence of a parallel sacred-secular exchange system which served to maintain vital trade networks (Johnson and Brookes 1988:53).

Fortune (1985:38) reports that Fort Payne usage peaks in the Middle Archaic period in the Sardis Reservoir area which is only 20-30 miles east of the Yazoo Basin. The preference is especially noteworthy with the late Middle Archaic Benton where twenty-five of thirty-nine specimens were of Fort Payne. There are other minorities of exotic material that find their way into this context. Novaculite is occasionally seen in Middle Archaic components but is relatively infrequent, being seen much more often in Late Archaic contexts. One cache of large Benton-like bifaces of Novaculite was recorded, however, in the Loess Hills section of Tallahatchie County. Novaculite Benton-like points have also been recorded with caches from Yalobusha County in the Yalobusha-Skuna drainage of the North-central Hills. One cache contained a Novaculite point 137 mm long which was accompanied by eight preforms of what appears to be heat-treated Tuscaloosa gravel chert. The preforms ranged from 73-89 mm in length and from 49-58 mm in width and seem to be intended for eventual reduction into Sykes points. Another large Novaculite point 104.5 mm long was found nearby and was in the vicinity of three large Sykes-White Springs points of the same supposedly heat treated Tuscaloosa gravel chert. A bi-pointed biface 12" long of Fort Payne Chert is said to have come from the same site. Another large Novaculite Benton-like point is recorded from Enid Reservoir. The combination of Novaculite with Tuscaloosa chert in caches is interesting in that it suggests the possibility of an extension of the exchange system suggested by Brookes and Johnson into the Ouachita Mountains region of Arkansas.

Issues of Relevance to Further Research

The question of chronology remains unsettled and stratified sites are essential if the diagnostic projectile points are to be placed in proper order. Absolute dates are needed to, among other things, resolve the issue of whether certain areas were unpopulated or minimally populated during the earlier part of the Middle Archaic or did certain types persist in the area longer than previously assumed?

Subsistence data for this context are non-existent and sites with floral and faunal assemblages preserved must be located. The tool complexes from Middle Archaic sites in this context (as with the others) are very different from the earlier and later Archaic and must be

indicative of a radical change in the subsistence regime. One striking difference is the almost absence of formal unifacial tools with the end of the Early Archaic. Unifacial end scrapers reappear on certain sites in the late prehistoric era in essentially the same form (although smaller) as the original forms of the Paleoindian-Early Archaic. As previously discussed, the bifaces of this era characteristically exhibit blunt distal ends which in most cases do not seem suitable for use as projectile points.

As with the other contexts, a high priority must be survey. The D.E.C. project survey by France et. al. (1992) is a major contribution which should be followed by other similar projects that seek representative samples of sites over a wide area. Such survey should make a substantial effort to contact collectors and to record the collections of those that can be reasonably provenienced.

References

Atkinson, James R.

1974 Appendix A: Test excavations at the Vaughn Mound site. In **Archaeological Survey and Test Excavations in the Upper-Central Tombigbee River Valley: Aliceville-Columbus Lock and Dam and Impoundment Areas, Alabama and Mississippi**. Ed. by M.D. Rucker, pp. 115-158. Report submitted to the National Park Service by the Department of Anthropology, Mississippi State University.

Atkinson, James R., and Crawford H. Blakeman Jr.

1975 Archaeological Site Survey in the Tallahalla Reservoir, Jasper County, Mississippi: 1975. Report submitted to the National Park Service, Mississippi State University.

Atkinson, James R., and Jack D. Elliott Jr.

1979 A Cultural Resources Survey and Evaluation in the Tallahalla Creek Lake, Jasper County, Mississippi. Report submitted to the U.S. Army Corps of Engineers. Mississippi State University.

Bense, Judith A., ed.

1982 **Archaeological Investigation at Eleven Sites in Monroe and Itawamba Counties, Mississippi Tombigbee River Multi - Resource District**. Draft Report Vol. 4: Excavation. Office of Cultural and Archaeological Research University of West Florida Reports of Investigation No. 3.

1987 **The Midden Mound Project**. Office of Cultural and Archaeological Research University of West Florida Reports of Investigation No. 6.

Blakeman, Crawford, H.

- 1975 **Archaeological Investigations in the Upper-Central Tombigbee Valley: 1974.** Report submitted to the National Park Service by the Department of Anthropology, Mississippi State University.

Brain, Jeffrey P.

- 1971 **The Lower Mississippi Valley in North American Prehistory.** Research conducted under cooperative agreement between The National Park Service, Southeast Region, and the Arkansas Archaeological Survey, Fayetteville.

Brookes, Samuel O.

- 1974 Kirk Like Points. **Mississippi Archaeology** 9(7):7-8.
 1975 More Kirk Like Points. **Mississippi Archaeology** 10(1):11-12.
 1979 **The Hester Site: An Early Occupation in Monroe County, Mississippi. I. A Preliminary Report.** Archaeological Report 5. Mississippi Department of Archives and History, Jackson.
 n.d. Buffalo River Survey-A Preliminary Report. Manuscript on file with the Mississippi Department of Archives and History, Jackson.

