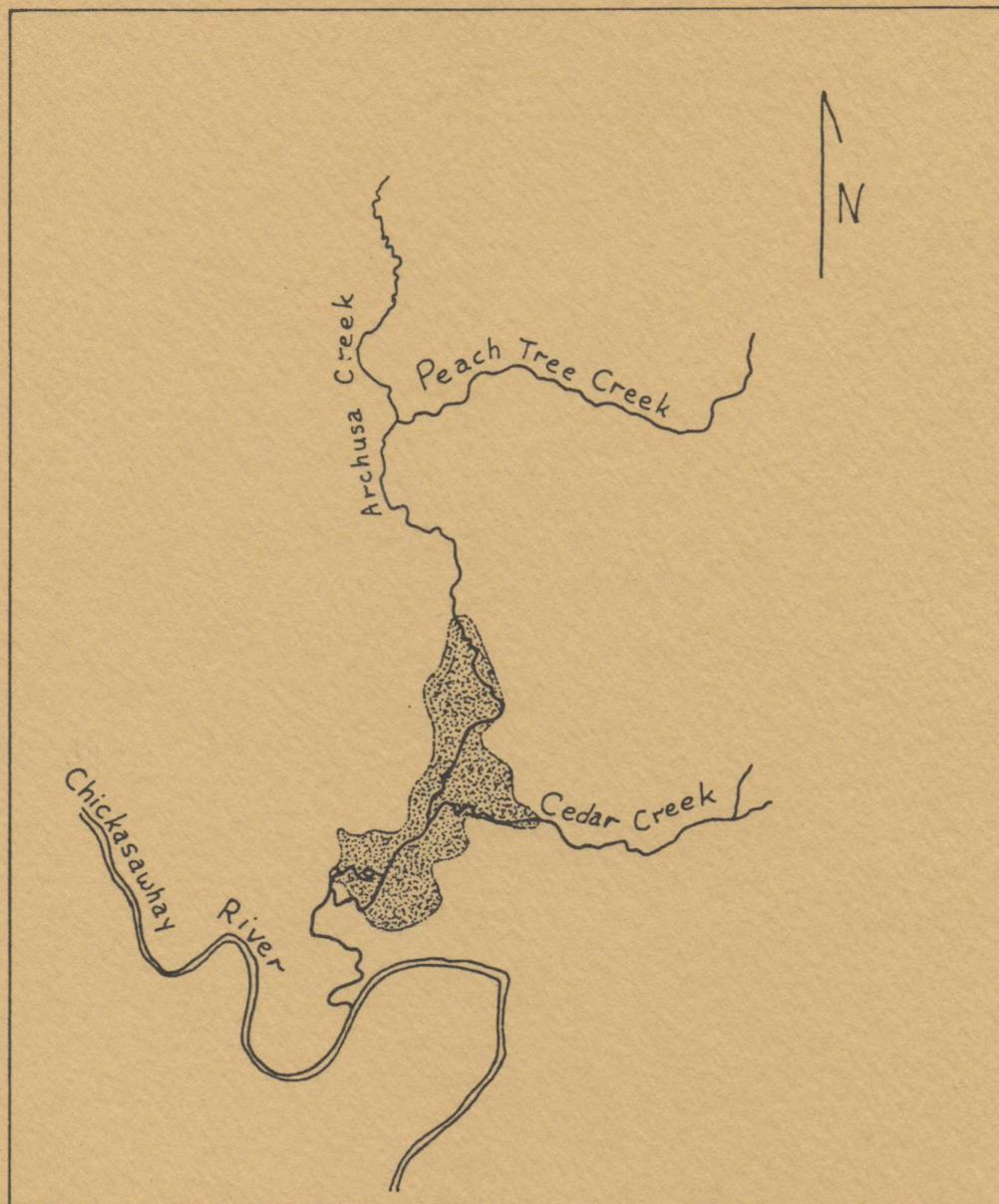


Archaeological Report No. 11

**SURVEY AND EXCAVATION
ALONG ARCHUSA CREEK**

Richard A. Marshall

***Cobb Institute of Archaeology
Mississippi State University***



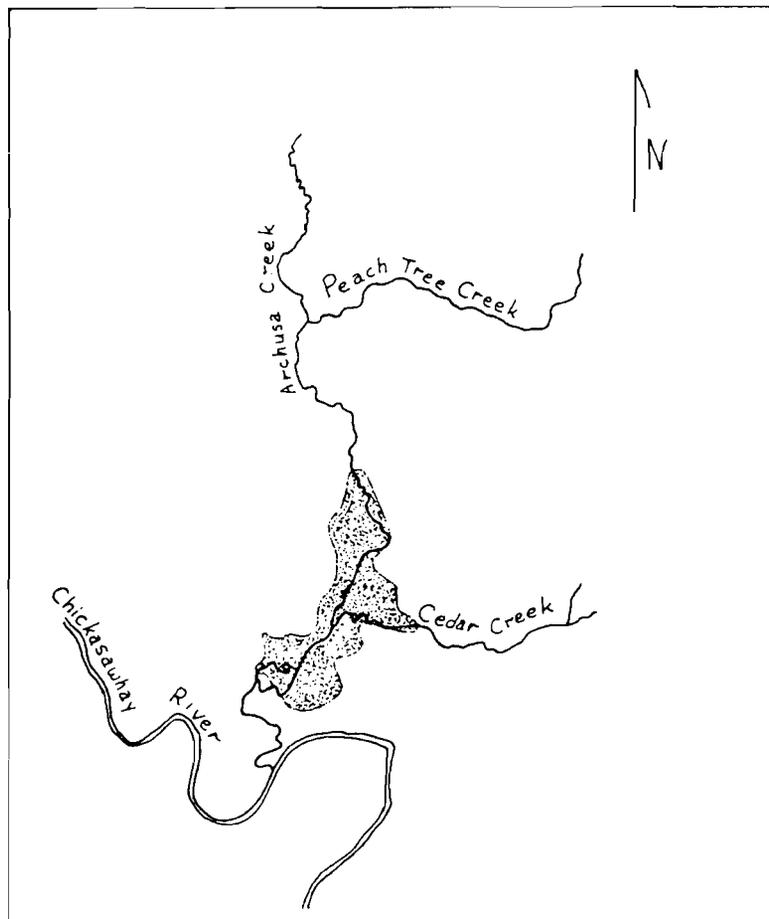
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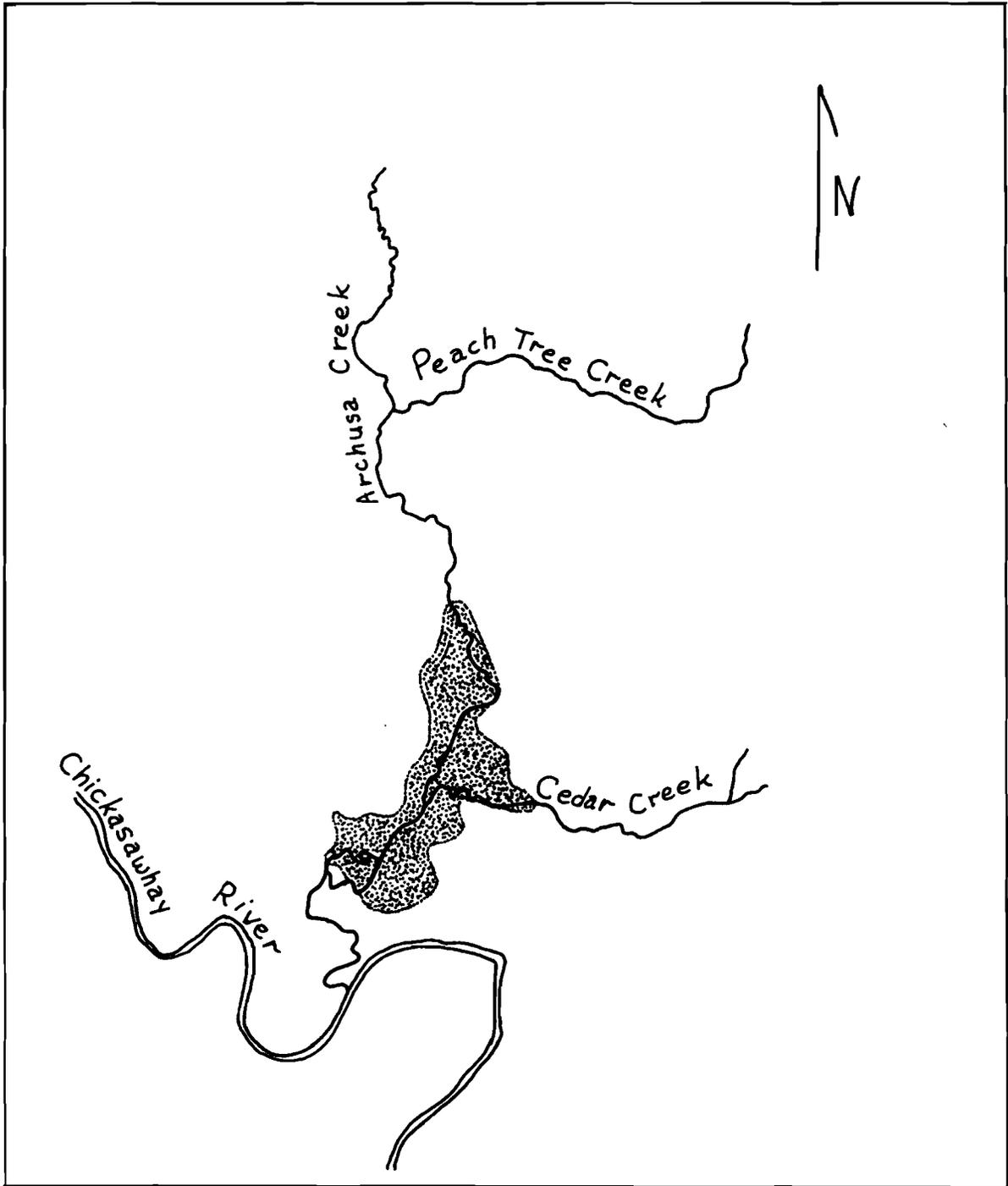
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PREFACE

This report describes thirty sites containing cultural material found in a 1971 survey and excavation along lower Archusa Creek in central Clarke County, Mississippi. Archaeological investigation began shortly before the area was inundated to form a recreational 440-acre lake, the Archusa Creek Water Park. The survey revealed a long and varied prehistoric utilization, with data suggesting extensive use during the Late Archaic and Early Woodland periods and a cultural orientation largely to the Gulf Coast. The single salvage excavation yielded significant data on early ceramic complexes and confirmed some earlier interpretations of area prehistory. As the first survey in recent years of the large area of southeastern Mississippi, in the northern part of which the survey lies, it is hoped that this study will prove a real contribution toward an understanding of the past of that part of the state.

ACKNOWLEDGEMENTS

Victor G. McLendon, Jr., Roger Dean, Tony Payne, Leon Brevard, Robert H. Donald, Jr., Nick Holmes, and the directors, officers, and staff of the Pat Harrison Waterway District assisted in the survey and excavation.

SURVEY AND EXCAVATION
ALONG ARCHUSA CREEK

INTRODUCTION

This report gives a preliminary interpretation of thirty sites and the cultural material recovered from them in a 1971 survey and limited excavation of land along Archusa Creek in central Clarke County, Mississippi, which was soon to be flooded to create a 440-acre recreational lake, the Archusa Creek Water Park. With the exception of the Gulf Coast, southeastern Mississippi had at the time been the subject of almost no archaeological investigation since the 1940s. And, although several studies in that part of the state have been made since the survey and excavation detailed in this report, southeastern Mississippi remains the least explored part of Mississippi. Although the area examined in this study is not situated in the geographic center of southeastern Mississippi, its placement did make it readily accessible to points throughout that region via the waters of the Pascagoula River basin. The survey area therefore may be considered representative or at least strongly indicative of archaeological traits throughout southeastern Mississippi.

Purpose of the Study

In addition to compliance with the state antiquities law, the purpose of the survey and excavation was to delineate the area under study and make collections from sites soon to be flooded or damaged by lake construction. And, although the study accomplished those stated goals, a true picture of prehistoric cultural development in all headwater areas of the Pascagoula watershed remains largely incomplete. Indeed, even a tentative chronological and cultural development scheme for the area must await further investigation.

Other Studies in Southeastern Mississippi

Several surveys were earlier conducted in southeastern Mississippi, but because of their limited scope and objectives they provide but limited source material for present-day students of the area. Collins (1927) reported the locations of historic Choctaws in the Pascagoula basin and described their cultural materials. Chambers and Ford (1941) reported their limited survey undertaken primarily to locate sites in and near Laurel. Shortly after the present study Conaway and McGahey (1971) surveyed the Flint Creek Reservoir near Wiggins, where they discovered some cultural materials and a few sites. Tesar (1974) conducted an assessment survey in the area of the Tallahala Reservoir just north of Laurel. These reports, particularly the more recent ones, along with the present report, offer an initial collection of data that will help to fill the void of archaeological knowledge about southeastern Mississippi, an area shown by the present report to possess considerable time depth and complexity in prehistoric utilizations.

Location of the Survey

Archusa Creek Water Park, a 440-acre recreational lake whose dry bed was the location of the survey area, was constructed in 1971 by the Pat Harrison Waterway District and the Mississippi Game and Fish Commission. Forming the eastern boundary of the town of Quitman, the seat of Clarke County, the lake lies thirty-two miles south of Meridian, the principal city of the area. The reservoir will cover part of the bottom section of the lower Archusa Creek valley and is only a short distance above the creek's confluence with the Chickasawhay River, which along with its basin forms a major tributary system to the Pascagoula River basin (Fig. 1).

Environment

The survey area lies near the center of a thin band of sandy clay hills known as the Upper Coastal Plain (Vanderford 1962:23), the soil of which consists of sands, clays, shale, and some gravel, all of which have contributed heavily though in different ways to the characteristic low fertility of the region. The topography is mature, ranging from steep rolling hillsides to very level stream bottoms. Elevations in the area under study range from less than 200 feet to over 400 feet above mean sea level. The Archusa Creek bottomlands have an average elevation of 200 feet. The profile of the stream valley is more or less the same as for most others in the area, with steep sides and high elevations on the west bank. On the east bank a broad and in some places swampy or heavily dissected terrace gradually sweeps up into the more rolling hills to the east. The broad bottom of Archusa Creek is sandy and shows some ancient terracing. Natural levees have created conditions for oxbow lakes and some back-swamp development. The broad stream bottom furnished more than adequate soils for the growing of crops by prehistoric inhabitants, and the natural levees and remnant terraces afforded well-drained camp and village sites.

The vegetation cover in the area falls largely into the loblolly-shortleaf-pine type (Kelly 1973:16), described more than a hundred years ago (Hilgard 1860:344) as having essentially the same characteristics as the longleaf pine region throughout Mississippi. This pine forest dominates the high ground and hills, while in the broad stream bottoms an oak-gum-cypress forest prevails. This latter type also includes overcup, nuttall, water oak, willow, cottonwood, ash, and elm. These two major forest types along with typical supplementary vegetation provided a potentially rich food source for aboriginal peoples frequenting the area. The forests accommodated a great variety of animals and birds. Large game, namely deer and possibly woodland buffalo (which are known to have existed in adjacent regions in historic times), were plentiful in both the bottomlands and hill country (Kelly 1973:18-19). Of the variety of birds perhaps waterfowl predominated, but land birds, including the passenger pigeon and a number of predators, were also plentiful. The waters of the area teemed with many kinds of fish, turtles, and in places alligators and beavers. All of

this wildlife constituted a potential abundance of food for prehistoric peoples.

Conditions for the Survey

Considerable construction on the lake had occurred prior to the survey and excavation. A dam was under construction at the time of the study, and the entire area had been cleared of buildings, underbrush, and trees in preparation for flooding. Clearing activities had disturbed site surfaces considerably and in some places disturbance was rather deep. Heavy rains occurring since clearing had brought much cultural material to the surface. The relatively clean, sandy soil is eroded easily and often left artifacts washed clean by rains and pedestaled so that they were easily spotted. In some places, however, heavy grass cover had not been removed. Such areas were carefully searched in attempts to find at least minimal evidence of occupation. At site 22-Ck-526, where a portion of a high elevation had been partially leveled, numerous artifacts were found exposed. The abundance of materials in the disturbed portion prompted salvage excavations at the site.

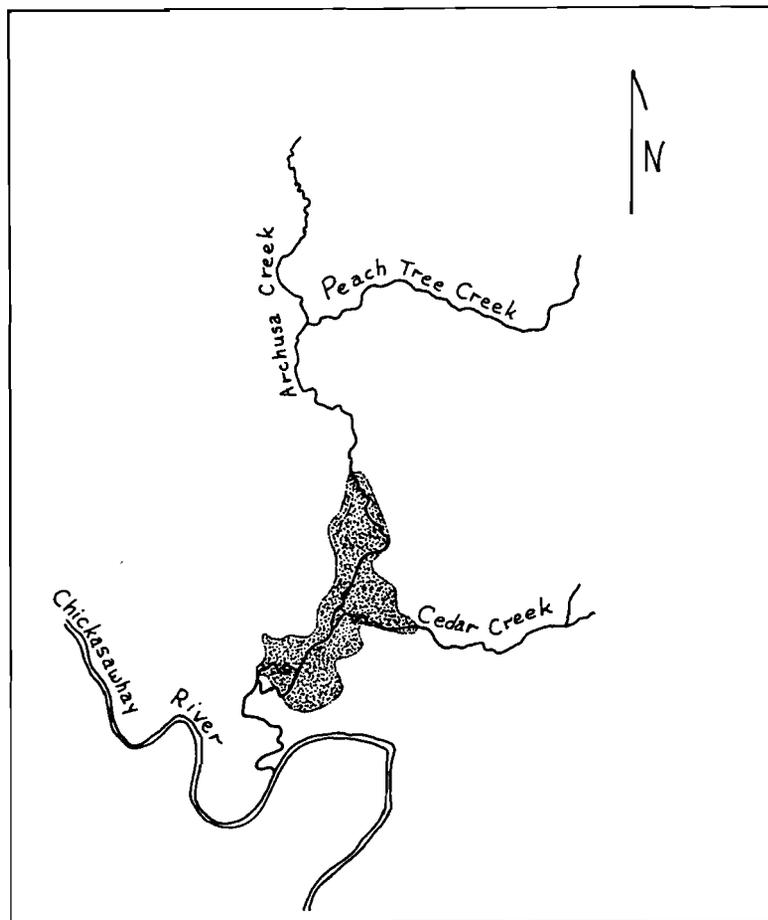


Fig. 1. Map of the Survey Area

SITE DESCRIPTIONS

Thirty sites were located in the survey area (Fig. 1). Each is listed numerically below along with notations of geographic setting and surface condition, a general indication of cultural material contents, and other pertinent data, specific details and enumerations of which follow in succeeding chapters. All measurements are approximate.

Site 22-Ck-503 covers four acres of a gently rolling hillside overlooking the right (facing north) bank of Archusa Creek. The site had earlier been under cultivation but at the time of the survey had a heavy grass cover and was in fairly good condition for study. Along the edge of the bank, part of the site had been disturbed extensively by bulldozing. Moderately large pieces of flint were rather common in places where bulldozing had cut deeply. Pottery was found in the field (away from the creek bank), and flint was found in the field and along the creek bank. The site was to be partially flooded, leaving only some of the upper (east end) edge exposed.

Site 22-Ck-504 is actually a continuation of site 503. Its northwestern portion is located on a gently rolling hillside overlooking the right bank of Archusa Creek, and its northern and northeastern portions overlook the right bank of a small tributary. The site covers four acres. The northern and northwestern portions of the site had earlier been under cultivation but at the time of the survey were overgrown heavily with grass. Bulldozing had deeply disturbed the edge of the site overlooking Archusa Creek, and cultural materials there were rather common. The northeastern part of the site was covered in grass, and although portions had been greatly disturbed by bulldozing, little material was evident.

Site 22-Ck-505, measuring fifty feet in diameter, rests on a small, semi-isolated elevation overlooking a low, swampy area on the northern side of a high terrace just north of dam and spillway construction for the lake. Soil discoloration suggested a mound, but the disturbance from bulldozing was so extensive that this could not be determined. Disturbance was particularly deep near the edge of the terrace. Materials collected came from a small area on the greatly disturbed north face of the site.

Site 22-Ck-506, attached to Quitman Ridge on the left bank and overlooking a small gully, lies north of site 505 and measures one acre. Although cleared by bulldozing, the surface was not greatly disturbed. A very sparse scattering of material was found, primarily on the southeastern end of the terrace.

Site 22-Ck-507, lying due south of site 505 and located on a high terrace east of and adjacent to dam and spillway construction, covers one-and-one-half acres along the eastern side of the terrace overlooking

the left bank of an extinct channel of Archusa Creek. Bulldozing had contributed less to surface disturbance on the top of the terrace than had dam and spillway construction. Prehistoric material was sparsely scattered along the eastern portion of the terrace. A very heavy scattering of late nineteenth-century ceramics covered the top of the site.

Site 22-Ck-508, located due north of dam and spillway construction, had suffered disturbance similar to that at neighboring site 507. A thin scattering of material covered the higher portion of a ridge running north to a break in the ridge on which site 506 is located. Fewer historic ceramics were found at the site than at site 506. Definite site boundaries could not be determined because of the scarcity of material.

Site 22-Ck-509, located on Quitman Ridge and overlooking the right bank of a small gully, had not been greatly disturbed even though it had been cleared by bulldozing. A cabin formerly stood there, and the site was heavily covered with ceramics and metal artifacts dating from the early years of the present century. Prehistoric materials were sparsely scattered along the southeastern edge of the ridge overlooking a swamp to the east.

Site 22-Ck-510, located beyond the left bank of Archusa Creek at the foot of a high hill, had been cleared by bulldozing but the surface had not been greatly disturbed. A dense littering of recent historic materials indicated use of the site as a refuse dump. Prehistoric cultural material was scarce in the lower area (to be flooded) but might be denser in the wooded uphill portion, which could not be surveyed because it had not been cleared.

Site 22-Ck-511 is located on the left bank of Archusa Creek. Clearing activities had not greatly disturbed the surface. Historic material indicates its use as a refuse dump. Very little prehistoric material was present.

Site 22-Ck-512 is in the corner of a field bounded by the right bank of Archusa Creek and a small tributary gully running east-southeast. The site had been cleared of all vegetation by bulldozing and in some places the bulldozer blade had deeply disturbed the surface. Material was lightly scattered over the southwestern portion of the site and was more readily apparent in areas of greatest construction disturbance. Some material that had been pushed over the bank by the bulldozer was found near the creek waterline.

Site 22-Ck-513 is located on a high point overlooking the right bank of Archusa Creek at a point where the bank is cut by the channel of a moderately large tributary flowing east and in the southeastern corner of a field south of site 512. The site had been cleared by bulldozing but the surface was not greatly disturbed. Material was lightly scattered on top of the terrace and along the southern bank of the tributary stream.

Site 22-Ck-514, located south and slightly east of site 513, begins on a small ridge and extends into the channel of a tributary of Archusa Creek. The site had been cleared by bulldozing and was in excellent condition for survey. Cultural material was limited largely to an area twenty-five feet in diameter. Bulldozing had apparently disturbed a large vessel fragment at the site.

Site 22-Ck-515 lies on a prominent terrace overlooking the left bank of Archusa Creek. Over a two-acre portion of the site bulldozing disturbance was deep because of the almost pure sand makeup of the terrace, which contained a considerable amount of material, especially along the bank. Cultural material was less concentrated behind the bank except in places where bulldozing had cut deeply. According to reports, the field in which the site lies had earlier been in cultivation for many years and prehistoric cultural material had been found in it.

Site 22-Ck-516 overlooks the left bank of Archusa Creek from the foot of the eastern side of a high hill directly across the creek from site 504. It had been partly cleared by bulldozing but the surface was not greatly damaged or disturbed. Cultural material was sparse and widely scattered.

Site 22-Ck-517 lies on high ground (that will become an island when the lake is filled) at the confluence of Archusa Creek on the west and Cedar Creek on the south. Cultural material was lightly scattered over the entire area, particularly the flatter portions of the site adjacent to and overlooking Archusa Creek. Where bulldozing had cut deeply material was rather plentiful. No material was found on the east side of the site.

Site 22-Ck-518 covers three acres on a terrace and extends west to the right bank of Archusa Creek and south to the approach to a bridge over the creek. The part of the site nearest the creek had been cleared of vegetation by bulldozing and was in good condition for surveying. Near the bank where a large house once stood the ground was littered with historic material.

Site 22-Ck-519, lying at the foot of a hill on a low, bisected terrace, overlooks the right bank of Archusa Creek. The site had been cleared by bulldozing but had not been greatly disturbed. A sparse scattering of material was found on the two high points of the site.

Site 22-Ck-520 is situated on the left bank of Archusa Creek at the highest point northeast of site 517. The site will rest on an island when the lake is flooded. Covering one acre, the site extends downward to the creek bed. The site had been cleared by bulldozing and was in good condition for surveying. A light scattering of material was found, mostly on the highest part of the site and over the portion extending downward to the creek bed.

Site 22-Ck-521, situated on a high terrace forming the left bank of Archusa Creek, extends downward to the creek. The site had been cleared by bulldozing. Densest at the highest point of the site, material was scattered over an area of less than one acre. A fair amount of material from the first half of the present century was scattered on the site.

Site 22-Ck-522, located on an oxbow of Archusa Creek, is south and slightly east of site 520 and directly across the present creek channel from site 519. The site, covering less than an acre, had been cleared by bulldozing and was in excellent condition for survey. Pre-historic material was lightly scattered near the bank of the extinct creek channel.

Site 22-Ck-523 is on a high point overlooking the right bank of Cedar Creek, across the creek and due south from site 517. The site had been cleared by bulldozing, which had cut deeply into the surface on west and east sides and exposed a fairly heavy concentration of cultural material. Material was sparsely scattered in the higher area between the sides. The site covers an area of less than two acres.

Site 22-Ck-524, located on a second terrace overlooking the right bank and mouth of Cedar Creek at its confluence with Archusa Creek, lies northeast of site 504 and southwest of site 523. The site had been cleared by bulldozing and was in excellent condition for surveying. A light scattering of material was found on the south end of the site and along the bank of Archusa Creek. At the north end, where bulldozing had disturbed a sizeable part of the site and pushed large amounts of soil off the bank, material was rather common.

Site 22-Ck-525 is actually not a conventional site but rather a general area along and near Cedar Creek and roughly in the middle of the survey area containing a thin, discontinuous scattering of material. Because of its grass cover very little material could be found, but there appeared to be four concentrations. Two were on the left bank of Cedar Creek and two were on the right bank of a tributary. A few scattered parts of the area had been cleared by bulldozing, but no serious disturbance of soil or the heavy grass cover had occurred. Had clearing been consistent throughout the site, more material might have been found, and the areas of material concentration possibly could have been defined as specific, individual sites.

Site 22-Ck-526 is situated on an elevation on the left bank of a small tributary of Cedar Creek. Bulldozing had cleared the site of cover and had cut rather deeply into the surface of the western slope, where the major concentration was located.

Site 22-Ck-527, located north of site 517, is situated on the right bank of an extinct channel of Archusa Creek. The major concentration of material at the site was nearest the creek, but debris was also scattered east toward higher ground. Sites 517 and 527 might

actually be parts of a large general occupation scattered over a gentle slope. Bulldozing had cleared most of the site but had caused little surface disturbance except on the part nearest the creek bank, which yielded the greatest concentration of material. A few sherds collected at the site suggest that a house once stood in the area. The remains of the structure had possibly been effaced by recent bulldozing.

Site 22-Ck-528, lying northeast of site 519, is situated on and immediately overlooks the right bank of Archusa Creek. Material was found on a small access road traversing the site. Most of the site will remain above water and wooded when the lake is filled.

Site 22-Ck-529, situated on a small knoll extending south along a ridge from a large wooded hill, is northwest of site 528 and across Archusa Creek and northeast of site 520. Cleared by bulldozing, the site was relatively clean of large vegetation but was heavily littered with vegetative debris. A light scattering of material was found in a small area near the top of the knoll and along the back of the ridge.

Site 22-Ck-530, stretching from a knoll down into the Archusa Creek bottom, is situated on the right bank of the creek due east and across the creek from site 520 and due north and across the creek from site 522. Although the site had been partly cleared by bulldozing, it was covered with considerable vegetative debris. Material was found in an area extending along a ridge into a wooded area uphill. A light scattering of material was found over the higher portions of the site.

Site 22-Ck-531 is on the right bank of Peach Tree Creek at its confluence with Archusa Creek. Previously wooded, the site had been thoroughly cleared by bulldozing. Cultural material was widely scattered but most concentrated near the hills along Peach Tree Creek.

Site 22-Ck-532 is located between sites 527 and 528. Quite possibly the uphill side of site 529 and all of site 532 are connected. Although the site had been partly cleared by bulldozing, considerable vegetative debris remaining impeded surveying. A light scattering of material was found on the higher elevations of a ridge extending into the uphill woodlands.

Sites 22-Ck-503, 504, 507, 512, 525, 516, 518, 519, 520, 521, 522, 527, 528, 529, and 532 are all situated on terraces overlooking Archusa Creek. Of these, sites 503, 504, 507, 518, 520, and 527 are located on second terraces that are probably occasionally flooded and that have recently been cut into by the creek. The other sites are situated on first terraces and are probably subject to seasonal or annual flooding. On Cedar Creek, sites 523, 524, 525, and 531 are all situated on low, seasonally flooded first terraces. Site 526, also on Cedar Creek, appears to be situated on a second terrace remnant and is probably only occasionally flooded. Sites 505, 506, 508, 509, 517, 520, and 530 are situated on knolls or isolated, second-terrace rem-

nants set well back from Archusa Creek. Site 526 is similarly situated on Cedar Creek. Site 517, located at the confluence of Cedar and Archusa creeks and on the bank of the latter, is backed up by a high, isolated knoll overlooking Cedar Creek on the east. Sites 510, 511, and 528 are hillside sites, probably never flooded since they are at higher elevations than the second-terrace sites.

While the surface collections revealed no particularly heavy occupations, they did appear to indicate those sites on which erosion had been greatest, although such an interpretation must be guarded when taking into account the substantial disturbance that had occurred in recent clearing. The abundance of material in the deeper bulldozer cuts, particularly on sites nearest Archusa Creek, possibly suggests that some deposits may have been silted over and buried under natural levees. In the upper end of the survey area the absence of sites on the west bank of Archusa Creek doubtless presents a sampling problem. Some sites probably exist there since the area is rather high on an ancient terrace system well above water level. Visibility was poor, however, since the area was forested. Site 520, on the west bank of Archusa Creek, is on an isolated portion of that terrace. The area south of site 520, on the east bank south of site 531, is low, frequently flooded, and marked with meander scars and oxbows.

PROJECTILE POINTS

Lithics collected from the survey area were substantial and are detailed below and in the chapter immediately following. Artifacts picked up before and after the survey by private collectors are included. Lithics with common characteristics are grouped. When documentation exists in the literature for them, worked stone tools are identified as specimens of types. A type of artifact is supported by a body of literature and documentation which places it within a specific time period with other artifacts of known cultural association. Such an artifact type can thereby be more readily understood and can as well offer a larger body of artifacts than can an artifact category, which is merely a group of artifacts that appear to be approximately alike because they possess common or similar characteristics. No body of literature or documentation supports a category or the specimens comprising it. The usefulness of a category as an interpretive tool is therefore greatly limited compared to the demonstrated usefulness of a type.

The predominant source of raw material for projectile-point manufacture and the production of other lithic tools was a nearby formation of Tallahatta silica-cemented siltstone (Dunning 1964:50). Though not a true orthoquartzite, the stone is referred to as such throughout this report to simplify identification. The name is used also to distinguish that material from the more common local quartzite and the several varieties of chert and flint included in the collection. Another source of raw materials was ridge-top gravel deposits, commonly known as Citronelle gravels, which contain a variety of cherts, ranging from deep red to almost purplish brown and from red-orange and beige to tan. It is not known to the author if more recent alluvial gravel beds derived largely from the Citronelle formation are present in areas immediately adjacent to the survey area or in the nearby Chickasawhay and Leaf rivers. Such alluvial gravels do occur, however, in the basins of both the Tombigbee and Pearl rivers, both less than one hundred miles distant. Other materials, such as Fort Payne chert, which would have come from more distant sources, are mentioned in the descriptions when such materials could be identified. The artifacts made of chert bear the more usual characteristic patterns of flaking and the more commonly encountered and identifiable shapes. The orthoquartzite specimens are roughly flaked, often almost amorphous, and commonly show few or none of the usual patterns of flaking used in tool-type identification. Such is particularly true for the projectile points. Also, the orthoquartzite specimens are commonly heavily weathered, to the extent that some specimens even crumble in the hand. Weathering is often uneven. Surface weathering has even effaced general characteristics on some specimens. These have been placed in unidentified categories.

The collection of projectile points from the survey area is large, including a total of 349 specimens. The predominant material of the points, Tallahatta orthoquartzite, accounts for 89 percent. Citronelle gravels are the material for 10 percent. Other cherts and one possibly quartzite specimen account for the remaining 1 percent.

Points are detailed below. Specimens identified as representative of types are presented chronologically by periods and alphabetically within each period, and include one tentative type, Archusa Stemmed. Most identified points are grouped as stated on the basis of common traits into categories and presented in no particular order. Resemblance to established types is noted, and suggestions of approximate ages are attempted, although anything more than approximate dating for all materials from the survey area must await further study of adjacent areas.

Identified Points

Forty-four point types are represented in the survey collection.

Late Paleo-Early Archaic

Big Sandy (Cambron & Hulse 1969:13; 2 specimens; Plate 1 g, h). Tan, homogeneous orthoquartzite or quartzite. One specimen (Plate 1 g), unlike points illustrated by Cambron and Hulse, has a basal area as its widest point. Kneberg (1956:25) and Bell (1960:8) have illustrated similarly proportioned points. Whether this wider, straight-based variety of Big Sandy has been associated with a specific stage in the development of the type is not known to the author, but the similarities between the specimen and points illustrated by Kneberg clearly warrant inclusion of the specimen in the Big Sandy type. The other Big Sandy specimen is much like those illustrated by Cambron and Hulse.

Colbert Dalton (Cambron & Hulse 1969:31; 2 specimens; Plate 2 k, l). Fort Payne or Lauderdale chert, orthoquartzite. Medium size. Triangular, with alternately beveled blade edges and slightly side-notched, well-thinned bases.

Greenbrier Dalton (Cambron & Hulse 1969:32; 1 specimen; Plate 3 a). Orthoquartzite. Though fragmentary and crudely flaked, the specimen clearly exhibits on its base the long, thinning flake scars characteristic of the type.

Early Archaic

Crawford Creek (Cambron & Hulse 1969:29; DeJarnette, Kurjack, & Cambron 1962:53; 2 specimens, Plate 2 i, j). Orthoquartzite. Corner-notched or flare stemmed.

Hardin (Bell 1960:56; 1 specimen, Plate 4 c). Orthoquartzite. Large. Stemmed.

Kirk Corner-notched (Cambron & Hulse 1969:70; 1 specimen, Plate 4 h). Orthoquartzite. Medium size.

Kirk Stemmed (Broyles 1971:67; 1 specimen, Plate 4 i). Orthoquartzite. Type does not commonly occur in Mississippi.

Lost Lake (Cambron & Hulse 1969:46; 1 specimen, Plate 5 c). Orthoquartzite. Large. Corner or side notched.

Middle Archaic

Abbey (Cambron & Hulse 1969:1; 1 specimen, Plate 1 a). Orthoquartzite.

Appalachian (Cambron & Hulse 1969:1; 2 specimens, Plate 1 b, c). Orthoquartzite. Large. Stemmed.

Benton Stemmed (Cambron & Hulse 1969:11; 11 specimens, Plate 1 d, e). Orthoquartzite. Broad, short stems, slightly concave to slightly convex, and slightly contracting to parallel sided.

Eva I (Lewis & Lewis 1961:40; 1 specimen, Plate 3 i). Orthoquartzite. Large. Triangular, with broad, barbed shoulders and short, wedge-shaped, contracting stem.

Maples (Cambron & Hulse 1969:76; Lewis & Lewis 1961:34, Plate 3 a-e; Ford & Webb 1956:64; 15 specimens, Plate 5 f, g). Orthoquartzite. Medium to large. Broad blades, contracting stems. Points similar to these have been classified as Ledbetter by Lewis and Lewis and as Hale by Ford and Webb.

Pickwick (Cambron & Hulse 1969:94; 5 specimens, Plate 6 c, d). Orthoquartzite. Moderately large.

Late Archaic

Archusa Stemmed (tentative type) (20 specimens, Plate 8 a-m). Orthoquartzite. Medium to large. Relatively narrow, with long, trianguloid blades possessing slightly incurvate to excurvate edges, many exhibiting alternate beveling and fine serrations. Specimens moderately thick, but primary and secondary flaking of above average quality. Shoulders slight to very strong, none barbed. Stems range from very slightly contracting to slightly flaring but are mostly parallel sided. Bases slightly convex. Basal and stem edges on most specimens appear deliberately smoothed. Measurements in centimeters of five representative points are:

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
overall length	3.3	4.3	5.2	5.2	5.0+
width of blade	2.3	2.6	3.3	3.0	3.1
thickness at					
thickest point	0.9	1.0	1.1	1.1	1.1
stem length	1.2	1.5	1.7	1.8	1.7
stem width at base					
of shoulders	1.4	1.8	2.0	1.6	1.7

Resemblance of specimens to one another is very striking. Possibly from the early Late Archaic period, but any attempt to date the points would at present be premature.

Big Creek (Perino 1971:10; Morse 1970:21; Bell 1960:96; 1 specimen, Plate 1 f). Chert. Medium size. Corner notched. Reworked into a scraper. Classification of point was difficult because of its striking similarity to the Williams type (Bell). Big Creek (Marshe) and Bell (Williams) may be widely separated representatives of a single type.

Bulverde (Bell 1960:12; 3 specimens, Plate 1 i, j). Orthoquartzite. Large.

Carrollton (Bell 2958:12; 12 specimens, Plate 2 a, b). Six of orthoquartzite; six of chert.

Elora (Cambron & Hulse 1969:40; 7 specimens, Plate 3 e, f). Orthoquartzite. Medium size. Short, broad, triangular blades; strong to slightly flaring unbarbed shoulders; contracting stems; unfinished bases.

Kent (Ford & Webb 1956:61; 15 specimens, Plate 4 f, g). Orthoquartzite. Stemmed.

Macon (Ford & Webb 1956:54, 61; 26 specimens, Plate 5 d, e). Orthoquartzite, 17, reddish to tan chert, 9. Medium size. Triangular blades; straight stems. Separating some Macon and Kent specimens is difficult and the decision finally to classify these specimens as Macon was actually quite arbitrary. The tendency of some archaeologists to use Macon and Kent classifications as convenient catch-alls for numerous small-stemmed points, however, has throughout this study been conscientiously avoided.

McIntire (Cambron & Hulse 1969:77; 15 specimens, Plate 5 h, i). Orthoquartzite. Medium to large. Corner-notched, stemmed. Specimens differed slightly from Cambron and Hulse's illustration of type points. Stem corners are not as sharp as McIntire, flaring on barbs is more pronounced and stronger, points are longer, and some specimens have stronger shoulders and barbs not as fully developed. Differences are not so great, however, that this classification should be regarded as tentative.

Palmillas (Bell 1960:74; 1 specimen, Plate 5 j, k). Orthoquartzite. Medium size. Wide, parallel-sided blade.

Pedernales (Bell 1958:72; 3 specimens, Plate 6 a, b). Orthoquartzite. Triangular blades; stems contract toward bases. Type not commonly found in Mississippi.

Shumla (Bell 1960:86; 2 specimens, Plate 6 i, j). Orthoquartzite. Wide, flaring, barbed shoulders. Triangular blades; contracting stems. Type not commonly found throughout Mississippi but does occur with some regularity in the southern part of the state.

Late Archaic-Woodland

Cotaco Creek (Cambron & Hulse 1969:27; DeJarnette, Kurjack, & Cambron 1962:53; 5 specimens, Plate 2 g, h). Orthoquartzite. Stemmed. Triangular, straight-edged blades.

Ellis (Bell 1960:32; 11 specimens, Plate 3 c, d). Orthoquartzite, 10, tan chert, 1. Medium size. Corner notched, with slightly expanded, generally slightly convex stems.

Enzor (Bell 1960:34; 5 specimens, Plate 3 g, h). Orthoquartzite, 4; tan chert, 1. Moderately large.

Flint Creek (Cambron & Hulse 1969:44; 2 specimens, Plate 3 j, k). Orthoquartzite 1, reddish chert, 1. Medium size. Weak shoulders; slightly expanding stems. Long, narrow, triangular blades with fine serrations.

Gary (Bell 1958:28; Ford & Webb 1956:52; 34 specimens, Plate 3 1). Orthoquartzite, 31, reddish chert, 2. Most specimens fall into the varieties of Gary described by Ford and Webb. Six are Gary Small, 26 Gary Typical, 2 Gary Long.

Langtry (Bell 1958:38; 13 specimens, Plate 4 j, k). Orthoquartzite. Broad shoulders contract to stems with straight to slightly convex bases. Large number of type found in survey area suggests type may be represented in Mississippi in greater numbers than commonly thought.

Ledbetter (Lewis & Lewis 1961:34, Plate 4; Cambron & Hulse 1969:65; 13 specimens, Plate 5 a, b). Orthoquartzite. Medium to large. These artifacts may well be knives rather than points. Straight to flaring stems, broad shoulders. Greater variation exists among specimens than exists in the samples illustrated for the type description, and the author considered other type classifications for the smaller specimens. Lewis and Lewis, however, allow for a wide range of variability within the Ledbetter type, although their illustrated points are larger than the specimens.

Pontchartrain (Ford & Webb 1956:54; 23 specimens, Plate 6 e, f). Orthoquartzite, 16, chert, 7. Stemmed. Exhibit carefully controlled edge trimming characteristic of type. Several specimens closely resemble Flint Creek points, the ascendant type of Pontchartrain in Tennessee, northern Alabama, and northeastern Mississippi.

Swan Lake (Cambron & Hulse 1969:108; 2 specimens, Plate 7 c, d). Orthoquartzite. Small. Slightly flaring stems; short, triangular blades.

Yarbrough (Bell 1960:98; 8 specimens, Plate 7 g, h). Orthoquartzite. Long, narrow blades; straight, parallel-sided stems. Classification tentative. Specimens appear better made and somewhat longer than Bell's illustrations of type points; and specimens resemble Pontchartrain except that unlike the points of that type specimens possess well-worked, squared stems and bases and comparatively straighter blades.

Early Woodland

Robbins (Perino 1971:82; 4 specimens, Plate 6 g, h). Orthoquartzite. Large. Straight- or parallel-sided; stemmed; slightly convex or rounded bases.

Middle Woodland

Coosa (Cambron & Hulse 1969:23; 2 specimens, Plate 2 e, f). Orthoquartzite. Small. Serration of blade edges resulted in alternate beveling.

Ebenezer (Cambron & Hulse 1969:36; 1 specimen, Plate 3 b). Orthoquartzite. Medium size. Small, short stem; excurvate blade edges; narrow, tapered shoulders.

Snyders (Bell 1958:88; 6 specimens, Plate 7 a, b). Orthoquartzite. Moderately large. Although specimens were recovered outside Bell's originally suggested range for the type, recent data suggest survey area lies within boundaries, although only marginally so, for the type.

Late Woodland

Collins (Brain 1971:62; 3 specimens, Plate 2 c, d). Tan chert 2, orthoquartzite, 1. Closely resemble Scallorn type, but specimens have fewer serrations and have as their distinguishing characteristic widely flaring stems with straight to slightly convex bases, on most specimens almost as wide as if not wider than their shoulders. (Collins points were originally denominated Claiborne [Phillips 1970:268]. They are among the first true arrow points in the Southeast. Cf. Washington points [Cambron & Hulse 1969:111 and this report].)

Jacks Reef Pentagonal (Cambron & Hulse 1969:60; 3 specimens, Plate 4 d, e). Orthoquartzite. Specimens slightly thicker than usual representative of type, probably owing to properties of stone from which they were manufactured.

Scallorn (Bell 1960:84; Brain 1971:62; 2 specimens, Plate 6 k, 1). Orthoquartzite. Small. Specimens distinguishable from Collins points (Brain) by their different stems, which are narrower than their shoulders and expand to terminate in bulbous bases.

Washington (Cambron & Hulse 1969:111; 9 specimens, Plate 7 e, f). Orthoquartzite. Small. Shallow side notches; straight bases; partially serrated, excurvate blade edges. Cf. Collins points (Brain 1971:62).

Mississippian-Historic

Guntersville (Cambron & Hulse 1969:50; 2 specimens, Plate 4 a, b). Tan-yellow chert. Small. Triangular; well flaked for material and size.

Unidentified Point Categories

Points in the thirteen unidentified point categories below cannot be recognized as representatives of types. Points with similar features are grouped in a single category. Each unique point is assigned a separate category.

Category 1 (1 specimen, Plate 7 i). Tan chert. One of the more unusual points collected. Asymmetrical; stemmed. Roughly made though not crudely chipped; lacks secondary chipping along blade edges and suggests attempts at notching. Similar to several point types, specimen bears closest resemblance to Evans (Bell 1958:24), Bulverde (Bell 1960:12), Nolan (Bell 1958:66), Carrollton (Bell 1958:12), and Shumla (Bell 1960:86) points. Probably Late Archaic to Late Woodland.

Category 2 (11 specimens, Plate 7 j, k). Orthoquartzite. Moderately large to large. Long stems, square to slightly flaring. Bases slightly convex to straight with rounded corners. Specimens do not resemble any other large, corner-notched, or stemmed points collected. In overall characteristics specimens appear similar to Williams (Bell 1960:96) points, but specimen stems are more nearly square and less flaring. Specimen stems in some respects resemble those of Bulverde (Bell 1960:12), but are shorter and broader. Specimens in some respects resemble Ellis (Bell 1960:32) points, but overall dimensions of specimens are greater. Similarities exist also with Robbins (Perino 1971:82), Snyders (Bell 1969:11), Hardin (Bell 1960:56), and Benton Stemmed (Cambron & Hulse 1969:11) points, as well as possibly with a few other southeastern types, some of which occur in Mississippi and the others nearby. Age and cultural affiliation undetermined.

Category 3 (1 specimen, Plate 7 l). Orthoquartzite. Square stem with rounded corners; shoulders weak and rounded; blade very long and roughly parallel-sided, terminating in a very thin rounded tip. Though somewhat roughly flaked, considerable careful retouching is evident across tip and along blade edges. Quite possibly specimen was used as

knife rather than point. Although some similarity might be perceived between specimen and several point types (Benton Stemmed, Crawford Creek, and Elk River [Cambron & Hulse 1969:11, 29, 82]), close examination reveals no real association. Age and cultural affiliation undetermined; probably, however, a less-well-known Late Archaic.

Category 4 (3 specimens, Plate 9 a-c). Orthoquartzite. Large. Fragments. Stems short, broad, ground, and concave. Shoulders strong, unbarbed to slightly barbed. Blade edges on one specimen indicate reworking into a scraper; on another specimen broken blade edges appear to have been somewhat long and triangular. Edges on both may have been serrated by collateral trimming. Bases carefully trimmed. Flaking carefully and evenly executed. The somewhat lobed appearance of stems suggests relationship of specimens to Rice Lobed points (Perino 1968:76), and blade edges on one specimen closely resemble an illustrated point of that type (ibid.). A close similarity exists between specimens and Kirk Corner-notched, var. Large (Broyles 1971:65), and Cypress Creek (DeJarnette, Kurjack & Cambron 1962:53). Assuming a temporal relationship between the last two types and the specimens considered here, these artifacts are probably Early Archaic.

Category 5 (1 specimen, Plate 9 d). Orthoquartzite. A proximal-end blade fragment. Wide and rectangular, with short, shallow notches above ends of sides. Notches and base apparently smoothed. Broad, shallow, percussion flaking; limited, careful secondary chipping along blade edges and stem. Base well thinned but not smoothed by careful flaking. Bears detailed resemblance to several point types, especially Godar (Perino 1971:38) and Ocoola (Bell 1958:68). Age and cultural affiliation, however, undetermined.

Category 6 (2 specimens, Plate 9 e, f). Orthoquartzite. Both specimens broken and probably reworked. Blades short and broad, triangular in outline. Short, broad stems, parallel to slightly flaring, produced by notching. Slightly concave bases carefully thinned by removal of several long flakes from each side, producing a somewhat multifluted appearance. Basal edges apparently not smoothed. Broad shoulders at one time fixed with flaring barbs. One blade edge on each specimen incurved; the other is convex and appears to have been reworked unifacially to produce a scraping edge. Overall flaking carefully executed. Specimens have characteristics in common with San Patrice (Bell 1968:84) and Pelican (Perino 1968:66) points, the latter type possessing the characteristic basal multifluting exhibited by the specimens. Proximity of specimens to principal source of Pelican points (Macon Ridge, La.) also argues for relationship between specimens and type. On the basis of dates for the named types, probably Early Archaic or before.

Category 7 (7 specimens, Plate 9 g, h). Orthoquartzite. Moderately large. Broad; with pronounced shoulders, moderately to slightly flaring barbs; trianguloid blade outline. Short stems flare as result of large, open notching at corners of blanks. Bases slightly convex

to straight. Broad, large flaking includes some careful retouching along excurvate edges. Tenuous comparisons may be made between specimens and Motley (Bell 1958:62), Astabula (Bell 1960:4), Williams (Bell 1960:96), and Big Creek (Perino 1971:10) points. If related to named types, Late Archaic to Early Woodland.

Category 8 (2 specimens, Plate 9 i, j). Chert or jasper. Medium size. Shoulders pronounced; blade edges parallel; stems slightly flaring from shoulders in even curve accomplished by large diameter of notching; bases slightly convex. Both broken at midpoint of blade and altered into straight-edged scrapers. Roughly flaked. Specimens possibly related to Mulberry Creek (DeJarnette, Kurjack & Cambron 1962:64) points, or could be examples of a kind of hafted tool or scraper manufactured for a specific use rather than modified points. Age and cultural affiliation undetermined.

Category 9 (1 specimen, Plate 10 a). Orthoquartzite. Medium size. Tip missing. Specimen obviously reworked from a larger point. Refashioning produced broad, flaring shoulders, alternately beveled blade, and a thick dimension. Stem contracts slightly from shoulders and is well trimmed despite thickness. Flaking well executed; basal and stem edges unsmoothed. Specimen quite similar to Vacissa (Bullen 1968:38) and somewhat like Search (Perino 1968:4) points, both of which types date Middle Archaic or before. Based on similarity to types, probably Middle Archaic.

Category 10 (3 specimens, Plate 10 b, c). Orthoquartzite. Large. Heavy; short and broad. Deep cuts resembling side notches give a somewhat corner-notched appearance. Flaring, relatively short stems. Bases convex to almost rounded; rather well thinned but not smoothed. Specimens appear to be related to Lost Lake (Perino 1968:50) points, which are unbeveled and have excurvate edges. Specimens also bear some resemblance to points in categories 7 (above) and 11 (below). On the basis of similarity to Lost Lake type and category 11 points, probably Early to Middle Archaic.

Category 11 (3 specimens, Plate 10 d, e). Orthoquartzite. Moderately large to large. Short blades; shoulders wide and pronounced, barbed and unbarbed. Notches not large but of sufficient size to remove corners of blanks. Bases short and broad, slightly convex to straight, and on two specimens notably well thinned. Broad flaking, ranging from erratic to complete, with considerable secondary retouching where required along excurvate blade edges. Type most closely resembling specimens is Sykes (Lewis & Lewis 1961:40), but specimens are generally shorter than those illustrated for this type. Specimens also similar in some respects to Big Slough (Cambron & Hulse 1969:116), Big Creek (Perino 1971:10), Benton Broad-stemmed (Cambron & Hulse 1969:12), White Spring (Cambron & Hulse 1969:116), and Williams (Bell 1960:96) points. On the basis of similarities to types, probably Middle to Late Archaic.