Brookes, Samuel O. and Byron Inmon

- 1973 **Archaeological Survey of Claiborne County, Mississippi.** Mississippi Archaeology Survey Report No. 3. Mississippi Department of Archives and History, Jackson.

Brown, Ian W.

- 1985 **Natchez Indian Archaeology: Culture Change and Stability in the Lower Mississippi Valley.** Archaeological Report No. 15. Mississippi Department of Archives and History, Jackson.

Broyles, B.J., R.M. Thorne and H. P. Owens

- 1982 A Cultural Reconnaissance of the four Corps Owned Lakes in Mississippi (Grenada Lake, Enid Lake, Sardis Lake and Arkabutla Lake. Enter for Archaeological Research, The University of Mississippi, University of Mississippi.

Cambron, James W. and David C. Hulse

- 1975 **Handbook of Alabama Archaeology, Part 1 Point Types.** Revised Edition. Alabama Archaeological Society Huntsville, Alabama.

Chapman, Carl H., and Eleanor F. Chapman

- 1964 Indian and Archaeology of Missouri. Missouri Handbook No. 6. University of Missouri Press, Columbia.

Coe, Joffre L.

- 1964 The Formative Cultures of the Carolina Piedmont. Transactions of the American Philosophical Society No. 54, part 55. Philadelphia.

Conn, Thomas L.

- 1978 Archaeological Investigations at 22Ld515, Lauderdale County Northeast Industrial Park, Lauderdale County, Mississippi. Department of Anthropology, Mississippi State University, Mississippi State.

Connaway, John M.

- 1977 **The Denton Site: A Middle Archaic Occupation in the Northern Yazoo Basin.** Archaeological Report No. 4. Mississippi Department of Archives and History, Jackson.
- 1981 **Archaeological Investigations in Mississippi 1969-1977.** Archaeological Report No. 6. Mississippi Department of Archives and History, Jackson.

DeLeon, Mark F.

- 1983 Cultural Resources Survey, Proposed Maneuver area DeSoto National Forest, Perry County, Mississippi. Report prepared by U.S.D.A. Forest Service and submitted to the Mississippi State Historic Preservation Officer, Jackson.

Dye, David H. and Charlotte A. Watrin

- 1985 Phase I and II Archaeological Investigation at the W.C. Mann Site (22Ts565), Tishomingo County, Mississippi. Report submitted the U.S. Army Corps of Engineers, Nashville District by the Department of Anthropology, Memphis State University.

Ensor, H. Blaine

- 1980 **Gainesville lake Area Lithics: Chronology, Technology and use. Volume III of Archaeological Investigation in the Gainesville Lake Area of the Tennessee-Tombigbee Waterway.** Report submitted to the U.S. Army Corps of Engineers, Mobile District by the Office Archaeological Research, University of Alabama. Report of Investigations No. 13.

France, Van, Gay Fortune and Beverly Bastian

- 1992 Cultural Resource Studies in Six Watersheds, Demonstration Erosion Control Project, Yazoo Basin, Mississippi Phase II. Report submitted to U.S. Army Corps of Engineers, Vicksburg District, in Fulfillment of Contract DACW38-87-C-0022 by the Center for Archaeological Research, University of Mississippi.

Fortune, L. G.

1985 The Utilization of Lithic Resources in Sardis Lake, Lafayette County, Mississippi: Further Study of Projectile Points from the Savage Collection. Master's Thesis. Department of Sociology and Anthropology, University of Mississippi.

Fulton, R.B

1898 Prehistoric Jasper Ornaments in Mississippi. Publications of the Mississippi Historical **Society** 1:91-95.

Futato, Eugene M.

1983 Pattern of Lithic Resources Utilization in the Cedar Creek Reservoir Area. **Southeastern Archaeology** 2(2):118-131.

Gagliano, Sherwood M.

1967 Kirk Serrated: An Early Archaic Index Point in Louisiana. **The Florida Anthropologist** 20(1-2):3-9.

1980 Cultural Resources Studies in the Pearl River Mouth Area. Louisiana-Mississippi: Chef Menteur and Rigolets Passes. Hurricane Control Structures Orleans and St. Tammany Parishes, Louisiana. Report submitted to U.S. Corps of Engineers, New Orleans District, Coastal Environments Inc., Baton Rouge Louisiana.

Heartfield, Jean S.

1984 The Dorothy Lowe Cache. **Mississippi Archaeology** 19(2):30-39.

Hyatt, Robert

1982 **Archaeological Investigations along the Relocation of U. S. Routes 84 and 98 Between Washington and Lucedale in Adams and Franklin Counties, Mississippi.** Archaeological Investigations Report No. 4. Mississippi State Highway Department, Jackson.

Johnson, Jay D. and Samuel O. Brookes

1988 Rocks From the Northeast: Archaic Exchange in North Mississippi. **Mississippi Archaeology** 23(2):53-63.

Kwas, Mary L.