Category 12 (9 specimens, Plate 10, f, g). Orthoquartzite. Large. Trianguloid blades; marked shoulders, slightly barbed or flaring. Similar to several types, particularly Bulverde (Bell 1960:12), Pogo (Suhm & Jelks 1962:163), Robbins (Perino 1971:82), and Dickson (1968:18). Specimens are generally larger, however, than Bulverde, have straighter edges than Pogo, possess shorter stems than Robbins, and exhibit stems more nearly square than Dickson. Probably Early Archaic to Middle Woodland.

Category 13 (1 specimen, Plate 10 h). Orthoquartzite. Thick stem contracting slightly toward base. Specimen superficially resembles some points in Archusa Stemmed, the tentative type of this report. Closer examination, however, dispels any real likeness. Basal configuration somewhat resembles that of Searcy (Perino 1968:84) points, but unlike this type, the specimen blade is shorter, is not alternately beveled, and is not serrated. Probably Early Archaic.

LITHIC TOOLS

Besides the numerous projectile points treated in the preceding chapter, the survey collection also includes a sizeable number of other bifacial tools (e.g., adzes, hoes, scrapers), flakes and cores, pieces of shaped and battered stone (e.g., mauls, manos, hammerstones), and an assortment of miscellaneous lithics.

Bifacial Tools

Bifaces make up a considerable body of artifacts encompassing a variety of tools bearing names reflective of the uses they are believed to have had. Prehistoric use of a given artifact may or may not have corresponded, of course, to the functional names assigned by present-day students of anthropology. However, the body of ethnographic data compiled on North American Indians in the southeast strongly argues the correctness of much modern nomenclature. In fact, some tools were given the functional names they bear based on early historic observation by Europeans who actually observed the implements in use at the time of their early contacts with Native Americans.

Adzes (5 specimens, Plate 11 g, h). In length 8 to 12 cm. Roughly triangular, the longer edges slightly to boldly curved to the extent that they appear ovate in outline. Long edges are on some specimens somewhat dulled or smoothed and exhibit less careful flaking and finishing than shorter edges. Dulling on some specimens is apparently the product of deliberate wear, perhaps indicating a stage of hafting. Characteristic of shorter sides of specimens is an approximately straight, bitlike edge, flat on one face and thickened or beveled on the other. On most specimens edges show reworking, which produced a clearer delineation of the bevel, on some specimens dulled or polished through use. Opposite ends of specimens range from pointed to slightly rounded and show less careful preparation. Specimens are not heavy enough to have been used as axes.

Drills (3 specimens, Plate 11 i, j). All manufactured from projectile points and fashioned with hafting ends stemmed or notched in much the same manner as those on points. All are broken on bit end, 7 mm to 10 mm in diameter. No attempt has been made to identify the point bases from which the drills were manufactured, and it is undetermined whether drill bits were worked by the same people who made the points. In many other areas where drills were made from points, however, a high correlation has been demonstrated between the two artifacts. Since most points recovered in the survey area are Archaic, it is plausible to suggest a like date for the drills.

Hoes (9 specimens). Large bifacial blades that could as well be classified as preforms, a hypothesized stage in the manufacture of bifacially flaked tools, except that specimens show deliberate fashioning for agrarian purposes and show signs of use in that capacity. Large ovate to trianguloid blades; ovate ends; broad edges dulled or

polished through use in the local sandy loam, since soil wear is capable of polishing the high edges of flake and surface scars. Broader, heavier specimens may have been used as axes.

Knives (2 specimens, Plate 11 d). Resemble adze specimens except that the knives are thinner and more carefully made, the edges having been neatly worked and thinned. Specimens are elongated triangles 9 cm long; recovered from a single site.

Scrapers (5 specimens, Plate 11 f). Stemmed; resemble artifacts formerly known as "hafted scrapers." Two specimens are manufactured from projectile points broken above stems and unifacially flaked to form scraping edges. The other specimens apparently reworked into stemmed scrapers. Stems are biface fragments; unlike point stems, especially in the respect that specimen stems are not as well finished.

Choppers (6 specimens). Large, thick, roughly flaked pieces of raw stone or large bifaces worked from both sides. Some evidence of battering evident on edges of a few specimens. Although specific use(s) of artifacts are unknown, their weight and size would suggest possible employment in rough work, such as chopping, battering, breaking, and crushing. Battered specimens may have served as hammer-stones.

Unidentified bifacial fragments. Numerous. Although neither large enough nor sufficiently distinctive to allow positive identification, many specimens are doubtless pieces of adzes, hoes, choppers, knives, scrapers, and other bifacially flaked tools.

Flakes and Cores

Flakes (Plate 11 k). Very numerous, numbering more than any other artifact recovered. Local orthoquartzite is the material of 97 percent of the specimens, strongly suggesting that this stone was the most available as well as the material of choice in the local lithic industry. One lamellar flake (Plate 11 k) is of Citronelle chert. Because orthoquartzite weathers readily, even primary characteristics on many specimens had been effaced, and uses of many specimens could not be determined. Other flakes apparently were never used. Of the flakes showing use as or alteration into tools, two kinds of utilization are evident. Some were used without modification for cutting and scraping, which left characteristic use-chipped edges. Others were altered, some bifacially, preparatory to use as knives, scrapers, and spokeshaves. One flake was probably used as a form of saw. See comments on flakes passim in succeeding chapters.

Cores (4 specimens). Orthoquartzite. Several small, partly flaked pebbles of Citronelle chert were recovered, but they are more appropriately grouped with the collection of miscellaneous stones discussed at the end of this chapter.

Gunflints

Five gunflints (Plate 11 a, b) were recovered. One is a Dover type (English). Two are a dull gray-tan, the first tentatively identified as Dutch, the second closely resembling Mill Creek (southern Illinois). A single specimen appears to be opalized shell, a material widespread throughout southern Mississippi. The remaining flint is Citronelle chert. The Dover and Dutch flints, while they could have belonged to an Indian occupation, probably date to early European settlements. Both specimens were found at a site occupied extensively at different times by both Indians and mid- to late-nineteenth-century white settlers. The other three specimens are of (possibly late) Indian manufacture.

Shaped and Battered Stone

A wide variety of tool types recovered from the survey area are of stone not normally flaked. Specimens of this class were shaped by pecking or battering or by grinding, accomplished deliberately or incidentally through use.

Hammerstone (7 specimens). Orthoquartzite; Citronelle chert. All battered, although orthoquartzite specimens less so. Orthoquartzite specimens, being of softer and more readily eroded stone than their chert counterparts, were doubtless used less. Two chert specimens are extremely battered through use to the extent that they are almost spheroidal.

Manos (3 specimens), pestles (2 specimens). Vary in material of composition and shape. Mano specimens are of a fine-grained sandstone, the source of which was probably the Tennessee River basin. One pestle is of locally abundant orthoquartzite; the other is of a hard, light gray limestone, a variety found in Mississippi only in a small area in the northeastern corner of the state. Possibly both the limestone and sandstone were procured from a common source. The mano specimens are flat and elliptical, each with two broad, pitted surfaces grown slightly rounded from use. One specimen is apparently an unshaped river cobble. Pestle specimens are more nearly round than mano specimens, are ovoid in outline, and have nearly flat grinding surfaces at ends.

Anvil stones (8 specimens), cupstones (3 specimens). Orthoquartzite; fine-grained and ferruginous sandstones. Anvil stone specimens are square to rectangular, exhibiting pecking or shaping on one or both broad surfaces and salient edges and corners. Broad surfaces rather carelessly pitted by pecking. Pits on some specimens are off center, asymmetrical, shallow, and rather broad. Much pecking on pitted surfaces attributable to wear through use rather than deliberate shaping. Cupstone specimens approximately round or elliptical in outline. Thinner and more carefully constructed than anvil stones; better smoothed, more nearly symmetrical, and deeper.

Abrading stones (34 specimens, Plate 11 e). Specimens include representatives of three varieties, as distinguished by function. The abrading palette is a broad, thin piece of ferruginous sandstone or a well-cemented plate of fine-grained sandstone, the broad surface of which was used for grinding an object usually smaller than the palette by working it on the palette in a rotary motion. The rubbing stone is a small, fine- to large-grained sandstone pebble which was moved over the stationary surface of the object to be ground. In many instances the pieces of the rubbing stone were poorly cemented and gradually disintegrated during use, the shedded granules doing the major cutting on the object being ground much as rotten stone effects polishing. A third (unnamed) variety of abrading stone (Plate 11 e) is made of ferruginous or fine-grained sandstone pieces, the quality of cementing varying. Apparently objects ground on this variety of the tool were all elongated, as variety specimens are all grooved. Grooves measure as much as 2.5 cm in diameter and 1 mm in width, and in shape range from a deep to shallow U to a deep, narrow V. Abrading stones of this variety were commonly used for smoothing shafts and grinding bones. The V-shaped grooves were particularly useful in manufacturing bone awls.

Mauls (1 specimen). A hard variety of orthoquartzite not found locally. Fragment. Specimen might be misclassified since it very closely resembles a limestone pestle that was recovered. Specimen exhibits results of a distinct attempt to peck a groove around its center. Both broad surfaces as well as poll and hammer ends are battered and smoothed through use.

Mortars (1 specimen). A hard variety of orthoquartzite not found locally. Fragment. Several mortar fragments of fine-grained, well-cemented sandstone or quartzite were noted but not collected. (Because of its softness local orthoquartzite was probably rejected as unsatisfactory for mortar construction.)

Bannerstones/atlatl weights (1 specimen, Plate 11 c). Greenstone or green slate. Fragment. Measures 6.2 cm long, 4.8 cm wide, 1.4 cm thick. A hole 1.2 cm in diameter bisecting specimen drilled (probably with a hollow reed) but not reamed. Extending on both sides from drilled median are wings, which taper slightly and thin toward distal ends and rounded corners. An incised groove 0.7 cm wide and 0.3 cm deep encircles circumference of specimen. Groove and hole so weakened the specimen that it broke despite its unusual thickness.

Gorgetts (1 specimen, Plate 12). A fine-grained or banded microcrystalline hematite. Specimen broken; repaired by drilling two pairs of holes for lacing on either side of fracture. Variation in measurements of the two pairs of holes may suggest more than a single repair. Pair of holes nearest specimen edges are the smaller, 0.3 cm in diameter, and broke because they lay too near edges. The other pair, 0.4 cm in diameter, was drilled toward the center of the pieces. Smaller pair is less flared than larger pair. A fifth hole, located near

distal end of bar, measures 0.4 cm in diameter. Specimen edges are approximately squared with the broad surfaces, except for distal-end edge, which is tapered. Thickness at center of piece, near the second fracture, is 0.5 cm; edges are 0.4 cm. Surfaces carefully smoothed but not polished.

Miscellaneous Stone

A large amount of rough stone lay on the surface of survey-area sites. Predominantly pieces of broken orthoquartzite and chunks of ferruginous sandstone, many of the stones had apparently been burned when used in hearths. All of the remaining pieces appear to be products of some other cultural activity. Several pieces of hematite were recovered but only a few bear evidence of having been rubbed to procure pigment. A few pieces of iron carbonate, or limonite, were found, but none shows evidence of much use. Waterworn pebbles recovered consisted mostly of pieces of Citronelle chert. Many such were probably imported for eventual use, although none of the specimens recovered had more than a few flakes removed and were probably rejected as unsatisfactory for flaking. A few pieces of petrified wood recovered were probably imported, since the material is uncommon in or near the survey area. Some pieces appear used, smoothed, or even flaked to form cutting edges. Numerous ferruginous sandstone pieces collected are all large and were probably raw material imported for a variety of uses. None was worked or burned. Taken together, the miscellaneous stone recovered points up the reliance on imported material for the local lithic industry.

CERAMICS

A large number of ceramic artifacts were recovered, including some 345 sherds representing five pottery series. Recognizable clay artifacts, however, were less numerous and, with the noteworthy exception of an intact pipe, of little apparent significance.

Pottery sherds collected are of the Wheeler, Bayou La Batre-Alexander, Tchefuncte, Baytown-Coles Creek, and Mississippian series. Classification of some sherds is problematic and therefore tentative. The author is unfamiliar with Gulf Coast pottery types, and the earlier noted existing paucity of published archaeological data on southeastern Mississippi, including the region's pottery, are real impediments to the present analysis. Specific problems of sherd identification and classification are treated throughout the chapter.

Wheeler Series

The Wheeler series is represented by five sherds (Plate 13 a-c) of fiber-tempered ware. All are the undecorated plain type originally named Bluff Creek Plain (Ford & Quimby 1945). Composed of a fine, chalky paste and riddled with holes that remained when the tempering burned away during firing, specimen colors range from light tan to rich brown and from grays to charcoal black. Unlike Wheeler pottery found north of the survey area in the central Tombigbee basin (Marshall 1970), none of the specimens is sandy or gritty to the touch.

Bayou La Batre-Alexander Series

The Bayou La Batre-Alexander series is a consolidation for the purposes of this study of two traditionally separate sand-tempered series. Sherds of the series account for a major part of all pottery collected. It is difficult to distinguish between types of the series and types from the Mississippi lower coastal plain. For instance, an arbitrary decision must be made when sorting some sherds of Bayou La Batre Plain and O'Neal Plain because the paste of both types is heavily tempered with either angularly fractured or large-grained and water-worn quartz sand. The Alexander types are, however, tempered with fewer angular sand particles and contain more fine to not-so-fine waterworn sand particles. The quantity and relative fineness of sand content thus are distinguishing factors. If the Bayou La Batre sherds used for comparison with collected specimens are typical, a large number of specimens belong to Bayou La Batre.

O'Neal Plain, the undecorated Alexander-paste pottery from the survey area, possesses all characteristics of the type, although specimens are tempered with unusually great quantities of large sand particles. Distribution of the two plain types does not parallel that of other types of the two paste varieties. Many decorated specimens would be classified Bayou La Batre but for their typical Alexander decoration.

Bayou La Batre Types

Bayou La Batre Plain (Wimberly, in Griffin 1953:4; 44 sherds, Plate 13 d-f, i). Two basal portions with wedge- or teat-shaped podal supports (Plate 13 i).

Bayou La Batre Cord-wrapped Dowel-impressed (Wimberly, in Griffin 1953:4; 4 sherds, Plate 13 g, h). Conform in every respect to original type description.

Other similar sherds (6 sherds; Plate 14 e, f). Composed of paste similar to that of Bayou La Batre and exhibit a pinched decorative mode over a plain surface. Pinching on specimens closely resembles that of Tammany Punctated (Phillips 1970) except that pinching on this type is more closely spaced. One specimen decorated with what appears to be a very light cord-wrapped-dowel impression over pinching.

Alexander Types

O'Neal Plain (Haag 1939; 40 sherds, Plate 14 a, b). Conform in every respect to original type description. Two rim specimens possess miniature bosses described as frequently occurring on type (Plate 14 b); a third rim specimen lacks bosses. Two basal portions, one a podal attachment and the other a podal support fragment. Type specimens are generally thinner and contain a finer sand tempering than decorated Alexander specimens.

Alexander Incised (Haag 1939; 5 sherds, Plate 14 g). Tempered with large amounts of large-grained and waterworn sand. All specimens quite small. Incising consists of series of parallel lines accomplished with a square-ended tool, each line 2 mm to 3 mm wide and 1 mm deep. Two specimens exhibit both incising and a single row of pinching, accomplished apparently with a single tool. The larger of the two, from the body of a vessel, exhibits a series of parallel incised lines above and below a single row of pinching. The smaller, from a vessel rim (Plate 14 g), exhibits a single row of pinching just beneath the rim, the point at which the decoration of a row of miniature bosses and several parallel rows of incising is characteristic for most sherds of the type.

Alexander Pinched Punctated (Haag 1939; Phillips 1970:37; 2 sherds, Plate 14 h, i). It is not without some reservation that specimens are classified as examples of the type. Both specimens are small. One exhibits a single punctation (Plate 14 h) together with an impression similar to the parallel-line incising of Alexander Incised (above). Made at a low, oblique angle, the impression was apparently accomplished with a fashioned tool rather than a fingernail. The other specimen is prominently decorated with punctations (Plate 14 i).

Other similar sherds. A number of different specimens are grouped here on the basis of their common Alexander-paste composition.

Decorative modes on specimens are not generally identified with Alexander types, which are usually dated to the Tchula period. Although related to and springing from Alexander types, specimens have characteristics believed to date to the Middle Woodland, Marksville, or later periods.

Six fabric-marked specimens (Plate 14 c, d) could have been classified Saltillo Fabric-impressed (Jennings 1941) but for the fact that they were tempered in the manner of Alexander-paste sherds and lacked the "occasional charcoal and clay pellets" characteristic of Saltillo. At any rate, all sand tempered, fabric-impressed sherds collected probably date to about the same period as Saltillo.

A single rim specimen exhibiting markings perpendicular to the rim resembling fabric impressions may have been impressed with a cord-wrapped dowel.

Three cord-marked specimens (Plate 15 f) appear to be composed of Alexander paste. Specimens might be related to fabric-impressed types described above. Since the three were recovered at different sites they may belong to different complexes.

One specimen appears to have been brushed (Plate 15 g).

Tchefuncte Series

Pottery of the Tchefuncte series accounts for half of the collected sherds. Specimens can readily be divided into two groups on the basis of tempering. One group is tempered with clay, the other with a fine silt and sand. The clay-tempered group is distinguishable from pottery of the Baytown-Coles Creek series, to which it is often compared, by the relatively sparse distribution of clay tempering throughout the general matrix of the sherd. Sherds similar to the present specimens have been found by the author on Tchefuncte sites on the Gulf Coast. Moreover, specimens have been fired to a reddish brown, while clay-tempering pellets are usually fired to a lighter brown or buff tan. Some of the sherds feel slightly sandy but certainly not as sandy as the fine silt- and sand-tempered sherds, a group that cannot be confused with Alexander pottery (above). It is thought by some researchers on the Gulf Coast that sherds with these paste characteristics are Alexander or Tchefuncte with Alexander influences. The author considers them sufficiently different from both types, however, to justify a new name.

Clay-tempered Types

Tchefuncte Plain (Ford & Quimby 1945; 20 sherds, Plate 15 a, d). Specimens fit most closely the original type description. Neither the clay of the sherds themselves nor the clay used as tempering is very sandy. In fact, specimens are barely gritty to the touch. The single podal support (Plate 15 d) is a large, beak-shaped appendage. There are no rim sherds of this description in the collection.

Silt- and Sand-tempered Types

Tchefuncte Plain (Ford & Quimby 1945; 127 sherds, Plate 15 e). The most common pottery type in the survey area, Tchefuncte Plain is characteristically soft and friable and thus badly weathered, as the entire collection of specimens is. No rim sherds are discernible and podal supports are identical to those described for types of the Bayou La Batre-Alexander series (above). Supports are different, however, from the single support described for clay-tempered Tchefuncte Plain (above). Group includes seven podal supports and seven support attachments. Five support attachments and three podal supports came from an unweathered hearth area.

Tammany Pinched (Ford & Quimby 1945) or Tammany Punctated (Phillips 1970; 16 sherds, Plate 15 h). Punctations decorating specimens similar to those described for Alexander Pinched (above), with which this type is coeval.

Other similar sherds. One sherd is incised (Plate 15 c), with several lands and grooves forming a network on the specimen, perhaps indicating simple stamping (Jaketown Simple-stamped, Phillips, Ford & Griffin 1951). Specimen lands and grooves, however, are parallel and symmetrical, unlike those on Jaketown Simple-stamped. Specimen imprint suggests a paddle-stamped design or carefully executed incising, a decoration characteristic of Tchefuncte Incised and not unlike some Alexander Incised. Since only one sherd of this description was recovered, however, a type assignment must be deferred.

One specimen is stamped with a design resembling those on some pottery of the Georgia Paddle-stamped tradition (Plate 15 i).

One specimen resembles fabric-impressed, cord-wrapped, Alexander paste sherds described above.

Baytown-Coles Creek Series

The Baytown-Coles Creek series comprises the third largest pottery group collected. Most pottery in the group falls into Baytown types; the remainder belongs to later, related types. Some sherds are rather gritty to the touch, although they are definitely predominantly clay tempered, while others are entirely clay tempered and chalky to the touch. Some pottery of this series is clay or grog tempered using large lumps of rounded, fired-clay pellets. Sherds in the latter group appear better fired, harder, and more compact, characteristics which together form the basis for a bimodal separation. Further variations in surface treatment and decoration provide a basis for type or descriptive category assignment.

Baytown Types

Baytown pottery is sometimes gritty but predominantly clay tempered. Tempering lumps are generally large, coarse, and somewhat rounded. Some sherds classified here as Baytown might well be classified Tche-

functe by archaeologists more familiar with that series than the author is. Such is particularly true for the variety of Baytown Plain listed first below. The author, however, has separated this pottery as clay-tempered ware more related to some pottery of the northern Yazoo basin (e.g., Lake Cormorant) on the basis of his experience with similar material from northeastern Mississippi. Some of the sherds appear to be Baytown Plain (the second type below) and some Coles Creek (the third type below). Some sherds are a bit gritty, almost suggesting that they might be Baytown Plain, var. Thomas, the sandy pottery of which one sherd was collected. The gritty sherds may be the result of an attempt by Alexander-tradition people to copy Baytown paste, or it may have been that some clay sources in the survey area were simply sandy. At any rate the sherds grouped here seem to be the result of attempts at pottery making modeled closely on what has been classified as Baytown Plain in a number of reports.

Baytown Plain (Ford & Willey 1939a, 1939b; Phillips 1970; 42 sherds). Although not homogeneous, specimens do share characteristics. All have a plain surface; some are rather smooth, some were carelessly manufactured, and some are badly weathered or eroded. Specimen thickness varies considerably, ranging from only 3.5 mm to as great as 11 mm. Coloration roughly uniform. Surfaces of most specimens chalky or polished to the touch; a few gritty.

Baytown Plain, var. Thomas (Phillips 1970; 1 sherd). A body sherd, specimen well fits description for variety.

Baytown Plain, var. 1 (19 sherds; Plate 16 i). All specimens rather thick, measuring from 7 mm to 12 mm. All moderately tempered with large pellets of yellow-tan fired clay. Paste is crumbly, very contorted, and poorly fired. Surfaces range from somewhat rough to badly weathered. Specimens might easily have been grouped with the Tchefuncte Plain pottery (above). They bear resemblance also to sherds from the Norman site in the Yazoo basin, which yielded Tchefuncte Plain sherds, and to sherds from some of the earlier Lake Cormorant sites in the upper Yazoo basin (Plate 16 i). The specimens are probably of the Marksville period.

Baytown Plain, var. 2 (14 sherds; Plate 16 f, g). All specimens rather thin, measuring 4 mm to 10 mm, and heavily tempered with small to medium-size pellets of tan to brown fired clay well compacted and wedged together. Evidence suggests compacting with a cord-wrapped paddle followed by careful smoothing of surfaces. Paste neither crumbly nor contorted and appears better fired than that of Baytown Plain, var. 1 (above). Some specimens have square bases (Plate 16 g). The specimens of this variety resemble pottery from Baytown sites in the central and upper Yazoo basin. They bear closer resemblance to Baytown Plain, var. 1 (above) than they do to var. 3 (below).

Baytown Plain, var. 3 (4 sherds; Plate 16 a, b). The sherds could possibly be varieties of Addis or Little River (Phillips 1970), but lacking examples of those types for comparison the author hesitates so to classify the specimens. Specimens are clearly late varieties related to Baytown Plain. They date as early as Coles Creek and as late as the Choctaw.

Mulberry Creek Cordmarked (Haag 1939; Phillips, Ford & Griffin 1951; 9 sherds). Specimens are slightly grittier than the Baytown Plain sherds collected (excluding the single example of var. Thomas). Specimens cannot be classified as Mulberry Creek Cordmarked, var. Blue Lake (Phillips 1970), because of the general lack of sand in their paste, although the cord marking on the sherds resembles Blue Lake decoration more closely than any other variety described (Phillips 1970). The sherds are possibly examples of Mulberry Creek Cordmarked, var. Mulberry Creek, the suggested variety for cord-marked, clay-tempered pottery in northern Alabama, the area of the original description of the type. Paste resembles that of Baytown Plain, var. 2 (above).

Other Decorated Sherds of Baytownlike Paste

Two sherds are punctated and chalky to touch. They are a variety of Evansville Punctated (Phillips, Ford & Griffin 1951). Specimens resemble most closely var. Sharkey (Phillips 1970).

A number of sherds are incised. Mode of incising varies, and a number of types are represented. One specimen exhibits closely spaced, parallel lines made with a square-ended tool (Plate 16 c). Although decoration on specimen closely resembles motifs on both Coles Creek Incised and Alexander Incised, paste of the specimen is similar to Baytown Plain, var. 2 (above). Another sherd, from the body of a vessel, is lightly and symmetrically cross-hatched and appears to be an atypical example of Alligator Incised, possibly var. Oxbow (Phillips 1970). Paste resembles that of pottery commonly found on Yazoo basin sites of the Baytown period. Seven other specimens exhibit curvilinear or geometric-pattern incising. Another sherd, a small specimen (Plate 16 b), is gritty, and exhibits incising similar to that on Marksville Incised (Ford & Willey 1939a). Decorative motif is very small. The design on another sherd (Plate 17 c) closely resembles if indeed it does not duplicate the rectilinear design elements of L'Eau Noire Incised, var. L'Eau Noire (Phillips 1970). Paste of the specimen, however, is quite sandy, almost as sandy as Baytown Plain, var. Thomas (above). The specimen may be an example of Smithsonia Zoned Incised, an Alexander type.

One sherd, a large rim piece, is composed of paste quite similar to that of Baytown Plain, var. 1, except that the specimen paste contains a few grains of sand (Plate 17 a). Specimen bears both incising and punctations. Incising is minimal, however, and carelessly accomplished. Incised line drops vertically from the rim and swings out and up at an acute angle. Reinforcing line is a carelessly placed row

of punctations meeting a second row of punctations to form a high arcade, the apex of which is parallel to a horizontal third row of punctations parallel to the rim and ending at the original incised line dropping from the rim. A second incised line reenforced with yet another row of punctations enters the arcade just beneath its apex. The decorative treatment resembles an early Middle Woodland motif which because of its infrequent occurrence has not been named.

Three sherds, all from the same site and all composed of paste resembling that of Baytown Plain, var. 1, have roughened surfaces. Method whereby roughening was accomplished is undetermined. Possibly specimens were heavily cord marked. More likely they were fabric impressed and then heavily smoothed (see Withers Fabric-impressed, Phillips, Ford & Griffin 1951).

Mississippian Series

Although several sherds of Mississippian ware were found in the survey area, there exists no evidence to directly associate this pottery with the Mississippian culture. Both in paste composition and decoration all specimen sherds appear more closely related to the Plaquemine-Natchezan cultural tradition than to the Mississippian.

Plain Shell-tempered (Mississippi Plain) (Phillips 1970; 11 sherds, Plate 17 b). Although varying from site to site throughout the state of Mississippi, plain shell-tempered ware is relatively common. Specimens are clearly unlike plain shell-tempered pottery typically found in large areas north of the survey area. Specimens have a distinctly foreign appearance and are rather poorly made. They are, however, well-fired. Specimens are probably closely related to, if in fact they are not, Mississippi Plain, var. Pocahontas (Phillips 1970).

Bell Ware (Phillips 1970; 8 sherds, Plate 17 d). Most collections of shell-tempered pottery include some sherds on which the shell is much finer, usually harder, smoother, and sometimes thinner than on the other sherds. Such is true with shell-tempered sherds from the survey collection, which includes several sherds of polished, well-compacted, well-fired ware. Paste of distinctive specimens appears to be identical to Bell Plain, var. St. Catherine (Phillips 1970). Three undecorated specimens of the variety are included. Five incised sherds, from the same vessel the undecorated sherds were part of, were also collected. Incising on specimens is that of Leland Incised, var. Bayou Goula (Phillips 1970).

Clay Artifacts

Numerous pieces of fired clay were found throughout the survey area, particularly on sites that yielded predominantly sand- and clay-tempered pottery. Most of the clay pieces, however, were amorphous or so badly fragmented that original shapes and characteristics were indiscernible.

One clay object recovered, however, was especially noteworthy. An intact clay pipe (Plate 18) was found at a portion of a site where bulldozing had cut deeply into the surface. The clay of the pipe resembles the paste of O'Neal Plain pottery. It is moderately heavily charged with sand, and the surface is smoothed. The specimen is a semi-elbow type, in length about midway between the earlier straight cloud-blower and the full elbow. The bowl, which is rather deep, was formed around a finger. The rim flares slightly, a result of finishing the bowl surface. The stem is slightly flattened rather than round. A 1.5 mm punched hole runs from mouthpiece tip to bowl.

SALVAGE EXCAVATION, 22-Ck-526

Before salvage excavation effaced it, Site 22-Ck-526 was a mound atop a relatively high, ancient, second-terrace remnant directly overlooking Cedar Creek, located away from what would become the main body of the lake when the area was flooded. Since lake engineers had determined that the knoll on which the site was located would lie just below the surface of the completed lake and thus pose a latent hazard to navigation, the elevation had been slated to be removed. The large number of artifacts collected earlier from the site during the area survey had indicated its potential importance and suggested that the subsurface cultural material it likely contained might well provide data aiding a broader interpretation of surface collections from the twenty-nine other sites in the survey area.

Method of Excavation

Ten roughly parallel trenches traversing the site were laid out and excavated by passing a twelve-foot-wide road-grading blade a number of times over the floor of each trench (Fig. 2). After each pass the features and other cultural material unearthed were examined and recorded, and the distance of each measured from a given point, a mark on the front of a field vehicle parked near the edge of the site. These procedures insured at least a semblance of horizontal record. A vertical record, which was not of the quality desired, was maintained primarily by the recorded sequence of blade passes in each trench, each of which passes removed from four inches to one-and-a-half feet of soil. A datum record was maintained but complete accuracy could not be achieved because the convexity of the site precluded cuts of uniform depth with the straight-edge road-grading blade.

Following are detailed data and enumerations on the ten excavation trenches and the forty-two features and other cultural material discovered in them. A summation and interpretation of the information obtained by the salvage excavation concludes the chapter.

Trenches

Below are detailed for each of the ten trenches (1) the vertical distance from the datum point to the highest elevation of the trench surface prior to excavation, (2) the vertical distance from the datum point to the level in the trench at which sterile soil was reached, (3) the general location of the trench on the site, and (4) the nature and color of soil in the trench. Following that information is a pass-by-pass enumeration of cultural material discovered, preceded for some trenches by other miscellaneous information. Features are noted in the pass-by-pass enumerations and described fully after the last trench description.

Trench 1: surface 3.89 ft., sterile 5.6 ft., located on north side, soil at surface gray-brown sandy loam but at slightly lower levels lightening to light yellow sand.

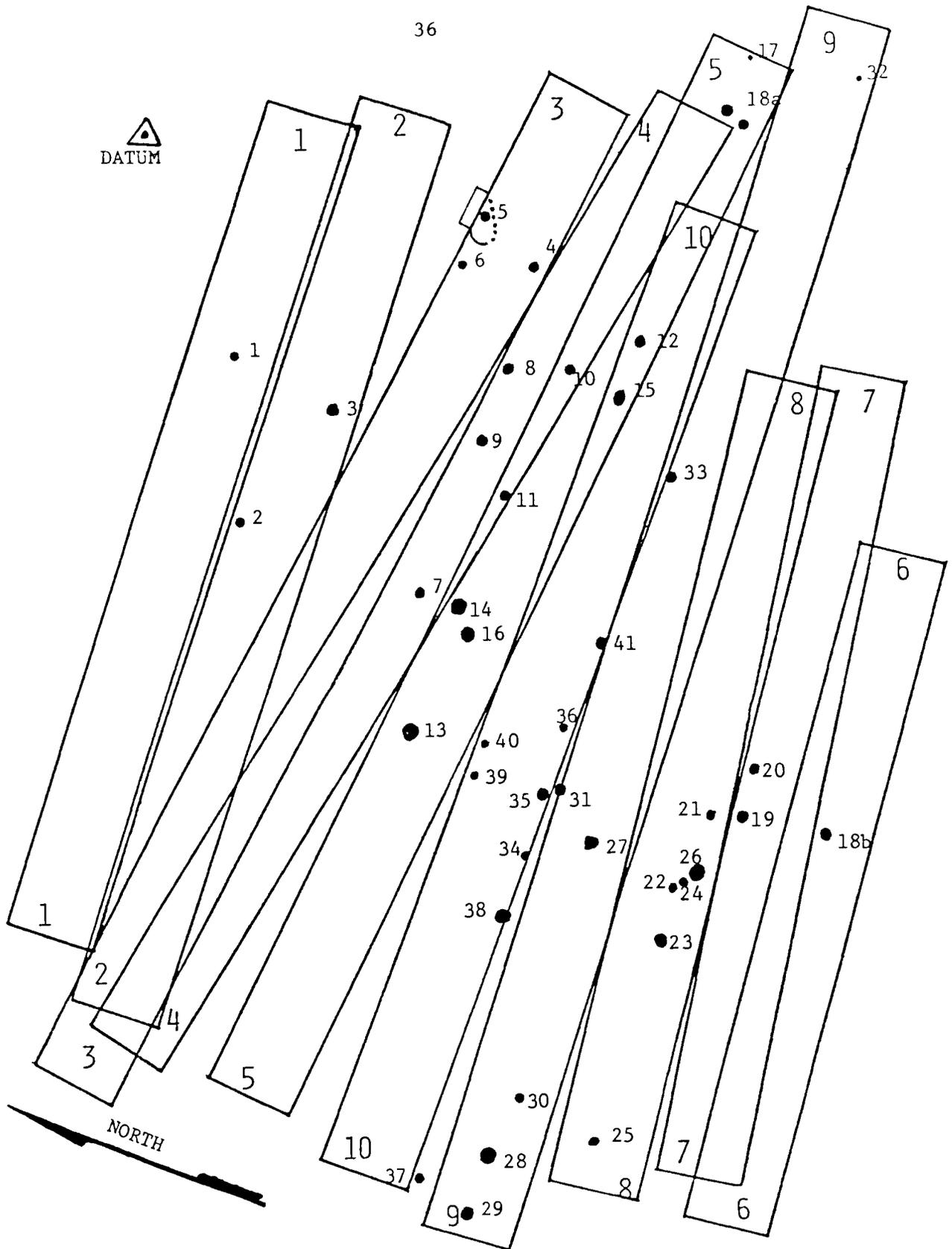


Figure 2. Map of excavated site 22-Ck-526 showing distribution of features in trenches. Large numbers are trench numbers, small numbers are feature numbers. Scale: 1/20 inch equals one foot.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	fired clay pieces	5	amorphous
"	ferruginous sandstone piece	1	unutilized
2	none		
3	sherds	7	O'Neal Plain
"	fired clay pieces	3	amorphous
"	ferruginous sandstone piece	1	unutilized
"	iron nail	1	very rusted
4	fired clay pieces	2	amorphous
"	sherds	2	O'Neal Plain
5	fired clay pieces	2	amorphous
"	ferruginous sandstone piece	1	possibly utilized
"	projectile point	1	unidentified category 12 (this report)
6	feature 1		
"	fired clay pieces	4	amorphous
"	flake	1	orthoquartzite
7	fired clay pieces	24	most amorphous, some possibly shaped

Trench 2: surface 3.51 ft., sterile 7.51 ft., located on north side parallel to trench 1, soil at higher elevations moderately dark gray but soon lightening to light yellow sand.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	pig femur	1	recently deposited
2	fired clay pieces	7	amorphous
3	fired clay pieces	7	amorphous, some possibly shaped
4	feature 2		
"	fired clay pieces	4	amorphous
5	fired clay pieces	8	amorphous, some possibly shaped
6	fired clay pieces	6	amorphous
7	feature 3		
"	fired clay pieces	15	fragments, some shap- ed, some amorphous
"	flakes	2	orthoquartzite
8	triangular biface blade	1	orthoquartzite, possibly a knife

Trench 3: surface 2.81 ft., sterile 7.4 ft., located on north side, soil dark near surface at highest elevation but soon lightening. Much charcoal scattered just below surface; evidence of a disturbance extended to level of pass 3.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	sherd	1	Alexander Incised
"	flake	1	orthoquartzite
"	projectile point/tip	1	unidentified
2	sherds	3	2 O'Neal Plain, 1 Alexander Incised
"	fired clay piece	1	amorphous
"	ferruginous sandstone pieces	2	unutilized
3	feature 4		
"	sherds	2	Tchefuncte Plain
"	fired clay pieces	7	amorphous, some possibly shaped
"	ferruginous sandstone piece	1	unutilized
"	flakes	3	orthoquartzite
"	core	1	orthoquartzite
"	projectile point	1	unidentified
4	feature 5		
"	sherds	5	2 O'Neal Plain, 2 Baytown Plain, <u>var. 1</u> (this report) 1 Alexander Incised
"	fired clay pieces	7	amorphous
"	triangular biface blade	1	orthoquartzite, possibly a knife
5	fired clay pieces	15	amorphous, some possibly shaped
6	sherd	1	O'Neal Plain
"	ferruginous sandstone pieces	2	unutilized, cached with flake (following item) in small cluster
"	flake	1	orthoquartzite (see preceding item)
7	fired clay pieces	7	amorphous, some possibly shaped
"	ferruginous sandstone pieces	2	unutilized
"	flake	1	orthoquartzite
8	fired clay pieces	6	amorphous
9	ferruginous sandstone piece	1	unutilized
10	feature 6		
11	fired clay pieces	11	amorphous
"	abrading stone	1	grooved, sandstone

Trench 4: surface 2.7 ft., sterile 6.3 ft., located on west side. Soil just beneath surface very dark, disturbed, and flecked with fired clay fragments; dark soil mottled with yellow sand lumps revealed on pass 3, indicating deep recent soil disturbance. Trench more densely flecked with charcoal than trench 3, probably because trench was nearer to site crest than trench 3.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	fired clay pieces	2	amorphous
2	feature 7		
3	features 8, 9		
"	fired clay pieces	2	amorphous
4	fired clay pieces	4	amorphous
"	sherds	4	3 O'Neal Plain, 1 Alexander Incised
"	ferruginous sandstone pieces	2	small, unutilized
"	projectile point	1	Pickwick, orthoquartzite
"	flake	1	orthoquartzite
5	fired clay pieces	4	amorphous, possibly including clay ball fragments
6	fired clay pieces	4	amorphous
"	sherd	1	Bayou La Batre or Tammany Pinched
7	fired clay pieces	4	amorphous
"	sherds	2	O'Neal Plain
"	ferruginous sandstone pieces	2	unutilized
8	fired clay pieces	11	amorphous
"	ferruginous sandstone piece	1	unutilized
9	flake	1	orthoquartzite
10	feature 10		
"	flake	1	orthoquartzite
11	feature 11		
"	hematite piece	1	unutilized, very soft
12	fired clay pieces	4	amorphous

Trench 5: surface 2.7 ft., sterile 6.25 ft., located across center of site, soil dark and disturbed in passes 1 and 2 and densely flecked with charcoal from surface through level of pass 3.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	fired clay pieces	2	amorphous
"	sherds	2	Wheeler Plain, Baytown Plain
"	china plate fragments	2	historic
2	fired clay piece	1	amorphous
"	ferruginous sandstone piece	1	unutilized
"	flakes	2	orthoquartzite
3	feature 12		
"	fired clay pieces	14	amorphous, possibly including clay ball fragments
"	sherds	5	2 O'Neal Plain, 1 Alexander Incised, 1 Smithsonian Zoned Incised, 1 unidentified

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
3	fine-grained sandstone piece	1	possibly used as abrading stone
4	features 13, 14, 15		
"	fired clay pieces	8	amorphous
"	sherds	3	1 Wheeler Plain, 2 Tchefuncte Plain
5	feature 16		
"	fired clay pieces	5	amorphous, possibly including clay ball fragments
"	flake	1	orthoquartzite
6	fired clay pieces	5	amorphous
"	flakes	2	orthoquartzite
"	hematite pieces	8	unutilized, very small
7	fired clay piece	1	amorphous
"	ferruginous sandstone pieces	4	unutilized, very small
"	projectile point tip	1	unidentified
"	abrading stone	1	ferruginous sandstone, grooved from use
8	fired clay piece	1	amorphous
"	flake	1	chert
9	ferruginous sandstone pieces	3	unutilized
10	features 17, 18a		
"	ferruginous sandstone pieces	2	unutilized, very small
"	hematite piece	1	possibly utilized as rubbing stone
"	projectile point	1	unidentified
11	ferruginous sandstone piece	1	unutilized

Trench 6: surface 4.1 ft., sterile 6.0 ft., located on south edge, soil dark and very disturbed through level of pass 2, below which it lightened. Except for feature 18b, revealed on pass 3, no material was recovered in seven passes in the trench.

Trench 7: surface 4.2 ft., sterile 5.5 ft., located on south side, soil dark and disturbed through level of pass 2, below which turning to yellow soil.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	none		
2	flakes	2	orthoquartzite
3	feature 19		
"	sherds	2	Alexander Pinched
"	ferruginous sandstone pieces	4	unutilized
4	fired clay pieces	3	possibly fired clay balls
"	projectile point		unidentified

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
5	sherds	2	Alexander Incised
"	ferruginous sandstone pieces	2	unutilized
6	none		
7	none		
8	ferruginous sandstone piece	1	possibly used as smoothing stone
9	ferruginous sandstone pieces	4	unutilized, small
"	flake	1	orthoquartzite

Trench 8: surface 2.45 ft., sterile 4.8 ft., located on south side, soil dark and heavily flecked with charcoal through level of pass 3, below which turning to yellow sand. Besides the seven passes shown below, an additional six passes were made in the trench. They yielded nothing but a single orthoquartzite flake, revealed on pass 13.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	none		
2	ferruginous sandstone piece	1	unutilized
"	flake	1	orthoquartzite
3	features 21, 22		
"	sherds	2	Tchefuncte Plain
"	fired clay pieces	9	amorphous
"	ferruginous sandstone pieces	5	unutilized
4	none		
5	fired clay pieces	19	amorphous
"	ferruginous sandstone piece	1	unutilized
"	flakes	4	orthoquartzite
6	none		
7	fired clay pieces		possibly clay ball fragments

Trench 9: surface 2.4 ft., sterile 5.0 ft., located across center of site, soil dark toward surface but soon lightening.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	sherds	2	1 Alexander Pinched, 1 Alexander Incised
2	flake	1	orthoquartzite
3	features 27, 28, 29		
4	feature 30		
5	sherds	2	Baytown Plain, <u>var. 1</u> (this report)
6	fired clay pieces	5	amorphous, possibly including fragments of clay balls
"	ferruginous sandstone piece	1	unutilized
"	chopper	1	orthoquartzite, bifacially flaked
"	flake	1	orthoquartzite
7	features 31, 32, 33		
"	fired clay piece	1	clay ball

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
8	fired clay pieces	12	amorphous, possibly including clay ball fragments
"	ferruginous sandstone piece	1	unutilized
"	flake	1	orthoquartzite
8	projectile point	1	Ledbetter
9	none		
10	flakes	2	1 orthoquartzite, 1 chert

Trench 10: surface 2.4 ft., sterile 4.6 ft., located across center of site, soil dark to one-half foot below surface, becoming lighter sand from that point on.

<u>Pass</u>	<u>Material Revealed</u>	<u>Quantity</u>	<u>Comment</u>
1	none		
2	fired clay pieces	15	amorphous
"	mortar	1	small, 1 concave face
"	projectile point	1	unidentified
3	feature 34		
4	features 35, 36, 37, 38		
"	sherds	2	O'Neal Plain
"	fired clay piece	1	amorphous
"	ferruginous sandstone pieces	8	small, unutilized
5	features 39, 40, 41		
"	ferruginous sandstone piece	1	unutilized
"	flakes	3	orthoquartzite
6	mortar	1	2 concave faces, small
"	fired clay pieces	2	amorphous
"	core	1	orthoquartzite
"	ferruginous sandstone pieces	5	unutilized
7	fired clay pieces	4	amorphous
"	flakes	3	orthoquartzite
"	projectile point	1	Ebenezer
"	mano	1	sandstone, shaped, utilized
8	fired clay piece	1	amorphous
"	cup stone	1	two pitted faces
9	fired clay pieces	10	amorphous
"	ferruginous sandstone piece	1	unutilized
10	sandstone piece	1	soft, possibly utilized as rubbing stone
11	fired clay pieces	4	amorphous
"	flake	1	orthoquartzite

Features

Forty-two features were discovered in the ten excavation trenches

(Fig. 2). The number would have been considerably greater had the numerous clusters of fired clay pieces or balls revealed on many passes been included. Feature designation was limited, however, to the larger, more readily apparent clusters of artifacts and especially significant single specimens. Below are detailed for each of the forty-two features the trench in which the feature was located, the blade pass on which the feature was first revealed, and the vertical distance from the datum point to the top of the feature. Following that information are a description of the feature and an enumeration of cultural material included in it.

Feature 1: trench 1, pass 6, 5.56 ft. A pit evidenced by a small, circular soil stain 10 in. in diameter. Measured 4 in. vertically though it probably was deeper before disturbance by construction clearing and excavation.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	34	amorphous, no apparent attempts at shaping; specimens disintegrated as a result of exposure to high temperature and sandy composition of paste

Feature 2: trench 2, pass 3, 5.1 ft. A hearth pit 18 in. in diameter with evidence, including charcoal, extending downward to 5.28 ft. Since pit lay just below surface, it is probable that top of pit was at or near surface, or ca. 4.6 ft.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	25	amorphous
sherd	1	Wheeler Plain

Feature 3: trench 2, pass 3, 4.96 ft. A pit 20 in. in diameter flecked with charcoal. Since pit lay well below site surface it is unlikely that top of pit was near site surface, or ca. 3.0 ft., a factor that argues an earlier date for Feature 3 than for Feature 2. Material present through pass 7, 7.3 ft.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	14	lumps and possibly balls

Feature 4: trench 3, pass 3, 3.98 ft. A pit 14 in. in diameter extending downward 4-5 in. In view of shallowness and clear sand fill of pit, it is unlikely that top of pit extended to site surface.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	3	amorphous
ferruginous sandstone pieces	2	unutilized
flake	1	orthoquartzite
sherds	34	15 O'Neal Plain, 1 Tchefuncte Plain, 10 Alexander Incised, 8 Alexander Pinched

Feature 5: trench 3, pass 5, 4.15 ft. An irregularly shaped hearth pit 18-28 in. in diameter. Continued to depth of 5.2 ft. Pit filled with fired clay lumps. Surrounding pit an irregularly shaped area 5.5-9.5ft. in diameter contained numerous fired clay lumps and a few chunks of charcoal. (The general area in which feature lay was heavily flecked with charcoal from surface to 2-4 in. downward, probably indicative of an occupational level.) Additionally, six post molds arranged in a curved line running south to east (Fig. 3), each measuring 3 in. in diameter and set one foot apart. Results of cross-sectioning molds inconclusive. Patterned placement and alignment and positioning at edge of scattered clay lumps, however, would argue for a structure associated with hearth and activity floor, perhaps a windbreak or another kind of shelter. Since no sherds were found in area, feature may predate ceramics.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	300	amorphous, from pit and apparent activity floor
ferruginous sandstone pieces	2	unutilized

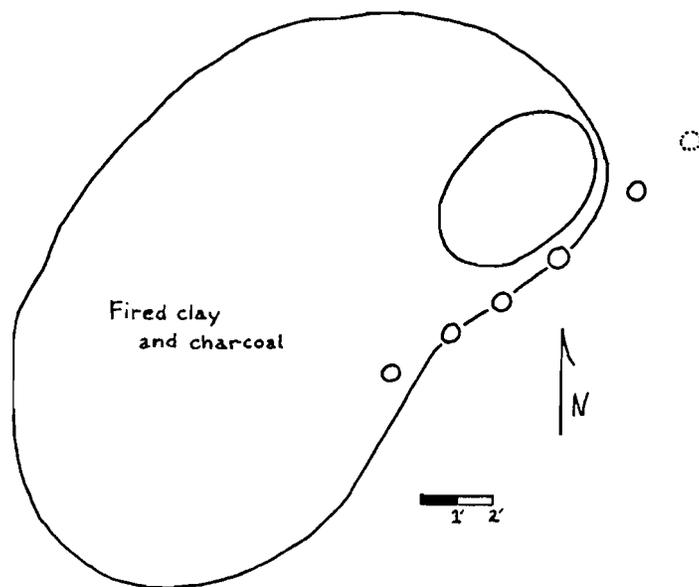


Figure 3. Feature 5, Site 22-Ck-526.

Feature 6: trench 3, pass 10, 6.8 ft. A pit 14 in. in diameter. Continued to depth of 7.4 ft. Feature located in same area as, but at lower depth than Feature 5, with which it might have been associated.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	6	amorphous
ferruginous sandstone pieces	2	unutilized
acorn meats and hulls		small amount, charred

Feature 7: trench 4, pass 2, 3.4 ft. A pit 14 in. in diameter. Continued downward only a few inches, suggesting that upper portion had been effaced. Pit soil very dark, in sharp contrast to lighter, undisturbed surrounding soil.

Feature 8: trench 4, pass 3, 3.45 ft. A pit 18 in. in diameter. Continued to 3.85 ft.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	18	amorphous
charcoal piece	1	sample taken for dating

Feature 9: trench 4, pass 3, between 3.49 and 3.58 ft. A pit 15 in. in diameter. Continued to 6 ft. Like nearby Feature 8, the feature probably originated at or near site surface. Soil in pit flecked with charcoal.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	160	amorphous
ferruginous sandstone piece	1	unutilized

Feature 10: trench 4, pass 10, 6.0 ft. A pit 12 in. in diameter. Only basal section of pit was found, the point of origin presumably having lain a few inches above.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	56	amorphous, black
ferruginous sandstone piece	1	unutilized

Feature 11: trench 4, pass 11, 6.3 ft. A pit 12 in. in diameter. Continued to 6.8 ft. Contained 275 fired clay lumps.

Feature 12: trench 5, pass 3, 3.11 ft. A pit 12 in. in diameter. Continued to 3.45 ft.

<u>Material Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	15	amorphous
flakes	6	orthoquartzite
sherds	3	1 Alexander Incised, 1 Tchefuncte Plain, 1 Tammany Pinched

Feature 13: trench 5, pass 4, 3.45 ft. A pit 20 in. in diameter. Continued downward only a few inches. Pit bottom lined with two-inch layer of clay fired in situ. Most of pit probably effaced prior to discovery of feature. Contained 275 fired clay pieces, including lumps and possibly balls.

Feature 14: trench 5, pass 4, 3.45 ft. A pit 24 in. in diameter. Continued downward only a few inches. Dark pit fill contrasted sharply with surrounding undisturbed yellow sand. Pit largely effaced by excavation.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	30	amorphous
sherd	1	O'Neal Plain

Feature 15: trench 5, pass 4, 3.45 ft. A pit approximately 19 in. in diameter. Continued to 3.8 ft. Pit fill flecked with charcoal.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	45	amorphous, incompletely cemented into a mass, unusual
sherd	1	Wheeler Plain

Feature 16: trench 5, pass 5, 3.8 ft. A pit 18 in. in diameter. Continued to 4.1 ft. Pit filled with fired clay lumps too badly deteriorated to be counted.

Feature 17: trench 5, pass 10, 3.9 ft. An apparent cache. Continued to 4.4 ft.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	100	amorphous
limonite piece	1	unutilized
ferruginous sandstone pieces	3	unutilized
flakes	3	orthoquartzite
sherds	9	7 O'Neal Plain, 2 Alexander Pinched; subjected to intense heat similar to treatment of sherds in Feature 18a (below, q.v.)