1980 Bannerstones as Chronological Markers in the Southeastern United States. Master's Thesis, Department of Anthropology, University of Wisconsin.

Lewis, Thomas M. N., and Madeline Kneberg Lewis

1961 **Eva: An Archaic Site.** University of Tennessee Press, Knoxville.

Marshall, Richard A.

- 1982 **Survey and Excavation Along Archusa Creek.** Archaeological Report No. 11. Mississippi Department of Archives and History, Jackson.

McGahey, Samuel O.

- 1968 An Archaeological Survey of Certain Sites in Sardis Reservoir. Unpublished Master's Thesis, Department of Sociology and Anthropology, University of Mississippi.
- 1974 Projectile Point Type? **Mississippi Archaeology** 9(3):10-11.
- 1975 Prehistoric Mississippi. In **Historic Preservation in Mississippi, a Comprehensive Plan**, ed. by R.J. Bailey and P.M. Lowrey, pp. 11-22. Mississippi Department of Archives and History, Jackson.
- 1984 A Case of Mistaken Identity. **Mississippi Archaeology** 19(2):3-7.

McGahey Samuel O. and David T. Dockery

- 1992 Indian Artifacts of Tallahatta Quartzite From Tallahatta Creek 22Ld645, East-Central Mississippi. **Mississippi Geology** 13(3):37-43.

Mistovich, Tim S., Gloria G. Cole, and Troy O. Martin

- 1990 Historic Properties Survey, Okatibbee Lake, Mississippi. Pan American Consultants, Inc. Tuscaloosa, Alabama.

Morse, Dan F.

- 1969 Introducing Northeast Arkansas Prehistory. **The Arkansas Archaeologist** 10:12-28.

Neill, Wilfred T.

- 1963 Three New Florida Projectile Point Types, Believed Early. **The Florida Anthropologist** 14(4)

O'Hear, John W. and Geoffrey R. Lehmann

- 1983 Tallahatta Quartzite Exploitation in East-Central Mississippi. Paper presented at the 40th Annual Meeting of the Southeastern Archaeological Conference, Columbia, South Carolina.

Otinger, Jeffrey L. Charles M. Hoffman and Robert H. Lafferty III.

- 1982 **The Brinkley Site (22-Ts-729): Archaeological Investigations in the Yellow Creek Watershed, Tishomingo County, Mississippi.** Office of Archaeological Research, University of Alabama, Tuscaloosa.

Padgett, Thomas J. and David M. Heisler

1979 **Predictive Model of Archaeological Site Location in the Central Leaf River Basin, Mississippi.** Mississippi Department of Archives and History, Jackson.

Penman, John T.

1977 **Archaeological Survey in Mississippi 1974-1975.** Archaeological Report No. 2. Mississippi Department of Archives and History, Jackson.

Peacock, Evan

1988 Benton Settlement Pattern in North-Central Mississippi. **Mississippi Archaeology** 23(1):12-33.

Rafferty, Janet E, B. Lea Baker, and Jack D. Elliot Jr.

1980 Archaeological Investigations at the East Aberdeen Site (22Mo819), Tombigbee Multi-resource District, Alabama and Mississippi. Report submitted to the National Park Service.

Rau, Charles

1878 The Stock-in-Trade of An Aboriginal Lapidary. Smithsonian Institution, Annual Report 1877.

Saucier, Roger T.

1971 Quaternary Geology of the Lower Mississippi Valley. Research conducted under cooperative agreement between the National Park Service, Southeast Region, and the Arkansas Archaeological Survey, Fayetteville.

Tesar, Lewis D.

1974 Archaeological Survey of the Tallahalla Area, Jasper County, Mississippi. Report submitted to the National Park Service, Southeast Region.

Thorne, Robert M., Bettye J. Broyles and Jay K. Johnson

1981 Yellow Creek Archaeological Project-Volume 1. Lithic Procurement and Utilization Trajectories: Archaeological Survey and Excavations, Yellow Creek Nuclear Power Plant Site, Tishomingo County, Mississippi Archaeological Research-No. 1, University Mississippi. Tennessee Valley Authority Publication in Anthropology No. 27.

Weinstein, Richard A.

1981 **Archaeological Investigations Along Moore's Creek Alcorn County, Mississippi.** Report submitted to the National Park Service Atlanta, Coastal Environments, Baton Rouge, Louisiana.

1990 Personal communication: Letter to Samuel O. McGahey dated Oct. 31, 1990.

Williams, Stephen and Jeffrey P. Brain

1983 **Excavations at the Lake George Site, Yazoo County, Mississippi: 1958-1960.** Papers of the Peabody Museum of Archaeology and Ethnology, Vol. 74, Harvard University.

Wright, Newell O.

1981 A Preliminary Survey of the Proposed Site of the Leaf River Pulp Mill, Perry County, Mississippi. Archaeological Research Associates, Inc. Report on file at Mississippi Department of Archives and History, Jackson.