Feature 18a*: trench 5, pass 10, 3.91 ft. A pit 12 in. in diameter. Continued to 5.0 ft. Contained large quantity of burned pottery.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	18	amorphous
sherds	389	41 Alexander Incised, 8 Smithsonian Zoned Incised, 1 Tammany Pinched, 5 Alexander Pinched, 75 O'Neal Plain, 135 rocker stamped on Alexander paste, 1 scallop-shell-stamped on Alexander paste, 1 Mandeville Stamped, 117 miscellaneous of Alexander paste too small to identify further; all subjected to intense heat; four or five vessels indicated;

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
Feature 18a* continued		most Alexander Incised sherds exhibit identical rocker stamping
<u>Feature 18b*:</u> trench 6, pass 3, 5.37 ft. A pit 18 in. in diameter. Continued to 5.85 ft.		
<u>Materials included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	4	amorphous
ferruginous sandstone pieces	10	small, unutilized
mortar	1	slight depression 4½ in. in diam. on one surface
sherds	22	Bayou La Batre Cord-wrapped Dowel-Imprinted; all from same vessel; very poorly fired
<u>Feature 19:</u> trench 9, pass 3, 4.64 ft. A hearth pit 18-20 in. in diameter. Continued downward 6-8 in.		
<u>Materials included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	50	amorphous, but some balls possibly present
ferruginous sandstone pieces	4	unutilized
flakes	2	orthoquartzite
sherd	1	O'Neal Plain
<u>Feature 20:</u> trench 7, pass 9, 5.32 ft. A pit 18 in. in diameter. Continued downward only a few inches. Shallowness of pit indicated most of feature had been effaced. Fill very dark. Material included 20 amorphous pieces of fired clay.		
<u>Feature 21:</u> trench 8, pass 3, 3.4 ft. A pit 14 in. in diameter. Continued to 3.8 ft. Material included amorphous and possibly shaped pieces of fired clay.		
<u>Feature 22:</u> trench 8, pass 3, 3.41 ft. A pit 14 in. in diameter. Continued to 3.7 ft.		
<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	150	amorphous
ferruginous sandstone pieces	8	unutilized, very small
sherds	4	Alexander Pinched

*Two different features from different trenches were assigned the number 18 in the field notes and the subsequently drawn tables and illustrations. The features retained the number 18, followed by a and b to differentiate them.

Feature 23: trench 8, pass 4, 3.3 ft. A pit 18 in. in diameter.
Continued downward 14-18 in.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	20	amorphous
ferruginous sandstone pieces	20	unutilized, very small
sherds	19	11 Alexander Incised, 5 Alexander Pinched, 3 O'Neal Plain

Feature 24: trench 8, pass 4, 3.3 ft. A pit 18 in. in diameter.
Continued downward 1 ft. Possibly used prehistorically as trash dump.
Dark soil of feature contrasted sharply with surrounding undisturbed soil.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	11	clay balls, unidentified, probably spherical
ferruginous sandstone pieces	21	very small fragments, unutilized
flakes	26	orthoquartzite
sherds	26	Baytown Plain, <u>var. 1</u> (this report)
soil sample		for analysis

Feature 25: trench 8, pass 4, 3.3 ft. A small pit. Continued downward 8 in. Material included a cluster of fired clay lumps at center of pit.

Feature 26: trench 8, pass 6, 3.45 ft. A pit 3 ft. in diameter.
Continued to 4.45 ft. Basin-shaped; outlined by its dark soil stain against surrounding lighter earth. Contained large amount of charcoal.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	34	amorphous
charcoal sample		for dating
ferruginous sandstone pieces	30	unutilized, small pieces
flakes	4	orthoquartzite
sherds	231	3 Alexander Incised, 69 O'Neal Plain, 3 Smithsonian Zoned Incised, 4 Alexander Pinched, 31 rocker stamped on Alexander paste, 121 unidentified of Alexander paste; sherds subjected to extreme heat

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	15	amorphous
sherds	20	1 Alexander Incised, 17 Alexander Pinched, 2 O'Neal Plain (one a podal support); sherds subjected to extreme heat

Feature 28: trench 9, pass 3, 3.13 ft. A pit 22 in. in diameter. Continued to 4.2 ft. Contained unusually large quantity of pottery.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	87	amorphous
ferruginous sandstone pieces	5	small, unutilized
flakes	9	orthoquartzite
projectile point	1	fragment unidentified
sherds	265	202 Alexander Pinched, 33 Alexander Incised, 61 O'Neal Plain (6 podal supports), 1 Cord-wrapped Dowel-Impressed, 133 Miscellaneous Alexander paste for dating
charcoal sample		

Feature 29: trench 9, pass 3, 3.13 ft. A pit 18 in. in diameter. Continued downward 1 ft.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	45	amorphous
sherds	14	3 Alexander Pinched, 1 Wheeler Plain, 6 O'Neal Plain, 4 Tche-functe Plain

Feature 30: trench 9, pass 4, 3.60 ft. A pit 12 in. in diameter. Continued to 4 ft. Pit fill heavily charged with charcoal but no single piece large enough for carbon 14 dating. Material included also 4 amorphous pieces of fired clay.

Feature 31: trench 9, pass 5, 4.24 ft. A pit 8-10 in. in diameter. Continued downward 8-10 in.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	25	amorphous
ferruginous sandstone pieces	21	small
flakes	4	orthoquartzite
sherds	15	6 O'Neal Plain, 4 Tche-functe Plain, 1 Wheeler Plain, 4 Alexander Pinched; sherds may have been subjected to extreme heat

Feature 32: trench 9, pass 7, 4.42 ft. A small, bifacially flaked blade or chopper. (Artifact locations were not recorded for numerous other single finds such as this one.)

Feature 33: trench 9, pass 7, 4.24 ft. A pit 16 in. in diameter. Continued downward 6-8 in.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	49	amorphous, possibly including some clay balls
ferruginous sandstone piece	1	unutilized

Feature 34: trench 10, pass 4, 3.0 ft. A pit 10 in. in diameter. Continued downward 10 in. Material included 15 small lumps of fired clay.

Feature 35: trench 10, pass 4, 3.0 ft. A pit 14 in. in diameter. Continued to 3.5 ft. Material included 21 fired clay lump fragments and 2 orthoquartzite flakes.

Feature 36: trench 10, pass 4, 3.0 ft. A pit 10 in. in diameter. Continued to 3.8 ft. Material included 7 fired clay lump fragments.

Feature 37: trench 10, pass 4, 3.8 ft. A pitlike area 18 in. indiameter. Continued to 3.8 ft. Dark fill soil contrasted sharply with surrounding sterile lighter soil.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	54	amorphous
ferruginous sandstone pieces	10	small, fired, fractured, unutilized
cupstone	1	pitted on both sides

Feature 38: trench 10, pass 4, 3.0 ft. A pit 20 in. in diameter. Continued to 4.2 ft. Material included 10 fragments of fired clay balls.

Feature 39: trench 10, pass 5, 2.8 ft. A pit. Continued downward 4 in. Material included 4 fired clay lumps.

Feature 40: trench 10, pass 5, 2.8 ft. A pit much like Feature 39 (above). Material included a few fired clay lumps.

Feature 41: trench 10, pass 5, 2.8 ft. A pit much like Features 39 and 40 (above) except deeper. Continued to 3.2 ft.

<u>Materials Included</u>	<u>Quantity</u>	<u>Comment</u>
fired clay pieces	3	amorphous
ferruginous sandstone pieces	20	small, fired, fractured, unutilized

Overview and Summary of Excavated Material

As the preceding enumerations of items from site 22-Ck-526 indicate, the excavation yielded an abundance of cultural material, most of which is summarized in Tables 4 and 5. Additional material from the site not found in situ (displaced largely by excavation grading) is accounted for in Table 3. Other material collected from the site surface during the initial thirty-site survey has been treated primarily in previous sections. What follows is a recapitulation of all the material from the site.

Lithics

Nine intact projectile points were recovered, including an Ebenezer, a Pickwick, two Ledbetters, two unidentified category 12 points (this report), three other complete but unidentified points, and six unidentified point fragments. Two triangular knives and two choppers were found. Three abrading stones were found: one apparently served as an abrading palette, while the other two are grooved. Three mortars were found, all quite similar to the single mortar found in the area survey. The occurrence of two of the specimens in features, from which they were probably dragged, possibly suggests a greater use of mortars by early inhabitants of the area than had been supposed. The presence of mortar specimens at the excavated site, which appears to have been a place of short-term utilization, probably indicates their use in food preparation. Two manos were recovered, both roughly rectangular and pitted on two sides. Three cupstones were found. A single spheroidal hammerstone of chert was recovered. Flakes recovered totaled 186, all unutilized and almost all of orthoquartzite. Three cores were found. A total of 279 pieces of sandstone were found. All but three are ferruginous. Many specimens were contained in features and appear burned as though used much in the manner of fired clay. Some specimens apparently are discarded tools later employed as hearth or heating stones. Three specimens are sandstones from Tishomingo County, Mississippi. They are loosely cemented (or possibly burned) and large-grained. Twenty pieces of hematite and limonite were found. Most specimens of the minerals appear, like many of the ferruginous sandstone pieces, to have been burned.

Ceramics

Worked clay and pottery from the excavation were abundant. Most of the 2153 fired clay pieces are amorphous lumps. Some features, however, yielded pieces recognizable as shaped balls, of which there were seventeen examples. Many of the shaped specimens, however, are so badly fragmented that it is impossible to discern original shapes.

Pottery

A large quantity of pottery was excavated. Sherds were found of the Wheeler, Bayou La Batre-Alexander, Tchefuncte, and Baytown series.

The Wheeler series is represented by forty-two sherds of Wheeler Plain. The Bayou La Batre-Alexander series is well-represented and includes several types.

Twenty-two Bayou La Batre Cord-wrapped Dowel-impressed sherds were contained in a single feature (18b). The specimens were either very poorly fired or fire-deteriorated, their slate gray to black coloration suggesting firing under oxygen-starved conditions. Alexander types accounted for 115 sherds. Rim characteristics were plainly visible on twenty-six specimens (from Features 18a, 23, and 26). The specimens are characterized by closely notched lips above bossed zones and parallel, horizontal, incised collars or necks, all of which decorations are regarded as classic elements of the type. The sherds closely resemble Alexander Pinched, var. Castine Bayou (Phillips 1970:37). The specimens are further characterized by expertly executed simple rocker stamping on neck, shoulder, and upper-body vessel parts. Vertically aligned, the points of each row meet the points of adjacent rows to form symmetrical geometric patterns (Plate 19 d), a configuration which to a degree resembles rocker-stamping modes on some Tammany Punctated/Pinched (Phillips 1970:160-62) as well as Tchefuncte Stamped (Phillips 1970:164-65), the pattern of the latter being horizontally rather than vertically oriented. It can also be argued that the twenty-two sherds should be classified Alexander Punctated. In fact, several sherds from features other than those producing the twenty-two specimens bear resemblance to Alexander Punctated, var. Green Point (Phillips 1970:37). The sherds are furthermore similar to some pieces of pottery in a group of unidentified rocker-stamped specimens treated below. Fifty-nine Alexander Pinched sherds (Plate 19 g) were collected, all closely conforming to the type description. Punctations are clear and symmetrical. Execution of the decorations on the specimens, however, is less carefully performed than the remarkably well accomplished simple stamping on the Alexander Incised sherds (above) or the rocker stamping on the group of unidentified sherds described below. O'Neal Plain sherds numbered 284. The collected sherds generally contain less sand tempering and of a finer grain sand than decorated Alexander types. Classification of the sherds to the type, however, is not in question. Thirteen sherds of the very rare Smithsonia Zoned Incised were found. Their paste is in most respects more like that of O'Neal Plain than like that of decorated Alexander-series types. Unidentified rocker-stamped Alexander-paste sherds (Plate 19 e) numbered 337. The specimens are essentially the same as the group of decorated Alexander sherds discussed above, noted to resemble Alexander Punctated, var. Green Point (Phillips 1970:37). Except for their named characteristics, however, this large collection of sherds shares no other characteristics of that variety. Other unidentified Alexander-paste sherds numbered 337. The fragmentary pieces of this group are too small to allow assignment with any certainty to specific types. Many sherds of this group, however, are doubtless parts of the same vessels represented by larger identified sherds of the Alexander series.

Unlike Tchefuncte pottery from the survey collection, sherds of the series from the excavation are composed almost entirely of clay, containing almost imperceptible amounts of (included ?) silt sand.

Seventeen examples of Tchefuncte Plain were recovered, with all but a very few clay tempered. Four Tammany Pinched sherds (Plate 19 a, b) were found. Their paste contains more silt sand than other Tchefuncte sherds from the excavation. Sherds of the type were predominantly clay tempered. A single specimen of Mandeville Stamped (Ford & Quimby 1945:63-64, Plate 22 i) was recovered. A large rim sherd, it is composed of paste somewhat like that of O'Neal Plain. The specimen is not as sandy as any of the other Alexander pottery from the excavation, although it is probably the sandiest sherd of the Tchefuncte series from the excavation. The rim is straight, curving in only slightly toward the lip, which is bulbous and thick on the inside. Several horizontal rows of decoration, either drag-and-jab incising or rocker stamping, form a motif. If the decoration is the result of incising, the instrument employed was a stubby, bipointed tool, carelessly wielded to result in overlapping incisions. A single scallop-shell-incised stamped sherd was recovered. Rather small, the specimen is composed of a slightly sandy Tchefuncte-like paste. The impression appears to have been made by rocking a shell, but the sherd possesses some characteristics of simple stamping, such as considerable overlapping and random applications superimposed over previous impressions. The sherd bears some resemblance to Bayou La Batre Scallop Shell-incised (Wimberly, in Griffin 1953:4) and to Marksville Stamped, var. Crooks (Phillips 1970:121), except for the characteristic zoned incising of that variety. Bayou La Batre, however is not clay-tempered ware. And if the specimen is indeed Bayou La Batre Scallop Shell-incised, the specimen paste is quite different from that of the Bayou La Batre Cord-wrapped Dowel-impressed sherds from the excavation.

Thirty-one sherds of the Baytown series were recovered, twenty-six coming from a single feature (24). All were Baytown Plain. Most if not all of the sherds were fragments of a single (unrestorable) vessel, the shape of which could not be determined. Paste characteristics of the twenty-six sherds from the same feature are identical to that of the Baytown Plain, var. 1 specimens which were found elsewhere in the survey area. The remaining five sherds are very similar to the twenty-six, except that the paste of some specimens contains silt sand inclusions.

Other Material

Two charcoal samples gathered for carbon 14 dating and a soil sample collected for analysis were not processed because the materials with which they were associated were determined culturally unsuitable for conclusive dating and analysis.

Historic material unearthed included a recently deposited pig femur, several pieces of metal (nails?), and fragments of china and glass, none of which was associated with any of the forty-two features.

ANALYSIS, OBSERVATIONS, AND CONCLUSIONS

On the bases of site locations and cultural material collected, it would appear that none of the thirty sites in the survey area was what one might call a "village," that is, an occupation of some considerable duration. Rather, the light scattering of widely diverse materials strongly suggests intermittent, short-term, or seasonal occupations over a considerably long period of time. Such camps probably were established periodically for a variety of purposes but with a principal orientation to the collecting of plant and animal food resources in the immediate locale; or the sites may have served as base camps from which to collect these resources from the surrounding environment for some unknown distance from Archusa Creek. Some sites appear to have had heavier concentrations of materials than others, suggesting more than irregular and casual occupation, such as sites 22-Ck-503, 504, 515, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, and possibly a few others. But these yielded a relatively wide range of material, particularly projectile point types, suggesting a long span of time, measured in thousands of years. Evidence of a long-term, continuous occupation at any site is simply lacking.

Projectile Points

The greatest number of projectile points collected from site surfaces (Table 1) is from the Late Archaic through Early Woodland periods, although the entire surface collection of points represents a much wider time range, beginning as early as the terminal Paleo-Indian period (ca. 8000 B.C.) and continuing to as late as the beginning of historic times (ca. A.D. 1700).

Typologically, the oldest points in the collection are the two Dalton specimens, Colbert and Greenbrier, generally believed to date from the Paleo-Indian/Early Archaic transition period, conceivably carrying on as late as the terminal Early Archaic period. The Hardin point is partly contemporary with the two Dalton types, dating from Early to Middle Archaic. Other points contemporary in part with Dalton and Hardin points, but probably beginning later and continuing beyond them, are the Big Sandy, Crawford Creek, Kirk Corner-notched, Kirk Stemmed, Lost Lake, and possibly but not certainly unidentified projectile point categories 4, 5, 6, 10, and 13. All of these later types, and probably the categories, continue into the Middle Archaic period.

Points of Middle Archaic origin are represented by examples of Abbey, Benton, Eva I, Maples, and McIntire types. Unidentified categories 4, 9, 10, and 11 may also fall into this period. The Coosa type may have originated toward the end of the Middle Archaic period, though it largely belongs to the Late Archaic. Points of the tentative type Archusa Stemmed and perhaps unidentified category 3 are possibly of about the same period as Coosa.

There is a major stylistic change in point manufacturing that occurred during or at the close of the Middle Archaic period. Though a few types appear to carry on unchanged, many new types appeared. Point types which apparently originated in the Late Archaic period are

Paleo-Indian	Early Archaic	Middle Archaic	Late Archaic	Poverty Point	Early Woodland	Middle Woodland	Late Woodland	Mississippi
-Colbert Dalton-				Ensor-				
-Greenbrier Dalton				Shumla				
-Hardin - - -				Carrollton				
-Lost Lake ---				Cotaco Creek				
- Big Sandy - - - - -				Elora				
- Crawford Creek - - - -				Kent				
- Kirk Corner Notched - - -				Langtry				
- Kirk Stemmed - - - - -				Macon				
- Category 4 - - - - -				Pedernales				
- Category 5 - - - - -				Pickwick				
- Category 6 - - - - -				Ponchartrain				
- Category 10 - - - - -				Yarbrough				
- Category 13 - - - - -						Bulverde		
-Abby- - - - -						Robbins		
-Benton- - - - -						Snyders		
-Eva I - - - - -						Flint Creek		
-Maples- - - - -						Category 12		
-McIntire- - - - -						Jacks Reef	Pentagonal-	
-Category 9 - - - - -						Collins		
-Category 11 - - - - -						Scallorn		
- Coosa - - - - -						Washington		
- Archusa Stemmed - - - - -						Guntersville		
- Category 3 - - - - -								
- Appalachian - - - - -								
- Big Creek - - - - -								
- Ebenezer - - - - -								
- Ellis - - - - -								
- Gary - - - - -								
- Ledbetter - - - - -								
- Palmillas - - - - -								
- Swan Lake - - - - -								
- Category 1 - - - - -								
- Category 7 - - - - -								

Figure 4. Temporal Durations for Projectile Point Types Represented at the Archusa Creek Sites

the Appalachian, Big Creek, Ellis, Gary, Palmillas, and Swan Lake, as well as possibly the Ebenezer, Ensor, Ledbetter, and Shumla, and perhaps unidentified categories 1 and 7. All of these projectile points carry on well into the following period or even later. Other types originating probably toward the end of the period are Carrollton, Cotaco Creek, Elora, Kent, Langtry, Macon, Pedernales, Pickwick, Pontchartrain, Yarbrough, and perhaps unidentified category 7.

The Late Archaic-Early Woodland transition period is confused in many parts of the south. Along the Gulf Coast, however, and westward into the Lower Mississippi Valley and the adjacent regions, there is a rather well-marked transitional horizon called the Poverty Point Period, represented by the Poverty Point and related cultures. Using this well defined horizon as the transition period, it is suggested here that all point types and categories mentioned above as originating toward the end of the Late Archaic period continue into this Poverty Point period. Of course there are no clearcut dates for the origins of any of these types; there just has not been enough archaeological investigation in the southeast or across the Gulf Coast to pinpoint their origins. On the other hand, there is a body of relatively good documentation over a fairly wide area of the southeast and central south which would indicate their presence at the beginning of the Poverty Point period.

The Poverty Point period is rather short, probably not more than 1500 years, and it is followed without clear transition by the Early Woodland or Tchula period, which was largely dominated by the Tchefuncte cultural tradition across the central Gulf Coast states. Point types identified with the Early Woodland are essentially the same as those identified with the preceding transition Late Archaic and Poverty Point periods with the addition of Bulverde, Robbins, Flint Creek, and possibly Snyders and unidentified category 12, all of which types continue into the Middle Woodland period.

The Middle Woodland was a period of marked change in the lithic industry. Many points common during the Early Woodland and the preceding transitional period disappear just before the Middle Woodland begins. This is a reflection of both real culture change, due to changing patterns in living and the economic exploitation of the environment, and to declining use and eventual abandonment of the survey area during the Middle Woodland period. Only one point collected from the area, a Snyders, can with any certainty be associated with the Middle Woodland, due to its well known wide distribution over the central United States during the period. Another point, the Jacks Reef Pentagonal, is found more locally in Middle Woodland contexts. Survivors from Early Woodland into Middle Woodland are Bulverde, Ellis, Ensor, Gary, Pedernales, and possibly Langtry, Swan Lake, and unidentified category 12 types. Three other types usually associated with the Late Woodland may have had their origins in Middle Woodland patterns. The small size of the three types, Collins, Scallorn, and Washington, suggests their successful adaptation to use with bows and arrows. They possibly continued, but briefly, into the Mississippian period.

The Mississippian period is represented in the point collection

by only one late type, the Gunterville, a small arrow point type which may have continued as late as early historic times. The gunflints from the surface collection possibly represent the historic replacement of the stone arrow point, though no metal arrow points were found.

Though the preceding summary of projectile point types is not fully satisfactory, there is much in it that helps to interpret the patterns of prehistoric use of the Archusa Creek area. Certainly Early Archaic peoples if not earlier Paleo-Indians visited the survey area and used several sites. Area use increased during the Middle Archaic period and grew still more during the Late Archaic. A large number of sites was used during these early periods, though without intense occupation. During the transition from Archaic into Woodland times there was marked increase in the use of the area, resulting in an increase in the cultural debris left at the sites. This is particularly reflected in the sudden increase in kinds and numbers of projectile points (see Fig. 4). Increased use continued well into the Early Woodland period, with almost all of the thirty sites located in the area bearing evidence of the phenomenon.

Following this period of greatest use there was a sharp decline in the amount of material left on some sites and an absence of material on others, indicating outright abandonment in the latter case. On the sites remaining in use, debris was localized to small areas within the site perimeter, suggesting brief occupations by small (family?) groups. This trend continued through the Late Woodland period, with a slight increase in the number of sites utilized but still following the restricted localization of activity areas and materials deposition characteristic of the preceding period. Site use in the area was almost completely discontinued during the Mississippian period and was very limited where it occurred, perhaps indicating even shorter term use than during the two preceding periods. Early historic use of the area was no more intensive than that of the Mississippian period.

Other Lithic Tools

Probably the best way to discuss the remaining tools would be by way of their association in the make-up of "tool-kits" or groups of associated tools used in particular tasks. For the prehistoric situation this cannot be explicitly done in the southeast because archaeological excavations have not adequately identified the clusterings of tools for specific tasks or the use and function of specific groups of tools. Should this have been done, discussion would have been greatly simplified and perhaps reduced to a simple list of the end products and the tool kits and materials necessary for its production. Since this has not been done, it is therefore necessary to discuss the tools individually and then to identify their possible uses in the context of a particular activity or set of activities. Such discussion must remain speculative when little is known about the habits of the people and the multi-use possibilities of many of the tools.

Adzes may initially seem out of place in the hunting-gathering economy postulated for the survey area. They may, however, have been

used in manufacturing and maintaining hunting equipment or in functions directly relating to food procurement and preparation, such as digging and butchering.

Drills were probably employed for piercing diverse materials such as hide, bone, shell, and stone. That only three specimens of the tool were recovered suggests that the drill was not used directly in the principal activities carried on in the area but may have had a supporting function.

Knives, represented by only two specimens, appear to be weakly represented in the collection, particularly if we are talking about a hunting economy. It must be remembered, however, that some artifacts classified as projectile points may have been used interchangeably as knives. Knives, then, would have been applied indirectly in the food quest through the manufacture of weapons and preparation of food, while they may also have been used directly as weapons.

Only a few scrapers were found, but some scraping functions were likely supplemented or accomplished entirely by adzes, hoes, and projectile points. Scrapers were support tools for hunting and were also used in preparation of food and other materials.

Choppers probably supplemented hoes and adzes in the functions mentioned for those tools. They are regarded largely as preparation tools.

The large number of flakes recovered strongly suggests onsite lithic tool manufacture, an industry supportive of the hunting economy. The number of collected cores from which the flakes and lithic tools might have been struck, however, is small. This apparent insufficiency may be reversed if the quantity of rough rocks on the site and the local availability of Citronelle chert and Tallahatta orthoquartzite are considered.

Hammerstones and anvil stones were both employed in many manufacturing techniques but were used principally in the production of lithic tools. They may also have been used in food preparation, particularly for such jobs as cracking nuts and breaking bones. Abrading stones may have been used to manufacture hunting implements, but probably found greatest use in the manufacture of other products. The grooved abrading stones could have been used to manufacture and maintain bone and possibly wooden awls and other implements of the same material. They may also have been used to grind hematite to obtain pigment for ritual use, although little of the hematite found in the survey appeared to have been so used. Mauls and possibly axes may have been used directly in hunting game and in other food quest activities, and it is likely they were used also in food preparation. The tools were probably used interchangeably with adzes and hoes for some tasks. Manos, pestles, and mortars suggest food preparation primarily, though they may have been used in preparing other materials.

Ornamental stone objects may seem to contribute little to site interpretation, but there is upon closer examination some reason to deduce a relationship to the food quest. The bannerstone was a direct part of the food quest in its use as a weight for the atlatl. It is more than likely also strongly involved in male hunting ceremony, important to the success of the hunt and perhaps regarded by its users

as equally important as the hunt itself rather than merely ceremonial. In this ceremonial context the fragmentary bar gorget may also be involved.

Of the lithic tools other than projectile points, slightly more than half appear to have been involved directly in food-quest activities. The remaining tools seem to have supported those activities, particularly in food preparation. Next in importance is the production and maintenance of hunting equipment partly from the byproducts of the food quest.

Unfortunately the lithic tool types cannot be assigned to definite time periods as easily as the projectile point types. Drills, most of them probably made from discarded projectile points, may be coeval with projectile points having similarly shaped bases. Manos, pestles, and mortars, though not securely placed in a time scale, appear shortly after the end of the Paleo-Indian period and might possibly have been supplanted by wooden mortars by the Late Woodland-Mississippian periods. Tools such as these are considered largely Archaic and early ceramic. Bannerstones, particularly of the type represented by the one in the survey collection, and probably the flat bar gorget, are usually regarded as spanning the Early Archaic to Poverty Point-Tchula periods. These datings imply, though not without serious reservations, that most survey-area non-projectile-point lithics were used and deposited in the Late Archaic and Poverty Point-Tchula periods. This assignment agrees in general with the interpretation of the projectile-point chronology.

Features, Site 22-Ck-526

Few if any of the forty-two features discovered at site 22-Ck-526 were recorded as having great depth, most pits measuring at most four to eight inches vertically, with only a few exceeding twelve inches. In some instances the measurements taken during excavation probably were true measures of original feature depths. The hearth-pits, for example, may have been shallow, since a pit built to build a fire does not seem to require much depth. It is also difficult to remove heated clay balls and lumps from deep hearths should that be necessary. Many of the recorded feature depths, however, were doubtless less than true depths because features were cut away by the excavation blade. Such was certainly the case with Features 3, 9, 24, and 26, and possibly true of Features 5, 33, and 41. Even when allowing for such damage, however, these features were not particularly deep, none of them probably measuring much more than a foot before excavation damage, since none exceeded twelve inches from point of first observation to base. But these pits might have been considerably deeper if, as is often the case when pits are dug into pure sand, the darker fill of the pits appeared only well below the pit mouths. Certainly none of the pits at Archusa Creek had a depth comparable to pits observed by the author at the Goode Lake sites in Jackson County (Marshall 1982), where pits measured on the average more than twenty-four inches vertically, although as at Goode Lake many pits at site 22-Ck-526 were in direct association with ceramic-bearing levels.

Feature distribution at site 22-Ck-526 and possible associations among those features are other relevant considerations. The overall feature distribution (Fig. 2) correlates well with the axes of the terrace upon which site 22-Ck-526 is located. Distribution was rather even though features tended to concentrate on the highest portion of the terrace. Other clustering patterns are possible, however. Perhaps the best association of features with a pit or hearth is that around Feature 5, where a row of post molds, a living floor, and a hearth-pit were found together. Feature 4 occurred at approximately the same elevation as Feature 5 and may possibly have been associated with this group, while Feature 56, nearer than Feature 4 but at a different elevation than Feature 5, would be a less likely association. Features 7 and 14 and 16 may also have had some association beyond horizontal proximity. Features 7 and 14 seem to have been at a common level, may have been in association. Feature 16, which was nearby, but some 0.4 deeper, may not have been associated. Features 19, 20, and 21 seem to be associated by proximity but occurred at markedly different depths. Features 22, 24, and 26 may also have been associated. The three occurred at approximately the same level and were very close to one another. Features 22 and 24 both had Alexander series pottery, though not from the same vessel. Feature 23, which was not so near but at the same level, might have belonged to the group since like Features 22 and 24 it contained Alexander pottery.

Rather than associating small groups of features occurring at the same level, one might well take an approach of studying general occupation areas at site 22-Ck-526. Taking such an approach, it may be suggested that on the higher part of the site, that area bounded by Features 7 and 13 on the north and Feature 18a on the south, two occupations widely separated in time might have occurred. Features 7, 13, 14, 15, 21-27, 34, 36 and 38-41 all occurred at or more than four feet above the established datum point. Six features contained pottery, five yielding Alexander sherds and Feature 24 containing later Baytown. Four other features, 18b, 19, 20, and 31, all occurred below four feet. Three of these contained pottery, Features 19 and 31 yielding Alexander sherds and Feature 18b Bayou La Batre. There does not, then, appear to be evidence for two temporally distinct occupations. This is particularly negated by the occurrence of large quantities of pottery in both sets of features.

The same approach can be taken to the group of features on the eastern part of the site, that portion bounded by Features 5 and 6 on the north and Feature 33 on the southwest. Features 4, 8, 9, 12, and 15 occurred above four feet, while Features 6, 10, 11, and 33 were recorded below that level. Features 4, 12, and 15 contained pottery, the first two having Alexander sherds and the third Wheeler. Here one might argue that there was evidence for two temporally distinct occupations but for the fact that the remaining contents of the pits were not strikingly different. In the group comprised of Features 25, 28, 29, 30, and 37, all of which occurred above 3.6 feet, three contained pottery, one Alexander sherds, another a mixture of Alexander and Wheeler, and the third undetermined because lost. Again, the evidence could well represent a single occupation. Only one of the forty-two

features, Feature 5, suggested anything greater than a temporary occupation. That feature, with its built-up activity floor, pit, and apparent evidence of a constructed shelter, indicated an expenditure of greater effort than the others. If the third cluster of features mentioned above represents a real association, it might also suggest something more than just a very temporary occupation. Feature 18a is unusual for its large amount of pottery. This was mostly of the Alexander series, but the feature also contained some types which by paste composition and decorative treatment can be associated with the Tchefuncte series (Mandeville Stamped, Tammany Pinched, and the scallop-shell stamped), which is contemporary with Alexander. It has also been noted that much of the pottery from several features appeared severely burned. Often this burnt pottery was discovered together with large quantities of fired clay lumps. This writer feels that the occurrence together of sherds and lumps is not coincidental. It seems very likely that the sherds were used in hearths to supplement or substitute for clay lumps. This interpretation is supported by the great quantity of overfired or burnt pottery, including Tchefuncte series wares, in which no less than five different vessels were represented. The author urges other researchers to look for evidence to confirm or deny such a practice.

Most fired clay objects from the features were amorphous or so badly fragmented and burned that little could be learned from them. A few pieces that may have been shaped were recovered, but balls that were unquestionably shaped were found in only one feature, Feature 24, and they were so badly fragmented that shape identification could not be made and we can only say that they were probably spherical. It might also be noted that this was the only pit containing Baytown Plain pottery; the association of biconical or spherical clay balls and Baytown pottery is common in the Lower Mississippi Valley.

But the lack or nearly so of shaped clay balls in hearths containing nothing but ceramics follows a pattern noted at the Goode Lake sites in Jackson County (Marshall 1982), also in the Pascagoula basin. At both localities the features appear to be the result of random short-term occupation.

Use of the Survey Area

Analysis of the cultural material recovered indicates that the survey area was moderately heavily occupied, at least intermittently, from the Early Archaic period down to early historic times. Occupations were probably short-term incursions into the area, perhaps seasonal, by people occupying the Pascagoula River drainage. The Archusa Creek area is a narrow band of intermediate vegetation between the uplands of the lower coastal plains and the broad, level, moderately swampy riverine bottomlands of the Pascagoula basin. Though the survey area is located on lower Archusa Creek, it is also immediately adjacent to the Chickasawhay River to the west and south. The gum, cypress, and lowland hardwoods of the creek bottom provided resources markedly different from those in the nearby uplands, which offer an important food source. Attractive to Archaic period hunter-gatherers,

the survey area was high enough to escape all but the most severe floods from the Chickasawhay yet near enough to offer access to that river's resources. The vast uplands with their abundance of hardwoods and pines probably carried also an understory vegetation ideal for the support of browsing animals like deer and woodland buffalo. The area would also have been attractive to more culturally advanced post-Archaic people engaged in gardening, though it is doubtful that the area was used extensively for gardening.

Cultural materials are limited largely to three classes, each roughly indicative of some aspect of the cultural economies of which they were a part. First, there was a preponderance of projectile points in the collections. This suggests a strong hunting orientation but it does not necessarily rule out other activities, particularly hunting-related and food preparation-related activities. Projectile point-like tools may be used also as knives in hunting, food preparation, and manufacture.

The second class containing other stone tools is quite small, suggesting few activities not related to hunting. The grinding, pounding, chopping, and flake tools are appropriate to food quest and processing activities. Flakes may be a by-product of the hunting economy, but also may have been used as cutting tools in food gathering and processing, including basket-making for the transportation of food products.

Thirdly, the pottery, not particularly abundant on any site but quite variable and rather critical as time indicators, suggests not only cooking, but food processing and storage. One might say that certain ceramics are a support industry (at least in part) to hunting, gathering, and food activities.

With little evidence present for anything but hunting, gathering, and food processing, one may say that the survey area was not extensively used as a dwelling area. It rather appears to have been used extensively, or at least frequently, for food procurement. This view is further supported by the interpretation of the material and features at 22-Ck-526.

The cultural materials from site 22-Ck-526, though quite limited, are in many respects much the same as for the whole of the survey area. It is unfortunate that projectile points were not found in direct association with the features and ceramics from this site. It is apparent that 22-Ck-526 was largely occupied by people possessing the Alexander ceramic tradition, a Tchula period ceramic complex. There is some suggestion that this tradition may be contemporaneous, at least in part, with ceramics of the Bayou La Batre and Wheeler traditions, and contemporaneous with the Tchefuncte tradition and possibly part of the Baytown tradition. There is certainly strong suggestion of contemporaneity between the Tchefuncte and Alexander ceramic traditions, not only here but in a broad area of south Alabama, Louisiana and Mississippi. Evidence for Alexander and Wheeler ceramic traditions occurring side by side was indicated but not strongly for 22-Ck-526. There is, in the general area of the three states mentioned above, also a broad though as yet unclear association of Wheeler and Alexander ceramics. The Baytown pottery found in Feature 24 of site 22-CK-526 is

probably somewhat later than the Alexander pottery.

It is disappointing that the evidence offered by the little material found at 22-Ck-526 may have been compromised by the possibility that many of the pottery sherds found in the features were picked up and used in a manner much like clay balls and lumps, thus not actually reflecting with certainty the specific users of the ceramic complex found in that feature. There should be strong association between the pottery found in a feature and the period of feature use, because the ceramics must have been visible on the surface in order to be picked up. This suggests only a slight difference in time, or near contemporaneity. The possible use of pottery sherds in the same manner as clay objects and much of the ferruginous sandstone would explain some of the use of the pits and hearths, the lack of complete, restorable vessels, the burned appearance of the pottery sherds, and a lack of other more diagnostic elements of the cultural complexes using the site.

The association of stone tools and features at 22-Ck-526 gives another dimension to the cultural use of the site. Though most were found out of context, a few did occur in the features. The limited time spread of the features would suggest that many of the stone tools are directly associated with the making and use of the features. This broadens our understanding of the cultural inventory. The kinds of tools, ceramics, and features, the lack of extensive occupation floors and debris - all give a picture of temporary, short-term occupancy. This is assumed to be indicative of a short-term hunting-gathering use of the area.

Recommendations

1. Sites should be protected from indiscriminate collecting and digging according to the statutory requirements of the state antiquities law. Though the sites normally lie beneath the lake surface during the summer, some sites are exposed in the winter when the lake is drawn.
2. All artifacts collected in this study should be accessioned and cataloged by the Mississippi Department of Archives and History. Donations of artifacts from the survey area and adjacent areas in the possession of others should be encouraged.
3. After accessioning, cataloging, and study by the Mississippi Department of Archives and History, selected artifacts should be lent to a suitable public institution near the survey area for appropriate use in providing a true interpretation of area prehistory.
4. Additional excavations in the survey area should be undertaken to obtain specific sequential data, to discover and study additional features and cultural materials, to demonstrate changes in cultural practices and patterns of regional site use, to study the associations of occupations with broader taxonomic problems, and to correct misinterpretations made in this report.

5. Surveys of adjacent areas should be conducted to accomplish the same ends set forth in recommendation 4 and to produce data for comparison with the data from this study.

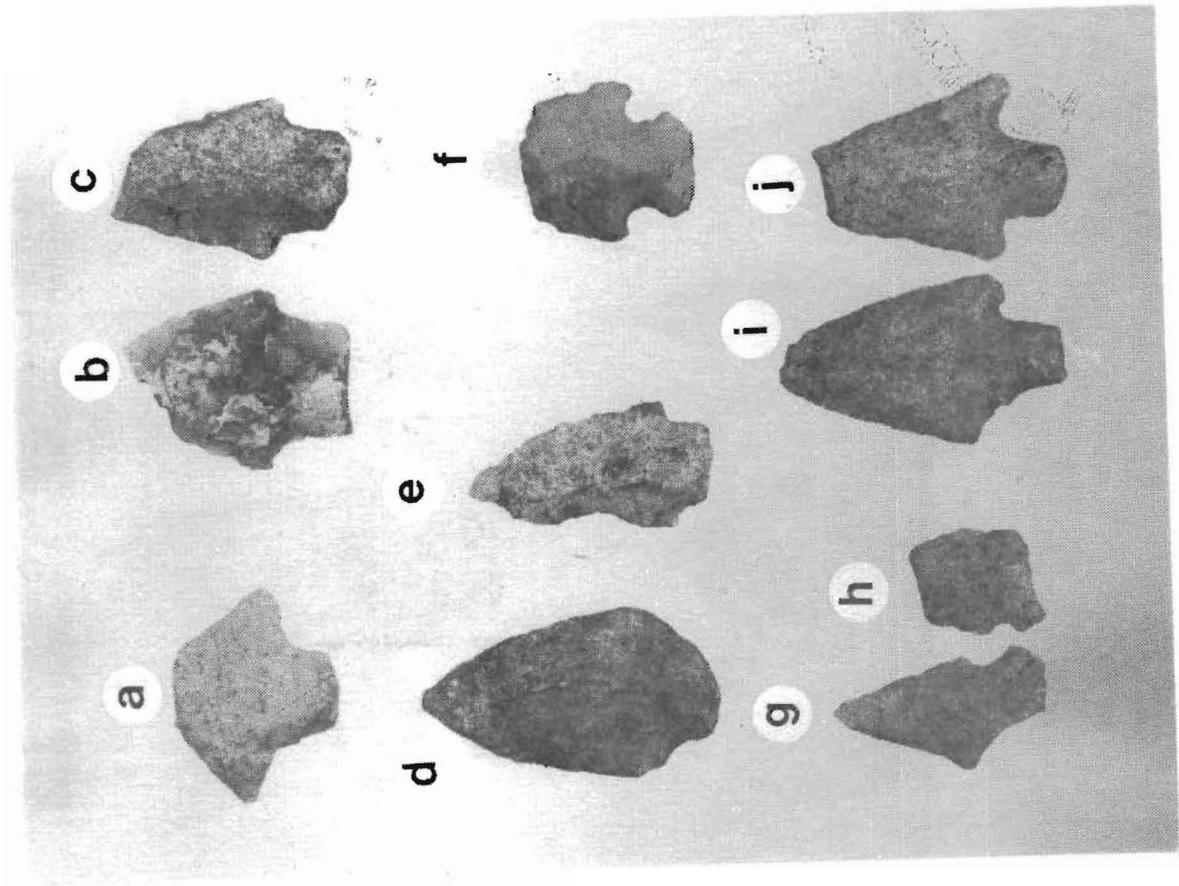


Plate 1. Abbey (a), Appalachian (b, c), Benton Stemmed (d, e), Big Creek (f), Big Sandy (g, h), Bulverde (i, j) points.

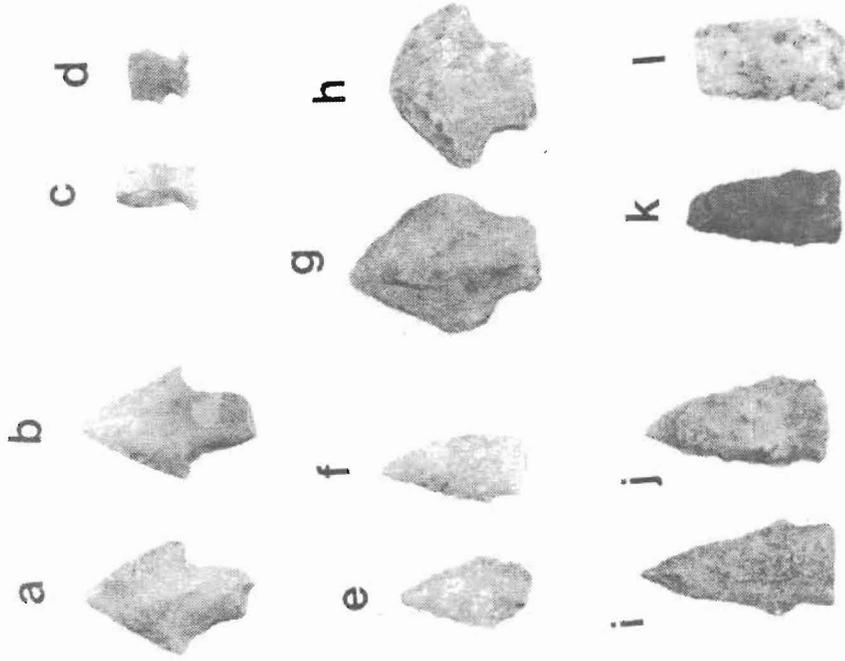


Plate 2. Carrollton (a, b), Collins (c, d), Coosa (e, f), Cotaco Creek (g, h), Crawford Creek (i, j), Colbert Dalton (k, l) points.

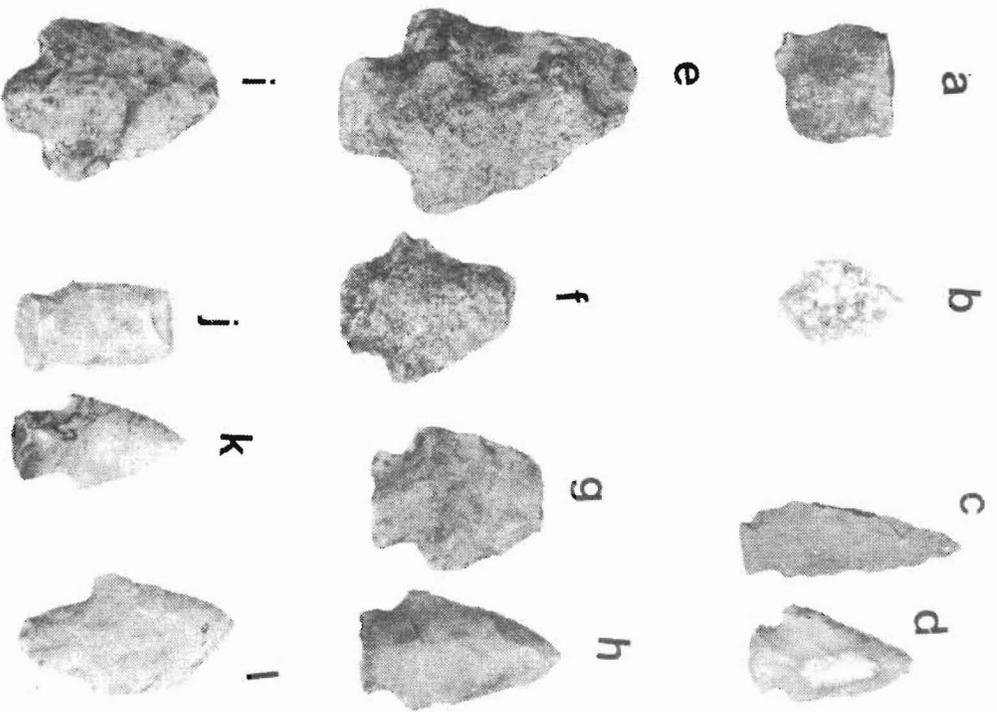


Plate 3. Greenbrier Dalton (a), Ebenezer (b), Ellis (c, d), Elora (e, f), Ensor (g, h), Eva I (i), Flint Creek (j, k), Gary (l) points.

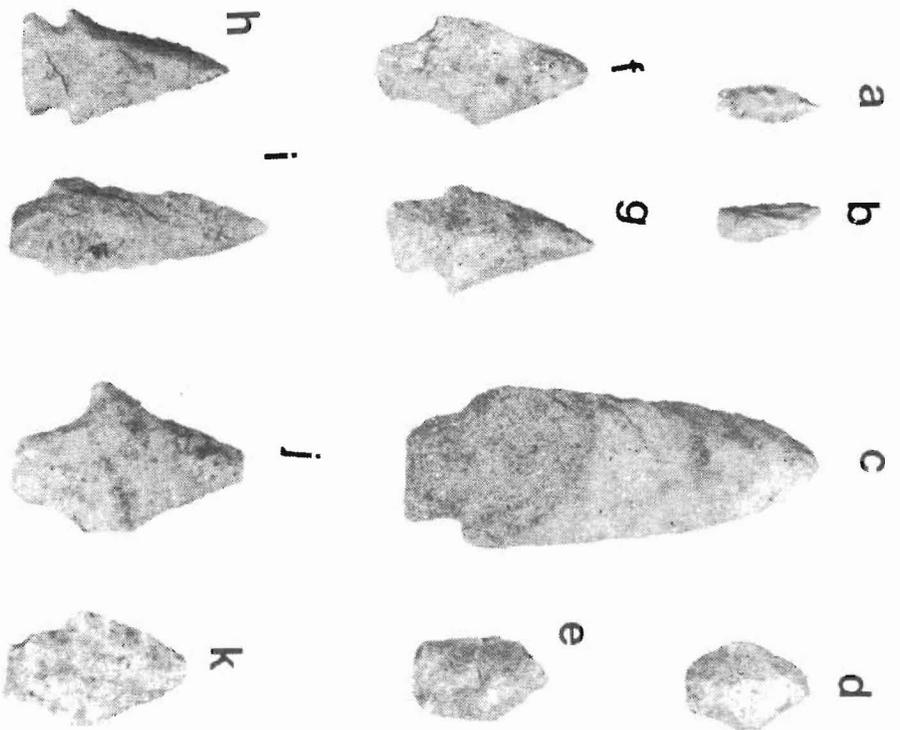


Plate 4. Gunterville (a, b), Hardin (c), Jacks Reef Pentagonal (d, e), Kent (f, g), Kirk Corner-notched (h), Kirk Stemmed (i), Langtry (j, k) points.

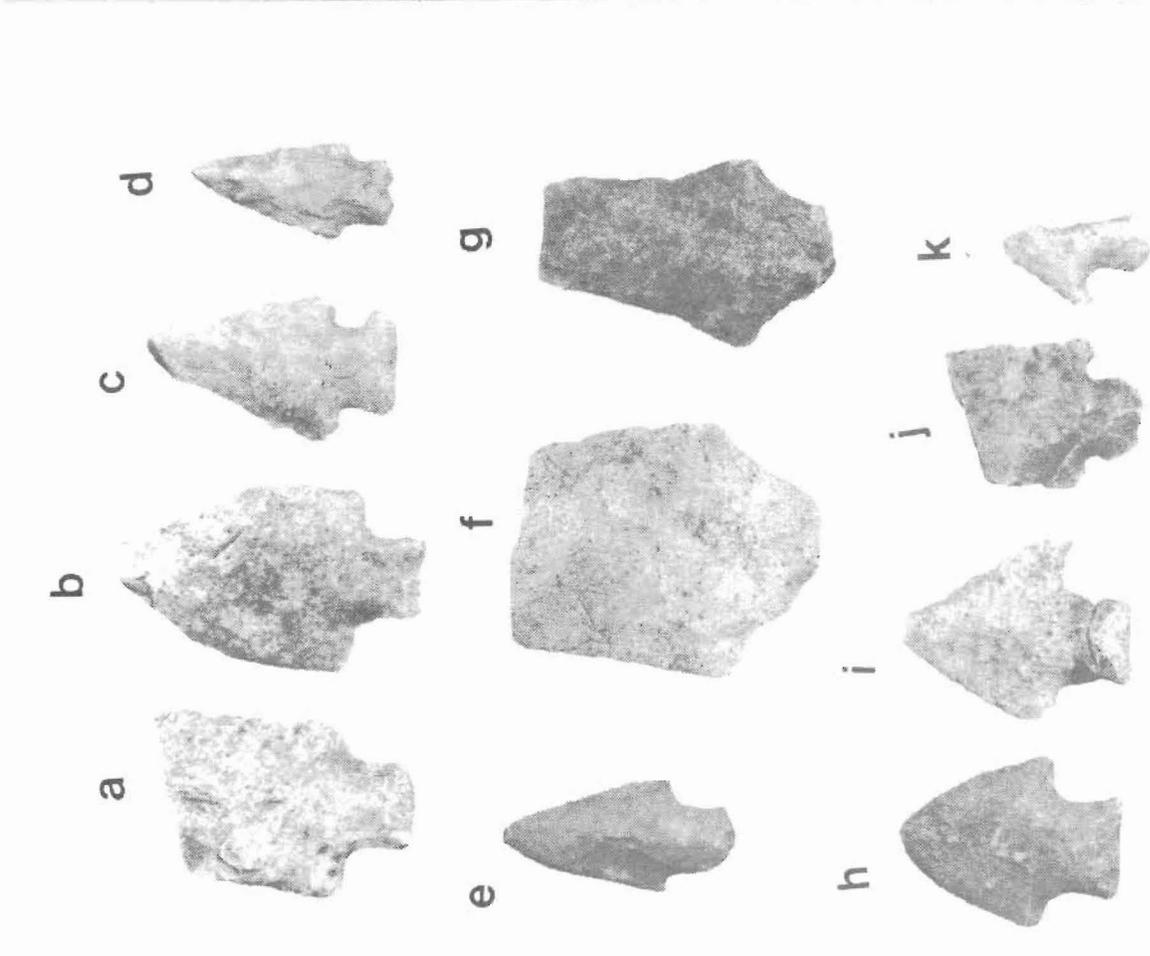


Plate 5. Ledbetter (a, b), Lost Lake (c), Macon (d, e), Maples (f, g), McIntire (h, i), Palmillas (j, k) points.

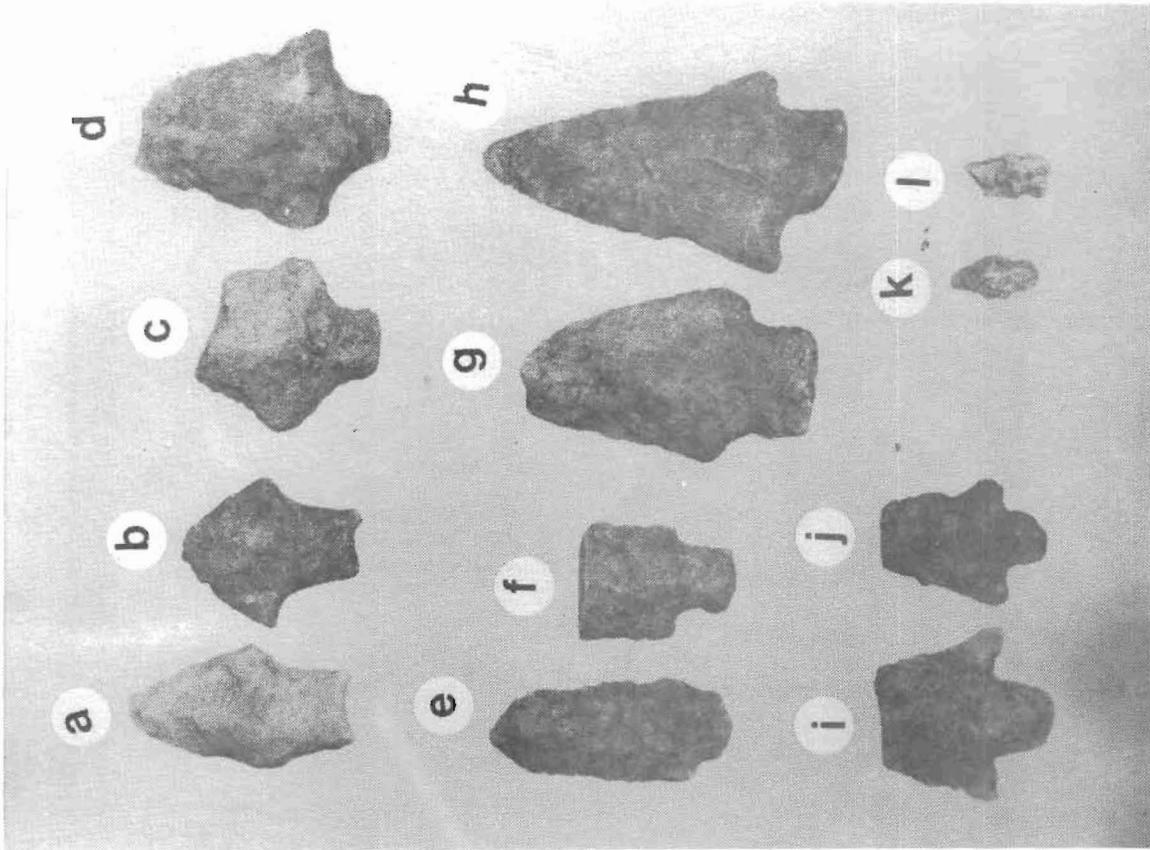


Plate 6. Pedernales (a, b), Pickwick (c, d), Pontchartrain (e, f), Robbins (g, h), Shumla (i, j), Scallorn (k, l) points.

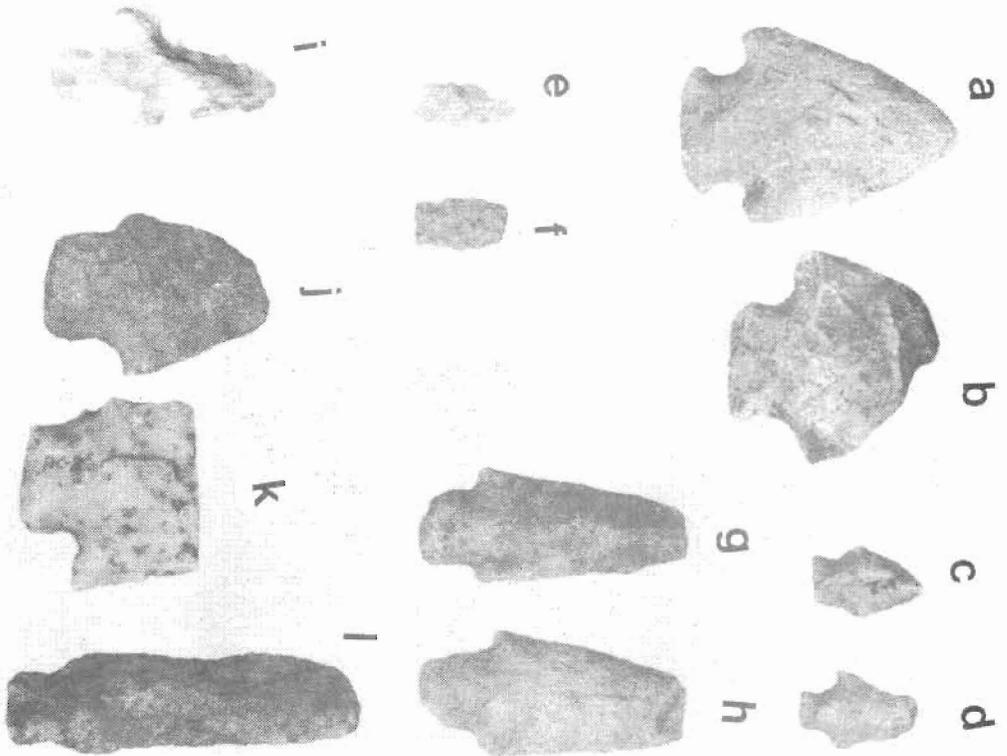


Plate 7. Snyders (a, b), Swan Lake (c, d), Washington (e, f), Yarbrough (g, h), Unidentified categories 1 (i), 2 (j, k), 3 (l) points.

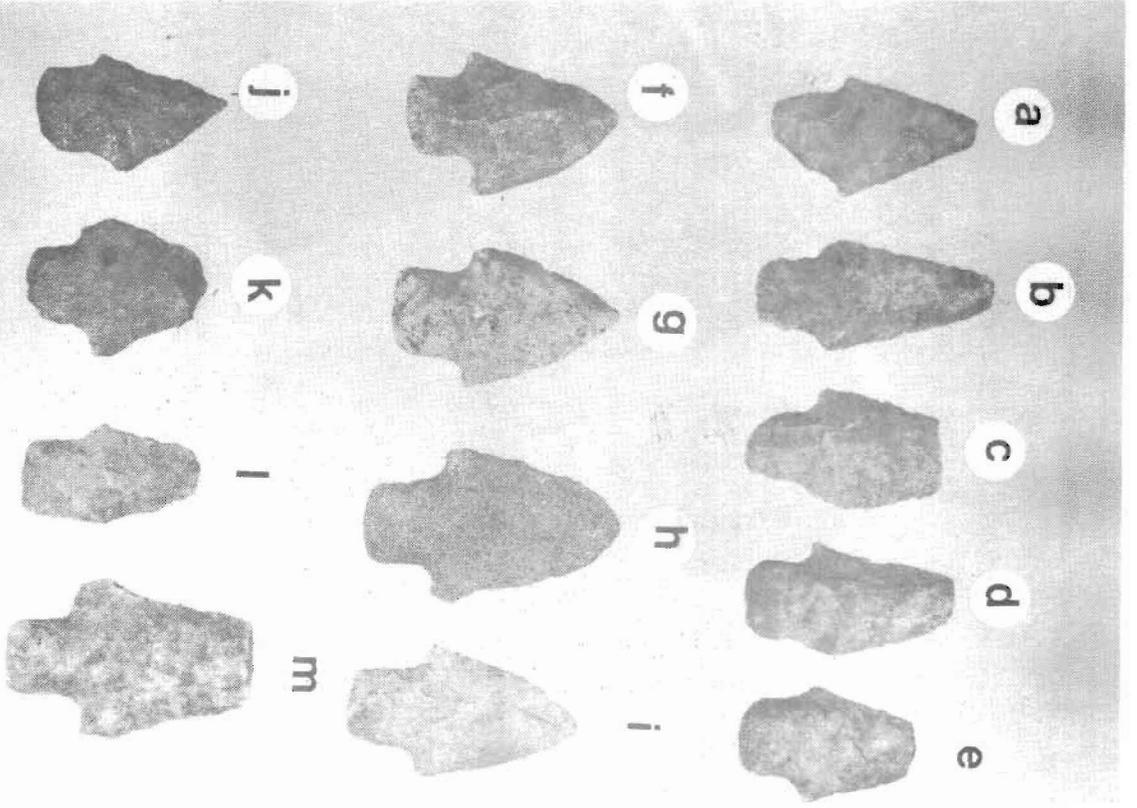


Plate 8. Archusa Stemmed points (tentative type). Typical points, showing reworking (a-e), finished points, not reworked (f-h), uncommon specimens (j-m).

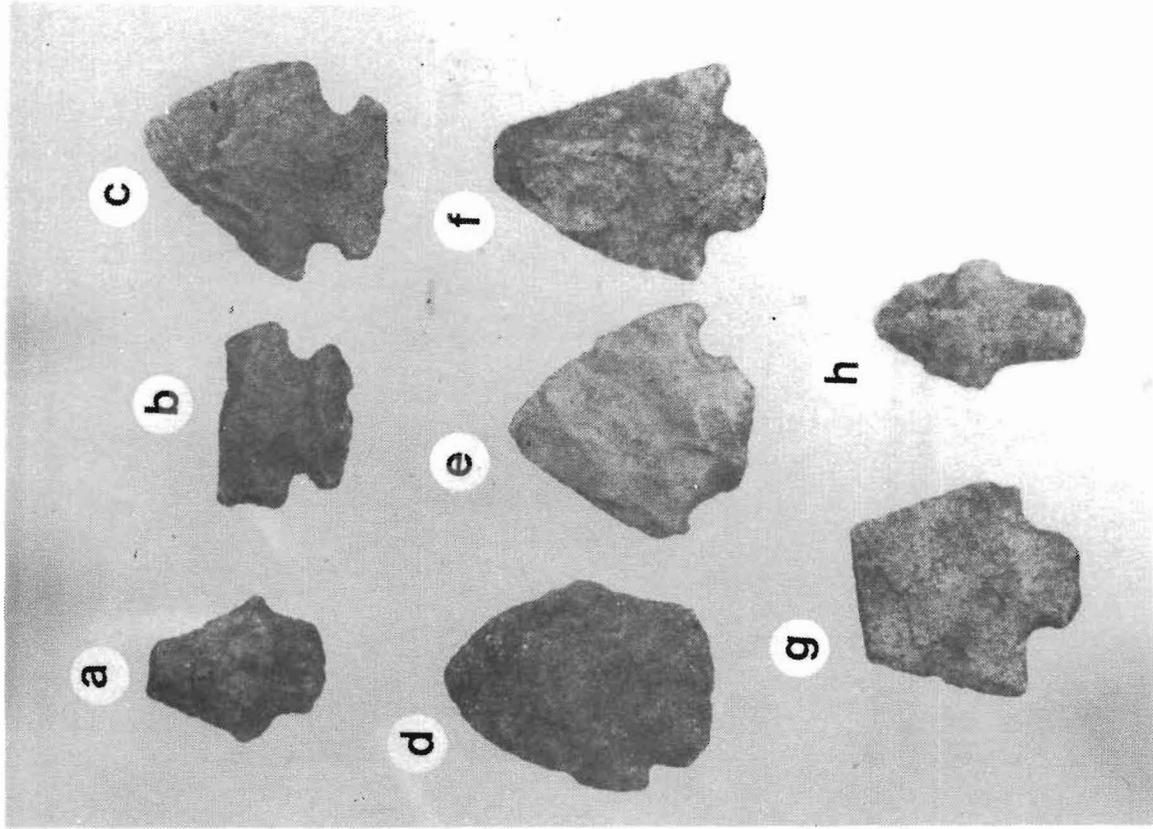


Plate 10. Unidentified categories 9 (a), 10 (b, c), 11 (d, e), 12 (f, g), 13 (h) points.

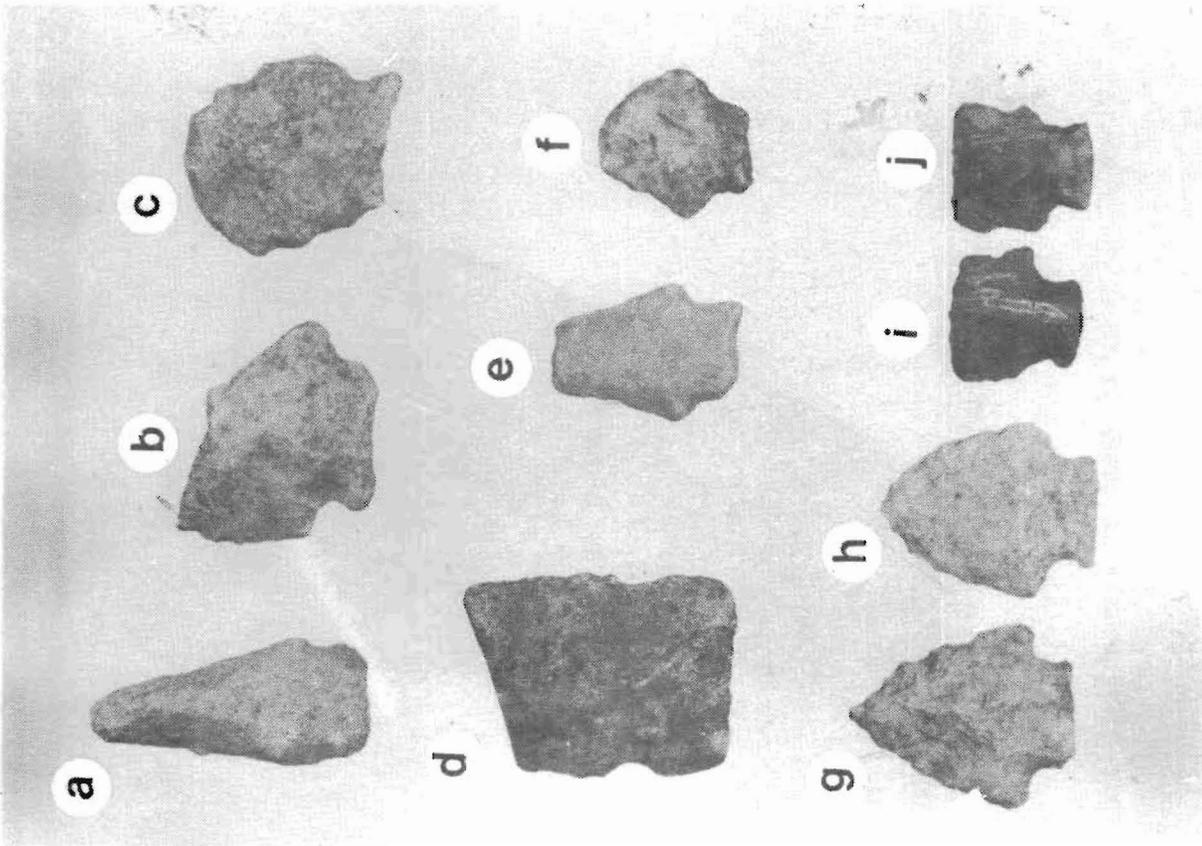


Plate 9. Unidentified categories 4 (a-c), 5 (d), 6 (e, f), 7 (g, h), 8 (i, j) points.

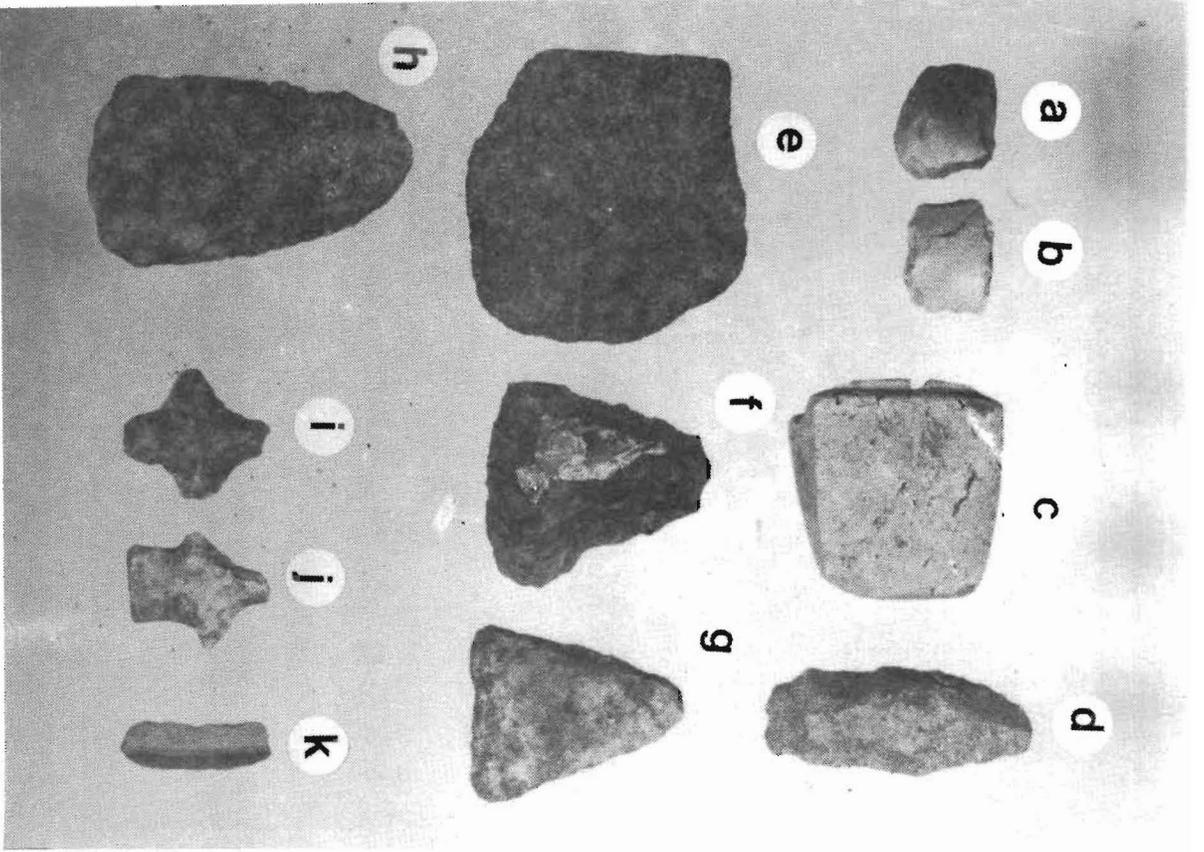


Plate 11. Assorted lithic artifacts. Spall gunflints (a, b), bannerstone fragment (c), biface knife (d), grooved abrading stone (e), stemmed scraper (f), adzes (g, h), drills from reworked points (i, j), unutilized lamellar flake (k).

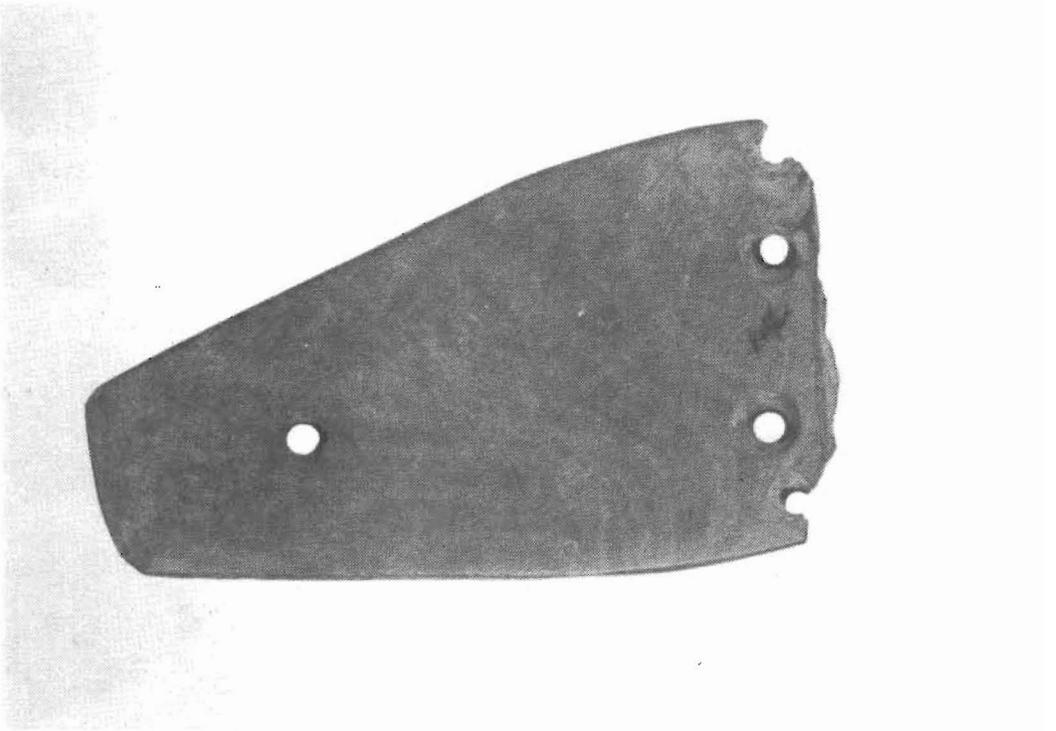


Plate 12. Gorget fragment from site 22-Ck-516.

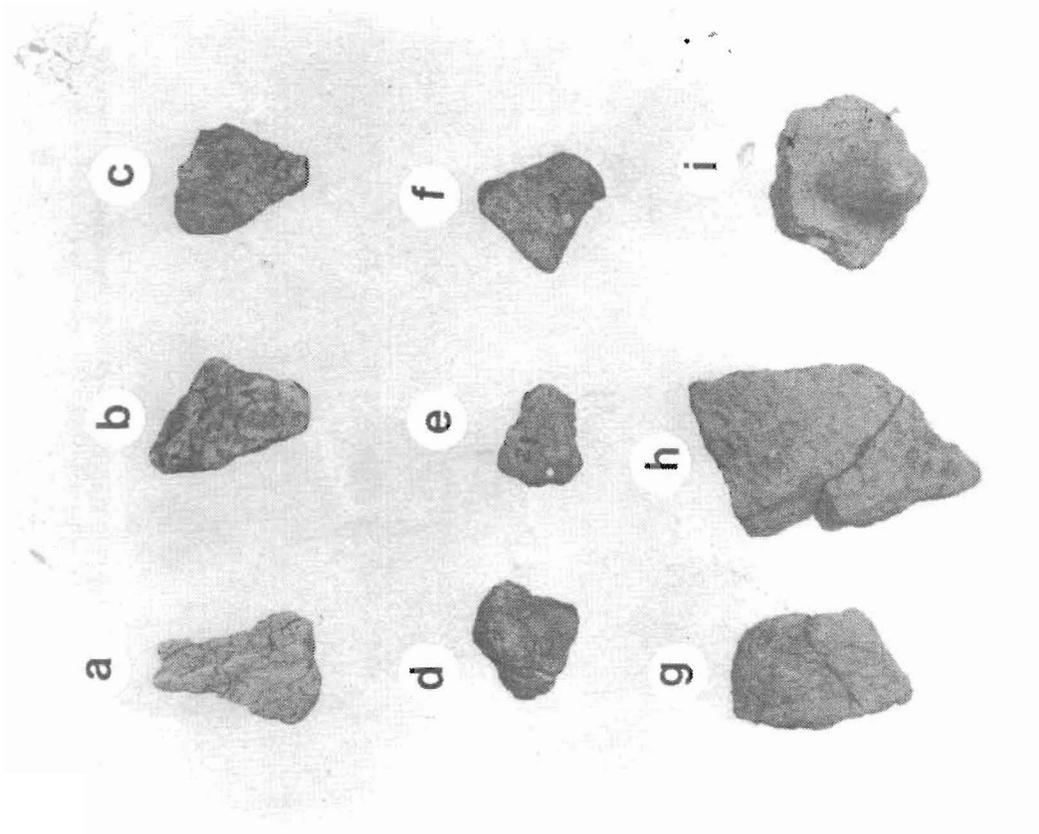


Plate 13. Wheeler Plain (a-c), Bayou La Batre Plain (d-f), Bayou La Batre Cord-wrapped Dowel-impressed (g, h), and Bayou La Batre podal support (i).

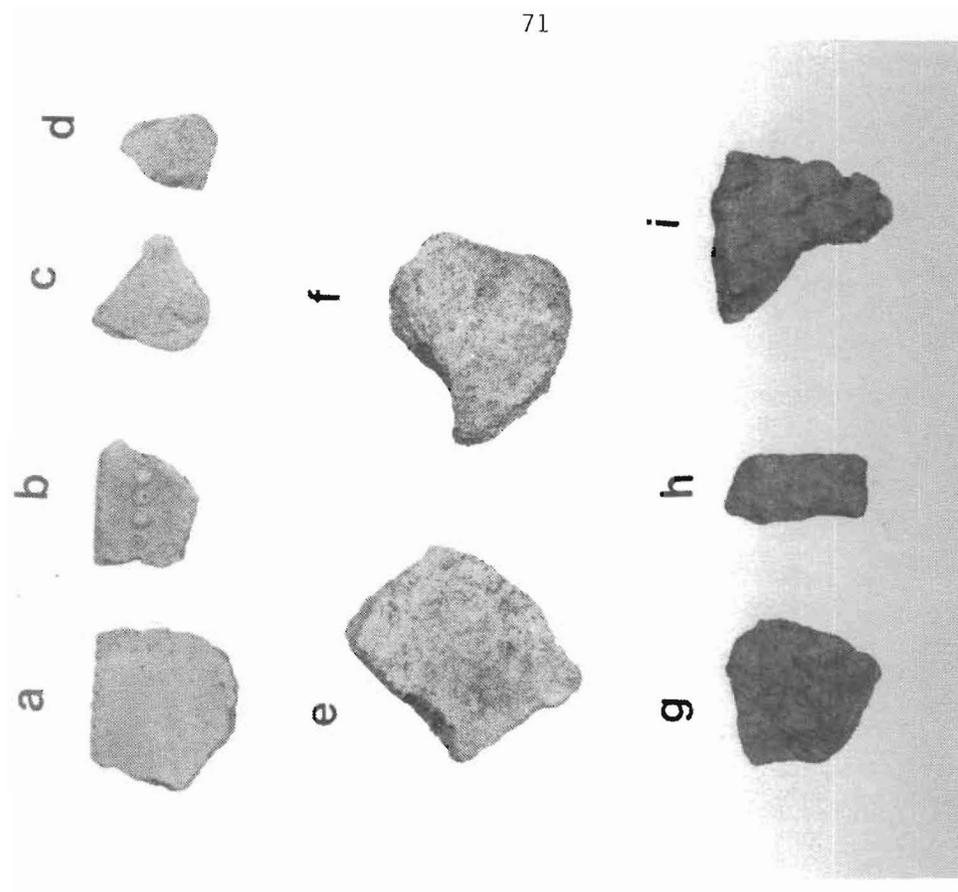


Plate 14. O'Neal Plain rim (a), O'Neal Plain rim with bosses (b), Alexander-paste sherds with fabric impressions (c, d), Bayou La Batre-paste sherds with pinched rim or punctuated decoration (e, f), Alexander Incised rim with punctuations (g), and Alexander Pinched (h, i).

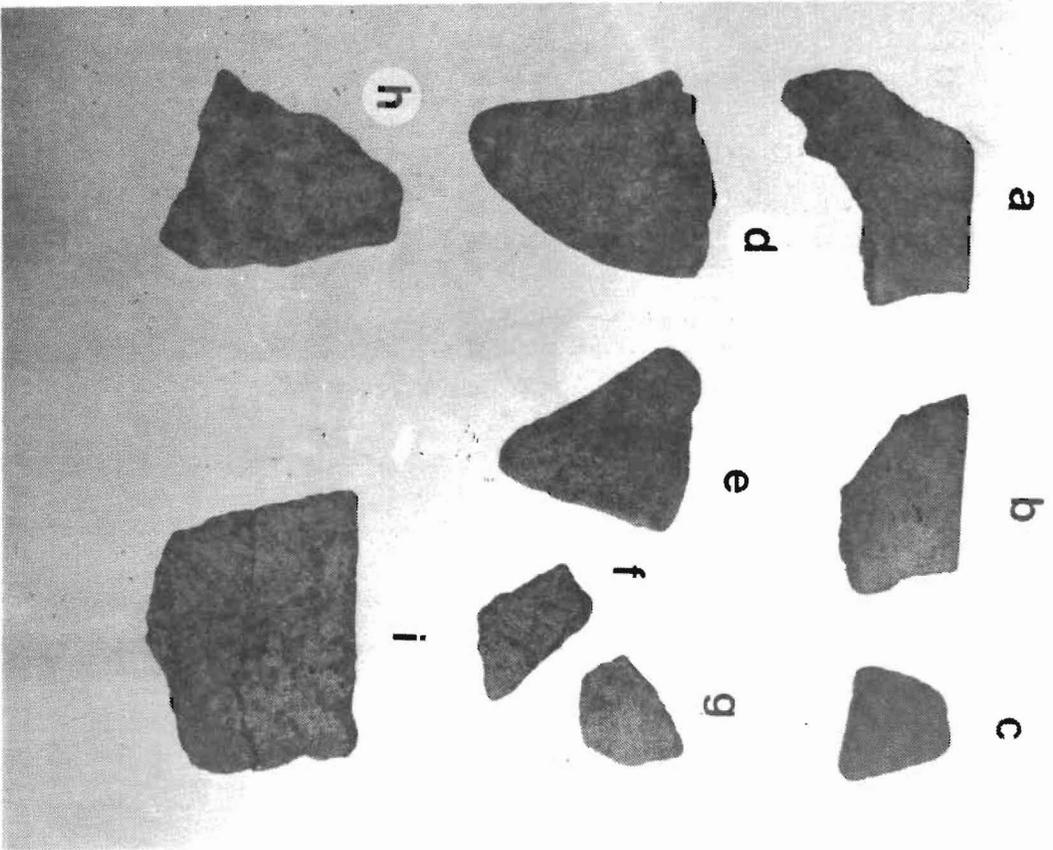


Plate 15. Tchefuncte Plain rim (a), possibly fabric- or cord-wrapped-dowel impressed (b), Tchefuncte Incised (c), podal supports, clay tempered (d), silt- or sand-tempered (e), Alexander-paste cordmarked (f), burnished (g), Tammany Pinched (h), Tchefuncte-paste, possibly stamped design (i).

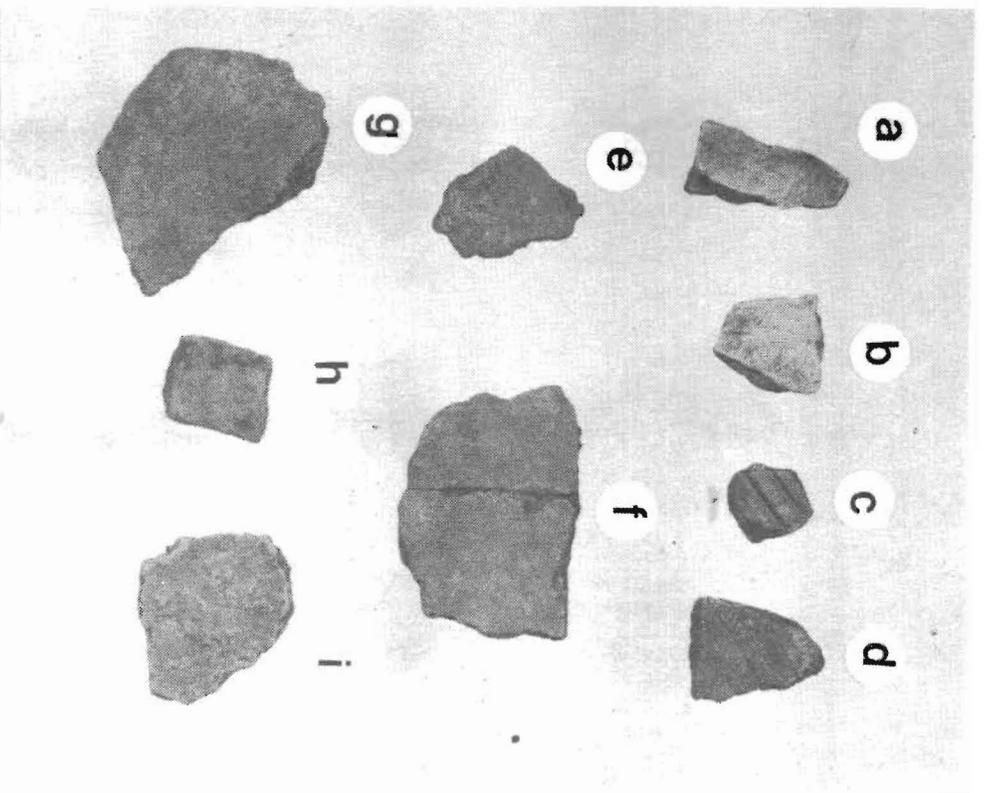


Plate 16. Baytown Plain, var. 3 (this report) (a, b), with incised decoration (c), and cross-hatched incised decoration (d), Mulberry Greek Cordmarked (e), Baytown Plain, var. 2 (this report) (f), square base (g), curvilinear incised decoration on Baytown paste sherd (h), Baytown Plain, var. 1 (this report), (i).

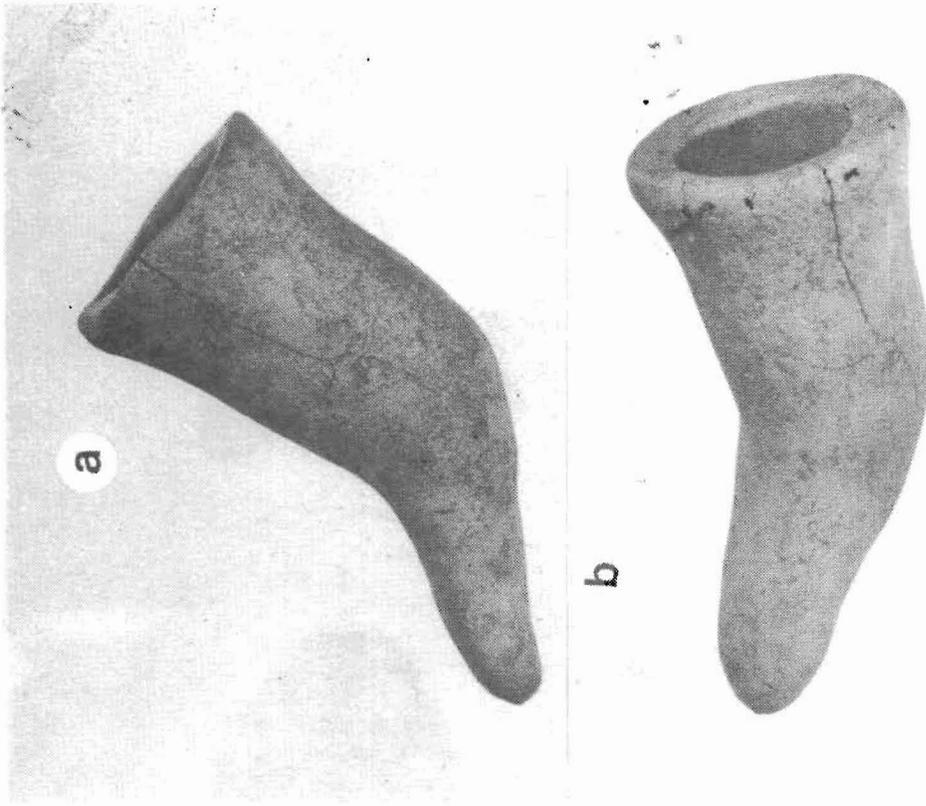


Plate 18. Sand-tempered clay pipe from site 22-Ck-526. Profile (a) and oblique (b) views.

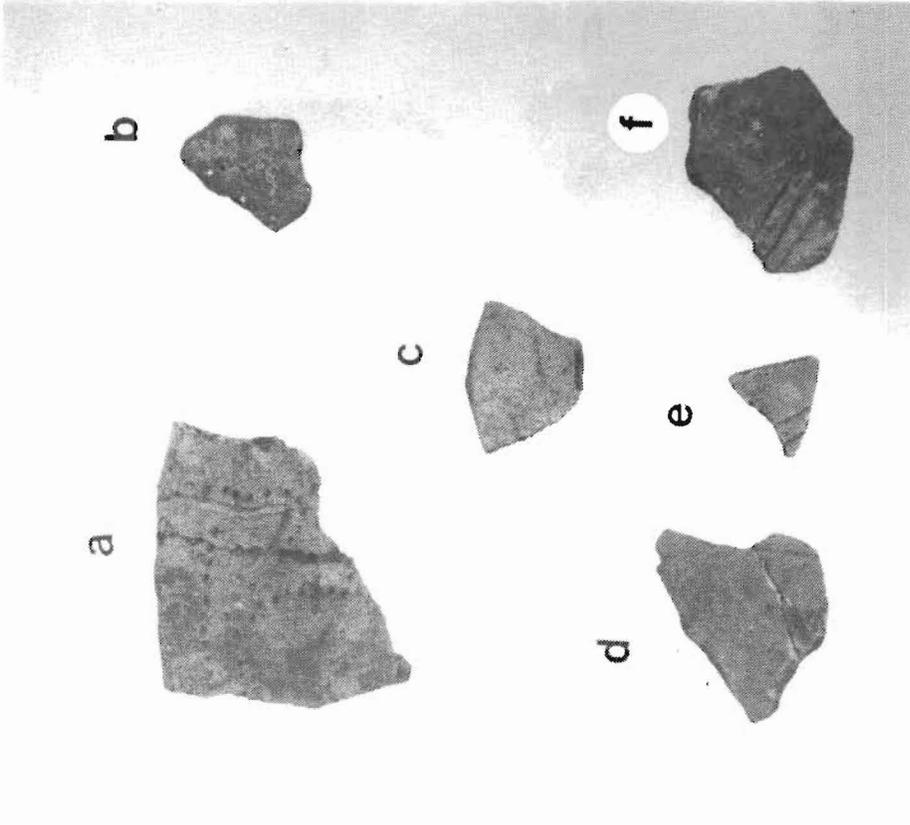


Plate 17. Unidentified punctuated and incised sherd (a), Mississippi Plain (b), unidentified rectilinear incised sherd (c), Leland Incised, var. Bayou Coula (d-f).

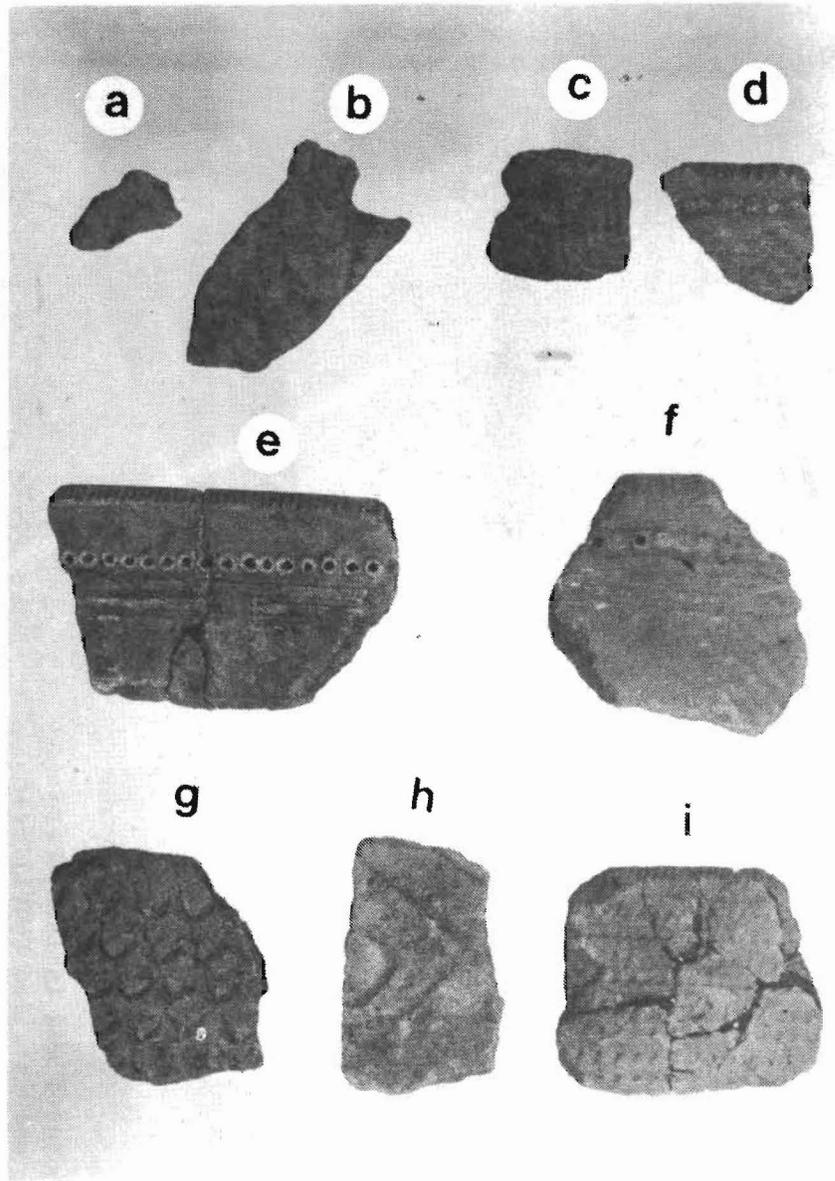


Plate 19. Decorated sherds from features in site 22-Ck-526. Tammany Punctated (a, b), Alexander Incised rims (c, d, f), Alexander Incised with vertical rocker-stamped body (e), Alexander Pinched (g), Smithsonia Zoned Incised (h), and Mandeville Stamped (i).

Sites	503	504	505	514	515	517	518	519	520	521	522	523	525	526	527	528	529	530	531	532	1-2	Total
Wheeler Series																						
Wheeler Plain					2				1									1	1			5
Bayou La Batre Series																						
Bayou La Batre Plain	2			3	3	4	4	9	4	17	1	2	1				1					44
Bayou La Batre Cordwrapped				1	1		2	1														4
Misc. Bayou La Batre										6												6
Alexander Series																						
O'Neal Plain	8	1		6	6	2	2	2	5	7	3		3						3			40
Alexander Incised				1	1		1			2			1									5
Alexander Pinched							1			1												2
Misc. Alexander Paste											3											6
fabric-marked				1	1		2															1
fabric-impressed				1	1													2				3
cord-marked									1													3
brushed							1															1
Tchefuncte Series																						
Clay tempered						2	5			8	1	1	1	1	2					1		20
Tchefuncte plain																						
Silt Sand Tempered																						
Tchefuncte Plain	3	3		31	31	1	6	2	2	21	18						2		37	1		127
Tammany Pinched					3		1			1									10			16
Incised (unnamed)																						1
Baytown-Coles Creek																						
Baytown Types																						
Baytown Plain, var. Thomas	1							1	2	7			3			5						19
Sub. var. 1						1	3			3		1	2	1								14
Sub. var. 2	3																				3	4
Sub. var. 3																						9
Mulberry Creek Cordmarked											8								1			4
Misc. decorated																						2
Punctated							1				1											8
Incised							4				1											2
Mississippian Series																						
Mississippi Plain								1		5			5									11
Bell Plain				8																		8

Table 3. Pottery Distribution by Site, Surface Collection

Table 5. Material Distribution in Trenches, Site 22-Ck-526, Summary

Material	Trench Subtotals										Grand Total
	Pass	1	2	3	4	5	7	8	9	10	
Ceramics											
Pottery											
Wheeler Plain					2						2
Tchefuncte Plain			2		2		2				6
Tammany Punctated				1							1
O'Neal Plain	9		5	5	2					2	23
Alexander Incised			3	1	1	2		1			8
Alexander Pinched						2		1			3
Smithsonia Zoned Incised					1						1
Baytown Plain			2						2		4
Baytown Plain, variety					1						1
Unidentified					1						1
Other Ceramics											
Fired Clay	41	47	54	35	37	3	30	18	37		302
Lithics											
Biface											
Ebenezer									1		1
Ledbetter									1		1
Pickwick				1							1
Category 12	1										1
Unidentified			1		1	1				1	4
Projectile Pt. fragments			1		1						2
Triangular Blade		1	1							1	3
Chopper								1	1		2
Uniface											
Flakes	1	2	6	3	6	3	6	6	15		48
Other											
Core			1							1	2
Abrading Stone			1		1						2
Cupstone									1		1
Mano									1		1
Mortar									2		2
Ferruginous Sandstone	3		8	5	11	11	7	2	7		54
Sandstone					1						1
Hematite				1	9						10
Historic											
Bone		1									1
Other	1				1						2

Table 6. Material Distribution by Features at Site 22-Ck-526

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Acorn Hulls and Meats (charred)														
Charcoal Sample					*			1						
Chopper														
Cupstone														
Ferruginous Sandstone				2	2	2	2	1	1					
Flakes				1								6		
Fired Clay, Amorphous				3	300	6	23	18	160	56	275	15	275	30
Fired Clay, Shaped													*	
Hematite-Limonite														
Mortar														
Projectile Point fragment														
Soil Sample														
Pottery														
Alexander Incised				10									1	
Alexander Pinched				8										
Alexander Paste														
Rocker Stamped														
Unidentified														
Baytown Plain, variety														
Bayou La Batre Cord Wrapped														
Dowel Impressed														
Mandeville Stamped														
O'Neal Plain				15										1
Smithsonia Zoned Incised														
Tammany Punctated														
Tchefuncte Plain				1										
Wheeler Plain														
Unidentified scallop shell stamped														

* Refer to written description of feature.

Table 6 cont'd. Material Distribution by Features at Site 22-Ck-526

Item	15	16	17	18a	18b	19	20	21	22	23	24	25	26	27
Acorn Hulls and Meats (charred)														
Charcoal Sample														
Chopper														
Cupstone														
Ferruginous Sandstone														
Flakes														
Fired Clay, Amorphous														
Fired Clay, Shaped														
Hematite-Limonite														
Mortar														
Projectile Point fragment														
Soil Sample														
Pottery														
Alexander Incised														
Alexander Pinched														
Alexander Paste														
Rocker Stamped														
Unidentified														
Baytown Plain, variety														
Bayou La Batre Cord Wrapped														
Dowel Impressed														
Mandeville Stamped														
O'Neal Plain														
Smithsonia Zoned Incised														
Tammany Punctated														
Tchefuncte Plain														
Wheeler Plain														
Unidentified scallop shell stamped														

* Refer to written description of feature.

Table 6 cont'd. Material Distribution by Features at Site 22-Ck-526

Item	Feature	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Acorn Hulls and Meats (charred)		1													
Charcoal Sample						1									
Chopper															
Cupstone											1				
Ferruginous Sandstone		5		21		1					10				20
Flakes		9		4											
Fired Clay, Amorphous		87	45	4	25		49	15	21	7	54		4	*	3
Fired Clay, Shaped							?					10			
Hematite-Limonite															
Mortar															
Projectile Point fragment		1													
Soil Sample															
Pottery															
Alexander Incised															*
Alexander Pinched		33	3		4										
Alexander Paste															
Rocker Stamped		202													
Unidentified		133													
B17aytown Plain, variety															
Bayou La Batre Cord Wrapped															
Dowell Impressed															
Mandeville Stamped															
O'Neal Plain		61	6		6										
Smithsonia Incised															
Tammany Punctated															
Tchefuncte Plain			4		4										
Wheeler Plain			1		1										
Unidentified scallop shell stamped															

* Refer to written description of feature.

Table 7. Pottery Distribution at Site 22-Ck-526, Summary

Pottery Series and Type	Trench Surface	Features	Total
Wheeler Series			
Wheeler Plain	6	35	41
Bayou La Batre Series			
Bayou La Batre Cord			
Wrapped Dowel Impressed		22	22
Alexander Series			
Alexander Incised	8	110	118
Alexander Pinched	3	55	58
O'Neal Plain	23	246	269
Smithsonia Zoned Incised	1	11	12
Unidentified Rocker Stamped		367	367
Unidentified	1	371	372
Tchefuncte Series			
Tchefuncte Plain	6	9	15
Tammany Punctated	1	1	2
Mandeville Stamped		1	1
Unidentified Scallop			
Shell Incised		1	1
Baytown Series			
Baytown Plain	4		4
Baytown Plain, variety	1	26	27

REFERENCES

- Bell, Robert E.
 1958 Guide to the identification of certain American Indian projectile points. Oklahoma Anthropological Society Special Bulletin 1.
- 1960 Guide to the identification of certain American Indian projectile points. Oklahoma Anthropological Society Special Bulletin 2.
- Brain, Jeffrey P.
 1971 The lower Mississippi valley in North American prehistory. Arkansas Archaeological Survey, Fayetteville.
- Broyles, Bettye J.
 1971 The St. Albans site, Kanawha County, West Virginia. West Virginia Geological and Economic Survey, Report of Archaeological Investigations 3.
- Bullen, Ripley P.
 1968 A Guide to the identification of Florida projectile points. Florida State Museum, Gainesville.
- Cambron, James W., and David C. Hulse
 1969 Handbook of Alabama Archaeology: Part 1, Point Types. Archaeological Research Association of Alabama, Moundville.
- Chambers, Moreau, and James A. Ford
 1941 Indian Mounds and Sites in Mississippi, Vol. 1 of 2 vols. prepared for the National Park Service by the Mississippi Department of Archives and History, Jackson.
- Collins, Henry B.
 1927 Potsherds from Choctaw village sites in Mississippi. Journal of the Washington Academy of Sciences 17.
- Connaway, John, and Samuel O. McGahey
 1971 An Archaeological Survey of the Flint Creek Reservoir, Stone County, Mississippi. Prepared for the Pat Harrison Waterway District by the Mississippi Department of Archives and History, Jackson.
- Crook, Wilson W., Jr., and R. K. Harris
 1954 Traits of the Trinity aspect Archaic: Carrollton and Elam foci. Dallas Archaeological Society Record 12.

- DeJarnette, David L., Edward Kurjack, and James W. Cambron
 1962 Stanfield-Worley bluff shelter excavations.
Journal of Alabama Archaeology 8.
- Dunning, Arthur B.
 1964 The Tallahatta formation in Clarke County, Alabama.
Journal of Alabama Archaeology 10.
- Ford, James, and George I. Quimby
 1945 The Tchefuncte culture: an early occupation of the
 lower Mississippi valley. American Antiquity 10.
- Ford, James A., and Clarence H. Webb
 1956 Poverty Point: a Late Archaic site in Louisiana.
Anthropological Papers of the American Museum of
 Natural History 46. [New York] 46.
- Ford, James A., and Gordon R. Willey
 1939a [Lower Mississippi Pottery Types I]. Southeastern
 Archaeological Conference Newsletter 1.
- 1939 [Lower Mississippi Pottery Types II]. Southeastern
 Archaeological Conference Newsletter 4.
- Griffin, James B. (ed.)
 1953 Prehistoric Pottery of Eastern United States, Ann
 Arbor.
- Haag, William G.
 1939 Type descriptions. Southeastern Archaeological
 Conference Newsletter 1.
- Hilgard, Eugene W.
 1860 Report on the Geology and Agriculture of the State
 of Mississippi, Jackson.
- Jennings, Jesse D.
 1941 Chickasaw and earlier Indian cultures of northeast
 Mississippi. Journal of Mississippi History 3:155-226.
- Kelly, Arthell
 1973 The geography. In A History of Mississippi, Vol. 1 of
 2 vols., ed. Richard A. McLemore, Hattiesburg.
- Kneberg, Madeline
 1956 Some important projectile points found in the Tennessee
 valley area. Tennessee Archaeologist 12.
- 1957 Chipped stone artifacts of the Tennessee valley area.
Tennessee Archaeologist 13.

- Lewis, Thomas M. N., and Madeline Kneberg Lewis
 1961 Eva, an Archaic Site. Knoxville.
- Marshall, Richard A.
 1970 A report of progress on the 4th summer field school in Mississippi Archaeology. Department of Sociology and Anthropology, Mississippi State University.
 1982 A Report on Archaeological Test Excavations at Goode Lake, Jackson County, Mississippi. Mississippi Department of Archives and History Archaeological Report No. 10.
- Morse, Dan F.
 1970 The Big Creek point. Central States Archaeological Journal 17.
- Perino, Gregory
 1968 Guide to the identification of certain American Indian projectile points. Oklahoma Anthropological Society Special Bulletin 3.
 1971 Guide to the identification of certain American Indian projectile points. Oklahoma Anthropological Society Special Bulletin 4.
- Phillips, Philip
 1970 Archaeological survey in the Lower Yazoo basin, Mississippi, 1949-1955. Peabody Museum of Archaeology and Ethnology Papers 60.
- Phillips, Philip, James A. Ford, and James B. Griffin
 1951 Archaeological Survey in the lower Mississippi alluvial valley, 1940-1947. Peabody Museum of Archaeology and Ethnology Papers 25.
- Suhm, Dee Ann, and Edward B. Jelks
 1962 Handbook of Texas Archaeology: Type descriptions, Texas Archaeological Society Special Publication 1 and Texas Memorial Museum Bulletin 4.
- Swanton, John R.
 1931 Source material for the social and ceremonial life of the Choctaw Indians. Smithsonian Institution Bureau of American Ethnology Bulletin 103.

Tesar, Louis D.

1974 Archaeological Assessment Survey of the Tallahala Reservoir Area, Jasper County, Mississippi. Prepared for the National Park Service by the Department of Anthropology, Mississippi State University.

Vanderford, Harvey B.

1962 Soils of Mississippi. Agricultural Experiment Station, Mississippi State College.